# Amplify Your Usable Light

## Appleton™ LED Solutions

A complete selection of LED luminaires perfectly suited for every task and use in environments that are hazardous, adverse or ordinary.

EMERSON™

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# Pictorial Index

| Page | Description | Hazardous NEC | Hazardous CEC | Hazardous ATEX/IECEx | Industrial (Ordinary Location) NEC | Industrial (Ordinary Location) CEC | Industrial (Ordinary Location) IEC | Emergency Battery Backup |
|---|---|---|---|---|---|---|---|---|
| | **Lighting Application \| Area/Task** | | | | | | | |
| 1 | Mercmaster™ Connect LED Luminaires \| Plantweb™ Insight Connected Lighting Application | ● | ● | ● | | | | |
| 17 | Wireless Motion Sensor \| Plantweb™ Insight Connected Lighting Application | ● | ● | ● | | | | |
| 20 | Mercmaster™ LED Generation 3 Series Luminaires \| Standard or with Emergency Battery Backup | ● | ● | ● | | | | ● |
| 56 | Mercmaster™ LED Generation 3 Series Zone 1 Luminaires | ● | ● | ● | | | | |
| 72 | Mercmaster™ LED Low Profile Luminaires \| Standard or with Emergency Battery Backup | ● | ● | ● | | | | ● |
| 101 | Contender™ LED Series Luminaires | ● | ● | | | | | |
| 114 | Code•Master™ LED Factory Sealed Luminaires | ● | ● | | | | | |
| 129 | Code•Master™ Jr. LED Factory Sealed Luminaires | ● | ● | | | | | |
| 138 | A-51™ LED Factory Sealed Luminaires \| For Group A, B, C and D Locations | ● | ● | | | | | |
| 145 | A-51™ LED Factory Sealed Luminaires \| For Group C, D Locations | ● | ● | | | | | |
| 153 | Industrial Mercmaster™ Connect LED Luminaires \| Plantweb™ Insight Connected Lighting Application | | | | ● | ● | | |
| 167 | Industrial Mercmaster™ LED Generation 3 Series Luminaires \| Standard or with Emergency Battery Backup | | | | ● | ● | ● | ● |
| 200 | Industrial Mercmaster™ LED Low Profile Series Luminaires \| Standard or with Emergency Battery Backup | | | | ● | ● | ● | ● |
| 225 | Industrial Contender™ LED Series Luminaires | | | | ● | ● | | |

*Mercmaster Connect*

*Mercmaster Generation 3*

*Mercmaster Low Profile*

*Contender*

*Code•Master*

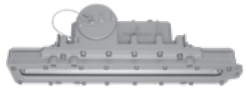
*Code•Master Jr.*

*A-51 | Group A, B, C, D*

*A-51 | Group C, D*

| Page | Description | Hazardous NEC | Hazardous CEC | Hazardous ATEX/IECEx | Industrial (Ordinary Location) NEC | Industrial (Ordinary Location) CEC | Industrial (Ordinary Location) IEC | Emergency Battery Backup |
|---|---|---|---|---|---|---|---|---|
| | **Lighting Application \| Linear** | | | | | | | |
| 238 | Rigmaster™ LED Series Luminaires \| Standard or with Emergency Battery Backup | ● | ● | | | | | ● |
| 255 | Explosionproof Rigmaster™ LED Series Luminaires \| Standard or with Emergency Battery Backup | ● | ● | | | | | ● |
| 268 | NEC/CEC Viamaster™ LED Series Luminaires \| Standard or with Emergency Battery Backup | ● | ● | | | | | ● |
| 229 | ATEX/IECEx Viamaster™ LED Series Luminaires \| Standard and Emergency Battery Back-Up | | | ● | | | | ● |
| 302 | ATX™ FELED Series Nonmetallic LED Luminaires \| Standard and Emergency Battery Back-Up | | | ● | | | | ● |
| 313 | ATX™ FDLED Series Luminaires \| Standard and Emergency Battery Back-Up | | | ● | | | | ● |
| 317 | ATX™ FNLED Series Nonmetallic LED Luminaires \| Standard and Emergency Battery Back-Up | | | ● | | | | ● |
| 328 | Industrial Rigmaster™ LED Series Luminaires \| Standard or with Emergency Battery Backup | | | | ● | ● | | ● |

*Rigmaster*



*Explosionproof Rigmaster*

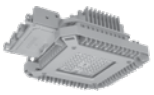
*Viamaster*

*FELED | FNLED*

*FDLED*

# Pictorial Index

| Page | Description | Hazardous NEC | Hazardous CEC | Hazardous ATEX/IECEx | Industrial (Ordinary Location) NEC | Industrial (Ordinary Location) CEC | Industrial (Ordinary Location) IEC | Emergency Battery Backup |
|---|---|---|---|---|---|---|---|---|
| | **Lighting Application \| High Bay** | | | | | | | |
| 344 | Baymaster™ and High Lumen LED Series Luminaires | ● | ● | ● | | | | |
| 376 | Industrial Baymaster™ and High Lumen LED Series Luminaires | | | | ● | ● | ● | |
| 406 | IHC LED Series Luminaires | | | | ● | ● | ● | |
| | **Lighting Application \| Floodlight** | | | | | | | |
| 423 | Areamaster™ Generation 2 and High Lumen LED Series Luminaires | ● | ● | ● | | | | |
| 452 | Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires | ● | ● | ● | | | | |
| 470 | Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires | | | | ● | ● | ● | |
| | **Lighting Application \| Emergency Egress** | | | | | | | |
| 497 | HEX Series LED Exit Sign | ● | | | | | | ● |
| 501 | N2LED Series Emergency Luminaires | ● | ● | | | | | ● |
| 509 | ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units | | | ● | | | | ● |
| 514 | Signaling Labels | | | | | | | |
| | **Lighting Application \| Portable** | | | | | | | |
| 515 | EHLED Factory Sealed Handlamp | ● | ● | | | | | |
| 517 | Temporary LED Worksite Lighting | | | | ● | ● | | |



*Baymaster*

*IHC*

*Areamaster*

*HEX*

*N2LED*

*FDBAES*

*EHLED*

*Temporary Worksite Light*

# Pictorial Index

| Page | Description | Hazardous | | | Industrial (Ordinary Location) | | | Emergency Battery Backup |
|---|---|---|---|---|---|---|---|---|
| | | NEC | CEC | ATEX/ IECEx | NEC | CEC | IEC | |
| | **Lighting Application \| Poles and Hangers** | | | | | | | |
| 518 | BKX Rigid Fixture Hangers | | ● | | | | | |
| 521 | Fixture Hanger Bracket and Accessories | ● | ● | | | | | |
| 523 | GRTS Conduit Outlet Boxes for Stanchion Mounting Lighting | ● | ● | | | | | |
| 525 | CPU and EFHU Fixture Hangers | ● | ● | | | | | |
| 528 | Flexible Fixture Hangers, EXJF Couplings, ESD and ESS Swivels | ● | ● | | | | | |
| 531 | EFHC and EFHCA Fixture Hangers and Accessories | ● | ● | | | | | |
| 530 | GRF Conduit Outlet Boxes and Fixture Hanger Covers and Canopies | ● | ● | | | | | |
| 535 | AHG and UNJ Flexible Fixture Hangers | ● | ● | | ● | ● | | |
| 536 | AL Ball and Cushion Flexible Fixture Hangers | | | | ● | | | |
| 540 | JB and GS Flexible Fixture Hangers | | | | ● | ● | | |
| 542 | SSH Flexible Fixture Hangers | | | | ● | ● | | |
| 544 | SHC Flexible Fixture Hangers | | | | ● | ● | | |
| 545 | EF and FHS Series Flexible Fixture Hangers | | | | | ● | | |
| 546 | FH and FHSN Series Flexible Fixture Hangers | | | | | ● | | |
| 548 | Power Hook for Industrial High Bay Luminaires | | | | ● | ● | | |
| 550 | GHBPH Power Hook for Industrial High Bay Luminaires | | | | | ● | | |
| 551 | Round Tapered Steel Poles | | | | ● | ● | | |
| 552 | Hinged Steel Poles | | | | ● | ● | | |
| 553 | Square Tapered Steel Poles | | | | ● | ● | | |
| 554 | Square Steel Poles | | | | ● | ● | | |
| 555 | Floodlight Mounting Brackets | | | | ● | ● | | |

BKX

Bracket

GRTS

CPU

ESD

EFHC

GRF

UNJ

AL

JB

SSH

SHC

EF

FH

Power Hook

GHBPH

Mounting Poles and Brackets

## Whether upgrading a plant's legacy lighting system or designing a new facility, you can count on Appleton LED lighting solutions by Emerson.

At Emerson, we understand that harsh industrial or hazardous environments demand reliable equipment. That is why we are constantly striving to improve your operational performance by protecting you and your equipment, with the latest in today's LED lighting technology. Our Appleton™ LED luminaires are designed to deliver superior illumination with unparalleled protection and operate across your facility without incident.

For proper illumination in extreme conditions, you need a lighting manufacturer who engineers their LED luminaires to ensure optimal light dispersion; creating more usable light. From area to task, flood to emergency, our Appleton LED luminaires maximize usable light enabling you to work safely and comfortably.

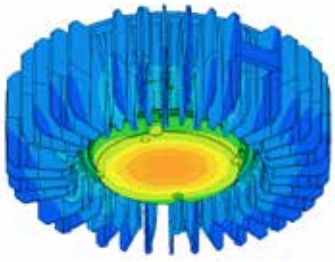
We also recognize the importance of having LED solutions that are correctly certified for your geographic location and environment. Whether your geography requires local or global certification, our regulatory involvement, technical expertise and range of LED luminaires solve the challenges of outfitting your facilities.

Our engineers continue to deliver unparalleled innovative advancements in LED lighting, making Emerson the right choice for harsh industrial or hazardous location luminaires.

# Rugged Reliability

Emerson products are exposed to the toughest environments on earth from the deserts of Saudi Arabia, to off shore platforms, and the North Slope of Alaska. Many of these environments are hazardous, and dependable lighting is essential to keeping workers safe. We understand that reliable lighting is key to improving operational efficiency and reducing expensive maintenance costs. Our commitment to reliability begins with a rigorous process, where we qualify that our designs perform in environments beyond our worst expectations relative to corrosive atmospheres, extreme temperatures, heavy vibration, and electrical disturbances.

*Epoxy powder coat on our Mercmaster LED Generation 3 Luminaire*



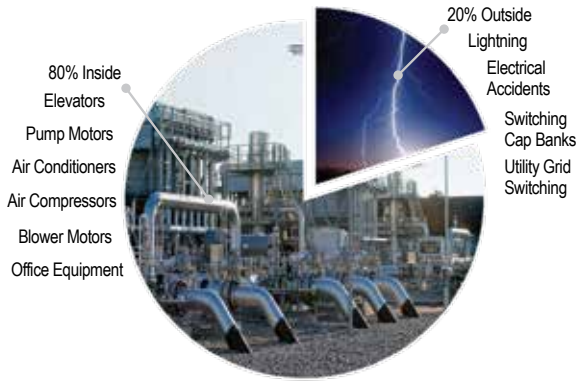
*Mercmaster LED Generation 3 Thermal Simulation*

**Corrosion Resistance**
Emerson uses a proprietary finishing technique to protect and seal our Appleton LED products. This finish and its' advantages come standard on all our coated products, providing superior protection at no extra cost. Epoxy powder coat products last longer, thus reducing callbacks, lowering total installation andZoperation costs. All Appleton LED luminaires are suitable for use in wet locations and undergo rigorous testing procedures that comply with Marine OutsideZType (Salt Water).

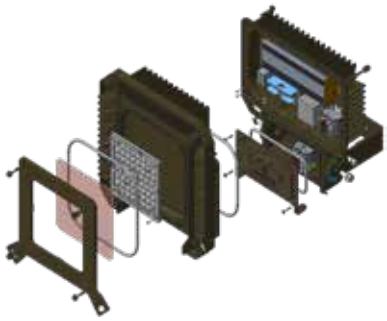
**Reliable Protection**
Our Appleton LED luminaires are protected with gaskets that keep water and dust on the outside. Critical to reliability, gasket seals are tested to the stringent application requirements encountered in heavy industrial and hazardous applications. Gasket performance testing is conducted according to ASTM-D-395 through ISO accredited third party laboratories. We conduct a number of extended duration product life tests exceeding product operating specifications and verifying long term field reliability. Aging tests include thermal endurance spanning -50°C to +120°C (-58°F to +248°F), humidity levels of 95% RH, and continuous Ultra Violet (UV) exposure. We select top grade gasket material composed of high performance closed cell silicone foam. The superior low compression set characteristics deliver years of reliable service in the toughest environments on the planet.

**Thermal Design**
LED reliability begins with good thermal design. Appleton LED luminaires emphasize thermal performance first and foremost to provide long term field reliability. Extensive thermal simulation during the design process ensures driver electronics and LED semiconductor devices operate within their thermal limits even at the fixture's maximum rated ambient temperature. No failure prone fans or other active thermal management devices are employed. Our designs optimize housing thermal conduction, maximize radiating surface areas, and employ strategically placed thermal conduction breaks to balance heat flows within each LED fixture (Patent Pending). Appleton LED luminaires deliver rated illumination through their full ambient operating temperature range to make sure your facility is safely lit even when the going gets hot.

# Rugged Reliability




*Leading Causes of Transient Surges*



*Areamaster Generation 2 LED Assembly Exploded View*

**Shock and Vibration**
Our Appleton lighting fixtures are designed to be used in areas where high vibration is a constant occurrence. Exterior features, such as captive hardware andXintegral redundant die cast safety retention points, help protect workers from parts falling into work areas and production processes. Vibration tests involve sweeping through a range of frequencies and resonance points in the x, y and z axes with Gs well beyond expected application levels. To ensure interior components remain protected, impact tests are performed to IEC and NEC/CEC standards after material aging and temperature cycling to verify robustXenclosure performance.

**Superior Surge Suppression**
Lightning strikes and electrical devices such as motors and circuit contactors can induce transient surges that pose a threat to LED lighting installations. Appleton LED luminaires include a robust 6 kV surge suppression circuit to protect against damage caused by surge energy, enhancing reliability, minimizing maintenance and downtime, and extending the life of the lighting installation. We also offer 10 kV surge protection on floodlights and high bays for use in high surge risk areas.

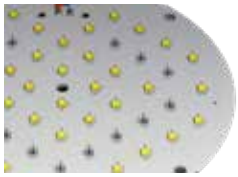
**Top Tier Components**
Emerson knows that world class reliability starts with quality components. Our rigorous supplier selection process accepts only the few that share our passion for long term reliability. Only top tier LEDs make their way into an Appleton luminaire. Our LED suppliers perform functional tests that exceed the requirements ofXLM80 to insure years of stable operation with best-in-class depreciation and color shift. Testing is extended past the 6,000 hour IES requirement to upwards of 15,000 hours to increase confidence in the TM21 prediction of long term performance. Appleton LED drivers use the highest quality electronic components and undergo rigorous qualification and production testing.

**100% Inspection Guarantee**
Emerson's commitment to quality doesn't stop at product design. One hundred percent of Appleton luminaires undergo comprehensive electrical and dielectric testing prior to final inspection. Components and luminaires are bar code traceable to a specific manufacturing lot to allow us to identify and prevent potential product concerns. Our patented optical tester insures light output, color and distribution within specification, and a burn in process identifies infant mortality concerns before a product leaves the factory. Product packaging is tested and certified to International Safe Transit Association (ISTA) standards ensuring that your luminaire will arrive at your facility in the same condition it left ours every time.

# High Quality Illumination

The value in lighting is in enabling you to comfortably and safely work in harsh industrial or hazardous environments. The challenges of bad color, shadows, glare, and inconsistent illumination are complex. Appleton luminaires maximize usable light that is comfortable and appropriate for the application: providing a high quality LED experience.

**Our Secondary Optics Help Improve Fixture Spacing**
Secondary optics are used to direct light from the source to where it is needed. Unlike HID lamps, LEDs are highly directional, requiring specialized optics to reduce glare and provide even light distribution in a beam shape optimized for specific applications. Well designed optics can help designers achieve ideal spacing and minimize the number of luminaires required. Our secondary optics set the industry standard for comfortable, evenly distributed lighting, with a selection of patterns.

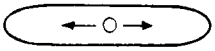
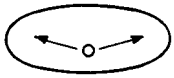
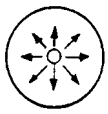


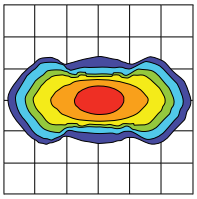
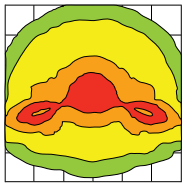
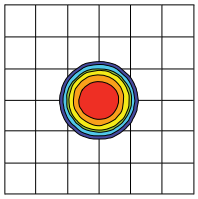
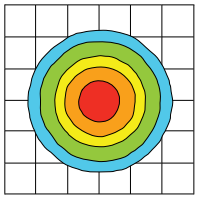
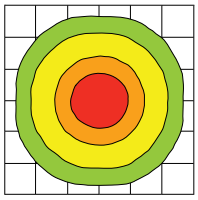
*LED Array Only – No Secondary Optics*

*Secondary Optics – Task Lighting*

*Secondary Optics – Flood Lighting*

**The Right Beam Pattern for Your Application**
The Illuminating Engineering Society of North America (IESNA), specifies different types of luminaire light distribution classifications for roadway lighting. Besides roadway lighting, they are also commonly used to describe the distribution of Appleton™ fixtures installed in industrial and hazardous applications for task, area, low bay and high bay lighting applications.

| Light Distribution | IES Distribution Curves | Description |
|---|---|---|
| Type I |  | - Perfect for narrow walkway, aisle way or area lighting |
| Type III |  | - Wall or Stanchion mount to light open platform areas<br>- Needs to be placed to the side of the area to be lit, allowing the light project outward and fill the area |
| Type V |  | - The most common light pattern used in harsh industrial and hazardous environments<br>- Designed for areas where evenly distributed light is necessary by producing a circular pattern<br>- Used for both indoor area and high bay applications, along with task lighting such as luminaires mounted underneath pipe racks |

| Type 1 | Type III | Type V Narrow | Type V Medium | Type V Wide |
|---|---|---|---|---|
|  |  |  |  |  |

**Illustrated Feature — How Optics Can Help**

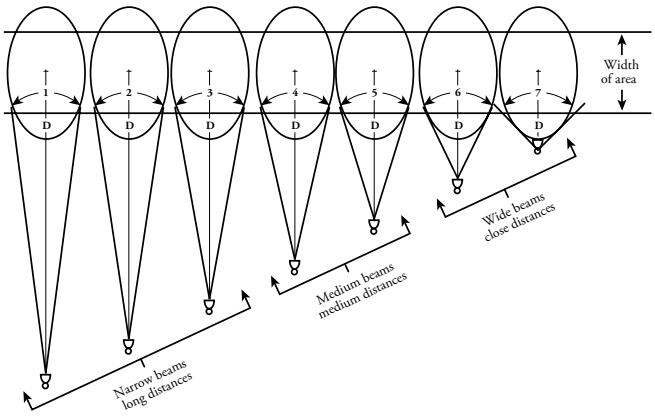
Appleton™ Baymaster™ High Lumen LED Luminaire with narrow optic directs light to sufficiently illuminate this power plant from a 24.38 meter (80 foot) mounting height.

# High Quality Illumination

Flood lights are classified by the National Electrical Manufacturers' Association (NEMA). The NEMA Type specifies how wide or narrow the light is projected out of a flood light. This light distribution is also referred to as beam spread or beam pattern. Typically, the greater the distance between the flood light and the ground or the object being illuminated, the narrower the beam.

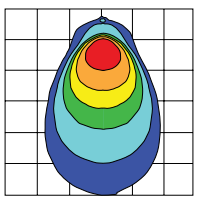
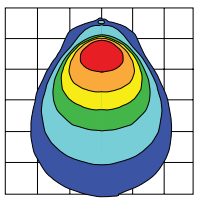
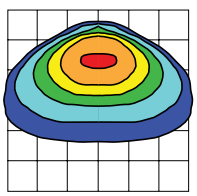
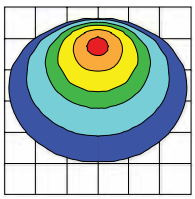
**NEMA Types**
NEMA patterns are specified by listing two digits, such as NEMA 7x6. The first digit, 7, signifies the horizontal plane or the side-to-side reach. While the second number, 6, describes the vertical plane or forward throw.

If a pattern is described with two digits, like 3x3, 5x5, 7x6 or 7x7, a NEMA type is specified signifying flood lighting. Otherwise, a single type specified with a roman numeral (I, III, V), means the luminaire is utilizing the IESNA Lateral Light Distribution Classification (see previous page) system to describe task, area, low bay or high bay applications.




| NEMA Type | Field Angle Range | Projection Distances in Meters (Feet) | Beam Description |
|---|---|---|---|
| 0 ① | < 10° | — | Extremely Narrow |
| 1 | 10° to 18° | 73 (240) and Greater | Very Narrow |
| 2 | 18° to 29° | 61 to 73 (200 to 240) | Narrow |
| 3 | 29° to 46° | 53 to 61 (175 to 200) | Medium Narrow |
| 4 | 46° to 70° | 44 to 53 (145 to 175) | Medium |
| 5 | 70° to 100° | 32 to 44 (105 to 145) | Medium Wide |
| 6 | 100° to 130° | 24 to 32 (80 to 105) | Wide |
| 7 | 130° and Up | Under 24 (80) | Very Wide |

① *NEMA Type 0 is actually considered a spotlight not a floodlight.*

| NEMA 3x3 | NEMA 5x5 | NEMA 7x6 | NEMA 7x7 |
|---|---|---|---|
|  |  |  |  |

**Illustrated Feature — How Optics Can Help**

Areamaster™ Generation 2 LED is an ideal choice for minimizing maintenance in railway and perimeter lighting applications. Designing efficient, long life, lighting installations results in drastically reduced maintenance costs plus improved performance.

# High Quality Illumination

### Color Temperature Options

Correlated Color Temperature (CCT), refers to the color appearance or the look and feel of the light source. The cooler or crisper the appearance of a light source means the higher the CCT measured in Kelvin (K). Many Appleton LED luminaires offer more than one color temperature.

- Three color temperatures to suit customer preference
- Preferences shift from blue-rich, 5000K CCTs to warmer values
  - — Bluish-White = ↑ K
  - — Yellowish-White = ↓ K

### Guide to Using CCT

| Color Temperature | Warm White | Neutral | Cool White |
|---|---|---|---|
| Kelvin | 3000K | 4000K | 5000K |
| Mood and Effects | Soft, Warm, Pleasing | Neat, Clean, Efficient | Bright, Alert |
| Typical Applications | Interior, Fog, Dark Sky or Wildlife Friendly | Low Mounting Heights, Warehouse | Reading, Highlighting Details, Dust |

### Selecting the Right Lumen Level

Because LED luminaires are more efficient than the preceding legacy lamp types (HID, incandescent and fluorescent), a watt for watt replacement would yield significantly higher than desired light levels. For example, an LED equivalent luminaire generally produces the same light with 1/3 to 1/2 the energy consumption of HID. To the right is a guideline of the total LED luminaire output needed to effectively replace an HID luminaire. Since mounting height, luminaire beam pattern, and overall lighting conditions can all affect perceived illuminance levels, it is always best to request a lighting simulation and a luminaire sample. Contact an Appleton representative for more information.

| HID Equivalent | Incandescent Equivalent | Fluorescent Equivalent | LED Lumen Range | Recommended Mounting Height |
|---|---|---|---|---|
| 50 Watt | 60–100 Watt | 2 x 18 Watt | 900–1500 | 1.8 m – 2.4 m (6 ft – 8 ft) |
| 70 Watt | 100–150 Watt | 3 x 18 or 1 x 36 Watt | 2000–3000 | 1.8 m - 3.0 m (6 ft - 10 ft) |
| 100 Watt | 200 Watt | 1 x 58 Watt | 3000–4000 | 1.8 m - 3.7 m (6 ft - 12 ft) |
| 150 Watt | 300 Watt | 3 x 36 Watt | 4000–5000 | 2.4 m - 3.7 m (8 ft - 12 ft) |
| 175 Watt | --- | 2 x 58 Watt | 5500–7000 | 3.1 m - 4.6 m (10 ft - 15 ft) |
| 250 Watt | — | 3 x 58 Watt | 8000–10000 | 4.6 m - 6.1 m (15 ft - 20 ft) |
| 350 Watt | — | --- | 10000–12000 | 6.1 m - 7.6 m (20 ft - 25 ft) |
| 400 Watt | — | — | 12000–14000 | 6.1 m - 9.1 m (20 ft - 30 ft) |
| 600 Watt | — | — | 16000–18000 | 7.6 m - 10.7 m (25 ft - 35 ft) |
| 750 Watt | — | — | 18000–20000 | 10.6 m and greater (35 ft and greater) |
| 1000 Watt | — | — | 24000–26000 | 10.6 m and greater (35 ft and greater) |
| 1250 Watt | — | — | 29000–31000 | 10.6 m and greater (35 ft and greater) |
| 1500 Watt | — | — | 37000–39000 | 10.6 m and greater (35 ft and greater) |
| Greater than 1500 Watt | — | — | 50000 and greater | 15.2 m and greater (50 ft and greater) |

### A Word About Perceived Brightness

The human eye has two types of photoreceptors: cones, which are active in brighter light levels, and rods, which take over in darker conditions. Commercial photometry measurements are based on photopic luminous efficiency, which only involves the cones. However, recent research shows that a white light source is perceptually and functionally brighter than its High Intensity Discharge (HID) equivalent, especially in a dimly lit application, due to the difference in the spectral power distribution of these light sources. Unfortunately, no universal standard exists today to convert traditional HID measurements to their LED counterparts.

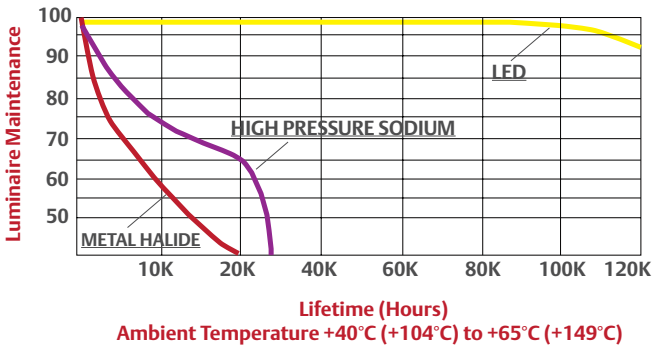
# Luminaire System Life

Appleton LED products provide energy efficient and environmentally friendly, functionally equivalent, high quality white light with better visibility, no startup delay, no degradation in lighting quality due to on/off cycles, and no end-of-life cycling. Most people understand that these are benefits to switching to LED lighting. Quantifying these benefits and determining total cost of ownership, however, can be difficult due to the lack of an IES standard defining luminaire life.

### True Economic Life

TM-21 assesses lumen maintenance, but not the performance of a complete luminaire system under real world conditions. To determine expected economic life, we evaluate the entire system, including projected LED driver life, power line surge and noise immunity, light engine performance under thermal shock, long term gasket endurance against moisture ingress, and corrosion resistance.

One key factor is operating temperature, which can vary considerably with changing daily and seasonal temperatures. When operating within ambient temperature ratings, the average temperature of the environment over time provides a suitable approximation for predicting luminaire life.




### Example for 400W Equivalent Areamaster Generation 2 LED Luminaire

| Ambient Temperature | Luminaire Life (Hours) | Number of Years at 24 Hours Usage | Number of Years at 12 Hours Usage |
|---|---|---|---|
| +25°C (+77°F) | 200,000 | 23 | 46 |
| +40°C (+104°F) | 100,000 | 11 | 23 |
| +55 °C (+131°F) | 90,000 | 10 | 21 |
| +65°C (+149°F) | 50,000 | 6 | 11 |

### A Word About LED Life Specifications

While standards exist for reporting LED depreciation, no accepted standard exists for luminaire life. Manufacturers use a variety of terms to describe projected LED life. Here are a few of them and their accepted definitions:

- LM-80 Testing Standard
  The IES LM-80 standard specifies a testing method for evaluating the useful life of an LED package or array. It requires at least 6,000 hours of actual LED operation, with lumen output measured and reported every 1,000 hours. These results can be used to interpolate the lifetime of an LED source within a system using the in-situ LED source case temperature.
- L70 Reported Lumen Maintenance
  L70 is the time it takes for an LED's lumen output to depreciate to 70 percent of its original output. L70 is extrapolated per the calculator provided in IES TM-21, factoring in both application drive current and LED junction temperature. The standard limits reported lifespan to 6 times the number of LM-80 test hours, so that a 10,000 hour test can yield, at most, a 60,000 hour rating.
- l70 Calculated Lumen Maintenance
  The TM-21 calculator allows manufacturers to calculate an estimated lumen maintenance beyond the 6 times rule. Although this can be useful for evaluating LED performance, lifetime values that exceed the 6 times multiplier are considered high risk.

# Total Cost of Ownership

### Dramatically Reduce Your Lighting Costs

Just because your operating budget is low, doesn't mean your expectations have to be. When evaluating lighting systems, consider both the total system power consumption and the expected luminaire life, in order to evaluate energy and maintenance costs and savings.

**Example for 400W Equivalent Areamaster Generation 2 LED Luminaire**

| Luminaire | Power Consumption (Watts) | Lumen Output | Yearly Energy Costs ① | LED / Lamp Life | Annual Maintenance Costs ② | Yearly Total Costs | Yearly LED Savings | Yearly Savings |
|---|---|---|---|---|---|---|---|---|
| **Task Lighting Example** | | | | | | | | |
| Mercmaster LED Low Profile | 28 | 3,300 | $24.53 | 100,000 hrs | — | $24.53 | $117.81 | 83% |
| Mercmaster III Low Profile 70W | 94 | 5,329 | $82.34 | 24,000 hrs | $60.00 | $142.34 | | |
| **Flood Lighting Example** | | | | | | | | |
| Areamaster Generation 2 LED | 110 | 14,200 | $96.36 | 100,000 hrs | – | $96.36 | $341.23 | 78% |
| Areamaster 400 W HPS | 465 | 30,900 | $407.34 | 24,000 hrs | $30.25 | $437.59 | | |

① *Energy Costs = Watt x 24 x 365/1000 (Kwh/yr) x $.10/Kwh.*
② *Maintenance Costs = (87,600/24,000 x lamp cost + one ballast replacement)/ 5 years.*

### Maintenance Savings

Metal halide lamps last an average of 20,000 hours, or 2.28 years, in continuous use. By contrast, LED luminaires are typically rated for 60,000 hours and can exceed 200,000 hours depending on ambient temperature. Longer luminaire life means more time between lamp replacements; resulting in minimal maintenance downtime.

### Safety

LED luminaires provide instant on and cold-start capabilities without end-of-life degradation or premature failures due to frequent cycling; providing a safer work environment particularly in extreme temperatures. The solid state (no moving parts) nature of our luminaires are perfect for high vibration work environments such as oil rigs.

### Energy Savings

LED luminaires provide far greater lighting efficacy compared to traditional lighting sources. Savings of over 70% can be achieved simply by retrofitting with LED.

### Field Replacement Components

By upgrading to an LED solution, maintenance personnel no longer need to change lamps and ballasts. However, we understand that occasionally things go wrong. Production disruptions due to light outages are minimized with our expansive range of replaceable globes and LED drivers.

### Appleton Lighting Retrofit Calculator

Calculate maintenance, energy and environmental savings achieved by upgrading to our Appleton LED luminaires with this interactive tool.
Visit www.masteringled.com to calculate project savings.

# Photometry

What are photometric units and quantities ?

**Luminous Flux : Symbol F**
The amount of light emitted in one second by a luminous source.
- Unit : lumen (lm).

**Luminous Intensity : Symbol I**
The quantity of luminous flux propagated in a given direction.
- Unit : Candela (cd). Values on photometric curves are given in candela.

**Illuminance : Symbol E**
The quantity of light falling on a unit area.
- Unit : lux (lx) = 1 lm/m$^2$.

**Luminance : Symbol L**
The value characterizing the luminous aspect of an area lit by a lighting source or device, in a given direction.
- Unit : Candela per square metre (cd/m$^2$).

**Efficiency :**
It is the ratio of light emitted by a luminaire to light emitted by a lamp.

**Luminous Efficiency :**
Qualifies the efficacy of a luminous source. It is a quotient of flux propagated over the power consumed.
- Unit : lumen per Watt (lm/W).

**Color retention index : Symbol CRI**
The degree to which the colored aspect of an object lit by a given light source corresponds to the aspect under a controlled luminous source. The CRI is a number between 0 and 100 (on this scale, 50 it is a mediocre color retention level, while 80/90 is a good retention level).
- Unit : Ra.

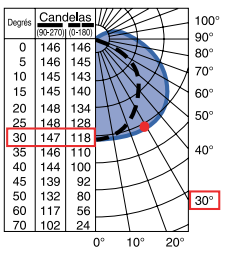
**Color temperature :**
Complex idea of cold and hot light, linked to the chromatic properties of light and to vision of the human eye.
- Unit : Kelvin (K).
- Example : 2700 K for hot-light incandescent lamps, 8000 K for metal halide discharge lamps (a colder type of light).

**What is a depreciation correction factor ?**
In order to compensate for the decrease in the luminous flux, due to the ageing of the lamps and to the accumulation of dust in the area. The level of lighting (E) should be increased by multiplying it by the depreciation coefficient (d).

Example of a value for d :
- Dust accumulation :
  - Low 1.25
  - Medium 1.35
  - High 1.50

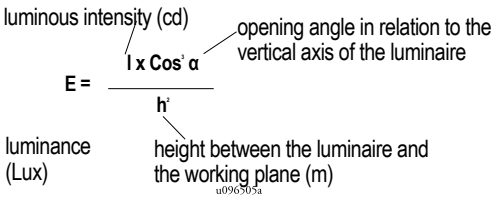
**What is a photometric curve ?**
The photometric curve shows the luminous intensity distribution of a lighting device. Values are given in candelas (cd).

In order to make a comparison between the different types of lighting devices, this curve is drawn for a 1000 lumen flux.
- Example : for a point placed at 30° from the luminaire's vertical axis, the luminous intensity is 147 cd in the lamps transverse direction and 118 cd in the lamps longitudinal direction.
- Note : the curve "integrates" the efficiency, it is therefore not necessary to make corrections after having read the intensity. However, it is necessary to multiply it by the coefficient to obtain the actual flux of the chosen source.

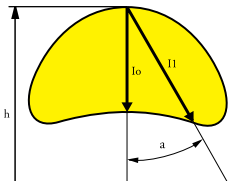



*Polar photometric curve, for a lighting fixture with wide beam*

**Relationship between luminous intensity and luminance**
In order to determine the luminance at a given point - A , the following formula can be used :




Working plane : Conventionally, for interior lighting, the working plane is 0.85 m from ground level.




**Reflectance factor according to Color variation ①**

| 80 % | 70 % | 50 % | 30 % | 10 % |
|---|---|---|---|---|

| 80 % | 70 % | 50 % | 30 % | 10 % |
|---|---|---|---|---|

| 80 % | 70 % | 50 % | 30 % | 10 % |
|---|---|---|---|---|

| 80 % | 70 % | 50 % | 30 % | 10 % |
|---|---|---|---|---|

| 80 % | 70 % | 50 % | 30 % | 10 % |
|---|---|---|---|---|

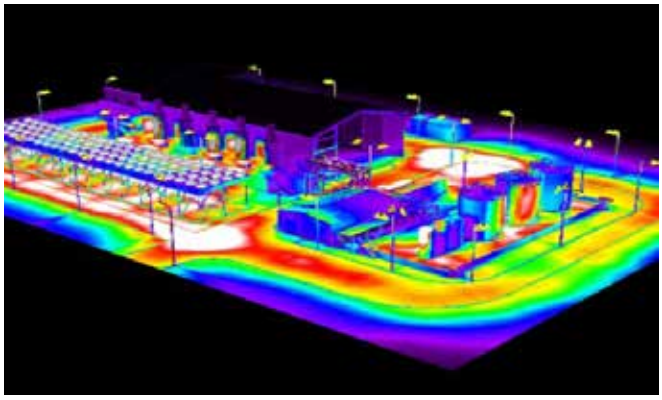
① *The surface reflection factor is the relationship between reflected light and instant light.*

# Lighting Services

The new standard for reliable LED lighting that saves energy and maintenance costs while delivering superior illumination is here. See it clearly. Contact your local Appleton representative or visit www.masteringled.com today.

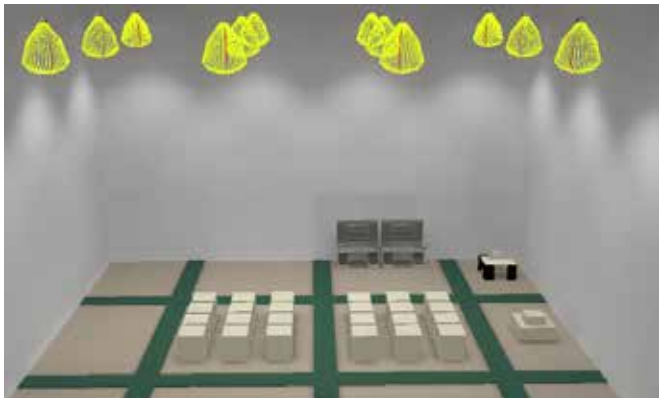
**Lighting Layouts**
Let Emerson's team of Lighting Applications Engineers design a professional solution to accommodate your diverse lighting needs. We design single rooms, whole floors, entire buildings and outdoor projects.

- E-mail available lighting, site, building or floor plan drawings, along with installation specifics to: appgrp.lighting_layout@emerson.com.



**DIALux™ and the Appleton Plug-In**
DIALux is one of the world's leading software programs for planning, calculating and visualizing light. The complimentary Appleton Plug-In contains IES files for Appleton luminaires. Users have the ability to search for a specific solution according to area classification, light source, mounting type or available globe option.

- Designers have the freedom to customize their lighting solutions by downloading the free software and the Appleton Plug-In at www.masteringled.com.



**Sample Our Solutions**
Installing a sample is the best method to evaluate a luminaire's suitability for a particular application or location.

- Try one out by contacting your local Appleton representative to request a sample today.

# LED Lighting Applications

Luminaires are commonly categorized according to the type of lighting application, lumen level or mounting height. Choosing the right luminaire based on application is critical for providing safe and comfortable light.

**Task Lighting**
Task lighting provides illumination to accomplish a specific task, such as reading a meter or gauge or safely lighting a walkway. Typical mounting heights are 3 meters (10 feet) or less.

**Low Bay or Area Lighting**
Low bay or area lighting provides illumination of areas with mounting heights up to 6 meters (20 feet). Typical applications require less than 10,000 lumens, which is closest to a traditional 250 Watt High Intensity Discharge (HID) luminaire.

**High Bay Lighting**
High bay is used to describe lighting applications with mounting heights over 6 meters (20 feet). The locations to be lit normally require greater than 10,000 lumens. Typical applications might include; warehouses, wastewater treatment facilities, production or processing plants, storages areas or foundries.

**Connected Lighting**
Connected Lighting describes lighting applications that benefit from sustainability gains, analytics, maintenance optimization. With integrated controls and dimming, lighting performance can be adjusted over the installed life. Installation and commissioning connected lighting is simplified by utilizing industry standard wireless technology like WirelessHART® ⌑ and Emerson's Plantweb™ Insight Connected Lighting Application.

**Flood Lighting**
Flood lighting uses a broad light spread to illuminate a wide area or a focused beam to project light over a great distance. Mounting heights are usually 6 meters (20 feet) or higher. Flood lighting provides safe and secure lighting. Common applications include tank farms, loading docks and perimeter fence line lighting.

⌑ *WirelessHART is a registered trademark of the FieldComm Group.*

# Hazardous Locations | LED Lighting Industries

Areas where flammable gases, flammable liquid-produced vapors, or combustible liquid-produced vapors are or may be present in the air in sufficient quantities to produce explosive or ignitible mixtures:

- Natural or liquefied gas storage facilities
- Chemical plants
- Petroleum refineries
- Bulk handling or storage facilities for gasoline
- Dip tanks
- Storage tanks for flammable liquids or gas
- Spraying areas for paints or plastics
- Aircraft fuel servicing areas or hangers
- Well drilling (oil and gas), offshore or on
- Pipeline pumping areas
- Printing machine areas

Locations that are hazardous because of the presence of combustible dust.

- Grain storage, handling or processing plants
- Coal storage, handling or processing facilities
- Metal grinding or metal powder producing facilities
- Gunpowder or explosive (fireworks) plants
- Sugar, cocoa, spice or starch production or handling facilities

An area made hazardous because of the presence of easily ignitible fibers or flyings, but in which such fibers or flyings are not likely to be in suspension in the air in quantities sufficient to produce ignitible mixtures.

- Cotton, textile or flax producing or handling facilities
- Wood cutting, pulverizing or shaping plants
- Clothing manufacturing facilities

**Refining/Petrochemical**

**Midstream Oil and Gas**

**Upstream Oil and Gas**

**Grain Processing**

# Harsh Industrial Locations | LED Lighting Industries

Environments subject to extreme temperatures, heavy vibration, corrosive atmospheres, electrical disturbances, and dust, often round-the-clock, 365 days a year.

- Steel mills
- Glass Plants
- Power generation plants
- Pulp and paper mills
- Cement production facilities
- Foundries
- Mining operations
- Shipbuilding yards
- Fabrication facilities

**Foundry**

**Pulp and Paper**

**Wastewater**

**Warehouse**

# Appleton LED Luminaires Selection Chart

Each application deserves a tailored lighting solution. Our broad range of reliable and energy efficient LED lighting products deliver superior light distribution and maximize usable light in harsh industrial or hazardous environments.

| Lighting Application | LED Lighting Product Series | Certifications | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NEC/CEC | | | | | | | | | | ATEX/IECEx | | | | Emergency Battery Backup | Ordinary Location | Trade Agreement Act (TAA) |
| | | Class I | | | | Class II | | | | | Class III | | | | | | | |
| | | Division 1 | Division 2 | Zone 1 | Zone 2 | Division 1 | Division 2 | Zone 20 | Zone 21 | Zone 22 | | Zone 1 | Zone 2 | Zone 21 | Zone 22 | | | |
| Area / Task | Mercmaster™ Connect LED | | ● | | ● | | ● | | | ● | ● | | ● | ● | ● | | | ● |
| | Mercmaster™ LED Generation 3 | | ● | | ● | ● | ● | | ● | ● | ● | | ● | ● | ● | ●① | | ● |
| | Mercmaster™ LED Generation 3 Zone 1 | | | ● | ● | | | | ● | ● | | ● | ● | ● | ● | | | ● |
| | Mercmaster™ LED Low Profile | | ● | | ● | ● | ● | ● | ● | ● | ● | | ● | ● | ● | ●① | | ● |
| | Contender™ LED ① | | ● | | ● | ● | ● | | ● | ● | ● | | | | | | | ● |
| | Code•Master™ LED ① | ● | ● | ● | | ● | ● | | | | ● | | | | | | | ● |
| | Code•Master™ Jr. LED ① | ● | | ● | | ● | | | | | ● | | | | | | | ● |
| | A-51™ LED \| Group A, B, C, D ① | ● | | | | ● | | | | | ● | | | | | | | ● |
| | A-51™ LED \| Group C, D ① | ● | | | | ● | | | | | ● | | | | | | | ● |
| | Industrial Mercmaster™ Connect LED ① | | | | | | | | | | | | | | | | ● | ● |
| | Industrial Mercmaster™ LED Generation 3 ① | | | | | | | | | | | | | | | | ● | ● |
| | Industrial Mercmaster™ LED Low Profile ① | | | | | | | | | | | | | | | | ● | ● |
| | Industrial Contender™ LED ① | | | | | | | | | | | | | | | | ● | ● |
| Linear | Rigmaster™ LED ① | | ● | | ● | ● | ● | ● | ● | ● | ● | | | | | ● | | ● |
| | Explosionproof Rigmaster™ LED ① | ● | ● | ● | ● | ● | ● | | ● | ● | ● | | | | | ● | | ● |
| | NEC/CEC Viamaster™ LED ① | | ● | | ● | | | | | | ● | | | | | ● | | ● |
| | ATEX/IECEx Viamaster™ LED ② | | | | | | | | | | | | ● | ● | ● | ● | | ● |
| | ATX™ FELED ② | | | | | | | | | | | ● | ● | ● | ● | ● | | ● |
| | ATX™ FDLED ② | | | | | | | | | | | ● | ● | ● | ● | ● | | ● |
| | ATX™ FNLED ② | | | | | | | | | | | | ● | ● | ● | ● | | ● |
| | Industrial Rigmaster™ LED ① | | | | | | | | | | | | | | | | ● | ● |
| High Bay | Baymaster™ LED | | ● | | ● | ● | ● | ● | ● | ● | ● | | ● | ● | ● | | | ● |
| | Industrial Baymaster™ LED | | | | | | | | | | | | | | | | ● | ● |
| | IHC LED | | | | | | | | | | | | | | | | ● | ● |
| Floodlight | Areamaster™ Generation 2 LED | | ● | | ● | ● | ● | ● | ● | ● | ● | | ● | ● | ● | | | ● |
| | Areamaster™ Generation 2 LED Zone 1 | | | ● | ● | | | | ● | ● | | ● | ● | ● | ● | | | ● |
| | Industrial Areamaster™ Generation 2 LED | | | | | | | | | | | | | | | | ● | ● |
| Emergency Egress | HEX Exit Sign ① | | ● | | | | | | | | | | | | | | | |
| | N2LED Emergency ① | | ● | | ● | | | | | | | | | | | ● | | ● |
| | ATX™ FDBAES LED Emergency ① | | | | | | | | | | | ● | ● | ● | ● | ● | | ● |
| Portable | EHLED Handlamp ① | ● | ● | | | | | | | | | | | | | | | ● |
| | Temporary LED Worksite Lighting ① | | | | | | | | | | | | | | | | ● | |

*① Available in NEC/CEC only.*
*② Available in ATEX/IECEx only.*

# Appleton LED Luminaires Selection Chart

| Nominal Lumen Outputs | | | | | | | | | | | | | | | | | | | | Color Temperature (CCT) | | | NEMA Light Distribution | | | | | | | | | | Voltage | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 55 - 550 | 1500 - 2500 | 2500 - 3500 | 3500 - 4500 | 4500 - 5500 | 7000 - 8000 | 9000 - 10000 | 11000 - 12000 | 13000 - 14000 | 15000 - 17000 | 18000 - 20000 | 22000 - 26000 | 28000 - 30000 | 35000 - 38000 | 50000 | 60000 | 75000 | 90000 | 5000K + | 4000K | 3000K | Type V | Type V Wide | Type V Narrow | Type V Very Narrow | Type III | Type I | 7x6 | 7x7 | 5X5 | 3X3 | 120 Vac | 110–254 Vac | 120–277 Vac | 230 Vac | 277 Vac | 347–480 Vac | 48/110/220 Vdc | 100–300 Vdc | 125–300 Vdc |
| | | | | ●③ | | ●③ | | | ●③ | | | | | | | | | ● | ● | ● | ● | ● | | | ● | ● | | | | | | | ● | | | | | | | ● |
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*③ Mercmaster Connect LED is a fully dimmable fixture. Lumen selection are as a maximum output and can be dimmed down for each location.*

# Standards, Testing and Certification Organizations

**American National Standards Institute (ANSI).**
- The Institute oversees the creation, promulgation and use of thousands of norms and guidelines that directly impact businesses in nearly every sector: from acoustical devices to construction equipment, from dairy and livestock production to energy distribution, and many more. ANSI is also actively engaged in accrediting programs that assess conformance to standards – including globally-recognized cross-sector programs such as the ISO 9000 (quality) and ISO 14000 (environmental) management systems.

**Institute of Electrical and Electronics Engineers (IEEE).**
- IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity.

**International Society of Automation. (ISA®)**
- ISA® develops standards; certifies industry professionals; provides education and training; publishes books and technical articles; and hosts conferences and exhibitions for automation professionals. ISA® is the founding sponsor of the Automation Federation.

**Intertek Testing Services (ITS).**
- ITS is an OSHA Certified Nationally Recognized Testing Laboratory (NRTL). The ITS mark for electrical safety is the ETL mark.

**American Petroleum Institute (API®).**
- This organization publishes Recommended Practice for Classification of Locations for Electrical Installations in Petroleum Facilities (API RP 500).

**National Electrical Manufacturers Association (NEMA).**
- NEMA issues standards on electrical equipment on all major categories of electrical equipment. Generally, where construction and performance relate to safety, reference is made to standards of others, such as Underwriters Laboratories Incorporated. The widely recognized NEMA enclosure types are described in NEMA's Standard Publication/No. 250.

**International Electrotechnical Commission (IEC®).**
- This organization is comprised of approximately forty member countries, including the United States. The purpose of the IEC® is to establish standards for a wide variety of electrical products to encourage international trade. IEC® publication series 79, entitled Electrical Apparatus for Explosive Gas and Dust Atmospheres, consists of several parts covering area classification, test apparatus and several techniques used for protection of apparatus, intended for use in hazardous locations.

**Occupational Safety And Health Administration (OSHA).**
- OSHA mandates the use of electrical equipment that has been verified by Nationally Recognized Test Labs (NRTLs) as being suitable for the application. Some units of a system installation are not necessarily NRTL certified if such certification is judged not applicable. All products involved must meet NEC® requirements, as interpreted by OSHA.

**Other Associations.**
- Professional and technical organizations develop and/or sponsor standards as product guidelines, application recommendations, safety rules or test methods. Typical associations include the American Iron and Steel Institute (AISI), the Aluminum Association (AA), the Illuminating Engineering Society (IES) and the Edison Electric Institute (EEI).

**Underwriters Laboratories, Inc. (UL®).**
- UL® is an OSHA Certified Nationally Recognized Testing Laboratory (NRTL). In addition to specific UL Standards, UL publishes a "Green" book, an "Orange" book and a "Red" book. These three books contain the names of companies who have qualified to use the Listing or Classification Marking of Underwriters Laboratories on products which have been found to be in compliance with applicable UL requirements. The "Green" book, entitled Electrical Construction Materials Directory, contains detailed information on listed electrical devices generally considered as construction materials, and for use by electricians or others in the electrical industry. The "Orange" book, entitled Electrical Appliance and Utilization Equipment Directory, contains detailed information on listed appliances or other similar equipment generally considered for use by the general public. The "Red" book, entitled Hazardous Location Equipment Directory, contains detailed information on listed equipment intended for use in hazardous locations as defined by Article 500 of the National Electrical Code. These three publications can be used to obtain the names of companies who have a Listing in a specific product category, and to obtain information regarding the scope, limitations, or special conditions of a particular product category.

**Local Building Codes.**
- These codes influence and determine ultimate decisions on product suitability. NEC® Article 100 provides this definition: "APPROVED: Acceptable to authority having jurisdiction."

**Manufacturers Data.**
- Manufacturers such as Emerson, working with recognized organizations, develop and improve products for third party certification and thus set additional product suitability standards.
- Standards set by such organizations as Underwriters Laboratories (UL) and Canadian Standards Association (CSA) identify the criteria used by Appleton in the design and company testing of its products. These Third Party standards evolved over the years as manufacturing and processing became more complex and more hazardous.

**National Fire Protection Association (NFPA®).**
- One of the pioneering organizations to set standards for the wiring and control of electricity was the National Fire Protection Association. Formed in 1896, the NFPA is composed of national and regional groups, plus individuals, firms and institutions interested in protecting life and property. This organization sets minimum standards to form a National Electrical Code (NEC®), which is used as a criteria for insurance, state and civic inspectors when making inspections or recommendations for electrical installations. Typical member organizations of the NFPA are the National Electrical Manufacturers Association, American Petroleum Institute, Institute of Electrical and Electronic Engineers, American Institute of Architects, Underwriters Laboratories, Inc., Factory Mutual, American Insurance Association, and many fire underwriting groups.
- Emerson designs and tests its Appleton brand products to meet or exceed the standards established by Third Party Certifiers.

**CSA Group (CSA®) (formerly the Canadian Standards Association).**
- CSA® is an OSHA Certified Nationally Recognized Testing Laboratory (NRTL). CSA® has established standards similar to UL for the testing of electrical products. Thousands of Appleton products marketed in the USA are both UL Listed and CSA® Certified. All products manufactured by Emerson at their Appleton Group Canada, Ltd facility meets or exceeds CSA® standards and most are CSA certified.

**Factory Mutual (FM).**
- FM is an OSHA Certified Nationally Recognized Testing Laboratory (NRTL). FM is a non-profit third party testing and certification organization, providing many of the same services as UL®. FM uses three broad standards: 3611, 3615 and 3616. In addition, FM tests and approves products not covered by these standards.

**North American Certification.**
- The United States and Canada are both members of the IECEx Conformity Assessment System. As a result, for Hazardous Location Certification UL and CSA accepts each other's data for purpose of providing their National Certification Marks. This applies when the Essential Requirements of both countries are the same.

# Product and Installation Standards

**API Standards: American Petroleum Institute**
- ANSI/API RP 14F-2018, Recommended Practice for Design and Installation of Electrical Systems for Fixed and Floating Offshore Petroleum Facilities for Unclassified and Class I, Division 1 and Division 2 Locations.
- ANSI/API RP 14FZ-2013, Recommended Practice for Design and Installation of Electrical Systems for Fixed and Floating Offshore Petroleum Facilities for Unclassified and Class I, Zone 0, Zone 1, and Zone 2 Locations
- ANSI/API RP 500-2012, Recommended Practice for Classification of Locations of Electrical Installations at Petroleum Facilities Classified as Class I, Division 1 and Division 2
- ANSI/API RP 505-2018, Recommended Practice for Classification of Locations for Electrical Installations at Petroleum Facilities Classified as Class I, Zone 0, Zone 1, and Zone 2
- API RP 2003-2015, Protection Against Ignitions Arising Out of Static Lightning and Stray Currents

**ASME Standards: The American Society of Mechanical Engineers**
- ASME B1.20.1-2013, Pipe Threads, General Purpose (Inch)
- ASTM Standards: ASTM International
- ASTM E 11-09, Standard Specification for Wire Cloth and Sieves for Testing Purposes
- ASTM E 1226-12a, Standard Test Methods Method for Explosibility of Dust Clouds
- ASTM D3175-2017, Standard Test Method for Volatile Matter in the Analysis Sample of Coal and Coke

**CSA Standards: CSA Group**
- CSA C22.2 No. 137, Electric luminaires for use in hazardous locations
- CSA C22.2 No. 141, Emergency lighting equipment
- CSA C22.2 No. 213, Nonincendive Electrical Equipment for, Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
- CSA C22.2 No. 25, Enclosures for Use in Class II Groups E, F, and G Hazardous Locations
- CSA C22.2 No. 250.0, Luminaires
- CSA C22.2 No. 250.13, Light emitting diode (LED) equipment for lighting applications
- CSA C22.2 No. 30, Explosion-proof equipment
- CSA C22.2 No. 60079-0, Explosive Atmospheres - Part 0: Equipment - General Requirements
- CSA C22.2 No. 60079-1, Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures “d”
- CSA C22.2 No. 60079-11, Explosive atmospheres - Part 11: Equipment protection by intrinsic safety ""i"" "
- CSA C22.2 No. 60079-18, Explosive atmospheres – Part 18: Equipment protection by encapsulation “m”
- CSA C22.2 No. 60079-31, Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
- CSA C22.2 No. 60079-7, Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
- CSA C22.2 No. 60529, Degrees of protection provided by enclosures (IP Code)
- CSA C22.2 No. 94.1, Enclosures for Electrical Equipment, Non-Environmental Considerations
- CSA C22.2 No. 94.2, Enclosures for Electrical Equipment, Environmental Considerations

**IEC Standards: International Electrotechnical Commission**
- EN IEC 55015, Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
- EN IEC 60079-0, Explosive Atmospheres - Part 0: Equipment - General Requirements
- EN IEC 60079-7, Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
- EN IEC 61000-3-2, Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤16 A per phase)
- EN IEC 61000-6-2, Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments
- EN IEC 61000-6-4, Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments
- IEC 60079-1, Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures “d”
- IEC 60079-11, Explosive atmospheres - Part 11: Equipment protection by intrinsic safety ""i"" "
- IEC 60079-15, Explosive atmospheres – Part 15: Equipment protection by type of protection "n"
- IEC 60079-18, Explosive atmospheres – Part 18: Equipment protection by encapsulation “m”
- IEC 60079-31, Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
- IEC 60598-1, Luminaires – Part 1: General requirements and tests
- IEC 60598-2-1, Luminaires - Part 2-1: Particular requirements – Fixed general purpose luminaires
- IEC 60598-2-2, Luminaires - Part 2-2: Particular requirements – Recessed luminaires
- IEC 60598-2-22, Luminaires – Part 2-22: Particular requirements – Luminaires for emergency lighting
- IEC 60598-2-3, Luminaires – Part 2-3: Particular requirements – Luminaires for road and street lighting
- IEC 60598-2-5, Luminaires – Part 2-5: Particular requirements – Floodlights
- IEC 61547, Equipment for general lighting purposes - EMC immunity requirements
- IEC 62262, Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)
- ISO/IEC 60079-20-1, Explosive atmospheres — Part 20-1: Material characteristics for gas and vapour classification — Test methods and data
- ISO/IEC 60079-20-2, Explosive atmospheres — Part 20-2: Material characteristics for dust classification — Test methods and data
- ISO/IEC 80079-20-1-2018, Explosive atmospheres — Part 20-1: Material characteristics for gas and vapour classification — Test methods and data
- ISO/IEC 80079-20-2, Explosive Atmospheres - Part 20-2: Material Characteristics - Combustible Dusts Test Methods

**IEEE Standards: Institute of Electrical and Electronics Engineers, Inc.**
- ANSI/IEEE C2-2017, National Electrical Safety Code
- ANSI/IEEE 60079-30-2-2015, IEEE/IEC International Standard for Explosive atmospheres — Part 30-2: Electrical resistance trace heating — Application guide for design, installation, and maintenance
- IEEE 844.1-2017/CSA C22.2 No. 293.1-17, IEEE/CSA Standard for Skin Effect Trace Heating of Pipelines, Vessels, Equipment, and Structures — General, Testing, Marking, and Documentation Requirements
- IEEE 844.2-2017/CSA C293.2-17, IEEE/CSA Standard for Skin Effect Trace Heating of Pipelines, Vessels, Equipment, and Structures — Application Guide for Design, Installation, Testing, Commissioning, and Maintenance
- IEEE 1349-2011, IEEE Guide for the Application of Electric Motors in Class I, Division 2 and Class I, Zone 2 Hazardous (Classified) Locations

**ISA Standards: International Society of Automation**
- ANSI/ISA-RP 12.06.01-2003, Recommended Practice for Wiring Methods for Hazardous (Classified) Locations Instrumentation — Part 1: Intrinsic Safety
- ANSI/ISA-12.01.01-2013, Definitions and Information Pertaining to Electrical Equipment in Hazardous (Classified) Locations
- ANSI/ISA-60079-0 (12.00.01)-2013, Explosive Atmospheres — Part 0: Equipment — General Requirements
- ANSI/ISA 60079-10-1-2014, Explosive Atmospheres — Part 10-1: Classification of Areas — explosive gas atmospheres.
- ANSI/ISA 60079-10-2 (12.10.05)-2013, Explosive Atmospheres — Part 10-2: Classification of Areas — Combustible Dust Atmospheres
- ANSI/ISA-60079-29-1 (12.13.01)-2013, Explosive Atmospheres — Part 29-1: Gas detectors — Performance requirements of detectors for flammable gases.
- ANSI/ISA-60079-29-2 (12.13.02)-2012, Explosive Atmospheres — Part 29-2: Gas detectors — Selection, installation, use and maintenance of detectors for flammable gases and oxygen
- ISA-12.10-1988, Area Classification in Hazardous (Classified) Dust Locations
- ISA-TR12.13.03-2009, Guide for Combustible Gas Detection as a Method of Protection

**ISO Standards: International Organization of Standardization**
- ISO 965-1-2013, ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data
- ISO 965-3-2009, ISO general purpose metric screw threads — Tolerances — Part 3: Deviations for constructional screw threads

# Product and Installation Standards

**Norma Oficial Mexicana (Official Mexican Standard) NFPA Standards: National Fire Protection Association**

- NFPA 2-2016, Hydrogen Technologies Code
- NFPA 13-2019, Standard for the Installation of Sprinkler Systems, for protection of membrane structures
- NFPA 30-2018, Flammable and Combustible Liquids Code
- NFPA 30A-2018, Code for Motor Fuel Dispensing Facilities and Repair Garages.
- NFPA 32-2016, Standard for Drycleaning Facilities
- NFPA 33-2018, Standard for Spray Application Using Flammable or Combustible Materials
- NFPA 34-2018, Standard for Dipping, Coating and Printing Processes Using Flammable or Combustible Liquids
- NFPA 35-2016, Standard for the Manufacture of Organic Coatings
- NFPA 36-2017, Standard for Solvent Extraction Plants
- NFPA 45-2019, Standard on Fire Protection for Laboratories Using Chemicals
- NFPA 52-2019, Vehicular Natural Gas Fuel Systems Code
- NFPA 55-2016, Compressed Gases and Cryogenic Fluids Code
- NFPA 58-2017, Liquefied Petroleum Gas Code
- NFPA 59-2018, Utility LP-Gas Plant Code
- NFPA 77-2019, Recommended Practice on Static Electricity
- NFPA 88A-2019, Standard for Parking Structures
- NFPA 303-2016, Fire Protection Standard for Marinas and Boatyards, and NFPA 30A-2018, Code for Motor Fuel Dispensing Facilities and Repair Garages
- NFPA 409-2016, Standard on Aircraft Hangars
- NFPA 496-2017, Standard for Purged and Pressurized Enclosures for Electrical Equipment
- NFPA 497-2017, Recommended Practice for the Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas
- NFPA 499-2017, Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installation in Chemical Process Areas
- NFPA 505-2018, Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations
- NFPA 701-2019, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films
- NFPA 780-2017, Standard for the Installation of Lightning Protection Systems
- NFPA 820-2016, Standard for Fire Protection in Wastewater Treatment and Collection Facilities

**Norma Oficial Mexicana (Official Mexican Standard) (NOM)**

- NMX-J-307, Luminaires

**UL Standards: Underwriters Laboratories Inc.**

- ANSI/UL 514B-2012, Conduit, Tubing, and Cable Fittings
- UL 1598, Luminaires
- UL 1598A, Standard for Supplemental Requirements for Luminaires for Installation on Marine Vessels
- UL 50, Enclosures for Electrical Equipment, Non-Environmental Considerations
- UL 50E, Enclosures for Electrical Equipment, Environmental Considerations
- UL 844, Standard for Luminaires for Use in Hazardous (Classified) Locations
- UL 8750, Standard for Light Emitting Diode (LED) Equipment for Use in Lighting Products
- UL 913, Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous (Classified) Locations
- UL 924, Standard for Emergency Lighting and Power Equipment
- ANSI/UL 1203-2015, Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations
- ANSI/UL 1309-2017, Marine Shipboard Cable
- ANSI/UL 2225-2013, Cables and Cable-Fittings for Use in Hazardous (Classified) Locations
- ANSI/UL 60079-0:2013, Electrical Apparatus for Explosive Gas Atmospheres — Part 0: General Requirements
- ANSI/UL 60079-1:2015, Explosive Atmospheres — Part 1: Equipment Protection by Flameproof Enclosures “d.”
- UL 60079-7, Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
- ANSI/UL 60079-11-2014, Explosive Atmospheres — Part 11: Equipment Protection by Intrinsic Safety “i”
- UL 60079-18, Explosive atmospheres – Part 18: Equipment protection by encapsulation “m”
- ANSI/UL-60079-26-2017, Explosive Atmospheres — Part 26: Equipment with Equipment Protection Level (EPL) Ga
- ANSI/UL 60079-28-2017, Explosive Atmospheres — Part 28: Protection of Equipment and Transmission Systems Using Optical Radiation
- ANSI/UL 60079-30-1-2017, Explosive Atmospheres — Electrical Resistance Trace Heating — General and Testing Requirements
- UL 60079-31, Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
- UL 121201, Nonincendive Electrical Equipment for, Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
- ANSI/UL 120002-2014, Certificate Standard for AEx Equipment for Hazardous (Classified) Locations
- ANSI/UL 122001-2014, General Requirements for Electrical Ignition Systems for Internal Combustion Engines in Class I, Division 2 or Zone 2, Hazardous (Classified) Locations
- ANSI/UL 121203-2011, Standard for Portable Electronic Products Suitable for Use in Class I and II, Division 2, Class I Zone 2 and Class III, Division 1 and 2 Hazardous (Classified) Locations.
- ANSI/UL 122701-2017, Requirements for Process Sealing Between Electrical Systems and Flammable or Combustible Process Fluids
- UL 1836-2014, Outline of Investigation for Electric Motors and Generators for Use in Class I, Division 2, Class I, Zone 2, Class II, Division 2 and Zone 22 Hazardous (Classified) Locations

**Other Standards**

- ANSI/ASHRAE 15-2016, Safety Standard for Refrigeration Systems.
- ANSI/CGA G2.1-1989, Safety Requirements for the Storage and Handling of Anhydrous Ammonia
- ANSI/IIAR 2-2014, Standard for Safe Design of Closed-Circuit Ammonia Refrigeration Systems.
- ANSI/NEMA 250-2008, Enclosures for Electrical Equipment

# Protection Against Mechanical Shocks

The table below gives the impact (in joules) for Group II equipment. It is an extract from the EN/IEC 60079-0 standard.

- N.B.: When an item of electrical equipment is subjected to tests corresponding to a low risk of mechanical danger, it must be marked with the symbol "X" in accordance with article 26.4.2 and 29.3 e).
- The indication "X" placed at the end of the certificate number can also indicate particular conditions of use.

The Appleton Brand of electrical products by Emerson are designed and certified to resist to high mechanical shock.

| **Group II equipment** | **Shock energy (in joules)** | |
|---|---|---|
| **Risk of mechanical danger** | **High** | **Low** |
| 1. Grids, protective covers, protective caps for fans, cable entries | 7 | 4 |
| 2. Plastic enclosures | 7 | 4 |
| 3. Lightweight alloy or cast-iron enclosures | 7 | 4 |
| 4. Enclosures of a material other than with walls 3 mm thick<br>- less than 3 mm for Group I<br>- less than 1 mm for Group II | 7 | 4 |
| 5. Translucent parts without protective device | 4 | 2 |
| 6. Translucent parts with grid (tests to be carried out without the grid) | 2 | 1 |

**IK Table**

| **IK Code** | **IK 00** | **IK 01** | **IK 02** | **IK 03** | **IK 04** | **IK 05** | **IK 06** | **IK 07** | **IK 08** | **K 09** | **IK 10** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Shock energy (in joules) | 0 | 0.15 | 0.20 | 0.35 | 0.50 | 0.70 | 1 | 2 | 5 | 10 | 20 |

*By way of comparison: protection against mechanical shocks in accordance with article 4.2 of EN/IEC 62262.*

# EMC - Electromagnetic Compatibility

With respect to EMC (Electromagnetic compatibility), equipment must comply with the EMC Directive 2014/30/EU, modified by directives 92/3 and 93/68, which stipulate 2 main requirements :

**1- Emission**
The appliance must not emit interference or disturbance likely to affect other equipment.
**2- Immunity**
The appliance must be resistant to the effects of surrounding electrical equipment (for example, starting of motors or pumps, variable speed drives, etc.).

**Directive 2014/30/EU**

| **Emission — In accordance with EN IEC 55015, EN IEC 61000-6-3 and EN IEC 61000-3-2** | **Test Result** |
|---|---|
| Insertion loss | Conduction |
| Conducted interference | Conduction |
| Harmonic current emission | Conduction |
| Radiated interference | Radiated |
| **Immunity — In accordance with EN 61547 and EN IEC 61000-6-2** | **Test Type** |
| EN/IEC 61000-4-2 Electromagnetic discharges | Conduction |
| EN/IEC 61000-4-3 Immunity to radiated fields | Radiated |
| EN/IEC 61000-4-8 Power frequency magnetic fields | Conduction |
| EN/IEC 61000-4-4 Fast transient/burst | Conduction |
| EN/IEC 61000-4-6 Induced conducted interference | Conduction |
| EN/IEC 61000-4-5 Lighting surges | Conduction |
| EN/IEC 61000-4-11 Voltage dips and interruptions | Conduction |

**Electrical Installations in Explosive Gas Atmospheres in Accordance with Standard EN 60079-17**
Standard EN/IEC 60079-17 stipulates strict provisions concerning the maintenance of electrical installations in hazardous Zones:

- An initial inspection before they are commissioned.
- Regular inspections in time.
- Continuous supervision.

**Frequency of Inspection**
The time interval between inspections should be set taking into account likely deterioration due to corrosion, the presence of chemicals or solvents, the accumulation of dirt or dust, the risk of water penetration, exposure to abnormal ambient temperatures or vibrations, whether the electrical equipment is removable or portable, but in any case this interval must not be more than 36 months.

**Three Degrees of Inspection**

- Visual inspection: faults directly visible such as missing buttons.
- Close inspection: visual inspection and in addition detection faults.
  - Close inspection does not normally require the enclosure to be opened, nor the equipment switched off.
- Detailed inspection: close inspection and in addition detection faults, such as loose connections, detected after opening the enclosure.

**Table 1 — Inspection schedule for Ex "d", Ex "e" and Ex "t/tD"**

| | | Ex "d" | | | Ex "e" | | | Ex "t/tD" | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Grade of Inspection | | | | | | | | |
| Check that: X = required for all types, t = type "t" and "tD" only | | D | C | V | D | C | V | D | C | V |
| A | **GENERAL (ALL EQUIPMENT)** | | | | | | | | | |
| 1 | Equipment is appropriate to the EPL/Zone requirements of the location | X | X | X | X | X | X | X | X | X |
| 2 | Equipment group is correct | X | X | | X | X | | X | X | |
| 3 | Equipment temperature class is correct (only for gas) | X | X | | X | X | | | | |
| 4 | Equipment maximum surface temperature is correct | | | | | | | X | X | |
| 5 | Degree of protection (IP grade) of equipment is appropriate for the level of protection/group/conductivity | X | X | X | X | X | X | X | X | X |
| 6 | Equipment circuit identification is correct | X | | | X | | | X | | |
| 7 | Equipment circuit identification is available | X | X | X | X | X | X | X | X | X |
| 8 | Enclosure, glass parts and glass-to-metal sealing gaskets and/or compounds are satisfactory | X | X | X | X | X | X | X | X | X |
| 9 | There is no damage or unauthorized modifications | X | | | X | | | X | | |
| 10 | There is no evidence of unauthorized modifications | | X | X | | X | X | | X | X |
| 11 | Bolts, cable entry devices (direct and indirect) and blanking elements are of the correct type and are complete and tight | | | | | | | | | |
| | – physical check | X | X | | X | X | | X | X | |
| | – visual check | | | X | | | X | | | X |
| 12 | Threaded covers on enclosures are of the correct type, are tight and secured | | | | | | | | | |
| | – physical check | X | X | | X | X | | X | X | |
| | – visual check | | | X | | | X | | | X |
| 13 | Joint surfaces are clean and undamaged and gaskets, if any, are satisfactory and positioned correctly | X | | | | | | | | |
| 14 | Condition of enclosure gaskets is satisfactory | X | | | X | | | X | | |
| 15 | There is no evidence of ingress of water or dust in the enclosure in accordance with the IP rating | X | | | X | | | X | | |
| 16 | Dimensions of flanged joint gaps are:<br>– within the limits in accordance with manufacturer's documentation or<br>– within maximum values permitted by relevant construction standard at time of installation or<br>– within maximum values permitted by site documentation | X | | | | | | | | |
| 17 | Electrical connections are tight | | | | X | | | X | | |
| 18 | Unused terminals are tightened | | | | X | | | | | |
| 20 | Encapsulated components are undamaged | | | | X | | | | | |
| 21 | Flameproof components are undamaged | | | | X | | | | | |
| 24 | Breathing operation is satisfactory– ( type "nR" only) | X | | | X | | | | | |
| 25 | Breathing and draining devices are satisfactory | X | X | | X | X | | | | |

*Note: (**D** = detailed, **C** = close, **V** = visual*

**Table 1 — Inspection schedule for Ex “d”, Ex “e” and Ex “t/tD” — Continued**

| | | Ex "d" | | | Ex "e" | | | Ex "t/tD" | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Check that: | Grade of Inspection | | | | | | | | |
| | X = required for all types, t = type “t” and “tD” only | D | C | V | D | C | V | D | C | V |
| | **EQUIPMENT SPECIFIC (LIGHTING)** | | | | | | | | | |
| 26 | Fluorescent lamps are not indicating EOL effects | | | | X | X | X | X | X | X |
| 27 | HID lamps are not indicating EOL effects | X | X | X | X | X | X | X | X | X |
| 28 | Lamp type, rating, pin configuration and position are correct | X | | | X | | | X | | |
| **B** | **INSTALLATION – GENERAL** | | | | | | | | | |
| 1 | Type of cable is appropriate | X | | | X | | | X | | |
| 2 | There is no obvious damage to cables | X | X | X | X | X | X | X | X | X |
| 3 | Sealing of trunking, ducts, pipes and/or conduits is satisfactory | X | X | X | X | X | X | X | X | X |
| 4 | Stopping boxes and cable boxes are correctly filled | X | | | | | | | | |
| 5 | Integrity of conduit system and interface with mixed system maintained | X | | | X | | | X | | |
| 6 | Earthing connections, including any supplementary earthing bonding connections are satisfactory (for example connections are tight and conductors are of sufficient cross-section) | | | | | | | | | |
| | – physical check | X | | | X | | | X | | |
| | – visual check | | X | X | | X | X | | X | X |
| 7 | Fault loop impedance (TN systems) or earthing resistance (IT systems) is satisfactory | X | | | X | | | X | | |
| 8 | Automatic electrical protective devices are set correctly (auto-reset not possible) | X | | | X | | | X | | |
| 9 | Automatic electrical protective devices operate within permitted limits | X | | | X | | | X | | |
| 10 | Specific conditions of use (if applicable) are complied with | X | | | X | | | X | | |
| 11 | Cables not in use are correctly terminated | X | | | X | | | X | | |
| 12 | Obstructions adjacent to flameproof flanged joints are in accordance with IEC 60079-14 | X | X | X | | | | | | |
| 13 | Variable voltage/frequency installation complies with documentation | X | X | | X | X | | X | X | |
| **C** | **ENVIRONMENT** | | | | | | | | | |
| 1 | Equipment is adequately protected against corrosion, weather, vibration and other adverse factors | X | X | X | X | X | X | X | X | X |
| 2 | No undue accumulation of dust and dirt | X | X | X | X | X | X | X | X | X |
| 3 | Electrical insulation is clean and dry | X | | | X | | | X | | |

*Note: (**D** = detailed, **C** = close, **V** = visual*

**Table 2 – Inspection schedule for Ex "i" installations**

| Check that: X = required | | Grade of Inspection D | C | V |
|---|---|---|---|---|
| **A** | **EQUIPMENT** | | | |
| 1 | Circuit and/or equipment documentation is appropriate to the EPL/Zone | X | X | X |
| 2 | Equipment installed is that specified in the documentation | X | X | |
| 3 | Circuit and/or equipment category and group correct | X | X | |
| 4 | IP rating of equipment is appropriate to the Group III material present | X | X | |
| 5 | Equipment temperature class is correct | X | X | |
| 6 | Ambient temperature range of the apparatus is correct for the installation | X | X | |
| 7 | Service temperature range of the apparatus is correct for the installation | X | X | |
| 8 | Installation is clearly labelled | X | X | |
| 9 | Enclosure, glass parts and glass-to-metal sealing gaskets and/or compounds are satisfactory | X | | |
| 10 | Cable glands and blanking elements are the correct type, complete and tight<br>– physical check<br>– visual check | X | X | X |
| 11 | There are no unauthorized modifications | X | | |
| 12 | There is no evidence of unauthorized modifications | | X | X |
| 13 | Diode safety barriers, galvanic isolators, relays and other energy limiting devices are of the approved type, installed in accordance with the certification requirements and securely earthed where required | X | X | X |
| 14 | Condition of enclosure gaskets is satisfactory | X | | |
| 15 | Electrical connections are tight | X | | |
| 16 | Printed circuit boards are clean and undamaged | X | | |
| 17 | The maximum voltage Um of the associated apparatus is not exceeded | X | X | |
| **B** | **INSTALLATION** | | | |
| 1 | Cables are installed in accordance with the documentation | X | | |
| 2 | Cable screens are earthed in accordance with the documentation | X | | |
| 3 | There is no obvious damage to cables | X | X | X |
| 4 | Sealing of trunking, ducts, pipes and/or conduits is satisfactory | X | X | X |
| 5 | Point-to-point connections are all correct (initial inspection only) | X | | |
| 6 | Earth continuity is satisfactory (e.g. connections are tight, conductors are of sufficient cross section) for non-galvanically isolated circuits | X | | |
| 7 | Earth connections maintain the integrity of the type of protection | X | | |
| 8 | Intrinsically safe circuit earthing is satisfactory | X | | |
| 9 | Insulation resistance is satisfactory | X | | |
| 10 | "Separation is maintained between intrinsically safe and non-intrinsically safe circuits in common distribution boxes or relay cubicles" | X | | |
| 11 | Short-circuit protection of the power supply is in accordance with the documentation | X | | |
| 12 | Specific conditions of use (if applicable) are complied with | X | | |
| 12 | Cables not in use are correctly terminated | X | | |
| **C** | **ENVIRONMENT** | | | |
| 1 | Equipment is adequately protected against corrosion, weather, vibration and other adverse factors | X | X | X |
| 2 | No undue external accumulation of dust and dirt | X | X | X |

*Note: (**D** = detailed, **C** = close, **V** = visual*

# Quality Control

**Total Conformity with the standards**

- Appleton electrical equipment for explosive atmospheres is designed and manufactured in the strictest conformity with IEC and CENELEC standards.

**Our Certification Policy.**

- In each section of the Appleton™ LED Luminaires Catalog under "Compliances," the appropriate published product and installation Standard is shown. This signifies that the products in that section meet or exceed the requirements of that Standard. The term "Compliances" does not necessarily mean that the products are Listed/Certified. Certification agency approval is a matter of independent record, signified by product nameplate or carton marking and can be ascertained by referring to approved sources. Although the majority of Appleton products are Listed/Certified, there are instances where this is impractical. For example, a product may not be Listed/Certified because it is a subassembly, such as a mounting box. Often a product is not Listed/Certified because it is in the process of being approved by certification agency. Due to technical problems in presentation, most of the Appleton Listed/Certified products are not so indicated in the Appleton Catalog, but information regarding approvals on any specific product is obtainable upon request. Emerson has thousands of Listed/Certified Appleton™ products.

**Anti-Corrosion Treatment and Climatic Protection for Each Product**

- When the manager of a hazardous area project has to determine in advance the anti-corrosion treatment and climatic protection of the products he is specifying, he is often faced with a difficult decision.
- Emerson has tried to reduce this problem to a minimum.

**Increased Protection Against Mechanical Shocks**

- Items of "e" and "d" protection mode equipment are classed and constructed for "increased risk of mechanical danger". They can therefore be installed in all work and development sites without any additional precautions.

**A User Manual and an EU Declaration Of Conformity for Each Item of Equipment.**

- All currently sold equipment is supplied with user manual explaining assembly and giving instructions for operation, precautions for operation and a copy of the EU Declaration of Conformity. The EU Declaration of Conformity guarantees the conformity of the product linked to the samples tested or presented by the Notified body and Production Quality Assurance Notification (QAN).

**Equipment with a High Level of Fire Resistance**

- As well as meeting the requirements of EN/IEC 60079-0/79-7, Emerson equipment has a level of fire resistance defined by the EN/IEC 60695-2 standard. It is resistant to incandescent wire from +650 °C to +960 °C (+1202 °F to + 1760 °F).

**Endurance**

- The durability of products depends on their suitability for repeated operation. Appleton tests its products within temperature ranges that can vary from -40 °C to +60 °C (-40 °F to +140 °F), whereas specific standards only impose these checks at an ambient temperature of -20 °C to +40 °C (-4 °F to +104 °F).

**Ageing**

Most products on the market are now made of plastic. Therefore, the long term behavior of these materials should be checked.

- Most of their degradation is caused by heat generated by operation, the temperature being equal to the ambient temperature plus temperature rises caused by electrical parameters for each product.
- Depending on the equipment type, our test rooms can check the reliability of products by means of accelerated tests that combine voltages up to 270V and temperatures up to +180 °C (+356 °F).
- Plastic enclosures exposed to sunlight are artificially aged by exposure to UV radiation for 1000 hours with a xenon lamp, according to ISO international standards.

**Degree of Protection by Enclosures IP (Ingress Protection) Code**

- In their scope, all product standards require that a protection index (protection of equipment against penetration of liquid and solid bodies) should be defined, selected from a classification system.
- Therefore, all electrical equipment enclosures are provided with a protection index IP which defines the correspondence between the place of installation and the protection offered by products.

**IES (LM-79, LM-80) Standards**

- The Emerson photometry laboratory is unique and modern. Equipment is tested in it at all stages of its design.
- This is how better lighting performances are achieved. Tests are carried out according to the NEC, CEC, ATEX and IECEx standards recommended methods for photometry of lamps and for light fittings.

# Main Standards Throughout the World

The worldwide electrotechnical standard for electrical equipment for explosive atmospheres is covered by two major "standards" :

1. NEC, CEC (products approved by UL, FM, CSA...).
   — NEC: National Electrical Code
   — CEC: Canadian Electrical Code
2. IEC, ATEX/CENELEC (common standard following agreement in 1991 on procedures for developing standards)
   — IEC: International Electrotechnical Commission
   — ATEX: ATmospheres EXplosibles
   — CENELEC : European Committee of Electrotechnical Standards

Products which conform to IEC, ATEX/CENELEC or NEC standards have identical protection, even though they are designed differently to meet specific installation regulations.

IEC can be considered as the "international standard" accepted in nearly every country.

Since 1996, NEC, Article 505, uses the IEC names of gas groups, equipment temperature classes and area definitions.

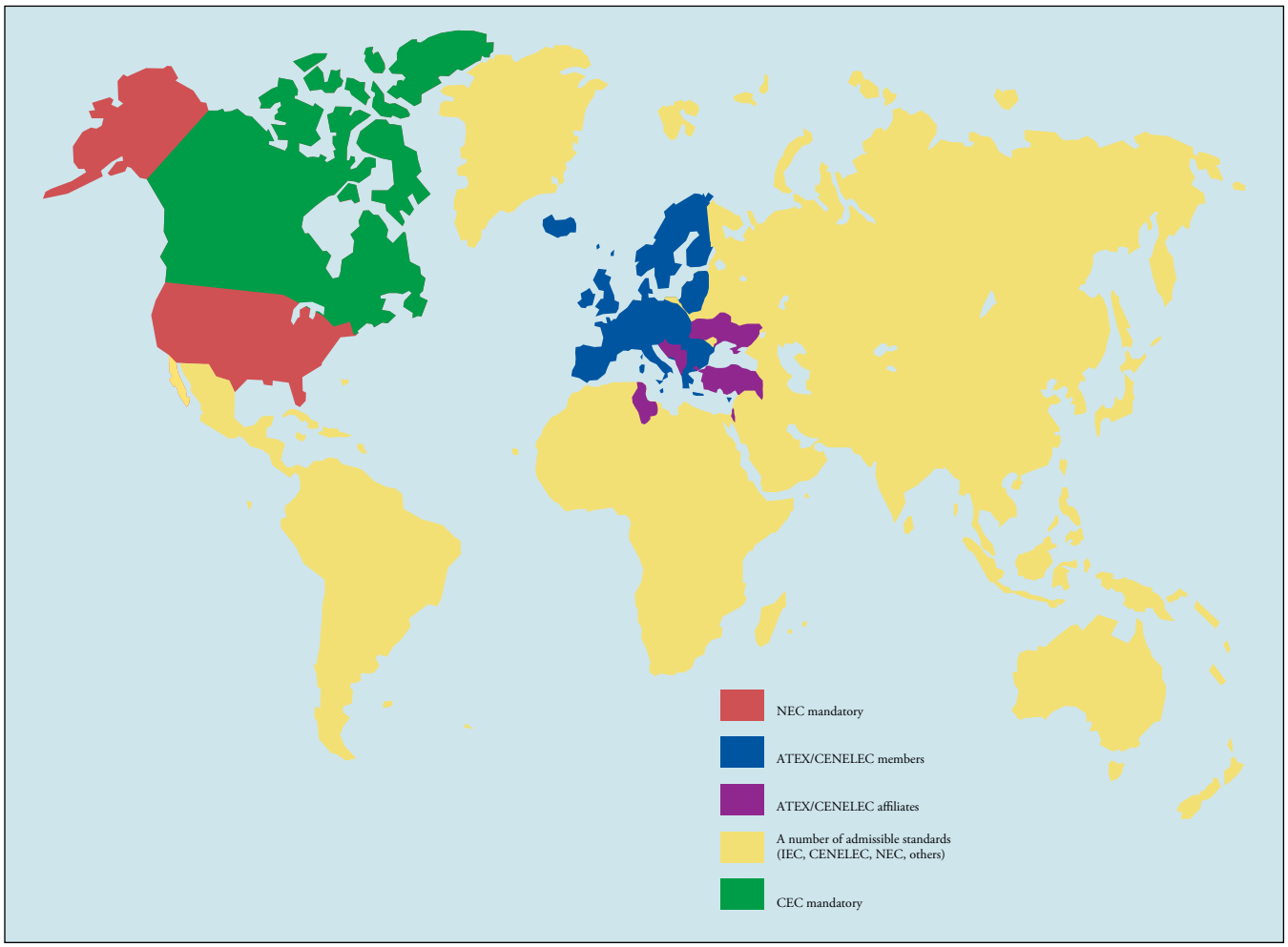
- To obtain more detailed information, contact the national laboratories : LCIE, INERIS , PTB, DEMKO, CSA, UL, KEMA, DNV, LOM.....

**IECEx**

The aim of the IECEx Scheme is to facilitate international trade in electrical equipment intended for use in explosive atmospheres (Ex equipment) by eliminating the need for multiple national certification while preserving an appropriate level of safety.

The IECEx Scheme provides the means for manufacturers of EX equipment to obtain certificates of conformity that will be accepted at national level in all participating countries. A certificate of conformity may be obtained from any certification body accepted in the Scheme. The certificate will attest that the equipment design conforms to the relevant IEC standards and that the product is manufactured under a quality plan assessed by an Accepted Certification Body. Manufacturers holding certificates of conformity may affix the IECEx Mark of Conformity to equipment that they have verified as complying with the certified design.

An application for a country to participate in the IECEx Scheme is made on a standard by standard basis by the candidate Member Body of the IECEx Scheme for that country. The application is made to the Secretary of the Ex Management Committee. There are currently more than 60 Approved IECEx Certification Bodies (ExCBs) in 29 countries participating in the IECEx scheme.

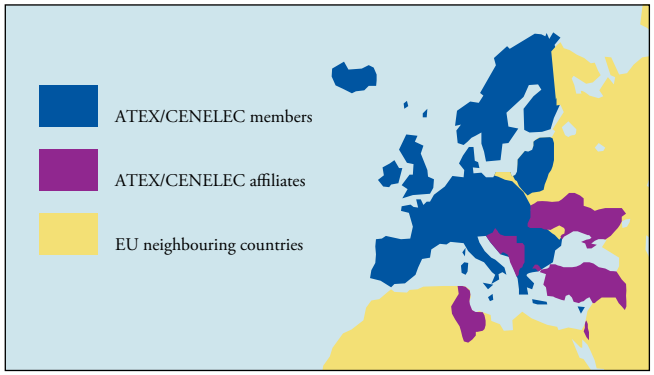


# European Directives

On July 1, 2003, two important European directives concerning electrical equipment for potentially explosive atmospheres, introducing part of the new approach, came into force :

- Directive 94/9 EC concerns more specifically manufacturers who are obliged to offer their customers ATEX products from June 30, 2003 onwards.
- Directive 99/92 EC concerns all users (specifiers, investors, contractors, OEMs or distributors) of equipment for potentially explosive atmospheres.

Both of these result from articles 100 A and 118 A of the Treaty of Rome (1957).




**1- Directive 2014/34/EU**

Directive 2014/34/EU defines the minimum requirements aimed at improving protection, in terms of health and safety, for workers likely to be exposed to risks of potentially explosive atmospheres.

It also defines the equipment capable of ensuring the desired safety and the resources to be employed in selecting, installing, using and maintaining this equipment.

This specifies safety requirements for both electrical and non-electrical equipment, designed for use in hazardous locations as a result of the presence of gas or dust.

As of July 1, 2003, all electrical equipment for potentially explosive atmospheres sold within the European area must have ATEX certification, as a result, they must bear the standard ATEX marking on the product certification plate, in accordance with the new European classification of products.

**2- Directive 99/92 EC**

From July 1, 2003, it is mandatory to comply with the minimum safety regulations described in the directives which need to be followed routinely in hazardous locations.

The obligations on the employer or site manager are mainly :

- risks of explosion analysis; identification, assessment and record keeping (article 8),
- classification of hazardous areas (or Zones),
- training of workers,
- validation of the conformity of the installation,
- procedure for maintenance of the installation,
- procedure in case of Alert and Evaluation.

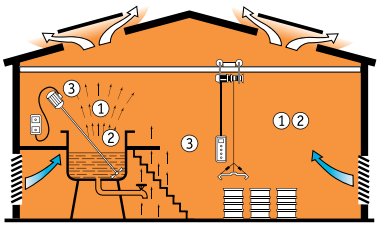
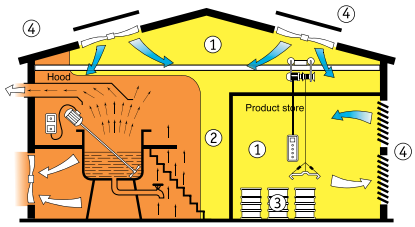
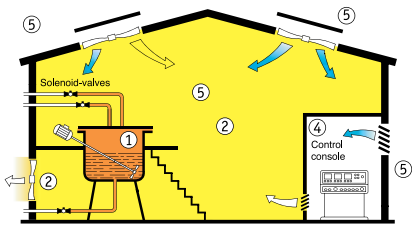
# NEC/CEC Hazardous Locations

Electrical installations in North America are governed by the National Electrical Code (NEC) and Canadian Electrical Code (CEC). The codes were developed for the purpose of life and property protection. Products intended for installation in hazardous locations must be listed or certified for the specific Class, Division or Zone, and Group highlighted below.

**NEC/CEC Area Classification**

| Classes | Divisions | Groups |
|---|---|---|
| **Class I: Gases**<br>Areas in which flammable gases or vapors in the air, in sufficient quantities to ignite or explode.<br><br>**Class II: Dust**<br>Areas in which combustible dust may be suspended in the air or accumulates on electrical equipment in quantities sufficient to ignite or explode.<br><br>**Class III: Fibers**<br>Areas in which easily ignitable fibers or flyings are present. Typically fibers and flyings are not suspended in the air, but can collect around machinery or on lighting fixtures. | **Division 1: Always Present**<br>Areas in which ignitable concentrations of hazards exist under normal operation conditions and/or where hazard is caused by frequent maintenance or repair work or frequent equipment failure.<br><br>**Division 2: Not Normally Present**<br>Areas in which ignitable concentrations of hazards are normally in closed containers or closed systems. Hazards may be present due to accidental rupture or breakdown of such containers or systems. | **Class I: Gases**<br>Group A - Acetylene<br>Group B - Hydrogen<br>Group C - Ethylene<br>Group D - Propane<br><br>**Class II: Dusts**<br>Group E - Electrically conductive dust<br>Group F - Carbonaceous dust<br>Group G - Agricultural and polymer dust |

**Examples of gas and vapor environments**

| Class I, Division 1 | Class I, Division 1 and 2 | Non Classified |
|---|---|---|
|  |  |  |
| **Example 1 \| Conditions :**<br>① Class I, Division 1 hazard exists during normal operation conditions<br>• Open air mixing tank<br>• Products stored in work area<br>② Area classified based on properties of vapors present<br>③ Electrical equipment must use approved Division 1 NEC protection techniques and wiring methods | **Example 2 \| Conditions :**<br>① Division 2 area can exist where vapors are normally in closed system or containers<br>② Division 1 and 2 areas separated by barrier or space (transition zone)<br>• Hazardous areas properly documented<br>• Division 2 must use approved NEC wiring methods and products<br>③ Stored products outside Division 1 work area<br>④ Non hazardous area | **Example 3 \| Conditions :**<br>① Closed tank and piping confines Division 1<br>② Yellow area qualifies as Division 2<br>③ Stored products not present<br>④ Purged/pressurized control room qualifies as "non hazardous" is sealed off from Division 2 area<br>⑤ Electrical equipment in Division 2 must use approved Division 2 protection techniques and products |

**Simultaneous Exposure**

As specified in UL 844, The exterior surface temperature of a luminaire for use where Class I and Class II conditions may exist simultaneously shall not exceed:

a. +165 °C (+329 °F) for Class I and Class II, Group G, Groups F and G, or Groups E, F, and G; or
b. +200 °C (+392 °F) for Class I and Class II, Group E, Group F, or Groups E and F

# Methods of Protection

Lighting plays a critical role in the safe, efficient, and productive operation of any industrial facility or production process. In addition to providing light, luminaires for these industries must address and overcome the inherent challenges of hazardous environments. Properly lighting hazardous locations requires knowing the facility environment, combustible composition, and fixture application.

**T - Codes**

Every hazardous atmosphere has a temperature that, if exceeded, will cause the flammable or combustible to ignite. Accordingly, this temperature, called the "T" rating, is a critical safety benchmark. Hazardous location luminaires must run cooler than the ignition temperature of the surrounding atmosphere.

Per the "T" code chart, T1 rated luminaires run hot and can only be used in locations where the risk of explosion only exists at temperatures above +450° C (+842° F) to ignite. Conversely, T6 rated luminaires run the coolest and can be used in very volatile environments where temperatures can not exceed +85° C (+185° F).

The "T" code for a fixture is the temperature of the hottest spot on or in the luminaire depending on the luminaires' Class or Zone rating. Whether the "T" rating is recorded on or in the luminaire depends on whether it is enclosed and gasketed, explosionproof or flameproof.

| Maximum Operating Temperatures | | | |
|---|---|---|---|
| °C | °F | | Temperature Class (T-Code) |
| 450 | 842 | — | T1 |
| 300 | 572 | — | T2 |
| 280 | 536 | — | T2A |
| 260 | 500 | — | T2B |
| 230 | 446 | — | T2C |
| 215 | 419 | — | T2D |
| 200 | 392 | — | T3 |
| 180 | 356 | — | T3A |
| 165 | 329 | — | T3B |
| 160 | 320 | — | T3C |
| 135 | 275 | — | T4 |
| 120 | 248 | — | T4A |
| 100 | 212 | — | T5 |
| 85 | 185 | — | T6 |

**Explosionproof and Flameproof**

- Class I, Division 1 Explosionproof or Zone 1 Flameproof
- Class II
- An ignition is never allowed into the environment from the luminaire interior
- Engineered flamepaths vent the pressure of an explosion
- Cooled gases are released from the flamepaths at temperatures that will not ignite the surrounding flammable atmospheres
- "T" ratings are measured on the exterior due to the explosionproof and flameproof luminaire's ability to disarm any explosion caused within the interior of the luminaire

*Code•Master LED Luminaire*

**Enclosed and Gasketed**

- Class I, Division 2
- Class II
- Sealed to prevent the hazardous atmosphere from entering the fixture's interior
- Prevent dust ingress in agricultural and mineral processing plants
- Contoured surfaces prevent accumulation of dust and reduce blanketing
- Internal components engineered to radiate less heat
- "T" ratings are measured on the inside because if a hazard is accidentally released into the atmosphere and reaches inside the luminaire, it will not ignite assuming the luminaire's "T" rating is below that of the hazard

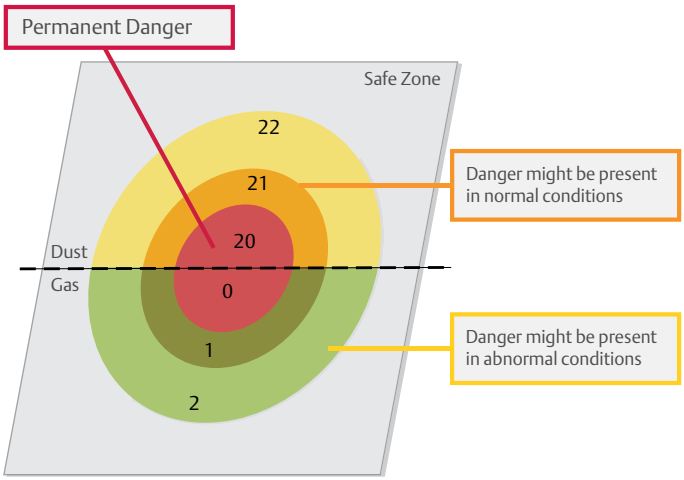
*Mercmaster LED Low Profile Luminaire*

# CEC/ATEX/IECEx Hazardous Locations

Other global standards exist, including ATEX/IECEx. The objective of the ATEX/IECEx System is to facilitate international trade in equipment and services for use in explosive atmospheres, while maintaining the required level of safety.

- IEC publications 60079-10-1/10-2 uses Zones to define the guidelines for classifying hazardous areas.
- CEC Section 18 uses Zones to define the guidelines for classifying hazardous areas.

**Zone Classification — Zone classification is based on the presence frequency of the hazardous atmosphere:**




**Zone 0 (gas) / 20 (dust)**

A place in which an explosive atmosphere either [consisting of a mixture with air of dangerous substances in the form of gas, vapor or mist] or [in the form of a cloud of dust in air] is present continuously or for long periods or frequently.

**Zone 1 (gas) / 21 (dust)**

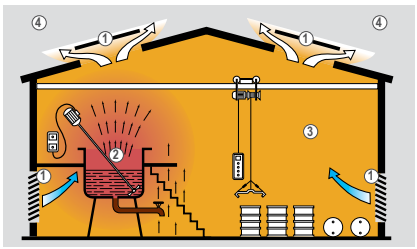
A place in which an explosive atmosphere either [consisting of a mixture with air of dangerous substances in the form of gas, vapor or mist] or [in the form of a cloud of dust in air] is likely to occur in normal operation occasionally.

**Zone 2 (gas) / 22 (dust)**

A place in which an explosive atmosphere either [consisting of a mixture with air of dangerous substances in the form of gas, vapor or mist] or [in the form of a cloud of dust in air] is not likely to occur in normal operation but, if it does occur, will persist for a short period only.

**Examples of gas and vapor environments**

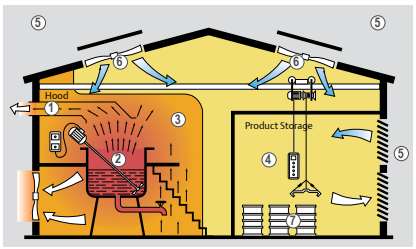
**Zone 0** | **Zone 1** | **Zone 2** | **Safe Zone**



**Example 1 | Conditions :**

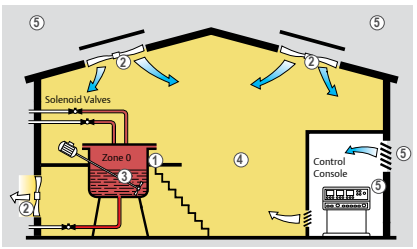
① Manual ventilation
② Zone 0
③ Zone 1
④ Safe area

- Open air mixing tank
- No mechanical ventilation
- Products stored in the work area




**Example 2 | Conditions :**

① Tank with extractor hood
② Zone 0
③ Zone 1
④ Zone 2
⑤ Safe area
⑥ Mechanical ventilation
⑦ Products stored outside the work area




**Example 3 | Conditions :**

① Closed Tank
② Mechanical ventilation
③ Zone 0
④ Zone 2
⑤ Safe area

- Control of operations outside the work area

# Environmental Ratings

The Ingress Protection classification system designates the degree of protection provided by an enclosure against impact and/or water or dust penetration (ingress). It has two numbers; first - protection against solid objects, second - protection against liquids. The NEMA Standard for Enclosures for Electrical Equipment test for environmental conditions such as corrosion, rust, and icing.

**Ingress Protection (IP) Codes**

| First Number: Solid Objects | Second Number: Liquids |
|---|---|
| 0 — No protection | 0 — No protection |
| 1 — Objects greater than 50 mm (1.97 in) | 1 — Vertically dripping |
| 2 — Objects greater than 12.5 mm (0.49 in) | 2 — Dripping up to 15° |
| 3 — Objects greater than 2.5 mm (0.10 in) | 3 — Limited spraying |
| 4 — Objects greater than 1 mm (0.04 in) | 4 — Splashing from all directions |
| 5 — Dust protected | 5 — Hosing jets from all directions (12.5 liters/minute) |
| 6 — Dust proof | 6 — Strong hosing jets from all directions (100 liters/minute) |
| | 7 — Temporary immersion |
| | 8 — Continuous immersion |

**NEMA Enclosure Types**

| Type | Fixture Use | IP Code Rating |
|---|---|---|
| 3R — | Indoor or outdoor use, rain, sleet, external formation of ice | —24 |
| 4 — | Indoor or outdoor use, rain, sleet, wind blown dust and rain, splashing water, hose directed water, external formation of ice | —66 |
| 4X — | Indoor or outdoor use, rain, sleet, wind blown dust and rain, splashing water, hose directed water, corrosion, external formation of ice | —66 |

**Suitable for Use in Wet Locations**
Defined by the National Electrical Code (NEC) as “Installations underground or in concrete slabs or masonry in direct contact with the earth; in locations subject to saturation with water or other liquids, such as vehicle washing areas; and in unprotected locations exposed to weather.”

**Marine Outside Type (Salt Water)**
Most Appleton LED lighting products meet the listing requirements of this sub group of UL 1598A, Supplemental Requirements for Luminaires for Installation on Marine Vessels. As a result, our lighting products are suitable for use on off shore platforms and on ships.

Test requirements include:
- Hose test
- 25.4 mm (1 in) nozzle, under a pressure of 103 kPa (15 lbs) per square inch from a distance 3.05 m (10 ft) for 5 minutes
- Corrosion test
- Salt spray (fog) testing for 200 hours

# NEC/CEC/ATEX/IECEx Comparison

**Gas and Vapor Classification**
Gases are divided into four groups by the CEC and the NEC (with some additional gases).
- The IEC also defines different groups of gases and vapors.
- The IEC and North American groups are viewed as fundamentally the same, apart from the fact that there are three groups in the IEC and four for the NEC (see table below).

**Temperature Classification**
IEC defined a temperature classification for materials used in hazardous areas.
- Following this, NEC and CEC have also been modified to include a temperature classification (see table below).

**Gas and Vapor Classification**

| Group — Europe (ATEX/IECEx) | Group — North America (NEC/CEC) | Gas or Vapor |
|---|---|---|
| II C | A | Acetylene |
| II C | B | Hydrogen |
| II B | C | Ethylene |
| II B | C | Ethyl ether |
| II B | C | Cyclopropane |
| II B | C | Butadene 1-3 |
| II A | D | Propane |
| II A | D | Ethane |
| II A | D | Butane |
| II A | D | Benzéne |
| II A | D | Pentane |
| II A | D | Heptane |
| II A | D | Acetone |
| II A | D | Methyl Ethyl |
| II A | D | Methyl Alcohol |
| II A | D | Ethyl Alcohol |

**Temperature Classification**

| Temperatures in °C | Classification — Europe (ATEX/IECEx) | Classification — North America (NEC/CEC) |
|---|---|---|
| 450 | T1 | T1 |
| 300 | T2 | T2 |
| 280 | T2 | T2A |
| 260 | T2 | T2B |
| 230 | T2 | T2C |
| 215 | T2 | T2D |
| 200 | T3 | T3 |
| 180 | T3 | T3A |
| 165 | T3 | T3B |
| 160 | T3 | T3C |
| 135 | T4 | T4 |
| 120 | T4 | T4A |
| 100 | T5 | T5 |
| 85 | T6 | T6 |

*Group 1 - underground working mine*
*Group 2 - surface industry*

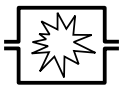
**Equipment Types IEC, EN, UL Correspondences**

| Equipment | Europe (ATEX/IECEx/UKEx) | IEC/Europe (Ordloc) | EMI/EMC Standards | North America (NEC/CEC – Hazloc) | North America |
|---|---|---|---|---|---|
| Fixed luminaires for general use | • EN/IEC 60079-0<br>• EN/IEC 60079-1<br>• EN/IEC 60079-7<br>• EN/IEC 60079-11<br>• EN/IEC 60079-18<br>• EN/IEC 60079-31 | • EN/IEC 60598-1<br>• EN/IEC 60598-2-1<br>• EN/IEC 60529<br>• EN/IEC 60598-2-22<br>• EN/IEC 62471<br>• IEC TR 62778 | • EN/IEC 61547<br>• EN/IEC 61000-3-2<br>• EN/IEC 61000-4-2<br>• EN/IEC 61000-4-3<br>• EN/IEC 61000-4-4<br>• EN/IEC 61000-4-5<br>• EN/IEC 61000-4-6<br>• EN/IEC 61000-4-8<br>• EN/IEC 61000-4-11<br>• EN/IEC 61000-6-2<br>• EN/IEC 61000-6-4<br>• EN 55015<br>• CISPR 15 | • UL 844<br>• CSA C22.2 No. 137<br>• UL/CSA 60079-0<br>• UL/CSA 60079-1<br>• UL/CSA 60079-7<br>• UL/CSA 60079-11<br>• UL/CSA 60079-18<br>• UL/CSA 60079-31 | • UL 1598/CSA C22.2 No. 250.0<br>• UL 924/CSA C22.2 No. 141<br>• UL 8750/CSA C22.2 No. 250.13<br>• UL 50/CSA C22.2 No. 94.1<br>• UL 50e CSA C22.2 No. 94.2 |
| Portable equipment | | • EN/IEC 60598-1<br>• EN/IEC 60598-2-4<br>• EN/IEC 60529<br>EN/IEC 60598-2-22<br>• EN/IEC 62471<br>• IEC TR 62778 | | | • UL 153/CSA C22.2 No. 250.4<br>• UL 924/CSA C22.2 No. 141<br>• UL 8750/CSA C22.2 No. 250.13<br>• UL 50/CSA C22.2 No. 94.1<br>• UL 50e CSA C22.2 No. 94.2 |
| Floodlights and lamps | | • EN/IEC 60598-1<br>• EN/IEC 60598-2-5<br>• EN/IEC 60529<br>EN/IEC 60598-2-22<br>• EN/IEC 62471<br>• IEC TR 62778 | | | • UL 1598/CSA C22.2 No. 250.0<br>• UL 924/CSA C22.2 No. 141<br>• UL 8750/CSA C22.2 No. 250.13<br>• UL 50/CSA C22.2 No. 94.1<br>• UL 50e CSA C22.2 No. 94.2 |
| Luminaires with fluorescent lamps | | | | | |
| Luminaires with incandescent lamps | | | | | |

# Protection Techniques for Hazardous Areas

**Protection Techniques for Hazardous Areas with Gas**

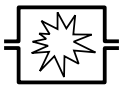
**Flameproof "da / db / dc"**



- **da for use in Zone 0**
- **db for use in Zone 1**
- **dc for use in Zone 2**
- Contain internal explosion and similar to NEC® explosionproof
- Control external temperature of enclosure
- Usually cast enclosure
- Typical use in lighting and motor starters

Requirements:
- Internal explosion cannot be transmitted outside enclosure
- External temperature of enclosure below ignition temperature of surrounding gases
- Cable fittings must have 5 threads engaged
- Internal and external ground screw

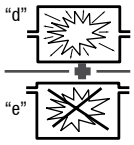
**Increased Safety "eb / ec"**



- **eb for use in Zone 1**
- **ec for use in Zone 2**
- High impact resistant enclosures—FRP, GRP, sheet steel/ aluminum, stainless steel
- Enclosure will not hold static charge
- Maintain minimum of IP 54 ingress protection for hazardous gas and vapor or minimum of IP 65 for hazardous/ combustible dust
- Apparatus non arcing/sparking
- Typical use in terminal enclosures, controls, plugs and receptacles/sockets

Requirements:
- Use IEC approved non-loosening screw type in IEC approved enclosures
- Control internal and external temperature

**Flameproof Plus Increased Safety "db eb"**

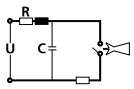



- **db eb for use in Zone 1**
- Location of arcing has "db" protection (flameproof)
- Connection terminals have "eb" protection (increased safety)
- Typical use in switches, lighting, controls, plugs and receptacles/sockets

*Items such as power outlets, switches, some lighting, etc., cannot be protected by "eb" mode only. In this case "db" and "eb" are combined.*

Requirements:
- Area where arc can be produced is "db" or flameproof in a restricted volume enclosure - often contact blocks and switches
- Area with connection terminals is "eb" or increased safety
- Controls internal and external temperatures

**Increased Safety "ia / ib / ic"**




- **ia for use in Zone 0**
- **ib for use in Zone 1**
- **ic for use in Zone 2**
- Incapable of releasing enough energy to cause an explosion
- Typical use in communication equipment

Requirements:
- Install in safe areas (non IS), or in an approved "d.." enclosure
- Energy limiting barriers
- Transmits signal from hazardous area (IS)
- Prevents energy release
- Ensure isolation of circuits between IS and non IS areas

**Encapsulation "ma / mb / mc"**

- **ma for use in Zone 0**
- **mb for use in Zone 1**
- **mc for use in Zone 2**
- Epoxy or other resin to totally seal arcing and sparking devices
- Typical use in lighting controls and sealed switches

Requirements:
- Arcing and sparking devices totally immersed by epoxy or other resin
- IEC approved non-loosening connectors
- Controls internal and external temperatures

**Non-Sparking "n"**

- **ob for use in Zone 1**
- **oc for use in Zone 2**
- Oil totally seals arcing and sparking devices
- Typical use in hazardous rated transformers and switches

Requirements:
- Arcing and sparking devices totally immersed by oil
- IEC approved non-loosening connectors
- Controls internal and external temperatures

**Pressurized Apparatus "p"**

- **pxb for use in Zone 1**
- **pyb for use in Zone 1**
- **pzc for use in Zone 2**
- Expels ignitable vapor/gas
- Maintains positive enclosure overpressure
- Typical use for control panels, PLC systems or analyzers

Requirements:

**Powder Filling "q"**

- **q for use Zone 1**
- Finely ground powder to totally seal arcing and sparking devices
- Typical use in lighting, controls and sealed switches

Requirements:
- Arcing and sparking devices totally immersed by finely ground powder
- IEC approved non-loosening connectors
- Controls internal and external temperatures

# Protection Techniques for Hazardous Areas

**Protection Techniques for Hazardous Areas with Gas —Continued**

**Inherently Safe Optical Radiation "op is"**

- **op is for use Zone 0, 1, 2**

Requirements:
- Optical radiation (visible or infrared) is incapable to supply sufficient energy to ignite explosive atmosphere under fault condition

**Protected Optical Radiation "op pr"**

- **op pr for use Zone 1, 2**

Requirements:
- Optical radiation confined inside optical fibre or other transmission medium. There is no escape of radiation from the confinement.

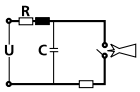
**Optical System With Interlock "op sh"**

- **op sh for use Zone 2**

Requirements:
- Safe interlock cut-off, when confinement fails and the optical radiation becomes unconfined from optical fibre or other transmission medium.
- Safe cut-off needs to be shorter than time to ignite hazardous environment.

**Protection Techniques for Hazardous Areas with Combustible Dust**

**Intrinsic Safety "ia / ib / ic"**




- **ia for use in Zone 20**
- **ib for use in Zone 21**
- **ic for use in Zone 22**
- Incapable of releasing enough energy to cause an explosion
- Typical use in communication equipment

Requirements:
- Install in safe areas (non IS), or in an approved "d" enclosure
- Energy limiting barriers
- Transmits signal from hazardous area (IS)
- Prevents energy release
- Ensure isolation of circuits between IS and non IS areas

**Encapsulation "ma / mb / mc"**

- **ma for use in Zone 20**
- **mb for use in Zone 21**
- **mc for use in Zone 22**
- Epoxy or other resin to totally seal arcing and sparking devices
- Typical use in lighting, controls and sealed switches

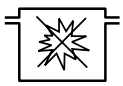
Requirements:
- Arcing and sparking devices totally immersed by epoxy or other resin
- IEC approved non-loosening connectors
- Controls internal and external temperatures

**Pressurization "pxb / pzc"**

- **pxb for use in Zone 21**
- **pzc for use in Zone 22**
- Expels ignitable dust
- Maintains positive enclosure pressure

Requirements:

**Protection by Enclosures "ta / tb / tc"**



- **ta for use in Zone 20**
- **tb for use in Zone 21**
- **tc for use in Zone 22**
- High impact resistant enclosures—FRP, GRP, sheet steel/ aluminum, stainless steel
- Enclosure will not hold static charge
- Maintain minimum of IP 5X or IP6X ingress protection, depending of dust group and level of protection
- Typical use in terminal enclosures

Requirements:
- Use IEC approved non-loosening type enclosures
- Control internal and external temperature

# Class I — Flammable Gases and Vapors

Definitions not included in Article 100:

- Autoignition Temperature (AIT). The minimum temperature required to initiate or cause self-sustained combustion of a solid, liquid, or gas independently of the heating or heated element.
- Minimum Ignition Energy (MIE). The minimum energy required from a capacitive spark discharge to ignite the most easily ignitable mixture of a gas or vapor.
- Minimum Igniting Current (MIC) Ratio. The ratio of the minimum current required from an inductive spark discharge to ignite the most easily ignitible mixture of a gas or vapor, divided by the minimum current required from an inductive spark discharge to ignite methane under the same test conditions.
- Maximum Experimental Safe Gap (MESG). The maximum clearance between two parallel metal surfaces that has been found, under specified test conditions, to prevent an explosion in a test chamber from being propagated to a secondary chamber containing the same gas or vapor at the same concentration.
- Ignitible Mixture. A combustible material that is within its flammable range.
- Lower Flammable Limit (LFL). The minimum concentration at which a flammable mixtures in the air can be ignited (causing an explosion). Also called Lower Explosive Limit (LEL).
- Upper Flammable Limit (UFL). The maximum concentration at which a flammable mixtures in the air can be ignited (causing an explosion). Also called Upper Explosive Limit (UEL).

| Chemical | CAS No. | Class I Division Group | Type[a] | Flash Point (°C) | AIT (°C) | %LFL | %UFL | Vapor Density (Air = 1) | Vapor Pressure[b] (mm Hg) | Class I Zone Group[c] | MIE (mJ) | MIC Ratio | MESG (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetaldehyde | 75-07-0 | C[d] | I | -38 | 175 | 4.0 | 60.0 | 1.5 | 874.9 | IIA | 0.37 | 0.98 | 0.92 |
| Acetic Acid | 64-19-7 | D[d] | II | 39 | 426 | | 19.9 | 2.1 | 15.6 | IIA | | 2.67 | 1.76 |
| Acetic Acidtert-Butyl Ester | 540-88-5 | D | II | | | 1.7 | 9.8 | 4.0 | 40.6 | | | | |
| Acetic Anhydride | 108-24-7 | D | II | 49 | 316 | 2.7 | 10.3 | 3.5 | 4.9 | IIA | | | 1.23 |
| Acetone | 67-64-1 | D[d] | I | -20 | 465 | 2.5 | 12.8 | 2.0 | 230.7 | IIA | 1.15 | 1.00 | 1.02 |
| Acetone Cyanohydrin | 75-86-5 | D | IIIA | 74 | 688 | 2.2 | 12.0 | 2.9 | 0.3 | | | | |
| Acetonitrile | 75-05-8 | D | I | 6 | 524 | 3.0 | 16.0 | 1.4 | 91.1 | IIA | | | 1.50 |
| Acetylene | 74-86-2 | A[d] | GAS | | 305 | 2.5 | 100 | 0.9 | 36600 | IIC | 0.017 | 0.28 | 0.25 |
| Acrolein (Inhibited) | 107-02-8 | B(C)[d] | I | | 235 | 2.8 | 31.0 | 1.9 | 274.1 | IIB | 0.13 | | |
| Acrylic Acid | 79-10-7 | D | II | 54 | 438 | 2.4 | 8.0 | 2.5 | 4.3 | IIB | | | 0.86 |
| Acrylonitrile | 107-13-1 | D[d] | I | 0 | 481 | 3 | 17 | 1.8 | 108.5 | IIB | 0.16 | 0.78 | 0.87 |
| Adiponitrile | 111-69-3 | D | IIIA | 93 | 550 | | | 1.0 | 0.002 | | | | |
| Allyl Alcohol | 107-18-6 | C[d] | I | 22 | 378 | 2.5 | 18.0 | 2.0 | 25.4 | IIB | | | 0.84 |
| Allyl Chloride | 107-05-1 | D | I | -32 | 485 | 2.9 | 11.1 | 2.6 | 366 | IIA | | 1.33 | 1.17 |
| Allyl Glycidyl Ether | 106-92-3 | B(C)[e] | II | | 57 | | | 3.9 | | | | | |
| Alpha-Methyl Styrene | 98-83-9 | D | II | | 574 | 0.8 | 11.0 | 4.1 | 2.7 | | | | |
| n-Amyl Acetate | 628-63-7 | D | I | 25 | 360 | 1.1 | 7.5 | 4.5 | 4.2 | IIA | | | 1.02 |
| sec-Amyl Acetate | 626-38-0 | D | I | 23 | | 1.1 | 7.5 | 4.5 | | IIA | | | |
| Ammonia | 7664-41-7 | D[d,f] | GAS | | 651 | 15 | 28 | 0.6 | 7498.0 | IIA | 680 | 6.85 | 3.17 |
| Aniline | 62-53-3 | D | IIIA | 70 | 615 | 1.2 | 8.3 | 3.2 | 0.7 | IIA | | | |
| Benzene | 71-43-2 | D[d] | I | -11 | 498 | 1.2 | 7.8 | 2.8 | 94.8 | IIA | 0.20 | 1.00 | 0.99 |
| Benzyl Chloride | 98-87-3 | D | IIIA | | 585 | 1.1 | | 4.4 | 0.5 | | | | |
| Bromopropyne | 106-96-7 | D | I | 10 | 324 | 3.0 | | | | | | | |
| n-Butane | 106-97-8 | D[d,g] | GAS | | 288 | 1.9 | 8.5 | 2.0 | | IIA | 0.25 | 0.94 | 1.07 |
| 1,3-Butadiene | 106-99-0 | B(D)[d,e] | GAS | | 420 | 2.0 | 11.5 | 1.9 | | IIB | 0.13 | 0.76 | 0.79 |
| 1-Butanol | 71-36-3 | D[d] | I | 36 | 343 | 1.4 | 11.2 | 2.6 | 7.0 | IIA | | | 0.91 |
| Butyl alcohol(s)(butanol-2) | 78-92-2 | D[d] | I | 23.8 | 405 | 1.7 | 9.8 | 2.6 | | IIA | | | |
| Butylamine | 109-73-9 | D | GAS | -12 | 312 | 1.7 | 9.8 | 2.5 | 92.9 | IIA | | 1.13 | |
| Butylene | 25167-67-3 | D | I | | 385 | 1.6 | 10.0 | 1.9 | 2214.6 | IIA | | | 0.94 |
| n-Butyraldehyde | 123-72-8 | C[d] | I | -12 | 218 | 1.9 | 12.5 | 2.5 | 112.2 | IIA | | | 0.92 |
| n-Butyl Acetate | 123-86-4 | D[d] | I | 22 | 421 | 1.7 | 7.6 | 4.0 | 11.5 | IIA | | 1.08 | 1.04 |
| sec-Butyl Acetate | 105-46-4 | D | II | -8 | | 1.7 | 9.8 | 4.0 | 22.2 | | | | |
| tert-Butyl Acetate | 540-88-5 | D | II | | | 1.7 | 9.8 | 4.0 | 40.6 | | | | |
| n-Butyl Acrylate (Inhibited) | 141-32-2 | D | II | 49 | 293 | 1.7 | 9.9 | 4.4 | 5.5 | IIB | | | 0.88 |
| n-Butyl Glycidyl Ether | 2426-08-6 | B(C)[e] | II | | | | | | | | | | |
| n-Butyl Formal | 110-62-3 | C | IIIA | | | | | | 34.3 | | | | |
| Butyl Mercaptan | 109-79-5 | C | I | 2 | | | | 3.1 | 46.4 | | | | |
| Butyl-2-Propenoate | 141-32-2 | D | II | 49 | | 1.7 | 9.9 | 4.4 | 5.5 | | | | |
| para tert-Butyl Toluene | 98-51-1 | D | IIIA | | | | | | | | | | |
| n-Butyric Acid | 107-92-6 | D[d] | IIIA | 72 | 443 | 2.0 | 10.0 | 3.0 | 0.8 | | | | |

*[a] Type is used to designate if the material is a gas, flammable liquid, or combustible liquid. (See 4.2.6 and 4.2.7.)*
*[b] Vapor pressure reflected in units of mm Hg at 77°F (25°C) unless stated otherwise.*
*[c] Class I, Zone Groups are based on IEC 60079-20-1, 1996, Explosive atmospheres — Part 20-1:Material characteristics for gas and vapor classification — Test methods and data, which contains additional data on MESG and group classifications.*
*[d] Material has been classified by test.*
*[e] Where all conduit runs into explosionproof equipment, the conduit is provided with explosionproof seals installed within 18 in. (450 mm) of the enclosure, equipment for the group classification shown in parentheses is permitted.*
*[f] For classification of areas involving ammonia, see ASHRAE 15, Safety Standard for Refrigeration Systems, and CGA G2.1, Safety Requirements for the Storage and Handling of Anhydrous Ammonia.*
*[g] Commercial grades of aliphatic hydrocarbon solvents are mixtures of several isomers of the same chemical formula (or molecular weight). The autoignition temperatures (AIT) of the individual isomers are significantly different. The electrical equipment should be suitable for the AIT of the solvent mixture. (See A.4.4.2.)*
*[h] Certain chemicals have characteristics that need safeguards beyond those necessary for any of the above groups. Carbon disulfide is one of these chemicals because of its low autoignition temperature and the small joint clearance necessary to arrest its flame propagation.*
*[i] Petroleum naphtha is a saturated hydrocarbon mixture whose boiling range is 68°F to 275°F (20°C to 135°C). It is also known as benzine, ligroin, petroleum ether, and naphtha.*
*[j] Fuel and process gas mixtures found by test not to present hazards similar to those of hydrogen can be grouped based on the test results.*
*[k] Liquid type and flash point vary due to regional blending differences.*

# Class I — Flammable Gases and Vapors

| Chemical | CAS No. | Class I Division Group | Type[a] | Flash Point (°C) | AIT (°C) | %LFL | %UFL | Vapor Density (Air = 1) | Vapor Pressure[b] (mm Hg) | Class I Zone Group[c] | MIE (mJ) | MIC Ratio | MESG (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon Disulfide | 75-15-0 | [dh] | I | -30 | 90 | 1.3 | 50.0 | 2.6 | 358.8 | IIC | 0.009 | 0.39 | 0.20 |
| Carbon Monoxide | 630-08-0 | C[d] | GAS | | 609 | 12.5 | 74 | 0.97 | | IIB | | | 0.54 |
| Chloroacetaldehyde | 107-20-0 | C | IIIA | 88 | | | | | 63.1 | | | | |
| Chlorobenzene | 108-90-7 | D | I | 29 | 593 | 1.3 | 9.6 | 3.9 | 11.9 | | | | |
| 1-Chloro-1-Nitropropane | 2425-66-3 | C | IIIA | | | | | | | | | | |
| Chloroprene | 126-99-8 | D | GAS | -20 | | 4.0 | 20.0 | 3.0 | | | | | |
| Cresol | 1319-77-3 | D | IIIA | 81 | 559 | 1.1 | | 3.7 | | | | | |
| Crotonaldehyde | 4170-30-3 | C[d] | I | 13 | 232 | 2.1 | 15.5 | 2.4 | 33.1 | IIB | | | 0.81 |
| Cumene | 98-82-8 | D | I | 36 | 424 | 0.9 | 6.5 | 4.1 | 4.6 | IIA | | | 1.05 |
| Cyclohexane | 110-82-7 | D | I | -17 | 245 | 1.3 | 8.0 | 2.9 | 98.8 | IIA | 0.22 | 1.0 | 0.94 |
| Cyclohexanol | 108-93-0 | D | IIIA | 68 | 300 | | | 3.5 | 0.7 | IIA | | | |
| Cyclohexanone | 108-94-1 | D | II | 44 | 420 | 1.1 | 9.4 | 3.4 | 4.3 | IIA | | | 0.98 |
| Cyclohexene | 110-83-8 | D | I | -6 | 244 | 1.2 | | 2.8 | 89.4 | IIA | | 0.97 | |
| Cyclopropane | 75-19-4 | D[d] | I | | 503 | 2.4 | 10.4 | 1.5 | 5430 | IIA | 0.17 | 0.84 | 0.91 |
| p-Cymene | 99-87-6 | D | II | 47 | 436 | 0.7 | 5.6 | 4.6 | 1.5 | IIA | | | |
| Decene | 872-05-9 | D | II | | 235 | | | 4.8 | 1.7 | | | | |
| n-Decaldehyde | 112-31-2 | C | IIIA | | | | | | 0.09 | | | | |
| n-Decanol | 112-30-1 | D | IIIA | 82 | 288 | | | 5.3 | 0.008 | | | | |
| Decyl Alcohol | 112-30-1 | D | IIIA | 82 | 288 | | | 5.3 | 0.008 | | | | |
| Diacetone Alcohol | 123-42-2 | D | IIIA | 64 | 603 | 1.8 | 6.9 | 4.0 | 1.4 | | | | |
| Di-Isobutylene | 25167-70-8 | D[d] | I | 2 | 391 | 0.8 | 4.8 | 3.8 | | | 0.96 | | |
| Di-Isobutyl Ketone | 108-83-8 | D | II | 60 | 396 | 0.8 | 7.1 | 4.9 | 1.7 | | | | |
| o-Dichlorobenzene | 955-50-1 | D | IIIA | 66 | 647 | 2.2 | 9.2 | 5.1 | | IIA | | | |
| 1,4-Dichloro-2,3 Epoxybutane | 3583-47-9 | D[d] | I | | | 1.9 | 8.5 | 2.0 | | IIA | 0.25 | 0.98 | 1.07 |
| 1,1-Dichloroethane | 1300-21-6 | D | I | | 438 | 6.2 | 16.0 | 3.4 | 227 | IIA | | | 1.82 |
| 1,2-Dichloroethylene | 156-59-2 | D | I | 97 | 460 | 5.6 | 12.8 | 3.4 | 204 | IIA | | | 3.91 |
| 1,1-Dichloro-1-Nitroethane | 594-72-9 | C | IIIA | 76 | | | | 5.0 | | | | | |
| 1,3-Dichloropropene | 10061-02-6 | D | I | 35 | | 5.3 | 14.5 | 3.8 | | | | | |
| Dicyclopentadiene | 77-73-6 | C | I | 32 | 503 | | | | 2.8 | IIA | | | 0.91 |
| Diethylamine | 109-87-9 | C[d] | I | -28 | 312 | 1.8 | 10.1 | 2.5 | | IIA | | | 1.15 |
| Diethylaminoethanol | 100-37-8 | C | IIIA | 60 | 320 | | | 4.0 | 1.6 | IIA | | | |
| Diethyl Benzene | 25340-17-4 | D | II | 57 | 395 | | | 4.6 | | | | | |
| Diethyl Ether (Ethyl Ether) | 60-29-7 | C[d] | I | -45 | 160 | 1.9 | 36 | 2.6 | 538 | IIB | 0.19 | 0.88 | 0.83 |
| Diethylene Glycol Monobutyl Ether | 112-34-5 | C | IIIA | 78 | 228 | 0.9 | 24.6 | 5.6 | 0.02 | | | | |
| Diethylene Glycol Monomethyl Ether | 111-77-3 | C | IIIA | 93 | 241 | | | | 0.2 | | | | |
| n-n-Dimethyl Aniline | 121-69-7 | C | IIIA | 63 | 371 | 1.0 | | 4.2 | 0.7 | | | | |
| Dimethyl Formamide | 68-12-2 | D | II | 58 | 455 | 2.2 | 15.2 | 2.5 | 4.1 | IIA | | | 1.08 |
| Dimethyl Sulfate | 77-78-1 | D | IIIA | 83 | 188 | | | 4.4 | 0.7 | | | | |
| Dimethylamine | 124-40-3 | C | GAS | | 400 | 2.8 | 14.4 | 1.6 | | IIA | | | |
| 2,2-Dimethylbutane | 75-83-2 | D[g] | I | -48 | 405 | | | | 319.3 | | | | |
| 2,3-Dimethylbutane | 78-29-8 | D[g] | I | | 396 | | | | | | | | |
| 3,3-Dimethylheptane | 1071-26-7 | D[g] | I | | 325 | | | | 10.8 | | | | |
| 2,3-Dimethylhexane | 31394-54-4 | D[g] | I | | 438 | | | | | | | | |
| 2,3-Dimethylpentane | 107-83-5 | D[g] | I | | 335 | | | | 211.7 | | | | |
| Di-N-Propylamine | 142-84-7 | C | I | 17 | 299 | | | | 27.1 | IIA | | | 0.95 |
| 1,4-Dioxane | 123-91-1 | C[d] | I | 12 | 180 | 2.0 | 22.0 | 3.0 | 38.2 | IIB | 0.19 | | 0.70 |
| Dipentene | 138-86-3 | D | II | 45 | 237 | 0.7 | 6.1 | 4.7 | | IIA | | | 1.18 |
| Dipropylene Glycol Methyl Ether | 34590-94-8 | C | IIIA | 85 | | 1.1 | 3.0 | 5.1 | 0.5 | | | | |
| Diisopropylamine | 108-18-9 | C | GAS | -6 | 316 | 1.1 | 7.1 | 3.5 | | IIA | | | 1.02 |
| Dodecene | 6842-15-5 | D | IIIA | 100 | 255 | | | | | | | | |

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[b] *Vapor pressure reflected in units of mm Hg at 77°F (25°C) unless stated otherwise.*
[c] *Class I, Zone Groups are based on IEC 60079-20-1, 1996, Explosive atmospheres — Part 20-1:Material characteristics for gas and vapor classification — Test methods and data, which contains additional data on MESG and group classifications.*
[d] *Material has been classified by test.*
[e] *Where all conduit runs into explosionproof equipment, the conduit is provided with explosionproof seals installed within 18 in. (450 mm) of the enclosure, equipment for the group classification shown in parentheses is permitted.*
[f] *For classification of areas involving ammonia, see ASHRAE 15, Safety Standard for Refrigeration Systems, and CGA G2.1, Safety Requirements for the Storage and Handling of Anhydrous Ammonia.*
[g] *Commercial grades of aliphatic hydrocarbon solvents are mixtures of several isomers of the same chemical formula (or molecular weight). The autoignition temperatures (AIT) of the individual isomers are significantly different. The electrical equipment should be suitable for the AIT of the solvent mixture. (See A.4.4.2.)*
[h] *Certain chemicals have characteristics that need safeguards beyond those necessary for any of the above groups. Carbon disulfide is one of these chemicals because of its low autoignition temperature and the small joint clearance necessary to arrest its flame propagation.*
[i] *Petroleum naphtha is a saturated hydrocarbon mixture whose boiling range is 68°F to 275°F (20°C to 135°C). It is also known as benzine, ligroin, petroleum ether, and naphtha.*
[j] *Fuel and process gas mixtures found by test not to present hazards similar to those of hydrogen can be grouped based on the test results.*
[k] *Liquid type and flash point vary due to regional blending differences.*

# Class I — Flammable Gases and Vapors

| Chemical | CAS No. | Class I Division Group | Type[a] | Flash Point (°C) | AIT (°C) | %LFL | %UFL | Vapor Density (Air = 1) | Vapor Pressure[b] (mm Hg) | Class I Zone Group[c] | MIE (mJ) | MIC Ratio | MESG (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Epichlorohydrin | 3132-64-7 | C[d] | I | 33 | 411 | 3.8 | 21.0 | 3.2 | 13.0 | | | | |
| Ethane | 74-84-0 | D[d] | GAS | −135 | 472 | 3.0 | 12.5 | 1.0 | | IIA | 0.24 | 0.82 | 0.91 |
| Ethanol | 64-17-5 | D[d] | I | 13 | 363 | 3.3 | 19.0 | 1.6 | 59.5 | IIA | | 0.88 | 0.89 |
| Ethylamine | 75-04-7 | D[d] | I | −18 | 385 | 3.5 | 14.0 | 1.6 | 1048 | | 2.4 | | |
| Ethylene | 74-85-1 | C[d] | GAS | | 490 | 2.7 | 36.0 | 1.0 | | IIB | 0.070 | 0.53 | 0.65 |
| Ethylenediamine | 107-15-3 | D[d] | I | 33 | 385 | 2.5 | 12.0 | 2.1 | 12.5 | | | | |
| Ethylenimine | 151-56-4 | C[d] | I | −11 | 320 | 3.3 | 54.8 | 1.5 | 211 | | 0.48 | | |
| Ethylene Chlorohydrin | 107-07-3 | D | IIIA | 59 | 425 | 4.9 | 15.9 | 2.8 | 7.2 | | | | |
| Ethylene Dichloride | 107-06-2 | D[d] | I | 13 | 413 | 6.2 | 16.0 | 3.4 | 79.7 | | | | |
| Ethylene Glycol Monoethyl Ether Acetate | 111-15-9 | C | II | 47 | 379 | 1.7 | | 4.7 | 2.3 | IIA | | 0.53 | 0.97 |
| Ethylene Glycol Monobutyl Ether Acetate | 112-07-2 | C | IIIA | | 340 | 0.9 | 8.5 | | 0.9 | | | | |
| Ethylene Glycol Monobutyl Ether | 111-76-2 | C | IIIA | | 238 | 1.1 | 12.7 | 4.1 | 1.0 | | | | |
| Ethylene Glycol Monoethyl Ether | 110-80-5 | C | II | | 235 | 1.7 | 15.6 | 3.0 | 5.4 | | | | 0.84 |
| Ethylene Glycol Monomethyl Ether | 109-86-4 | D | II | | 285 | 1.8 | 14.0 | 2.6 | 9.2 | | | | 0.85 |
| Ethylene Oxide | 75-21-8 | B(C)[d,e] | I | −20 | 429 | 3 | 100 | 1.5 | 1314 | IIB | 0.065 | 0.47 | 0.59 |
| 2-Ethylhexaldehyde | 123-05-7 | C | II | 52 | 191 | 0.8 | 7.2 | 4.4 | 1.9 | | | | |
| 2-Ethylhexanol | 104-76-7 | D | IIIA | 81 | | 0.9 | 9.7 | 4.5 | 0.2 | | | | |
| 2-Ethylhexyl Acrylate | 103-09-3 | D | IIIA | 88 | 252 | | | | 0.3 | | | | |
| Ethyl Acetate | 141-78-6 | D[d] | I | −4 | 427 | 2.0 | 11.5 | 3.0 | 93.2 | IIA | 0.46 | | 0.99 |
| Ethyl Acrylate (Inhibited) | 140-88-5 | D[d] | I | 9 | 372 | 1.4 | 14.0 | 3.5 | 37.5 | IIA | | | 0.86 |
| Ethyl Alcohol | 64-17-5 | D[d] | I | 13 | 363 | 3.3 | 19.0 | 1.6 | 59.5 | IIA | | 0.88 | 0.89 |
| Ethyl Sec-Amyl Ketone | 541-85-5 | D | II | 59 | | | | | | | | | |
| Ethyl Benzene | 100-41-4 | D | I | 15 | 432 | 0.8 | 6.7 | 3.7 | 9.6 | | | | |
| Ethyl Butanol | 97-95-0 | D | II | 57 | | 1.2 | 7.7 | 3.5 | 1.5 | | | | |
| Ethyl Butyl Ketone | 106-35-4 | D | II | 46 | | | | 4.0 | 3.6 | | | | |
| Ethyl Chloride | 75-00-3 | D | GAS | −50 | 519 | 3.8 | 15.4 | 2.2 | | | | | |
| Ethyl Formate | 109-94-4 | D | GAS | −20 | 455 | 2.8 | 16.0 | 2.6 | | IIA | | | 0.94 |
| Ethyl Mercaptan | 75-08-1 | C[d] | I | −18 | 300 | 2.8 | 18.0 | 2.1 | 527.4 | IIB | | 0.90 | 0.90 |
| n-Ethyl Morpholine | 100-74-3 | C | I | 32 | | | | 4.0 | | | | | |
| 2-Ethyl-3-Propyl Acrolein | 645-62-5 | C | IIIA | 68 | | | | 4.4 | | | | | |
| Ethyl Silicate | 78-10-4 | D | II | | | | | 7.2 | | | | | |
| Formaldehyde (Gas) | 50-00-0 | B | GAS | | 430 | 7 | 73 | 1.0 | | IIB | | | 0.57 |
| Formic Acid | 64-18-6 | D | II | 50 | 434 | 18.0 | 57.0 | 1.6 | 42.7 | IIA | | | 1.86 |
| Fuel Oil 1 | 8008-20-6 | D | II or IIIA[k] | 38-72[k] | 210 | 0.7 | 5.0 | | | | | | |
| Fuel Oil 2 | | | II or IIIA[k] | 52-96[k] | 257 | | | | | | | | |
| Fuel Oil 6 | | | IIIA or IIIB[k] | 66-132[k] | | | | | | | | | |
| Furfural | 98-01-1 | C | IIIA | 60 | 316 | 2.1 | 19.3 | 3.3 | 2.3 | | | | 0.94 |
| Furfuryl Alcohol | 98-00-0 | C | IIIA | 75 | 490 | 1.8 | 16.3 | 3.4 | 0.6 | | | | |
| Gasoline | 8006-61-9 | D[d] | I | −46 | 280 | 1.4 | 7.6 | 3.0 | | | | | |
| n-Heptane | 142-82-5 | D[d] | I | −4 | 204 | 1.0 | 6.7 | 3.5 | 45.5 | IIA | 0.24 | 0.88 | 0.91 |
| n-Heptene | 81624-04-6 | D[g] | I | −1 | 204 | | | 3.4 | | | | | 0.97 |
| n-Hexane | 110-54-3 | D[d,g] | I | −23 | 225 | 1.1 | 7.5 | 3.0 | 152 | IIA | 0.24 | 0.88 | 0.93 |
| Hexanol | 111-27-3 | D | IIIA | 63 | | | | 3.5 | 0.8 | IIA | | | 0.98 |
| 2-Hexanone | 591-78-6 | D | I | 35 | 424 | 1.2 | 8.0 | 3.5 | 10.6 | | | | |
| Hexene | 592-41-6 | D | I | −26 | 245 | 1.2 | 6.9 | | 186 | | | | |
| sec-Hexyl Acetate | 108-84-9 | D | II | 45 | | | | 5.0 | | | | | |
| Hydrazine | 302-01-2 | C | II | 38 | 23 | | 98.0 | 1.1 | 14.4 | | | | |
| Hydrogen | 1333-74-0 | B[d] | GAS | | 500 | 4 | 75 | 0.1 | | IIC | 0.019 | 0.25 | 0.28 |
| Hydrogen Cyanide | 74-90-8 | C[d] | GAS | −18 | 538 | 5.6 | 40.0 | 0.9 | | IIB | | | 0.80 |
| Hydrogen Selenide | 7783-07-5 | C | I | | | | | | 7793 | | | | |

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[b] *Vapor pressure reflected in units of mm Hg at 77°F (25°C) unless stated otherwise.*
[c] *Class I, Zone Groups are based on IEC 60079-20-1, 1996, Explosive atmospheres — Part 20-1:Material characteristics for gas and vapor classification — Test methods and data, which contains additional data on MESG and group classifications.*
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[j] *Fuel and process gas mixtures found by test not to present hazards similar to those of hydrogen can be grouped based on the test results.*
[k] *Liquid type and flash point vary due to regional blending differences.*

# Class I — Flammable Gases and Vapors

| Chemical | CAS No. | Class I Division Group | Type[a] | Flash Point (°C) | AIT (°C) | %LFL | %UFL | Vapor Density (Air = 1) | Vapor Pressure[b] (mm Hg) | Class I Zone Group[c] | MIE (mJ) | MIC Ratio | MESG (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hydrogen Sulfide | 7783-06-4 | C[d] | GAS | | 260 | 4.0 | 44.0 | 1.2 | | IIB | 0.068 | | 0.90 |
| Isoamyl Acetate | 123-92-2 | D | I | 25 | 360 | 1.0 | 7.5 | 4.5 | 6.1 | | | | |
| Isoamyl Alcohol | 123-51-3 | D | II | 43 | 350 | 1.2 | 9.0 | 3.0 | 3.2 | IIA | | | 1.02 |
| Isobutane | 75-28-5 | D[g] | GAS | | 460 | 1.8 | 8.4 | 2.0 | | IIA | | | 0.95 |
| Isobutyl Acetate | 110-19-0 | D[d] | I | 18 | 421 | 2.4 | 10.5 | 4.0 | 17.8 | | | | |
| Isobutyl Acrylate | 106-63-8 | D | I | | 427 | | | 4.4 | 7.1 | | | | |
| Isobutyl Alcohol | 78-83-1 | D[d] | I | -40 | 416 | 1.2 | 10.9 | 2.5 | 10.5 | IIA | | 0.92 | 0.98 |
| Isobutyraldehyde | 78-84-2 | C | GAS | -40 | 196 | 1.6 | 10.6 | 2.5 | | IIA | | | 0.92 |
| Isodecaldehyde | 112-31-2 | C | IIIA | | | | | 5.4 | 0.09 | | | | |
| Isohexane | 107-83-5 | D[g] | | | 264 | | | | 211.7 | IIA | | 1.00 | |
| Isopentane | 78-78-4 | D[g] | | | 420 | | | | 688.6 | | | | |
| Isooctyl Aldehyde | 123-05-7 | C | II | | 197 | | | | 1.9 | | | | |
| Isophorone | 78-59-1 | D | | 84 | 460 | 0.8 | 3.8 | 4.8 | 0.4 | | | | |
| Isoprene | 78-79-5 | D[d] | I | -54 | 220 | 1.5 | 8.9 | 2.4 | 550.6 | | | | |
| Isopropyl Acetate | 108-21-4 | D | I | | 460 | 1.8 | 8.0 | 3.5 | 60.4 | | | | |
| Isopropyl Ether | 108-20-3 | D[d] | I | -28 | 443 | 1.4 | 7.9 | 3.5 | 148.7 | IIA | 1.14 | | 0.94 |
| Isopropyl Glycidyl Ether | 4016-14-2 | C | I | | | | | | | | | | |
| Isopropylamine | 75-31-0 | D | GAS | -26 | 402 | 2.3 | 10.4 | 2.0 | | | 2.0 | | |
| Kerosene | 8008-20-6 | D | II | 72 | 210 | 0.7 | 5.0 | | | IIA | | | |
| Liquefied Petroleum Gas | 68476-8-7 | D | I | | 405 | | | | | | | | |
| Mesityl Oxide | 141-97-9 | D[d] | I | 31 | 344 | 1.4 | 7.2 | 3.4 | 47.6 | | | | |
| Methane | 74-82-8 | D[d] | GAS | | 600 | 5 | 15 | 0.6 | | IIA | 0.28 | 1.00 | 1.12 |
| Methanol | 67-56-1 | D[d] | I | 12 | 385 | 6.0 | 36.0 | 1.1 | 126.3 | IIA | 0.14 | 0.82 | 0.92 |
| Methyl Acetate | 79-20-9 | D | GAS | -10 | 454 | 3.1 | 16.0 | 2.6 | | IIA | | 1.08 | 0.99 |
| Methyl Acrylate | 96-33-3 | D | GAS | -3 | 468 | 2.8 | 25.0 | 3.0 | | IIB | | 0.98 | 0.85 |
| Methyl Alcohol | 67-56-1 | D[d] | I | | 385 | 6.0 | 36 | 1.1 | 126.3 | IIA | | | 0.91 |
| Methyl Amyl Alcohol | 108-11-2 | D | II | 41 | | 1.0 | 5.5 | 3.5 | 5.3 | IIA | | | 1.01 |
| Methyl Chloride | 74-87-3 | D | GAS | -46 | 632 | 8.1 | 17.4 | 1.7 | | IIA | | | 1.00 |
| Methyl Ether | 115-10-6 | C[d] | GAS | -41 | 350 | 3.4 | 27.0 | 1.6 | | IIB | | 0.85 | 0.84 |
| Methyl Ethyl Ketone | 78-93-3 | D[d] | I | -6 | 404 | 1.4 | 11.4 | 2.5 | 92.4 | IIB | 0.53 | 0.92 | 0.84 |
| Methyl Formal | 534-15-6 | C[d] | I | 1 | 238 | | | 3.1 | | | | | |
| Methyl Formate | 107-31-3 | D | GAS | -19 | 449 | 4.5 | 23.0 | 2.1 | | IIA | | | 0.94 |
| 2-Methylhexane | 31394-54-4 | D[g] | I | | 280 | | | | | | | | |
| Methyl Isobutyl Ketone | 108-10-1 | D[d] | I | 13 | 440 | 1.2 | 8.0 | 3.5 | 11 | | | | |
| Methyl Isocyanate | 624-83-9 | D | GAS | -15 | 534 | 5.3 | 26.0 | 2.0 | | IIA | | | 1.21 |
| Methyl Mercaptan | 74-93-1 | C | GAS | -18 | | 3.9 | 21.8 | 1.7 | | | | | |
| Methyl Methacrylate | 80-62-6 | D | I | 10 | 422 | 1.7 | 8.2 | 3.6 | 37.2 | IIA | | | 0.95 |
| Methyl N-Amyl Ketone | 110-43-0 | D | II | 49 | 393 | 1.1 | 7.9 | 3.9 | 3.8 | | | | |
| Methyl Tertiary Butyl Ether | 1634-04-4 | D | I | -80 | 435 | 1.6 | 8.4 | 0.2 | 250.1 | | | | |
| 2-Methyloctane | 3221-61-2 | | | | 220 | | | | 6.3 | | | | |
| 2-Methylpropane | 75-28-5 | D[g] | I | | 460 | | | | 2639 | | | | |
| Methyl-1-Propanol | 78-83-1 | D[d] | I | -40 | 416 | 1.2 | 10.9 | 2.5 | 10.1 | IIA | | | 0.98 |
| Methyl-2-Propanol | 75-65-0 | D[d] | I | 10 | 360 | 2.4 | 8.0 | 2.6 | 42.2 | | | | |
| 2-Methyl-5-Ethyl Pyridine | 104-90-5 | D | | 74 | | 1.1 | 6.6 | 4.2 | | | | | |
| Methylacetylene | 74-99-7 | C[d] | I | | | 1.7 | | 1.4 | 4306 | | 0.11 | | |
| Methylacetylene- Propadiene | 27846-30-6 | C | I | | | | | | | IIB | | | 0.74 |
| Methylal | 109-87-5 | C | I | -18 | 237 | 1.6 | 17.6 | 2.6 | 398 | | | | |
| Methylamine | 74-89-5 | D | GAS | | 430 | 4.9 | 20.7 | 1.0 | | IIA | | | 1.10 |
| 2-Methylbutane | 78-78-4 | D[g] | | -56 | 420 | 1.4 | 8.3 | 2.6 | 688.6 | | | | |
| Methylcyclohexane | 208-87-2 | D | I | -4 | 250 | 1.2 | 6.7 | 3.4 | | | 0.27 | | |

[a] *Type is used to designate if the material is a gas, flammable liquid, or combustible liquid. (See 4.2.6 and 4.2.7.)*
[b] *Vapor pressure reflected in units of mm Hg at 77°F (25°C) unless stated otherwise.*
[c] *Class I, Zone Groups are based on IEC 60079-20-1, 1996, Explosive atmospheres — Part 20-1:Material characteristics for gas and vapor classification — Test methods and data, which contains additional data on MESG and group classifications.*
[d] *Material has been classified by test.*
[e] *Where all conduit runs into explosionproof equipment, the conduit is provided with explosionproof seals installed within 18 in. (450 mm) of the enclosure, equipment for the group classification shown in parentheses is permitted.*
[f] *For classification of areas involving ammonia, see ASHRAE 15, Safety Standard for Refrigeration Systems, and CGA G2.1, Safety Requirements for the Storage and Handling of Anhydrous Ammonia.*
[g] *Commercial grades of aliphatic hydrocarbon solvents are mixtures of several isomers of the same chemical formula (or molecular weight). The autoignition temperatures (AIT) of the individual isomers are significantly different. The electrical equipment should be suitable for the AIT of the solvent mixture. (See A.4.4.2.)*
[h] *Certain chemicals have characteristics that need safeguards beyond those necessary for any of the above groups. Carbon disulfide is one of these chemicals because of its low autoignition temperature and the small joint clearance necessary to arrest its flame propagation.*
[i] *Petroleum naphtha is a saturated hydrocarbon mixture whose boiling range is 68°F to 275°F (20°C to 135°C). It is also known as benzine, ligroin, petroleum ether, and naphtha.*
[j] *Fuel and process gas mixtures found by test not to present hazards similar to those of hydrogen can be grouped based on the test results.*
[k] *Liquid type and flash point vary due to regional blending differences.*

# Class I — Flammable Gases and Vapors

| Chemical | CAS No. | Class I Division Group | Type[a] | Flash Point (°C) | AIT (°C) | %LFL | %UFL | Vapor Density (Air = 1) | Vapor Pressure[b] (mm Hg) | Class I Zone Group[c] | MIE (mJ) | MIC Ratio | MESG (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Methylcyclohexanol | 25639-42-3 | D | | 68 | 296 | | | 3.9 | | | | | |
| 2-Methycyclohexanone | 583-60-8 | D | II | | | | | 3.9 | | | | | |
| 2-Methylheptane | | D[g] | | | 420 | | | | | | | | |
| 3-Methylhexane | 589-34-4 | D[g] | | | 280 | | | | 61.5 | | | | |
| 3-Methylpentane | 94-14-0 | D[g] | | | 278 | | | | | | | | |
| 2-Methylpropane | 75-28-5 | D[g] | I | | 460 | | | | 2639 | | | | |
| 2-Methyl-1-Propanol | 78-83-1 | D[d] | I | -40 | 223 | 1.2 | 10.9 | 2.5 | 10.5 | | | | |
| 2-Methyl-2-Propanol | 75-65-0 | D[d] | I | | 478 | 2.4 | 8.0 | 2.6 | 42.2 | | | | |
| 2-Methyloctane | 2216-32-2 | D[g] | | | 220 | | | | | | | | |
| 3-Methyloctane | 2216-33-3 | D[g] | | | 220 | | | | 6.3 | | | | |
| 4-Methyloctane | 2216-34-4 | D[g] | | | 225 | | | | 6.8 | | | | |
| Monoethanolamine | 141-43-5 | D | | 85 | 410 | | | 2.1 | 0.4 | IIA | | | |
| Monoisopropanolamine | 78-96-6 | D | | 77 | 374 | | | 2.6 | 1.1 | | | | |
| Monomethyl Aniline | 100-61-8 | C | | | 482 | | | | 0.5 | | | | |
| Monomethyl Hydrazine | 60-34-4 | C | I | 23 | 194 | 2.5 | 92.0 | 1.6 | | | | | |
| Morpholine | 110-91-8 | C[d] | II | 35 | 310 | 1.4 | 11.2 | 3.0 | 10.1 | IIA | | | 0.95 |
| Naphtha (Coal Tar) | 8030-30-6 | D | II | 42 | 277 | | | | | IIA | | | |
| Naphtha (Petroleum) | 8030-30-6 | D[d,i] | I | 42 | 288 | 1.1 | 5.9 | 2.5 | | IIA | | | |
| Neopentane | 463-82-1 | D[g] | | -65 | 450 | 1.4 | 8.3 | 2.6 | 1286 | | | | |
| Nitrobenzene | 98-95-3 | D | | 88 | 482 | 1.8 | | 4.3 | 0.3 | IIA | | | 0.94 |
| Nitroethane | 79-24-3 | C | I | 28 | 414 | 3.4 | | 2.6 | 20.7 | IIB | | | 0.87 |
| Nitromethane | 75-52-5 | C | I | 35 | 418 | 7.3 | | 2.1 | 36.1 | IIA | | 0.92 | 1.17 |
| 1-Nitropropane | 108-03-2 | C | I | 34 | 421 | 2.2 | | 3.1 | 10.1 | IIB | | | 0.84 |
| 2-Nitropropane | 79-46-9 | C[d] | I | 28 | 428 | 2.6 | 11.0 | 3.1 | 17.1 | | | | |
| n-Nonane | 111-84-2 | D[g] | I | 31 | 205 | 0.8 | 2.9 | 4.4 | 4.4 | IIA | | | |
| Nonene | 27214-95-8 | D | I | | | 0.8 | | 4.4 | | | | | |
| Nonyl Alcohol | 143-08-8 | D | | | | 0.8 | 6.1 | 5.0 | 0.02 | IIA | | | |
| n-Octane | 111-65-9 | D[d,g] | I | 13 | 206 | 1.0 | 6.5 | 3.9 | 14.0 | IIA | | | 0.94 |
| Octene | 25377-83-7 | D | I | 8 | 230 | 0.9 | | 3.9 | | | | | |
| n-Octyl Alcohol | 111-87-5 | D | | | | | | 4.5 | 0.08 | IIA | | | 1.05 |
| n-Pentane | 109-66-0 | D[d,g] | I | -40 | 243 | 1.5 | 7.8 | 2.5 | 513 | IIA | 0.28 | 0.97 | 0.93 |
| 1-Pentanol | 71-41-0 | D[d] | I | 33 | 300 | 1.2 | 10.0 | 3.0 | 2.5 | IIA | | | 1.30 |
| 2-Pentanone | 107-87-9 | D | I | 7 | 452 | 1.5 | 8.2 | 3.0 | 35.6 | IIA | | | 0.99 |
| 1-Pentene | 109-67-1 | D | I | -18 | 275 | 1.5 | 8.7 | 2.4 | 639.7 | | | | |
| 2-Pentene | 109-68-2 | D | I | -18 | | | | 2.4 | | | | | |
| 2-Pentyl Acetate | 626-38-0 | D | I | 23 | | 1.1 | 7.5 | 4.5 | | | | | |
| Phenylhydrazine | 100-63-0 | D | | 89 | | | | 3.7 | 0.03 | | | | |
| Process Gas > 30% $H_2$ | | B | GAS | | 520 | 4.0 | 75.0 | 0.1 | | | 0.019 | 0.45 | |
| Propane | 74-98-6 | D[d] | GAS | | 450 | 2.1 | 9.5 | 1.6 | | IIA | 0.25 | 0.82 | 0.97 |
| 1-Propanol | 71-23-8 | D[d] | I | 15 | 413 | 2.2 | 13.7 | 2.1 | 20.7 | IIA | | | 0.89 |
| 2-Propanol | 67-63-0 | D[d] | I | 12 | 399 | 2.0 | 12.7 | 2.1 | 45.4 | IIA | 0.65 | | 1.00 |
| Propiolactone | 57-57-8 | D | | | | 2.9 | | 2.5 | 2.2 | | | | |
| Propionaldehyde | 123-38-6 | C | I | -9 | 207 | 2.6 | 17.0 | 2.0 | 318.5 | IIB | | | 0.86 |
| Propionic Acid | 79-09-4 | D | II | 54 | 466 | 2.9 | 12.1 | 2.5 | 3.7 | IIA | | | 1.10 |
| Propionic Anhydride | 123-62-6 | D | | 74 | 285 | 1.3 | 9.5 | 4.5 | 1.4 | | | | |
| n-Propyl Acetate | 109-60-4 | D | I | 14 | 450 | 1.7 | 8.0 | 3.5 | 33.4 | IIA | | | 1.05 |
| n-Propyl Ether | 111-43-3 | C[d] | I | 21 | 215 | 1.3 | 7.0 | 3.5 | 62.3 | | | | |
| Propyl Nitrate | 627-13-4 | B[d] | I | 20 | 175 | 2.0 | 100.0 | | | | | | |
| Propylene | 115-07-1 | D[d] | GAS | | 460 | 2.4 | 10.3 | 1.5 | | IIA | 0.28 | | 0.91 |
| Propylene Dichloride | 78-87-5 | D | I | 16 | 557 | 3.4 | 14.5 | 3.9 | 51.7 | IIA | | | 1.32 |

[a] *Type is used to designate if the material is a gas, flammable liquid, or combustible liquid. (See 4.2.6 and 4.2.7.)*
[b] *Vapor pressure reflected in units of mm Hg at 77°F (25°C) unless stated otherwise.*
[c] *Class I, Zone Groups are based on IEC 60079-20-1, 1996, Explosive atmospheres — Part 20-1:Material characteristics for gas and vapor classification — Test methods and data, which contains additional data on MESG and group classifications.*
[d] *Material has been classified by test.*
[e] *Where all conduit runs into explosionproof equipment, the conduit is provided with explosionproof seals installed within 18 in. (450 mm) of the enclosure, equipment for the group classification shown in parentheses is permitted.*
[f] *For classification of areas involving ammonia, see ASHRAE 15, Safety Standard for Refrigeration Systems, and CGA G2.1, Safety Requirements for the Storage and Handling of Anhydrous Ammonia.*
[g] *Commercial grades of aliphatic hydrocarbon solvents are mixtures of several isomers of the same chemical formula (or molecular weight). The autoignition temperatures (AIT) of the individual isomers are significantly different. The electrical equipment should be suitable for the AIT of the solvent mixture. (See A.4.4.2.)*
[h] *Certain chemicals have characteristics that need safeguards beyond those necessary for any of the above groups. Carbon disulfide is one of these chemicals because of its low autoignition temperature and the small joint clearance necessary to arrest its flame propagation.*
[i] *Petroleum naphtha is a saturated hydrocarbon mixture whose boiling range is 68°F to 275°F (20°C to 135°C). It is also known as benzine, ligroin, petroleum ether, and naphtha.*
[j] *Fuel and process gas mixtures found by test not to present hazards similar to those of hydrogen can be grouped based on the test results.*
[k] *Liquid type and flash point vary due to regional blending differences.*

# Class I — Flammable Gases and Vapors

| Chemical | CAS No. | Class I Division Group | Type[a] | Flash Point (°C) | AIT (°C) | %LFL | %UFL | Vapor Density (Air = 1) | Vapor Pressure[b] (mm Hg) | Class I Zone Group[c] | MIE (mJ) | MIC Ratio | MESG (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Propylene Oxide | 75-56-9 | B(C)[d,e] | I | -37 | 449 | 2.3 | 36.0 | 2.0 | 534.4 | IIB | 0.13 | | 0.70 |
| Pyridine | 110-86-1 | D[d] | I | 20 | 482 | 1.8 | 12.4 | 2.7 | 20.8 | IIA | | | |
| Styrene | 100-42-5 | D[d] | I | 31 | 490 | 0.9 | 6.8 | 3.6 | 6.1 | IIA | | 1.21 | |
| Tetrahydrofuran | 109-99-9 | C[d] | I | -14 | 321 | 2.0 | 11.8 | 2.5 | 161.6 | IIB | 0.54 | | 0.87 |
| Tetrahydronaphthalene | 119-64-2 | D | IIIA | | 385 | 0.8 | 5.0 | 4.6 | 0.4 | | | | |
| Tetramethyl Lead | 75-74-1 | C | II | 38 | | | | 9.2 | | | | | |
| Toluene | 108-88-3 | D[d] | I | 4 | 480 | 1.1 | 7.1 | 3.1 | 28.53 | IIA | 0.24 | | |
| n-Tridecene | 2437-56-1 | D | IIIA | | | 0.6 | | 6.4 | 593.4 | | | | |
| Triethylamine | 121-44-8 | C[d] | I | -9 | 249 | 1.2 | 8.0 | 3.5 | 68.5 | IIA | 0.75 | | 1.05 |
| Triethylbenzene | 25340-18-5 | D | | 83 | | | 56.0 | 5.6 | | | | | |
| 2,2,3-Trimethylbutane | | D[g] | | | 442 | | | | | | | | |
| 2,2,4-Trimethylbutane | | D[g] | | | 407 | | | | | | | | |
| 2,2,3-Trimethylpentane | | D[g] | | | 396 | | | | | | | | |
| 2,2,4-Trimethylpentane | | D[g] | | | 415 | | | | | IIA | | | 1.04 |
| 2,3,3-Trimethylpentane | | D[g] | | | 425 | | | | | | | | |
| Tripropylamine | 102-69-2 | D | II | 41 | | | | 4.9 | 1.5 | IIA | | | 1.13 |
| Turpentine | 8006-64-2 | D | I | 35 | 253 | 0.8 | | | 4.8 | | | | |
| n-Undecene | 28761-27-5 | D | IIIA | | | 0.7 | | 5.5 | | | | | |
| Unsymmetrical Dimethyl Hydrazine | 57-14-7 | C[d] | I | -15 | 249 | 2.0 | 95.0 | 1.9 | | IIB | | | 0.85 |
| Valeraldehyde | 110-62-3 | C | I | 280 | 222 | | | 3.0 | 34.3 | | | | |
| Vinyl Acetate | 108-05-4 | D[d] | I | -6 | 402 | 2.6 | 13.4 | 3.0 | 113.4 | IIA | 0.70 | | 0.94 |
| Vinyl Chloride | 75-01-4 | D[d] | GAS | -78 | 472 | 3.6 | 33.0 | 2.2 | | IIA | | | 0.96 |
| Vinyl Toluene | 25013-15-4 | D | | 52 | 494 | 0.8 | 11.0 | 4.1 | | | | | |
| Vinylidene Chloride | 75-35-4 | D | I | | 570 | 6.5 | 15.5 | 3.4 | 599.4 | IIA | | | 3.91 |
| Xylene | 1330-20-7 | D[d] | I | 25 | 464 | 0.9 | 7.0 | 3.7 | | IIA | 0.2 | | 1.09 |
| Xylidine | 121-69-7 | C | IIIA | 63 | 371 | 1.0 | | 4.2 | 0.7 | | | | |

[a] *Type is used to designate if the material is a gas, flammable liquid, or combustible liquid. (See 4.2.6 and 4.2.7.)*
[b] *Vapor pressure reflected in units of mm Hg at 77°F (25°C) unless stated otherwise.*
[c] *Class I, Zone Groups are based on IEC 60079-20-1, 1996, Explosive atmospheres — Part 20-1:Material characteristics for gas and vapor classification — Test methods and data, which contains additional data on MESG and group classifications.*
[d] *Material has been classified by test.*
[e] *Where all conduit runs into explosionproof equipment, the conduit is provided with explosionproof seals installed within 18 in. (450 mm) of the enclosure, equipment for the group classification shown in parentheses is permitted.*
[f] *For classification of areas involving ammonia, see ASHRAE 15, Safety Standard for Refrigeration Systems, and CGA G2.1, Safety Requirements for the Storage and Handling of Anhydrous Ammonia.*
[g] *Commercial grades of aliphatic hydrocarbon solvents are mixtures of several isomers of the same chemical formula (or molecular weight). The autoignition temperatures (AIT) of the individual isomers are significantly different. The electrical equipment should be suitable for the AIT of the solvent mixture. (See A.4.4.2.)*
[h] *Certain chemicals have characteristics that need safeguards beyond those necessary for any of the above groups. Carbon disulfide is one of these chemicals because of its low autoignition temperature and the small joint clearance necessary to arrest its flame propagation.*
[i] *Petroleum naphtha is a saturated hydrocarbon mixture whose boiling range is 68°F to 275°F (20°C to 135°C). It is also known as benzine, ligroin, petroleum ether, and naphtha.*
[j] *Fuel and process gas mixtures found by test not to present hazards similar to those of hydrogen can be grouped based on the test results.*
[k] *Liquid type and flash point vary due to regional blending differences.*

# Class II — Combustible Dusts

Notes: (General) NFPA 499-2017 has classified 25 Group E, 10 Group F and 185 Group G combustible dusts. The tables shown below, does not include all dusts that may be encountered in business and industry. Some dusts were not classified because they have explosive characteristics that require safeguards that go beyond those required for combustible dusts classified by NEC®. On the other hand, other dusts were not classified because they do not represent a significant hazard, that is, they are not combustible. However, any combustible dust not included in these tables (such as thorium hydride and uranium) should be investigated by a qualified testing laboratory (see NFPA "Fire Protection Handbook," for additional dusts not classified by NEC®. Even such pesticide combustible dusts as Ferbam, Manganese Vancide and Sevin classified above, which have ignition temperatures below that which would be safe within the operating temperature ranges presented in Section 500.8(C) and Table 500.8(C)(2), may present serious problems. Also, caution is advised with combustible dusts that melt or sublime below the operating temperature of the electrical equipment (see footnotes 3 and 4 above).

(1) Normally, the minimum ignition temperature of a layer of a specific dust is lower than the minimum ignition temperature of a cloud of that dust. Because this is not universally true, the lower of the two minimum ignition temperatures is listed. If no symbol appears in the "Code" column, then the layer ignition temperature is shown. "CL" means the cloud ignition temperature is shown. "NL" means that no layer ignition temperature is available, and the cloud ignition temperature is shown. "M" signifies that the dust layer melts before it ignites; the cloud ignition temperature is shown. "S" signifies that the dust layer sublimes before it ignites; the cloud ignition temperature is shown.

(2) Certain metal dusts might have characteristics that necessitate safeguards beyond those needed for atmospheres containing the dusts of aluminum, magnesium, and their commercial alloys. For example, zirconium and thorium dusts can ignite spontaneously in air, especially at elevated temperatures.

(3) Due to the impurities found in coal, its ignition temperatures vary regionally, and ignition temperatures are not available for all regions in which coal is mined.

| Chemical Name | CAS No. | Division Group/ Zone Group | Code | Layer or Cloud Ignition Temperature °C |
|---|---|---|---|---|
| Acetal, linear | | G//IIIB | NL | 440 |
| Acetoacet-p-phenetidide | 122-82-7 | G//IIIB | NL | 560 |
| Acetoacetanilide | 102-01-2 | G//IIIB | M | 440 |
| Acetylamino-t-nitrothiazole | | G//IIIB | 450 | |
| Acrylamide polymer | | G/IIIB | 240 | |
| Acrylonitrile polymer | | G//IIIB | 460 | |
| Acrylonitrile-vinyl chloride-vinylidenechloride copolymer (70-20-10) | | G//IIIB | 210 | |
| Acrylonitrile-vinyl pyridine copolymer | | G//IIIB | 240 | |
| Adipic acid | 124-04-9 | G//IIIB | M | 550 |
| Alfalfa meal | | G//IIIB | 200 | |
| Alkyl ketone dimer sizing compound | | G//IIIB | 160 | |
| Allyl alcohol derivative (CR-39) | | G//IIIB | NL | 500 |
| Almond shell | | G//IIIB | 200 | |
| Aluminum, A422 flake | 7429-90-5 | E/IIIC | 320 | |
| Aluminum, atomized collector fines | | E/IIIC | CL | 550 |
| Aluminum—cobalt alloy (60-40) | | E/IIIC | 570 | |
| Aluminum—copper alloy (50-50) | | E/IIIC | 830 | |
| Aluminum—lithium alloy (15% Li) | | E/IIIC | 400 | |
| Aluminum—magnesium alloy (dowmetal) | | E/IIIC | CL | 430 |
| Aluminum—nickel alloy (58-42) | | E/IIIC | 540 | |
| Aluminum—silicon alloy (12% Si) | | E/IIIC | NL | 670 |
| Amino-5-nitrothiazole 121-66-4 | | G/IIIB | 460 | |
| Anthranilic acid | 118-92-3 | G/IIIB | M | 580 |
| Apricot pit | | G/IIIB | 230 | |
| Aryl-nitrosomethylamide | | G/IIIB | NL | 490 |
| Asphalt | 8052-42-4 | F/IIIB | 510 | |
| Aspirin [acetol (2)] | 50-78-2 | G/IIIB | M | 660 |
| Azelaic acid | 109-31-9 | G/IIIB | M | 610 |
| Azo-bis-butyronitrile | 78-67-1 | G/IIIB | 350 | |
| Benzethonium chloride | | G/IIIB | CL | 380 |
| Benzoic acid | 65-85-0 | G/IIIB | M | 620 |
| Benzotriazole | 95-14-7 | G/IIIB | M | 440 |
| Beta-naphthalene-axo-dimethylaniline | | G/IIIB | 175 | |
| Bis (2-hydroxy-5-chlorophenyl) methane | 97-23-4 | G/IIIB | NL | 570 |
| Bisphenol-A | 80-05-7 | G/IIIB | M | 570 |
| Boron, commercial amorphous (85% B) | 7440-42-8 | E/IIIC | 400 | |
| Calcium silicide | | E/IIIC | 540 | |
| Carbon black (more than 8% total entrapped volatiles) | | F/IIIB | | |
| Carboxymethyl cellulose | 9000-11-7 | G/IIIB | 290 | |
| Carboxypolymethylene | | G/IIIB | NL | 520 |
| Cashew oil, phenolic, hard | | G/IIIB | 180 | |
| Cellulose | | G/IIIB | 260 | |
| Cellulose acetate | | G/IIIB | 340 | |
| Cellulose acetate butyrate | | G/IIIB | NL | 370 |
| Cellulose triacetate | | G/IIIB | NL | 430 |
| Charcoal (activated) | 64365-11-3 | F/IIIB | 180 | |
| Charcoal (more than 8% total entrapped volatiles) | | F/IIIB | | |
| Cherry pit | | G/IIIB | 220 | |
| Chlorinated phenol | | G/IIIB | NL | 570 |
| Chlorinated polyether alcohol | | G/IIIB | 460 | |

*Data is from NFPA 499-2017, Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Equipment Installations in Chemical Process Areas.*

# Class II — Combustible Dusts

| Chemical Name | CAS No. | Division Group/ Zone Group | Code | Layer or Cloud Ignition Temperature °C |
|---|---|---|---|---|
| Chloroacetoacetanilide | 101-92-8 | G/IIIB | M | 640 |
| Chromium (97%) electrolytic, milled | 7440-47-3 | E/IIIC | 400 | |
| Cinnamon | | G/IIIB | 230 | |
| Citrus peel | | G/IIIB | 270 | |
| Coal, Kentucky bituminous | | F/IIIB | 180 | |
| Coal, Pittsburgh experimental | | F/IIIB | 170 | |
| Coal, Wyoming | | F/IIIB | 180 | |
| Cocoa bean shell | | G/IIIB | 370 | |
| Cocoa, natural, 19% fat | | G/IIIB | 240 | |
| Coconut shell | | G/IIIB | 220 | |
| Coke (more than 8% total entrapped volatiles) | | F/IIIB | | |
| Cork | | G/IIIB | 210 | |
| Corn | | G/IIIB | 250 | |
| Corn dextrine | | G/IIIB | 370 | |
| Corncob grit | | G/IIIB | 240 | |
| Cornstarch, commercial | | G/IIIB | 330 | |
| Cornstarch, modified | | G/IIIB | 200 | |
| Cottonseed meal | | G/IIIB | 200 | |
| Coumarone-indene, hard | | G/IIIB | NL | 520 |
| Crag No. 974 | 533-74-4 | G/IIIB | CL | 310 |
| Cube root, South America | 83-79-4 | G/IIIB | 230 | |
| Di-alphacumyl peroxide, 40-60 on CA | 80-43-3 | G/IIIB | 180 | |
| Diallyl phthalate | 131-17-9 | G/IIIB | M | 480 |
| Dicyclopentadiene dioxide | | G/IIIB | NL | 420 |
| Dieldrin (20%) | 60-57-1 | G/IIIB | NL | 550 |
| Dihydroacetic acid | | G/IIIB | NL | 430 |
| Dimethyl isophthalate | 1459-93-4 | G/IIIB | M | 580 |
| Dimethyl terephthalate | 120-61-6 | G/IIIB | M | 570 |
| Dinitro-o-toluamide | 148-01-6 | G/IIIB | NL | 500 |
| Dinitrobenzoic | acid | G/IIIB | NL | 460 |
| Diphenyl | 92-52-4 | G/IIIB | M | 630 |
| Ditertiary-butyl-paracresol | 128-37-0 | G/IIIB | NL | 420 |
| Dithane m-45 | 8018-01-7 | G/IIIB | 180 | |
| Epoxy | | G/IIIB | NL | 540 |
| Epoxy-bisphenol A | | G/IIIB | NL | 510 |
| Ethyl cellulose | | G/IIIB | CL | 320 |
| Ethyl hydroxyethyl cellulose | | G/IIIB | NL | 390 |
| Ethylene oxide polymer | | G/IIIB | NL | 350 |
| Ethylene-maleic anhydride copolymer | | G/IIIB | NL | 540 |
| Ferbam™ | 14484-64-1 | G/IIIB | 150 | |
| Ferromanganese, medium carbon | 12604-53-4 | E/IIIC | 290 | |
| Ferrosilicon (88% Si, 9% Fe) | 8049-17-0 | E/IIIC | 800 | |
| Ferrotitanium (19% Ti, 74.1% Fe, 0.06% C) | | E/IIIC | CL | 380 |
| Flax shive | | G/IIIB | 230 | |
| Fumaric acid | 110-17-8 | G/IIIB | M | 520 |
| Garlic, dehydrated | | G/IIIB | NL | 360 |
| Gilsonite | 12002-43-6 | F/IIIB | 500 | |
| Green base harmon dye | | G/IIIB | 175 | |
| Guar seed | | G/IIIB | NL | 500 |
| Gulasonic acid, diacetone | | G/IIIB | NL | 420 |
| Gum, arabic | | G/IIIB | 260 | |
| Gum, karaya | | G/IIIB | 240 | |
| Gum, manila | | G/IIIB | CL | 360 |
| Gum, tragacanth | 9000-65-1 | G/IIIB | 260 | |
| Hemp hurd | | G/IIIB | 220 | |
| Hexamethylene tetramine | 100-97-0 | G/IIIB | S | 410 |
| Hydroxyethyl cellulose | | G/IIIB | NL | 410 |
| Iron, 98% $H_2$ reduced | | E/IIIC | 290 | |
| Iron, 99% carbonyl | 13463-40-6 | E/IIIC | 310 | |
| Isotoic anhydride | | G/IIIB | NL | 700 |
| L-sorbose | | G/IIIB | M | 370 |
| Lignin, hydrolized, wood-type, fine | | G/IIIB | NL | 450 |

*Data is from NFPA 499-2017, Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Equipment Installations in Chemical Process Areas.*

# Class II — Combustible Dusts

| Chemical Name | CAS No. | Division Group/ Zone Group | Code | Layer or Cloud Ignition Temperature °C |
|---|---|---|---|---|
| Lignite, California | | F/IIIB | 180 | |
| Lycopodium | | G/IIIB | 190 | |
| Malt barley | | G/IIIB | 250 | |
| Manganese | 7439-96-5 | E/IIIC | 240 | |
| Magnesium, grade B, milled | | E/IIIC | 430 | |
| Manganese vancide | | G/IIIB | 120 | |
| Mannitol | 69-65-8 | G/IIIB | M | 460 |
| Methacrylic acid polymer | | G/IIIB | 290 | |
| Methionine (l-methionine) | 63-68-3 | G/IIIB | 360 | |
| Methyl cellulose | | G/IIIB | 340 | |
| Methyl methacrylate polymer | 9011-14-7 | G/IIIB | NL | 440 |
| Methyl methacrylate-ethyl acrylate | | G/IIIB | NL | 440 |
| Methyl methacrylate-styrene-butadiene | | G/IIIB | NL | 480 |
| Milk, skimmed | | G/IIIB | 200 | |
| N,N-dimethylthio-formamide | | G/IIIB | 230 | |
| Nitropyridone | 100703-82-0 | G/IIIB | M | 430 |
| Nitrosamine | | G/IIIB | NL | 270 |
| Nylon polymer | 63428-84-2 | G/IIIB | 430 | |
| Para-oxy-benzaldehyde | 123-08-0 | G/IIIB | CL | 380 |
| Paraphenylene diamine | 106-50-3 | G/IIIB | M | 620 |
| Paratertiary butyl benzoic acid | 98-73-7 | G/IIIB | M | 560 |
| Pea flour | | G/IIIB | 260 | |
| Peach pit shell | | G/IIIB | 210 | |
| Peanut hull | | G/IIIB | 210 | |
| Peat, sphagnum | 94114-14-4 | G/IIIB | 240 | |
| Pecan nut shell | 8002-03-7 | G/IIIB | 210 | |
| Pectin | 5328-37-0 | G/IIIB | 200 | |
| Pentaerythritol | 115-77-5 | G/IIIB | M | 400 |
| Petrin acrylate monomer | 7659-34-9 | G/IIIB | NL | 220 |
| Petroleum coke (more than 8% total entrapped volatiles) | | F/IIIB | | |
| Petroleum resin | 64742-16-1 | G/IIIB | 500 | |
| Phenol formaldehyde | 9003-35-4 | G/IIIB | NL | 580 |
| Phenol formaldehyde, polyalkylene-p | 9003-35-4 | G/IIIB | 290 | |
| Phenol furfural | 26338-61-4 | G/IIIB | 310 | |
| Phenylbetanaphthylamine | 135-88-6 | G/IIIB | NL | 680 |
| Phthalic anydride | 85-44-9 | G/IIIB | M | 650 |
| Phthalimide | 85-41-6 | G/IIIB | M | 630 |
| Pitch, coal tar | 65996-93-2 | F/IIIB | NL | 710 |
| Pitch, petroleum | 68187-58-6 | F/IIIB | NL | 630 |
| Polycarbonate | | G/IIIB | NL | 710 |
| Polyethylene, high pressure process | 9002-88-4 | G/IIIB | 380 | |
| Polyethylene, low pressure process | 9002-88-4 | G/IIIB | NL | 420 |
| Polyethylene terephthalate | 25038-59-9 | G/IIIB | NL | 500 |
| Polyethylene wax | 68441-04-8 | G/IIIB | NL | 400 |
| Polypropylene (no antioxidant) | 9003-07-0 | G/IIIB | NL | 420 |
| Polystyrene latex | 9003-53-6 | G/IIIB | 500 | |
| Polystyrene molding compound | 9003-53-6 | G/IIIB | NL | 560 |
| Polyurethane foam, fire retardant | 9009-54-5 | G/IIIB | 390 | |
| Polyurethane foam, no fire retardant | 9009-54-5 | G/IIIB | 440 | |
| Polyvinyl acetate | 9003-20-7 | G/IIIB | NL | 550 |
| Polyvinyl acetate/alcohol | 9002-89-5 | G/IIIB | 440 | |
| Polyvinyl butyral | 63148-65-2 | G/IIIB | 390 | |
| Polyvinyl chloride-dioctyl phthalate | | G/IIIB | NL | 320 |
| Potato starch, dextrinated | 9005-25-8 | G/IIIB | NL | 440 |
| Pyrethrum | 8003-34-7 | G/IIIB | 210 | |
| Rayon (viscose) flock | 61788-77-0 | G/IIIB | 250 | |
| Red dye intermediate | | G/IIIB | 175 | |
| Rice | | G/IIIB | 220 | |
| Rice bran | | G/IIIB | NL | 490 |
| Rice hull | | G/IIIB | 220 | |
| Rosin, DK | 8050-09-7 | G/IIIB | NL | 390 |
| Rubber, crude, hard | 9006-04-6 | G/IIIB | NL | 350 |

*Data is from NFPA 499-2017, Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Equipment Installations in Chemical Process Areas.*

# Class II — Combustible Dusts

| Chemical Name | CAS No. | Division Group/ Zone Group | Code | Layer or Cloud Ignition Temperature °C |
|---|---|---|---|---|
| Rubber, synthetic, hard (33% S) | 64706-29-2 | G/IIIB | NL | 320 |
| Safflower meal | | G/IIIB | 210 | |
| Salicylanilide | 87-17-2 | G/IIIB | M | 610 |
| Sevin | 63-25-2 | G/IIIB | 140 | |
| Shale, oil | 68308-34-9 | F/IIIB | | |
| Shellac | 9000-59-3 | G/IIIB | NL | 400 |
| Sodium resinate | 61790-51-0 | G/IIIB | 220 | |
| Sorbic acid (copper sorbate or potash) | 110-44-1 | G/IIIB | 460 | |
| Soy flour | 68513-95-1 | G/IIIB | 190 | |
| Soy protein | 9010-10-0 | G/IIIB | 260 | |
| Stearic acid, aluminum salt | 637-12-7 | G/IIIB | 300 | |
| Stearic acid, zinc salt | 557-05-1 | G/IIIB | M | 510 |
| Styrene modified polyester-glass fiber | 100-42-5 | G/IIIB | 360 | |
| Styrene-acrylonitrile (70-30) | 9003-54-7 | G/IIIB | NL | 500 |
| Styrene-butadiene latex (>75% styrene) | 903-55-8 | G/IIIB | NL | 440 |
| Styrene-maleic anhydride copolymer | 9011-13-6 | G/IIIB | CL | 470 |
| Sucrose | 57-50-1 | G/IIIB | CL | 350 |
| Sugar, powdered | 57-50-1 | G/IIIB | CL | 370 |
| Sulfur | 7704-34-9 | G/IIIB | 220 | |
| Tantalum | 7440-25-7 | E/IIIC | 300 | |
| Terephthalic acid | 100-21-0 | G/IIIB | NL | 680 |
| Thorium (contains 1.2% O) | 7440-29-1 | E/IIIC | CL | 270 |
| Tin, 96%, atomized (2% Pb) | 7440-31-5 | E/IIIC | 430 | |
| Titanium, 99% Ti 7440-32-6 | | E/IIIC | CL | 330 |
| Titanium hydride (95% Ti, 3.8% H) | 7704-98-5 | E/IIIC | CL | 480 |
| Trithiobisdimethylthio-formamide | | G/IIIB | 230 | |
| Tung, kernels, oil-free | 8001-20-5 | G/IIIB | 240 | |
| Urea formaldehyde molding compound | 9011-05-6 | G/IIIB | NL | 460 |
| Urea formaldehyde-phenol formaldehyde | 25104-55-6 | G/IIIB | 240 | |
| Vanadium, 86.4% | 7440-62-2 | E/IIIC | 490 | |
| Vinyl chloride-acrylonitrile copolymer | 9003-00-3 | G/IIIB | 470 | |
| Vinyl toluene-acrylonitrile butadiene | 76404-69-8 | G/IIIB | NL | 530 |
| Violet 200 dye | | G/IIIB | 175 | |
| Vitamin B1, mononitrate | 59-43-8 | G/IIIB | NL | 360 |
| Vitamin C | 50-81-7 | G/IIIB | 280 | |
| Walnut shell, black | | G/IIIB | 220 | |
| Wheat | | G/IIIB | 220 | |
| Wheat flour | 130498-22-5 | G/IIIB | 360 | |
| Wheat gluten, gum | 100684-25-1 | G/IIIB | NL | 520 |
| Wheat starch | | G/IIIB | NL | 380 |
| Wheat straw | | G/IIIB | 220 | |
| Wood flour | | G/IIIB | 260 | |
| Woodbark, ground | | G/IIIB | 250 | |
| Yeast, torula | 68602-94-8 | G/IIIB | 260 | |
| Zirconium hydride | 7704-99-6 | E/IIIC | 270 | |
| Zirconium (contains 0.3% O) | 7440-67-7 | E/IIIC | CL | 330 |

*Data is from NFPA 499-2017, Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Equipment Installations in Chemical Process Areas.*

# Quick Selection Guide – LED Luminaires for Hazardous Locations

| Product Category | Description | Class I, Division 1, Zone 1 | Class I, Division 2, Zone 2 | Class II, Division 1, Zone 21 | Class II, Division 2, Zone 22; Class III |
|---|---|---|---|---|---|
| *Note: Please refer to Appleton™ Product Catalogs and NEC 500.8(D) for Temperature Class (T-Code)* | | | | | |
| MGC | Mercmaster™ Connect LED | | ABCD / IIC | FG / IIIC | FG |
| MLEDN | Mercmaster™ LED | | ABCD / IIC | EFG / IIIC | FG / IIIB |
| MLG | Mercmaster™ LED Generation 3 | | ABCD / IIC | EFG / IIIC | FG / IIIB |
| MGZ | Mercmaster™ LED Generation 3 Zone 1 | IIC | IIC | IIIC | IIIB |
| MLLED | Mercmaster™ LED Low Profile | | ABCD / IIC | EFG / IIIC | FG |
| VMV | Contender™ LED | | ABCD / IIC | EFG / IIIC | FG / IIIB |
| CMLED | Code•Master™ LED | BCD / IIB+$H_2$ | BCD | EFG | FG |
| CJL | Code•Master™ Jr. LED | BCD / IIB+$H_2$ | BCD | EFG | FG |
| AAL | A-51™ LED \| Group A, B, C, D | ABCD | ABCD | FG | FG |
| AL | A-51™ LED \| Group C, D | CD | CD | FG | FG |
| RM | Rigmaster™ LED | | ABCD / IIC | EFG / IIIC | FG / IIIB |
| ERM | Explosionproof Rigmaster™ LED | CD / IIB | CD / IIB | EFG / IIIC | FG / IIIB |
| LLED | NEC/CEC Viamaster™ LED | | ABCD / IIC | | FG / IIIB |
| BLL \| BHL | Baymaster™ LED | | ABCD / IIC | EFG / IIIC | FG |
| AMLG \| AMLH | Areamaster™ Generation 2 LED | | ABCD / IIC | EFG / IIIC | FG |
| AMLZ \| AMHZ | Areamaster™ Generation 2 LED Zone 1 | IIC | IIC | IIIC | IIIC |
| HEX | HEX LED Exit Sign | | ABCD | | |

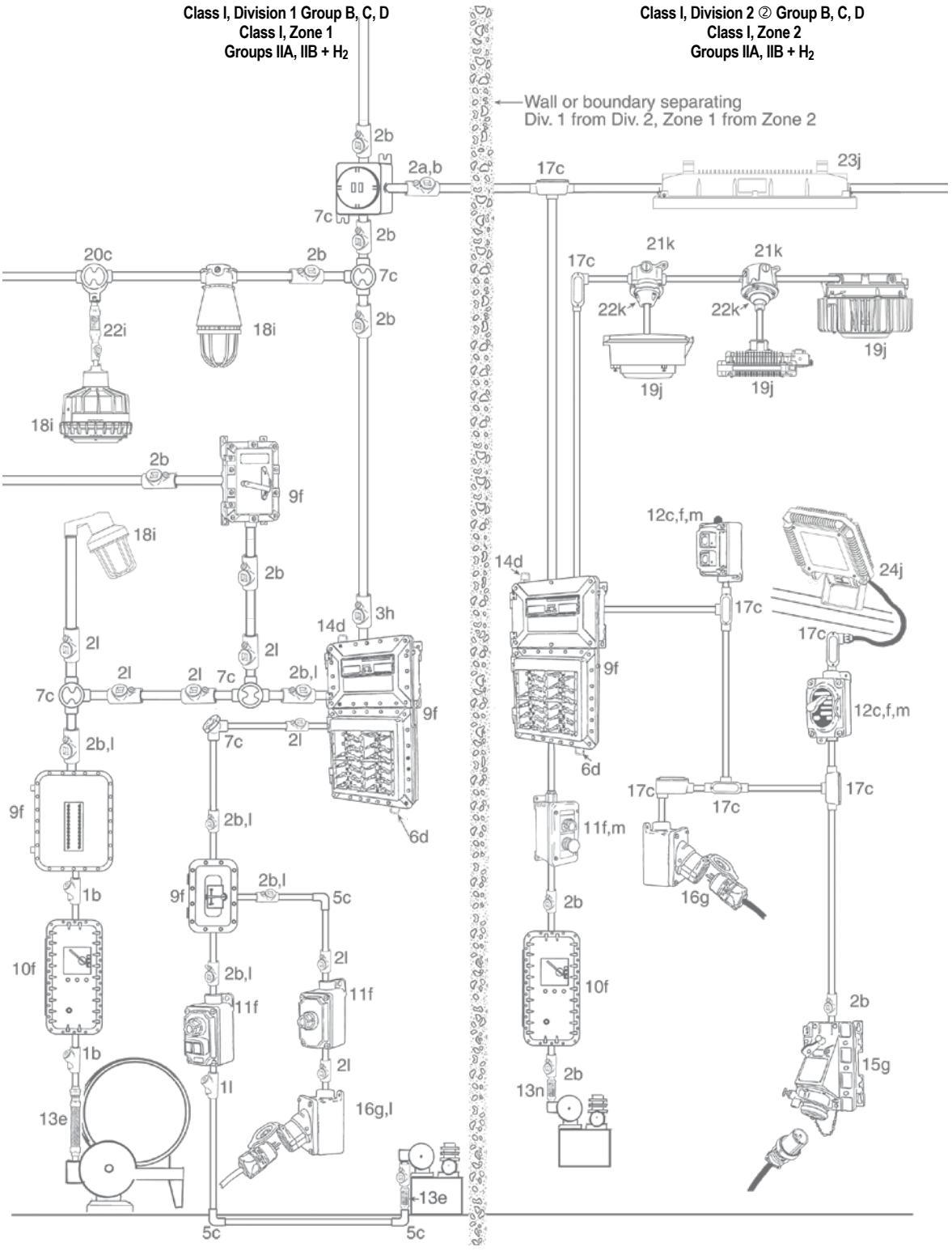
# Quick Selection Guide – Fixture Hangers for Hazardous Locations

| Product Category | Description | Class I, Division 1, Zone 1 | Class I, Division 2, Zone 2 | Class II, Division 1, Zone 21 | Class II, Division 2, Zone 22; Class III |
|---|---|---|---|---|---|
| CPU | Fixture Hangers, Non-flexible | CD | CD | EFG | FG |
| EFHC | Fixture Hanger Outlet Boxes | BCD | BCD | EFG | FG |
| EFHCA | Fixture Hanger Outlet Boxes | ABCD | ABCD | EFG | FG |
| EFHU | Fixture Hangers, Flexible Cushion | CD | CD | EFG | FG |
| ESD/ESS | Swivel Hangers | CD | CD | EFG | FG |
| EXJF | Fixture Hangers, Flexible Coupling | ABCD | ABCD | EFG | FG |
| GRF | Conduit Outlet Boxes, Flanged | CD | CD | EFG | FG |
| GRK | Fixture Hanger Covers/Canopies for GRF Outlet Boxes | CD | CD | EFG | FG |
| FH | Hook and Loop Flexible Fixture Hangers | | ABCD ① | | |
| EFHM/F | Fixture Support Hooks | | ABCD ① | | |
| AHG | Fixture Hangers, Flexible Cushion, Gasketed | | ABCD ① | | |
| UNJ | Fixture Hangers, Flexible Ball Type | | ABCD ① | | |
| JB & GS | Conduit Outlet Boxes/Hanger Covers | | ABCD ① | | |
| AL | Ball & Cushion Flexible Fixture Hangers | | ABCD ① | | |

① *Suitable if installed in compliance with NEC© 501.10(B)(4)*

# Lighting and Power Diagrams:

Class I, Division 1 and 2, Group B; Class 1, Zones 1 and 2, Groups IIA, IIB+ $H_2$ ①




*For Class I, Division 2, locations seals are required when using 2" trade size or larger where splices or taps are contained.*

① *Refer to the National Electrical Code, Section 505.9(C)(1).*

② *All items shown in Division 1 are also suitable for Division 2.*

# Lighting and Power Diagrams:
Class I, Division 1 and 2, Group B; Class 1, Zones 1 and 2, Groups IIA, IIB+ $H_2$ ①

**Key to Product ③**

1— Sealing Fittings. EYSF/M, EYS—used with vertical conduits.

2— Sealing Fittings. EYF/M, EYS series—used for sealing vertical or horizontal conduits.

3— Sealing Fittings, expanded fill. EYSEF, EYDEF.

4— Unions, UNY-NR, UNF-NR, UNL.

5— Elbows. ELF, ELMF, ELMFL.

6— Drains. DRNB4X, ECDB50B.

7— Explosionproof Junction Boxes. GR, GU, GRH, GRF, ELBY, GRSS, GUBB, with threaded covers. See "l" in the reference column.

8— Explosionproof Junction Boxes, AJBEW, with ground surface covers.

9— Panelboards, Circuit Breaker, PlexPower, ALPN, APPN, AGPN, APPF, D2P, EWP. Manual Starter, Disconnect Switch, EB, EDS, MD2DS.

10 — Combination Circuit Breaker and Line Starters. AEB Series, bolted cover.

11— Push Button/Pilot Lights, factory sealed. Division 1—EDS, EFDB, Division 2 only—EFS Division 2 Contender™, Unicode™, N2.

12— Switch/Motor Starters, factory sealed. Division 1—EDS, EFDB. Factory sealed switch Division 2—FDK2.

13— Flexible Couplings. EXGJH, EXLK, liquidtight connector.

14—Breathers. BRTB4X, ECDB50B.

15— Receptacles, non-factory sealed, interlocked. FSQC, JBR, EBRH.

16— Receptacles, EFSB, EFS requires seal for Group B, Division 1. See "l" in the reference column.

17— Conduit Boxes, Bodies, Fittings. Form 35™, Form 85, FM7™, FM8™, FM9, Mogul, JB, GSU, LBD.

18— Luminaires, Division 1—LED, Code•Master™, Code•Master™ Jr., A-51™ Series.

19— Luminaires, Division 2—LED, Mercmaster™ LED Generation 3, Mercmaster™ LED Low Profile, Baymaster™, Areamaster™ Generation 2 Series.

20— Fixture Hangers, Division 1—EFHC, EFHCA.

21— Fixture Hangers, Division 2—JB, GSU.

22— Flexible Fixture Supports, Division 1—EXJF; Division 2—JB Cushion, AHG Cushion, GS Cushion.

23— Luminaires. Division 2—LED, Viamaster™ Series.

**National Electrical Code® Reference**

a— Sec. 501.15(A)(4) Seal required (within 10 feet) on either side of boundary entering or leaving hazardous area

b— Sec. 501.15(A)(1) Seals required within 18 inches of all arcing devices.

c— Sec. 501.10(A) and (B) and 500.8(D) In Division 1, boxes and fittings must be explosionproof and have 5 full threads (4-1/2 when factory threaded) engaged. Permitted wiring methods include Threaded RMC, Threaded IMC, listed MI cable/fittings, and listed MC-HL cable with listed cable connectors. In Division 2, boxes and fittings are not required to be explosionproof unless the enclosure contains arcing (contacts), sparking or heat producing devices. Permitted wiring methods include all those for Division 1 such as Threaded RMC, Threaded IMC, and listed MC-HL cable with listed cable connectors. Also a variety of additional cable and raceway systems are permitted including MC cable with approved MC cable connectors.

d— Sec. 501.15(F)(1) Drain/breathers must be installed to prevent accumulation of liquids or condensed vapors.

e— Sec. 501.10(A)(2) Flexible connections as at motor terminals must be explosionproof and listed for Class I, Division 1 locations.

f— Sec. 501.115 Panelboards, circuit breakers, push buttons, switches, motor controllers—shall be explosionproof and approved for Class I, Division 1 locations.

g— Sec. 501.145 Receptacles and plugs must be explosionproof, Group B approved and provide grounding conductor for portable equipment.

h— Sec. 501.15(C)(6) Approved expanded fill seals permit up to 40% fill of cross sectional area of conduit.

i— Sec. 501.130(A)(1) and (3) Lighting fixtures in Division 1 must be identified for the Class I, Division 1 location and if stem exceeds 12 inches it must be braced or have a flexible connector.

j— Sec. 501.130(B)(1) In Division 2, fixtures must be tested and marked as to operating temperature or temperature range.

k— Sec. 501.130(B)(3) In Division 2, hangers must be effectively braced or provide flexibility in the form of an identified fitting or flexible connector.

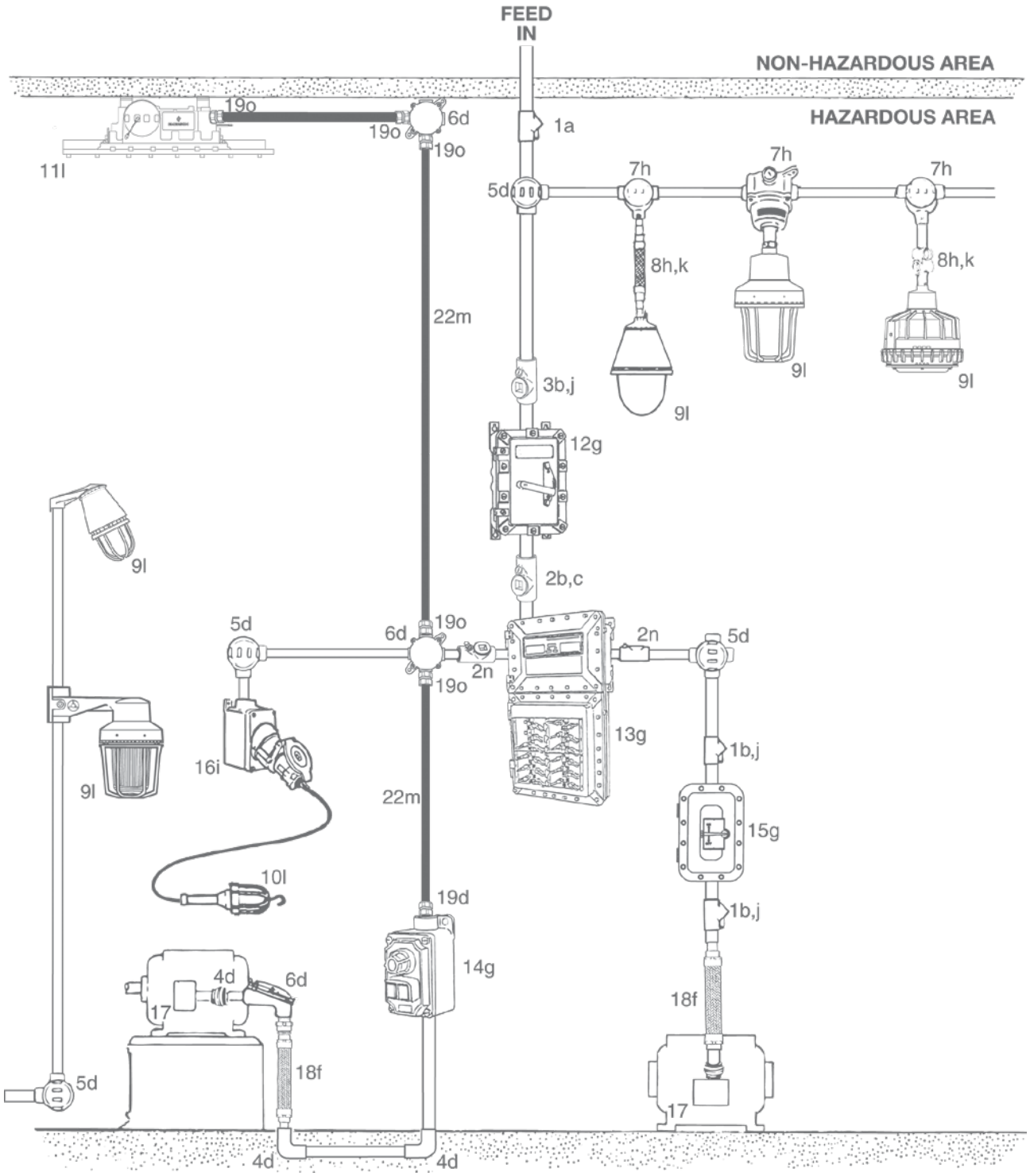
l— For Division 1 listings, some products require seals installed immediately adjacent. See catalog for exact distance (can vary by product).

m— Sec. 501.15(A)(1) Seals shall not be required in Class I, Division 1 and 2 locations if switches (contacts) are enclosed within a factory sealed explosionproof chamber.

n— Sec. 501.10(B)(2) Class I, Division 2 flexible connections as at motor terminals can be flexible metal conduit (indoors), liquidtight flexible metal conduit, or liquidtight flexible nonmetallic conduit with listed fittings.

*① Refer to the National Electrical Code, Section 505.9(C)(1).*
*③ Not every size and style of mentioned series is suitable for Group B. See Appleton™ product catalogs for specific listings.*

## Lighting Diagram:
Class I, Division 1, Groups C, D; Class I, Zone 1, Groups IIA, IIB ①




① *Refer to the National Electrical Code, Section 505.9(C)(1).*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# Lighting Diagram:
Class I, Division 1, Groups C, D; Class I, Zone 1, Groups IIA, IIB ①

### Key to Product

1— Sealing Fittings. EYSF/M, EYS 1, 2, 3, 16, 26, 36—used with vertical conduits.

2— Sealing Fittings. EYF/M, EYS, EYD, EYDM, ESUF/M—used with vertical or horizontal conduits.

3— Sealing Fittings, expanded fill. EYSEF, EYDEF.

4— Unions/Elbows. UNY-NR, UNF-NR, UNY/F, UNL, UNYL/UNFL; ELF, ELMF.

5— Explosionproof Junction Boxes. GR, GRSS, GRF, GUBB, GRU, GRUE, GU, with threaded covers.

6— Explosionproof Junction boxes. ELBD, CPU, AJBEW, with ground surface covers.

7— Fixture Hangers. CPU, EFHU, EFHC, GRF, FHS.

8— Flexible and Swivel Fixture Supports. EXJF, ESD, ESS.

9—Luminaires, Task/Area, Division 1—LED, Code•Master™, Code•Master™ Jr., A-51™ Series.

10— Luminaires, Handlamp, Division 1—LED, EHLED.

11— Luminaires, Linear, Division 1—LED, Explosionproof Rigmaster™ Linear Series.

12— Circuit Breaker. EB.

13— Panelboard, factory sealed. EWP.

14— Push Button/ Pilot Lights, factory sealed. EDS, EFDB.

15— Switch/Manual Motor Starter. AEXMS, EDS Disconnect.

16— Receptacles, factory sealed, U-Line™, EFS.

17— Motor for Hazardous Location.

18— Flexible Connector. EXGJH, EXLK.

19— TMCX Cable/Connectors, listed for Class I, Division 1.

22— MC-HL armored/PVC jacketed cable.

### National Electrical Code® Reference

a— Sec. 501.15(A)(4) Seal required on either side of boundary (within 10 feet) entering or leaving hazardous area.

b— Sec. 501.15(A)(1) Seals required within 18 inches of all arcing devices.

c— Sec. 501.15(A)(1) Seals required if conduit is Trade Size 2 or larger.

d— Sec. 501.10(A) and 500.8(D) Boxes and fittings must be explosionproof and have 5 full threads (4-1/2 when factory threaded) engaged. Permitted wiring methods include Threaded RMC, Threaded IMC, listed MI cable/fittings and listed MC-HL cable with listed cable connectors.

e— Sec. 501.15(F)(1) Drain/breathers must be installed to prevent accumulation of liquids or condensed vapors.

f— Sec. 501.10(A)(2) Flexible connections as at motor terminals must be explosionproof.

g— Sec. 501.115 Panelboards, circuit breakers, push buttons, switches, motor controllers—shall be explosionproof and approved for Class I, Division 1 locations.

h— Sec. 501.130(A)(4) Boxes and fittings used for support of lighting fixtures shall be approved for Class I, Division 1 locations.

i— Sec. 501.145 Receptacles and plugs must be explosionproof and provide grounding conductor for portable equipment.

j— Sec. 501.15(C)(6) Approved expanded fill seals permit up to 40% fill of cross sectional area of conduit.

k— Sec. 501.130(A)(3) Pendant fixture stems must be threaded rigid or IMC conduit. Stems over 12 inches must be braced or have approved flexible connector.

l— Sec. 501.130(A)(1) All lighting fixtures, both fixed and portable, must be approved for Class I, Division 1.

m— Sec. 501.10(A)(1)(c) Where wiring methods allow MC-HL cable in industrial establishments with limited public access.

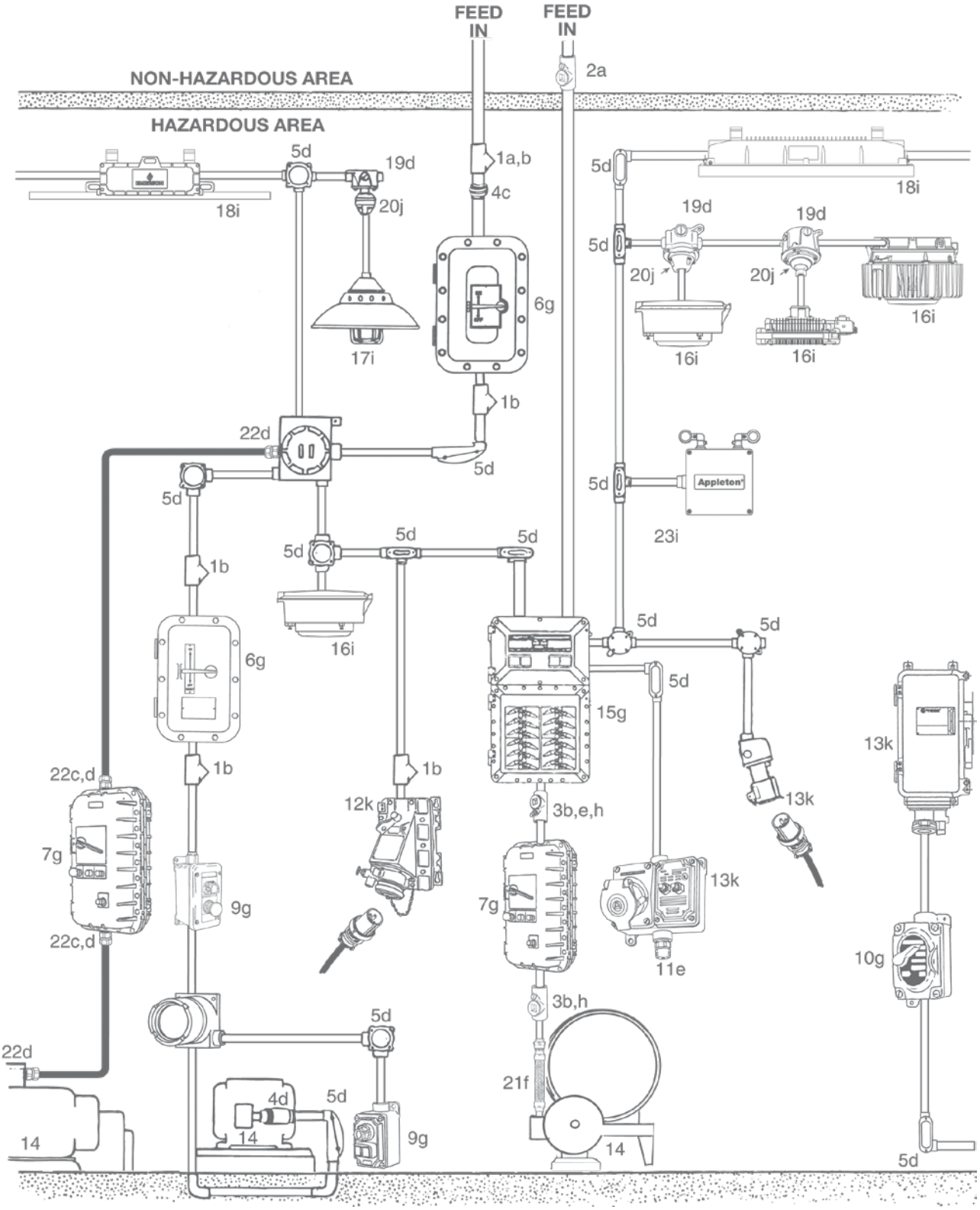
n— For some applications products may require seals installed immediately adjacent. Refer to Appleton™ product catalogs.

o— Sec. 501.15(D)(1) Cable seals, Class I, Division 1.

① *Refer to the National Electrical Code, Section 505.9(C)(1).*

# Lighting and Power Diagram:

Class I, Division 2, Groups C, D; Class I, Zone 2, Groups IIA, IIB ①




① *All items this page also suitable for Class I, Zone 2.*



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# Lighting and Power Diagram:
Class I, Division 2, Groups C, D; Class I, Zone 2, Groups IIA, IIB ①

### Key to Product

1— Sealing Fittings. EYSF/M, EYS 1, 2, 3, 16, 26, 36—used with vertical conduits.

2— Sealing Fittings. EYF/M, EYS, EYD, EYDM, ESUF/M—used with vertical or horizontal conduits.

3— Sealing Fittings, expanded fill. EYSEF, EYDEF.

4— Unions/Elbows. UNY-NR, UNF-NR, UNY/F, UNL, UNYL/ UNFL; ELF, ELMF.

5— Conduit Boxes, Bodies, Fittings. Form 35™, Form 85, FM7™, FM8™, FM9, Mogul, JB, GSU, LBD, RS.

6— Circuit Breaker or Disconnect Switches. EB, AE, AEXMS, EDS, MD2DS.

7— Combination Circuit Breaker and Line Starter. AEB, bolted cover.

8— Threaded Circuit Breaker, AE, threaded cover.

9— Push Button/Pilot Lights, factory sealed. EDS, EFDB, Unicode.

10— Switch/Motor Starters, factory sealed. EFD, EFDB, EDS.

11— Drain/Breather, combination. ECDB5OHP.

12— Receptacles, non-factory sealed, interlocked, EBR, JBR.

13— Receptacles, factory sealed, U-Line™. EFS with GFI, CES, CESD, MD2SR.

14— Motor for Division 2 Hazardous Location.

15— Lighting Panelboard, factory sealed. D2P.

16— Luminaires, Task/Area, Division 2—LED, Mercmaster™ LED Generation 3, Mercmaster™ LED Low Profile, Baymaster™ Series.

17— Luminaires, Task/Area, Division 2—Incandescent—Stylmaster™, V-51™ Series.

18— Luminaires, Linear, Division 2—LED, Rigmaster™, Viamaster™ Linear Series.

19— Outlet Boxes for Pendant Mount Fixtures. JB, GSU.

20— Flexible Fixture Supports. AHG, EXJF, JB Cushion, AHG Cushion.

21— Flexible Connectors. EXGJH, EXLK; Liquidtight flexible metal conduit and fittings. ST™, STB, STN.

22— Cable/Connectors. MC-HL—listed for Division 2. TMCX.

23— Luminaires, Emergency Lighting System, Division 2—LED, N2LED, Mercmaster™ LED Low Profile Emergency Battery Backup, Mercmaster™ LED Generation 3 Emergency Battery Backup Series.

### National Electrical Code® Reference

a— Sec. 501.15(B)(2) Seals required on either side of the boundary (within 10 feet) entering or leaving the hazardous (classified) areas.

b— Sec. 501.15(B)(1) Seals required in all conduits connected to enclosures that are required to be explosionproof.

c— Sec. 501.15(B)(1) and 501.15(E)(1) Class I, Division 1 wiring methods such as threaded rigid metal conduit, IMC and explosionproof fittings are required between the seal and the explosionproof enclosure. MC-HL or MC cable is allowed however fittings must be Class I, Division 1 listed (cable connector with integral sealing method).

d— Sec. 501.10(B) Boxes and fittings are not required to be explosionproof unless the enclosure contains arcing (contacts), sparking or heat producing devices. Permitted wiring methods include all those for Division 1 such as threaded RMC, threaded IMC and listed MC-HL cable with listed cable connectors. Also a variety of additional cable and raceway systems are permitted including MC cable with listed MC cable connectors.

e— Sec. 501.15(F)(1) Drains/Breathers must be installed to prevent accumulation of liquids or condensed vapors.

f— Sec. 501.10(B)(2) Flexible connections such as flexible fittings and liquidtight flexible metal conduit with listed fittings are permitted. listed liquidtight flexible metal conduit fittings are fittings listed for use with liquidtight flexible metal conduit. They are not fittings listed for Class I, Division 2 hazardous (classified) locations. (There is no such thing as a liquidtight flexible metal conduit fitting listed for Class I, Division 2.)

g— Sec. 501.115(B)(1) Circuit breakers, pushbuttons, switches, motor controllers shall be identified for the location - explosionproof or contacts are within a factory sealed explosionproof chamber.

h— Sec. 501.15(C)(6) Approved expanded fill seals permit up to 40% fill of cross sectional area of conduit.

i— Sec. 501.130(B)(1) Luminaires shall be tested and marked with the operating temperature/T-Code (Class I, Division 2) or luminaires shall be identified Class I, Division 1 - explosionproof.

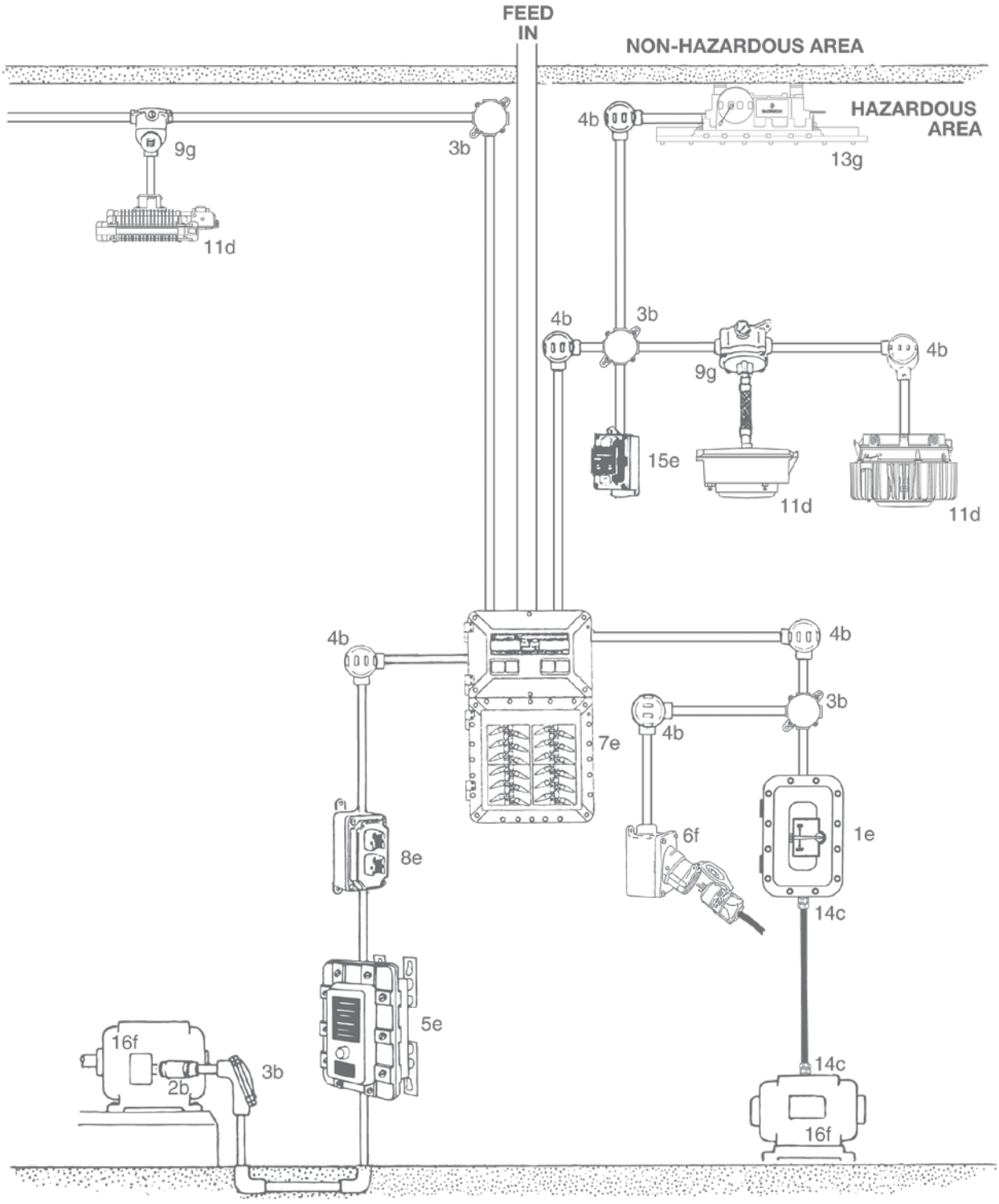
j— Sec. 501.130(B)(3) Pendant fixture stems must be threaded rigid metal or IMC conduit. Stems over 12 inches must be braced or have an approved flexible fitting/ connector.

k— Sec. 501.145 Receptacles and plugs must be identified for the location (explosionproof or Class I, Division 2) and have a grounding conductor for portable equipment.

*① All items this page also suitable for Class I, Zone 2.*

## Lighting Diagram:

Class II, Divisions 1, And 2, Groups E ①, F, and G; Class II, Zones 21 and 22 ②




*① Where Class II, Group E dusts are present in hazardous quantities, there are only Division 1 locations.*

*② Products listed for use in Class II, Division 1 and 2 are permitted to be installed in Class II, Zones 21 and 22 locations in accordance with the wiring methods in NEC® Article 506.*

# Lighting Diagram:
Class II, Divisions 1, And 2, Groups E ①, F, and G; Class II, Zones 21 and 22 ②

### Key to Product

1— Circuit Breaker, Disconnect Switch, Manual Starters. EB,EDS, EXMS.

2— Unions/Elbows, UNY-NR, UNF-NR, UNY/F UNL, UNYL/UNFL, ELF, ELMF.

3— Junction Box. CPU, ELBD, with ground surface cover.

4— Junction Box. GR, with screw cover.

5— Manual Motor Starter. EXMS.

6— Receptacle. EFS U-Line™.

7— Panelboards. PlexPower, EWP, D2P, ALPN, AGPN, APPN, APPF.

8— Push Button/Pilot Lights. EFDB, N2, EFS, EFD, Unicode™.

9— Fixture Hangers. Division 1—CPU, GRF, EFHC, EFHU, EXJF.

11— Luminaires, Task/Area, Division 2—LED, Mercmaster™ LED Generation 3, Mercmaster™ LED Low Profile, Baymaster™ Series.

13—Luminaires, Linear, Division 1—LED, Explosionproof Rigmaster™ Linear Series.

14— Flexible Connectors. Liquidtight, ST™ Fittings.

15— Switches. EFS, EDS, Contender™.

16— Motors for Location.

### National Electrical Code® Reference

a— Sec. 502.145(A) and (B) In Division 1 receptacles and attachment plugs shall be identified for Class II. In Division 2 connection to the supply circuit cannot be made or broken while live parts are exposed. Identified Class II receptacles and attachment plugs will also meet this requirement.
Note: Due to the conductive and abrasive nature of metal dusts, there are no plugs and receptacles made for use in a Group E location.

b— Sec. 502.10(A)(1)(4) and (B(4) Boxes and fittings in Class II Division 1 have threaded bosses and are dust Ignitionproof (NEMA 9) for Group E and when enclosures contain taps, splices or cable terminations. All other boxes and fittings in Class I, Division 1 and all boxes and fittings in Class II Division 2 locations are dusttight. Where not available dusttight, use boxes and fittings approved for Class II, Division 1.

c— Sec. 502.10(A)(2) and (B)(2) Flexible connections for Division 1 and Division 2 include dusttight flexible connectors, liquidtight flexible conduit (both metal and nonmetallic) with listed fittings, jacketed interlock armor MC cable with Class II, Division 1 listed connectors and flexible cord for extra hard usage with bushed fittings.

d— Sec. 502.130(B) In Division 2, luminaires must be suitable for Division 1 or be dusttight, temperature tested and marked with maximum lamp wattage not to exceed Table 500.8(D)(2).

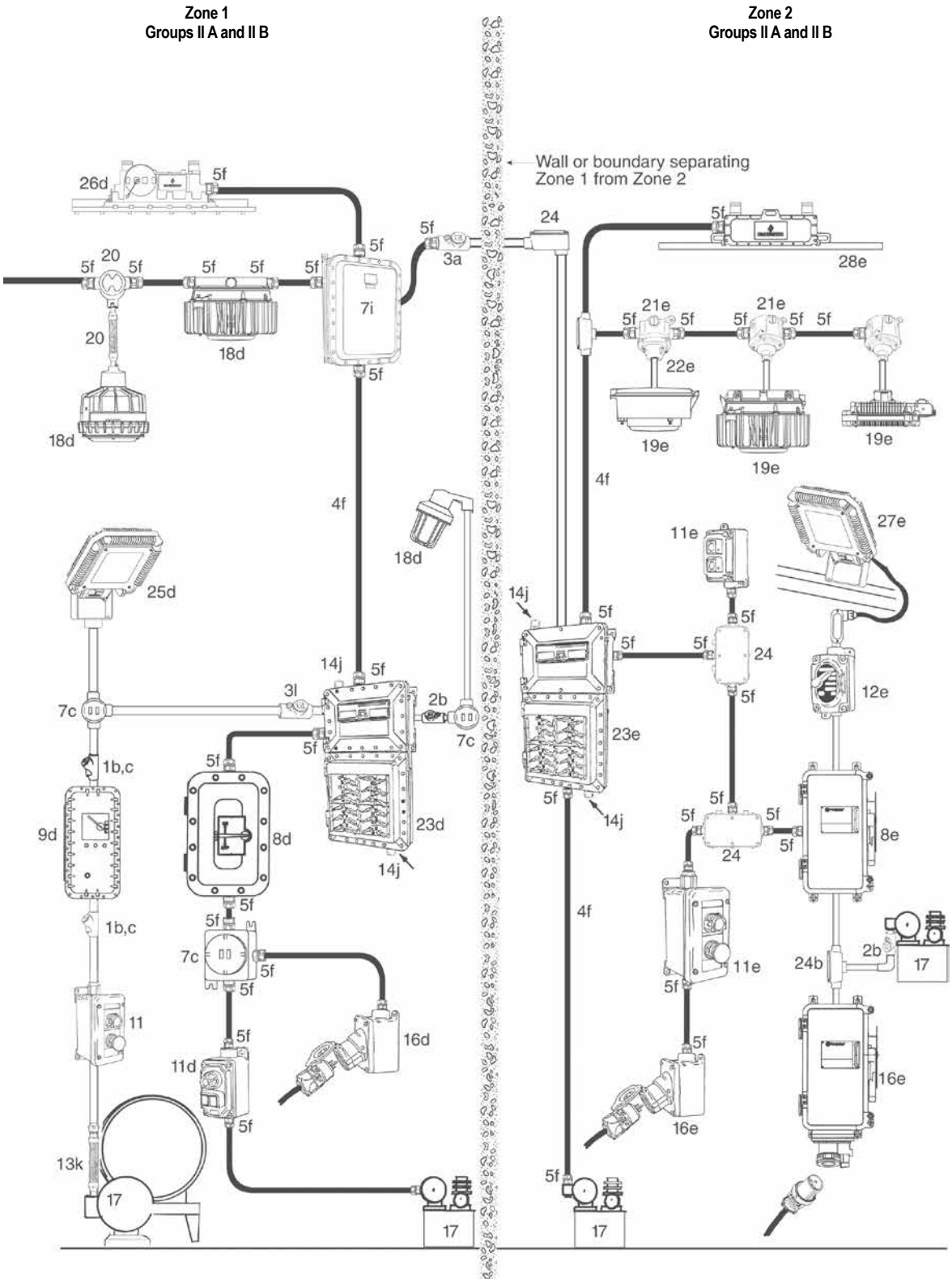
e— Sec. 502.115(A) and (B) Circuit breakers, pushbuttons, switches, motor controllers in Group E and Division 1 shall be dust-ignitionproof. Dusttight enclosures are suitable for Division 2.

f— Sec. 502.125 Motors and generators in Class II, Division 1 are identified for Class II, Division 1. For Division 2 see Table 500.8(D)(2)

g— Sec. 502.130(A) In Division 1, luminaires shall be identified for Class II (dust-ignitionproof) and marked with maximum lamp wattage. Pendant luminaires are permitted to be suspended by threaded RMC or threaded IMC stems, or chain. Stems longer than 12 inches must be braced or have a Class II listed flexible fitting or connector. For wiring not enclosed in conduit, flexible cord for hard usage with seals shall be used.

*① Where Class II, Group E dusts are present in hazardous quantities, there are only Division 1 locations.*
*② Products listed for use in Class II, Division 1 and 2 are permitted to be installed in Class II, Zones 21 and 22 locations in accordance with the wiring methods in NEC® Article 506.*

# Lighting and Power Diagram:
Class I, Zone 1; Class I, Zone 2



# Lighting and Power Diagram:
Class I, Zone 1; Class I, Zone 2

### Key to Product

1— Sealing Fittings. EYSF/M, EYS 1, 2, 3, 16, 26, 36—used with vertical conduits.

2— Sealing Fittings. EYF/M, EYS, EYD, EYDM, ESUF/M—used with vertical or horizontal conduits.

3— Sealing Fittings, expanded fill. EYSEF, EYDEF.

4— Cable, MC-HL, TMCX.

5— Cable connector, TMCX. See "f" in the reference column.

6— Unions. UNY-NR, UNF-NR, UNY/F UNL, UNYL/UNFL

7— Explosionproof Junction Boxes. GR, GRSS, GRF, GUBB, GRU, GRUE, AJBEW.

8— Circuit Breaker or Disconnect Switch. EB, AEXMS, EDS, MD2DS.

9— Combination Circuit Breaker and Line Starter. AEB, with bolted cover.

10— Push Button/Pilot Light, factory sealed. EDS, EFDB.

11— Push Button/Pilot Light, factory sealed, approved for Zone 1 and Zone 2. Unicode™, EDS, EFD, Division 2 Contender™.

12— Switch/Motor Starter, factory sealed. EFD, EFDB.

13— Flexible Coupling. EXGJH, EXLK.

14— Drain/Breather, combination. ECDB.

15— Receptacle, non-factory sealed, interlocked. EBR, JBR.

16— Receptacle, factory sealed. U-Line™, EFS, MD2SR.

17— Motor for explosionproof location.

18— Luminaires, Task/Area, Zone 1—LED, Code•Master™, Code•Master™ Jr., Mercmaster™ LED Generation 3 Zone 1 Series.

19— Luminaires, Task/Area, Zone 2—LED, Mercmaster™ LED Generation 3, Mercmaster™ LED Low Profile, Baymaster™ Series.

20— Fixture Hangers, Zone 1. EXJF, EFHC, EFHU.

21— Fixture Hangers, Zone 2. JB, GSU.

22— Flexible Fixture Supports, Zone 2. JB Cushion, AHG Cushion.

23— Panelboard, Zone 1. EWP, ALPN, AGPN, APPN, APPF; Zone 2–D2P.

24— Conduit Boxes, Bodies, Fittings, Zone 2. Form 35™, Form 85, FM7™, FM8™, Mogul, JB, GSU, LBD, RS.

25— Luminaires, Flood, Zone 1—LED, Areamaster™ Generation 2 Zone 1 Series.

26— Luminaires, Linear, Zone 1—LED, Explosionproof Rigmaster™ Series.

27— Luminaires, Flood, Zone 2—LED, Areamaster™ Generation 2 Series.

28— Luminaires, Linear, Zone 2—LED, Rigmaster™.

### National Electrical Code® Reference

a— Sec. 505.16(B)(4) Seals required within 3.05 m (10 ft.) of either side of boundary entering or leaving hazardous area.

b— Sec. 505.15(B) Wiring methods for Zone 1 sealing and drainage per Sec. 505.16. In Zone 2 [505.15(C)] wiring methods are same as for Division 2. Sealing and drainage per Sec. 505.16.

c— Sec. 505.15(B) Listed explosionproof fittings and boxes used with rigid, steel IMC or MI cable required.

d— Sec. 505.20(B) In Zone 1, equipment must be specifically listed and marked. Equipment listed for Class 1, Division 1 of the same gas group and with similar temperature marking (if any) is permitted.

e— Sec. 505.20(C) In Zone 2, equipment suitable for Class 1, Division 1 or Division 2 of the same gas group and similar temperature is permitted.

f— Sec. 505.15(B)(C) Approved MC-HL cable and listed fittings are suitable for use in Zone 1 and Zone 2.

g— Sec. 505.16(B)(2) Seals required within 18 inches of all arcing devices.

i— Sec. 505.9(E), 505.15(B) and 505.20(B) Boxes must be explosionproof and have 5 full NPT threads engaged when used with rigid or IMC conduit. Approved MI cable and fittings allowed. Approved MC-HL cable allowed with approved cable connectors.

j— Sec. 505.16(E) Drain/breathers must be installed to prevent accumulation of liquids or condensed vapors.

k— Sec. 505.15(B)(2) Flexible connections as at motor terminals must be listed for Class I, Zone 1 or Division 1 location or can be flexible cord meeting 505.17.

l— Sec. 505.16(D)(5) Approved expanded fill seals permit up to 40% fill of cross sectional area of conduit.

## Notes...

# Mercmaster™ Connect LED Luminaires

Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
**ATEX: Zone 2 and 21/22 | Ⓔx II 3 GD | Ⓔx II 2 D | IP66 | IK08**
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**



## Applications

- Enclosed and gasketed fixtures suitable for use in:
  - — A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts may be present
  - — Marine and wet locations
  - — Suitability includes use where there may be simultaneous exposure to flammable gases and vapors or combustible dusts
- Typical applications include:
  - — Power plants
  - — Processing plants
  - — Chemical plants
  - — Oil refineries
  - — Waste and sewage treatment
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other areas where dust, water, dirt and rough usage are a problem

## Features

- Integrated Hazardous Location Rated WirelessHART® ⌑ Sensor Module:
  - — Passive Infrared Motion Sensing with field replaceable PIR Fresnel lens
  - — Embedded illuminance sensor
  - — Device health monitoring and alerts
  - — Strengthens WirelessHART® ⌑ network with a line powered luminaire
- Adjustable LED Driver output:
  - — User selectable maximum lumen output
  - — Fully dimmable driver from 100% to 0%
- Commission within Emerson Plantweb Insight's Connected Lighting Application:
  - — Asset Management
  - — Map Based Commissioning
  - — Programmable central or standalone control modes
- Field provisioning with either Emerson AMS Device Manager or Emerson AMS TREX handheld.
- Modular design provides thousands of combinations for maximum versatility.
- Design is suited for mounting heights ranging from 2 m up to 10 m (7 ft up to 40 ft).
- Three adjustable light outputs provide up to 17,500 lumens (5000K CCT, Type V light distribution, and clear glass globe).

| Nominal Lumens ⓘ | HID Equivalent | Model |
|---|---|---|
| Up to 5500 | 100-150W | MGCL5 |
| Up to 9500 | 250-350W | MGCL9 |
| Up to 17,500 | 400-600W | MGCH6 |

- Choice of optics for optimal light distribution in a variety of applications: Type I, Type III, Type V or Type V Wide.
- Choice of color temperature (CCT): 5000K cool white (70 CRI min), 4500K mid-neutral (80 CRI min), 4000K neutral white (80 CRI min), 3500K mid-warm (80 CRI min), or 3000K warm white (80 CRI min).
- Customize to the application requirements with three different globe options: clear and diffused polycarbonate or clear glass.

**MGCL**

**MGCH**

- Seven standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster III.
- Retrofit adapters for Crouse-Hinds™ ✢, Mercmaster II , and Killark ✧ hoods available. *See Mounting Hood Adapters table*.
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on fixture housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies installation.
- Rugged housing with superior thermal design translates to long luminaire life.
- Luminaire housing has wiring compartment with terminal block separate for easy wiring access.
- Spring-loaded screw-type terminal block can accept UL/CSA 14 to 6 $mm^2$ (26-10 AWG) wire.
- HART® Service Port connection inside top hat.
- Standard 6 kV surge protection.
- Heavy duty, high temperature silicone gaskets.
- Photometric data and electronic drawings available upon request.
- Ambient Temperature (standard product): -40 ˚C to +65 ˚C (-40 ˚F to +149 ˚F).
- Standard NPT threads with M20 option.
- LED L70 reported at 76,000 hours.
- Field replaceable globes, LED driver, and PIR Fresnel Lens.
- 5 year standard warranty. 10 year limited warranty for select part number configurations.

## Options

- Globe available, purchase separately
- Safety cable available, purchase separately.
- All Mercmaster Connect luminaires have provision for fusing; add suffix –**F** at the end of the catalog number.
- Drain is available to divert water existing in the conduit system, purchase separately.

## Standard Materials

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- Sensor housing: polycarbonate
- PIR Fresnel Lens: HDPE
- Gaskets: silicone
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Globe guard and safety cable: stainless steel wire

ⓘ *Nominal lumen value for 5000K, clear glass globe, Type V Wide optic. Detailed lumen information is provided in the " Lumen Output (Efficacy)" tables.*

✧ *Killark is a registered trademark of Hubbell Incorporated.*

✢ *Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*

⌑ *HART and WirelessHART are registered trademarks of the FieldComm Group.*

# Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
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**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

### Standard Finishes

- Mounting hoods and bodies: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

### NEC/CEC Certifications and Compliances

- UL Standard: UL 844; UL 1598; UL 50E; UL 8750; UL 60079-0; UL 60079-7; UL 60079-31; UL 60079-11; UL 121201
- CSA Standard: C22.2 No. 0 - 10; C22.2 No. 94.2 - 15; C22.2 No. 137 18; C22.2 No. 213; C22.2 No. 250.0 - 18; C22.2 No. 250.13 -14; C22.2 No. 60529; C22.2 No. 60079-0:15; C22.2 No. 60079-7:2016; C22.2 No. 60079-31:2015; CAN/CSA C22.2 No. 60079-11-2014 (R2018); CSA E60598-1:16
- NEMA ANSI/IEC Standards: 60529
- cCSAus: 164460, Certificate Number: 80067296

### ATEX/IECEx Certifications and Compliances

- Certification Type: Mercmaster Connect LED
  - — Gas: Zones 2
    - — Conforming to ATEX 2014/34/EU: II 3 G
    - — Type of Protection: Ex ec ia mb IIC T* Gc
  - — Dust: Zones 21 and 22
    - — Conforming to ATEX 2014/34/EU: II 2 D
    - — Type of Protection: Ex ia tb IIIC T** Db; Ex ia tc IIIC T** Dc
- Ambient Temperature: -40 ˚C to +65 ˚C (-40 ˚F to +149 ˚F)
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK08
- Photobiological Safety, IEC 62778 and IEC 62471: RG0 for all models

### Design Lights™ Consortium

- Check DLC QPL for current list of products.

### Wireless Spectrum Approvals

- FCC ID: LW2-RM5801
- IC ID: 2731A-RM5801

### Related Products

- Appleton Wireless Motion Sensor
- Industrial Mercmaster Connect LED Luminaires
- Emerson Plantweb Insight Connected Lighting Application
- Emerson 1410S WirelessHART Gateway
- Emerson 1410D WirelessHART Gateway

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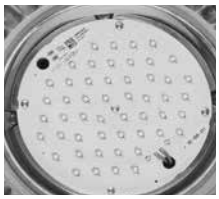
## Illustrated Features

### Programmable Lumen Output



Program the nominal lumen value based on the mounting height.
- L5 – 3500 or 5500 lumens
- L9 – 7500, or 9500 lumens
- H6 – 11500, 13500, or 17500 lumens

### Dimming

Mercmaster Connect's LED Driver fully dims the light output from 100% down to 0% based on the active operating mode.

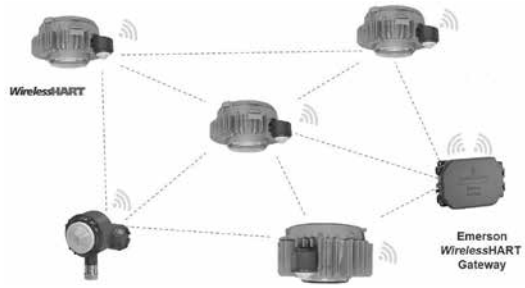
### Maintenance Alerts

Internal sensors monitor the health and reliability of the Mercmaster Connect electronics and provide status updates over WirelessHART® ⌑.

### Standalone vs Central Controls

Standalone modes are available. Connected to a WirelessHART® ⌑ network or when by itself in remote locations.

**Standalone Control Modes:**
1. Motion Sensing
2. Lux Sensing
3. Motion + Lux Sensing
4. Daylight Harvesting




Using Plantweb Insight, central control modes operate across an assigned group of luminaires.

**Central Control Modes:**
1. Group Sensing Control - Control a group of luminaires together based on the state of the illuminance and motion sensors
2. Time Based Schedule - Schedule up to four time periods per day to turn on groups of luminaires based on the current network time
3. Always On- Set a group of light fixtures to a common light dimming level from 0 to 100%.

### Plantweb Insight Connected Lighting Application

PLANTWEB insight

Enables critical system monitoring without adding another lighting control system. Commission lighting controls, monitor lighting performance, and review historical energy analytics.

### Integrated Motion Sensor

Utilizing passive infrared detection (PIR), Mercmaster Connect can detect human sized objects from up to 40 ft away. Mercmaster Connect offers two PIR Fresnel lens factory options based on the mounting height to optimize the detection performance.

### Robust and Reliable WirelessHart Protocol

WirelessHART

Emerson's WirelessHART® ⌑ combines HART technology with wireless capabilities to create an adaptable wireless communications protocol for process automation applications. WirelessHART® ⌑ offers simple installation and robust, layered security to ensure network protection.

### Failsafe Operating Mode

If the rare case of communication loss from a WirelessHART® ⌑ gateway, all Mercmaster Connect LED Luminaires on that gateway will revert to maximum brightness until communication is restored.

⌑ *HART and WirelessHART are registered trademarks of the FieldComm Group.*

# Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
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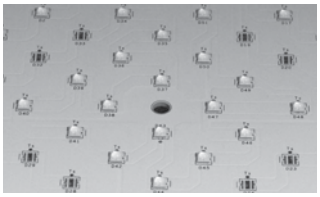
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

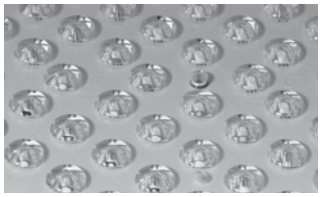
### Illustrated Features

**Type I** - Long and narrow distribution pattern designed with walkways in mind.

**Type III** - Wall mounted distribution pattern designed where you need good forward light projection.



**Type V** - Symmetrical circle distribution pattern ideal when you need even coverage in all directions.



**Type V Wide** - Like the Type V distribution pattern with more vertical lumens designed to help spread the light quicker and more outwards.

Choose from **three color temperatures** (CCT): 3000K, 4000K, and 5000K ‡

**Four light distribution patterns**: Type I, Type III, Type V and Type V Wide for application flexibility.

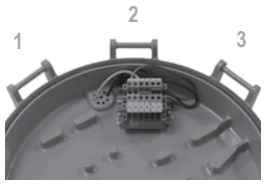
**Seven mounting hoods** allow one fixture to be configured for ceiling, pendant, stanchion, or wall applications.

**Four globes**: clear and diffused polycarbonate, clear glass globe, and prismatic refractor provide just the right level of diffusion.

### Safety Features

**Latch Assembly and Hinge**: Captive, stainless steel latch assembly (bolt and nut) closes securely while providing resistance to corrosive atmospheres. Swing-away design simplifies wiring and installation. Extra high hinge provides additional protection against accidental driver housing disengagement during installation or maintenance.

### Type I and Type III Hinge System



Type I and Type III light distribution patterns use a multiple hinged housing design which allows you to correctly line up the beam pattern in your desired direction. By using one of the three available hinges you can position the fixture for optimal light output.

### Designed for the Environment

Driver housing design incorporates separate sections for the terminal block and driver. The efficient thermal design ensures reliable heat transfer from the LED assembly out via the heatsink and the cast, epoxy powder coat, aluminum housing.

### Safety Cable

Safety cable is slipped around the housing through retention points that are casted in. Safety cable has built in loops combined with a locking carabiner to allow for a quick and secure installation.

### Watertight Pendant Hood

Watertight pendant hood provides protection against water ingress in the conduit utilizing an IP68 cord grip with 3 wire holes 4 mm (0.157") in diameter.

*‡ Other CCT options available upon request. Contact your local sales representative for more information.*

# Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

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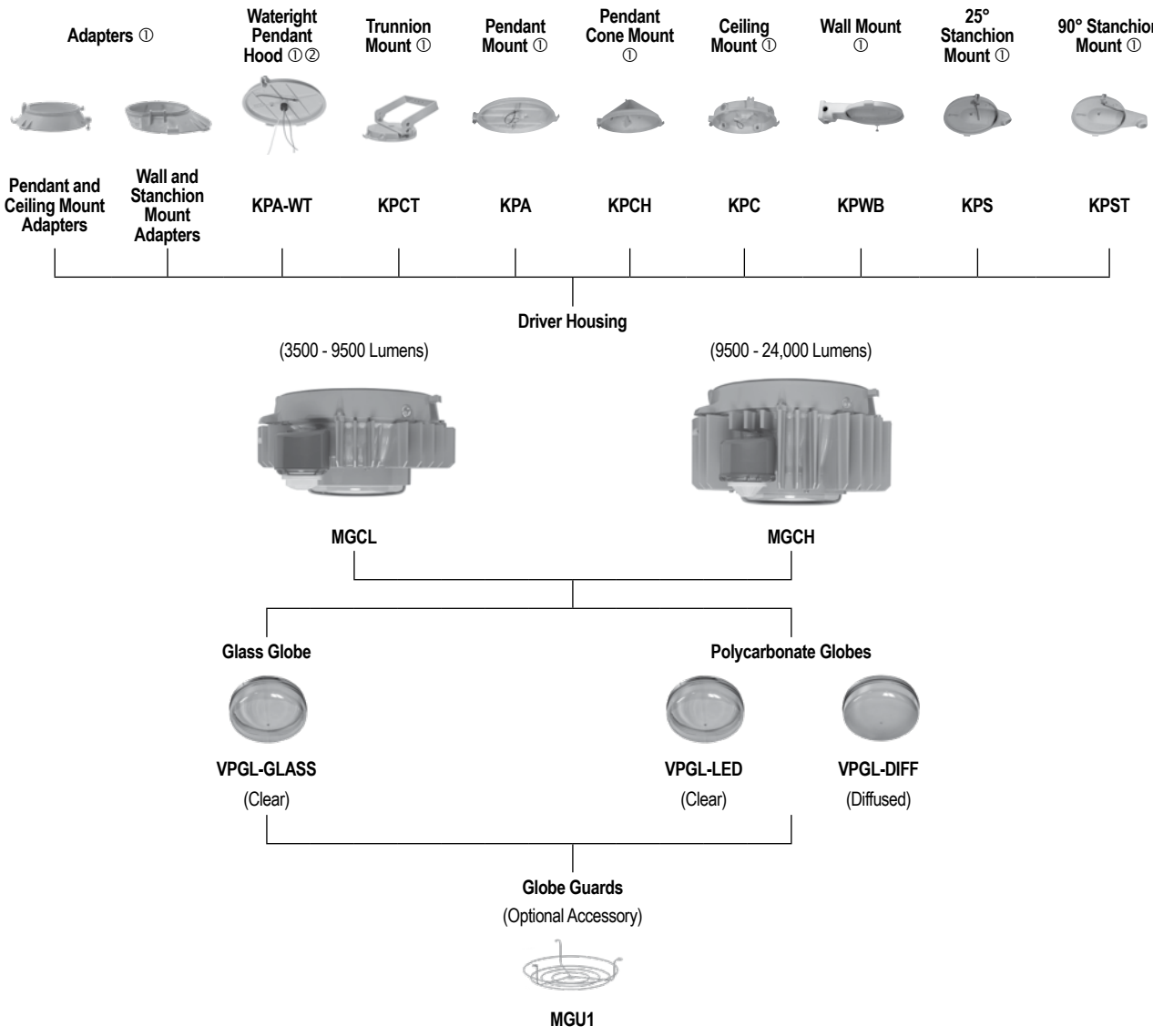
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

### Family Tree — Mercmaster™ Connect LED Luminaires




① *See Mounting Hood Adapters table for part numbers.*
② *Certified for cCSAus only.*

# Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

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**Order Using Catalog Numbering Guide — Mercmaster™ Connect LED Hazardous Location Luminaires**

| MGC | A | L5 | 2 | N | D | 5 | BU | F | 7 | N |
|---|---|---|---|---|---|---|---|---|---|---|

**MGC** — Series Prefix:
MGC - Mercmaster Connect LED Class 1, Division 2 and Zone 2

**A** — Mounting:
A - Pendant
B - Watertight Pendant ⍋
C - Ceiling ②
D - Pendant Cone ②
R - 90° Stanchion ①
S - 25° Stanchion ①
T - Trunnion
K - Killark™ ✧ Adapter Universal ⍋
U - Mercmaster II Adapter, Ceiling or Pendant ⍋
V - Mercmaster II Adapter, Stanchion or Wall ⍋
W - Wall
X - Crouse Hinds™ ✢ Adapter, Ceiling or Pendant ⍋
Y - Crouse Hinds™ Adapter, Stanchion or Wall ⍋
Blank - No mounting hood

**L5** — Lumen (nominal):
L5 - Up to 5,500
L9 - Up to 9,500
H6 - Up to 17,500

**2** — Hub Size:
2 - 3/4" NPT
3 - 1" NPT
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion
6 - Metric M20
Blank - If using adapter or no hood

**N** — Color Temperature: ‡
C - Cool, 5000K
N - Neutral, 4000K
M- Mid Neutral, 4500K
W - Warm, 3000K
R- Mid-Warm, 3500K (retail)

**D** — Globe Material:
P - Clear Polycarbonate Globe
D - Diffused Polycarbonate Globe
G - Clear Glass Globe

**5** — Light Distribution Pattern:
1 - Type I
3 - Type III
5 - Type V
W - Type V Wide

**BU** — Voltage:
BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc

**F** — Options: ⌘
F - Fusing
Blank - No fusing

**7** — Control Options:
7 - Motion and Illuminance Sensor, WirelessHart™ ⌑ Interface

**N** — PIR Fresnel Lens:
N - Between 20 to 40 ft mounting height
P- Below 20 ft mounting height

*① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in this mounting option.*
*② Only allowed for Type V and Type V Wide light distribution.*
*⌘ Fusing only permitted for NEC/CEC rating. Factory installed. Use of fuse voids Marine Outside Type (Salt Water) rating. Fusing is mounted in the driver housing.*
*‡ Other CCT options available upon request. Contact your local sales representative for more information.*
*⍋ Adapters, watertight pendant hood and BH Voltage only certified for NEC/CEC.*
*✧ Killark is a registered trademark of Hubbell Incorporated.*
*✢ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*
*⌑ HART and WirelessHART are registered trademarks of the FieldComm Group.*
*Note: For other lighting combinations, please contact your local Appleton representative for more information.*

# Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
**ATEX: Zone 2 and 21/22 | ⟨Ex⟩ II 3 GD | ⟨Ex⟩ II 2 D | IP66 | IK08**
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

**Lumen Output (Efficacy) ①②**

| Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe — Model MGCL5 — 100-150W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 4400 | 92 | 3500K | 80 | 4500 | 93 | 4000K | 80 | 4580 | 95 | 4500K | 80 | 4750 | 99 | 5000K | 70 | 4900 | 102 |
| Type-III | 3000K | 80 | 4620 | 96 | 3500K | 80 | 4700 | 98 | 4000K | 80 | 4800 | 100 | 4500K | 80 | 4990 | 104 | 5000K | 70 | 5140 | 107 |
| Type-V | 3000K | 80 | 4770 | 99 | 3500K | 80 | 4860 | 101 | 4000K | 80 | 4960 | 103 | 4500K | 80 | 5150 | 107 | 5000K | 70 | 5300 | 110 |
| Type-V Wide | 3000K | 80 | 4520 | 94 | 3500K | 80 | 4600 | 96 | 4000K | 80 | 4700 | 98 | 4500K | 80 | 4870 | 101 | 5000K | 70 | 5020 | 105 |
| **Clear Polycarbonate Globe — Model MGCL9 — 250-350W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 7860 | 100 | 3500K | 80 | 8060 | 103 | 4000K | 80 | 8170 | 104 | 4500K | 80 | 8400 | 107 | 5000K | 70 | 9300 | 119 |
| Type-III | 3000K | 80 | 8250 | 105 | 3500K | 80 | 8460 | 108 | 4000K | 80 | 8570 | 109 | 4500K | 80 | 8800 | 112 | 5000K | 70 | 9750 | 125 |
| Type-V | 3000K | 80 | 8430 | 108 | 3500K | 80 | 8650 | 111 | 4000K | 80 | 8770 | 112 | 4500K | 80 | 9010 | 115 | 5000K | 70 | 9970 | 127 |
| Type-V Wide | 3000K | 80 | 8120 | 104 | 3500K | 80 | 8330 | 106 | 4000K | 80 | 8450 | 108 | 4500K | 80 | 8670 | 111 | 5000K | 70 | 9600 | 123 |
| **Clear Polycarbonate Globe — Model MGCH6 — 400-600W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 13600 | 93 | 3500K | 80 | 13900 | 95 | 4000K | 80 | 14100 | 97 | 4500K | 80 | 14470 | 99 | 5000K | 70 | 16100 | 110 |
| Type-III | 3000K | 80 | 14200 | 97 | 3500K | 80 | 14500 | 100 | 4000K | 80 | 14700 | 101 | 4500K | 80 | 15100 | 104 | 5000K | 70 | 16800 | 115 |
| Type-V | 3000K | 80 | 15200 | 104 | 3500K | 80 | 15600 | 107 | 4000K | 80 | 15800 | 108 | 4500K | 80 | 16200 | 111 | 5000K | 70 | 18000 | 124 |
| Type-V Wide | 3000K | 80 | 13940 | 95 | 3500K | 80 | 14270 | 98 | 4000K | 80 | 14450 | 99 | 4500K | 80 | 14850 | 102 | 5000K | 70 | 16500 | 113 |
| **Diffused Polycarbonate Globe — Model MGCL5 — 100-150W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 4180 | 87 | 3500K | 80 | 4260 | 88 | 4000K | 80 | 4350 | 90 | 4500K | 80 | 4510 | 94 | 5000K | 70 | 4650 | 97 |
| Type-III | 3000K | 80 | 4400 | 91 | 3500K | 80 | 4480 | 93 | 4000K | 80 | 4570 | 95 | 4500K | 80 | 4740 | 98 | 5000K | 70 | 4890 | 102 |
| Type-V | 3000K | 80 | 4660 | 97 | 3500K | 80 | 4750 | 99 | 4000K | 80 | 4850 | 101 | 4500K | 80 | 5030 | 105 | 5000K | 70 | 5180 | 108 |
| Type-V Wide | 3000K | 80 | 4310 | 90 | 3500K | 80 | 4390 | 91 | 4000K | 80 | 4480 | 93 | 4500K | 80 | 4650 | 97 | 5000K | 70 | 4790 | 100 |
| **Diffused Polycarbonate Globe — Model MGCL9 — 250-350W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 7470 | 96 | 3500K | 80 | 7660 | 98 | 4000K | 80 | 7770 | 99 | 4500K | 80 | 7980 | 102 | 5000K | 70 | 8830 | 113 |
| Type-III | 3000K | 80 | 7820 | 100 | 3500K | 80 | 8030 | 102 | 4000K | 80 | 8140 | 104 | 4500K | 80 | 8360 | 107 | 5000K | 70 | 9250 | 118 |
| Type-V | 3000K | 80 | 8200 | 105 | 3500K | 80 | 8400 | 107 | 4000K | 80 | 8520 | 109 | 4500K | 80 | 8750 | 112 | 5000K | 70 | 9680 | 124 |
| Type-V Wide | 3000K | 80 | 7740 | 99 | 3500K | 80 | 7940 | 101 | 4000K | 80 | 8050 | 103 | 4500K | 80 | 8270 | 106 | 5000K | 70 | 9140 | 117 |
| **Diffused Polycarbonate Globe — Model MGCH6 — 400-600W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 12870 | 88 | 3500K | 80 | 13170 | 90 | 4000K | 80 | 13340 | 92 | 4500K | 80 | 13700 | 94 | 5000K | 70 | 15230 | 105 |
| Type-III | 3000K | 80 | 13430 | 92 | 3500K | 80 | 13740 | 94 | 4000K | 80 | 13900 | 96 | 4500K | 80 | 14300 | 98 | 5000K | 70 | 15900 | 109 |
| Type-V | 3000K | 80 | 14670 | 100 | 3500K | 80 | 15010 | 103 | 4000K | 80 | 15200 | 104 | 4500K | 80 | 15620 | 107 | 5000K | 70 | 17360 | 119 |
| Type-V Wide | 3000K | 80 | 13220 | 91 | 3500K | 80 | 13530 | 93 | 4000K | 80 | 13700 | 94 | 4500K | 80 | 14100 | 97 | 5000K | 70 | 15640 | 107 |

*① All lumen values are typical (tolerance +/-10%).*
*② Diffused polycarbonate globe can be used with Type I, III and V wide. Refer to photometric files for lumen output information.*

# Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
**ATEX: Zone 2 and 21/22 | Ⓔx II 3 GD | Ⓔx II 2 D | IP66 | IK08**
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

**Lumen Output (Efficacy)** ①②

| Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass Globe — Model MGCL5 — 100-150W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 4610 | 96 | 3500K | 80 | 4700 | 98 | 4000K | 80 | 4800 | 100 | 4500K | 80 | 4980 | 103 | 5000K | 70 | 5130 | 107 |
| Type-III | 3000K | 80 | 4850 | 101 | 3500K | 80 | 4940 | 103 | 4000K | 80 | 5040 | 105 | 4500K | 80 | 5230 | 109 | 5000K | 70 | 5400 | 112 |
| Type-V | 3000K | 80 | 4970 | 104 | 3500K | 80 | 5060 | 106 | 4000K | 80 | 5170 | 108 | 4500K | 80 | 5360 | 112 | 5000K | 70 | 5530 | 115 |
| Type-V Wide | 3000K | 80 | 4730 | 98 | 3500K | 80 | 4820 | 100 | 4000K | 80 | 4920 | 102 | 4500K | 80 | 5100 | 106 | 5000K | 70 | 5260 | 109 |
| **Clear Glass Globe — Model MGCL9 — 250-350W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 8220 | 105 | 3500K | 80 | 8430 | 108 | 4000K | 80 | 8550 | 109 | 4500K | 80 | 8780 | 112 | 5000K | 70 | 9710 | 124 |
| Type-III | 3000K | 80 | 8630 | 110 | 3500K | 80 | 8850 | 113 | 4000K | 80 | 8980 | 115 | 4500K | 80 | 9220 | 118 | 5000K | 70 | 10200 | 131 |
| Type-V | 3000K | 80 | 8800 | 112 | 3500K | 80 | 9030 | 116 | 4000K | 80 | 9150 | 117 | 4500K | 80 | 9400 | 120 | 5000K | 70 | 10400 | 133 |
| Type-V Wide | 3000K | 80 | 8480 | 108 | 3500K | 80 | 8700 | 111 | 4000K | 80 | 8820 | 113 | 4500K | 80 | 9060 | 116 | 5000K | 70 | 10020 | 128 |
| **Clear Glass Globe — Model MGCH6 — 400-600W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 14230 | 98 | 3500K | 80 | 14570 | 100 | 4000K | 80 | 14750 | 101 | 4500K | 80 | 15160 | 104 | 5000K | 70 | 16800 | 115 |
| Type-III | 3000K | 80 | 14900 | 102 | 3500K | 80 | 15250 | 105 | 4000K | 80 | 15450 | 106 | 4500K | 80 | 15870 | 109 | 5000K | 70 | 17640 | 121 |
| Type-V | 3000K | 80 | 15940 | 109 | 3500K | 80 | 16320 | 112 | 4000K | 80 | 16530 | 113 | 4500K | 80 | 16980 | 116 | 5000K | 70 | 18870 | 129 |
| Type-V Wide | 3000K | 80 | 14600 | 100 | 3500K | 80 | 14950 | 102 | 4000K | 80 | 15150 | 104 | 4500K | 80 | 15560 | 107 | 5000K | 70 | 17300 | 118 |

*① All lumen values are typical (tolerance +/-10%).*
*② Diffused polycarbonate globe can be used with Type I, III and V wide. Refer to photometric files for lumen output information.*

# Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
**ATEX: Zone 2 and 21/22 | Ex II 3 GD | Ex II 2 D | IP66 | IK08**
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

### Electrical Specifications ①

| Model | Voltage | Input Power | Input Current (Amp) | Power Factor | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| MGCL5 | 120 Vac | 46 | 0.39 | >0.9 | < 20% |
| | 277 Vac | 46 | 0.17 | | |
| | 170 Vdc | 46 | 0.27 | N/A | N/A |
| MGCL9 | 120 Vac | 75 | 0.64 | >0.9 | < 20% |
| | 277 Vac | 75 | 0.29 | | |
| | 170 Vdc | 75 | 0.45 | N/A | N/A |
| MGCH6 | 120 Vac | 145 | 1.24 | >0.9 | < 20% |
| | 277 Vac | 145 | 0.54 | | |
| | 170 Vdc | 145 | 0.86 | N/A | N/A |

### NEC/CEC Temperature Codes ②

| Model ② | Ambient Temperature °C (°F) | Supply wire Temperature °C (°F) | Class I, Division 2 Groups A, B, C, D | Class II, Division 2 Groups F, G | Class I, Division 2 and Class II, Division 2 |
|---|---|---|---|---|---|
| MGCL5 | 40 (104) | 90 (194) | T5 | T6 | T5 |
| | 55 (131) | | T4 | T5 | T4 |
| | 65 (149) | | T4 | T5 | T4 |
| MGCL9 | 40 (104) | 90 (194) | T5 | T6 | T5 |
| | 55 (131) | | T4 | T5 | T4 |
| | 65 (149) | | T4 | T5 | T4 |
| MGCH6 | 40 (104) | 90 (194) | T4 | T6 | T4 |
| | 55 (131) | | T3C | T5 | T3C |
| | 65 (149) | | T3C | T5 | T3C |

### NEC/CEC — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature ③④

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*① All values are typical (tolerance +/-10%). Rated Input current corresponds to light intensity set at 100% brightness.*
*② Ambient Temperature Range: -40 °C to +65 °C (-40 °F to +149 °F).*
*③ T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*
*④ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and Class I, Zone 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.*

# Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
**ATEX: Zone 2 and 21/22 | Ⓔx II 3 GD | Ⓔx II 2 D | IP66 | IK08**
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

### Mounting Hoods

| | Hub Size | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Pendant — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.0 (2.3) | **KPA-75** |
| | 1" NPT | | **KPA-100** |
| | M20 | | **KPA-M20** |
| **Watertight Pendant Hood — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.1 (2.4) | **KPA-75-WT** |
| | 1" NPT | | **KPA-100-WT** |
| | M20 | | **KPA-WT-M20** |
| **Pendant Cone — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.1 (2.5) | **KPCH-75** |
| | 1" NPT | | **KPCH-100** |
| | M20 | | **KPCH-M20** |
| **Trunnion — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 6.1 (13.4) | **KPCT-75** |
| | 1" NPT | | **KPCT-100** |
| | M20 | | **KPCT-M20** |
| **Ceiling — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 1.4 (3.0) | **KPC-75** |
| | 1" NPT | | **KPC-100** |
| | M20 | | **KPC-M20** |
| **Wall — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 1.8 (4.0) | **KPWB-75** |
| | 1" NPT | | **KPWB-100** |
| | M20 | | **KPWB-M20** |
| **25° Stanchion — One Hub** | | | |
| | 1-1/4" NPT | 1.5 (3.3) | **KPS-125** |
| | 1-1/2" NPT | | **KPS-150** |
| **90° Stanchion — One Hub** | | | |
| | 1-1/4" NPT | 1.7 (3.8) | **KPST-125** |
| | 1-1/2" NPT | | **KPST-150** |

# Mercmaster™ Connect LED Luminaires

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**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
**ATEX: Zone 2 and 21/22 | Ex II 3 GD | Ex II 2 D | IP66 | IK08**
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

### Accessories and Replacement Parts

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Globes** | | | |
| | Clear Globe — Polycarbonate | 0.2 (0.5) | **VPGL-LED** |
| | Diffused Globe — Polycarbonate | 0.2 (0.5) | **VPGL-DIFF** |
| | Clear Globe — Glass | 0.8 (1.7) | **VPGL-GLASS** |
| **Guard** | | | |
| | Globe Guard | 0.2 (0.4) | **MGU1** |
| **Safety Cable** | | | |
| | Stainless steel | 0.2 (0.4) | **LEDSC** |
| **Drain Plug** | | | |
| | 76 mm (3") long, 1/2" NPT trade size drain assembly used to divert water existing in the conduit system | 0.4 (0.9) | **LEDDR3** |

### Mounting Hood Adapters ①

| | Manufacturer | Installed Mounting Hood | Weight in kg (lbs) | Appleton Adapter Catalog Number |
|---|---|---|---|---|
| | Crouse-Hinds™ Champ® ✢ | Pendant: APM2/3<br>Ceiling: CM2/3<br>Flexible Pendant: HPM2 | 0.9 (2.00) | **MMADCHVS** |
| | Appleton™ Mercmaster™ II | Pendant: LPA75/100<br>Ceiling: LPC75/100 | 0.9 (2.00) | **MMADIIS** |
| | Crouse-Hinds™ Champ® ✢ | Wall: TWM2/3<br>25° Angle Stanchion: JM5<br>90° Straight Stanchion: PM5 | 0.9 (2.00) | **MMADCHVA** |
| | Appleton™ Mercmaster™ II | Wall: LPWB75, LPWB100<br>25° Angle Stanchion: LPS125, LPS150 | 0.9 (2.00) | **MMADIIA** |
| | Killark™ ✧ | Ceiling: VMX2B, VMX3B, VMX6B, VMX7B, VMX9B<br>Pendant: VMA2B, VMA3B<br>Stanchion: VMD4B, VMD5B, VMS4B, VMS5B<br>Wall: VMB2B, VMB3B<br>Pendant Cone: VMC2B, VMC3B | 1.0 (2.3) | **MMADKVA** |

### Luminaire Specifications

| Model | Lumen Outputs | Weight in kg (lbs) |
|---|---|---|
| MGCL5 | 5500 | 11.1 (24.4) |
| MGCL9 | 9500 | 11.1 (24.4) |
| MGCH6 | 17,500 | 13.6 (29.9) |

① *Adapters are cCSAus rated only.*
✧ *Killark is a registered trademark of Hubbell Incorporated.*
✢ *Crouse-Hinds and Champ are a registered trademarks of Cooper Crouse-Hinds.*

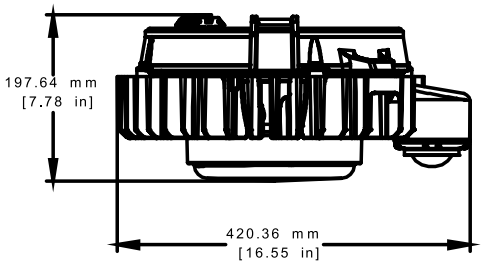
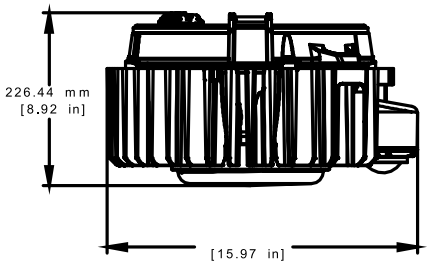
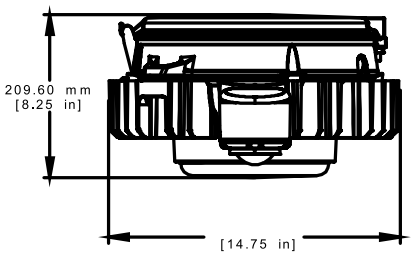
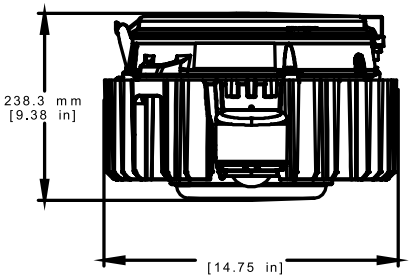
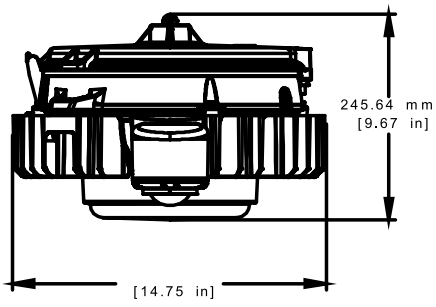
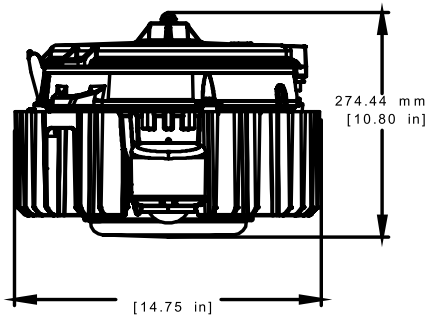
# Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
**ATEX: Zone 2 and 21/22 | Ⓔx II 3 GD | Ⓔx II 2 D | IP66 | IK08**
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

### Dimensional Drawings — Driver Housing with Globe

| MGCL | MGCH |
|---|---|
| **Driver Housing** | |
|  |  |
| **Pendant** | |
|  |  |
| **Watertight Pendant** | |
|  |  |

*Note: For other lighting combinations, please contact your local Appleton representative for more information.*

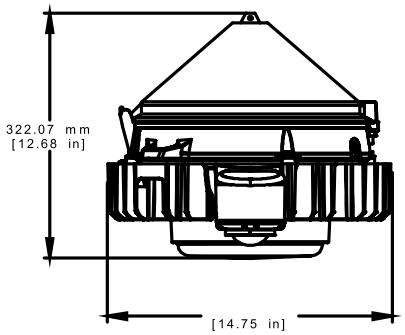
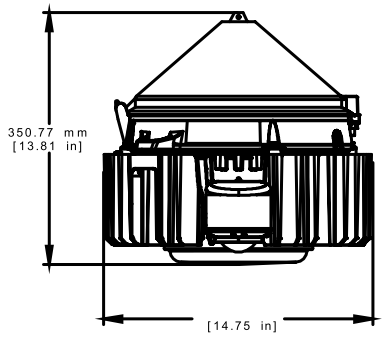
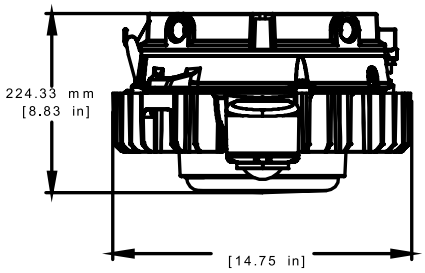
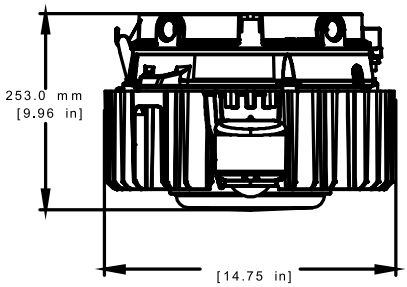
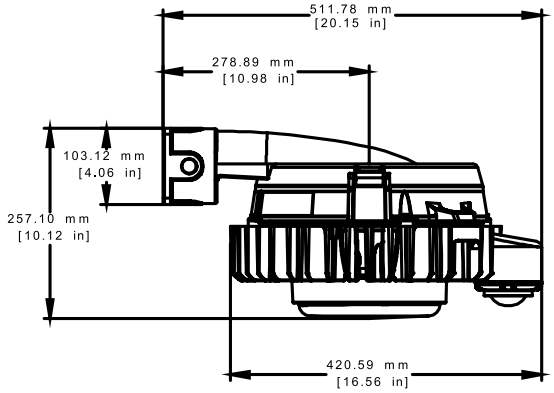
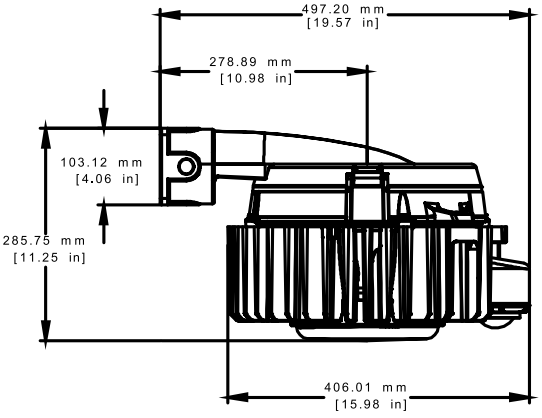
# Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
**ATEX: Zone 2 and 21/22 | Ex II 3 GD | Ex II 2 D | IP66 | IK08**
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

### Dimensional Drawings — Driver Housing with Globe

| MGCL | MGCH |
|---|---|
| **Pendant Cone** | |
|  |  |
| **Ceiling** | |
|  |  |
| **Wall Mount** | |
|  |  |

*Note: For other lighting combinations, please contact your local Appleton representative for more information.*

# Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

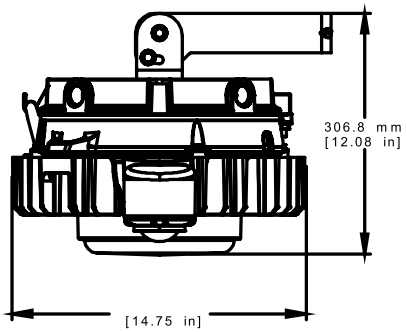
Enclosed and Gasketed Fixtures — Hazardous Locations

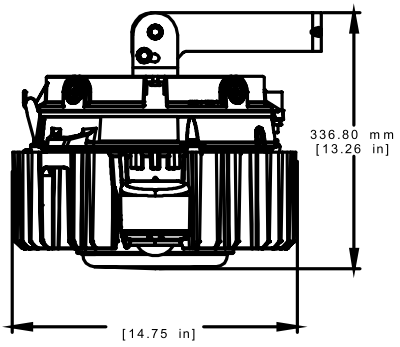
**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
**ATEX: Zone 2 and 21/22 | Ⓔx II 3 GD | Ⓔx II 2 D | IP66 | IK08**
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

### Dimensional Drawings — Driver Housing with Globe

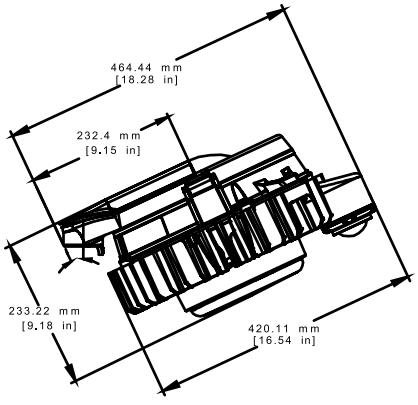
| MGCL | MGCH |
|---|---|

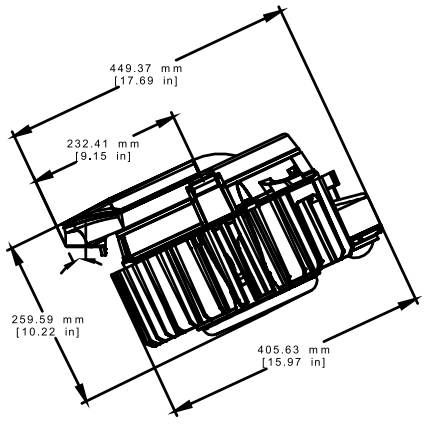
**Trunnion Mount**



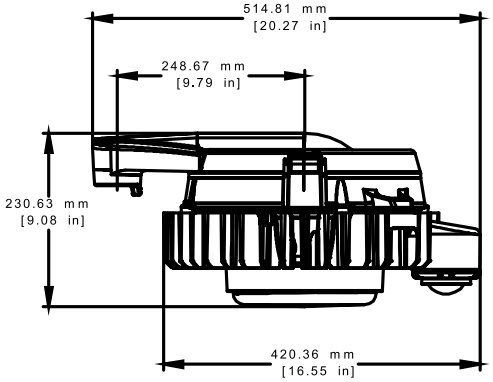



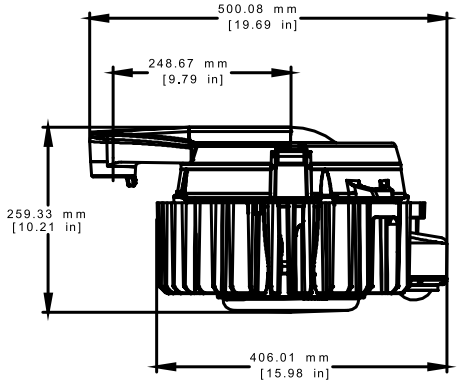

**25° Stanchion Mount**




**90° Stanchion Mount**




*Note: For other lighting combinations, please contact your local Appleton representative for more information.*

# Mercmaster™ Connect LED Luminaires

Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
**ATEX: Zone 2 and 21/22 | Ⓔx II 3 GD | Ⓔx II 2 D | IP66 | IK08**
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

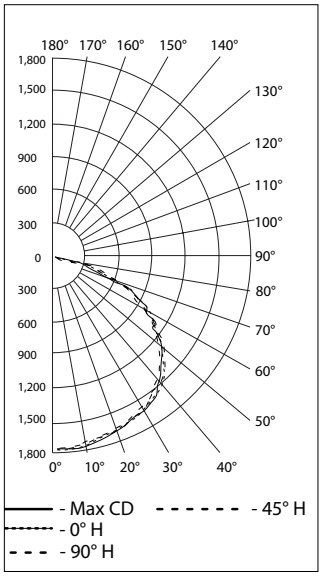
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate 5000K CCT

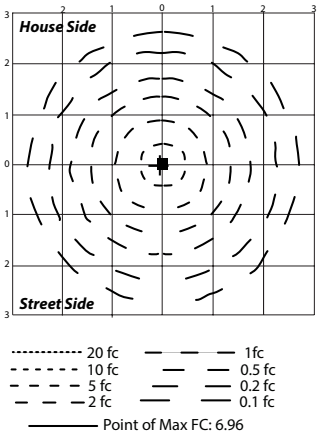
REPORT NUMBER: **MGCL5CP5**

Luminaire Lumens 5,660

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,410.3 | 24.9% |
| 0-40 | 2,381.3 | 42.1% |
| 0-60 | 4,457.9 | 78.8% |
| 60-90 | 1,179.2 | 20.8% |
| 70-100 | 406.4 | 7.2% |
| 90-120 | 20.7 | 0.4% |
| 0-90 | 5,637.2 | 99.6% |
| 90-180 | 22.7 | 0.4% |
| 0-180 | 5,659.8 | 100% |

**LUMENS PER ZONE**

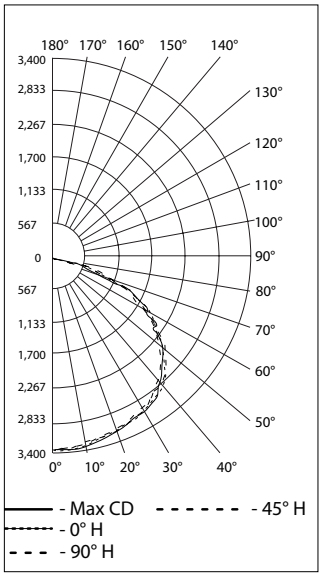
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 166.5 | 2.9% | 90-100 | 8.8 | 0.2% |
| 10-20 | 483.1 | 8.5% | 100-110 | 7.1 | 0.1% |
| 20-30 | 760.6 | 13.4% | 110-120 | 4.8 | 0.1% |
| 30-40 | 971.0 | 17.2% | 120-130 | 1.2 | 0% |
| 40-50 | 1,0667.7 | 18.8% | 130-140 | 0.1 | 0% |
| 50-60 | 1,010.0 | 17.8% | 140-150 | 0.2 | 0% |
| 60-70 | 781.6 | 13.8% | 150-160 | 0.2 | 0% |
| 70-80 | 331.7 | 5.9% | 160-170 | 0.2 | 0% |
| 80-90 | 65.9 | 1.2% | 170-180 | 0.1 | 0% |

### Type V, Clear Polycarbonate 5000K CCT

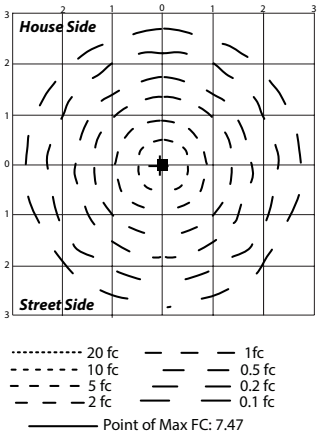
REPORT NUMBER: **MGCL9CP5**

Luminaire Lumens 10,845

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,709.1 | 25% |
| 0-40 | 4,571.0 | 42.1% |
| 0-60 | 8,535.2 | 78.7% |
| 60-90 | 2,272.7 | 21% |
| 70-100 | 806.0 | 7.4% |
| 90-120 | 33.3 | 0.3% |
| 0-90 | 10,808.0 | 99.7% |
| 90-180 | 37.2 | 0.3% |
| 0-180 | 10,845.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 319.9 | 2.9% | 90-100 | 17.5 | 0.2% |
| 10-20 | 928.5 | 8.6% | 100-110 | 9.9 | 0.1% |
| 20-30 | 1,460.7 | 13.5% | 110-120 | 5.9 | 0.1% |
| 30-40 | 1,861.9 | 17.2% | 120-130 | 1.6 | 0% |
| 40-50 | 2,042.3 | 18.8% | 130-140 | 0.7 | 0% |
| 50-60 | 1,922.0 | 17.7% | 140-150 | 0.6 | 0% |
| 60-70 | 1,484.2 | 13.7% | 150-160 | 0.5 | 0% |
| 70-80 | 649.2 | 6.0% | 160-170 | 0.3 | 0% |
| 80-90 | 139.3 | 1.3% | 170-180 | 0.1 | 0% |

*Note: For other lighting combinations, please contact your local Appleton representative for more information.*

# Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D Class II, Division 2, Group F, G | Class III | Class I, Zone 2 IIC | Class II Zone 22 | Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water)**
**ATEX: Zone 2 and 21/22 | Ⓔx II 3 GD | Ⓔx II 2 D | IP66 | IK08**
**IECEx: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIIC | Ex ia tc IIIC | IP66 | IK08**

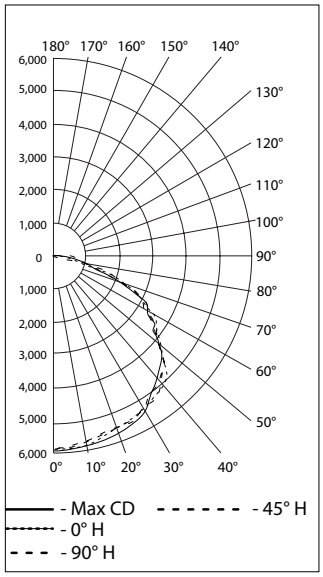
### Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Polycarbonate 5000K CCT**

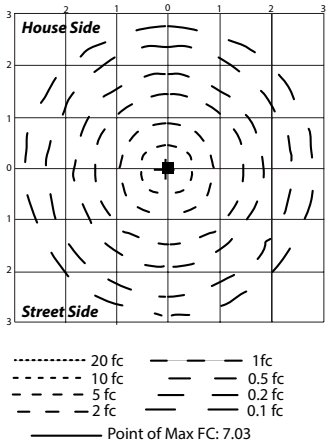
REPORT NUMBER: **MGCH6CP5**

Luminaire Lumens 19,107

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,772.9 | 25% |
| 0-40 | 8,053.1 | 42.1% |
| 0-60 | 15,037.2 | 78.7% |
| 60-90 | 4,004.0 | 21% |
| 70-100 | 1,420.0 | 7.4% |
| 90-120 | 58.7 | 0.3% |
| 0-90 | 19,041.2 | 99.7% |
| 90-180 | 65.7 | 0.3% |
| 0-180 | 19,107.0 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 563.6 | 2.9% | 90-100 | 30.8 | 0.2% |
| 10-20 | 1,635.8 | 8.6% | 100-110 | 17.4 | 0.1% |
| 20-30 | 2,573.5 | 13.5% | 110-120 | 10.5 | 0.1% |
| 30-40 | 3,280.3 | 17.2% | 120-130 | 2.9 | 0% |
| 40-50 | 3,598.0 | 18.8% | 130-140 | 1.3 | 0% |
| 50-60 | 3,386.1 | 17.7% | 140-150 | 1.2 | 0% |
| 60-70 | 2,614.9 | 13.7% | 150-160 | 0.9 | 0% |
| 70-80 | 1,143.7 | 6.0% | 160-170 | 0.6 | 0% |
| 80-90 | 245.5 | 1.3% | 170-180 | 0.2 | 0% |

*Note: For other lighting combinations, please contact your local Appleton representative for more information.*

# Wireless Motion Sensor

Plantweb™ Insight Connected Lighting Application

Compatible with Mercmaster™ Connect LED Luminaires

**NEC/CEC: Class I, Division 1, Groups A, B, C, D | Class I, Zone 0 AEx ia IIC | Ex ia IIC | Type 3R, 4, 4X | IP66 | Suitable for Use in Wet Locations**
**ATEX: Zone 0 | Ⓔx II 1 G | Ex ia IIC | IP66**
**IECEx: Zone 0 | Ex ia IIC**



## Applications

- Intrinsically safe and battery powered WirelessHART motion Sensor suitable for use in:
  - A wide range of industrial, chemical processing and other areas where flammable gases and vapors may be present
  - Suitability includes use where there may be simultaneous exposure to flammable gases and vapors
- Typical applications include:
  - Power plants
  - Processing plants
  - Chemical plants
  - Oil refineries
  - Waste and sewage treatment
  - Other areas where water and dirt are a problem

## Features

- Extends motion sensor coverage around obstacles for Emerson's Connected lighting ecosystem
- Intrinsically safe WirelessHART® Motion Sensor
  - Passive Infrared Motion Sensing with field replaceable PIR Fresnel lens
  - Embedded illuminance sensor
  - Device health monitoring and alerts
- SmartPower™ module (sold separately) provides up to 5 year maintenance-free operation and field replacement without transmitter removal
- Commission within Emerson Plantweb Insight's Connected Lighting Application
  - Asset Management
  - Map Based Commissioning
  - Motion sensor interacts with central control modes
- Field setup with either Emerson AMS Device Manager or Emerson TREX handheld
- Mounting bracket (sold separately) eases installation without the cost of wiring
- Design is suited for detection distances up to 5 m (20 ft).
- Internal antenna design
- Ambient Temperature (standard product): -40 ˚C to +65 ˚C (-40 ˚F to +149 ˚F)
- 5 Year warranty standard.

## Standard Materials

- Housing: Valox and polycarbonate
- Lens: HDPE
- Gaskets: silicone and polyurethane foam

## NEC/CEC Certifications and Compliances

- UL Standard: UL 913; UL 60079-0; UL 60079-11; UL 50e
- CSA Standard: C22.2 No. 0 - 10; C22.2 No. 94.2 - 15; C22.2 No. 60529; C22.2 No. 60079-0:19; C22.2 No. 60079-11:18
- NEMA ANSI/IEC Standards: 60529
- cCSAus: 164460, Certificate Number: 80048037

**WMS**

## ATEX/IECEx Certifications and Compliances

- Certification Type: Wireless Motion Sensor
  - Gas: Zones 0
    - Conforming to ATEX 2014/34/EU: II 1 G
    - Type of Protection: Ex ia IIC T* Ga
    - Temperature Class: T5 to T4
- Ambient Temperature: -40 °C up to +65 °C (-40 °F up to +149 °F)
- ATEX Certificate: INERIS 21ATEX0005X
- IECEx Certificate: IECEx INE 21.0008X
- Index of Protection according EN/IEC 60529: IP66

## Related Products

- Mercmaster Connect LED Luminaires
- Industrial Mercmaster Connect LED Luminaires
- Emerson Plantweb Insight Connected Lighting Application
- Emerson 1410S WirelessHART Gateway
- Emerson 1410D WirelessHART Gateway

# Wireless Motion Sensor

## Plantweb™ Insight Connected Lighting Application

Compatible with Mercmaster™ Connect LED Luminaires

**NEC/CEC: Class I, Division 1, Groups A, B, C, D | Class I, Zone 0 AEx ia IIC | Ex ia IIC | Type 3R, 4, 4X | IP66 | Suitable for Use in Wet Locations**
**ATEX: Zone 0 | Ⓔx II 1 G | Ex ia IIC | IP66**
**IECEx: Zone 0 | Ex ia IIC**

### Illustrated Features

**Passive Infrared Motion Detection**

Utilizing passive infrared detection (PIR), the Appleton Wireless Motion Sensor can detect human sized objects from up to 20 ft away. Install the wireless motion sensor in locations where connected lighting motion sensors are obstructed.

**Illuminance Sensor**

Measures the average light level in lux.

**Ambient Temperature Sensing**

Monitor the ambient temperature in the installed location.

**Plantweb Insight Connected Lighting Application**

PLANTWEB insight

V

Enables critical system monitoring without adding another lighting control system. The Appleton Wireless Motion Sensor provides auxiliary motion sensor coverage in a connected lighting installation to ensure no operators are left in the dark

**Field Replaceable Battery**

SmartPower™ ◘ module provides up to 5 year maintenance-free operation and field replacement without transmitter removal

**Robust and Reliable WirelessHart Protocol**

WirelessHART

WirelessHART combines HART technology with wireless capabilities to create an adaptable wireless communications protocol for process automation applications. WirelessHART offers simple installation and robust, layered security to ensure network protection.

⌑ *HART and WirelessHART are registered trademarks of the FieldComm Group.*
◘ *SmartPower is a registered trademark of Rosemount Inc.*
*Note: For other lighting combinations, contact your local Appleton Sales Representative for more information.*

# Wireless Motion Sensor

Plantweb™ Insight Connected Lighting Application

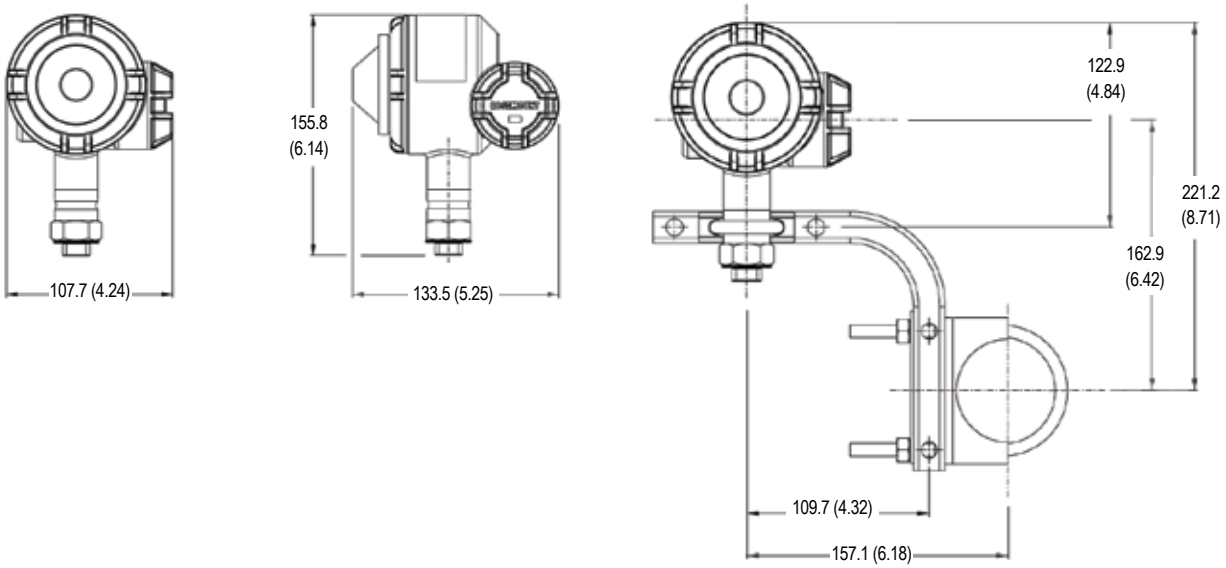
Compatible with Mercmaster™ Connect LED Luminaires

**NEC/CEC: Class I, Division 1, Groups A, B, C, D | Class I, Zone 0 AEx ia IIC | Ex ia IIC | Type 3R, 4, 4X | IP66 | Suitable for Use in Wet Locations**
**ATEX: Zone 0 | Ⓔx II 1 G | Ex ia IIC | IP66**
**IECEx: Zone 0 | Ex ia IIC**



| | Length m (ft) | Weight in kg (lb) | Catalog Number |
|---|---|---|---|
| | Wireless Motion Sensor | 0.46 (1.01) | **WMS1PT** |
| **Accessories and Replacement Parts** | | | |
| | Rosemount™ ▫ Mounting Bracket for Rosemount 248 | 0.58 (1.29) | **00249-2612-0001** |
| | Emerson 701P SmartPower™ ▫ Module Replacement Battery | 0.15 (0.34) | **701PGNKF** |

**Dimensions in Millimeters (Inches)**




▫ *SmartPower and Rosemount are registered trademarks of Rosemount Inc.*

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

### Applications

- Enclosed and gasketed fixtures suitable for use in:
  - — A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts may be present
  - — Marine and wet locations
  - — Suitability includes use where there may be simultaneous exposure to flammable gases and vapors or combustible dusts
- Typical applications include:
  - — Power plants
  - — Processing plants
  - — Chemical plants
  - — Oil refineries
  - — Waste and sewage treatment
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other areas where dust, water, dirt and rough usage are a problem

### Features

- All Models:
  - — Modular design provides thousands of combinations for maximum versatility.
  - — Choice of optics for optimal light distribution in a variety of applications: Type I, Type III, Type V or Type V Wide.
  - — Customize to the application requirements with four different globe options: clear and diffused polycarbonate, clear glass, or prismatic glass refractor.
  - — Seven standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster III.
  - — Watertight Pendant Hood with IP68 cord grip available to address water ingress into luminaire via conduit.
  - — Retrofit adapters for Crouse-Hinds™ ✣, Mercmaster II, and Killark™ ✧ hoods available. *See Mounting Hood Adapters table*.
  - — Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on fixture housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies installation.
  - — Rugged housing with superior thermal design translates to long luminaire life.
  - — Luminaire housing has wiring compartment with terminal block separate for easy wiring access.
  - — Spring-loaded screw-type terminal block can accept UL/CSA .14 to 6 $mm^2$ (26-10 AWG) wire.
  - — Heavy duty, high temperature silicone gaskets.
  - — Photometric data and electronic drawings available upon request.
  - — Standard NPT threads with M20 option.
  - — LED L70 reported at 76,000 hours.
  - — Field replaceable globes and LED driver.
  - — 5 year standard warranty. 10 year limited warranty for select part number configurations (see *Catalog Numbering Guide* for details).
- Standard Model — NEC/CEC, ATEX/IECEx Certified:
  - — Design is suited for mounting heights ranging from 2 m up to 15 m (7 ft up to 50 ft).
  - — Choice of color temperature (CCT): 5000K cool white (70 CRI min), 4500K mid-neutral (80 CRI min), 4000K neutral white (80 CRI min), 3500K mid-warm (80 CRI min), or 3000K warm white (80 CRI min).

**MLGL**

**MLGH/MLGX**

  - — Ambient Temperature (standard product): -40 °C to +65 °C (-40 °F to +149 °F). Higher ambient options available (up to 75 °C [167 °F]) on select configurations. See Temperature Code table for details.
  - — Standard 6 kV/3 kA surge protection. Optional 10 kV/5 kA available.
  - — Nine light outputs provide up to 26,000 lumens.

| Nominal Lumens ① | HID Equivalent | Model |
|---|---|---|
| 3500 | 70-100W | MLGL3 |
| 5500 | 100-150W | MLGL5 |
| 7500 | 175-250W | MLGL7 |
| 9500 | 250-350W | MLGL9/ MLGH9 |
| 11,500 | 350-400W | MLGH1 |
| 14,500 | 400W | MLGH3 |
| 17,500 | 400-600W | MLGH6 |
| 20,000 | 600-750W | MLGX1 |
| 24,000 | 1000W | MLGX5 |

- Emergency Battery Backup Model — NEC/CEC Certified:
  - — Choice of color temperature (CCT): 5000K cool white, 4000K neutral white or 3000K warm white.
  - — Customize to the application requirements with three different globe options: clear polycarbonate, diffused polycarbonate, and clear glass.
  - — Standard 6 kV/3 kA surge protection.
  - — Provides up to 1400 lumens illumination for 90 minutes of emergency lighting with clear lens or 800 lumens illumination for 180 minutes of emergency lighting.

| Standard Mode Nominal Lumens ① | HID Equivalent | Emergency Mode Nominal Lumens ① | Model |
|---|---|---|---|
| 3500 | 70-100W | 1450 | MLGL3*H |
| | | 800 | MLGL3*E |
| 5500 | 100-150W | 1450 | MLGL5*H |
| | | 800 | MLGL5*E |

  - — Functional diagnostic test self-initiates every 14 days after initial start up.
  - — Duration test is automatically performed once per year.
  - — Green and Red LED lights indicate charging status and provide fault warning.
  - — Simple quick disconnect connector disconnects power between LEDs and battery management module to allow maintenance in hazardous locations.
  - — Suitable for mounting heights up to 4.27 meters (14 feet).
  - — Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
  - — Field replaceable battery management module (BMM) and battery pack.

*① Nominal lumen value for 5000K, clear glass globe, Type V Wide optic. Detailed lumen information is provided in the " Lumen Output (Efficacy)" tables.*
*✧ Killark is a registered trademark of Hubbell Incorporated.*
*✣ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*

# Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

## Options

- All Models:
  - — Globe guard available, *purchase separately*.
  - — Safety cable available, *purchase separately*.
  - — Drain is available to divert water existing in the conduit system, purchase separately.
- Standard Model:
  - — Refractor guard available, *purchase separately*
  - — Optional provision for fusing; add suffix **–F** at the end of the catalog number.
  - — Optional 10 kV surge protection. Add suffix **–S** at the end of the catalog number.
  - — Some lumen output standard luminaires offer High Ambient temperature option up to 70 °C or 75 °C (158 °F or 167 °F). See Catalog Numbering Guide for specifics.
  - — Photocontrols are available and are configured to your operating voltage. Add suffix **-1** for 120V, **-2** for 208V, **-3** for 240V, **-4** for 277V.

## Standard Materials

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- Gaskets: silicone
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Short refractor guard: stainless steel
- Tall refractor guard: die cast aluminum
- Globe guard, short refractor guard and safety cable: stainless steel wire
- Reflector: fiberglass reinforced white polyester

## Standard Finishes

- Mounting hoods, bodies and glass refractor guard: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

## NEC/CEC Certifications and Compliances

- NEMA ANSI/IEC Standards: 60529
- Standard Model:
  - — UL Standard: UL 844; UL 1598; UL 50E; UL 8750; UL 60079-0; UL 60079-7; UL 60079-31
  - — CSA Standard: C22.2 No. 0 - 10; C22.2 No. 94.2 - 15; C22.2 No. 137 -M1981; C22.2 No. 250.0 - 08; C22.2 No. 250.13 -14; C22.2 No. 60529;C22.2 No. 60079-0:15; C22.2 No. 60079-7:16; C22.2 No. 60079-31:15; CSA E60598-1:16
  - — cCSAus: 164460, Certificate Number: 70112879
- Emergency Battery Backup Model:
  - — UL Standard: UL 844; UL 1598; UL 50E; UL 8750; UL 60079-0; UL 924
  - — CSA Standard: C22.2 No. 0 -10; C22.2 No. 94.2 - 15; C22.2 No. 137 -18; C22.2 No. 250.0 - 08; C22.2 No. 250.13 -14; CSA E60598-1:16
  - — cCSAus: 164460, Certificate Number: 70182640

## ATEX/IECEx Certifications and Compliances

- Standard Model:
  - — Certification Type: Mercmaster Generation 3
    - – Gas: Zones 2
      - ◦ Conforming to ATEX 2014/34/EU: II 3 G
      - ◦ Type of Protection: Ex ec IIC T* Gc
      - ◦ Temperature Class: T6 to T3
    - – Dust: Zones 21 and 22
      - ◦ Conforming to ATEX 2014/34/EU: II 2 D
      - ◦ Type of Protection: Ex tb IIIC T**°C Db; Ex tc IIIC T*°C Dc
      - ◦ Surface Temperature: +61 °C to +104 °C (+142 °F to +219 °F)
  - — Ambient Temperature: -40 °C up to +75 °C (-40 °F up to +167 °F)
  - — ATEX Certificate: Sira 17ATEX3365X and 17ATEX3366X
  - — IECEx Certificate: IECEx SIR 17.0085X
  - — Index of Protection according EN/IEC 60529: IP66
  - — Impact Resistance (shock): IK08
  - — Photobiological Safety, IEC 62778 and IEC 62471: RG0 for all models

## ABS Certifications

- Standard Model: 18-HS1726695-PDA
- Emergency Battery Backup Model: 22-2235738-PDA

## International Dark-Sky Association

- Standard Model
  - — IDA Dark-Sky Approved when ordering [I]MLG[A/B/C/D/R/W] xxW[P/D/G]5Bxxx with MMVISOR accessory

## Design Lights™ Consortium

- Check DLC QPL for current list of products.

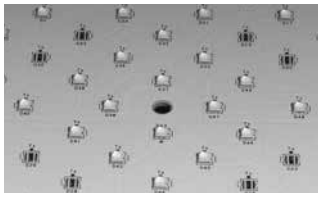
## Related Products

- Industrial Mercmaster LED Generation 3 Luminaries
- Mercmaster LED Generation 3 Zone 1 Luminaries
- Mercmaster LED Low Profile Luminaires
- Mercmaster Connect LED Luminaries

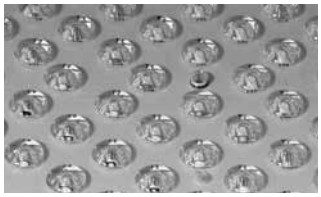
## Illustrated Features — All Models

**Type I** - Long and narrow distribution pattern designed with walkways in mind.

**Type III** - Wall mounted distribution pattern designed where you need good forward light projection.



**Type V** - Symmetrical circle distribution pattern ideal when you need even coverage in all directions.



**Type V Wide** - Like the Type V distribution pattern with more vertical lumens designed to help spread the light quicker and more outwards.

# Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

## Illustrated Features — All Models

Choose from **three color temperatures** (CCT): 3000K, 4000K, and 5000K ‡.

**Four light distribution patterns**: Type I, Type III, Type V and Type V Wide for application flexibility.

**Seven mounting hoods** allow one fixture to be configured for ceiling, pendant, stanchion, or wall applications.

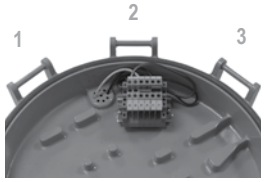
Standard Model — **Four globes**: clear and diffused polycarbonate, clear glass globe, and prismatic refractor provide just the right level of diffusion.

Emergency Battery Backup Model — **Three globes**: clear and diffused polycarbonate and clear glass globe provide just the right level of diffusion.

### Safety Features

**Latch Assembly and Hinge**: Captive, stainless steel latch assembly (bolt and nut) closes securely while providing resistance to corrosive atmospheres. Swing-away design simplifies wiring and installation. Extra high hinge provides additional protection against accidental driver housing disengagement during installation or maintenance.

### Type I and Type III Hinge System



Type I and Type III light distribution patterns use a multiple hinged housing design which allows you to correctly line up the beam pattern in your desired direction. By using one of the three available hinges you can position the fixture for optimal light output.

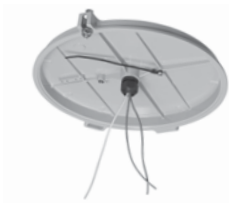
### Designed for the Environment

Driver housing design incorporates separate sections for the terminal block and driver. The efficient thermal design ensures reliable heat transfer from the LED assembly out via the heatsink and the cast, epoxy powder coat, aluminum housing.

### Safety Cable

Safety cable is slipped around the housing through retention points that are casted in. Safety cable has built in loops combined with a locking carabiner to allow for a quick and secure installation.

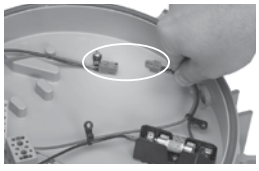
### Watertight Pendant Hood



Watertight pendant hood provides protection against water ingress in the conduit utilizing an IP68 cord grip with 3 wire holes 4 mm (0.157") in diameter.

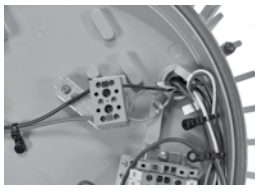
## Illustrated Features — Emergency Battery Backup Model

### Quick Disconnect



Simple quick disconnect connector disconnects power between LEDs and battery management module to allow for easy maintenance in hazardous locations.

### Field Changeable Duration Setting



Easy field changeable duration setting between 90 and 180 minutes.

*‡ Other CCT options available upon request. Contact your local sales representative for more information.*

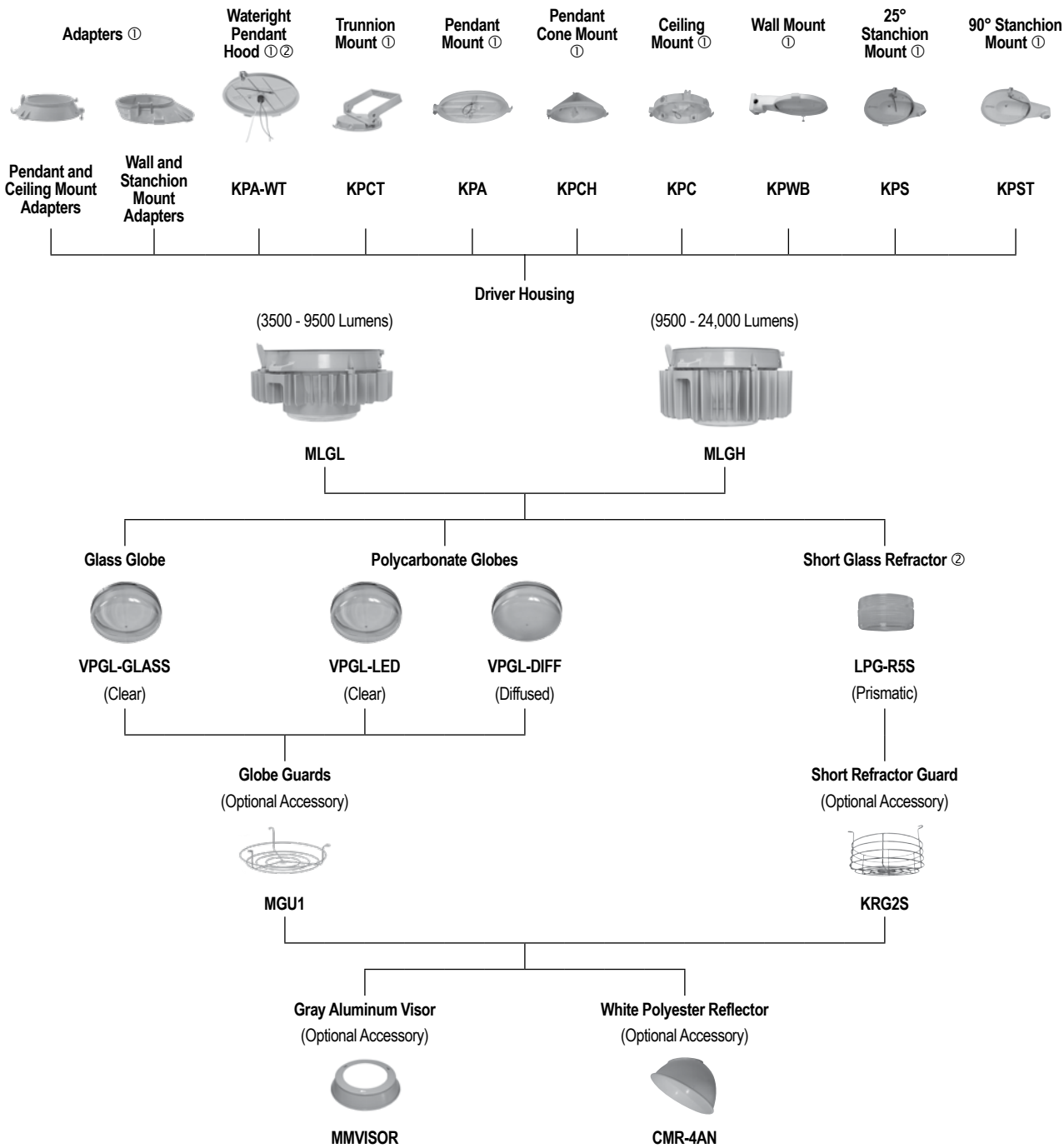
# Mercmaster™ LED Generation 3 Series Luminaires

## Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

### Family Tree — Mercmaster™ LED Generation 3 Series Luminaires — Standard Model




① *See Mounting Hood Adapters table for part numbers.*
② *Certified for cCSAus only.*

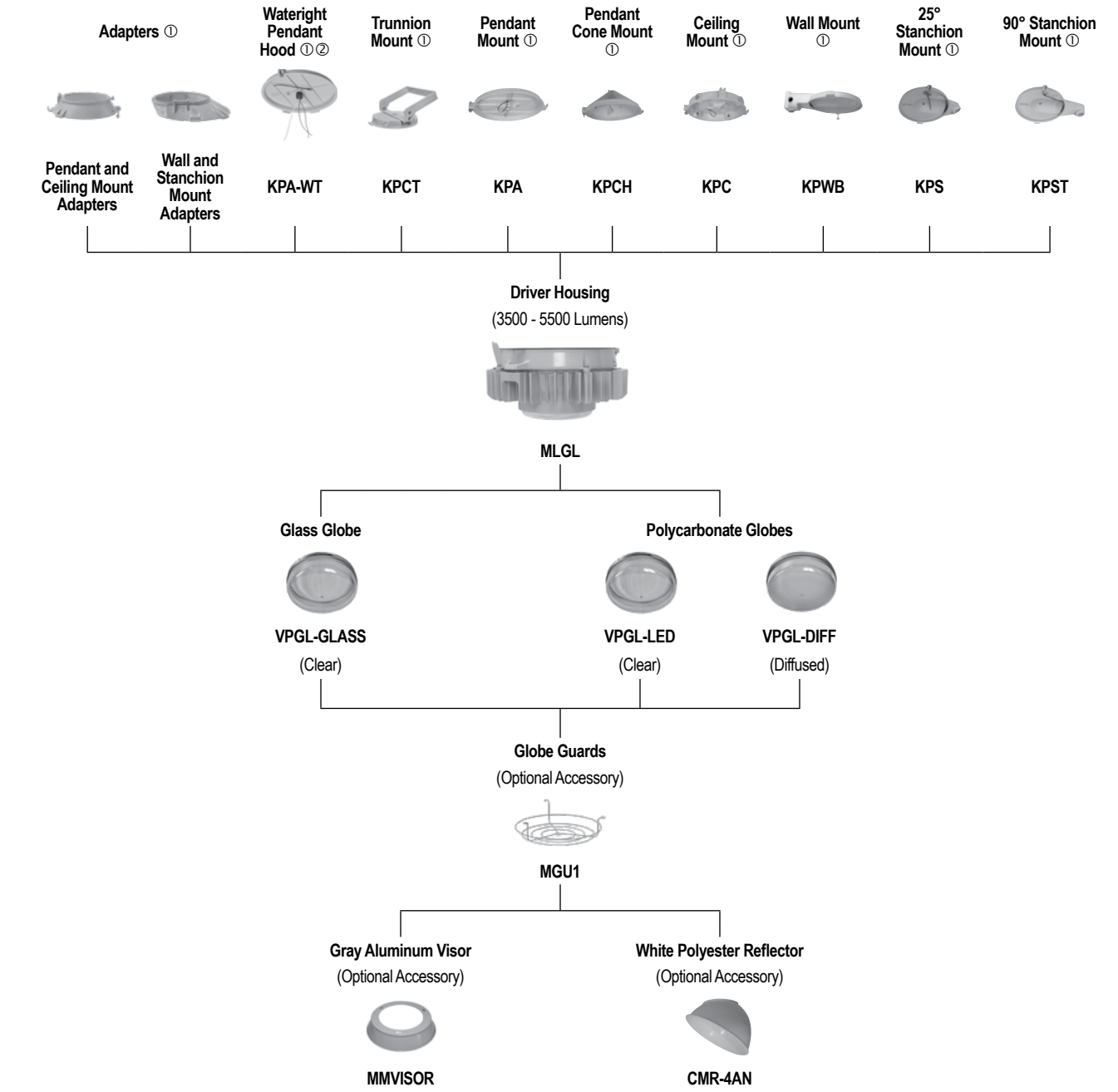
# Mercmaster™ LED Generation 3 Series Luminaires

## With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified**

### Family Tree — Mercmaster™ LED Generation 3 Series Luminaires — Emergency Battery Backup Model




① *See Mounting Hood Adapters table for part numbers.*
② *Certified for cCSAus only.*

# Mercmaster™ LED Generation 3 Series Luminaires

Standard

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

## Order Using Catalog Numbering Guide — Mercmaster™ LED Generation 3 Series Hazardous Location Luminaires — Standard Model

**MLG**

Series Prefix:
MLG - Mercmaster LED Generation 3 Series

**A**

Mounting:
A - Pendant
B - Watertight Pendant ⍋
C - Ceiling ⑤
D - Pendant Cone ⍋ ⑤
R - 90° Stanchion ①
S - 25° Stanchion ①
T - Trunnion
K - Killark™ ✧ Adapter Universal ⍋
U - Mercmaster II Adapter, Ceiling or Pendant ⍋
V - Mercmaster II Adapter, Stanchion or Wall ⍋
W - Wall
X - Crouse Hinds™ ✣ Adapter, Ceiling or Pendant ⍋ ⑥
Y - Crouse Hinds™ ✣ Adapter, Stanchion or Wall ⍋
Blank - No mounting hood

**L3**

Lumen (nominal): ☆✦
L3 - 3,500
L5 - 5,500
L7 - 7,500
L9 - 9,500
H9 - 9,500 ⑧
H1 - 11,500
H3 - 13,500
H6 - 17,500
X1 - 20,000
X5 - 24,000

**2**

Hub Size:
2 - 3/4" NPT ①
3 - 1" NPT ①
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion
6 - Metric M20 ①
Blank - If using adapter or no hood

**C**

Color Temperature: ‡
C - Cool, 5000K
N - Neutral, 4000K
W - Warm, 3000K

**P**

Globe Material:
P - Clear Polycarbonate Globe
D - Diffused Polycarbonate Globe
G - Clear Glass Globe ③
J - Short Glass Prismatic Refractor ③ ⑨

**5**

Light Distribution Pattern:
1 - Type I ②
3 - Type III ②
5 - Type V ②
W - Type V Wide

**BU**

Voltage:
BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc ⑦
BH - 347-480 Vac, 50/60 Hz ⍋

**F**

Options: ⌘
F - Fusing
Blank - No fusing

**1**

Options:
1 - Photocontrol 120V ④
2 - Photocontrol 208V ④
3 - Photocontrol 240V ④
4 - Photocontrol 277V ④
S - Additional surge to 10 kV ②
A- High Ambient ⑧ ✦
Blank - No Options Chosen

① *3/4" NPT, 1" NPT and Metric M20 hub entries are not offered on 90° or 25° Stanchion mounting options.*
② *10 year warranty standard when ordered with light distribution pattern Type I, III or V Wide or additional (10 kV) surge protection (not available with high ambient options). 10 kV surge is not rated for ATEX/IECEx.*
③ *Guards for the glass refractors and globes are ordered separately. See the Accessories for more information.*
④ *Photocontrol available for 120-277 Vac only. Factory installed in the mounting hood. Photocontrols only certified for cCSAus. Luminaires with photocontrol are not rated IECEx, IP66/67, Class II, 3R, 4, 4X, or Marine Outside Type (Salt Water).*
⑤ *Ceiling-mount and pendant cone mounting hoods and adapters are not designed to use the in hood photocontrol. Ceiling and pendant cone mounts must use an FS/FD box with photocontrol (ordered separately).*
⑥ *Only allowed for Type V and Type V Wide light distribution.*
⑦ *For 125-170 Vdc, operating temperature range is -40 °C to +55 °C ( -40 °F to +131 °F) (for IECEx/ATEX only). NEC/CEC operating temperature remains -40 °C to +65 °C (-40 °F to +149 °F) for full Vdc range).*
⑧ *H9 only available with High Ambient option (-A). See details in Temperature code tables for specific NEC/CEC or ATEX/IECEx applications.*
⑨ *Short glass prismatic refractor (J) is only available in light distribution pattern Type V. Refractor is not rated for ATEX/IECEx.*
✦ *For NEC/CEC, high ambient is available with lumen packages L3 to H3. For ATEX/IECEX, high ambient is only available with lumen packages L7, H9 and H1. See details in Temperature code tables for specific NEC/CEC or ATEX/IECEX applications*
☆ *For lumen output information, see Lumen Output (Efficacy) Table.*
⌘ *Fusing only permitted for NEC/CEC rating. Factory installed. Use of fuse voids Marine Outside Type (Salt Water) rating. Fusing is mounted in the driver housing.*
‡ *Other CCT options available upon request. Contact your local sales representative for more information.*
⍋ *Adapters, watertight pendant hood and BH Voltage only certified for cCSAus. Not available for use with photocontrol.*
✧ *Killark is a registered trademark of Hubbell Incorporated.*
✣ *Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*

# Mercmaster™ LED Generation 3 Series Luminaires

## With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified**

**Order Using Catalog Numbering Guide — Mercmaster™ LED Generation 3 Series Hazardous Location Luminaires — Emergency Battery Backup Model**

**MLG** **A** **L3** **2** **C** **P** **5** **BU** **H**

Series Prefix:
MLG - Mercmaster LED Generation 3 Series with Emergency Battery Backup

Mounting:
A - Pendant
B - Watertight Pendant ⍋
C - Ceiling
D - Pendant Cone ⍋
R - 90° Stanchion ①
S - 25° Stanchion ①
T - Trunnion
K - Killark™ ✧ Adapter Universal ⍋
U - Mercmaster II Adapter, Ceiling or Pendant ⍋
V - Mercmaster II Adapter, Stanchion or Wall ⍋
W - Wall
X - Crouse Hinds™ ✣ Adapter, Ceiling or Pendant ⍋③
Y - Crouse Hinds™ ✣ Adapter, Stanchion or Wall ⍋
Blank - No mounting hood

Lumen (nominal): ✶
L3 - 3,500
L5 - 5,500

Hub Size:
2 - 3/4" NPT ①
3 - 1" NPT ①
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion
6 - Metric M20 ①
Blank - No hub if using adapter or ordering driver housing only (no mounting hood)

Color Temperature:
C - Cool, 5000K
N - Neutral, 4000K
W - Warm, 3000K

Globe Material:
P - Clear Polycarbonate Globe
D - Diffused Polycarbonate Globe
G - Clear Glass Globe ②

Light Distribution Pattern:
1 - Type I ④
3 - Type III ④
5 - Type V
W - Type V Wide

Voltage:
BU - 120-277 Vac, 50/60 Hz

Emergency:
H - 90 Minutes
E - 180 Minutes

*① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered on 90° or 25° Stanchion mounting options.*
*② Guards for the globes are ordered separately. See the Accessories for more information.*
*③ Only allowed for Type V and Type V Wide light distribution.*
*⑤ Type I and Type III use a multiple hinge housing.*
*✶ For lumen output information, see Lumen Output (Efficacy) Table.*
*⍋ Adapters only certified for cCSAus.*
*✧ Killark is a registered trademark of Hubbell Incorporated.*
*✣ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*

# Mercmaster™ LED Generation 3 Series Luminaires

Standard

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ex II 3 G | Ex II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

**Lumen Output (Efficacy) — Standard Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe** | | | | | | | | | | | | | | |
| MLGL3 | 70-100W | Type I | 3000K | 80 | 2600 | 87 | 4000K | 80 | 2800 | 93 | 5000K | 70 | 3200 | 107 |
| | | Type III | 3000K | 80 | 2800 | 93 | 4000K | 80 | 3000 | 100 | 5000K | 70 | 3500 | 117 |
| | | Type V | 3000K | 80 | 2950 | 98 | 4000K | 80 | 3100 | 103 | 5000K | 70 | 3300 | 110 |
| | | Type V Wide | 3000K | 80 | 3000 | 100 | 4000K | 80 | 3150 | 105 | 5000K | 70 | 3350 | 112 |
| MLGL5 | 100-150W | Type I | 3000K | 80 | 3800 | 83 | 4000K | 80 | 4200 | 91 | 5000K | 70 | 4800 | 104 |
| | | Type III | 3000K | 80 | 4100 | 89 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 5200 | 113 |
| | | Type V | 3000K | 80 | 4400 | 96 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 4950 | 108 |
| | | Type V Wide | 3000K | 80 | 4450 | 97 | 4000K | 80 | 4700 | 102 | 5000K | 70 | 5000 | 109 |
| MLGL7 | 175-250W | Type I | 3000K | 80 | 6000 | 105 | 4000K | 80 | 6600 | 116 | 5000K | 70 | 7500 | 132 |
| | | Type III | 3000K | 80 | 6300 | 111 | 4000K | 80 | 7000 | 123 | 5000K | 70 | 7900 | 139 |
| | | Type V | 3000K | 80 | 6950 | 114 | 4000K | 80 | 7300 | 120 | 5000K | 70 | 7650 | 125 |
| | | Type V Wide | 3000K | 80 | 7150 | 117 | 4000K | 80 | 7550 | 124 | 5000K | 70 | 7950 | 130 |
| MLGL9 | 250-350W | Type I | 3000K | 80 | 7800 | 104 | 4000K | 80 | 8400 | 112 | 5000K | 70 | 9400 | 125 |
| | | Type III | 3000K | 80 | 8900 | 112 | 4000K | 80 | 8800 | 117 | 5000K | 70 | 9800 | 131 |
| | | Type V | 3000K | 80 | 8300 | 104 | 4000K | 80 | 8700 | 109 | 5000K | 70 | 9800 | 123 |
| | | Type V Wide | 3000K | 80 | 8500 | 106 | 4000K | 80 | 8950 | 112 | 5000K | 70 | 10100 | 126 |
| MLGH9 | 250-350W | Type I | 3000K | 80 | 7800 | 104 | 4000K | 80 | 8400 | 112 | 5000K | 70 | 9400 | 125 |
| | | Type III | 3000K | 80 | 8100 | 108 | 4000K | 80 | 8800 | 117 | 5000K | 70 | 9800 | 131 |
| | | Type V | 3000K | 80 | 9150 | 116 | 4000K | 80 | 9500 | 120 | 5000K | 70 | 10800 | 137 |
| | | Type V Wide | 3000K | 80 | 8400 | 106 | 4000K | 80 | 8700 | 110 | 5000K | 70 | 9900 | 125 |
| MLGH1 | 350-400W | Type I | 3000K | 80 | 9500 | 102 | 4000K | 80 | 10200 | 110 | 5000K | 70 | 11500 | 124 |
| | | Type III | 3000K | 80 | 10700 | 109 | 4000K | 80 | 10700 | 115 | 5000K | 70 | 12000 | 129 |
| | | Type V | 3000K | 80 | 10900 | 117 | 4000K | 80 | 11800 | 127 | 5000K | 70 | 13200 | 142 |
| | | Type V Wide | 3000K | 80 | 9700 | 104 | 4000K | 80 | 10500 | 113 | 5000K | 70 | 11800 | 127 |
| MLGH3 | 400W | Type I | 3000K | 80 | 11400 | 99 | 4000K | 80 | 12300 | 107 | 5000K | 70 | 13800 | 120 |
| | | Type III | 3000K | 80 | 11900 | 103 | 4000K | 80 | 12900 | 112 | 5000K | 70 | 14500 | 126 |
| | | Type V | 3000K | 80 | 13100 | 114 | 4000K | 80 | 14200 | 123 | 5000K | 70 | 15900 | 138 |
| | | Type V Wide | 3000K | 80 | 11700 | 102 | 4000K | 80 | 12700 | 110 | 5000K | 70 | 14300 | 124 |
| MLGH6 | 400-600W | Type I | 3000K | 80 | 13900 | 96 | 4000K | 80 | 15100 | 104 | 5000K | 70 | 16900 | 117 |
| | | Type III | 3000K | 80 | 14900 | 104 | 4000K | 80 | 15600 | 108 | 5000K | 70 | 17500 | 121 |
| | | Type V | 3000K | 80 | 16300 | 113 | 4000K | 80 | 17100 | 118 | 5000K | 70 | 19100 | 132 |
| | | Type V Wide | 3000K | 80 | 14700 | 102 | 4000K | 80 | 15500 | 107 | 5000K | 70 | 17400 | 120 |
| MLGX1 | 600-750W | Type I | 3000K | 80 | 16431 | 97 | 4000K | 80 | 17336 | 103 | 5000K | 70 | 18338 | 109 |
| | | Type III | 3000K | 80 | 17110 | 101 | 4000K | 80 | 18084 | 107 | 5000K | 70 | 19096 | 113 |
| | | Type V | 3000K | 80 | 18623 | 110 | 4000K | 80 | 19863 | 118 | 5000K | 70 | 21019 | 124 |
| | | Type V Wide | 3000K | 80 | 17072 | 101 | 4000K | 80 | 18044 | 107 | 5000K | 70 | 19054 | 113 |
| MLGX5 | 1000W | Type I | 3000K | 80 | 18859 | 90 | 4000K | 80 | 19932 | 95 | 5000K | 70 | 21048 | 100 |
| | | Type III | 3000K | 80 | 19514 | 93 | 4000K | 80 | 20625 | 98 | 5000K | 70 | 21779 | 104 |
| | | Type V | 3000K | 80 | 22103 | 105 | 4000K | 80 | 23575 | 112 | 5000K | 70 | 24947 | 119 |
| | | Type V Wide | 3000K | 80 | 20424 | 97 | 4000K | 80 | 21586 | 103 | 5000K | 70 | 22794 | 109 |

*① All lumen values are typical (tolerance +/-10%).*

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

**Lumen Output (Efficacy) — Standard Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Diffused Polycarbonate Globe** | | | | | | | | | | | | | | |
| MLGL3 | 70-100W | Type I | 3000K | 80 | 2700 | 87 | 4000K | 80 | 2900 | 95 | 5000K | 70 | 3200 | 108 |
| | | Type III | 3000K | 80 | 2800 | 92 | 4000K | 80 | 3000 | 101 | 5000K | 70 | 3300 | 112 |
| | | Type V | 3000K | 80 | 2900 | 97 | 4000K | 80 | 3200 | 107 | 5000K | 70 | 3700 | 123 |
| | | Type V Wide | 3000K | 80 | 2800 | 91 | 4000K | 80 | 3000 | 101 | 5000K | 70 | 3400 | 113 |
| MLGL5 | 100-150W | Type I | 3000K | 80 | 4000 | 85 | 4000K | 80 | 4400 | 94 | 5000K | 70 | 4900 | 107 |
| | | Type III | 3000K | 80 | 4200 | 91 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 5100 | 110 |
| | | Type V | 3000K | 80 | 4400 | 96 | 4000K | 80 | 4800 | 104 | 5000K | 70 | 5500 | 120 |
| | | Type V Wide | 3000K | 80 | 4200 | 90 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 5100 | 110 |
| MLGL7 | 175-250W | Type I | 3000K | 80 | 6000 | 101 | 4000K | 80 | 6600 | 109 | 5000K | 70 | 6900 | 122 |
| | | Type III | 3000K | 80 | 6400 | 108 | 4000K | 80 | 6900 | 114 | 5000K | 70 | 7200 | 126 |
| | | Type V | 3000K | 80 | 6600 | 116 | 4000K | 80 | 7300 | 128 | 5000K | 70 | 8300 | 129 |
| | | Type V Wide | 3000K | 80 | 6200 | 105 | 4000K | 80 | 6600 | 115 | 5000K | 70 | 7200 | 126 |
| MLGL9/ MLGH9 | 250-350W | Type I | 3000K | 80 | 8000 | 101 | 4000K | 80 | 8300 | 106 | 5000K | 70 | 9300 | 118 |
| | | Type III | 3000K | 80 | 8400 | 106 | 4000K | 80 | 8800 | 113 | 5000K | 70 | 9700 | 124 |
| | | Type V | 3000K | 80 | 8500 | 113 | 4000K | 80 | 9200 | 123 | 5000K | 70 | 10300 | 137 |
| | | Type V Wide | 3000K | 80 | 8200 | 105 | 4000K | 80 | 8700 | 111 | 5000K | 70 | 9700 | 124 |
| MLGH1 | 350-400W | Type I | 3000K | 80 | 9600 | 98 | 4000K | 80 | 10000 | 104 | 5000K | 70 | 11100 | 115 |
| | | Type III | 3000K | 80 | 10100 | 104 | 4000K | 80 | 10600 | 110 | 5000K | 70 | 11700 | 121 |
| | | Type V | 3000K | 80 | 10300 | 111 | 4000K | 80 | 11200 | 120 | 5000K | 70 | 12500 | 134 |
| | | Type V Wide | 3000K | 80 | 9900 | 102 | 4000K | 80 | 10400 | 109 | 5000K | 70 | 11700 | 121 |
| MLGH3 | 400W | Type I | 3000K | 80 | 10900 | 96 | 4000K | 80 | 11600 | 103 | 5000K | 70 | 12900 | 114 |
| | | Type III | 3000K | 80 | 11700 | 103 | 4000K | 80 | 12400 | 109 | 5000K | 70 | 13600 | 120 |
| | | Type V | 3000K | 80 | 12500 | 109 | 4000K | 80 | 13500 | 117 | 5000K | 70 | 15100 | 131 |
| | | Type V Wide | 3000K | 80 | 11500 | 101 | 4000K | 80 | 12100 | 107 | 5000K | 70 | 13700 | 120 |
| MLGH6 | 400-600W | Type I | 3000K | 80 | 13200 | 93 | 4000K | 80 | 14000 | 99 | 5000K | 70 | 15700 | 109 |
| | | Type III | 3000K | 80 | 14200 | 99 | 4000K | 80 | 15000 | 105 | 5000K | 70 | 16500 | 115 |
| | | Type V | 3000K | 80 | 15800 | 109 | 4000K | 80 | 17000 | 118 | 5000K | 70 | 18200 | 126 |
| | | Type V Wide | 3000K | 80 | 14000 | 97 | 4000K | 80 | 14800 | 104 | 5000K | 70 | 16600 | 116 |
| MLGX1 | 600-750W | Type I | 3000K | 80 | 15587 | 92 | 4000K | 80 | 16491 | 98 | 5000K | 70 | 17377 | 103 |
| | | Type III | 3000K | 80 | 16221 | 96 | 4000K | 80 | 17161 | 102 | 5000K | 70 | 18083 | 107 |
| | | Type V | 3000K | 80 | 18036 | 107 | 4000K | 80 | 19260 | 114 | 5000K | 70 | 20063 | 119 |
| | | Type V Wide | 3000K | 80 | 16153 | 96 | 4000K | 80 | 17089 | 101 | 5000K | 70 | 18007 | 107 |
| MLGX5 | 1000W | Type I | 3000K | 80 | 17885 | 85 | 4000K | 80 | 18922 | 90 | 5000K | 70 | 19939 | 95 |
| | | Type III | 3000K | 80 | 18499 | 88 | 4000K | 80 | 19571 | 93 | 5000K | 70 | 20623 | 98 |
| | | Type V | 3000K | 80 | 21475 | 102 | 4000K | 80 | 22932 | 109 | 5000K | 70 | 23888 | 114 |
| | | Type V Wide | 3000K | 80 | 19275 | 92 | 4000K | 80 | 20393 | 97 | 5000K | 70 | 21489 | 102 |

*① All lumen values are typical (tolerance +/-10%).*

# Mercmaster™ LED Generation 3 Series Luminaires

Standard

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

**Lumen Output (Efficacy) — Standard Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass Globe** | | | | | | | | | | | | | | |
| MLGL3 | 70-100W | Type I | 3000K | 80 | 2800 | 93 | 4000K | 80 | 3100 | 103 | 5000K | 70 | 3500 | 117 |
| | | Type III | 3000K | 80 | 3100 | 102 | 4000K | 80 | 3200 | 107 | 5000K | 70 | 3700 | 123 |
| | | Type V | 3000K | 80 | 3100 | 103 | 4000K | 80 | 3200 | 107 | 5000K | 70 | 3450 | 115 |
| | | Type V Wide | 3000K | 80 | 3150 | 105 | 4000K | 80 | 3250 | 108 | 5000K | 70 | 3500 | 117 |
| MLGL5 | 100-150W | Type I | 3000K | 80 | 4200 | 91 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 5300 | 115 |
| | | Type III | 3000K | 80 | 4400 | 96 | 4000K | 80 | 4800 | 104 | 5000K | 70 | 5400 | 117 |
| | | Type V | 3000K | 80 | 4650 | 101 | 4000K | 80 | 4800 | 114 | 5000K | 70 | 5150 | 112 |
| | | Type V Wide | 3000K | 80 | 4700 | 102 | 4000K | 80 | 4900 | 107 | 5000K | 70 | 5250 | 114 |
| MLGL7 | 175-250W | Type I | 3000K | 80 | 6400 | 112 | 4000K | 80 | 7100 | 125 | 5000K | 70 | 8000 | 140 |
| | | Type III | 3000K | 80 | 6600 | 116 | 4000K | 80 | 7300 | 128 | 5000K | 70 | 8300 | 146 |
| | | Type V | 3000K | 80 | 7250 | 119 | 4000K | 80 | 7600 | 125 | 5000K | 70 | 8000 | 131 |
| | | Type V Wide | 3000K | 80 | 7750 | 124 | 4000K | 80 | 7900 | 130 | 5000K | 70 | 8300 | 136 |
| MLGL9 | 250-350W | Type I | 3000K | 80 | 8500 | 111 | 4000K | 80 | 8800 | 117 | 5000K | 70 | 9900 | 132 |
| | | Type III | 3000K | 80 | 8600 | 115 | 4000K | 80 | 9300 | 124 | 5000K | 70 | 10400 | 139 |
| | | Type V | 3000K | 80 | 8550 | 107 | 4000K | 80 | 9000 | 113 | 5000K | 70 | 10150 | 127 |
| | | Type V Wide | 3000K | 80 | 8850 | 111 | 4000K | 80 | 9300 | 116 | 5000K | 70 | 10500 | 131 |
| MLGH9 | 250-350W | Type I | 3000K | 80 | 8100 | 108 | 4000K | 80 | 8800 | 117 | 5000K | 70 | 9900 | 132 |
| | | Type III | 3000K | 80 | 8600 | 115 | 4000K | 80 | 9300 | 124 | 5000K | 70 | 10400 | 139 |
| | | Type V | 3000K | 80 | 9300 | 124 | 4000K | 80 | 10100 | 135 | 5000K | 70 | 11200 | 149 |
| | | Type V Wide | 3000K | 80 | 8500 | 113 | 4000K | 80 | 9200 | 123 | 5000K | 70 | 10300 | 137 |
| MLGH1 | 350-400W | Type I | 3000K | 80 | 9900 | 106 | 4000K | 80 | 10700 | 115 | 5000K | 70 | 12000 | 129 |
| | | Type III | 3000K | 80 | 11200 | 115 | 4000K | 80 | 11300 | 122 | 5000K | 70 | 12600 | 135 |
| | | Type V | 3000K | 80 | 11400 | 123 | 4000K | 80 | 12300 | 132 | 5000K | 70 | 13600 | 146 |
| | | Type V Wide | 3000K | 80 | 10300 | 111 | 4000K | 80 | 11200 | 120 | 5000K | 70 | 12500 | 134 |
| MLGH3 | 400W | Type I | 3000K | 80 | 12000 | 104 | 4000K | 80 | 12900 | 112 | 5000K | 70 | 14500 | 126 |
| | | Type III | 3000K | 80 | 12600 | 110 | 4000K | 80 | 13600 | 118 | 5000K | 70 | 15300 | 133 |
| | | Type V | 3000K | 80 | 13700 | 119 | 4000K | 80 | 14900 | 130 | 5000K | 70 | 16400 | 143 |
| | | Type V Wide | 3000K | 80 | 12500 | 109 | 4000K | 80 | 13500 | 117 | 5000K | 70 | 15100 | 131 |
| MLGH6 | 400-600W | Type I | 3000K | 80 | 14500 | 100 | 4000K | 80 | 15700 | 108 | 5000K | 70 | 17700 | 122 |
| | | Type III | 3000K | 80 | 15100 | 104 | 4000K | 80 | 16400 | 113 | 5000K | 70 | 18400 | 127 |
| | | Type V | 3000K | 80 | 17000 | 117 | 4000K | 80 | 18000 | 124 | 5000K | 70 | 20100 | 139 |
| | | Type V Wide | 3000K | 80 | 15000 | 103 | 4000K | 80 | 16300 | 112 | 5000K | 70 | 18200 | 126 |
| MLGX1 | 600-750W | Type I | 3000K | 80 | 17170 | 102 | 4000K | 80 | 18188 | 108 | 5000K | 70 | 19206 | 114 |
| | | Type III | 3000K | 80 | 17931 | 106 | 4000K | 80 | 18994 | 112 | 5000K | 70 | 20057 | 119 |
| | | Type V | 3000K | 80 | 20006 | 118 | 4000K | 80 | 21366 | 126 | 5000K | 70 | 21937 | 130 |
| | | Type V Wide | 3000K | 80 | 17830 | 106 | 4000K | 80 | 18887 | 112 | 5000K | 70 | 19944 | 118 |
| MLGX5 | 1000W | Type I | 3000K | 80 | 19468 | 93 | 4000K | 80 | 20623 | 98 | 5000K | 70 | 21777 | 104 |
| | | Type III | 3000K | 80 | 20342 | 97 | 4000K | 80 | 21548 | 103 | 5000K | 70 | 22754 | 108 |
| | | Type V | 3000K | 80 | 23776 | 113 | 4000K | 80 | 25392 | 121 | 5000K | 70 | 26070 | 124 |
| | | Type V Wide | 3000K | 80 | 21285 | 101 | 4000K | 80 | 22547 | 107 | 5000K | 70 | 23809 | 113 |

*① All lumen values are typical (tolerance +/-10%).*

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

**Lumen Output (Efficacy) — Standard Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Glass Prismatic Refractor** | | | | | | | | | | | | | | |
| MLGL3 | 70-100W | Type V | 3000K | 80 | 2800 | 91 | 4000K | 80 | 3000 | 101 | 5000K | 70 | 3400 | 111 |
| MLGL5 | 100-150W | Type V | 3000K | 80 | 4200 | 90 | 4000K | 80 | 4600 | 99 | 5000K | 70 | 5100 | 110 |
| MLGL7 | 175-250W | Type V | 3000K | 80 | 6300 | 107 | 4000K | 80 | 6700 | 113 | 5000K | 70 | 7300 | 123 |
| MLGL9/ MLGH9 | 250-350W | Type V | 3000K | 80 | 8400 | 107 | 4000K | 80 | 8800 | 112 | 5000K | 70 | 9700 | 124 |
| MLGH1 | 350-400W | Type V | 3000K | 80 | 10100 | 105 | 4000K | 80 | 10600 | 110 | 5000K | 70 | 11700 | 121 |
| MLGH3 | 400W | Type V | 3000K | 80 | 11800 | 104 | 4000K | 80 | 12400 | 109 | 5000K | 70 | 13600 | 120 |
| MLGH6 | 400-600W | Type V | 3000K | 80 | 14500 | 100 | 4000K | 80 | 15100 | 105 | 5000K | 70 | 16700 | 116 |
| MLGX1 | 600-750W | Type V | 3000K | 80 | 16798 | 99 | 4000K | 80 | 17915 | 106 | 5000K | 70 | 18318 | 108 |
| MLGX5 | 1000W | Type V | 3000K | 80 | 19962 | 95 | 4000K | 80 | 21290 | 101 | 5000K | 70 | 21769 | 104 |

*① All lumen values are typical (tolerance +/-10%).*

# Mercmaster™ LED Generation 3 Series Luminaires

With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified**

**Lumen Output (Efficacy) — Emergency Battery Backup Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe** | | | | | | | | | | | | | | |
| MLGL3 | 70-100W | Type I | 3000K | 80 | 2600 | 87 | 4000K | 80 | 3000 | 100 | 5000K | 70 | 3200 | 107 |
| | | Type III | 3000K | 80 | 2800 | 93 | 4000K | 80 | 3000 | 100 | 5000K | 70 | 3500 | 117 |
| | | Type V | 3000K | 80 | 3000 | 100 | 4000K | 80 | 3300 | 110 | 5000K | 70 | 3800 | 127 |
| | | Type V Wide | 3000K | 80 | 2900 | 96 | 4000K | 80 | 2900 | 97 | 5000K | 70 | 3600 | 119 |
| MLGL3 — 90 Minute Emergency Mode | 70-100W | Type I | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| | | Type III | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| | | Type V | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| | | Type V Wide | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| MLGL5 | 100-150W | Type I | 3000K | 80 | 3800 | 83 | 4000K | 80 | 4200 | 91 | 5000K | 70 | 4800 | 104 |
| | | Type III | 3000K | 80 | 4100 | 89 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 5200 | 113 |
| | | Type V | 3000K | 80 | 4500 | 98 | 4000K | 80 | 5000 | 109 | 5000K | 70 | 5700 | 124 |
| | | Type V Wide | 3000K | 80 | 4400 | 94 | 4000K | 80 | 4800 | 105 | 5000K | 70 | 6000 | 129 |
| MLGL5 — 90 Minute Emergency Mode | 100-150W | Type I | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| | | Type III | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| | | Type V | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| | | Type V Wide | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| **Diffused Polycarbonate Globe** | | | | | | | | | | | | | | |
| MLGL3 | 70-100W | Type I | 3000K | 80 | 2700 | 87 | 4000K | 80 | 2900 | 95 | 5000K | 70 | 3200 | 108 |
| | | Type III | 3000K | 80 | 2800 | 92 | 4000K | 80 | 3000 | 101 | 5000K | 70 | 3300 | 112 |
| | | Type V | 3000K | 80 | 2900 | 97 | 4000K | 80 | 3200 | 107 | 5000K | 70 | 3700 | 123 |
| | | Type V Wide | 3000K | 80 | 2800 | 91 | 4000K | 80 | 3000 | 101 | 5000K | 70 | 3400 | 113 |
| MLGL3 — 90 Minute Emergency Mode | 70-100W | Type I | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| | | Type III | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| | | Type V | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| | | Type V Wide | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| MLGL5 | 100-150W | Type I | 3000K | 80 | 4000 | 85 | 4000K | 80 | 4400 | 94 | 5000K | 70 | 4900 | 107 |
| | | Type III | 3000K | 80 | 4200 | 91 | 4000K | 80 | 6400 | 100 | 5000K | 70 | 5100 | 110 |
| | | Type V | 3000K | 80 | 4400 | 96 | 4000K | 80 | 4800 | 104 | 5000K | 70 | 5500 | 120 |
| | | Type V Wide | 3000K | 80 | 4200 | 90 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 5100 | 110 |
| MLGL5 — 90 Minute Emergency Mode | 100-150W | Type I | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| | | Type III | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| | | Type V | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| | | Type V Wide | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |

*① All lumen values are typical (tolerance +/-10%). For Lumen Output (Efficacy) of the emergency battery backup model in 180 minute emergency mode, contact your local sales representative.*

# Mercmaster™ LED Generation 3 Series Luminaires

## With Emergency Battery Backup

### Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified**

**Lumen Output (Efficacy) — Emergency Battery Backup Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass Globe** | | | | | | | | | | | | | | |
| MLGL3 | 70-100W | Type I | 3000K | 80 | 2800 | 93 | 4000K | 80 | 3100 | 103 | 5000K | 70 | 3500 | 111 |
| | | Type III | 3000K | 80 | 3100 | 102 | 4000K | 80 | 3200 | 107 | 5000K | 70 | 3700 | 116 |
| | | Type V | 3000K | 80 | 3100 | 102 | 4000K | 80 | 3600 | 120 | 5000K | 70 | 4000 | 133 |
| | | Type V Wide | 3000K | 80 | 3100 | 101 | 4000K | 80 | 3200 | 107 | 5000K | 70 | 3600 | 120 |
| MLGL3 — 90 Minute Emergency Mode | 70-100W | Type I | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| | | Type III | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| | | Type V | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| | | Type V Wide | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1350 | N/A |
| MLGL5 | 100-150W | Type I | 3000K | 80 | 4200 | 91 | 4000K | 80 | 5000 | 106 | 5000K | 70 | 5300 | 115 |
| | | Type III | 3000K | 80 | 4400 | 95 | 4000K | 80 | 5200 | 110 | 5000K | 70 | 5400 | 117 |
| | | Type V | 3000K | 80 | 4800 | 104 | 4000K | 80 | 5300 | 113 | 5000K | 70 | 6000 | 130 |
| | | Type V Wide | 3000K | 80 | 4900 | 99 | 4000K | 80 | 5200 | 110 | 5000K | 70 | 5400 | 117 |
| MLGL5 — 90 Minute Emergency Mode | 100-150W | Type I | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| | | Type III | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| | | Type V | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| | | Type V Wide | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1350 | N/A |

*① All lumen values are typical (tolerance +/-10%). For Lumen Output (Efficacy) of the emergency battery backup model in 180 minute emergency mode, contact your local sales representative.*

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

### Electrical Specifications — Standard Model ①

| Model | Voltage | Input Power | Input Current (Amp) | Power Factor | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| MLGL3 | 120 Vac | 30 | 0.26 | >0.9 | < 20% |
| | 277 Vac | 30 | 0.12 | | |
| | 170 Vdc | 30 | 0.18 | N/A | N/A |
| | 300 Vdc | 31 | 0.10 | | |
| | 347 Vac | 33 | 0.10 | >0.9 | < 20% |
| | 480 Vac | 33 | 0.07 | | |
| MLGL5 | 120 Vac | 46 | 0.39 | >0.9 | < 20% |
| | 277 Vac | 46 | 0.17 | | |
| | 170 Vdc | 46 | 0.27 | N/A | N/A |
| | 300 Vdc | 46 | 0.16 | | |
| | 347 Vac | 49 | 0.14 | >0.9 | < 20% |
| | 480 Vac | 49 | 0.11 | | |
| MLGL7 | 120 Vac | 57 | 0.48 | >0.9 | < 20% |
| | 277 Vac | 57 | 0.23 | | |
| | 170 Vdc | 57 | 0.34 | N/A | N/A |
| | 300 Vdc | 57 | 0.19 | | |
| | 347 Vac | 60 | 0.18 | >0.9 | < 20% |
| | 480 Vac | 60 | 0.14 | | |
| MLGL9/MLGH9 | 120 Vac | 75 | 0.64 | >0.9 | < 20% |
| | 277 Vac | 75 | 0.29 | | |
| | 170 Vdc | 75 | 0.45 | N/A | N/A |
| | 300 Vdc | 75 | 0.25 | | |
| | 347 Vac | 79 | 0.23 | >0.9 | < 20% |
| | 480 Vac | 79 | 0.17 | | |
| MLGH1 | 120 Vac | 93 | 0.79 | >0.9 | < 20% |
| | 277 Vac | 93 | 0.35 | | |
| | 170 Vdc | 93 | 0.55 | N/A | N/A |
| | 300 Vdc | 93 | 0.31 | | |
| | 347 Vac | 97 | 0.28 | >0.9 | < 20% |
| | 480 Vac | 97 | 0.21 | | |
| MLGH3 | 120 Vac | 115 | 0.99 | >0.9 | < 20% |
| | 277 Vac | 115 | 0.44 | | |
| | 170 Vdc | 115 | 0.68 | N/A | N/A |
| | 300 Vdc | 115 | 0.38 | | |
| | 347 Vac | 118 | 0.34 | >0.9 | < 20% |
| | 480 Vac | 118 | 0.25 | | |
| MLGH6 | 120 Vac | 145 | 1.24 | >0.9 | < 20% |
| | 277 Vac | 145 | 0.54 | | |
| | 170 Vdc | 145 | 0.86 | N/A | N/A |
| | 300 Vdc | 145 | 0.48 | | |
| | 347 Vac | 145 | 0.42 | >0.9 | < 20% |
| | 480 Vac | 145 | 0.31 | | |
| MLGX1 | 120 Vac | 169 | 1.43 | >0.9 | < 20% |
| | 277 Vac | 165 | 0.63 | | |
| | 170 Vdc | 169 | 1.30 | N/A | N/A |
| | 300 Vdc | 166 | 0.64 | | |
| | 347 Vac | 171 | 0.50 | >0.9 | < 20% |
| | 480 Vac | 170 | 0.37 | | |
| MLGX5 | 120 Vac | 210 | 1.79 | >0.9 | < 20% |
| | 277 Vac | 204 | 0.82 | | |
| | 170 Vdc | 209 | 1.60 | N/A | N/A |
| | 300 Vdc | 203 | 0.76 | | |
| | 347 Vac | 209 | 0.61 | >0.9 | < 20% |
| | 480 Vac | 209 | 0.45 | | |

① *All values are typical (tolerance +/-10%).*

# Mercmaster™ LED Generation 3 Series Luminaires

## With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

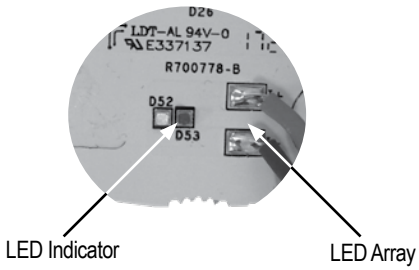
**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified**

**Electrical Specifications — Emergency Battery Backup Model ①**

| Model | Voltage | Input Power (Watts) | Input Current (Amp) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| MLGL3 | 120 Vac | 30 | 0.26 | >0.9 | < 20% |
| | 277 Vac | 30 | 0.12 | | |
| MLGL5 | 120 Vac | 46 | 0.39 | >0.9 | < 20% |
| | 277 Vac | 46 | 0.17 | | |

**Automatic Testing System (ATS) — Emergency Battery Backup Model — Functionality**

| Functional | Full Duration |
|---|---|
| Starts within 24 to 45 hours after the initial powerup of the module | Starts within 5 to 26 days after the initial power of the module |
| Occurs every 14 days after the initial aforementioned functional test | Occurs every 364 days after the initial aforementioned functional test |
| Lasts for 30 seconds | Lasts for the full duration of the rated emergency period |
| At the completion of functional and full duration tests, LED indicator will display the status of the emergency luminaire when AC is present | |




**LED Signals**

| Indicator Color | Timing | Description |
|---|---|---|
| Green | 1 sec ON: 1 sec OFF | Normal charging ok, Battery not yet fully charged, No fault detected, Testing ok |
| Green | 0.25 sec ON: 0.25 sec OFF | Functional / Duration Self-Test on-going |
| Green | Steady ON | Charging ok, Battery fully charged, No fault detected, Testing ok |
| Red | 1 sec ON: 1 sec OFF | Fault condition. Installation issue. Battery is reverse, not connected or shorted. Functional test failure, full duration test failure |
| LED Indicators OFF, LED Array ON | LED Indicator Lights (Red and Green) OFF | No AC, Emergency mode ON |

*① All values are typical (tolerance +/-10%).*

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

### NEC/CEC Temperature Codes — Standard Model ①

| Model ② | Ambient Temperature °C (°F) | Supply wire Temperature °C (°F) | Class I, Division 2 Groups A, B, C, D | Class I, Zone 2 Group IIC | Class II, Division 1 Groups E, F, G | Zone 21, Group IIIC | Class I, Division 2 and Class II, Division 1 |
|---|---|---|---|---|---|---|---|
| MLGL3 | 40 (104) | 90 (194) | T4A | T4 | T6 | T6 | T4A |
| | 55 (131) | | T4A | T4 | T5 | T5 | T4A |
| | 65 (149) | | T4 | T4 | T5 | T5 | T4 |
| MLGL3 - A | 75 (167) | 90 (194) | T4 | T4 | T4A | T4 | T3C |
| MLGL5 | 40 (104) | 90 (194) | T4A | T4 | T6 | T6 | T4A |
| | 55 (131) | | T4 | T4 | T5 | T5 | T4 |
| | 65 (149) | | T3C | T3 | T5 | T5 | T3C |
| MLGL5 - A | 75 (167) | 90 (194) | T3C | T3 | T4A | T4 | T3C |
| MLGL7 | 40 (104) | 90 (194) | T4A | T4 | T6 | T6 | T4A |
| | 55 (131) | | T4A | T4 | T5 | T6 | T4 |
| | 65 (149) | | T4 | T4 | T5 | T6 | T3C |
| MLGL7 - A | 70 (158) | 90 (194) | T4 | T4 | T5 | T5 | T3C |
| | 75 (167) | | T4 | T4 | T4A | T4 | T3C |
| MLGL9 | 40 (104) | 90 (194) | T4A | T4 | T6 | T6 | T4A |
| | 55 (131) | | T4 | T4 | T5 | T5 | T4 |
| | 65 (149) | | T4 | T4 | T5 | T5 | T4 |
| MLGL9 - A | 70 (158) | 90 (194) | T3C | T3 | T5 | T6 | T3C |
| MLGH9 - A | 70 (158) | 90 (194) | T3C | T3 | T5 | T6 | T3C |
| MLGH1 | 40 (104) | 90 (194) | T3C | T3 | T6 | T6 | T3C |
| | 55 (131) | | T3C | T3 | T6 | T6 | T3C |
| | 65 (149) | | T3C | T3 | T6 | T6 | T3C |
| MLGH1 - A | 70 (158) | 90 (194) | T3B | T3 | T5 | T5 | T3B |
| MLGH3 | 40 (104) | 90 (194) | T3C | T3 | T6 | T6 | T3C |
| | 55 (131) | | T3B | T3 | T6 | T6 | T3B |
| | 65 (149) | | T3A | T3 | T6 | T5 | T3A |
| MLGH3 - A | 70 (158) | 90 (194) | T3A | T3 | T5 | T5 | T3A |
| MLGH6 | 40 (104) | 90 (194) | T3A | T3 | T6 | T6 | T3A |
| | 55 (131) | | T3A | T3 | T6 | T6 | T3A |
| | 65 (149) | | T3 | T3 | T5 | T5 | T3 |
| MLGX1 | 40 (104) | 90 (194) | T3C | T3 | T6 | T6 | T3C |
| | 60 (140) | | T3A | T3 | T5 | T5 | T3A |
| MLGX5 | 40 (104) | 90 (194) | T3B | T3 | T6 | T6 | T3B |
| | 55 (131) | | T3A | T3 | T5 | T5 | T3A |

### NEC/CEC — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature ③④

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*① Ambient Temperature Range: -40 °C to +65 °C (-40 °F to +149 °F).*
*② -A suffix denotes High Ambient rating.*
*③ T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*
*④ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and Class I, Zone 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.*

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

**ATEX/IECEx Temperature Codes — Standard Model ①**

| Model ② | Ambient Temperature °C (°F) | T-Code for Zone 2 | T-Code for Zone 21/22 |
|---|---|---|---|
| MLGL3 | 40 (104) | T4 | T81°C |
| | 55 (131) | T4 | T88°C |
| | 65 (149) | T4 | T94°C |
| MLGL5 | 40 (104) | T4 | T81°C |
| | 55 (131) | T4 | T88°C |
| | 65 (149) | T3 | T94°C |
| MLGL7 | 40 (104) | T4 | T81°C |
| | 55 (131) | T4 | T88°C |
| | 65 (149) | T4 | T94°C |
| MLGL7-A | 70 (158) | T4 | T99°C |
| MLGL9 | 40 (104) | T4 | T81°C |
| | 55 (131) | T4 | T88°C |
| | 65 (149) | T4 | T94°C |
| MLGH9-A | 70 (158) | T3 | T88°C |
| MLGH1 | 40 (104) | T3 | T64°C |
| | 55 (131) | T3 | T77°C |
| | 65 (149) | T3 | T83°C |
| MLGH1 - A | 70 (158) | T3 | T88°C |
| MLGH3 | 40 (104) | T4 | T66°C |
| | 55 (131) | T3 | T79°C |
| | 65 (149) | T3 | T86°C |
| MLGH6 | 40 (104) | T3 | T71°C |
| | 55 (131) | T3 | T84°C |
| | 65 (149) | T3 | T95°C |
| MLGX1 | 40 (104) | T3 | T82°C |
| | 60 (140) | T3 | T102°C |
| MLGX5 | 40 (104) | T3 | T92°C |
| | 55 (131) | T3 | T104°C |

**ATEX/IECEx — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature**

| "T" # | T1 | T2 | T3 | T4 | T5 | T6 |
|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +301 to +450 (+547 to +842) | +201 to +300 (+394 to +572) | +136 to +200 (+277 to +392) | +101 to +135 (+214 to +275) | +86 to +100 (+187 to +212) | +85 (+185) |

*① For 125-170 Vdc, operating Temp. range is -40°C to +55 °C (For IECEx/ATEX only). NEC/CEC operating temp remains -40°C to +65°C (-40 °F to +149 °F) for full Vdc range.*
*② -A suffix denotes High Ambient rating.*

# Mercmaster™ LED Generation 3 Series Luminaires

With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified**

**NEC/CEC Temperature Codes — Emergency Battery Backup Model ①**

| Model | Max. Ambient Temperature °C (°F) | Min. Supply Wire °C (°F) | Class I Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 1, Groups E, F and G | Zone 21, Group IIIC | Class I, Division 2, Class II, Division 1 |
|---|---|---|---|---|---|---|---|
| MLGL3 | 40 (104) | 90 (194) | T5 | T5 | T6 | T6 | T5 |
| | 55 (131) | | T5 | T5 | T6 | T6 | T5 |
| MLGL5 | 40 (104) | 90 (194) | T5 | T5 | T6 | T6 | T4A |
| | 55 (131) | | T5 | T5 | T6 | T6 | T4A |

**NEC/CEC — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature ①②**

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*① Ambient Temperature Range: -40 °C to +65 °C (-40 °F to +149 °F).*
*② T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*
*③ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and Class I, Zone 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.*

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

**Catalog Number for Driver Housing and Globe or Refractor — Standard Model**

| Lumen Level | CCT | Optics | Clear Polycarbonate Globe ①②③④⑤ | Polycarbonate Diffused Globe ①②③④⑤ | Clear Glass Globe ①②③④⑤ | Refractor ①②③④⑤ |
|---|---|---|---|---|---|---|
| 3500 | 5000K | Type I | **MLGL3CP1** | **MLGL3CD1** | **MLGL3CG1** | — |
| | | Type III | **MLGL3CP3** | **MLGL3CD3** | **MLGL3CG3** | — |
| | | Type V | **MLGL3CP5** | **MLGL3CD5** | **MLGL3CG5** | **MLGL3CJ5** |
| | | Type V Wide | **MLGL3CPW** | **MLGL3CDW** | **MLGL3CGW** | — |
| 5500 | 5000K | Type I | **MLGL5CP1** | **MLGL5CD1** | **MLGL5CG1** | — |
| | | Type III | **MLGL5CP3** | **MLGL5CD3** | **MLGL5CG3** | — |
| | | Type V | **MLGL5CP5** | **MLGL5CD5** | **MLGL5CG5** | **MLGL5CJ5** |
| | | Type V Wide | **MLGL5CPW** | **MLGL5CDW** | **MLGL5CGW** | — |
| 7500 | 5000K | Type I | **MLGL7CP1** | **MLGL7CD1** | **MLGL7CG1** | — |
| | | Type III | **MLGL7CP3** | **MLGL7CD3** | **MLGL7CG3** | — |
| | | Type V | **MLGL7CP5** | **MLGL7CD5** | **MLGL7CG5** | **MLGL7CJ5** |
| | | Type V Wide | **MLGL7CPW** | **MLGL7CDW** | **MLGL7CGW** | — |
| 9500 ⑥ | 5000K | Type I | **MLGL9CP1/MLGH9CP1** | **MLGL9CD1/MLGH9CD1** | **MLGL9CG1/MLGH9CG1** | — |
| | | Type III | **MLGL9CP3/ MLGH9CP3** | **MLGL9CD3/MLGH9CD3** | **MLGL9CG3/MLGH9CG3** | — |
| | | Type V | **MLGL9CP5/MLGH9CP5** | **MLGL9CD5/MLGH9CD5** | **MLGL9CG5/MLGH9CG5** | **MLGL9CJ5/MLGH9CJ5** |
| | | Type V Wide | **MLGL9CPW/MLGH9CPW** | **MLGL9CDW/MLGH9CDW** | **MLGL9CGW/MLGH9CGW** | — |
| 11,500 | 5000K | Type I | **MLGH1CP1** | **MLGH1CD1** | **MLGH1CG1** | — |
| | | Type III | **MLGH1CP3** | **MLGH1CD3** | **MLGH1CG3** | — |
| | | Type V | **MLGH1CP5** | **MLGH1CD5** | **MLGH1CG5** | **MLGH1CJ5** |
| | | Type V Wide | **MLGH1CPW** | **MLGH1CDW** | **MLGH1CGW** | — |
| 14,500 | 5000K | Type I | **MLGH3CP1** | **MLGH3CD1** | **MLGH3CG1** | — |
| | | Type III | **MLGH3CP3** | **MLGH3CD3** | **MLGH3CG3** | — |
| | | Type V | **MLGH3CP5** | **MLGH3CD5** | **MLGH3CG5** | **MLGH3CJ5** |
| | | Type V Wide | **MLGH3CPW** | **MLGH3CDW** | **MLGH3CGW** | — |
| 17,500 | 5000K | Type I | **MLGH6CP1** | **MLGH6CD1** | **MLGH6CG1** | — |
| | | Type III | **MLGH6CP3** | **MLGH6CD3** | **MLGH6CG3** | — |
| | | Type V | **MLGH6CP5** | **MLGH6CD5** | **MLGH6CG5** | **MLGH6CJ5** |
| | | Type V Wide | **MLGH6CPW** | **MLGH6CDW** | **MLGH6CGW** | — |
| 20,000 | 5000K | Type I | **MLGX1CP1** | **MLGX1CD1** | **MLGX1CG1** | — |
| | | Type III | **MLGX1CP3** | **MLGX1CD3** | **MLGX1CG3** | — |
| | | Type V | **MLGX1CP5** | **MLGX1CD5** | **MLGX1CG5** | **MLGX1CJ5** |
| | | Type V Wide | **MLGX1CPW** | **MLGX1CDW** | **MLGX1CGW** | — |
| 24,000 | 5000K | Type I | **MLGX5CP1** | **MLGX5CD1** | **MLGX5CG1** | — |
| | | Type III | **MLGX5CP3** | **MLGX5CD3** | **MLGX5CG3** | — |
| | | Type V | **MLGX5CP5** | **MLGX5CD5** | **MLGX5CG5** | **MLGX5CJ5** |
| | | Type V Wide | **MLGX5CPW** | **MLGX5CDW** | **MLGX5CGW** | — |

*① For 120-277 Vac, 50/60 Hz, add suffix **-BU** to catalog number. For 347-480 Vac, 50/60 Hz, add suffix **-BH** to catalog number.*
*② For other CCT options, change the 7th digit in part number from "**C**" to "**W**" for Warm 3000K CCT or "**N**" for Neutral 4000K CCT. Example: MLGL7**C**P5BU to "**W**" for Warm, MLGL7**W**P5BU.*
*③ Guards are available for fixtures with globe or refractor. See following pages for accessory ordering information.*
*④ For fusing add "**F**" to end of catalog number. Example: MLGL7CP5BU**F**.*
*⑤ Use of fuse voids Marine Outside Type (Salt Water) rating. Only available for cCSAus rating. For additional 10 kV of surge, add "**S**" to the end of catalog number. Example: MLGH6CD5BU**S**.*
*⑥ MLGH9 only available with certified High Ambient option (-**A**).*

# Mercmaster™ LED Generation 3 Series Luminaires

With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified**

**Catalog Number for Driver Housing and Globe — Emergency Battery Backup Model**

| Lumen Level | CCT | Optics | Clear Polycarbonate Globe ①② | | Polycarbonate Diffused Globe ①② | | Clear Glass Globe ①② | |
|---|---|---|---|---|---|---|---|---|
| | | | 90 Min | 180 Min | 90 Min | 180 Min | 90 Min | 180 Min |
| 3500 | 5000K | Type I | **MLGL3CP1BUH** | **MLGL3CP1BUE** | **MLGL3CD1BUH** | **MLGL3CD1BUE** | **MLGL3CG1BUH** | **MLGL3CG1BUE** |
| | | Type III | **MLGL3CP3BUH** | **MLGL3CP3BUE** | **MLGL3CD3BUH** | **MLGL3CD3BUE** | **MLGL3CG3BUH** | **MLGL3CG3BUE** |
| | | Type V | **MLGL3CP5BUH** | **MLGL3CP5BUE** | **MLGL3CD5BUH** | **MLGL3CD5BUE** | **MLGL3CG5BUH** | **MLGL3CG5BUE** |
| | | Type V Wide | **MLGL3CPWBUH** | **MLGL3CPWBUE** | **MLGL3CDWBUH** | **MLGL3CDWBUE** | **MLGL3CGWBUH** | **MLGL3CGWBUE** |
| 5500 | 5000K | Type I | **MLGL5CP1BUH** | **MLGL5CP1BUE** | **MLGL5CD1BUH** | **MLGL5CD1BUE** | **MLGL5CG1BUH** | **MLGL5CG1BUE** |
| | | Type III | **MLGL5CP3BUH** | **MLGL5CP3BUE** | **MLGL5CD3BUH** | **MLGL5CD3BUE** | **MLGL5CG3BUH** | **MLGL5CG3BUE** |
| | | Type V | **MLGL5CP5BUH** | **MLGL5CP5BUE** | **MLGL5CD5BUH** | **MLGL5CD5BUE** | **MLGL5CG5BUH** | **MLGL5CG5BUE** |
| | | Type V Wide | **MLGL5CPWBUH** | **MLGL5CPWBUE** | **MLGL5CDWBUH** | **MLGL5CDWBUE** | **MLGL5CGWBUH** | **MLGL5CGWBUE** |

*① For other CCT options, change the 7th digit in part number from "**C**" to "**W**" for Warm 3000K CCT or "**N**" for Neutral 4000K CCT. Example: MLGL7**C**P5BUH to "**W**" for Warm, MLGL7**W**P5BUH.*
*② Guards are available. See following pages for accessory ordering information.*

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ex II 3 G | Ex II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

### Mounting Hoods — All Models

| | Hub Size | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Pendant — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.0 (2.3) | **KPA-75** |
| | 1" NPT | | **KPA-100** |
| | M20 | | **KPA-M20** |
| **Watertight Pendant Hood — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.1 (2.4) | **KPA-75-WT** |
| | 1" NPT | | **KPA-100-WT** |
| | M20 | | **KPA-WT-M20** |
| **Pendant Cone — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.1 (2.5) | **KPCH-75** |
| | 1" NPT | | **KPCH-100** |
| | M20 | | **KPCH-M20** |
| **Trunnion — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 6.1 (13.4) | **KPCT-75** |
| | 1" NPT | | **KPCT-100** |
| | M20 | | **KPCT-M20** |
| **Ceiling — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 1.4 (3.0) | **KPC-75** |
| | 1" NPT | | **KPC-100** |
| | M20 | | **KPC-M20** |
| **Wall — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 1.8 (4.0) | **KPWB-75** |
| | 1" NPT | | **KPWB-100** |
| | M20 | | **KPWB-M20** |
| **25° Stanchion — One Hub** | | | |
| | 1-1/4" NPT | 1.5 (3.3) | **KPS-125** |
| | 1-1/2" NPT | | **KPS-150** |
| **90° Stanchion — One Hub** | | | |
| | 1-1/4" NPT | 1.7 (3.8) | **KPST-125** |
| | 1-1/2" NPT | | **KPST-150** |

# Mercmaster™ LED Generation 3 Series Luminaires

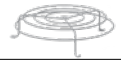
Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



### Accessories and Replacement Parts — All Models

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Globes** | | | |
| | Clear Globe — Polycarbonate | 0.2 (0.5) | **VPGL-LED** |
| | Diffused Globe — Polycarbonate | 0.2 (0.5) | **VPGL-DIFF** |
| | Clear Globe — Glass | 0.8 (1.7) | **VPGL-GLASS** |
| **Guard** | | | |
|  | Globe Guard | 0.2 (0.4) | **MGU1** |
| **Safety Cable** | | | |
| | Stainless steel | 0.2 (0.4) | **LEDSC** |
| **Visor** | | | |
| | Electrostatically applied gray epoxy powder coat finish on Aluminum Visor | 0.4 (0.9) | **MMVISOR** |
| **Reflector** | | | |
| | 30° Angle White Polyester Reflectors | 1.3 (2.7) | **CMR-4AN** |
| **Drain Plug** | | | |
| | 76 mm (3") long, 1/2" NPT trade size drain assembly used to divert water existing in the conduit system | 0.4 (0.9) | **LEDDR3** |

### Mounting Hood Adapters — All Models ①

| | Manufacturer | Installed Mounting Hood | Weight in kg (lbs) | Appleton Adapter Catalog Number |
|---|---|---|---|---|
| | Crouse-Hinds™ Champ® ✢ | Pendant: APM2/3<br>Ceiling: CM2/3<br>Flexible Pendant: HPM2 | 0.9 (2.00) | **MMADCHVS** |
| | Appleton™ Mercmaster™ II | Pendant: LPA75/100<br>Ceiling: LPC75/100 | 0.9 (2.00) | **MMADIIS** |
| | Crouse-Hinds™ Champ® ✢ | Wall: TWM2/3<br>25° Angle Stanchion: JM5<br>90° Angle Stanchion: PM5 | 0.9 (2.00) | **MMADCHVA** |
| | Appleton™ Mercmaster™ II | Wall: LPWB75, LPWB100<br>25° Angle Stanchion: LPS125, LPS150 | 0.9 (2.00) | **MMADIIA** |
| | Killark™ ✧ | Ceiling: VMX2B, VMX3B, VMX6B, VMX7B, VMX9B<br>Pendant: VMA2B, VMA3B<br>Stanchion: VMD4B, VMD5B, VMS4B, VMS5B<br>Wall: VMB2B, VMB3B<br>Pendant Cone: VMC2B, VMC3B | 1.0 (2.3) | **MMADKVA** |

① *Adapters are cCSAus rated only.*
✧ *Killark is a registered trademark of Hubbell Incorporated.*
✢ *Crouse-Hinds and Champ are a registered trademarks of Cooper Crouse-Hinds.*

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

### Accessories and Replacement Parts — Standard Model

| | Light Distribution | | | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| **Prismatic Glass Refractor — All Heat-Resistant ①** | | | | | |
| | Short Prismatic Glass Refractor — NEMA Type V | | | 1.4 (3.0) | **LPG-R5S** |
| | **Description** | | | | **Catalog Number** |
| **Guards** | | | | | |
| | Short Refractor Guard for LPG-R5S | | | 0.3 (0.7) | **KRG2S** |
| | **Model** | **Voltage** | **Driver Wattage** | **Constant Current Settings** | **Catalog Number** |
| **Replacement Drivers** | | | | | |
| | MLGL3 | BU | 50 Watt | 500mA | **APMS050C135UD50** |
| | | BH | | 500mA | **APMS050C135HD50** |
| | MLGL5 | BU | 50 Watt | 780mA | **APMS050C135UD78** |
| | | BH | | 780mA | **APMS050C135HD78** |
| | MLGL7 | BU | 100 Watt | 360mA | **APMS100C105UD36** |
| | | BH | | 360mA | **APMS100C105HD36** |
| | MLGL9 / MLGH9 | BU | 100 Watt | 480mA | **APMS100C105UD48** |
| | | BH | | 480mA | **APMS100C105HD48** |
| | MLGH1 | BU | 100 Watt | 595mA | **APMS100C105UD59** |
| | | BH | | 595mA | **APMS100C105HD59** |
| | MLGH3 | BU | 150 Watt | 720mA | **APMS150C105UD72** |
| | | BH | | 720mA | **APMS150C105HD72** |
| | MLGH6 | BU | 150 Watt | 900mA | **APMS150C105UD90** |
| | | BH | | 900mA | **APMS150C105HD90** |
| | MLGX1 | BU | 2 x 100 Watt | 520mA | **APMS100C105UD52** |
| | | BH | 2 x 100 Watt | 520mA | **APMS100C105HD52** |
| | MLGX5 | BU | 2 x 150 Watt | 650mA | **APMS150C105UD65** |
| | | BH | 2 x 100 Watt | 650mA | **APMS100C105HD65** |

*① Glass Prismatic Refractor is cCSAus rated only.*

# Mercmaster™ LED Generation 3 Series Luminaires

With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified**



**Accessories and Replacement Parts — Emergency Battery Backup Model**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| | Replacement Battery Pack | 0.7 (1.5) | **BPMLLED** |
| | Replacement Battery Management Module | 0.7 (1.5) | **BMMLLED** |
| | Replacement Fuse (Emergency system) | 0.2 (0.4) | **MLF5** |

| | Model | Voltage | Driver Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|---|
| **Replacement Drivers** | | | | | |
| | MLGL3 | BU | 50 Watt | 500mA | **APMS050C135UD50** |
| | | BH | | 500mA | **APMS050C135HD50** |
| | MLGL5 | BU | 50 Watt | 780mA | **APMS050C135UD78** |
| | | BH | | 780mA | **APMS050C135HD78** |

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

**Luminaire Weights — All Models**

| Model | Lumen Outputs | Weight in kg (lbs) |
|---|---|---|
| **Standard Models** | | |
| MLGL3 | 3500 | 9.20 (20.3) |
| MLGL5 | 5500 | 9.20 (20.3) |
| MLGL7 | 7500 | 9.20 (20.3) |
| MLGL9 | 9500 | 9.20 (20.3) |
| MLGH9 | 9500 | 12.00 (26.4) |
| MLGH1 | 11,500 | 12.00 (26.4) |
| MLGH3 | 14,500 | 12.00 (26.4) |
| MLGH6 | 17,500 | 12.00 (26.4) |
| MLGX1 | 20,000 | 13.15 (29.0) |
| MLGX5 | 25,000 | 13.15 (29.0) |
| **Emergency Battery Backup Models** | | |
| MLGL3H | 3500 | 10.5 (23.2) |
| MLGL5H | 5500 | 10.5 (23.2) |

# PCD2 Series Factory Sealed Hazardous Location Photocontrol

For Use in Class I, Division 2, Groups A, B, C, D Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | NEMA 4X**



## Applications

- Encapsulated photocontrol provides automatic dusk-to-dawn lighting control in Class I, Division 2 locations.
- Typical applications include walkways, security areas and any other outdoor lighting application.
- For remote mounting in FS Boxes.

## Features

- Factory sealed design eliminates the need for an explosionproof enclosure.
- Can be easily installed in the field.
- Solid state design for performance and reliability.
- Available for 120, 208, 240, or 277 volts.
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18 AWG stranded leads 152.4 mm (6 in) in length.
- Will fit through standard 1/2" knockout.
- Supplied with two stainless screws and neoprene gasket.

## Materials

- Encapsulated with epoxy sealing compound
- FS Cover: iron or aluminum

## NEC/CEC Certifications and Compliances

- UL Standard: 1604 – Hazardous (Classified) Locations
- cULus Recognized

**Photocontrol in FS Cover**

**Photocontrol Kit for Field Installation**

**Mercmaster Wall Mounting Hood with Photocontrol Installed**

**Photocontrol Kit — Separate FS Cast Hub Device Box (Step 1) and Photocontrol in FS Cover (Step 2)**

| | Voltage Range | Max VA | Max VA | Max Current Amps | Photocell Catalog Number | Device Box Catalog Number Iron | Device Box Catalog Number Aluminum |
|---|---|---|---|---|---|---|---|
| **Step 1: FS Cast Hub Device Box — single gang 2.00 in. deep FS Box, with one 3/4 in. bottom hub entry — Order separately** — Connect FS Box to luminaire wiring compartment with 3/4 in. close conduit nipple or 3/4 in. 90° elbow. Purchased separately from other supplier. | | | | | | | |
| | N/A | N/A | N/A | N/A | — | **APP-FS-1-75** | **APP-FS-1-75-A** |
| **Step 2: Photocontrol in FS Cover for installation in FS Cast Hub Device Box — Order separately** — Supplied with two stainless screws and neoprene gasket, catalog number: FS-GKR-1N | | | | | | | |
| | 120 V, 50/60 Hz | 1000 | 1000 | 8.3 Amp | **FSKA-PC120D2** | — | — |
| | 208 V, 50/60 Hz | 1000 | 1000 | 4.8 Amp | | | |
| | 240 V, 50/60 Hz | 1000 | 1000 | 4.2 Amp | **FSKA-PC247D2** | — | — |
| | 277 V, 50/60 Hz | 1000 | 1000 | 3.6 Amp | | | |

**Mounting Hood with Factory Installed Photocontrol** ①

| Mounting Hood | Hub Size | Photocontrol Option | Catalog Number |
|---|---|---|---|
| Pendant | 3/4" NPT | 120 V | **KPA75PC12D2** |
| | | 208 V, 240 V, 277 V | **KPA75PC24D2** |
| | 1" NPT | 120 V | **KPA100PC12D2** |
| | | 208 V, 240 V, 277 V | **KPA100PC24D2** |
| Wall | 3/4" NPT | 120 V | **KPWB75PC12D2** |
| | | 208 V, 240 V, 277 V | **KPWB75PC24D2** |
| | 1" NPT | 120 V | **KPWB100PC12D2** |
| | | 208 V, 240 V, 277 V | **KPWB100PC24D2** |

| Mounting Hood | Hub Size | Photocontrol Option | Catalog Number |
|---|---|---|---|
| 25° Stanchion | 1-1/4" NPT stanchion | 120 V | **KPS125PC12D2** |
| | | 208 V, 240 V, 277 V | **KPS125PC24D2** |
| | 1-1/2" NPT stanchion | 120 V | **KPS150PC12D2** |
| | | 208 V, 240 V, 277 V | **KPS150PC24D2** |
| 90° Stanchion | 1-1/4" NPT stanchion | 120 V | **KPST125PC12D2** |
| | | 208 V, 240 V, 277 V | **KPST125PC24D2** |
| | 1-1/2" NPT stanchion | 120 V | **KPST150PC12D2** |
| | | 208 V, 240 V, 277 V | **KPST150PC24D2** |

① *Fixtures with photocontrols are cCSAus rated and available for 120-277 Vac only. The following ratings do not apply: IP, Marine Outside Type (Salt Water), Class II, NEMA. The luminaire remains suitable for wet locations. .*

# Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

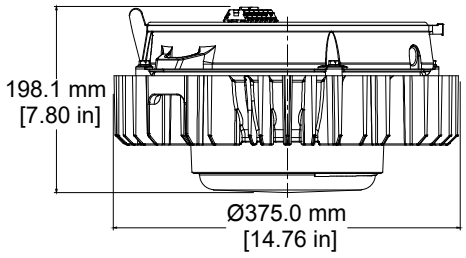
Enclosed and Gasketed Fixtures — Hazardous Locations

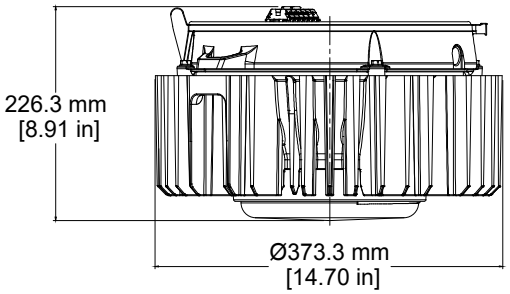
**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

## Dimensional Drawings — Driver Housing with Globe

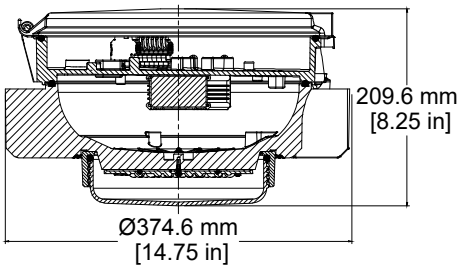
| MLGL3 to MLGL9 | MLGH6 to MLGH9 and MLGX1 to MLGX5 |
|---|---|

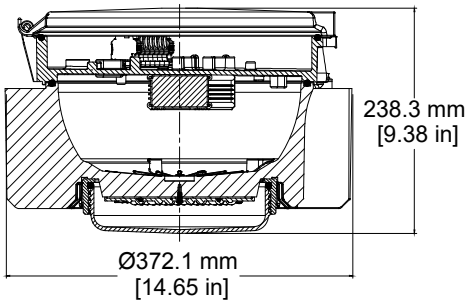
### Driver Housing



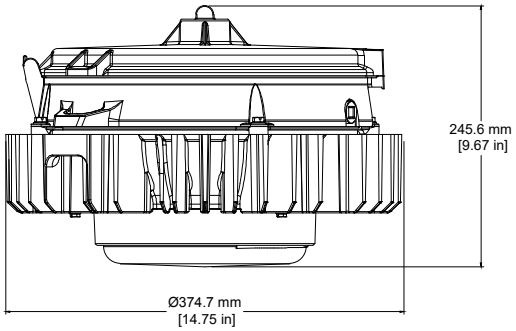



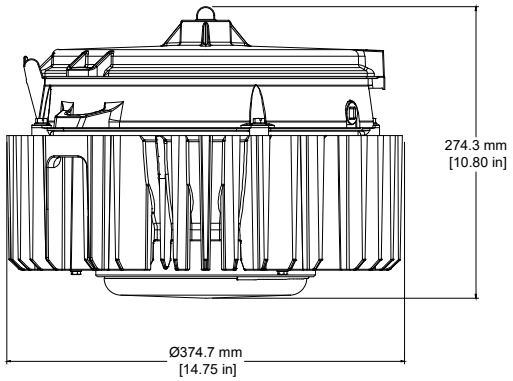

### Pendant




### Watertight Pendant



# Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

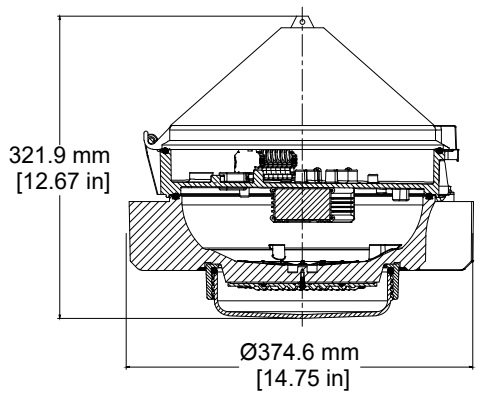
Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ex II 3 G | Ex II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

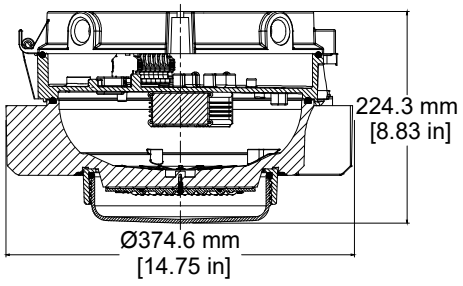
## Dimensional Drawings — Driver Housing with Globe

### MLGL3 to MLGL9

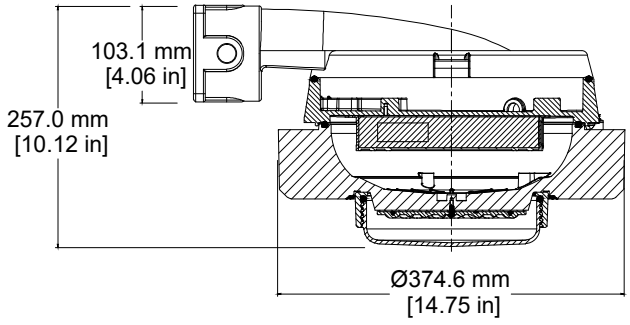
#### Pendant Cone




#### Ceiling

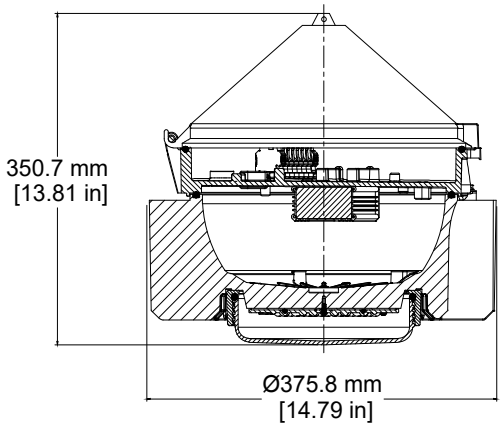



#### Wall Mount

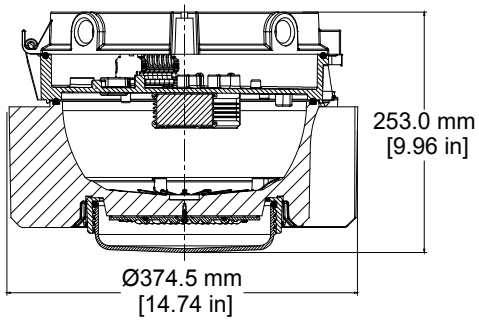



### MLGH6 to MLGH9 and MLGX1 to MLGX5

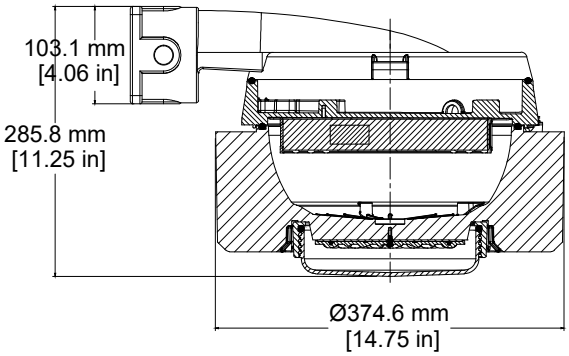
#### Pendant Cone




#### Ceiling




#### Wall Mount



# Mercmaster™ LED Generation 3 Series Luminaires

## Standard or with Emergency Battery Backup

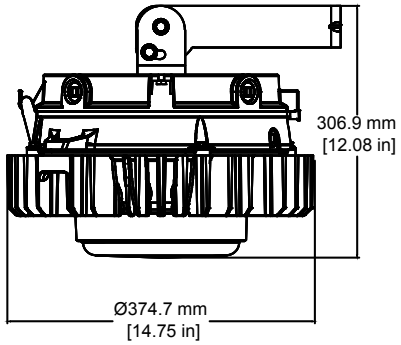
Enclosed and Gasketed Fixtures — Hazardous Locations

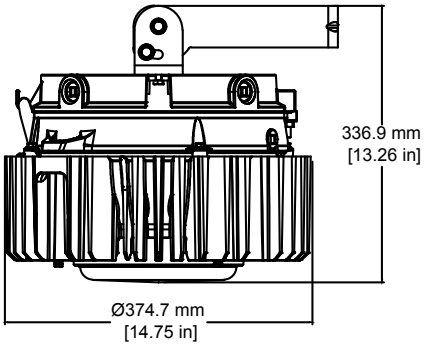
**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

### Dimensional Drawings — Driver Housing with Globe

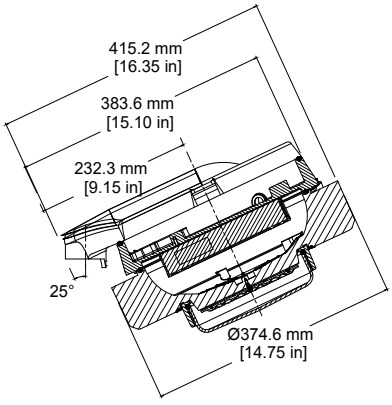
**MLGL3 to MLGL9** | **MLGH6 to MLGH9 and MLGX1 to MLGX5**

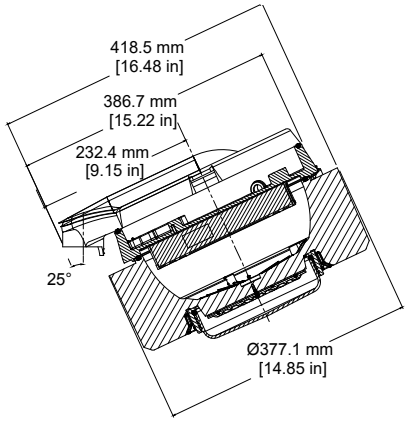
#### Trunnion Mount



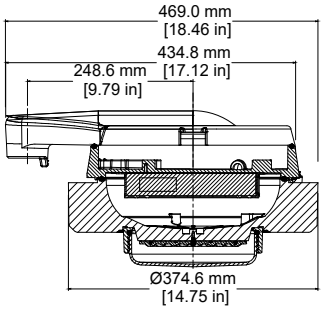



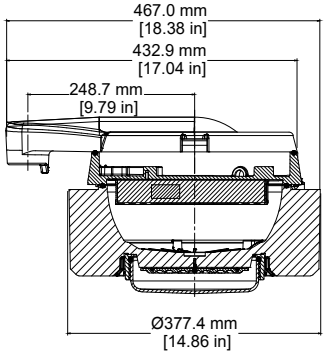

#### 25° Stanchion Mount




#### 90° Stanchion Mount



# Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

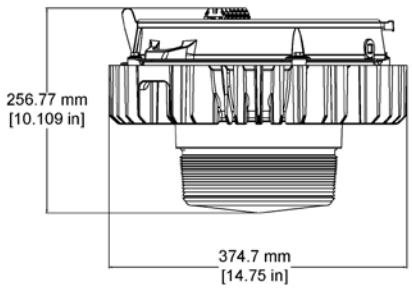
Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

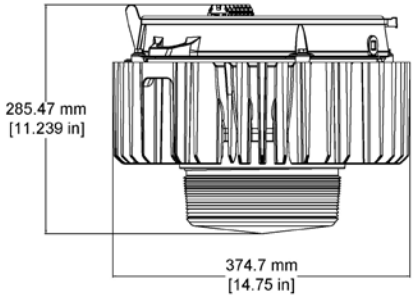


## Dimensional Drawings — Driver Housing with Short Prismatic Glass Refractor ①

**MLGL3 to MLGL9**




**MLGH6 to MLGH9 and MLGX1 to MLGX5**




① *For additional configurations dimensions, review the Product Drawing configurator page on the website.*

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

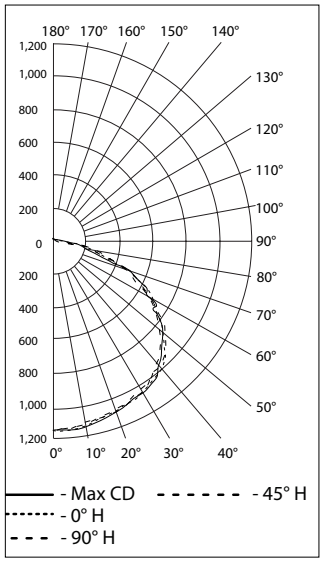
### Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Polycarbonate, 5000K CCT**

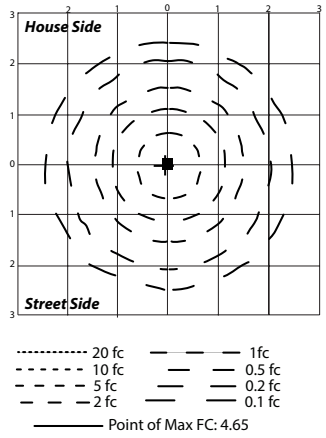
REPORT NUMBER: **MLGAL33CP5**

Luminaire Lumens 3,783

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 942.7 | 24.9% |
| 0-40 | 1,591.7 | 42.1% |
| 0-60 | 2,979.8 | 78.8% |
| 60-90 | 788.2 | 20.8% |
| 70-100 | 271.6 | 7.2% |
| 90-120 | 13.9 | 0.4% |
| 0-90 | 3,768.1 | 99.6% |
| 90-180 | 15.1 | 0.4% |
| 0-180 | 3,783.2 | 100% |

**LUMENS PER ZONE**

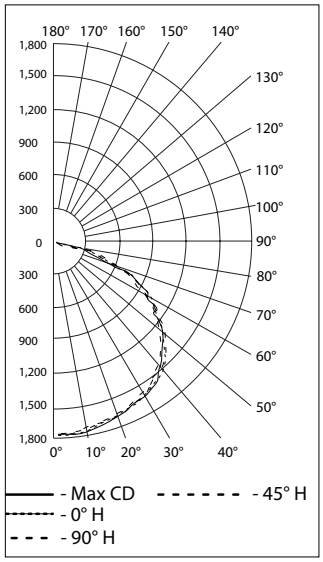
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 111.3 | 2.9% | 90-100 | 5.9 | 0.2% |
| 10-20 | 322.9 | 8.5% | 100-110 | 4.8 | 0.1% |
| 20-30 | 508.4 | 13.4% | 110-120 | 3.2 | 0.1% |
| 30-40 | 649.0 | 17.2% | 120-130 | 0.8 | 0% |
| 40-50 | 713.0 | 18.8% | 130-140 | 0.1 | 0% |
| 50-60 | 675.1 | 17.8% | 140-150 | 0.1 | 0% |
| 60-70 | 522.5 | 13.8% | 150-160 | 0.2 | 0% |
| 70-80 | 221.7 | 5.9% | 160-170 | 0.1 | 0% |
| 80-90 | 44.1 | 1.2% | 170-180 | 0.0 | 0% |

**Type V, Clear Polycarbonate, 5000K CCT**

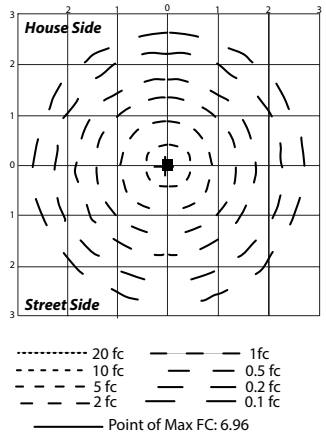
REPORT NUMBER: **MLGAL53CP5**

Luminaire Lumens 5,660

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,410.3 | 24.9% |
| 0-40 | 2,381.3 | 42.1% |
| 0-60 | 4,457.9 | 78.8% |
| 60-90 | 1,179.2 | 20.8% |
| 70-100 | 406.4 | 7.2% |
| 90-120 | 20.7 | 0.4% |
| 0-90 | 5,637.2 | 99.6% |
| 90-180 | 22.7 | 0.4% |
| 0-180 | 5,659.8 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 166.5 | 2.9% | 90-100 | 8.8 | 0.2% |
| 10-20 | 483.1 | 8.5% | 100-110 | 7.1 | 0.1% |
| 20-30 | 760.6 | 13.4% | 110-120 | 4.8 | 0.1% |
| 30-40 | 971.0 | 17.2% | 120-130 | 1.2 | 0% |
| 40-50 | 1,0667.7 | 18.8% | 130-140 | 0.1 | 0% |
| 50-60 | 1,010.0 | 17.8% | 140-150 | 0.2 | 0% |
| 60-70 | 781.6 | 13.8% | 150-160 | 0.2 | 0% |
| 70-80 | 331.7 | 5.9% | 160-170 | 0.2 | 0% |
| 80-90 | 65.9 | 1.2% | 170-180 | 0.1 | 0% |

# Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
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**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

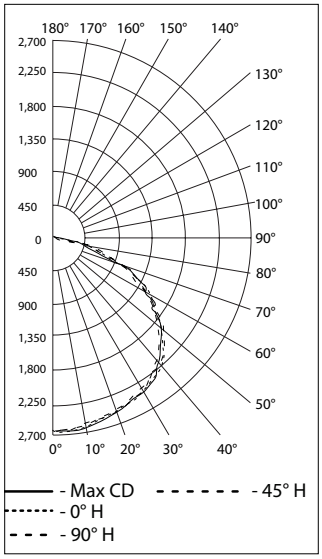
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

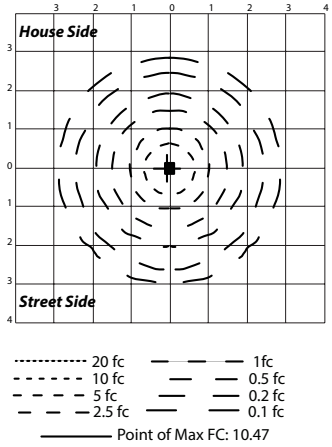
REPORT NUMBER: **MLGAL73CP5**

Luminaire Lumens 8,524

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,123.9 | 24.9% |
| 0-40 | 3,586.2 | 42.1% |
| 0-60 | 6,713.7 | 78.8% |
| 60-90 | 1,775.9 | 20.8% |
| 70-100 | 612.0 | 7.2% |
| 90-120 | 31.2 | 0.4% |
| 0-90 | 8,489.6 | 99.6% |
| 90-180 | 34.1 | 0.4% |
| 0-180 | 8,523.7 | 100% |

**LUMENS PER ZONE**

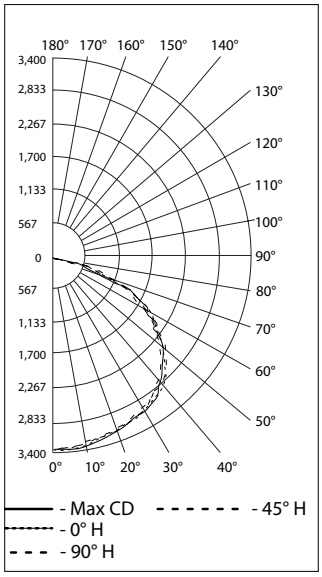
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 250.8 | 2.9% | 90-100 | 13.2 | 0.2% |
| 10-20 | 727.6 | 8.5% | 100-110 | 10.8 | 0.1% |
| 20-30 | 1,145.5 | 13.4% | 110-120 | 7.2 | 0.1% |
| 30-40 | 1,462.3 | 17.2% | 120-130 | 1.7 | 0% |
| 40-50 | 1,606.4 | 18.8% | 130-140 | 0.1 | 0% |
| 50-60 | 1,521.0 | 17.8% | 140-150 | 0.3 | 0% |
| 60-70 | 1,177.1 | 13.8% | 150-160 | 0.4 | 0% |
| 70-80 | 499.5 | 5.9% | 160-170 | 0.3 | 0% |
| 80-90 | 99.3 | 1.2% | 170-180 | 0.1 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

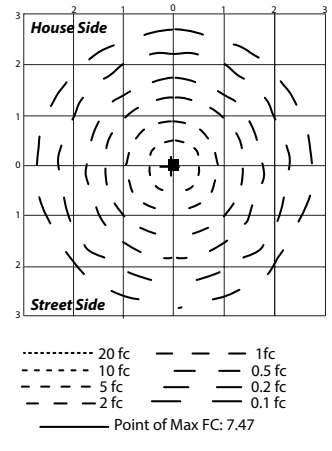
REPORT NUMBER: **MLGAH93CP5** / **MLGAL93CP5**

Luminaire Lumens 10,845

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,709.1 | 25% |
| 0-40 | 4,571.0 | 42.1% |
| 0-60 | 8,535.2 | 78.7% |
| 60-90 | 2,272.7 | 21% |
| 70-100 | 806.0 | 7.4% |
| 90-120 | 33.3 | 0.3% |
| 0-90 | 10,808.0 | 99.7% |
| 90-180 | 37.2 | 0.3% |
| 0-180 | 10,845.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 319.9 | 2.9% | 90-100 | 17.5 | 0.2% |
| 10-20 | 928.5 | 8.6% | 100-110 | 9.9 | 0.1% |
| 20-30 | 1,460.7 | 13.5% | 110-120 | 5.9 | 0.1% |
| 30-40 | 1,861.9 | 17.2% | 120-130 | 1.6 | 0% |
| 40-50 | 2,042.3 | 18.8% | 130-140 | 0.7 | 0% |
| 50-60 | 1,922.0 | 17.7% | 140-150 | 0.6 | 0% |
| 60-70 | 1,484.2 | 13.7% | 150-160 | 0.5 | 0% |
| 70-80 | 649.2 | 6.0% | 160-170 | 0.3 | 0% |
| 80-90 | 139.3 | 1.3% | 170-180 | 0.1 | 0% |

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

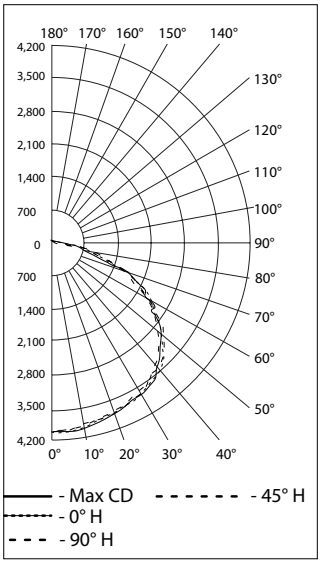
### Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Polycarbonate, 5000K CCT**

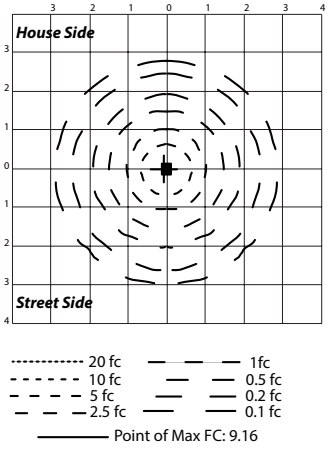
REPORT NUMBER: **MLGAH13CP5**

Luminaire Lumens 13,204

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,298.3 | 25% |
| 0-40 | 5,565.1 | 42.1% |
| 0-60 | 10,391.5 | 78.7% |
| 60-90 | 2,767.0 | 21% |
| 70-100 | 981.3 | 7.4% |
| 90-120 | 40.6 | 0.3% |
| 0-90 | 13,158.5 | 99.7% |
| 90-180 | 45.3 | 0.3% |
| 0-180 | 13,203.8 | 100% |

**LUMENS PER ZONE**

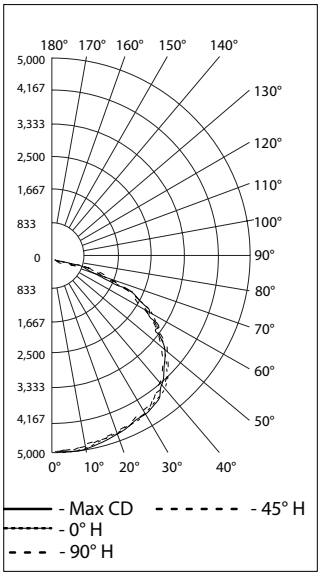
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 389.5 | 2.9 | 90-100 | 21.3 | 0.2% |
| 10-20 | 1,130.4 | 8.6 | 100-110 | 12.0 | 0.1% |
| 20-30 | 1,778.4 | 13.5 | 110-120 | 7.2 | 0.1% |
| 30-40 | 2,266.8 | 17.2 | 120-130 | 2.0 | 0% |
| 40-50 | 2,486.4 | 18.8 | 130-140 | 0.8 | 0% |
| 50-60 | 2,340.0 | 17.7 | 140-150 | 0.8 | 0% |
| 60-70 | 1,807.0 | 13.7 | 150-160 | 0.6 | 0% |
| 70-80 | 790.4 | 6.0 | 160-170 | 0.4 | 0% |
| 80-90 | 169.6 | 1.3 | 170-180 | 0.1 | 0% |

**Type V, Clear Polycarbonate, 5000K CCT**

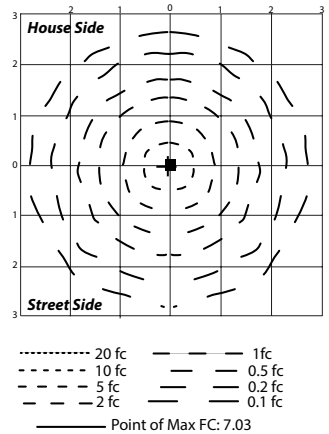
REPORT NUMBER: **MLGAH33CP5**

Luminaire Lumens 15,937

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,981.1 | 25% |
| 0-40 | 6,717.3 | 42.1% |
| 0-60 | 12,542.8 | 78.7% |
| 60-90 | 3,339.8 | 21% |
| 70-100 | 1,184.5 | 7.4% |
| 90-120 | 49.0 | 0.3% |
| 0-90 | 15,882.6 | 99.7% |
| 90-180 | 54.7 | 0.3% |
| 0-180 | 15,937.3 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 470.1 | 2.9% | 90-100 | 25.7 | 0.2% |
| 10-20 | 1,364.4 | 8.6% | 100-110 | 14.5 | 0.1% |
| 20-30 | 2,146.6 | 13.5% | 110-120 | 8.7 | 0.1% |
| 30-40 | 2,736.1 | 17.2% | 120-130 | 2.4 | 0% |
| 40-50 | 3,001.2 | 18.8% | 130-140 | 1.0 | 0% |
| 50-60 | 2,824.4 | 17.7% | 140-150 | 0.9 | 0% |
| 60-70 | 2,181.1 | 13.7% | 150-160 | 0.7 | 0% |
| 70-80 | 954.0 | 6.0% | 160-170 | 0.5 | 0% |
| 80-90 | 204.7 | 1.3% | 170-180 | 0.2 | 0% |

# Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

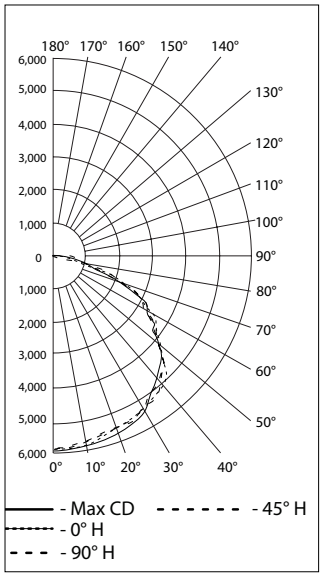
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

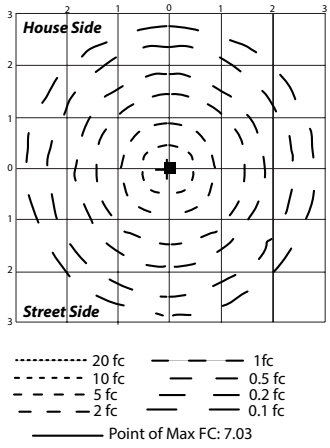
REPORT NUMBER: **MLGAH63CP5**

Luminaire Lumens 19,107

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,772.9 | 25% |
| 0-40 | 8,053.1 | 42.1% |
| 0-60 | 15,037.2 | 78.7% |
| 60-90 | 4,004.0 | 21% |
| 70-100 | 1,420.0 | 7.4% |
| 90-120 | 58.7 | 0.3% |
| 0-90 | 19,041.2 | 99.7% |
| 90-180 | 65.7 | 0.3% |
| 0-180 | 19,107.0 | 100% |

**LUMENS PER ZONE**

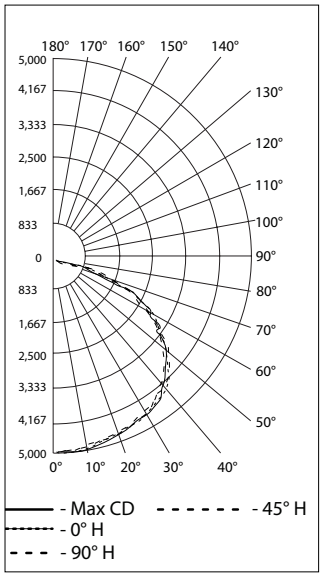
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 563.6 | 2.9% | 90-100 | 30.8 | 0.2% |
| 10-20 | 1,635.8 | 8.6% | 100-110 | 17.4 | 0.1% |
| 20-30 | 2,573.5 | 13.5% | 110-120 | 10.5 | 0.1% |
| 30-40 | 3,280.3 | 17.2% | 120-130 | 2.9 | 0% |
| 40-50 | 3,598.0 | 18.8% | 130-140 | 1.3 | 0% |
| 50-60 | 3,386.1 | 17.7% | 140-150 | 1.2 | 0% |
| 60-70 | 2,614.9 | 13.7% | 150-160 | 0.9 | 0% |
| 70-80 | 1,143.7 | 6.0% | 160-170 | 0.6 | 0% |
| 80-90 | 245.5 | 1.3% | 170-180 | 0.2 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

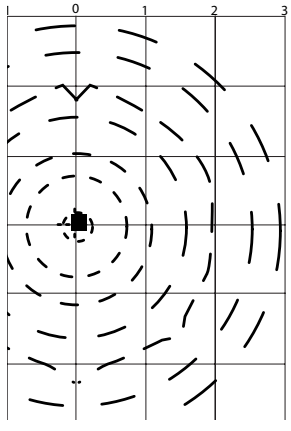
REPORT NUMBER: **MLGAX1CP5BU**

Luminaire Lumens 21,019

Polar Candela Distribution




Isofoot Candle Plot



**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 5,119.8 | 24.4% |
| 0-40 | 8,659.0 | 42.2% |
| 0-60 | 16,329.0 | 77.7% |
| 60-90 | 4,613.9 | 22% |
| 70-100 | 1,675.4 | 8% |
| 90-120 | 66.4 | 0.3% |
| 0-90 | 20,942.9 | 99.6% |
| 90-180 | 75.7 | 0.4% |
| 0-180 | 21,018.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 603.0 | 2.9% | 90-100 | 34.1 | 0.2% |
| 10-20 | 1,752.5 | 8.3% | 100-110 | 19.8 | 0.1% |
| 20-30 | 2,764.2 | 13.2% | 110-120 | 12.4 | 0.1% |
| 30-40 | 3,539.2 | 16.8% | 120-130 | 4.2 | 0% |
| 40-50 | 3,921.3 | 18.7% | 130-140 | 1.5 | 0% |
| 50-60 | 3,748.7 | 17.8% | 140-150 | 1.3 | 0% |
| 60-70 | 2,972.6 | 14.1% | 150-160 | 1.1 | 0% |
| 70-80 | 1,339.0 | 6.4% | 160-170 | 0.8 | 0% |
| 80-90 | 302.3 | 1.4% | 170-180 | 0.3 | 0% |

# Mercmaster™ LED Generation 3 Series Luminaires

## Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

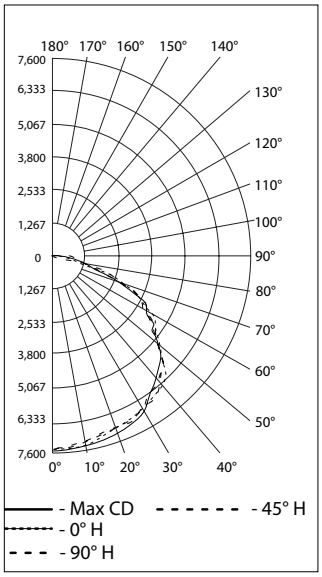
### Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Polycarbonate, 5000K CCT**

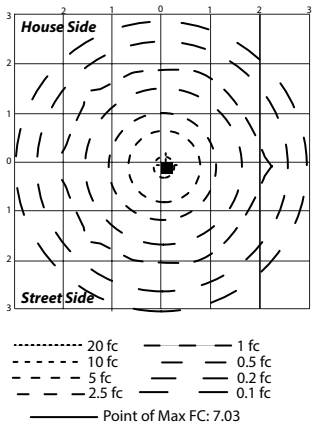
REPORT NUMBER: **MLGAX5CP5BU**

Luminaire Lumens 24,947

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 6,052.6 | 24.3% |
| 0-40 | 10,253.4 | 41.1% |
| 0-60 | 19,374.1 | 77.7% |
| 60-90 | 5,481.6 | 22% |
| 70-100 | 1,965.5 | 7.9% |
| 90-120 | 80.1 | 0.3% |
| 0-90 | 24,855.7 | 99.6% |
| 90-180 | 90.9 | 0.4% |
| 0-180 | 24,946.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 711.8 | 2.9% | 90-100 | 41.8 | 0.2% |
| 10-20 | 2,070.1 | 8.3% | 100-110 | 24.0 | 0.1% |
| 20-30 | 3,270.8 | 13.1% | 110-120 | 14.3 | 0.1% |
| 30-40 | 4,200.7 | 16.8% | 120-130 | 5.0 | 0% |
| 40-50 | 4,661.8 | 18.7% | 130-140 | 1.5 | 0% |
| 50-60 | 4,458.9 | 17.9% | 140-150 | 1.5 | 0% |
| 60-70 | 3,558.0 | 14.3% | 150-160 | 1.4 | 0% |
| 70-80 | 1,574.4 | 6.3% | 160-170 | 0.9 | 0% |
| 80-90 | 349.2 | 1.4% | 170-180 | 0.4 | 0% |

# Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 AEx ec IIC | Zone 21 AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 21 Ex tb IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class II, Division 1 and 2, Group E, F, G | Class III | Class I, Zone 2 IIC | Zone 20 IIIC | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations**
**ATEX Standard Model: Zone 2 and 21/22 | Ⓔx II 3 G | Ⓔx II 2 GD | IP66 | IK08**
**IECEx Standard Model: Zone 2 and 21/22 | Ex ec IIC | Ex tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

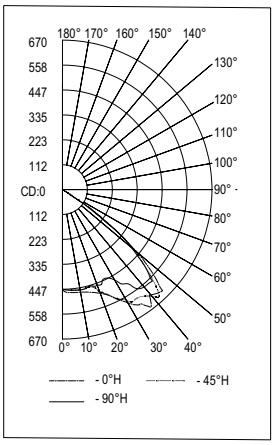
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 5000K CCT, Emergency

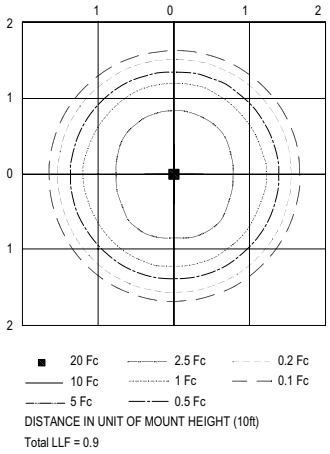
REPORT NUMBER: **MLGL3CG5BUH+EMR**

Luminaire Lumens 1,422

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




Total LLF = 0.9

**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 410.9 | 28.9% |
| 0-40 | 775.3 | 54.5% |
| 0-60 | 1,405.6 | 98.8% |
| 60-90 | 16.7 | 1.2% |
| 70-100 | 3 | 0.2% |
| 90-120 | 0 | 0% |
| 0-90 | 1,422.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 1,422.4 | 100% |

**LUMENS PER ZONE**

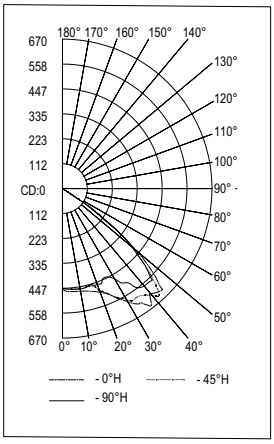
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 43.6 | 3.10% | 90-100 | 0 | 0% |
| 10-20 | 131.4 | 9.20% | 100-110 | 0 | 0% |
| 20-30 | 235.8 | 16.60% | 110-120 | 0 | 0% |
| 30-40 | 364.5 | 25.60% | 120-130 | 0 | 0% |
| 40-50 | 431.8 | 30.40% | 130-140 | 0 | 0% |
| 50-60 | 198.5 | 14% | 140-150 | 0 | 0% |
| 60-70 | 13.7 | 1% | 150-160 | 0 | 0% |
| 70-80 | 2.3 | 0% | 160-170 | 0 | 0% |
| 80-90 | 0.7 | 0% | 170-180 | 0 | 0% |

### Type V, Clear Glass, 5000K CCT, Emergency

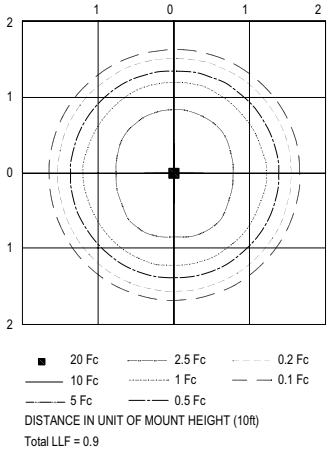
REPORT NUMBER: **MLGL5CG5BUH+EMR**

Luminaire Lumens 1,422

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




Total LLF = 0.9

**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 410.9 | 28.9% |
| 0-40 | 775.3 | 54.5% |
| 0-60 | 1,405.6 | 98.8% |
| 60-90 | 16.7 | 1.2% |
| 70-100 | 3 | 0.2% |
| 90-120 | 0 | 0% |
| 0-90 | 1,422.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 1,422.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 43.6 | 3.1% | 90-100 | 0 | 0% |
| 10-20 | 131.4 | 9.2% | 100-110 | 0 | 0% |
| 20-30 | 235.8 | 16.6% | 110-120 | 0 | 0% |
| 30-40 | 364.5 | 25.6% | 120-130 | 0 | 0% |
| 40-50 | 431.8 | 30.4% | 130-140 | 0 | 0% |
| 50-60 | 198.5 | 14% | 140-150 | 0 | 0% |
| 60-70 | 13.7 | 1% | 150-160 | 0 | 0% |
| 70-80 | 2.3 | 0% | 160-170 | 0 | 0% |
| 80-90 | 0.7 | 0% | 170-180 | 0 | 0% |

# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

## Applications

- Enclosed and gasketed fixtures suitable for use in:
  - —A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present
  - — Marine and wet locations
  - —Areas of low clearance, low ceiling heights or where fixture weights must be minimized
  - —Suitability includes use where there may be simultaneous exposure to flammable gases and vapors or combustible dusts
- Typical applications include:
  - — Power plants
  - — Processing plants
  - — Chemical plants
  - — Oil refineries
  - — Waste and sewage treatment
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other areas where dust, water, dirt and rough usage are a problem

## Features

- Modular design provides thousands of combinations for maximum versatility.
- Design is suited for low mounting heights, from 2 m up to 9 m (7 ft up to 30 ft).
- Seven light outputs provide up to 17,800 lumens.

| Nominal Lumens ① | HID Equivalent | Model Number |
|---|---|---|
| 3800 | 75-100W | MGZL3 |
| 5600 | 150-175W | MGZL5 |
| 7900 | 175-250W | MGZL7 |
| 10,000 | 300-350W | MGZL9 |
| 12,400 | 400W | MGZH1 |
| 14,800 | 450-500W | MGZH3 |
| 17,800 | 600W | MGZH6 |

- Optically integrated silicone encapsulant provides Zone 1 protection and an symmetrical IES Type V Wide light distribution.
- Choice of color temperature (CCT): 5000K cool white, 4000K neutral white or 3000K warm white.
- Customize to the application requirements with three different globe options: clear and diffused polycarbonate, or clear glass.
- Six standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster™ III and Mercmaster LED.
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on fixture housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies installation.
- Rugged housing with superior thermal design translates to long luminaire life.
- Luminaire housing has wiring compartment with terminal block separate for easy wiring access.
- Spring-loaded screw-type terminal block can accept 0.14 - 6 mm² (26 - 10 AWG) wire.
- Standard 6 kV surge protection.
- Heavy duty, high temperature silicone gaskets.
- Photometric data and electronic drawings available online.
- Ambient Temperature: -40 ˚C to +65 ˚C (-40 ˚F to +149 ˚F).
- Standard NPT threads with M20 adapters.
- LED L70B10 reported at 60,000 hours.
- Field replaceable globes and LED driver.
- 5 year standard warranty.

**MGZL**

**MGZH**

## Options

- Globe guard available, *purchase separately.*
- Safety cable available, *purchase separately.*
- Drain is available to divert water existing in the conduit system or from condensation, *purchase separately*.

## Standard Materials

- Mounting hoods and housings: cast copperfree (4/10 of 1% max. aluminum).
- Gaskets: silicone rubber.
- All hardware and catch assemblies: stainless steel.
- Globe: polycarbonate or glass.
- Globe guard and safety cable: stainless steel wire.

## Standard Finishes

- Mounting hoods and housings: gray epoxy powder coat finish, electrostatically applied for complete uniform protection.

## NEC/CEC Certifications and Compliances

- UL Standards: UL1598; UL 60079-0; UL 60079-7; UL 60079-18; UL 60079-31
- CSA Standards: CSA C22.2 No. 250.0; CAN/CSA C22.2 No. 60079-0; CAN/CSA C22.2 No. 60079-7; CAN/CSA C22.2 No. 60079-18; CAN/CSA C22.2 No. 60079-31
- ETL Report Number: 103764069DAL-001

## ATEX/IECEx Certifications and Compliances

- Certification Type: Mercmaster Generation 3 LED Zone 1
  - — Gas: Zone 1 and 2
  - — Conforming to ATEX 2014/34/EU: II 2G
  - — Type of Protection: Ex eb mb op is IIC Gb
  - — Temperature Class: T6 to T4
  - — Dust: Zones 21 and 22
  - — Conforming to ATEX 2014/34/EU: II 2 D
  - — Type of Protection: Ex op is tb IIIC Db
  - — Surface Temperature: +75 °C to +100 °C (+167 °F to +212 °F)
- Ambient Temperature: -40 °C to +65 °C (-40 °F to +149 °F)
- ATEX Certificate: ITS18ATEX303680X
- IECEx Certificate: IECEx ITS 18.0041X_0
- Index of Protection according to EN/IEC 60529: IP66/67
- Impact Resistance (shock): IK08
- Photobiological Safety, IEC 62778 and IEC 62471: RG0 with diffused polycarbonate, RG1 with clear glass or polycarbonate

## Related Products

- Industrial Mercmaster LED Generation 3 Series Luminaires
- Mercmaster LED Generation 3 Series Luminaires
- Mercmaster LED Low Profile Luminaires

*① Nominal lumen value for 5000K, clear glass globe. Type V Wide. Detailed lumen information is provided in the " Lumen Output (Efficacy)" tables.*

# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures



**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ex II 2 GD | IP66/67 | IK08**

## Illustrated Features

### LED Flexibility and Modular Design

**Encapsulated LED Components** - Ex mb encapsulation method provides Zone 1 protection with low weight and superior component reliability.

### Safety Features

Choose from **three color temperatures** (CCT): 3000K, 4000K, and 5000K.

**Six mounting hoods** allow one fixture to be configured for ceiling, pendant, stanchion, or wall applications.

**Three globes**; clear and diffused polycarbonate, or clear glass globe provide just the right level of diffusion.

**Latch Assembly and Hinge**: Captive, stainless steel latch assembly (bolt and nut) closes securely while providing resistance to corrosive atmospheres.

**Swing-away design** simplifies wiring and installation. Extra high hinge provides additional protection against accidental driver housing disengagement during installation or maintenance.

### Designed for the Environment

**Driver housing** design incorporates separate sections for the terminal block and driver.

The efficient **thermal design** ensures reliable heat transfer from the LED assembly out via the heatsink and the cast, epoxy powder coat, aluminum housings.

### Safety Cable

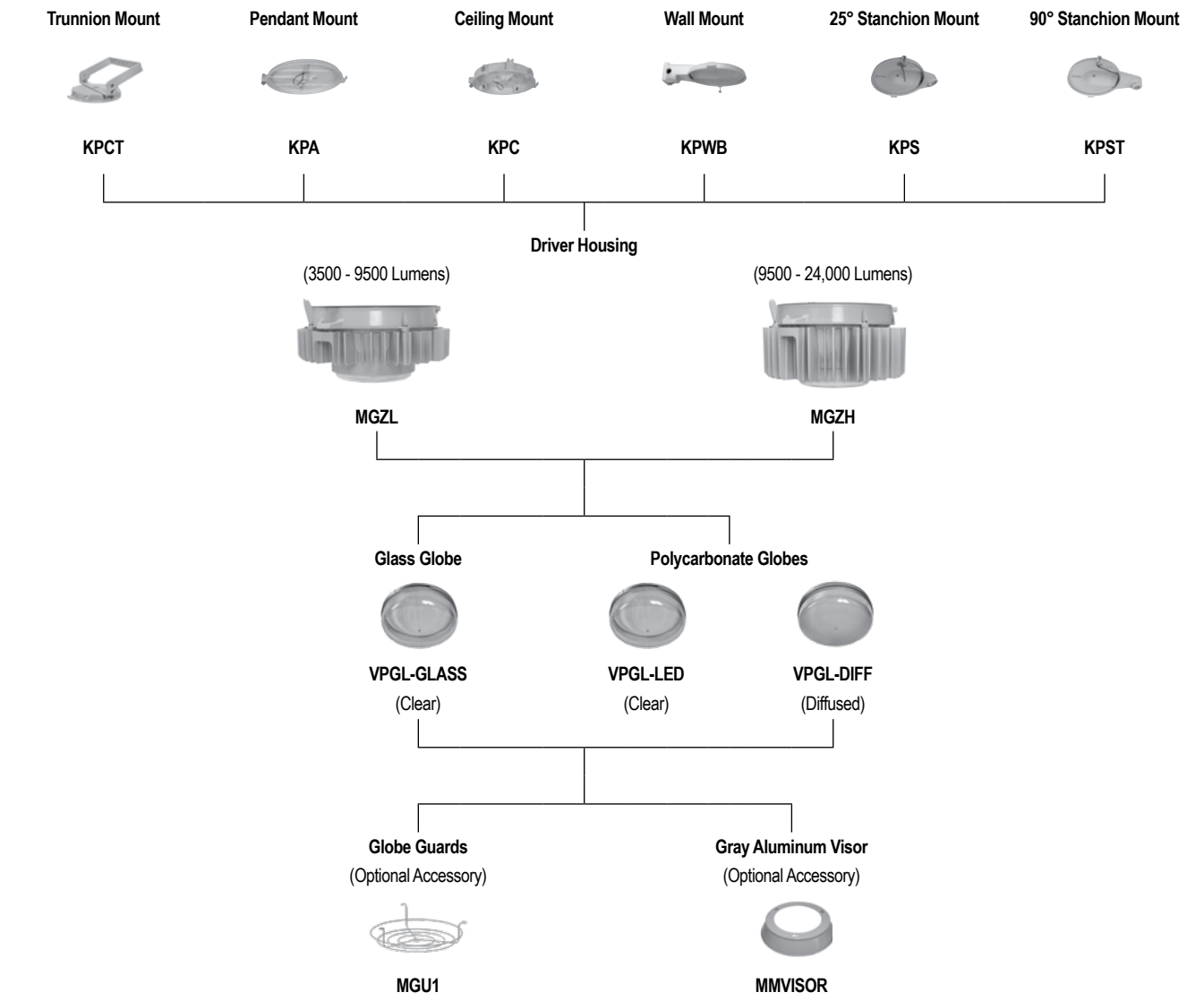
**Safety cable** is slipped around the housing through retention points that are casted in. Safety cable has built in loops combined with a locking carabiner to allow for a quick and secure installation.

# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

## Family Tree — Mercmaster™ LED Generation 3 Series Zone 1 Luminaires



# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ex II 2 GD | IP66/67 | IK08**



**Order Using Catalog Numbering Guide — Mercmaster™ LED Generation 3 Series Zone 1 Luminaires**

| MGZ | A | L3 | 2 | C | P | W | BU |
|---|---|---|---|---|---|---|---|
| Series Prefix:<br>MGZ - Mercmaster LED Generation 3 Zone 1 Series | Mounting:<br>A - Pendant<br>C - Ceiling<br>R - 90° Stanchion ①<br>S - 25° Stanchion ①<br>T - Trunnion<br>W - Wall<br>Blank - Without Hood | Lumen Level (nominal): ②<br>L3 - 3,500<br>L5 - 5,500<br>L7 - 7,500<br>L9 - 9,500<br>H1 - 11,500<br>H3 - 13,500<br>H6 - 17,500 | Hub Size:<br>2 - 3/4" NPT<br>3 - 1" NPT<br>4 - 1-1/4" NPT stanchion<br>5 - 1-1/2" NPT stanchion<br>6 - Metric M20 | Color Temperature:<br>C - Cool, 5000K<br>N - Neutral, 4000K<br>W - Warm, 3000K | Globe Material:<br>P - Clear Polycarbonate Globe<br>D - Diffused Polycarbonate Globe<br>G - Clear Glass Globe ③ | Light Distribution Pattern:<br>W - Type V Wide | Voltage:<br>BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc |

*① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in this mounting option.*
*② For lumen output information, see Lumen Output (Efficacy) Table in catalog pages.*
*③ Guards for the glass globes are ordered separately. See the Accessories section in the catalog pages for more information.*

# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

**Lumen Output (Efficacy)** ①

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe** | | | | | | | | | | | | | | |
| MGZL3 | 75-100W | Type V Wide | 3000K | 80 | 3,258 | 109 | 4000K | 80 | 3,356 | 112 | 5000K | 70 | 3,636 | 121 |
| MGZL5 | 150-175W | Type V Wide | 3000K | 80 | 4,843 | 105 | 4000K | 80 | 4,989 | 108 | 5000K | 70 | 5,405 | 118 |
| MGZL7 | 175-250W | Type V Wide | 3000K | 80 | 6,748 | 118 | 4000K | 80 | 7,426 | 130 | 5000K | 70 | 7,616 | 134 |
| MGZL9 | 300-350W | Type V Wide | 3000K | 80 | 8,705 | 116 | 4000K | 80 | 9,580 | 128 | 5000K | 70 | 9,826 | 131 |
| MGZH1 | 400W | Type V Wide | 3000K | 80 | 10,537 | 115 | 4000K | 80 | 11,596 | 126 | 5000K | 70 | 11,893 | 129 |
| MGZH3 | 450-500W | Type V Wide | 3000K | 80 | 12,514 | 113 | 4000K | 80 | 13,771 | 124 | 5000K | 70 | 14,124 | 127 |
| MGZH6 | 600W | Type V Wide | 3000K | 80 | 15,174 | 108 | 4000K | 80 | 16,698 | 119 | 5000K | 70 | 17,126 | 122 |
| **Diffused Polycarbonate Globe** | | | | | | | | | | | | | | |
| MGZL3 | 75-100W | Type V Wide | 3000K | 80 | 3,130 | 104 | 4000K | 80 | 3,225 | 108 | 5000K | 70 | 3,494 | 116 |
| MGZL5 | 150-175W | Type V Wide | 3000K | 80 | 4,653 | 101 | 4000K | 80 | 4,794 | 104 | 5000K | 70 | 5,193 | 113 |
| MGZL7 | 175-250W | Type V Wide | 3000K | 80 | 6,486 | 114 | 4000K | 80 | 7,138 | 125 | 5000K | 70 | 7,321 | 128 |
| MGZL9 | 300-350W | Type V Wide | 3000K | 80 | 8,345 | 111 | 4000K | 80 | 9,184 | 122 | 5000K | 70 | 9,419 | 126 |
| MGZH1 | 400W | Type V Wide | 3000K | 80 | 10,101 | 110 | 4000K | 80 | 11,116 | 121 | 5000K | 70 | 11,401 | 124 |
| MGZH3 | 450-500W | Type V Wide | 3000K | 80 | 11,998 | 108 | 4000K | 80 | 13,204 | 119 | 5000K | 70 | 13,542 | 122 |
| MGZH6 | 600W | Type V Wide | 3000K | 80 | 14,538 | 104 | 4000K | 80 | 15,998 | 114 | 5000K | 70 | 16,409 | 117 |
| **Clear Glass Globe** | | | | | | | | | | | | | | |
| MGZL3 | 75-100W | Type V Wide | 3000K | 80 | 3,411 | 114 | 4000K | 80 | 3,514 | 117 | 5000K | 70 | 3,807 | 127 |
| MGZL5 | 150-175W | Type V Wide | 3000K | 80 | 5,070 | 110 | 4000K | 80 | 5,223 | 114 | 5000K | 70 | 5,659 | 123 |
| MGZL7 | 175-250W | Type V Wide | 3000K | 80 | 7,059 | 124 | 4000K | 80 | 7,768 | 136 | 5000K | 70 | 7,967 | 140 |
| MGZL9 | 300-350W | Type V Wide | 3000K | 80 | 9,100 | 121 | 4000K | 80 | 10,014 | 134 | 5000K | 70 | 10,270 | 137 |
| MGZH1 | 400W | Type V Wide | 3000K | 80 | 11,012 | 120 | 4000K | 80 | 12,118 | 132 | 5000K | 70 | 12,429 | 135 |
| MGZH3 | 450-500W | Type V Wide | 3000K | 80 | 13,078 | 118 | 4000K | 80 | 14,392 | 130 | 5000K | 70 | 14,761 | 133 |
| MGZH6 | 600W | Type V Wide | 3000K | 80 | 15,836 | 113 | 4000K | 80 | 17,427 | 124 | 5000K | 70 | 17,874 | 128 |

*① All lumen values are typical (tolerance +/-10%).*

# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ex II 2 GD | IP66/67 | IK08**

## Electrical Specifications ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| MGZL3 | 120 Vac | 33 | 0.3 | 0.97 | <20 |
| | 277 Vac | 33 | 0.1 | 0.90 | <20 |
| | 170 Vdc | 33 | 0.2 | N/A | N/A |
| | 300 Vdc | 33 | 0.1 | N/A | N/A |
| MGZL5 | 120 Vac | 46 | 0.4 | 0.98 | <20 |
| | 277 Vac | 45 | 0.2 | 0.94 | <20 |
| | 170 Vdc | 46 | 0.3 | N/A | N/A |
| | 300 Vdc | 46 | 0.2 | N/A | N/A |
| MGZL7 | 120 Vac | 65 | 0.6 | 0.98 | <20 |
| | 277 Vac | 64 | 0.3 | 0.90 | <20 |
| | 170 Vdc | 64 | 0.4 | N/A | N/A |
| | 300 Vdc | 64 | 0.2 | N/A | N/A |
| MGZL9 | 120 Vac | 82 | 0.7 | 0.98 | <20 |
| | 277 Vac | 80 | 0.3 | 0.93 | <20 |
| | 170 Vdc | 81 | 0.5 | N/A | N/A |
| | 300 Vdc | 80 | 0.3 | N/A | N/A |
| MGZH1 | 120 Vac | 101 | 0.9 | 0.99 | <20 |
| | 277 Vac | 98 | 0.4 | 0.94 | <20 |
| | 170 Vdc | 99 | 0.6 | N/A | N/A |
| | 300 Vdc | 98 | 0.3 | N/A | N/A |
| MGZH3 | 120 Vac | 121 | 1 | 0.98 | <20 |
| | 277 Vac | 116 | 0.5 | 0.90 | <20 |
| | 170 Vdc | 118 | 0.7 | N/A | N/A |
| | 300 Vdc | 117 | 0.4 | N/A | N/A |
| MGZH6 | 120 Vac | 141 | 1.2 | 0.99 | <20 |
| | 277 Vac | 135 | 0.5 | 0.92 | <20 |
| | 170 Vdc | 138 | 0.8 | N/A | N/A |
| | 300 Vdc | 136 | 0.5 | N/A | N/A |

*① All values are typical (tolerance +/-10%).*

# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures

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**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

**Temperature Codes ①**

| | Gas — T Rating | | | Dust — Surface T° | | |
|---|---|---|---|---|---|---|
| **Model** | **Ta= +40 °C (+104 °F)** | **Ta= +55 °C (+131 °F)** | **Ta= +65 °C (+149 °F)** | **Ta= +40 °C (+104 °F)** | **Ta= +55 °C (+131 °F)** | **Ta= +65 °C (+149 °F)** |
| **NEC/CEC (AEx/Ex)** | | | | | | |
| MGZL3 | T6 | T6 | T5 | T6 | T6 | T6 |
| MGZL5 | T6 | T6 | T5 | T6 | T6 | T5 |
| MGZL7 | T6 | T5 | T5 | T6 | T6 | T6 |
| MGZL9 | T6 | T5 | T4 | T6 | T6 | T6 |
| MGZH1 | T5 | T4 | T4 | T6 | T6 | T5 |
| MGZH3 | T4 | T4 | T4 | T6 | T5 | T5 |
| MGZH6 | T4 | T4 | T4 | T6 | T5 | T5 |
| **ATEX/IECEx** | | | | | | |
| MGZL3 | T6 | T6 | T5 | +75 °C (+167 °F) | +75 °C (+167 °F) | +85 °C (+185 °F) |
| MGZL5 | T6 | T6 | T5 | +75 °C (+167 °F) | +75 °C (+167 °F) | +100 °C (+212 °F) |
| MGZL7 | T6 | T5 | T5 | +75 °C (+167 °F) | +85 °C (+185 °F) | +85 °C (+185 °F) |
| MGZL9 | T6 | T5 | T4 | +75 °C (+167 °F) | +85 °C (+185 °F) | +85 °C (+185 °F) |
| MGZH1 | T5 | T4 | T4 | +85 °C (+185 °F) | +85 °C (+185 °F) | +100 °C (+212 °F) |
| MGZH3 | T4 | T4 | T4 | +85 °C (+185 °F) | +100 °C (+212 °F) | +100 °C (+212 °F) |
| MGZH6 | T4 | T4 | T4 | +85 °C (+185 °F) | +100 °C (+212 °F) | +100 °C (+212 °F) |

**"T" Numbers Represent the Maximum Internal Temperature ② or Maximum Surface Temperature ③**

| **"T" #** | **T1** | **T2** | **T3** | **T4** | **T5** | **T6** |
|---|---|---|---|---|---|---|
| **Temp. Range °C (°F)** | +301 to +450 (+547 to +842) | +201 to +300 (+394 to +572) | +136 to +200 (+277 to +392) | +101 to +135 (+214 to +275) | +86 to +100 (+187 to +212) | +85 (+185) |

*① Ambient Temperature Range: -40 °C to +65 °C (-40 °F to +149 °F).*
*② T numbers represent the maximum internal temperature for Class I, Zone 1 locations designated by the NEC, and Zone 1 (Gas) locations as designated by the IEC.*
*③ T numbers and surface temperatures represent the maximum surface temperature under a dust blanket for Class I, Zone 21 as designated by the NEC, and Zone 21 (Dust) locations as designated by the IEC.*

# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures

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**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ex II 2 GD | IP66/67 | IK08**

**Mounting Hoods**

| | Hub Size | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Pendant — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.0 (2.3) | **KPA-75** |
| | 1" NPT | | **KPA-100** |
| | M20 | | **KPA-M20** |
| **Pendant Cone — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.1 (2.5) | **KPCH-75** |
| | 1" NPT | | **KPCH-100** |
| | M20 | | **KPCH-M20** |
| **Trunnion — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 6.1 (13.4) | **KPCT-75** |
| | 1" NPT | | **KPCT-100** |
| | M20 | | **KPCT-M20** |
| **Ceiling — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 1.4 (3.0) | **KPC-75** |
| | 1" NPT | | **KPC-100** |
| | M20 | | **KPC-M20** |
| **Wall — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 1.8 (4.0) | **KPWB-75** |
| | 1" NPT | | **KPWB-100** |
| | M20 | | **KPWB-M20** |
| **25° Stanchion — One Hub** | | | |
| | 1-1/4" NPT | 1.5 (3.3) | **KPS-125** |
| | 1-1/2" NPT | | **KPS-150** |
| **90° Stanchion — One Hub** | | | |
| | 1-1/4" NPT | 1.7 (3.8) | **KPST-125** |
| | 1-1/2" NPT | | **KPST-150** |

# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures

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**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

**Accessories and Replacement Parts**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Globes** | | | |
| | Clear Globe — Polycarbonate | 0.2 (0.5) | **VPGL-LED** |
| | Diffused Globe — Polycarbonate | 0.2 (0.5) | **VPGL-DIFF** |
| | Clear Globe — Glass | 0.8 (1.7) | **VPGL-GLASS** |
| **Guard** | | | |
| | Globe Guard | 0.2 (0.4) | **MGU1** |
| **Visor** | | | |
| | Electrostatically applied gray epoxy powder coat finish on Aluminum Visor | 0.4 (0.9) | **MMVISOR** |
| **Safety Cable** | | | |
| | Stainless steel | 0.2 (0.4) | **LEDSC** |
| **Drain Plug** | | | |
| | 76 mm (3") long, 1/2" NPT trade size drain assembly used to divert water existing in the conduit system | 0.4 (0.9) | **LEDDR3** |

**Replacement Drivers**

| | Model | Voltage | Driver Wattage | Constant Current Setting | Catalog Number |
|---|---|---|---|---|---|
| | MGZL3 | BU | 30 Watt | 500mA | **APMZ050C135UD50** |
| | MGZL5 | BU | 46 Watt | 780mA | **APMZ050C135UD78** |
| | MGZL7 | BU | 57 Watt | 360mA | **APMZ100C090UD36** |
| | MGZL9 | BU | 75 Watt | 480mA | **APMZ100C090UD48** |
| | MGZH1 | BU | 92 Watt | 595mA | **APMZ100C090UD59** |
| | MGZH3 | BU | 111 Watt | 720mA | **APMZ150C135UD72** |
| | MGZH6 | BU | 140 Watt | 900mA | **APMZ150C135UD90** |

**Luminaire Weights**

| Description | Weight in kg (lbs) |
|---|---|
| MGZL Housing | 9.5 (21.0) |
| MGZH Housing | 12.5 (27.5) |

# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

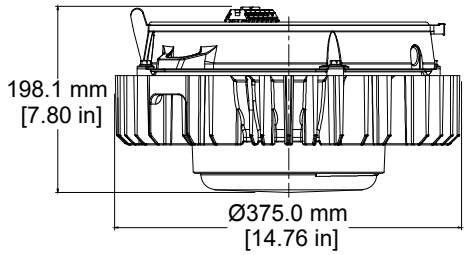
Enclosed and Gasketed Fixtures

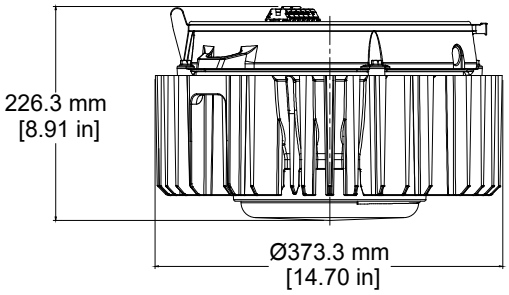
**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

**Dimensional Drawings**

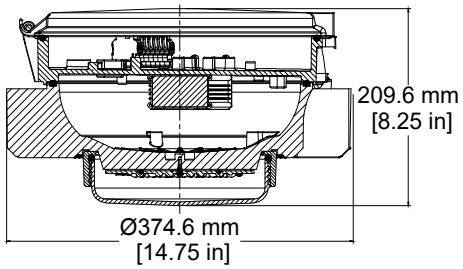
| MGZL | MGZH |
|---|---|

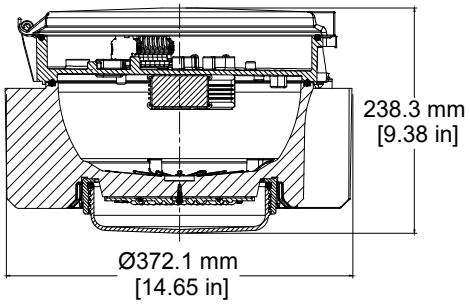
**Driver Housing**



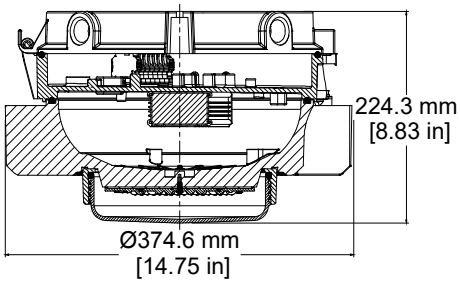



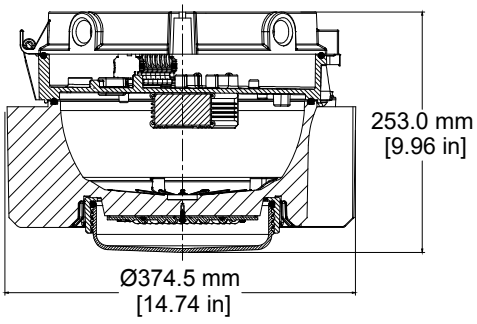

**Pendant Mount**




**Ceiling Mount**



# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

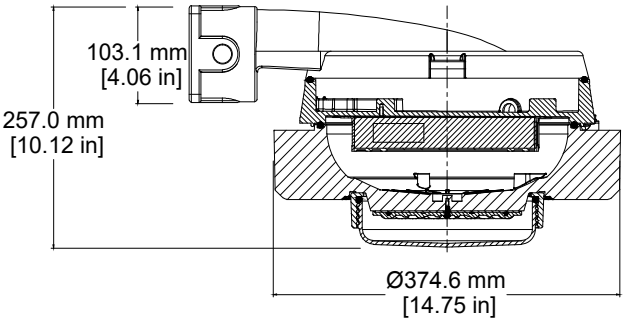
Enclosed and Gasketed Fixtures

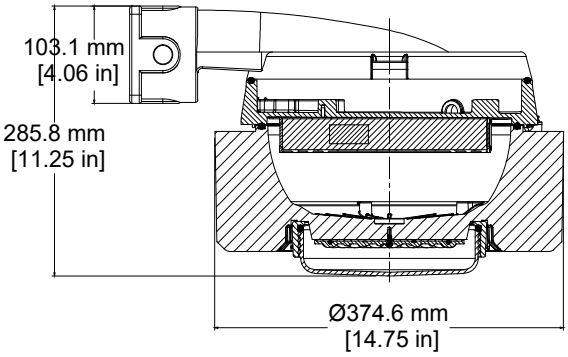
**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

## Dimensional Drawings

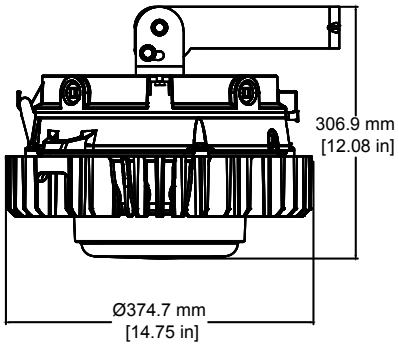
| MGZL | MGZH |
|---|---|

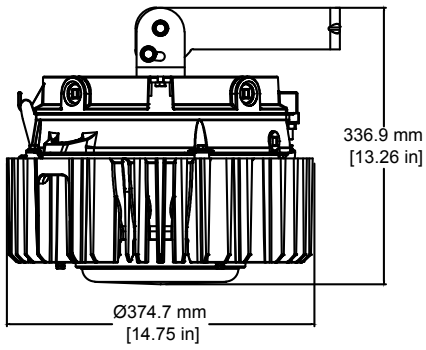
### Wall Mount




### Trunnion Mount



# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

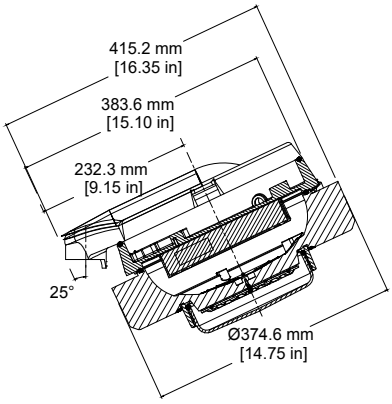
Enclosed and Gasketed Fixtures

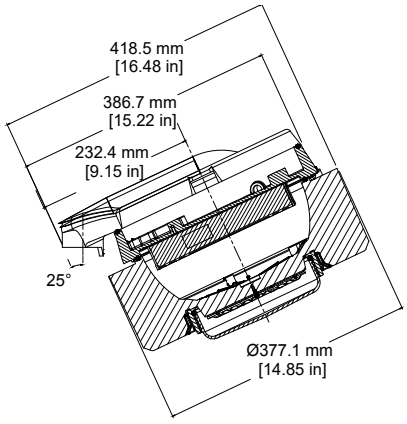
**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ex II 2 GD | IP66/67 | IK08**

**Dimensional Drawings**

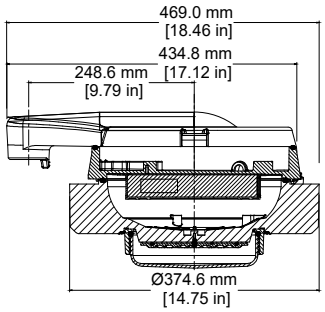
| MGZL | MGZH |
|---|---|

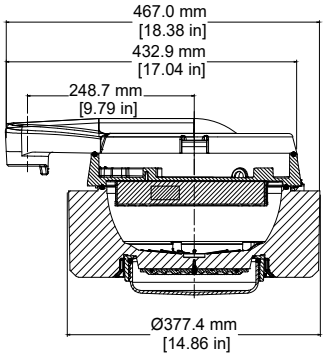
**25° Stanchion Mount**




**90° Stanchion Mount**



# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

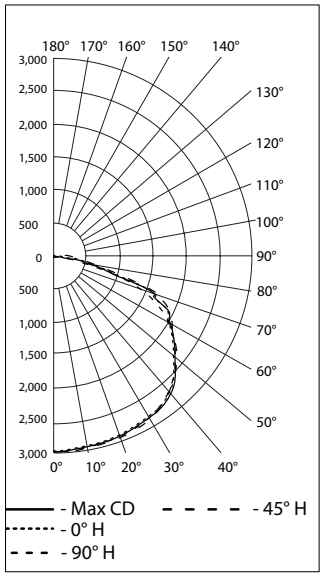
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V Wide, Diffused Polycarbonate 5000K CCT**

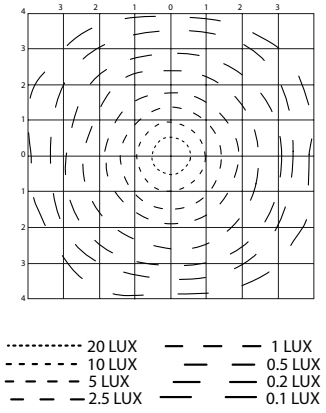
REPORT NUMBER: **MGZH1CDWBU**

Luminaire Lumens 11,500

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT**




**LUMENS PER ZONE**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,404.5 | 21.1% |
| 0-40 | 4,135.8 | 36.3% |
| 0-60 | 8,126.6 | 71.3% |
| 60-90 | 3,104.4 | 27.2% |
| 70-100 | 1,339.0 | 11.7% |
| 90-120 | 162.1 | 1.4% |
| 0-90 | 11,231.0 | 98.5% |
| 90-180 | 169.6 | 1.5% |
| 0-180 | 11,400.7 | 100% |

**LUMENS PER ZONE**

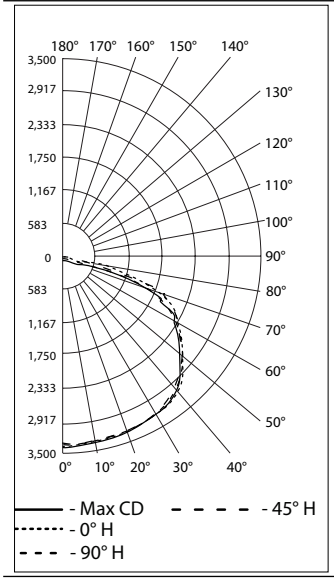
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 277.9 | 2.4% | 90-100 | 82.4 | 0.7% |
| 10-20 | 815.0 | 7.1% | 100-110 | 59.3 | 0.5% |
| 20-30 | 1,311.6 | 11.5% | 110-120 | 20.4 | 0.2% |
| 30-40 | 1,731.3 | 15.2% | 120-130 | 5.3 | 0% |
| 40-50 | 1,987.5 | 17.4% | 130-140 | 1.2 | 0% |
| 50-60 | 2,003.4 | 17.6% | 140-150 | 0.4 | 0% |
| 60-70 | 1,847.8 | 16.2% | 150-160 | 0.3 | 0% |
| 70-80 | 1,012.8 | 8.9% | 160-170 | 0.2 | 0% |
| 80-90 | 243.8 | 2.1% | 170-180 | 0.1 | 0% |

**Type V Wide, Diffused Polycarbonate 5000K CCT**

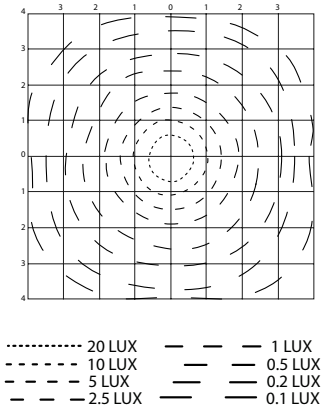
REPORT NUMBER: **MGZH3CDWBU**

Luminaire Lumens 13,500

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,863.8 | 21.1% |
| 0-40 | 4,925.4 | 36.4% |
| 0-60 | 9,671.4 | 71.4% |
| 60-90 | 3,669.1 | 27.1% |
| 70-100 | 1,577.1 | 11.6% |
| 90-120 | 192.4 | 1.4% |
| 0-90 | 13,340.5 | 98.5% |
| 90-180 | 201.6 | 1.5% |
| 0-180 | 13,542.1 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 330.9 | 2.4% | 90-100 | 97.8 | 0.7% |
| 10-20 | 970.8 | 7.2% | 100-110 | 70.4 | 0.5% |
| 20-30 | 1,562.1 | 11.5% | 110-120 | 24.2 | 0.2% |
| 30-40 | 2,061.6 | 15.2% | 120-130 | 6.4 | 0% |
| 40-50 | 2,364.8 | 17.5% | 130-140 | 1.5 | 0% |
| 50-60 | 2,381.3 | 17.6% | 140-150 | 0.6 | 0% |
| 60-70 | 2,189.7 | 16.2% | 150-160 | 0.4 | 0% |
| 70-80 | 1,191.8 | 8.8% | 160-170 | 0.3 | 0% |
| 80-90 | 287.6 | 2.1% | 170-180 | 0.1 | 0% |

# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ex II 2 GD | IP66/67 | IK08**

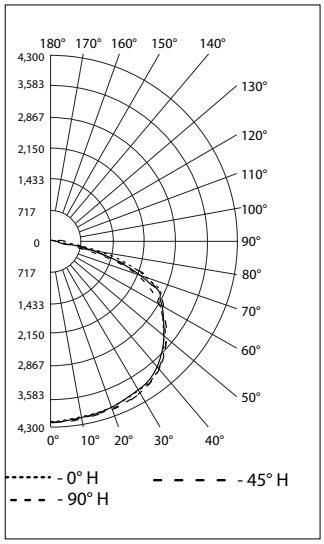
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V Wide, Diffused Polycarbonate 5000K CCT**

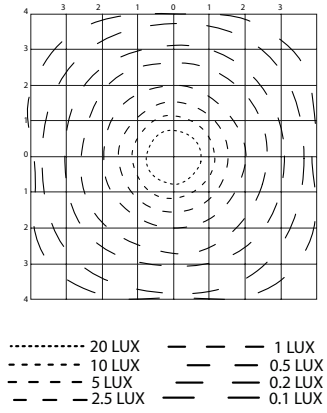
REPORT NUMBER: **MGZH6CDWBU**

Luminaire Lumens 17,500

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,482.0 | 21.2% |
| 0-40 | 5,988.7 | 36.5% |
| 0-60 | 11,750.1 | 71.6% |
| 60-90 | 4,417.1 | 26.9% |
| 70-100 | 1,885.8 | 11.5% |
| 90-120 | 230.6 | 1.4% |
| 0-90 | 16,167.1 | 98.5% |
| 90-180 | 241.3 | 1.5% |
| 0-180 | 16,408.5 | 100% |

**LUMENS PER ZONE**

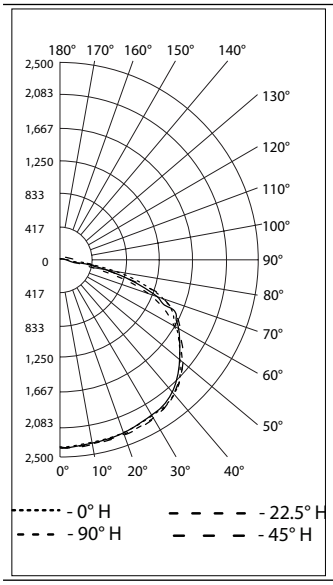
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 402.3 | 2.5% | 90-100 | 116.9 | 0.7% |
| 10-20 | 1,180.3 | 7.2% | 100-110 | 84.7 | 0.5% |
| 20-30 | 1,899.4 | 11.6% | 110-120 | 29.0 | 0.2% |
| 30-40 | 2,506.7 | 15.3% | 120-130 | 7.6 | 0% |
| 40-50 | 2,872.9 | 17.5% | 130-140 | 1.7 | 0% |
| 50-60 | 2,888.5 | 17.6% | 140-150 | 0.6 | 0% |
| 60-70 | 2,648.1 | 16.1% | 150-160 | 0.5 | 0% |
| 70-80 | 1,423.5 | 8.7% | 160-170 | 0.3 | 0% |
| 80-90 | 345.5 | 2.1% | 170-180 | 0.1 | 0% |

**Type V Wide, Diffused Polycarbonate 5000K CCT**

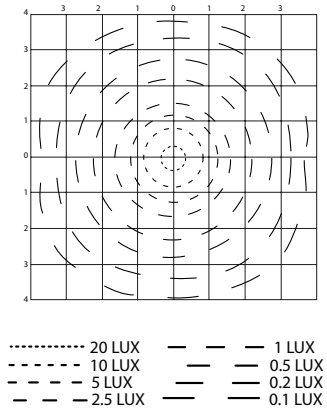
REPORT NUMBER: **MGZL9CDWBU**

Luminaire Lumens 9,500

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,980.9 | 21% |
| 0-40 | 3,407.7 | 36.2% |
| 0-60 | 6,699.8 | 71.1% |
| 60-90 | 2,578.5 | 27.4% |
| 70-100 | 1,115.4 | 11.8% |
| 90-120 | 135.2 | 1.4% |
| 0-90 | 9,278.3 | 98.5% |
| 90-180 | 140.9 | 1.5% |
| 0-180 | 9,419.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 228.9 | 2.4% | 90-100 | 68.3 | 0.7% |
| 10-20 | 671.6 | 7.1% | 100-110 | 49.6 | 0.5% |
| 20-30 | 1,080.5 | 11.5% | 110-120 | 17.2 | 0.2% |
| 30-40 | 1,426.7 | 15.1% | 120-130 | 4.6 | 0% |
| 40-50 | 1,638.8 | 17.4% | 130-140 | 1.0 | 0% |
| 50-60 | 1,653.2 | 17.6% | 140-150 | 0.0 | 0% |
| 60-70 | 1,531.4 | 16.3% | 150-160 | 0.0 | 0% |
| 70-80 | 845.4 | 9.0% | 160-170 | 0.0 | 0% |
| 80-90 | 201.7 | 2.1% | 170-180 | 0.0 | 0% |

# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

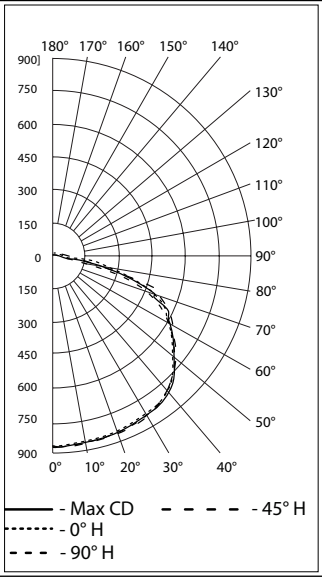
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V Wide, Diffused Polycarbonate 5000K CCT**

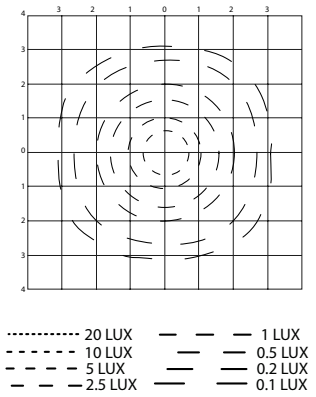
REPORT NUMBER: **MGZL3CDWBU**

Luminaire Lumens 3,500

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 733.6 | 21% |
| 0-40 | 1,264.8 | 36.2% |
| 0-60 | 2,467.5 | 70.6% |
| 60-90 | 953.2 | 27.3% |
| 70-100 | 429.7 | 12.3% |
| 90-120 | 69.5 | 2% |
| 0-90 | 3,420.7 | 97.9% |
| 90-180 | 73.1 | 2.1% |
| 0-180 | 3,493.7 | 100% |

**LUMENS PER ZONE**

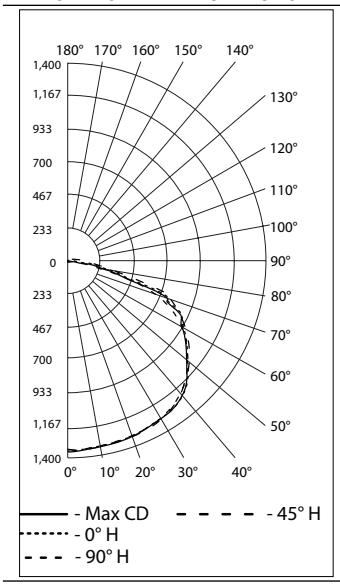
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 84.5 | 2.4% | 90-100 | 26.2 | 0.8% |
| 10-20 | 247.8 | 7.1% | 100-110 | 29.1 | 0.8% |
| 20-30 | 401.3 | 11.5% | 110-120 | 14.2 | 0.4% |
| 30-40 | 531.2 | 15.2% | 120-130 | 3.1 | 0.1% |
| 40-50 | 599.7 | 17.2% | 130-140 | 0.4 | 0% |
| 50-60 | 603.0 | 17.3% | 140-150 | 0 | 0% |
| 60-70 | 549.7 | 15.7% | 150-160 | 0 | 0% |
| 70-80 | 325.2 | 9.3% | 160-170 | 0 | 0% |
| 80-90 | 78.3 | 2.2% | 170-180 | 0 | 0% |

**Type V Wide, Diffused Polycarbonate 5000K CCT**

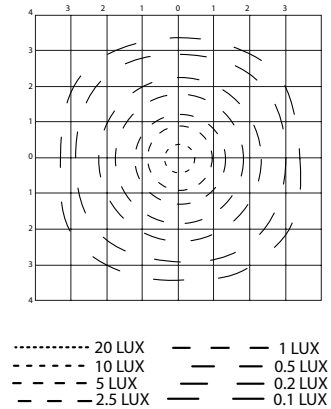
REPORT NUMBER: **MGZL5CDWBU**

Luminaire Lumens 5,500

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,093.7 | 21.1% |
| 0-40 | 1,885.5 | 36.3% |
| 0-60 | 3,675.4 | 70.8% |
| 60-90 | 1,409.9 | 27.1% |
| 70-100 | 632.9 | 12.2% |
| 90-120 | 102.8 | 2% |
| 0-90 | 5,085.3 | 97.9% |
| 90-180 | 108.1 | 2.1% |
| 0-180 | 5,193.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 126.0 | 2.4% | 90-100 | 38.7 | 0.7% |
| 10-20 | 369.4 | 7.1% | 100-110 | 43.1 | 0.8% |
| 20-30 | 598.3 | 11.5% | 110-120 | 21.0 | 0.4% |
| 30-40 | 791.8 | 15.2% | 120-130 | 4.6 | 0.1% |
| 40-50 | 892.5 | 17.2% | 130-140 | 0.7 | 0% |
| 50-60 | 897.4 | 17.3% | 140-150 | 0 | 0% |
| 60-70 | 815.7 | 15.7% | 150-160 | 0 | 0% |
| 70-80 | 478.8 | 9.2% | 160-170 | 0 | 0% |
| 80-90 | 115.4 | 2.2% | 170-180 | 0 | 0% |

# Mercmaster™ LED Generation 3 Series Zone 1 Luminaires

Enclosed and Gasketed Fixtures

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ex II 2 GD | IP66/67 | IK08**

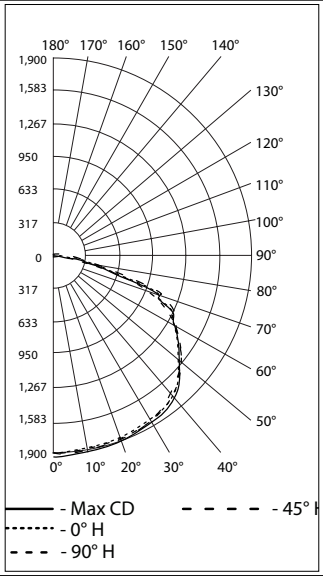
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V Wide, Diffused Polycarbonate 5000K CCT**

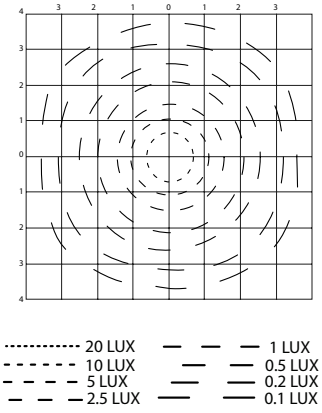
REPORT NUMBER: **MGZL7CDWBU**

Luminaire Lumens 7,000

### POLAR CANDELA DISTRIBUTION




### ISOLUX PLOT




### ZONAL LUMEN SUMMARY

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,532.5 | 20.9% |
| 0-40 | 2,636.9 | 36% |
| 0-60 | 5,185.5 | 70.8% |
| 60-90 | 1,989.1 | 27.2% |
| 70-100 | 860.7 | 11.8% |
| 90-120 | 139.0 | 1.9% |
| 0-90 | 7,174.6 | 98% |
| 90-180 | 146.0 | 2% |
| 0-180 | 7,320.6 | 100% |

### LUMENS PER ZONE

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 176.9 | 2.4% | 90-100 | 54.1 | 0.7% |
| 10-20 | 519.6 | 7.1% | 100-110 | 58.2 | 0.8% |
| 20-30 | 836.1 | 11.4% | 110-120 | 26.7 | 0.4% |
| 30-40 | 1,104.3 | 15.1% | 120-130 | 6.0 | 0.1% |
| 40-50 | 1,268.9 | 17.3% | 130-140 | 1.0 | 0% |
| 50-60 | 1,279.8 | 17.5% | 140-150 | 0 | 0% |
| 60-70 | 1,182.5 | 16.2% | 150-160 | 0 | 0% |
| 70-80 | 650.9 | 8.9% | 160-170 | 0 | 0% |
| 80-90 | 155.7 | 2.1% | 170-180 | 0.0 | 0% |

# Mercmaster™ LED Low Profile Luminaires

## Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ex II 2 D | Ex II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

### Applications

- Enclosed and gasketed fixtures suitable for use in:
  - — A wide range of industrial, chemical processing and other areas where flammable gases, vapors and combustible dusts are present including simultaneous exposure
  - — Marine and wet locations
  - — Areas of low clearance, low ceiling heights or where fixture weights must be minimized
- Typical applications include:
  - — Walkways/catwalks
  - — Stairwells
  - — Grain elevators
  - — Tunnels
  - — Pipe racks
  - — Offshore rigs
  - — Vessel lighting
  - — Cooling towers
  - — Processing areas
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

**MLLED with Clear Globe**

**MLLED with Prismatic Refractor**

### Features

- All Models:
  - — Compact light weight low profile design is suited for low mounting heights.
  - — Three light output levels provide up to 5500 lumens.

| Standard Mode Nominal Lumens ① | HID Equivalent | Model |
|---|---|---|
| 3300 | 70-100W | MLLED2 |
| 4400 | 100-150W | MLLED3 |
| 5500 | 150-175W | MLLED4 |

  - — Choice of color temperature (CCT): 5000K cool white (70 CRI min), 4000K neutral white (80 CRI min), or 3000K warm white (80 CRI min).
  - — Seven standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster™ III HID, Mercmaster™ Premium LED and Mercmaster™ Generation 3.
  - — Retrofit adapters for Crouse Hinds™ ✣, Mercmaster™ II HID, and Killark™ ✧ available. See Mercmaster™ Adapters.
  - — Watertight Pendant Hood available to address water ingress into luminaire via conduit.
  - — Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on fixture housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
  - — Rugged housing with superior thermal design translates to long luminaire life.
  - — Standard 6 kV/3 kA surge protection.
  - — Spring-loaded screw-type terminal block can accept 0.14 - 6 $mm^2$ (26 - 10 AWG) wire.
  - — Heavy duty, high temperature silicone gaskets.
  - — Standard NPT threads.
  - — Reported L70 is >108,000 hours.
  - — Photometric data and electronic drawings available upon request.
  - — 5 year standard warranty.
- Standard Model:
  - — Customize to the application requirements with four different field replaceable globe options: clear and diffused polycarbonate, clear glass, or prismatic glass refractor.
  - — BU and BH Ambient Temperature: -40 °C to +65 °C (-40 °F to +149 °F).
  - — Field replaceable globes and LED driver.
- Emergency Battery Backup Model:
  - — Provides up to 1450 lumens of illumination for 90 minutes or 800 lumens of illumination for 180 minutes of emergency lighting with clear lens.
  - — Functional diagnostic test self-initiates every 14 days after initial start up.
  - — Duration test is automatically performed once per year.
  - — Green and Red LED lamps indicate charging status and provide fault warning.
  - — Simple quick disconnect connector disconnects power between LEDs and battery management module to allow for easy maintenance in hazardous locations.
  - — Customize to the application requirements with three different field replaceable globe options: clear and diffused polycarbonate, or clear glass.
  - — Ambient Temperature: BU: -20 °C to +55 °C (-4 °F to +131 °F).
  - — Field replaceable globes, battery management module (BMM), battery pack and LED driver.

### Options

- All Models:
  - — Globe guard available, *purchase separately.*
  - — Safety cable available, *purchase separately.*
- Standard Model:
  - — Refractor guard available, *purchase separately.*
  - — All Mercmaster™ luminaires have provision for fusing; add suffix **–F** at the end of the catalog number.
  - — Photocontrols are available and are configured to your operating voltage. Add suffix -**1** for 120V, -**2** for 208V, -**3** for 240V, -**4** for 277V.
  - — Colored Glass globes available, purchase separately: Amber (VPGLGLASSAM), Blue (VPGLGLASSBL), Red (VPGLGLASSRE), Green (VPGLGLASSGR).

*① Nominal lumen value for 5000K, clear glass globe Type V Wide. Detailed lumen information is provided in the " Lumen Output (Efficacy)" tables.*
*✧ Killark is a registered trademark of Hubbell Incorporated.*
*✣ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*
*⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ⓔx II 2 D | Ⓔx II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



### Standard Materials

- Mounting hoods and housing: cast copperfree (4/10 of 1% max.) aluminum
- Gaskets: silicone rubber
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Refractor: heat-resistant prismatic glass
- Globe guard, short refractor guard and safety cable: stainless steel wire
- Reflector: fiberglass reinforced white polyester

### Standard Finishes

- Mounting hoods, driver housing and glass refractor guard: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

### NEC/CEC Certifications and Compliances

- All Models:
  - — UL Standard: UL 50E; UL 844; UL 1598; UL 1598A; UL 8750
  - — CSA Standard: C22.2 No 0-10; C22.2 No. 94.2-15; C22.2 No. E60598-1:16; C22.2 No. 250.0-.08; C22.2 No. 250.13-14
  - — ANSI/IEC Standard: 60529
- Standard Model:
  - — CSA Standard: C22.2 No. 137-M1981;
  - — cCSAus Listed: 164460, Certificate Number: 70134063
- Emergency Battery Backup Model:
  - — UL Standard: UL 924
  - — CSA Standard: C22.2 No. 137-18
  - — cCSAus: 164460, Certificate Number: 70182641

### ATEX/IECEx Certifications and Compliances

- Standard Model:
  - — Certification Type: Mercmaster™ Low Profile
    - – Gas: Zones 2
      - – Conforming to ATEX 2014/34/EU: II 3 G
      - – Type of Protection: Ex ec IIC T* Gc
      - – Temperature Class: T5 to T4
    - – Dust: Zones 21 and 22
      - – Conforming to ATEX 2014/34/EU: II 2 D
      - – Type of Protection: Ex op is tb IIIC T**C Db, Ex tc IIIC T*°C Dc
      - – Surface Temperature: +66 °C to +88 °C (+151 °F to +190 °F)
  - — Ambient Temperature: -40 °C up to +65 °C (-40 °F up to +149 °F)
  - — ATEX Certificates:
    - – Zone 21: Sira 17ATEX9365X
    - – Zone 2, 22: Sira 17ATEX3366X
  - — IECEx Certificate: IECEx SIR 17.0085X
  - — Index of Protection according EN/IEC 60529: IP66
  - — Impact Resistance (shock): IK08
  - — Photobiological Safety, IEC 62778 and IEC 62471

### ABS Certifications

- Standard Model: 18-HS1714308-PDA
- Emergency Battery Backup Model: 22-2207901-PDA

### International Dark-Sky Association

- Standard Model:
  - — IDA Dark-Sky Approved when ordering [I]MLLED[A/B/C/D/R/W] xxW[P/D/G]5Bxxx with MMVISOR accessory

### DesignLights™ Consortium

- Check DLC QPL for current list of products.

### Related Products

- Mercmaster LED Generation 3 Series Luminaires
- Industrial Mercmaster LED Low Profile Luminaires
- Industrial Mercmaster LED Generation 3 Series Luminaires

# Mercmaster™ LED Low Profile Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

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**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

## Illustrated Features — All Models

**Driver Housing Assembly:** Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present.

**Latch Assembly and Hinge**: Captive, stainless steel latch assembly (bolt and nut) closes securely while providing resistance to corrosive atmospheres. Swing-away design simplifies wiring and installation. Extra high hinge provides additional protection against accidental driver housing disengagement during installation or maintenance.

**Watertight Pendant Hood:** Provides protection against water ingress in the conduit utilizing an IP68 cord grip with 3 wire holes 4 mm (0.157") in diameter.

**Safety Cable:** Safety cable is slipped around the housing through retention points that are casted in. Safety cable has built in loops combined with a locking carabiner to allow for a quick and secure installation.

**Heatsink:** Reliable heat transfer via the cast, epoxy powder coat aluminum housing. Provides maximum heat dissipation from the LED assembly to the outside environment.

**Electrical Protection:** Ground wire provided to bond mounting hood to fixture housing. External Grounding provision for additional safety.

**Mounting Hood and Globe Gaskets:** Silicone rubber gaskets seal out moisture, dirt and dust. Stays flexible, withstands extreme temperatures. Closure design assures uniform gasket compression.

**Terminal Blocks:** A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from 0.14 - 6 $mm^2$ (26 - 10 AWG) wire.

**Epoxy Finish:** Fixture housing, mounting hoods and guards are copperfree aluminum with epoxy powder coat finish.

## Illustrated Features — Standard Model

**Fuses (optional):** Fuses factory installed in luminaire housing.

**Photocell (optional):** Factory Installed in the Mounting Hood. Available for all fixtures except cone and ceiling mount. Provides continuous ON-OFF dusk-to-dawn control.

**Prismatic Refractors:** Heat-resistant refractor threads directly into fixture housing and seal against a high-temperature silicone rubber gasket.

## Illustrated Features — Emergency Battery Backup Model

**Quick Disconnect:** Simple quick disconnect connector disconnects power between LEDs and battery management module to allow for easy maintenance.

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
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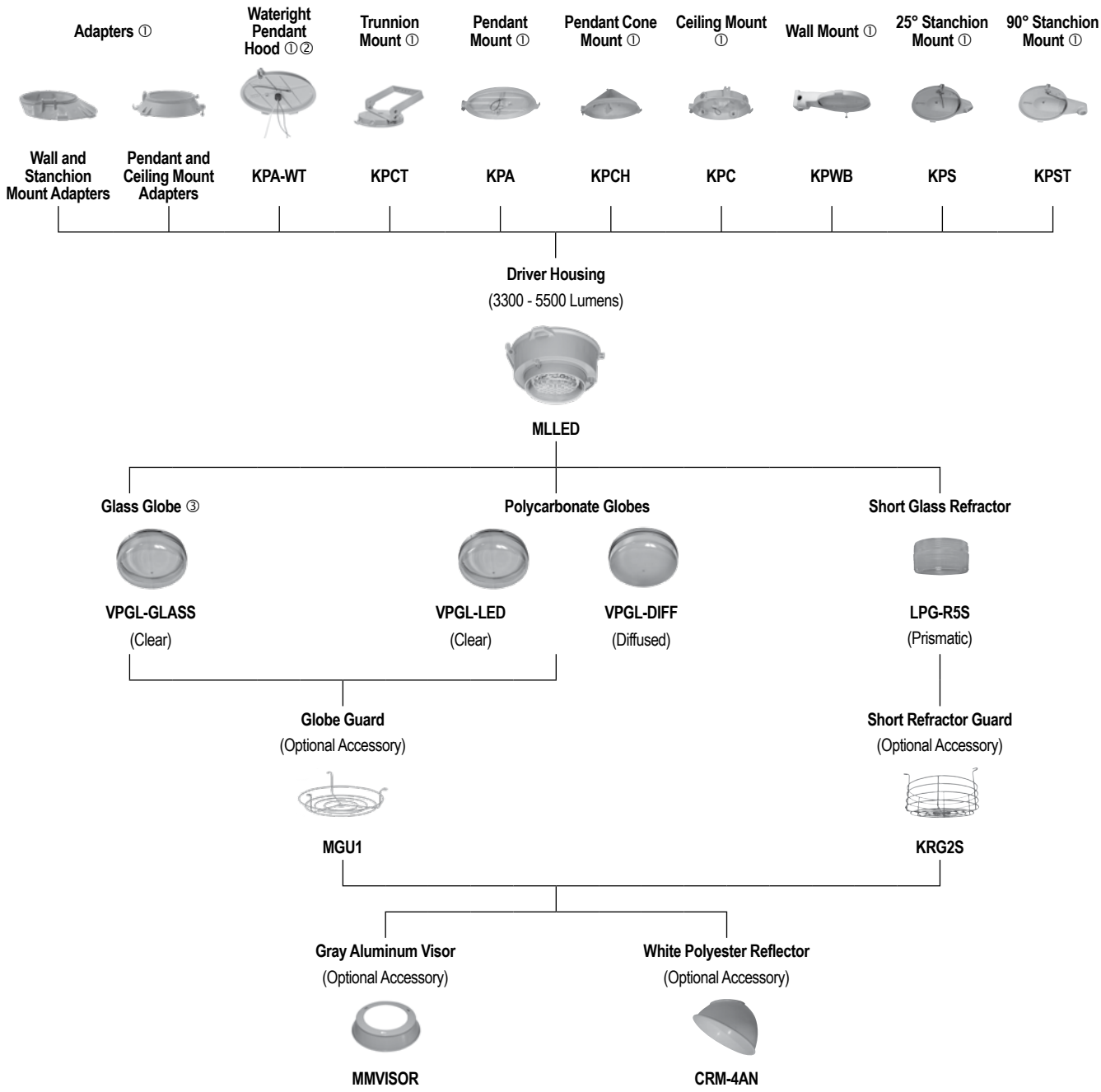
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



## Family Tree — Mercmaster™ LED Low Profile Series Luminaires — Standard Model




① *See Mounting Hood Adapters table for part numbers.*
② *Certified for cCSAus only.*
③ *Colored glass globes can be ordered separately, see Accessories and Replacement Parts table for more details.*
⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

## With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

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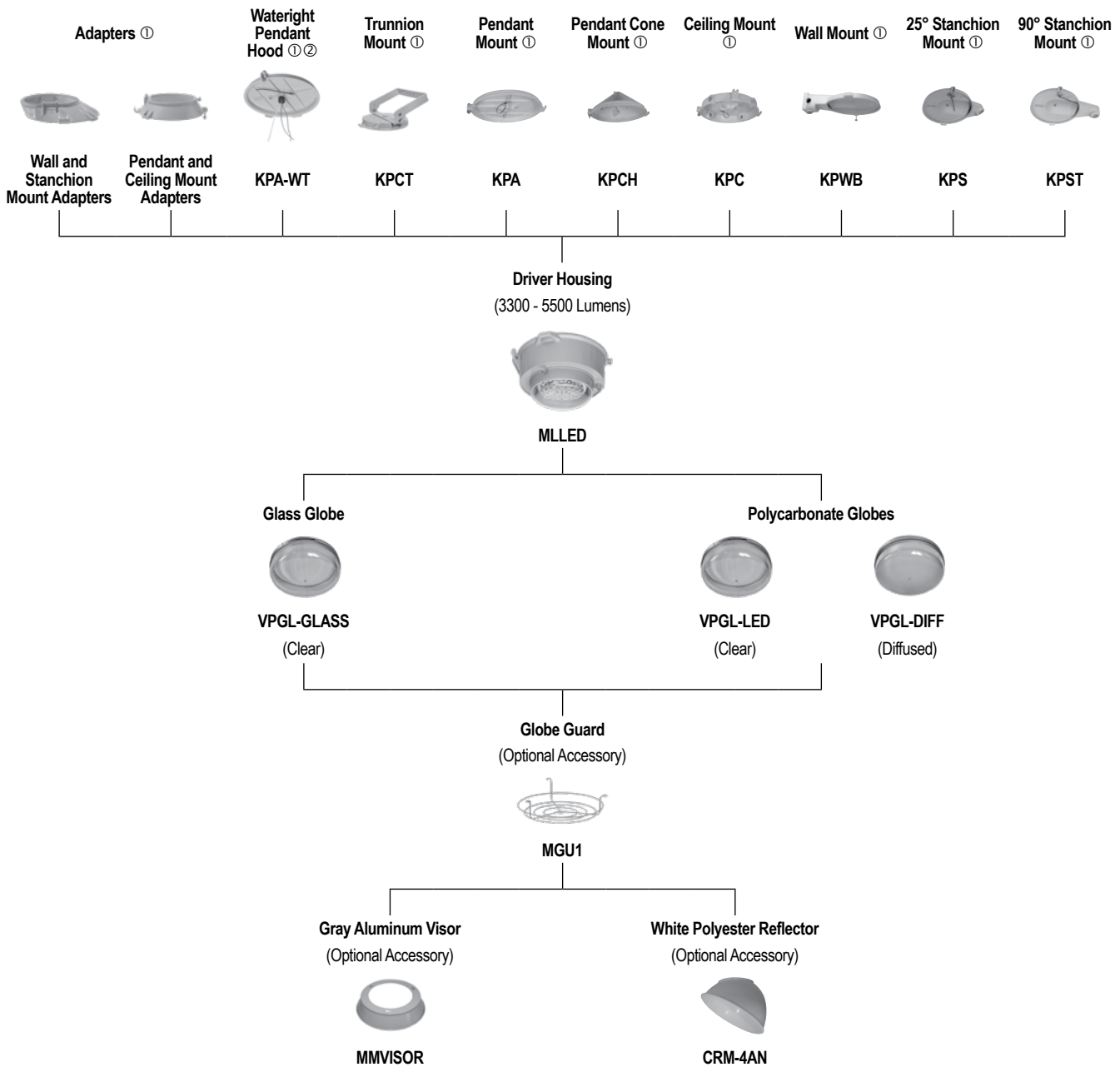
**Notable: American Bureau of Shipping (ABS) Certified**

### Family Tree — Mercmaster™ LED Low Profile Series Luminaires — Emergency Battery Backup Model




① *See Mounting Hood Adapters table for part numbers.*
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# Mercmaster™ LED Low Profile Luminaires

Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

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**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



**Order Using Catalog Numbering Guide — Mercmaster™ LED Low Profile Series Luminaires — Standard Model.**

| MLLED | A | 4 | 2 | C | P | 5 | BU | F | 1 |
|---|---|---|---|---|---|---|---|---|---|

**MLLED** — Series Prefix:
MLLED - NEC/CEC and IECEx/ ATEX Certified Mercmaster LED Low Profile Series

**A** — Mounting:
A - Pendant
B - Watertight Pendant ⏃
C - Ceiling ⑥
D - Pendant Cone ⏃ ⑥
R - 90° Stanchion ①
S - 25° Stanchion ①
T - Trunnion
K - Killark™ ✧ Adapter Universal ⏃
U - Mercmaster II Adapter, Ceiling or Pendant ⏃ ⑦
V - Mercmaster II Adapter, Stanchion or Wall ⏃ ⑦
W - Wall
X - Crouse Hinds™ ✢ Adapter, Ceiling or Pendant ⏃
Y - Crouse Hinds™ ✢ Adapter, Stanchion or Wall ⏃
Blank - No mounting hood

**4** — Lumen (nominal): ②
2 - 3,300
3 - 4,400
4 - 5,500

**2** — Hub Size: ⑦
2 - 3/4" NPT
3 - 1" NPT
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion
6 - Metric M20
Blank - No hub if using adapter or ordering driver housing only (no mounting hood)

**C** — Color Temperature:
C - Cool, 5000K
N - Neutral, 4000K
W - Warm, 3000K

**P** — Globe Material: ③
P - Clear Polycarbonate Globe
D - Diffused Polycarbonate Globe
G - Clear Glass Globe
J - Glass Prismatic Refractor

**5** — Light Distribution Pattern:
5 - Type V

**BU** — Voltage:
BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc
BH - 347-480 Vac, 50/60 Hz ⏃

**F** — Options: ④
F - Fusing
Blank - No fusing

**1** — Options:
1 - Photocontrol 120V ⑤
2 - Photocontrol 208V ⑤
3 - Photocontrol 240V ⑤
4 - Photocontrol 277V ⑤
Blank - No Options Chosen

*① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in this mounting option.*
*② For lumen output information, see Lumen Output (Efficacy) Table.*
*③ Guards for the refractor and globes are ordered separately. See the Accessories for more information.*
*④ Fusing only permitted for cCSAus rating. Factory installed. Use of fuse voids Marine Outside Type (Salt Water) rating. Fusing is mounted in the driver housing. For retrofit applications, fusing must be removed from the mounting hood and ordered in the luminaire.*
*⑤ Luminaires with photocontrol are not rated IP66/67, Marine Outside Type (Salt Water), or Class II and voids the NEMA ratings on the fixture but remains suitable for use in wet locations. Photocontrol available for 120-277 Vac only.*
*⑥ Ceiling and pendant cone hood mounted luminaires are not designed to use the PCD2 photocontrol. Ceiling mounts can be used with a FS/FD box with a photocontrol. Contact your local sales representative for more information.*
*⑦ Hub size does not apply to luminaires ordered with adapters.*
*⏃ Adapters, watertight pendant hood and BH Voltage only certified for cCSAus. Not available for use with photocontrol.*
*✧ Killark is a registered trademark of Hubbell Incorporated.*
*✢ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*
*⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

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**Notable: American Bureau of Shipping (ABS) Certified**

**Order Using Catalog Numbering Guide — Mercmaster™ LED Low Profile Series Luminaires — Emergency Battery Backup Model**

**MLLED** | **A** | **4** | **2** | **C** | **P** | **5** | **BU** | **H**

Series Prefix:
MLLED - NEC/ CEC Certified Mercmaster LED Low Profile Series

Mounting:
A - Pendant
B - Watertight Pendant ⅄
C - Ceiling
D - Pendant Cone ⅄
R - 90° Stanchion ①
S - 25° Stanchion ①
T - Trunnion
K - Killark™ ✧ Adapter Universal ⅄
U - Mercmaster II Adapter, Ceiling or Pendant ⅄④
V - Mercmaster II Adapter, Stanchion or Wall ⅄④
W - Wall
X - Crouse Hinds™ ✢ Adapter, Ceiling or Pendant ⅄
Y - Crouse Hinds™ ✢ Adapter, Stanchion or Wall ⅄
Blank - No mounting hood

Lumen (nominal): ②
2 - 3,300
3 - 4,400
4 - 5,500

Hub Size: ④
2 - 3/4" NPT
3 - 1" NPT
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion
6 - Metric M20
Blank - No hub if using adapter or ordering driver housing only (no mounting hood)

Color Temperature:
C - Cool, 5000K
N - Neutral, 4000K
W - Warm, 3000K

Globe Material: ③
P - Clear Polycarbonate Globe
D - Diffused Polycarbonate Globe
G - Clear Glass Globe

Light Distribution Pattern:
5 - Type V

Voltage:
BU - 120-277 Vac, 50/60 Hz

Emergency:
H - 90 Minutes
E - 180 Minutes

*① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in this mounting option.*
*② For lumen output information, see Lumen Output (Efficacy) Table.*
*③ Guard for the globe must be ordered separately. See the Accessories for more information.*
*④ Hub size does not apply to luminaires ordered with adapters.*
*⅄ Adapters and watertight pendant hood only certified for cCSAus.*
*✧ Killark is a registered trademark of Hubbell Incorporated.*
*✢ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*
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Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

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**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

**Lumen Output (Efficacy) — Standard Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe** | | | | | | | | | | | | | | |
| MLLED2 | 70-100W | Type V | 3000K | 70 | 3000 | 107 | 4000K | 70 | 3000 | 107 | 5000K | 70 | 3200 | 114 |
| MLLED3 | 100-150W | Type V | 3000K | 70 | 3900 | 103 | 4000K | 70 | 4000 | 105 | 5000K | 70 | 4200 | 111 |
| MLLED4 | 150-175W | Type V | 3000K | 70 | 4900 | 102 | 4000K | 70 | 5000 | 104 | 5000K | 70 | 5300 | 110 |
| **Diffused Polycarbonate Globe** | | | | | | | | | | | | | | |
| MLLED2 | 70-100W | Type V | 3000K | 70 | 2900 | 104 | 4000K | 70 | 2900 | 104 | 5000K | 70 | 3100 | 111 |
| MLLED3 | 100-150W | Type V | 3000K | 70 | 3800 | 100 | 4000K | 70 | 3900 | 103 | 5000K | 70 | 4100 | 108 |
| MLLED4 | 150-175W | Type V | 3000K | 70 | 4800 | 100 | 4000K | 70 | 4900 | 102 | 5000K | 70 | 5150 | 107 |
| **Clear Glass Globe** | | | | | | | | | | | | | | |
| MLLED2 | 70-100W | Type V | 3000K | 70 | 3100 | 111 | 4000K | 70 | 3100 | 111 | 5000K | 70 | 3300 | 118 |
| MLLED3 | 100-150W | Type V | 3000K | 70 | 4100 | 108 | 4000K | 70 | 4200 | 111 | 5000K | 70 | 4400 | 116 |
| MLLED4 | 150-175W | Type V | 3000K | 70 | 5100 | 106 | 4000K | 70 | 5200 | 108 | 5000K | 70 | 5500 | 115 |
| **Glass Prismatic Refractor** | | | | | | | | | | | | | | |
| MLLED2 | 70-100W | Type V | 3000K | 70 | 2800 | 100 | 4000K | 70 | 2800 | 100 | 5000K | 70 | 3000 | 107 |
| MLLED3 | 100-150W | Type V | 3000K | 70 | 3700 | 97 | 4000K | 70 | 3800 | 100 | 5000K | 70 | 4000 | 105 |
| MLLED4 | 150-175W | Type V | 3000K | 70 | 4600 | 96 | 4000K | 70 | 4650 | 97 | 5000K | 70 | 4900 | 102 |

① *All lumen values are typical (tolerance +/- 10%).*
⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

## With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**

**Lumen Output (Efficacy) — Emergency Battery Backup Model ①②**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe — Standard Mode** | | | | | | | | | | | | | | |
| MLLED2 | 70-100W | Type V | 3000K | 70 | 3000 | 91 | 4000K | 70 | 3200 | 97 | 5000K | 70 | 3200 | 97 |
| MLLED3 | 100-150W | Type V | 3000K | 70 | 3900 | 98 | 4000K | 70 | 4200 | 105 | 5000K | 70 | 4200 | 105 |
| MLLED4 | 150-175W | Type V | 3000K | 70 | 4900 | 100 | 4000K | 70 | 5000 | 102 | 5000K | 70 | 5300 | 108 |
| **Clear Polycarbonate Globe — 90 Minute Emergency Mode** | | | | | | | | | | | | | | |
| MLLED2 | 70-100W | Type V | 3000K | 70 | 1150 | N/A | 4000K | 70 | 1270 | N/A | 5000K | 70 | 1400 | N/A |
| MLLED3 | 100-150W | Type V | 3000K | 70 | 1150 | N/A | 4000K | 70 | 1270 | N/A | 5000K | 70 | 1400 | N/A |
| MLLED4 | 150-175W | Type V | 3000K | 70 | 1150 | N/A | 4000K | 70 | 1270 | N/A | 5000K | 70 | 1400 | N/A |
| **Diffused Polycarbonate Globe — Standard Mode** | | | | | | | | | | | | | | |
| MLLED2 | 70-100W | Type V | 3000K | 70 | 2900 | 88 | 4000K | 70 | 3100 | 94 | 5000K | 70 | 3100 | 94 |
| MLLED3 | 100-150W | Type V | 3000K | 70 | 3800 | 95 | 4000K | 70 | 3900 | 98 | 5000K | 70 | 4100 | 103 |
| MLLED4 | 150-175W | Type V | 3000K | 70 | 4800 | 98 | 4000K | 70 | 4900 | 100 | 5000K | 70 | 5150 | 105 |
| **Diffused Polycarbonate Globe — 90 Minute Emergency Mode** | | | | | | | | | | | | | | |
| MLLED2 | 70-100W | Type V | 3000K | 70 | 1100 | N/A | 4000K | 70 | 1200 | N/A | 5000K | 70 | 1350 | N/A |
| MLLED3 | 100-150W | Type V | 3000K | 70 | 1100 | N/A | 4000K | 70 | 1200 | N/A | 5000K | 70 | 1350 | N/A |
| MLLED4 | 150-175W | Type V | 3000K | 70 | 1100 | N/A | 4000K | 70 | 1200 | N/A | 5000K | 70 | 1350 | N/A |
| **Clear Glass Globe — Standard Mode** | | | | | | | | | | | | | | |
| MLLED2 | 70-100W | Type V | 3000K | 70 | 3100 | 94 | 4000K | 70 | 3100 | 94 | 5000K | 70 | 3300 | 100 |
| MLLED3 | 100-150W | Type V | 3000K | 70 | 4100 | 103 | 4000K | 70 | 4200 | 105 | 5000K | 70 | 4400 | 110 |
| MLLED4 | 150-175W | Type V | 3000K | 70 | 5000 | 102 | 4000K | 70 | 5200 | 106 | 5000K | 70 | 5500 | 112 |
| **Clear Glass Globe — 90 Minute Emergency Mode** | | | | | | | | | | | | | | |
| MLLED2 | 70-100W | Type V | 3000K | 70 | 1200 | N/A | 4000K | 70 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| MLLED3 | 100-150W | Type V | 3000K | 70 | 1200 | N/A | 4000K | 70 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| MLLED4 | 150-175W | Type V | 3000K | 70 | 1200 | N/A | 4000K | 70 | 1330 | N/A | 5000K | 70 | 1450 | N/A |

*① All lumen values are typical (tolerance +/-10%). For Lumen Output (Efficacy) of the emergency battery backup model in 180 minute emergency mode, contact your local sales representative.*
*② 70 minimum.*
*⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

## Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ⓔx II 2 D | Ⓔx II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

### Electrical Specifications — Standard Model ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| MLLED2 | 120 Vac | 28 | .28 | >0.9 | < 20% |
| | 277 Vac | 28 | .13 | | |
| | 170 Vdc | 27 | .16 | N/A | N/A |
| | 300 Vdc | 27 | .09 | | |
| | 347 Vac | 30 | .10 | >0.9 | < 20% |
| | 480 Vac | 30 | .06 | | |
| MLLED3 | 120 Vac | 38 | .38 | >0.9 | < 20% |
| | 277 Vac | 38 | .16 | | |
| | 170 Vdc | 37 | .22 | N/A | N/A |
| | 300 Vdc | 39 | .13 | | |
| | 347 Vac | 40 | .13 | >0.9 | < 20% |
| | 480 Vac | 40 | .08 | | |
| MLLED4 | 120 Vac | 48 | .48 | >0.9 | < 20% |
| | 277 Vac | 48 | .20 | | |
| | 170 Vdc | 49 | .29 | N/A | N/A |
| | 300 Vdc | 48 | .16 | | |
| | 347 Vac | 51 | .16 | >0.9 | < 20% |
| | 480 Vac | 50 | .10 | | |

① *All values are typical (tolerance +/-10%).*
⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

## With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

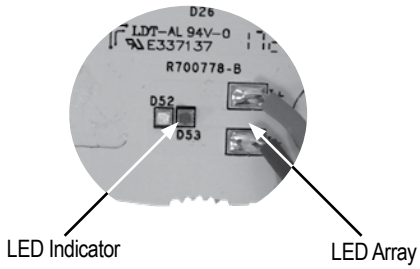
**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**

**Electrical Specifications — Emergency Model ①**

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| MLLED2 | 120 Vac | 33 | .27 | >0.9 | < 15% |
| | 277 Vac | | .13 | | |
| MLLED3 | 120 Vac | 40 | .33 | >0.9 | |
| | 277 Vac | | .16 | | |
| MLLED4 | 120 Vac | 49 | .42 | >0.9 | |
| | 277 Vac | | .20 | | |

**Automatic Testing System (ATS) — Emergency Battery Backup Model — Functionality**

| Functional | Full Duration |
|---|---|
| Starts within 24 to 45 hours after the initial powerup of the module | Starts within 5 to 26 days after the initial power of the module |
| Occurs every 14 days after the initial aforementioned functional test | Occurs every 364 days after the initial aforementioned functional test |
| Lasts for 30 seconds | Lasts for the full duration of the rated emergency period |
| At the completion of functional and full duration tests, LED indicator will display the status of the emergency luminaire when AC is present | |




**LED Signals**

| Indicator Color | Timing | Description |
|---|---|---|
| Green | 1 sec ON: 1 sec OFF | Normal charging ok, Battery not yet fully charged, No fault detected, Testing ok |
| Green | 0.25 sec ON: 0.25 sec OFF | Functional / Duration Self-Test on-going |
| Green | Steady ON | Charging ok, Battery fully charged, No fault detected, Testing ok |
| Red | 1 sec ON: 1 sec OFF | Fault condition. Installation issue. Battery is reverse, not connected or shorted. Functional test failure, full duration test failure |
| LED Indicators OFF, LED Array ON | LED Indicator Lights (Red and Green) OFF | No AC, Emergency mode ON |

*① All values are typical (tolerance +/-10%).*
*⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

## Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ⓔx II 2 D | Ⓔx II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

### NEC/CEC Temperature Codes — Standard Model ①

| Model | Ambient Temperature °C (°F) | Supply wire Temperature °C (°F) | Class I, Division 2 Groups A, B, C, D | Class I, Zone 2 Group IIC | Class II, Division 1 Groups E, F, G | Zone 21, Group IIIC | Class I, Division 2 and Class II, Division 1 |
|---|---|---|---|---|---|---|---|
| MLLED2 | 40 (104) | 90 (194) | T5 | T5 | T6 | T6 | T5 |
| | 55 (131) | 90 (194) | T5 | T5 | T6 | T6 | T5 |
| | 65 (149) | 90 (194) | T4A | T4 | T6 | T6 | T4A |
| MLLED3 | 40 (104) | 90 (194) | T4A | T4 | T6 | T6 | T4A |
| | 55 (131) | 90 (194) | T4A | T4 | T6 | T6 | T4A |
| | 65 (149) | 90 (194) | T4A | T4 | T5 | T5 | T4A |
| MLLED4 | 40 (104) | 90 (194) | T4A | T4 | T6 | T6 | T4A |
| | 55 (131) | 90 (194) | T4 | T4 | T6 | T5 | T4 |
| | 65 (149) | 90 (194) | T4 | T4 | T5 | T5 | T4 |

### ATEX/IECEx Temperature Codes — Standard Model ①

| | Gas — T Rating | | | Dust — Surface Temperature | | |
|---|---|---|---|---|---|---|
| Model | Ta= +40 °C (+104 °F) | Ta= +55 °C (+131 °F) | Ta= +65 °C (+149 °F) | Ta= +40 °C (+104 °F) | Ta= +55 °C (+131 °F) | Ta= +65 °C (+149 °F) |
| MLLED2 | T5 | T5 | T4 | T66°C | T79°C | T88°C |
| MLLED3 | T4 | T4 | T4 | T66°C | T79°C | T88°C |
| MLLED4 | T4 | T4 | T4 | T66°C | T79°C | T88°C |

### NEC/CEC — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature ②③

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

### ATEX/IECEx — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature

| "T" # | T1 | T2 | T3 | T4 | T5 | T6 |
|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +301 to +450 (+547 to +842) | +201 to +300 (+394 to +572) | +136 to +200 (+277 to +392) | +101 to +135 (+214 to +275) | +86 to +100 (+187 to +212) | +85 (+185) |

*① Ambient Temperature Range: -40 °C to +65 °C (-40 °F to +149 °F).*
*② T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*
*③ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and Class I, Zone 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.*

# Mercmaster™ LED Low Profile Luminaires

## With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**

**NEC/CEC Temperature Codes — Emergency Battery Backup Model ①**

| Model | Ambient Temperature °C (°F) | Supply wire Temperature °C (°F) | Class I, Division 2 Groups A, B, C, D | Class I, Zone 2 Group IIC | Class II, Division 1 Groups E, F, G | Zone 21, Group IIIC | Class I, Division 2 and Class II, Division 1 |
|---|---|---|---|---|---|---|---|
| MLLED2 | 40 (104) | 90 (194) | T5 | T5 | T6 | T6 | T4A |
| | 55 (131) | 90 (194) | T5 | T5 | T6 | T6 | T4A |
| MLLED3 | 40 (104) | 90 (194) | T5 | T5 | T6 | T6 | T5 |
| | 55 (131) | 90 (194) | T5 | T5 | T6 | T6 | T5 |
| MLLED4 | 40 (104) | 90 (194) | T4A | T4 | T6 | T6 | T4A |
| | 55 (131) | 90 (194) | T4A | T4 | T6 | T6 | T4A |

**NEC/CEC — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature ①②**

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*① Ambient Temperature Range: -20 °C to +65 °C (-4 °F to +149 °F).*
*② T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*
*③ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and Class I, Zone 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.*

# Mercmaster™ LED Low Profile Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ⓔx II 2 D | Ⓔx II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



## Fixture Unit — Driver Housing and Globe or Refractor

| | Lumen Level | LED Wattage | HID Light Level Equivalent | NEMA Type | Voltage | Catalog Number: Polycarbonate Globe | Polycarbonate Diffused Globe | Clear Glass Globe | Glass Prismatic Refractor |
|---|---|---|---|---|---|---|---|---|---|
| **Driver Housing — Standard Model** | | | | | | | | | |
| | 3000K | 28 | 70-100W | Type V | 120-277 Vac | **MLLED2WP5BU** | **MLLED2WD5BU** | **MLLED2WG5BU** | **MLLED2WJ5BU** |
| | 4000K | 38 | 100-150W | Type V | 120-277 Vac | **MLLED3NP5BU** | **MLLED3ND5BU** | **MLLED3NG5BU** | **MLLED3NJ5BU** |
| | 5000K | 48 | 150-175W | Type V | 120-277 Vac | **MLLED4CP5BU** | **MLLED4CD5BU** | **MLLED4CG5BU** | **MLLED4CJ5BU** |
| | 3000K | 28 | 70-100W | Type V | 347-480 Vac | **MLLED2WP5BH** | **MLLED2WD5BH** | **MLLED2WG5BH** | **MLLED2WJ5BH** |
| | 4000K | 38 | 100-150W | Type V | 347-480 Vac | **MLLED3NP5BH** | **MLLED3ND5BH** | **MLLED3NG5BH** | **MLLED3NJ5BH** |
| | 5000K | 48 | 150-175W | Type V | 347-480 Vac | **MLLED4CP5BH** | **MLLED4CD5BH** | **MLLED4CG5BH** | **MLLED4CJ5BH** |
| **Driver Housing — Emergency Battery Backup Model — 90 Minute** | | | | | | | | | |
| | 3000K | 28 | 70-100W | Type V | 120-277 Vac | **MLLED2WP5BUH** | **MLLED2WD5BUH** | **MLLED2WG5BUH** | — |
| | 4000K | 38 | 100-150W | Type V | 120-277 Vac | **MLLED3NP5BUH** | **MLLED3ND5BUH** | **MLLED3NG5BUH** | — |
| | 5000K | 48 | 150-175W | Type V | 120-277 Vac | **MLLED4CP5BUH** | **MLLED4CD5BUH** | **MLLED4CG5BUH** | — |
| **Driver Housing — Emergency Battery Backup Model —180 Minute** | | | | | | | | | |
| | 3000K | 28 | 70-100W | Type V | 120-277 Vac | **MLLED2WP5BUE** | **MLLED2WD5BUE** | **MLLED2WG5BUE** | — |
| | 4000K | 38 | 100-150W | Type V | 120-277 Vac | **MLLED3NP5BUE** | **MLLED3ND5BUE** | **MLLED3NG5BUE** | — |
| | 5000K | 48 | 150-175W | Type V | 120-277 Vac | **MLLED4CP5BUE** | **MLLED4CD5BUE** | **MLLED4CG5BUE** | — |

## Mounting Hoods — All Models

| | Hub Size | Weight in kg (lbs) | Catalog Number | | Hub Size | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|---|---|
| **Pendant — One Hub, Rigid Mounting** | | | | **Ceiling — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | | **KPA-75** | | 3/4 | | **KPC-75** |
| | 1" NPT | 1.0 (2.3) | **KPA-100** | | 1 | 1.4 (3.0) | **KPC-100** |
| | M20 | | **KPA-M20** | | M20 | | **KPC-M20** |
| **Pendant Cone — One Hub, Rigid Mounting** | | | | **Wall — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | | **KPCH-75** | | 3/4 | | **KPWB-75** |
| | 1" NPT | 1.1 (2.5) | **KPCH-100** | | 1 | 1.8 (4.0) | **KPWB-100** |
| | M20 | | **KPCH-M20** | | M20 | | **KPWB-M20** |
| **Watertight Pendant Hood — One Hub, Rigid Mounting** | | | | **25° Stanchion — One Hub** | | | |
| | 3/4" NPT | | **KPA-75-WT** | | 1-1/4" NPT | 1.5 (3.3) | **KPS-125** |
| | 1" NPT | 1.1 (2.4) | **KPA-100-WT** | | 1-1/2" NPT | | **KPS-150** |
| | M20 | | **KPA-WT-M20** | | | | |
| **Trunnion — Five Hubs, Four Close-Up Plugs** | | | | **90° Stanchion — One Hub** | | | |
| | 3/4" NPT | | **KPCT-75** | | 1-1/4" NPT | 1.7 (3.8) | **KPST-125** |
| | 1" NPT | 6.1 (13.4) | **KPCT-100** | | 1-1/2" NPT | | **KPST-150** |
| | M20 | | **KPCT-M20** | | | | |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

## Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ex II 2 D | Ex II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

**Accessories and Replacement Parts — All Models**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Globes** | | | |
| | Clear Globe — Polycarbonate | 0.2 (0.5) | **VPGL-LED** |
| | Diffused Globe — Polycarbonate | 0.2 (0.5) | **VPGL-DIFF** |
| | Clear Globe — Glass | 0.8 (1.7) | **VPGL-GLASS** |
| **Guard** | | | |
| | Globe Guard — Stainless Steel | 0.2 (0.4) | **MGU1** |
| **Safety Cable** | | | |
| | Safety Cable — Stainless Steel | 0.2 (0.4) | **LEDSC** |
| **Visor** | | | |
| | Electrostatically applied gray epoxy powder coat finish on Aluminum Visor | 0.4 (0.9) | **MMVISOR** |
| **Reflector** | | | |
| | 30° Angle White Polyester Reflectors | 1.3 (2.7) | **CMR-4AN** |

**Mounting Hood Adapters — All Models** ①

| | Manufacturer | Installed Mounting Hood | Weight in kg (lbs) | Appleton Adapter Catalog Number |
|---|---|---|---|---|
| | Crouse-Hinds™ Champ® ✢ | Pendant: APM2/3<br>Ceiling: CM2/3<br>Flexible Pendant: HPM2 | 0.9 (2.00) | **MMADCHVS** |
| | Appleton™ Mercmaster™ II | Pendant: LPA75/100<br>Ceiling: LPC75/100 | 0.9 (2.00) | **MMADIIS** |
| | Crouse-Hinds™ Champ® ✢ | Wall: TWM2/3<br>25° Angle Stanchion: JM5<br>90° Angle Stanchion: PM5 | 0.9 (2.00) | **MMADCHVA** |
| | Appleton™ Mercmaster™ II | Wall: LPWB75, LPWB100<br>25° Angle Stanchion: LPS125, LPS150 | 0.9 (2.00) | **MMADIIA** |
| | Killark™ ✧ | Ceiling: VMX2B, VMX3B, VMX6B, VMX7B, VMX9B<br>Pendant: VMA2B, VMA3B<br>Stanchion: VMD4B, VMD5B, VMS4B, VMS5B<br>Wall: VMB2B, VMB3B<br>Pendant Cone: VMC2B, VMC3B | 1.0 (2.3) | **MMADKVA** |

① *Adapters are cCSAus rated only.*
✧ *Killark is a registered trademark of Hubbell Incorporated.*
✢ *Crouse-Hinds and Champ are a registered trademarks of Cooper Crouse-Hinds.*
⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

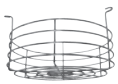
**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ex II 2 D | Ex II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



## Accessories and Replacement Parts — Standard Model

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Globes** ① | | | |
| | Glass Globe — Amber | 0.2 (0.5) | **VPGLGLASSAM** |
| | Glass Globe — Blue | 0.2 (0.5) | **VPGLGLASSBL** |
| | Glass Globe — Red | 0.8 (1.7) | **VPGLGLASSRE** |
| | Glass Globe — Green | 0.8 (1.7) | **VPGLGLASSGR** |

| | Light Distribution | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Prismatic Glass Refractor — All Heat-Resistant** ② | | | |
| | Short Prismatic Glass Refractor — NEMA Type V | 1.4 (3.0) | **LPG-R5S** |

| | Description | Catalog Number |
|---|---|---|
| **Guards** | | |
|  | Short Refractor Guard for LPG-R5S | **KRG2S** |

| | Model | Voltage | Driver Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|---|
| **Replacement Drivers** | | | | | |
| | MLLED2 | BU | 50 Watt | 720mA | **APMS050C135UD72** |
| | | BH | | 720mA | **APMS050C135HD72** |
| | MLLED3 | BU | 50 Watt | 1000mA | **APMS050C135UD10** |
| | | BH | | 1000mA | **APMS050C135HD10** |
| | MLLED4 | BU | 50 Watt | 1300mA | **APMS050C135UD13** |
| | | BH | | 1300mA | **APMS050C135HD13** |

*① Certified for cCSAus only, with a T4 T-Code.*
*② Glass Prismatic Refractors are cCSAus rated only.*
*⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

## Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ex II 2 D | Ex II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

### Accessories and Replacement Parts — Emergency Battery Backup Model

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| | Replacement Battery Pack | 0.7 (1.5) | **BPMLLED** |
| | Replacement Battery Management Module | 0.7 (1.5) | **BMMLLED** |
| | Replacement Fuse (Emergency system) | 0.2 (0.4) | **MLF5** |

| | Model | Voltage | Driver Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|---|
| **Replacement Drivers and Battery Management Module with Battery** | | | | | |
| | MLLED2 | BH | 50 Watt | 415mA | **APMS050C135UD41** |
| | MLLED3 | | | 550mA | **APMS050C135UD55** |
| | MLLED4 | | | 690mA | **APMS050C135UD69** |

### Luminaire Weights — All Models

| Description | Weight kg (lb) |
|---|---|
| Standard Model Fixture Unit | 4.6 (10.10) |
| Emergency Battery Backup Model Fixture Unit | 5.8 (13.80) |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# PCD2 Series Factory Sealed Hazardous Location Photocontrol

For Use in Class I, Division 2, Groups A, B, C, D Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | NEMA 4X**



## Applications

- Encapsulated photocontrol provides automatic dusk-to-dawn lighting control in Class I, Division 2 locations.
- Typical applications include walkways, security areas and any other outdoor lighting application.
- Photocontrol Kit can be installed remotely to any Appleton™ luminaire, or be installed directly to the luminaire wiring compartment using a 3/4 in. close conduit nipple or 3/4 in. 90° elbow.

## Features

- Factory sealed design eliminates the need for an explosionproof enclosure.
- Can be easily installed in the field.
- Maintains Class I, Division 2 rating for all Appleton Mercmaster™ III and Mercmaster LED Series luminaires.
- Available for 120, 208, 240, or 277 volts.
- Minimum time delay: 15 seconds to eliminate nuisance tripping.
- Provided with (3) 18 AWG stranded leads 152.4 mm (6 in) in length.

**Photocontrol Kit for Field Installation**

- Supplied with two stainless screws and neoprene gasket (FS-GKR-1N).

## Materials

- Encapsulated with epoxy sealing compound
- FS Cover: iron or aluminum

## NEC/CEC Certifications and Compliances

- UL Standard: 1604 – Hazardous (Classified) Locations
- cULus Recognized

**Photocontrol Kit — Separate FS Cast Hub Device Box (Step 1) and Photocontrol in FS Cover (Step 2)**

| | Voltage Range | Max VA | Max VA | Max Current Amps | Photocell Catalog Number | Device Box Catalog Number Iron | Aluminum |
|---|---|---|---|---|---|---|---|
| **Step 1: FS Cast Hub Device Box — single gang 2.00 in. deep FS Box, with one 3/4 in. bottom hub entry — Order separately**<br>— Connect FS Box to luminaire wiring compartment with 3/4 in. close conduit nipple or 3/4 in. 90° elbow. Purchased separately from other supplier. | | | | | | | |
| | N/A | N/A | N/A | N/A | — | **APP-FS-1-75** | **APP-FS-1-75-A** |
| **Step 2: Photocontrol in FS Cover for installation in FS Cast Hub Device Box — Order separately**<br>— Supplied with two stainless screws and neoprene gasket, catalog number: FS-GKR-1N | | | | | | | |
| | 120 V, 50/60 Hz | 1000 | 1000 | 8.3 Amp | **FSKA-PC120D2** | — | — |
| | 208 V, 50/60 Hz | 1000 | 1000 | 4.8 Amp | | | |
| | 240 V, 50/60 Hz | 1000 | 1000 | 4.2 Amp | **FSKA-PC247D2** | — | — |
| | 277 V, 50/60 Hz | 1000 | 1000 | 3.6 Amp | | | |

**Mounting Hood with Factory Installed Photocontrol** ①

| | Mounting Hood | Hub Size | Photocontrol Option | Catalog Number |
|---|---|---|---|---|
| | Pendant | 3/4" NPT | 120 V | **KPA75PC12D2** |
| | | | 208 V, 240 V, 277 V | **KPA75PC24D2** |
| | | 1" NPT | 120 V | **KPA100PC12D2** |
| | | | 208 V, 240 V, 277 V | **KPA100PC24D2** |
| | Wall | 3/4" NPT | 120 V | **KPWB75PC12D2** |
| | | | 208 V, 240 V, 277 V | **KPWB75PC24D2** |
| | | 1" NPT | 120 V | **KPWB100PC12D2** |
| | | | 208 V, 240 V, 277 V | **KPWB100PC24D2** |
| | **2**5° Stanchion | 1-1/4" NPT stanchion | 120 V | **KPS125PC12D2** |
| | | | 208 V, 240 V, 277 V | **KPS125PC24D2** |
| | | 1-1/2" NPT stanchion | 120 V | **KPS150PC12D2** |
| | | | 208 V, 240 V, 277 V | **KPS150PC24D2** |
| | 90° Stanchion | 1-1/4" NPT stanchion | 120 V | **KPST125PC12D2** |
| | | | 208 V, 240 V, 277 V | **KPST125PC24D2** |
| | | 1-1/2" NPT stanchion | 120 V | **KPST150PC12D2** |
| | | | 208 V, 240 V, 277 V | **KPST150PC24D2** |

① *Fixtures with photocontrols are cCSAus rated and available for 120-277 Vac only. The following ratings do not apply: IP, Marine Outside Type (Salt Water), Class II, NEMA. The luminaire remains suitable for wet locations..*

# Mercmaster™ LED Low Profile Luminaires

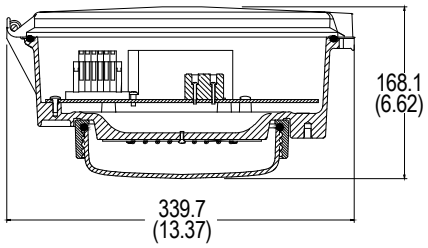
Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

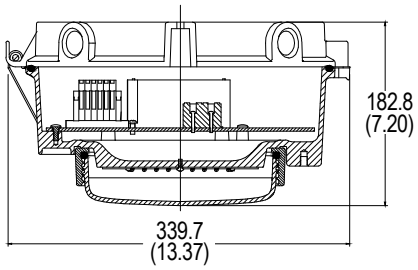
**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ⓔx II 2 D | Ⓔx II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

## Dimensions in Millimeters (Inches) — With Polycarbonate Globe — All Models

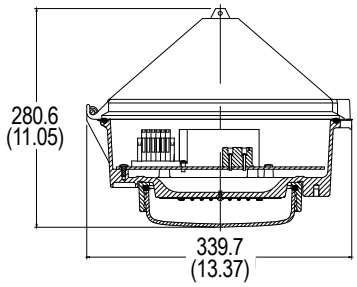
**Pendant Mount**



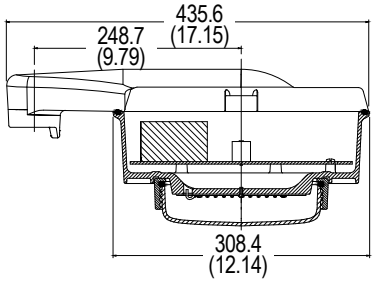

**Ceiling Mount**



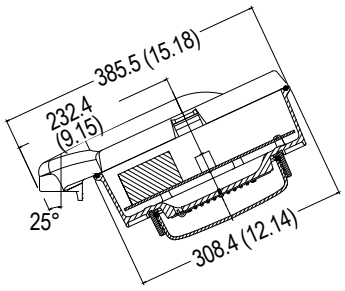

**Pendant Cone Mount**



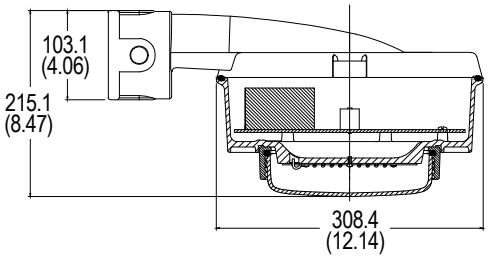

**90° Stanchion Mount**



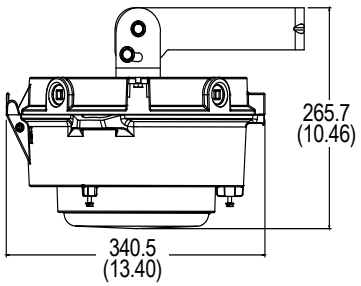

**25° Stanchion Mount**



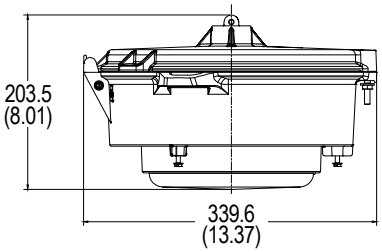

**Wall Mount**




**Trunnion Mount**




**Watertight Pendant Mount**




⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

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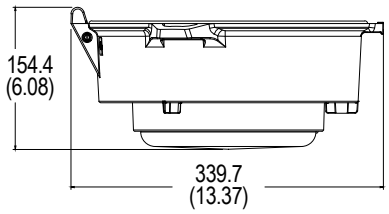
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

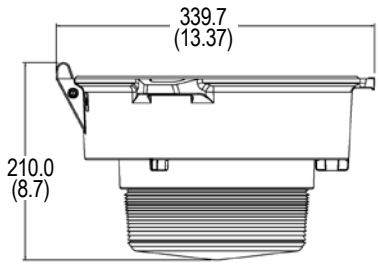


## Dimensions in Millimeters (Inches)

**Driver Housing with Polycarbonate Globe — All Models**

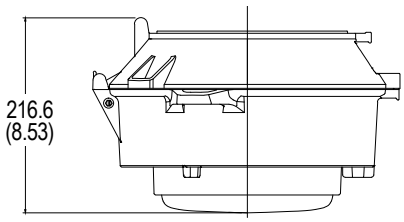



**Driver Housing with Short Prismatic Glass Refractor — Standard Model**

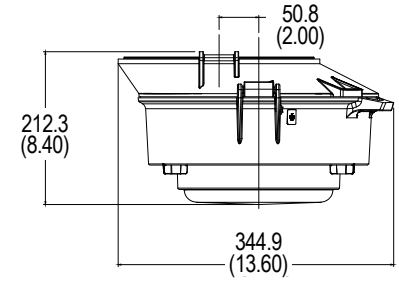



## Dimensions in Millimeters (Inches) — With Polycarbonate Globe — All Models

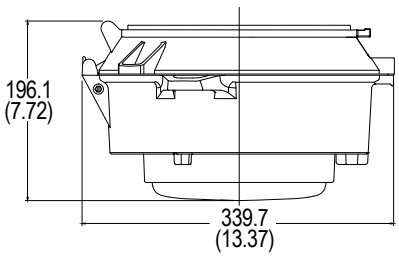
**Mercmaster II Adapter — Ceiling or Pendant**



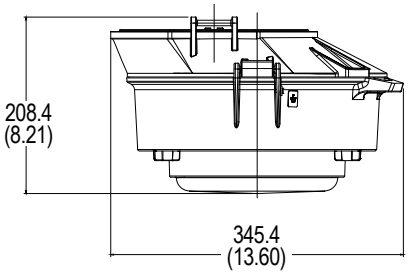

**Mercmaster II Adapter — Stanchion or Wall**



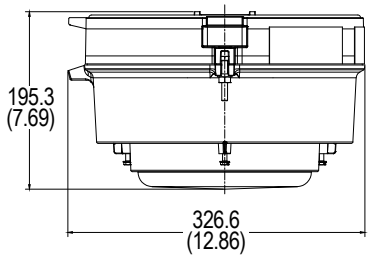

**Crouse-Hinds™ ✢ Adapter — Ceiling or Pendant**




**Crouse-Hinds™ ✢ Adapter — Stanchion or Wall**




**Killark™ ✧ Adapter**




✧ *Killark is a registered trademark of Hubbell Incorporated.*
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# Mercmaster™ LED Low Profile Luminaires

## Standard or with Emergency Battery Backup

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**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

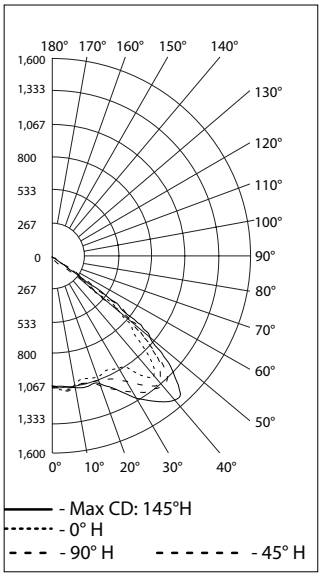
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

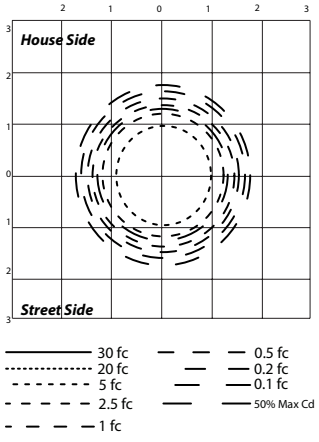
REPORT NUMBER: **MLLED2CP5BU**

Luminaire Lumens 3,198

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 932.7 | 29.2% |
| 0-40 | 1,750.7 | 54.7% |
| 0-60 | 3,144.3 | 98.3% |
| 60-90 | 48.0 | 1.5% |
| 70-100 | 17.6 | 0.6% |
| 90-120 | 4.8 | 0.2% |
| 0-90 | 3,192.3 | 99.8% |
| 90-180 | 5.7 | 0.2% |
| 0-180 | 3,198.0 | 100% |

**LUMENS PER ZONE**

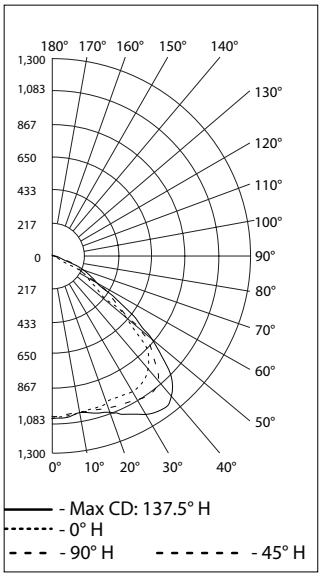
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 102.0 | 3.2% | 90-100 | 1.9 | 0.1% |
| 10-20 | 302.3 | 9.5% | 100-110 | 1.9 | 0.1% |
| 20-30 | 528.5 | 16.5% | 110-120 | 1.0 | 0% |
| 30-40 | 817.9 | 25.6% | 120-130 | 0.8 | 0% |
| 40-50 | 969.4 | 30.3% | 130-140 | 0.0 | 0% |
| 50-60 | 424.2 | 13.3% | 140-150 | 0 | 0% |
| 60-70 | 32.3 | 1.0% | 150-160 | 0.0 | 0% |
| 70-80 | 10.3 | 0.3% | 160-170 | 0.0 | 0% |
| 80-90 | 5.4 | 0.2% | 170-180 | 0.0 | 0% |

### Type V, Diffused Polycarbonate, 5000K CCT

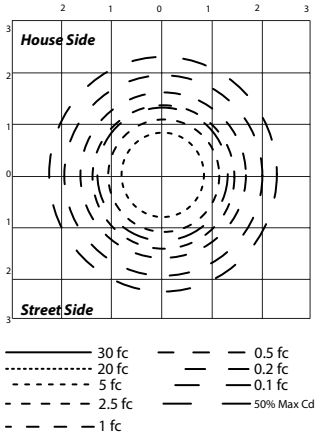
REPORT NUMBER: **MLLED2CD5BU**

Luminaire Lumens 3,103

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 903.1 | 29.1% |
| 0-40 | 1,609.3 | 51.9% |
| 0-60 | 2,795.0 | 90.1% |
| 60-90 | 283.4 | 9.1% |
| 70-100 | 107.9 | 3.5% |
| 90-120 | 24.0 | 0.8% |
| 0-90 | 3,078.4 | 99.2% |
| 90-180 | 25.3 | 0.8% |
| 0-180 | 3,103.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 100.3 | 3.2% | 90-100 | 9.0 | 0.3% |
| 10-20 | 298.2 | 9.6% | 100-110 | 10.7 | 0.3% |
| 20-30 | 504.6 | 16.3% | 110-120 | 4.3 | 0.1% |
| 30-40 | 706.2 | 22.8% | 120-130 | 1.2 | 0% |
| 40-50 | 735.2 | 23.7% | 130-140 | 0.1 | 0% |
| 50-60 | 450.5 | 14.5% | 140-150 | 0 | 0% |
| 60-70 | 184.5 | 5.9% | 150-160 | 0 | 0% |
| 70-80 | 75.4 | 2.4% | 160-170 | 0 | 0% |
| 80-90 | 23.5 | 0.8% | 170-180 | 0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ex II 2 D | Ex II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

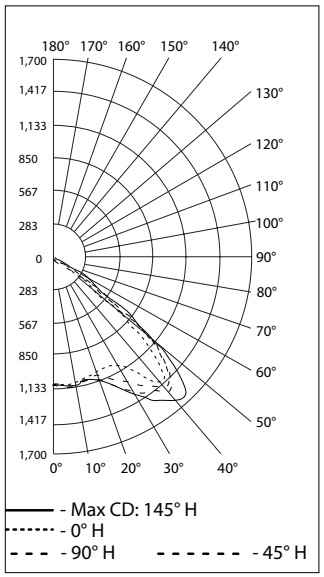
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 5000K CCT

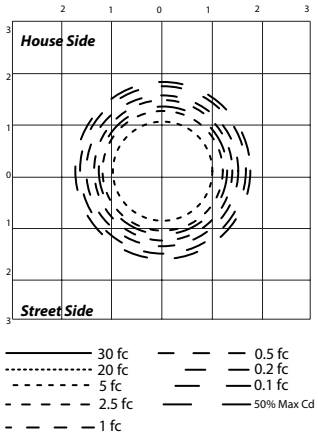
REPORT NUMBER: **MLLED2CG5BU**

Luminaire Lumens 3,334

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 960.0 | 28.8% |
| 0-40 | 1,828.8 | 54.8% |
| 0-60 | 3,298.1 | 98.9% |
| 60-90 | 32.1 | 1% |
| 70-100 | 8.4 | 0.3% |
| 90-120 | 3.9 | 0.1% |
| 0-90 | 3,330.2 | 99.9% |
| 90-180 | 4.2 | 0.1% |
| 0-180 | 3,334.5 | 100% |

**LUMENS PER ZONE**

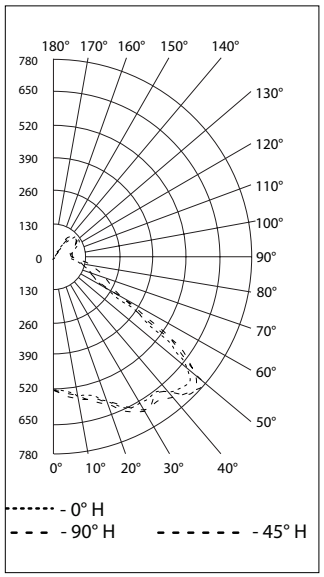
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 105.6 | 3.2% | 90-100 | 1.1 | 0% |
| 10-20 | 309.3 | 9.3% | 100-110 | 1.2 | 0% |
| 20-30 | 545.0 | 16.3% | 110-120 | 1.6 | 0% |
| 30-40 | 868.8 | 26.1% | 120-130 | 0.3 | 0% |
| 40-50 | 1,049.7 | 31.5% | 130-140 | 0.0 | 0% |
| 50-60 | 419.6 | 12.6% | 140-150 | 0.1 | 0% |
| 60-70 | 24.8 | 0.7% | 150-160 | 0 | 0% |
| 70-80 | 4.9 | 0.1% | 160-170 | 0 | 0% |
| 80-90 | 2.4 | 0.1% | 170-180 | 0 | 0% |

### Type V, Glass Refractor, 5000K CCT

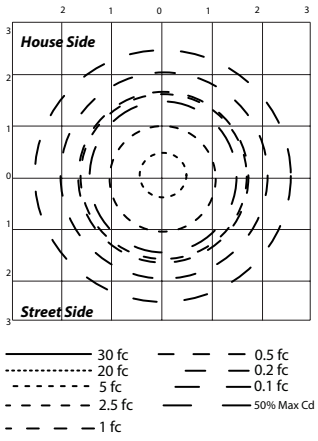
REPORT NUMBER: **MLLED2CJ5BU**

Luminaire Lumens 3,020

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 526.8 | 17.4% |
| 0-40 | 959.4 | 31.8% |
| 0-60 | 2,035.0 | 67.4% |
| 60-90 | 516.7 | 17.1% |
| 70-100 | 363.7 | 12% |
| 90-120 | 231.1 | 7.6% |
| 0-90 | 2,551.7 | 84.5% |
| 90-180 | 468.9 | 15.5% |
| 0-180 | 3,020.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 52.5 | 1.7% | 90-100 | 81.0 | 2.7% |
| 10-20 | 167.2 | 5.5% | 100-110 | 70.8 | 2.3% |
| 20-30 | 307.0 | 10.2% | 110-120 | 79.3 | 2.6% |
| 30-40 | 432.6 | 14.3% | 120-130 | 104.8 | 3.5% |
| 40-50 | 573.9 | 19.0% | 130-140 | 90.3 | 3% |
| 50-60 | 501.7 | 16.6% | 140-150 | 37.8 | 1.3% |
| 60-70 | 234.1 | 7.7% | 150-160 | 4.9 | 0.2% |
| 70-80 | 167.4 | 5.5% | 160-170 | 0.0 | 0% |
| 80-90 | 115.3 | 3.8% | 170-180 | 0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

## Standard or with Emergency Battery Backup

### Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ex II 2 D | Ex II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

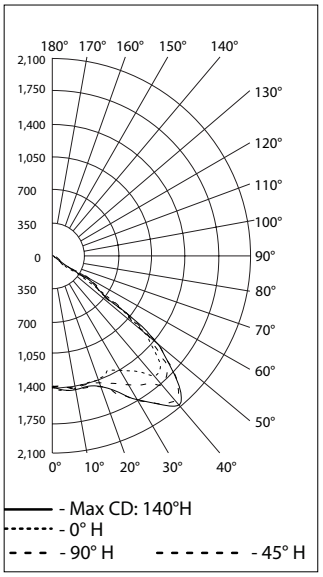
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

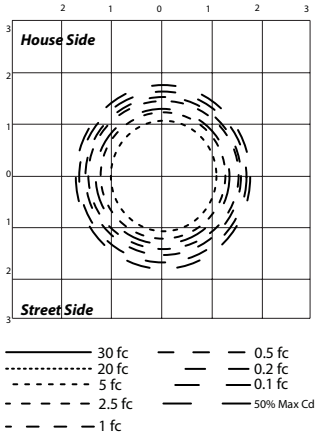
REPORT NUMBER: **MLLED3CP5BU**

Luminaire Lumens 4,234

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,229.4 | 29% |
| 0-40 | 2,320.7 | 54.8% |
| 0-60 | 4,178.7 | 98.7% |
| 60-90 | 49.5 | 1.2% |
| 70-100 | 18.7 | 0.4% |
| 90-120 | 5.2 | 0.1% |
| 0-90 | 4,228.2 | 99.9% |
| 90-180 | 6.0 | 0.1% |
| 0-180 | 4,234.3 | 100% |

**LUMENS PER ZONE**

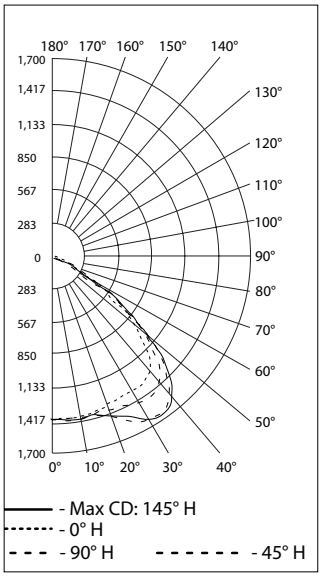
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 134.1 | 3.2% | 90-100 | 2.3 | 0.1% |
| 10-20 | 396.8 | 9.4% | 100-110 | 1.9 | 0% |
| 20-30 | 698.5 | 16.5% | 110-120 | 1.0 | 0% |
| 30-40 | 1,091.3 | 25.8% | 120-130 | 0.8 | 0% |
| 40-50 | 1,302.8 | 30.8% | 130-140 | 0.0 | 0% |
| 50-60 | 555.3 | 13.1% | 140-150 | 0.0 | 0% |
| 60-70 | 33.0 | 0.8% | 150-160 | 0.0 | 0% |
| 70-80 | 10.5 | 0.2% | 160-170 | 0.0 | 0% |
| 80-90 | 5.9 | 0.1% | 170-180 | 0.0 | 0% |

### Type V, Diffused Polycarbonate, 5000K CCT

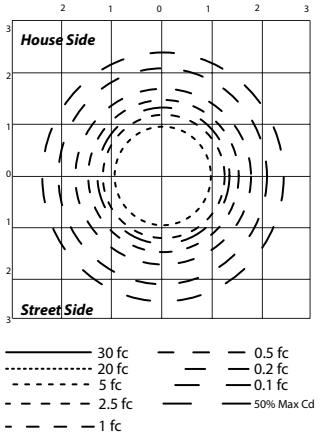
REPORT NUMBER: **MLLED3CD5BU**

Luminaire Lumens 4,151

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,206.1 | 29.1% |
| 0-40 | 2,153.6 | 51.9% |
| 0-60 | 3,742.1 | 90.2% |
| 60-90 | 375.5 | 9% |
| 70-100 | 142.2 | 3.4% |
| 90-120 | 31.3 | 0.8% |
| 0-90 | 4,117.6 | 99.2% |
| 90-180 | 33.1 | 0.8% |
| 0-180 | 4,150.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 133.5 | 3.2% | 90-100 | 11.7 | 0.3% |
| 10-20 | 397.0 | 9.6% | 100-110 | 14.0 | 0.3% |
| 20-30 | 675.6 | 16.3% | 110-120 | 5.5 | 0.1% |
| 30-40 | 947.5 | 22.8% | 120-130 | 1.6 | 0% |
| 40-50 | 986.1 | 23.8% | 130-140 | 0.1 | 0% |
| 50-60 | 602.4 | 14.5% | 140-150 | 0.1 | 0% |
| 60-70 | 245.0 | 5.9% | 150-160 | 0.0 | 0% |
| 70-80 | 99.5 | 2.4% | 160-170 | 0.0 | 0% |
| 80-90 | 30.9 | 0.7% | 170-180 | 0.0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ⓔx II 2 D | Ⓔx II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

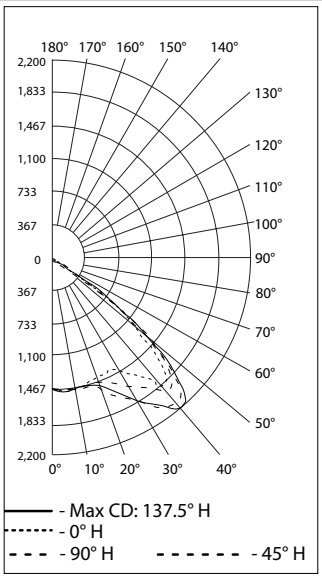
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 5000K CCT

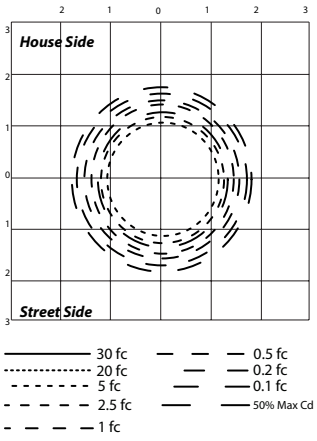
REPORT NUMBER: **MLLED3CG5BU**

Luminaire Lumens 4,468

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,282.8 | 28.7% |
| 0-40 | 2,447.8 | 54.8% |
| 0-60 | 4,419.1 | 98.9% |
| 60-90 | 42.9 | 1% |
| 70-100 | 11.0 | 0.2% |
| 90-120 | 4.8 | 0.1% |
| 0-90 | 4,461.9 | 99.9% |
| 90-180 | 6.1 | 0.1% |
| 0-180 | 4,468.0 | 100% |

**LUMENS PER ZONE**

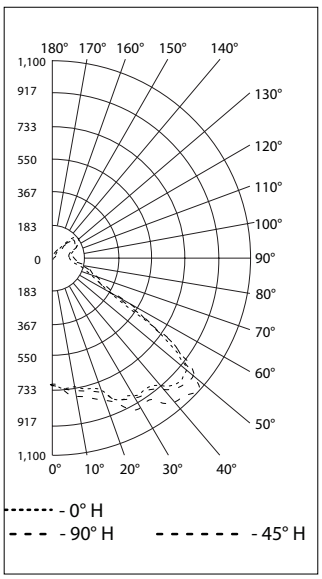
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 140.3 | 3.1% | 90-100 | 1.2 | 0% |
| 10-20 | 411.6 | 9.2% | 100-110 | 1.4 | 0% |
| 20-30 | 730.9 | 16.4% | 110-120 | 2.1 | 0% |
| 30-40 | 1,164.9 | 26.1% | 120-130 | 0.6 | 0% |
| 40-50 | 1,407.0 | 31.5% | 130-140 | 0.1 | 0% |
| 50-60 | 564.3 | 12.6% | 140-150 | 0.4 | 0% |
| 60-70 | 33.0 | 0.7% | 150-160 | 0.2 | 0% |
| 70-80 | 6.5 | 0.1% | 160-170 | 0.1 | 0% |
| 80-90 | 3.3 | 0.1% | 170-180 | 0.0 | 0% |

### Type V, Glass Refractor, 5000K CCT

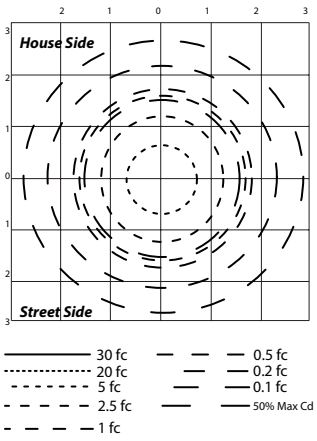
REPORT NUMBER: **MLLED3CJ5BU**

Luminaire Lumens 4,020

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 699.2 | 17.4% |
| 0-40 | 1,275.6 | 31.7% |
| 0-60 | 2,714.3 | 67.5% |
| 60-90 | 689.0 | 17.1% |
| 70-100 | 484.7 | 12.1% |
| 90-120 | 307.5 | 7.6% |
| 0-90 | 3,403.3 | 84.6% |
| 90-180 | 617.3 | 15.4% |
| 0-180 | 4,020.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 70.0 | 1.7% | 90-100 | 107.5 | |
| 10-20 | 222.3 | 5.5% | 100-110 | 94.0 | |
| 20-30 | 406.9 | 10.1% | 110-120 | 106.0 | |
| 30-40 | 576.4 | 14.3% | 120-130 | 137.5 | |
| 40-50 | 768.1 | 19.1% | 130-140 | 116.8 | |
| 50-60 | 670.6 | 16.7% | 140-150 | 49.1 | |
| 60-70 | 311.8 | 7.8% | 150-160 | 6.2 | |
| 70-80 | 223.5 | 5.6% | 160-170 | 0.0 | |
| 80-90 | 153.7 | 3.8% | 170-180 | 0 | |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

## Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ex II 2 D | Ex II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

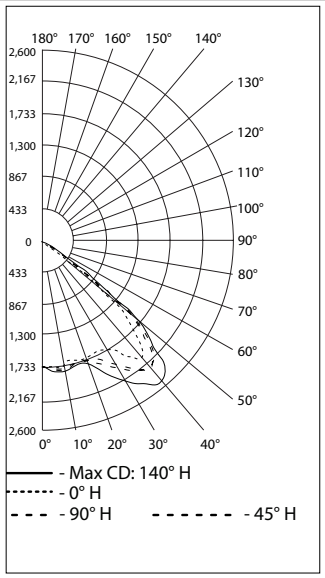
### Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Polycarbonate, 5000K CCT**

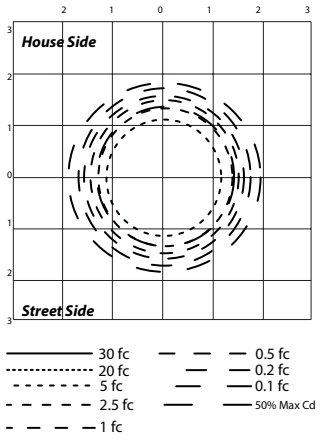
REPORT NUMBER: **MLLED4CP5BU**

Luminaire Lumens 5,330

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,525.8 | 28.6% |
| 0-40 | 2,872.5 | 53.9% |
| 0-60 | 5,237.4 | 98.3% |
| 60-90 | 82.4 | 1.5% |
| 70-100 | 29.4 | 0.6% |
| 90-120 | 7.9 | 0.1% |
| 0-90 | 5,319.8 | 99.8% |
| 90-180 | 10.7 | 0.2% |
| 0-180 | 5,330.5 | 100% |

**LUMENS PER ZONE**

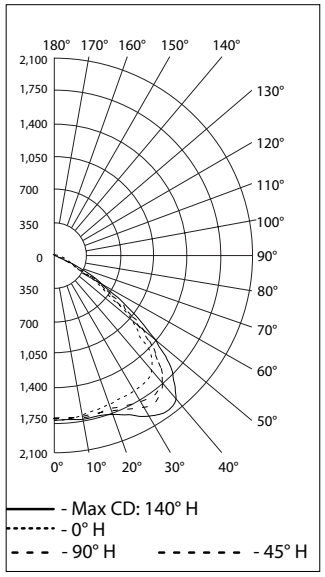
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 166.7 | 3.1% | 90-100 | 3.1 | 0.1% |
| 10-20 | 493.8 | 9.3% | 100-110 | 3.0 | 0.1% |
| 20-30 | 865.2 | 16.2% | 110-120 | 1.7 | 0% |
| 30-40 | 1,346.8 | 25.3% | 120-130 | 0.9 | 0% |
| 40-50 | 1,619.8 | 30.4% | 130-140 | 0.6 | 0% |
| 50-60 | 745.2 | 14.0% | 140-150 | 0.6 | 0% |
| 60-70 | 56.1 | 1.1% | 150-160 | 0.4 | 0% |
| 70-80 | 17.0 | 0.3% | 160-170 | 0.2 | 0% |
| 80-90 | 9.2 | 0.2% | 170-180 | 0.1 | 0% |

**Type V, Diffused Polycarbonate, 5000K CCT**

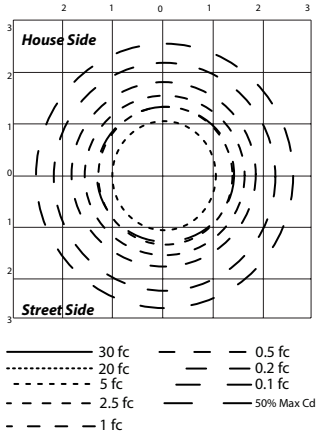
REPORT NUMBER: **MLLED4CD5BU**

Luminaire Lumens 5,150

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,484.5 | 28.8% |
| 0-40 | 2,652.4 | 51.5% |
| 0-60 | 4,632.4 | 89.9% |
| 60-90 | 475.6 | 9.2% |
| 70-100 | 180.0 | 3.5% |
| 90-120 | 39.1 | 0.8% |
| 0-90 | 5,108.0 | 99.2% |
| 90-180 | 42.1 | 0.8% |
| 0-180 | 5,150.1 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 164.4 | 3.2% | 90-100 | 14.5 | 0.3% |
| 10-20 | 488.7 | 9.5% | 100-110 | 17.8 | 0.3% |
| 20-30 | 831.4 | 16.1% | 110-120 | 6.9 | 0.1% |
| 30-40 | 1,167.9 | 22.7% | 120-130 | 2.0 | 0% |
| 40-50 | 1,223.7 | 23.8% | 130-140 | 0.3 | 0% |
| 50-60 | 756.3 | 14.7% | 140-150 | 0.2 | 0% |
| 60-70 | 310.0 | 6.0% | 150-160 | 0.2 | 0% |
| 70-80 | 125.8 | 2.4% | 160-170 | 0.1 | 0% |
| 80-90 | 39.8 | 0.8% | 170-180 | 0.1 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

Standard or with Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**ATEX: Zone 2 and 21-22 | Ⓔx II 2 D | Ⓔx II 3 GD | IP66 | IK08**
**IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

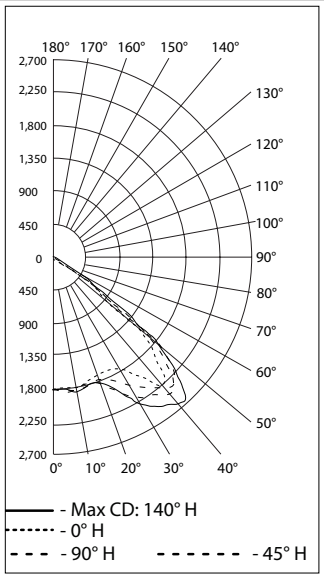
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 5000K CCT

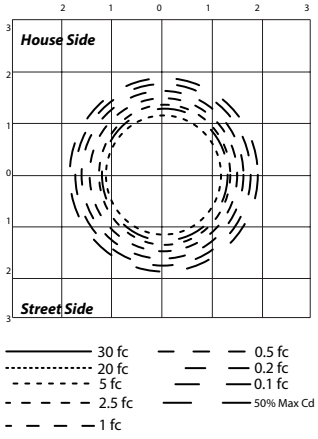
REPORT NUMBER: **MLLED4CG5BU**

Luminaire Lumens 5,529

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,575.5 | 28.5% |
| 0-40 | 2,990.6 | 54.1% |
| 0-60 | 5,434.7 | 98.3% |
| 60-90 | 81.6 | 1.5% |
| 70-100 | 27.7 | 0.5% |
| 90-120 | 10.6 | 0.2% |
| 0-90 | 5,516.3 | 99.8% |
| 90-180 | 13.4 | 0.2% |
| 0-180 | 5,529.7 | 100% |

**LUMENS PER ZONE**

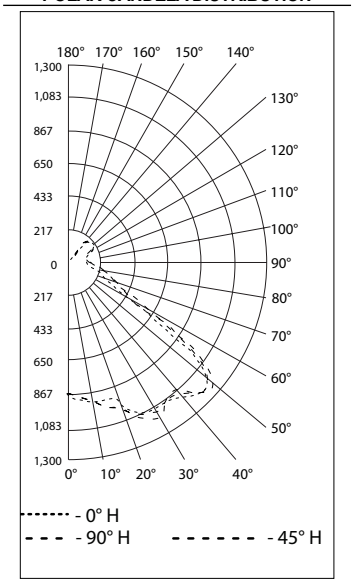
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 173.1 | 3.1% | 90-100 | 3.8 | 0.1% |
| 10-20 | 506.7 | 9.2% | 100-110 | 3.3 | 0.1% |
| 20-30 | 895.7 | 16.2% | 110-120 | 3.5 | 0.1% |
| 30-40 | 1,415.1 | 25.6% | 120-130 | 1.3 | 0% |
| 40-50 | 1,712.6 | 31.0% | 130-140 | 0.5 | 0% |
| 50-60 | 731.4 | 13.2% | 140-150 | 0.4 | 0% |
| 60-70 | 57.6 | 1.0% | 150-160 | 0.4 | 0% |
| 70-80 | 15.7 | 0.3% | 160-170 | 0.2 | 0% |
| 80-90 | 8.2 | 0.1% | 170-180 | 0.1 | 0% |

### Type V, Glass Refractor, 5000K CCT

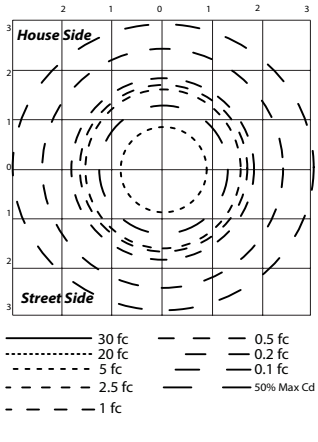
REPORT NUMBER: **MLLED4CJ5BU**

Luminaire Lumens 4,940

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 872.9 | 17.7% |
| 0-40 | 1,570.0 | 31.8% |
| 0-60 | 3,310.7 | 67% |
| 60-90 | 861.5 | 17.4% |
| 70-100 | 606.8 | 12.3% |
| 90-120 | 378.1 | 7.7% |
| 0-90 | 4,172.1 | 84.4% |
| 90-180 | 768.2 | 15.6% |
| 0-180 | 4,940.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 85.6 | 1.7% | 90-100 | 134.2 | 2.7% |
| 10-20 | 278.2 | 5.6% | 100-110 | 116.1 | 2.3% |
| 20-30 | 509.2 | 10.3% | 110-120 | 127.8 | 2.6% |
| 30-40 | 697.1 | 14.1% | 120-130 | 169.8 | 3.4% |
| 40-50 | 923.1 | 18.7% | 130-140 | 148.5 | 3% |
| 50-60 | 817.6 | 16.5% | 140-150 | 63.2 | 1.3% |
| 60-70 | 388.8 | 7.9% | 150-160 | 8.4 | 0.2% |
| 70-80 | 280.0 | 5.7% | 160-170 | 0.1 | 0% |
| 80-90 | 192.7 | 3.9% | 170-180 | 0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**

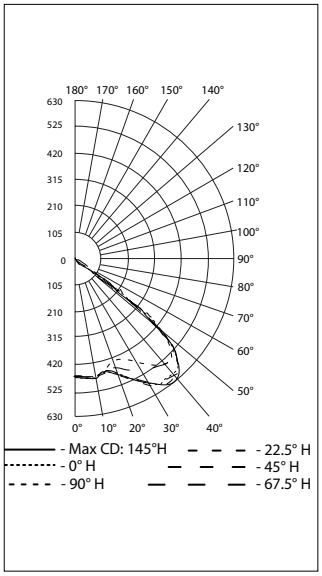
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

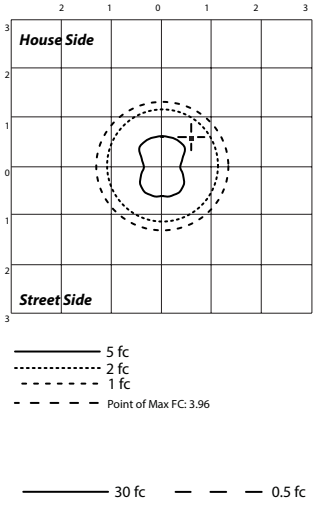
REPORT NUMBER: **MLLED2CP5BUH+EMR**

Luminaire Lumens 1,404

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 407.0 | 29% |
| 0-40 | 763.6 | 54.4% |
| 0-60 | 1,388.0 | 98.8% |
| 60-90 | 16.4 | 1.2% |
| 70-100 | 3.5 | 0.3% |
| 90-120 | 0.1 | 0% |
| 0-90 | 1,404.4 | 100% |
| 90-180 | 0.1 | 0% |
| 0-180 | 1,404.5 | 100% |

**LUMENS PER ZONE**

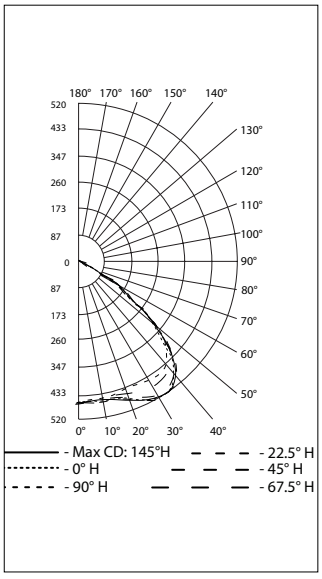
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 44.3 | 3.2% | 90-100 | 0.1 | 0% |
| 10-20 | 130.2 | 9.3% | 100-110 | 0 | 0% |
| 20-30 | 232.5 | 16.6% | 110-120 | 0 | 0% |
| 30-40 | 356.6 | 25.4% | 120-130 | 0 | 0% |
| 40-50 | 424.6 | 30.2% | 130-140 | 0 | 0% |
| 50-60 | 199.9 | 14.2% | 140-150 | 0 | 0% |
| 60-70 | 12.9 | 0.9% | 150-160 | 0 | 0% |
| 70-80 | 2.4 | 0.2% | 160-170 | 0 | 0% |
| 80-90 | 1.1 | 0.1% | 170-180 | 0 | 0% |

### Type V, Diffused Polycarbonate, 5000K CCT

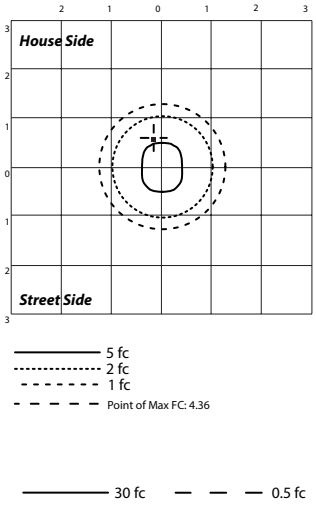
REPORT NUMBER: **MLLED2CD5BUH+EMR**

Luminaire Lumens 1,369

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 395.3 | 28.9% |
| 0-40 | 702.3 | 51.3% |
| 0-60 | 1,231.5 | 89.9% |
| 60-90 | 126.7 | 9.2% |
| 70-100 | 44.8 | 3.3% |
| 90-120 | 10.6 | 0.8% |
| 0-90 | 1,358.2 | 99.2% |
| 90-180 | 11.1 | 0.8% |
| 0-180 | 1,369.3 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 43.5 | 3.2% | 90-100 | 4.2 | 0.3% |
| 10-20 | 129.9 | 9.5% | 100-110 | 4.7 | 0.3% |
| 20-30 | 221.9 | 16.2% | 110-120 | 1.8 | 0.1% |
| 30-40 | 307.0 | 22.4% | 120-130 | 0.5 | 0% |
| 40-50 | 321.3 | 23.5% | 130-140 | 0 | 0% |
| 50-60 | 208.0 | 15.2% | 140-150 | 0 | 0% |
| 60-70 | 86.0 | 6.3% | 150-160 | 0 | 0% |
| 70-80 | 31.5 | 2.3% | 160-170 | 0 | 0% |
| 80-90 | 9.1 | 0.7% | 170-180 | 0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**



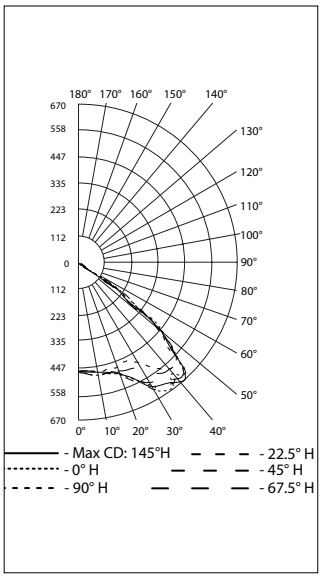
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 5000K CCT

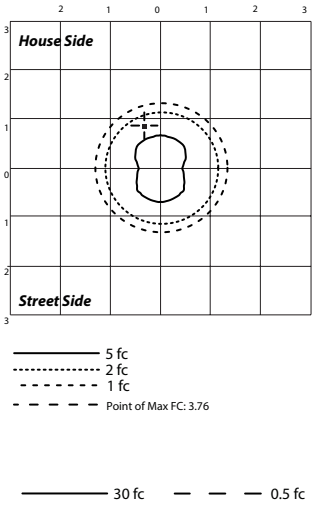
REPORT NUMBER: **MLLED2CG5BUH+EMR**

Luminaire Lumens 1,460

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 420.1 | 28.8% |
| 0-40 | 792.8 | 54.3% |
| 0-60 | 1,443.4 | 98.8% |
| 60-90 | 16.8 | 1.1% |
| 70-100 | 3.0 | 0.2% |
| 90-120 | 0.1 | 0% |
| 0-90 | 1,460.2 | 100% |
| 90-180 | 0.1 | 0% |
| 0-180 | 1,460.2 | 100% |

**LUMENS PER ZONE**

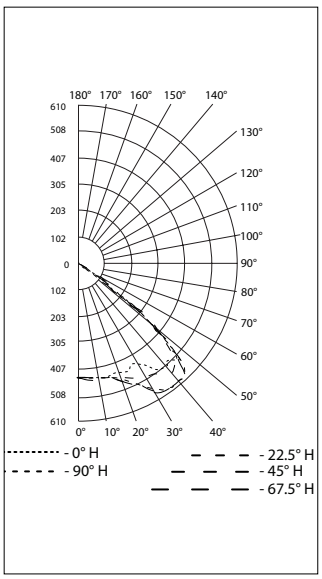
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 44.3 | 3.0% | 90-100 | 0.1 | 0% |
| 10-20 | 133.9 | 9.2% | 100-110 | 0 | 0% |
| 20-30 | 242.0 | 16.6% | 110-120 | 0 | 0% |
| 30-40 | 372.6 | 25.5% | 120-130 | 0 | 0% |
| 40-50 | 444.7 | 30.5% | 130-140 | 0 | 0% |
| 50-60 | 205.9 | 14.1% | 140-150 | 0 | 0% |
| 60-70 | 13.8 | 0.9% | 150-160 | 0 | 0% |
| 70-80 | 2.1 | 0.1% | 160-170 | 0 | 0% |
| 80-90 | 0.8 | 0.1% | 170-180 | 0 | 0% |

### Type V, Clear Glass, 4000K CCT

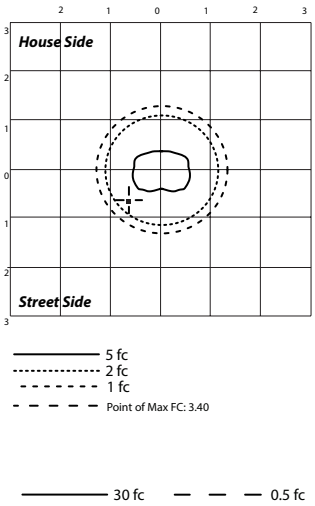
REPORT NUMBER: **MLLED4NG5BUH+EMR**

Luminaire Lumens 1,330

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 392.5 | 29.5% |
| 0-40 | 733.5 | 55.1% |
| 0-60 | 1,315.4 | 98.9% |
| 60-90 | 15.0 | 1.1% |
| 70-100 | 2.6 | 0.2% |
| 90-120 | 0 | 0% |
| 0-90 | 1,330.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 1,330.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 41.9 | 3.1% | 90-100 | 0 | 0% |
| 10-20 | 125.8 | 9.5% | 100-110 | 0 | 0% |
| 20-30 | 224.8 | 16.9% | 110-120 | 0 | 0% |
| 30-40 | 341.0 | 25.6% | 120-130 | 0 | 0% |
| 40-50 | 399.6 | 30.0% | 130-140 | 0 | 0% |
| 50-60 | 182.3 | 13.7% | 140-150 | 0 | 0% |
| 60-70 | 12.4 | 0.9% | 150-160 | 0 | 0% |
| 70-80 | 1.9 | 0.1% | 160-170 | 0 | 0% |
| 80-90 | 0.7 | 0.1% | 170-180 | 0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Mercmaster™ LED Low Profile Luminaires

## With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**

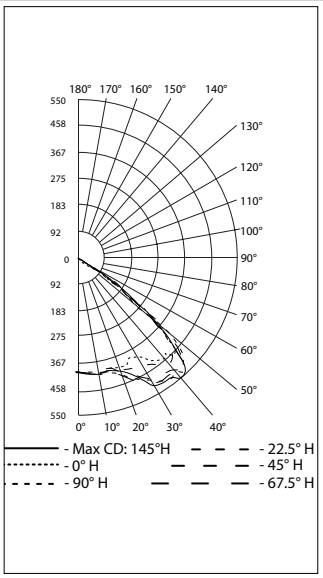
### Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Glass, 3000K CCT**

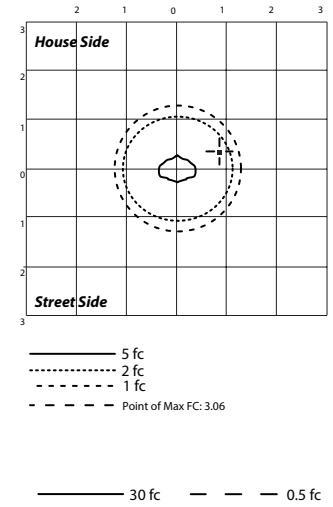
REPORT NUMBER: **MLLED4WG5BUH+EMR**

Luminaire Lumens 1,207

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 355.1 | 29.4% |
| 0-40 | 659.9 | 54.6% |
| 0-60 | 1,193.4 | 98.8% |
| 60-90 | 14.4 | 1.2% |
| 70-100 | 2.4 | 0.2% |
| 90-120 | 0 | 0% |
| 0-90 | 1,207.8 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 1,207.8 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 38.1 | 3.2% | 90-100 | 0 | 0% |
| 10-20 | 114.1 | 9.4% | 100-110 | 0 | 0% |
| 20-30 | 202.9 | 16.8% | 110-120 | 0 | 0% |
| 30-40 | 304.8 | 25.2% | 120-130 | 0 | 0% |
| 40-50 | 360.5 | 29.8% | 130-140 | 0 | 0% |
| 50-60 | 173.0 | 14.3% | 140-150 | 0 | 0% |
| 60-70 | 12.0 | 1.0% | 150-160 | 0 | 0% |
| 70-80 | 1.7 | 0.1% | 160-170 | 0 | 0% |
| 80-90 | 0.7 | 0.1% | 170-180 | 0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Contender™ LED Series Luminaires

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



## Applications

- Enclosed and gasketed fixtures suitable for use in:
  - — A wide range of industrial, chemical processing and other areas where flammable gases, vapors and combustible dusts and fibers are present including simultaneous exposure
  - — Marine and wet locations
  - — Areas of low clearance, low ceiling heights or where fixture weights must be minimized
- Typical industries include:
  - — Pulp and paper mills
  - — Processing plants
  - — Chemical plants
  - — Petrochemical facilities
  - — Oil refineries
  - — Drilling rigs
  - — Foundries
  - — Waste treatment
  - — Mining
  - — Steel mills
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
- Typical applications include:
  - — Walkways/catwalks/stairwells
  - — Grain elevators
  - — Tunnels
  - — Pipe racks
  - — Offshore rigs
  - — Vessel lighting
  - — Cooling towers
  - — Processing areas

## Features

- Mounts directly to the following Crouse Hinds™ ✣ Champ® ✣ VMV mounting hoods.

| Mounting Hoods | Model |
|---|---|
| Pendant | APM2, APM3 |
| Flexible Pendant | HPM2 |
| Ceiling | CM2, CM3 |
| Wall | TWM2, TWM3 |
| Quad | QM25 |
| 25° Stanchion | JM5 |
| Straight Stanchion | PM5 |

- Compact light weight low profile design is suited for low mounting heights (less than 5.44 kg. [12 lbs]).
- Customize to the application requirements with four different field replaceable globe options: clear and diffused polycarbonate, clear glass, or prismatic glass refractor.
- Three Correlated Color Temperatures (CCTs) for a wide variety of applications: Cool (5000K), Neutral (4000K) and Warm (3000K)
- Three light output levels for retrofit of HID fixtures up to 175 W.

| Nominal Lumens ② | HID Equivalent | Model |
|---|---|---|
| 3300 | 70-100W | VMV3LCG5BU |
| 4400 | 100-150W | VMV4LCG5BU |
| 5500 | 150-175W | VMV5LCG5BU |

**With Clear Plastic Globe**

**With Short Prismatic Glass Refractor**

- Standard 6 kV/3 kA surge protection.
- Ambient Temperature: BU: -40 °C to +65 °C (-40 °F to +149 °F); BH: -40 °C up to +65 °C (-40 °F up to +149 °F).
- Heavy duty, high temperature silicone rubber gaskets.
- Reported L70 is >108,000.
- Field replaceable globes and IP66 rated LED driver.
- Rugged housing with superior thermal design translates to long luminaire life.
- Luminaire comes pre-wired with three conductors, approximately 304.8 mm (12" long), of 14 AWG TEW wire from the IP68 watertight NPT hub at the top of the luminaire lid.
- Product can be configured with wirenuts or screw terminal blocks for ease of wiring.
- Photometric data and electronic drawings available upon request.
- 5 year standard warranty.

## Options

- Glass and Polycarbonate globe and glass refractor guards available, purchase separately.

## Standard Materials

- Luminaire body: cast copperfree (4/10 of 1% max.) aluminum
- All hardware: stainless steel
- Globe: polycarbonate or glass
- Glass refractor guard: stainless steel wire
- Globe guard, short refractor guard and safety cable: stainless steel wire
- Reflector: fiberglass reinforced white polyester
- Visor: aluminum
- Gasket: silicone rubber

## Standard Finishes

- Luminaire bodies, glass refractor guard and visor: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

## NEC/CEC Certifications and Compliances

- UL Standard: UL 50E (2nd Ed.); UL 844 (13th Ed.); UL 1598 (3rd Ed.); UL 1598A (1st Ed.); UL 8750 (2nd Ed.)
- CSA Standard: C22.2 No 0-10; C22.2 No. 94.2-15; C22.2 No. E60598-1:16; C22.2 No. 137-M1981; C22.2 No. 250.0-08; C22.2 No. 250.13-14; C22.2 No. 60529:16
- cCSAus Listed: Master contract 164460; Certificate Number 70170001

## ABS Certifications

- VMV: 18-HS1741303-PDA

## International Dark-Sky Association

- IDA Dark-Sky Approved when ordering VMV[3L/4L/5L]W[P5/D5/G5]xxx with MMVISOR accessory (3000K CCT).

## DesignLights™ Consortium

- Check DLC QPL for current list of products.

*① AEx rating is only applicable to product configurations with terminal block wiring option.*
*② Nominal Lumen value for 5000K CCT, clear glass globe. Detailed lumen information is provided in the " Lumen Output (Efficacy)" tables.*
*✣ Crouse-Hinds and Champ are registered trademarks of Cooper Crouse-Hinds.*

# Contender™ LED Series Luminaires

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

## Illustrated Features

**Wiring Flexibility**
Choose between wire nuts and screw terminal blocks to suit end user wiring preferences. Terminal blocks support UL/CSA 24 to 12 AWG wire.

**Globe Gaskets**
Silicone rubber gaskets seal out moisture, dirt and dust. Stays flexible, withstands extreme temperatures. Closure design assures uniform gasket compression.

**Watertight**
Watertight IP68 rated bushing where cord enters luminaire hood ensures no water will enter the luminaire from the conduit through the mounting hood.

**Prismatic Refractor**
Heat-resistant refractor threads directly into fixture housing and seal against a high-temperature silicone rubber gasket.

**Angled Reflector and Visor**
Angled reflector is thick, tough fiberglass reinforced white polyester. Visor is aluminum with electrostatically applied, gray epoxy powder coat finish. Quickly attach either accessory to luminaire with furnished stainless steel screws.

**"Safety" Cable**
Safety cable option threads through the fixture housing for additional safety.

**Heatsink:** Reliable heat transfer via the cast, epoxy powder coat aluminum body. Provides maximum heat dissipation from the LED assembly to the outside environment.

**Driver Assembly:** IP66 rated driver utilizes non-sparking components avoiding the ignition of gases or vapors that may be present.

**Electrical Protection:** External Grounding provisions for additional safety.

**Epoxy Finish:** Fixture housing, hoods and guards are copperfree aluminum with triple protection epoxy powder coat finish.

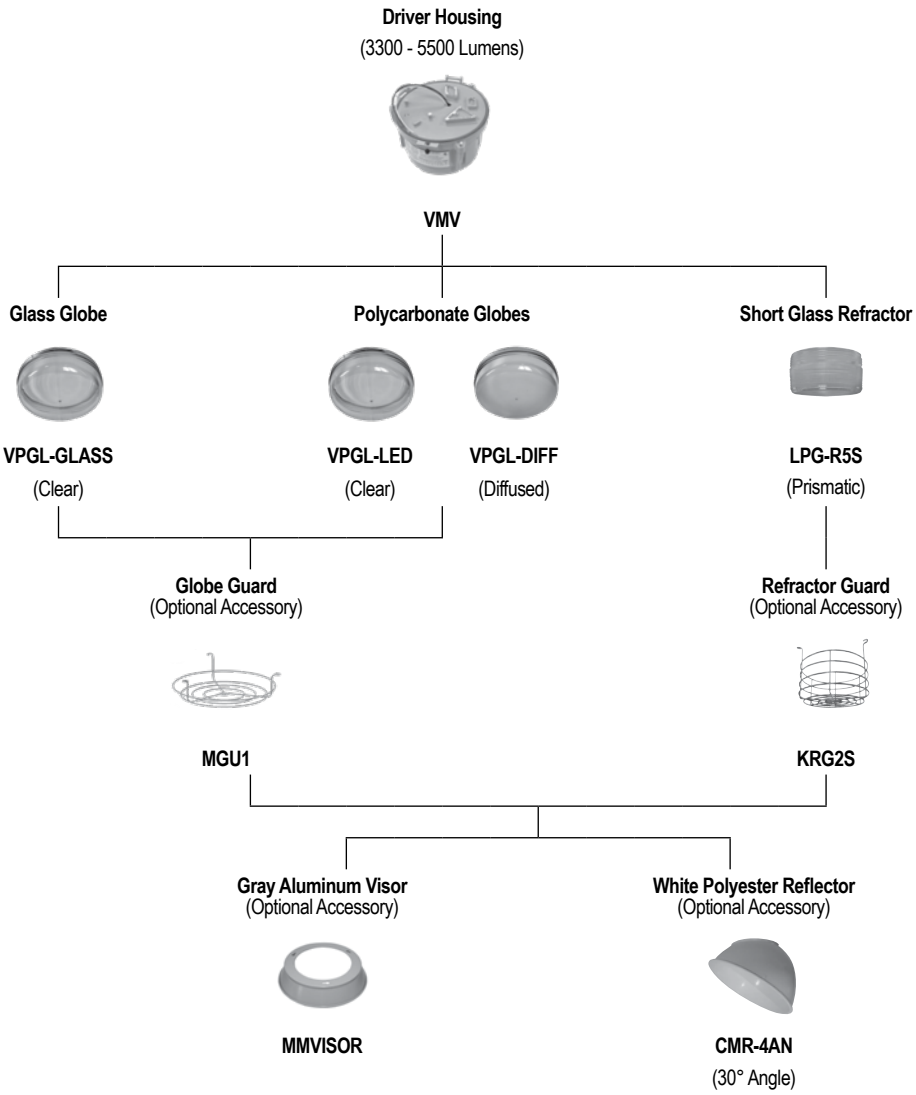
*① AEx rating is only applicable to product configurations with terminal block wiring option*

# Contender™ LED Series Luminaires

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

## Contender™ LED Family Tree




*① AEx rating is only applicable to product configurations with terminal block wiring option.*

# Contender™ LED Series Luminaires

Enclosed and Gasketed Fixtures — Hazardous Locations



**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

## Order Using Catalog Numbering Guide — Contender™ LED Series Luminaires

**VMV**
Series Prefix:
VMV - Contender LED Series

**3L**
Lumen Output ②:
3L - 3K Lumens
4L - 4K Lumens
5L - 5K Lumens

**C**
Color Temperature:
C - Cool 5000K CCT
N - Neutral 4000K CCT
W - Warm 3000K CCT

**P5**
Globe Material, Light Pattern ③:
P5 - Clear Polycarbonate Globe, NEMA Type V
D5 - Diffused Polycarbonate Globe,NEMA Type V
G5 - Clear Glass Globe, NEMA Type V
J5 - Glass Prismatic Refractor, NEMA Type V

**BU**
Voltage:
BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc
BH - 347-480 Vac, 50/60 Hz

**T**
Wiring Method ④:
Blank - Wire Nuts (Standard)
T - Terminal Blocks

**Lumen Output (Efficacy) ⑤**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe** | | | | | | | | | | | | | | |
| VMV3L | 70-100W | | 3000K | >70 | 3000 | 107 | 4000K | >70 | 3000 | 107 | 5000K | >70 | 3200 | 114 |
| VMV4L | 100-150W | Type V | 3000K | >70 | 3900 | 102 | 4000K | >70 | 4000 | 105 | 5000K | >70 | 4200 | 110 |
| VMV5L | 150-175W | | 3000K | >70 | 4900 | 102 | 4000K | >70 | 5000 | 104 | 5000K | >70 | 5300 | 110 |
| **Diffused Polycarbonate Globe ⑥** | | | | | | | | | | | | | | |
| VMV3L | 70-100W | | 3000K | >70 | 2900 | 103 | 4000K | >70 | 2900 | 103 | 5000K | >70 | 3100 | 110 |
| VMV4L | 100-150W | Type V | 3000K | >70 | 3800 | 100 | 4000K | >70 | 3900 | 102 | 5000K | >70 | 4100 | 107 |
| VMV5L | 150-175W | | 3000K | >70 | 4800 | 100 | 4000K | >70 | 4900 | 102 | 5000K | >70 | 5150 | 107 |
| **Clear Glass Globe** | | | | | | | | | | | | | | |
| VMV3L | 70-100W | | 3000K | >70 | 3100 | 110 | 4000K | >70 | 3100 | 110 | 5000K | >70 | 3300 | 117 |
| VMV4L | 100-150W | Type V | 3000K | >70 | 4100 | 107 | 4000K | >70 | 4200 | 110 | 5000K | >70 | 4400 | 115 |
| VMV5L | 150-175W | | 3000K | >70 | 5100 | 106 | 4000K | >70 | 5200 | 108 | 5000K | >70 | 5500 | 114 |
| **Glass Prismatic Refractor** | | | | | | | | | | | | | | |
| VMV3L | 70-100W | | 3000K | >70 | 2800 | 100 | 4000K | >70 | 2800 | 100 | 5000K | >70 | 3000 | 107 |
| VMV4L | 100-150W | Type V | 3000K | >70 | 3700 | 97 | 4000K | >70 | 3800 | 100 | 5000K | >70 | 4000 | 105 |
| VMV5L | 150-175W | | 3000K | >70 | 4600 | 96 | 4000K | >70 | 4650 | 97 | 5000K | >70 | 4900 | 102 |

*① AEx rating is only applicable to product configurations with terminal block wiring option.*
*② For specific lumen output information, see Lumen Output table.*
*③ Guards for the glass refractor and globes are ordered separately. See the Accessories section for more information.*
*④ Terminal block wiring option is only available with BU voltage configuration.*
*⑤ All lumen values are typical (tolerance +/- 10%).*
*⑥ 70 minimum.*

# Contender™ LED Series Luminaires

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

## Electrical Specifications ②

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| VMV3L | 120 Vac | 28.0 | .28 | > .94 | < 20% |
| | 277 Vac | 28.0 | .13 | | |
| | 125 Vdc | 27.2 | .24 | — | |
| | 300 Vdc | 27.2 | .09 | | |
| | 347 Vac | 29.7 | .10 | > .93 | |
| | 480 Vac | 29.8 | .06 | | |
| VMV4L | 120 Vac | 38.0 | .38 | > .96 | < 20% |
| | 277 Vac | 38.0 | .16 | | |
| | 125 Vdc | 37.4 | .32 | — | |
| | 300 Vdc | 39.0 | .13 | | |
| | 347 Vac | 39.6 | .13 | > .96 | |
| | 480 Vac | 39.7 | .08 | | |
| VMV5L | 120 Vac | 48.0 | .48 | > .97 | < 20% |
| | 277 Vac | 48.0 | .20 | | |
| | 125 Vdc | 50.2 | .40 | — | |
| | 300 Vdc | 48.0 | .16 | | |
| | 347 Vac | 50.5 | .16 | > .97 | |
| | 480 Vac | 50.4 | .10 | | |

## NEC/CEC Temperature Codes

| | | | Gas | | Dust | | | Gas/Dust |
|---|---|---|---|---|---|---|---|---|
| Model | Max Driver Current (mA) | Max Ambient C° (F°) | Class I, Division 2 Groups A, B, C, D ③ | Class I, Zone 2 Group AEx ec IIC | Class II, Division 1, Groups E, F, G ④ | Zone 20, Group IIIC, | Zone 21, AEx tb IIIC | Simultaneous ③ Class I, Division 2 / Class II, Division 1 |
| VMV3L | 40 (104) | T4A | T4 | T6 | T6 | T85°C | T4A | T5 |
| | 55 (131) | T4 | T4 | T6 | T6 | T85°C | T4 | T4 |
| | 65 (149) | T4 | T4 | T5 | T5 | T100°C | T4 | T4 |
| VMV4L | 40 (104) | T4A | T4 | T6 | T6 | T85°C | T4A | T4 |
| | 55 (131) | T4 | T4 | T6 | T6 | T85°C | T4 | T3 |
| | 65 (149) | T4 | T4 | T5 | T5 | T100°C | T4 | T3 |
| VMV5L | 40 (104) | T4A | T4 | T6 | T6 | T85°C | T4A | T3 |
| | 55 (131) | T4 | T4 | T6 | T6 | T85°C | T4 | T3 |
| | 65 (149) | T4 | T4 | T5 | T5 | T100°C | T4 | T3 |

## NEC/CEC — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature ③④

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*Note: Supply Wire Temperature for all: +90 °C (+194 °F).*
*① AEx rating is only applicable to product configurations with terminal block wiring option.*
*② All values are typical (tolerance +/-10%).*
*③ T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*
*④ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 as designated by the NEC.*

# Contender™ LED Series Luminaires

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

## Fixture Unit — Driver Housing and Globe or Refractor

| Lumen Level | LED Wattage | Light Level Equivalent | NEMA Type | Catalog Number Polycarbonate Clear Globe ②③④ | Polycarbonate Diffused Globe ②③④ | Glass Globe ②③④ | With Type V Glass Refractor ②③④ |
|---|---|---|---|---|---|---|---|
| **Driver Housing** | | | | | | | |
| 3K | 28 | 70-100W HPS | Type V | **VMV3LCP5** | **VMV3LCD5** | **VMV3LCG5** | **VMV3LCJ5** |
| 4K | 38 | 100-150W HPS | Type V | **VMV4LCP5** | **VMV4LCD5** | **VMV4LCG5** | **VMV4LCJ5** |
| 5K | 48 | 150-175W HPS | Type V | **VMV5LCP5** | **VMV5LCD5** | **VMV5LCG5** | **VMV5LCJ5** |

## Accessories and Replacement Parts

| | | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|
| **Globes** | | | | |
| | | Clear Globe — Polycarbonate | 0.2 (0.5) | **VPGL-LED** |
| | | Diffused Globe — Polycarbonate | 0.2 (0.5) | **VPGL-DIFF** |
| | | Clear Globe — Glass | 0.9 (1.9) | **VPGL-GLASS** |
| | | **Light Distribution** | **Weight in kg (lbs)** | **Catalog Number** |
| **Prismatic Glass Refractor — All Heat-Resistant** | | | | |
| | | Short Prismatic Glass Refractor — NEMA Type V | 1.7 (3.7) | **LPG-R5S** |
| | | **Description** | **Weight in kg (lbs)** | **Catalog Number** |
| **Guards** | | | | |
| | Globe Guard Short Refractor Guard | Globe Guard | 0.2 (0.4) | **MGU1** |
| | | Short Refractor Guard for LPG-R5S | 0.3 (0.7) | **KRG2S** |
| **Reflector** | | | | |
| | | 30° Angle White Polyester Reflectors | 1.3 (2.7) | **CMR-4AN** |
| **Visor** | | | | |
| | | Electrostatically applied gray epoxy powder coat finish on Aluminum Visor | 0.4 (0.9) | **MMVISOR** |
| **Safety Cable** | | | | |
| | | Stainless steel | 0.2 (0.4) | **LEDSC** |

*① AEx rating is only applicable to product configurations with terminal block wiring option*
*② For 120-277 Vac, use suffix **-BU**. For 347-480 Vac, use suffix **-BH.***
*③ Guards are available for fixtures with glass globe or refractor. See Accessories and Replacement Parts table for ordering information.*
*④ Correlated Color Temperature (CCT) indicated by C, N or W; C = Cool, 5000K CCT, N = Neutral, 4000K CCT, W = Warm, 3000K CCT. Example: **VMV5LCD5BU.***

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



### Replacement Drivers

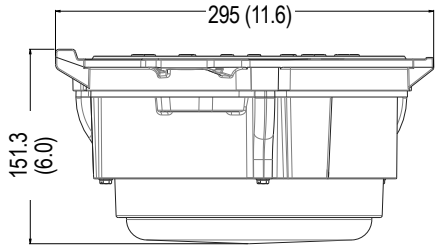
| Model | Voltage | Driver Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|
| VMV3L | BU | 50 Watt | 720mA | **APMS050C135UD72** |
| | BH | | 720mA | **APMS050C135HD72** |
| VMV4L | BU | 50 Watt | 1000mA | **APMS050C135UD10** |
| | BH | | 1000mA | **APMS050C135HD10** |
| VMV5L | BU | 50 Watt | 1300mA | **APMS050C135UD13** |
| | BH | | 1300mA | **APMS050C135HD13** |

### Luminaire Weights

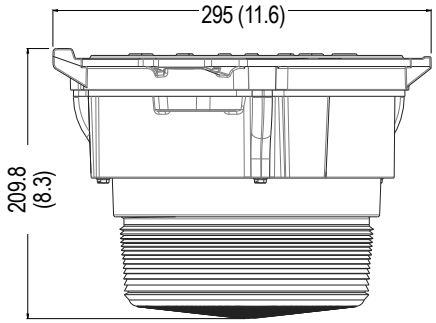
| Description | Weight kg (lb) |
|---|---|
| Fixture Unit with Polycarbonate Clear Globe | 5.3 (11.8) |
| Fixture Unit with Polycarbonate Diffused Globe | 5.3 (11.8) |
| Fixture Unit with Polycarbonate Glass Globe | 5.9 (13.0) |
| Fixture Unit with Short Prismatic Glass Refractor | 6.7 (14.9) |

### Dimensions in Millimeters (Inches)

**Clear/Diffused/Glass Globes**




**Short Prismatic Glass Refractor**




*① AEx rating is only applicable to product configurations with terminal block wiring option*

# Contender™ LED Series Luminaires

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

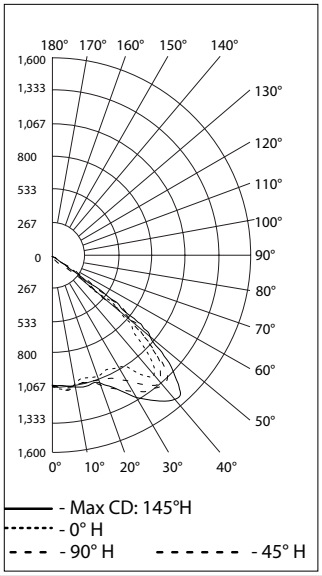
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

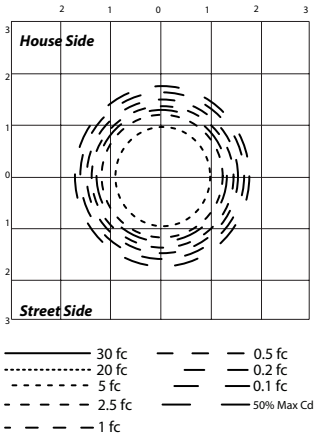
REPORT NUMBER: **VMV3LCP5BU**

Luminaire Lumens 3,198

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 932.7 | 29.2% |
| 0-40 | 1,750.7 | 54.7% |
| 0-60 | 3,144.3 | 98.3% |
| 60-90 | 48.0 | 1.5% |
| 70-100 | 17.6 | 0.6% |
| 90-120 | 4.8 | 0.2% |
| 0-90 | 3,192.3 | 99.8% |
| 90-180 | 5.7 | 0.2% |
| 0-180 | 3,198.0 | 100% |

**LUMENS PER ZONE**

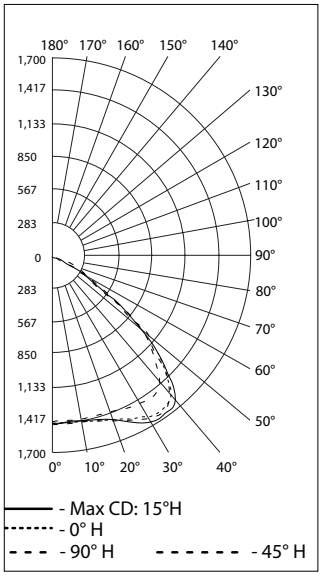
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 102.0 | 3.2% | 90-100 | 1.9 | 0.1% |
| 10-20 | 302.3 | 9.5% | 100-110 | 1.9 | 0.1% |
| 20-30 | 528.5 | 16.5% | 110-120 | 1.0 | 0% |
| 30-40 | 817.9 | 25.6% | 120-130 | 0.8 | 0% |
| 40-50 | 969.4 | 30.3% | 130-140 | 0.0 | 0% |
| 50-60 | 424.2 | 13.3% | 140-150 | 0.0 | 0% |
| 60-70 | 32.3 | 1.0% | 150-160 | 0.0 | 0% |
| 70-80 | 10.3 | 0.3% | 160-170 | 0.0 | 0% |
| 80-90 | 5.4 | 0.2% | 170-180 | 0.0 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

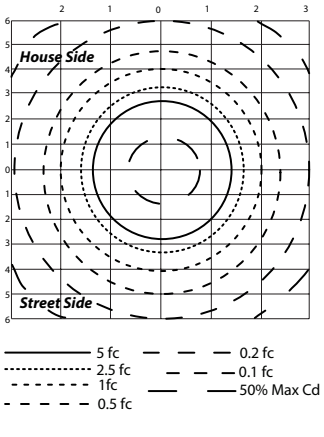
REPORT NUMBER: **VMV3LCD5BU**

Luminaire Lumens 3,103

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 903.1 | 29.1% |
| 0-40 | 1,609.3 | 51.9% |
| 0-60 | 2,795.0 | 90.1% |
| 60-90 | 283.4 | 9.1% |
| 70-100 | 107.9 | 3.5% |
| 90-120 | 24.0 | 0.8% |
| 0-90 | 3,078.4 | 99.2% |
| 90-180 | 25.3 | 0.8% |
| 0-180 | 3,103.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 100.3 | 3.2% | 90-100 | 9.0 | 0.3% |
| 10-20 | 298.2 | 9.6% | 100-110 | 10.7 | 0.3% |
| 20-30 | 504.6 | 16.3% | 110-120 | 4.3 | 0.1% |
| 30-40 | 706.2 | 22.8% | 120-130 | 1.2 | 0% |
| 40-50 | 735.2 | 23.7% | 130-140 | 0.1 | 0% |
| 50-60 | 450.5 | 14.5% | 140-150 | 0.0 | 0% |
| 60-70 | 184.5 | 5.9% | 150-160 | 0.0 | 0% |
| 70-80 | 75.4 | 2.4% | 160-170 | 0.0 | 0% |
| 80-90 | 23.5 | 0.8% | 170-180 | 0.0 | 0% |

*① AEx rating is only applicable to product configurations with terminal block wiring option*

# Contender™ LED Series Luminaires

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

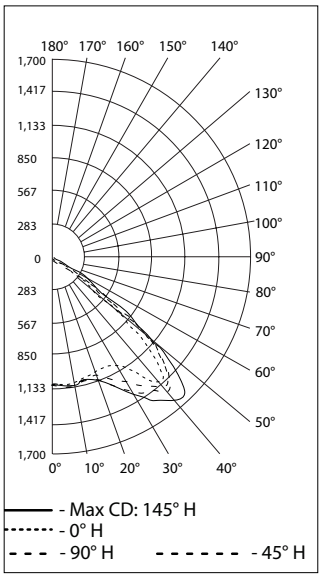
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

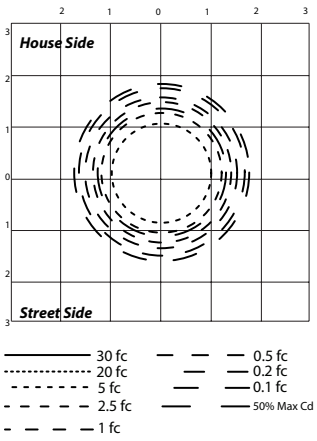
REPORT NUMBER: **VMV3LCG5BU**

Luminaire Lumens 3,334

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 960.0 | 28.8% |
| 0-40 | 1,828.8 | 54.8% |
| 0-60 | 3,298.1 | 98.9% |
| 60-90 | 32.1 | 1% |
| 70-100 | 8.4 | 0.3% |
| 90-120 | 3.9 | 0.1% |
| 0-90 | 3,330.2 | 99.9% |
| 90-180 | 4.2 | 0.1% |
| 0-180 | 3,334.5 | 100% |

**LUMENS PER ZONE**

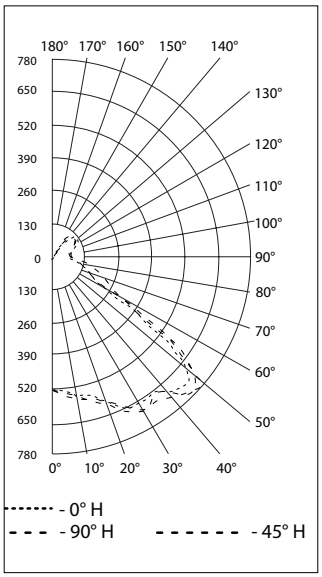
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 105.6 | 3.2% | 90-100 | 1.1 | 0% |
| 10-20 | 309.3 | 9.3% | 100-110 | 1.2 | 0% |
| 20-30 | 545.0 | 16.3% | 110-120 | 1.6 | 0% |
| 30-40 | 868.8 | 26.1% | 120-130 | 0.3 | 0% |
| 40-50 | 1,049.7 | 31.5% | 130-140 | 0.0 | 0% |
| 50-60 | 419.6 | 12.6% | 140-150 | 0.1 | 0% |
| 60-70 | 24.8 | 0.7% | 150-160 | 0.0 | 0% |
| 70-80 | 4.9 | 0.1% | 160-170 | 0.0 | 0% |
| 80-90 | 2.4 | 0.1% | 170-180 | 0.0 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

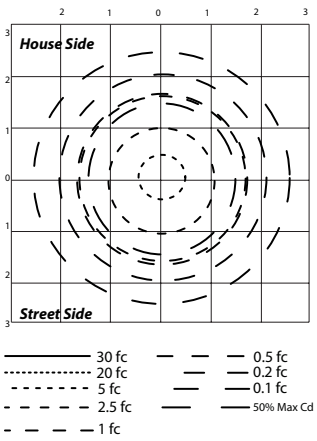
REPORT NUMBER: **VMV3LCJ5BU**

Luminaire Lumens 3,020

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 526.8 | 17.4% |
| 0-40 | 959.4 | 31.8% |
| 0-60 | 2,035.0 | 67.4% |
| 60-90 | 516.7 | 17.1% |
| 70-100 | 363.7 | 12% |
| 90-120 | 231.1 | 7.6% |
| 0-90 | 2,551.7 | 84.5% |
| 90-180 | 468.9 | 15.5% |
| 0-180 | 3,020.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 52.5 | 1.7% | 90-100 | 81.0 | 2.7% |
| 10-20 | 167.2 | 5.5% | 100-110 | 70.8 | 2.3% |
| 20-30 | 307.0 | 10.2% | 110-120 | 79.3 | 2.6% |
| 30-40 | 432.6 | 14.3% | 120-130 | 104.8 | 3.5% |
| 40-50 | 573.9 | 19.0% | 130-140 | 90.3 | 3% |
| 50-60 | 501.7 | 16.6% | 140-150 | 37.8 | 1.3% |
| 60-70 | 234.1 | 7.7% | 150-160 | 4.9 | 0.2% |
| 70-80 | 167.4 | 5.5% | 160-170 | 0.0 | 0% |
| 80-90 | 115.3 | 3.8% | 170-180 | 0.0 | 0% |

*① AEx rating is only applicable to product configurations with terminal block wiring option*

# Contender™ LED Series Luminaires

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

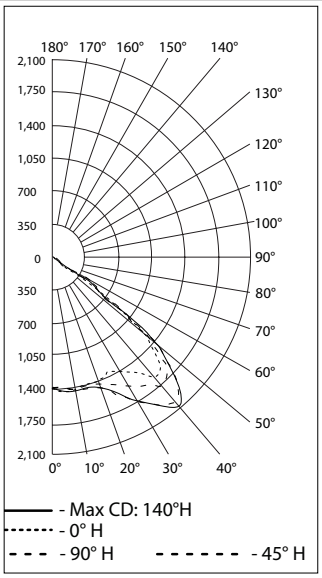
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

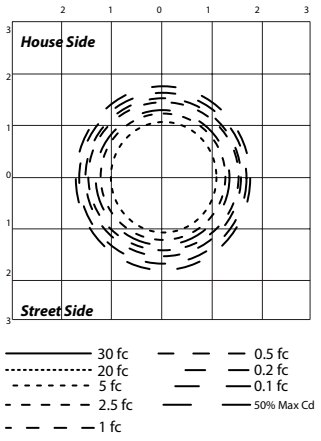
REPORT NUMBER: **VMV4LCP5BU**

Luminaire Lumens 4,234

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,229.4 | 29% |
| 0-40 | 2,320.7 | 54.8% |
| 0-60 | 4,178.7 | 98.7% |
| 60-90 | 49.5 | 1.2% |
| 70-100 | 18.7 | 0.4% |
| 90-120 | 5.2 | 0.1% |
| 0-90 | 4,228.2 | 99.9% |
| 90-180 | 6.0 | 0.1% |
| 0-180 | 4,234.3 | 100% |

**LUMENS PER ZONE**

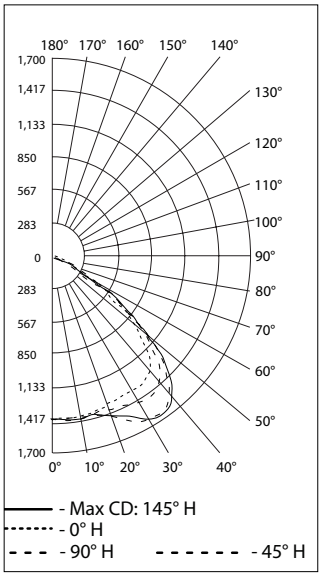
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 134.1 | 3.2% | 90-100 | 2.3 | 0.1% |
| 10-20 | 396.8 | 9.4% | 100-110 | 1.9 | 0% |
| 20-30 | 698.5 | 16.5% | 110-120 | 1.0 | 0% |
| 30-40 | 1,091.3 | 25.8% | 120-130 | 0.8 | 0% |
| 40-50 | 1,302.8 | 30.8% | 130-140 | 0.0 | 0% |
| 50-60 | 555.3 | 13.1% | 140-150 | 0.0 | 0% |
| 60-70 | 33.0 | 0.8% | 150-160 | 0.0 | 0% |
| 70-80 | 10.5 | 0.2% | 160-170 | 0.0 | 0% |
| 80-90 | 5.9 | 0.1% | 170-180 | 0.0 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

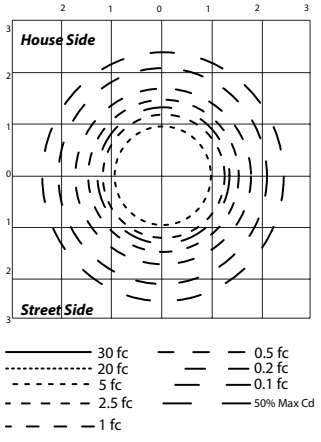
REPORT NUMBER: **VMV4LCD5BU**

Luminaire Lumens 4,151

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,206.1 | 29.1% |
| 0-40 | 2,153.6 | 51.9% |
| 0-60 | 3,742.1 | 90.2% |
| 60-90 | 375.5 | 9% |
| 70-100 | 142.2 | 3.4% |
| 90-120 | 31.3 | 0.8% |
| 0-90 | 4,117.6 | 99.2% |
| 90-180 | 33.1 | 0.8% |
| 0-180 | 4,150.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 133.5 | 3.2% | 90-100 | 11.7 | 0.3% |
| 10-20 | 397.0 | 9.6% | 100-110 | 14.0 | 0.3% |
| 20-30 | 675.6 | 16.3% | 110-120 | 5.5 | 0.1% |
| 30-40 | 947.5 | 22.8% | 120-130 | 1.6 | 0% |
| 40-50 | 986.1 | 23.8% | 130-140 | 0.1 | 0% |
| 50-60 | 602.4 | 14.5% | 140-150 | 0.1 | 0% |
| 60-70 | 245.0 | 5.9% | 150-160 | 0.0 | 0% |
| 70-80 | 99.5 | 2.4% | 160-170 | 0.0 | 0% |
| 80-90 | 30.9 | 0.7% | 170-180 | 0.0 | 0% |

*① AEx rating is only applicable to product configurations with terminal block wiring option*

# Contender™ LED Series Luminaires

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

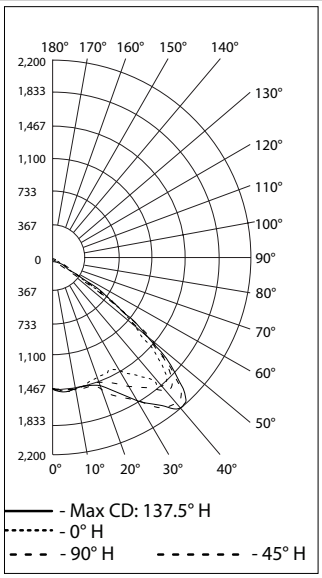
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

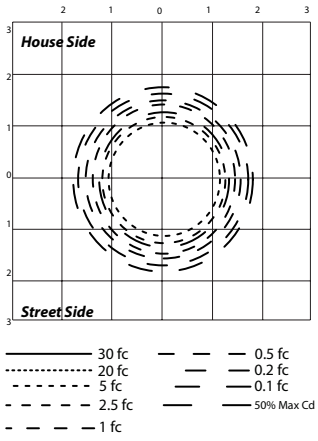
REPORT NUMBER: **VMV4LCG5BU**

Luminaire Lumens 4,468

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,282.8 | 28.7% |
| 0-40 | 2,447.8 | 54.8% |
| 0-60 | 4,419.1 | 98.9% |
| 60-90 | 42.9 | 1% |
| 70-100 | 11.0 | 0.2% |
| 90-120 | 4.8 | 0.1% |
| 0-90 | 4,461.9 | 99.9% |
| 90-180 | 6.1 | 0.1% |
| 0-180 | 4,468.0 | 100% |

**LUMENS PER ZONE**

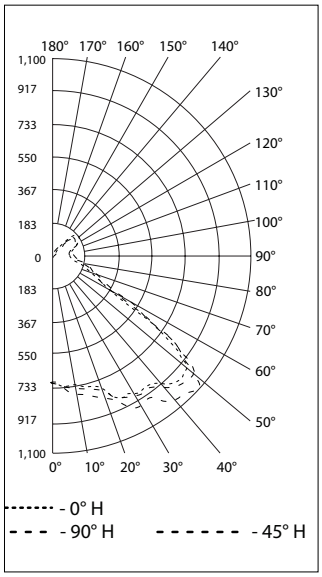
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 140.3 | 3.1% | 90-100 | 1.2 | 0% |
| 10-20 | 411.6 | 9.2% | 100-110 | 1.4 | 0% |
| 20-30 | 730.9 | 16.4% | 110-120 | 2.1 | 0% |
| 30-40 | 1,164.9 | 26.1% | 120-130 | 0.6 | 0% |
| 40-50 | 1,407.0 | 31.5% | 130-140 | 0.1 | 0% |
| 50-60 | 564.3 | 12.6% | 140-150 | 0.4 | 0% |
| 60-70 | 33.0 | 0.7% | 150-160 | 0.2 | 0% |
| 70-80 | 6.5 | 0.1% | 160-170 | 0.1 | 0% |
| 80-90 | 3.3 | 0.1% | 170-180 | 0.0 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

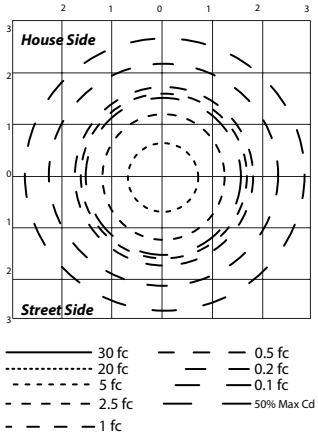
REPORT NUMBER: **VMV4LCJ5BU**

Luminaire Lumens 4,020

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 699.2 | 17.4% |
| 0-40 | 1,275.6 | 31.7% |
| 0-60 | 2,714.3 | 67.5% |
| 60-90 | 689.0 | 17.1% |
| 70-100 | 484.7 | 12.1% |
| 90-120 | 307.5 | 7.6% |
| 0-90 | 3,403.3 | 84.6% |
| 90-180 | 617.3 | 15.4% |
| 0-180 | 4,020.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 70.0 | 1.7% | 90-100 | 107.5 | 2.7% |
| 10-20 | 222.3 | 5.5% | 100-110 | 94.0 | 2.3% |
| 20-30 | 406.9 | 10.1% | 110-120 | 106.0 | 2.6% |
| 30-40 | 576.4 | 14.3% | 120-130 | 137.5 | 3.4% |
| 40-50 | 768.1 | 19.1% | 130-140 | 116.8 | 2.9% |
| 50-60 | 670.6 | 16.7% | 140-150 | 49.1 | 1.2% |
| 60-70 | 311.8 | 7.8% | 150-160 | 6.2 | 0.2% |
| 70-80 | 223.5 | 5.6% | 160-170 | 0.0 | 0% |
| 80-90 | 153.7 | 3.8% | 170-180 | 0 | 0% |

*① AEx rating is only applicable to product configurations with terminal block wiring option*

# Contender™ LED Series Luminaires

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

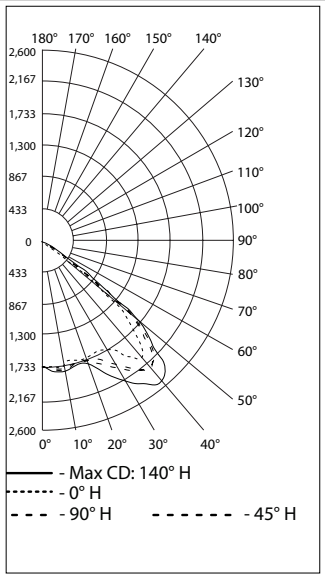
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

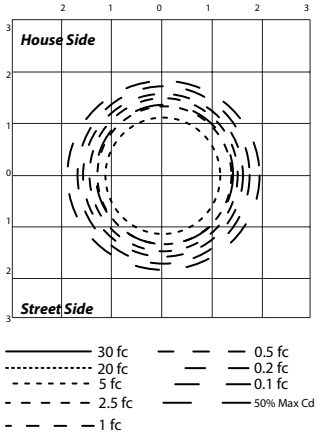
REPORT NUMBER: **VMV5LCP5BU**

Luminaire Lumens 5,330

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,525.8 | 28.6% |
| 0-40 | 2,872.5 | 53.9% |
| 0-60 | 5,237.4 | 98.3% |
| 60-90 | 82.4 | 1.5% |
| 70-100 | 29.4 | 0.6% |
| 90-120 | 7.9 | 0.1% |
| 0-90 | 5,319.8 | 99.8% |
| 90-180 | 10.7 | 0.2% |
| 0-180 | 5,330.5 | 100% |

**LUMENS PER ZONE**

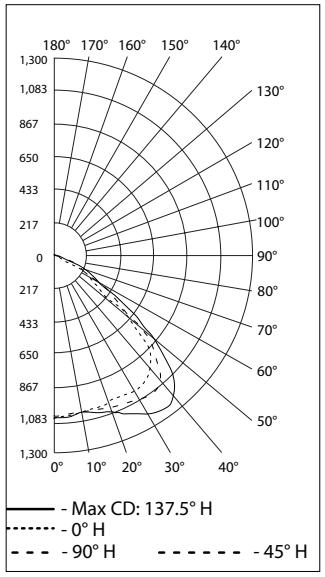
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 166.7 | 3.1% | 90-100 | 3.1 | 0.1% |
| 10-20 | 493.8 | 9.3% | 100-110 | 3.0 | 0.1% |
| 20-30 | 865.2 | 16.2% | 110-120 | 1.7 | 0% |
| 30-40 | 1,346.8 | 25.3% | 120-130 | 0.9 | 0% |
| 40-50 | 1,619.8 | 30.4% | 130-140 | 0.6 | 0% |
| 50-60 | 745.2 | 14.0% | 140-150 | 0.6 | 0% |
| 60-70 | 56.1 | 1.1% | 150-160 | 0.4 | 0% |
| 70-80 | 17.0 | 0.3% | 160-170 | 0.2 | 0% |
| 80-90 | 9.2 | 0.2% | 170-180 | 0.1 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

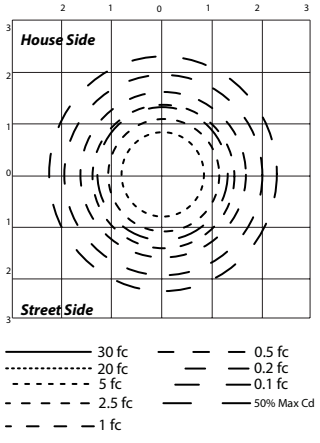
REPORT NUMBER: **VMV5LCD5BU**

Luminaire Lumens 5,150

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,484.5 | 28.8% |
| 0-40 | 2,652.4 | 51.5% |
| 0-60 | 4,632.4 | 89.9% |
| 60-90 | 475.6 | 9.2% |
| 70-100 | 180.0 | 3.5% |
| 90-120 | 39.1 | 0.8% |
| 0-90 | 5,108.0 | 99.2% |
| 90-180 | 42.1 | 0.8% |
| 0-180 | 5,150.1 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 164.4 | 3.2% | 90-100 | 14.5 | 0.3% |
| 10-20 | 488.7 | 9.5% | 100-110 | 17.8 | 0.3% |
| 20-30 | 831.4 | 16.1% | 110-120 | 6.9 | 0.1% |
| 30-40 | 1,167.9 | 22.7% | 120-130 | 2.0 | 0% |
| 40-50 | 1,223.7 | 23.8% | 130-140 | 0.3 | 0% |
| 50-60 | 756.3 | 14.7% | 140-150 | 0.2 | 0% |
| 60-70 | 310.0 | 6.0% | 150-160 | 0.2 | 0% |
| 70-80 | 125.8 | 2.4% | 160-170 | 0.1 | 0% |
| 80-90 | 39.8 | 0.8% | 170-180 | 0.1 | 0% |

*① AEx rating is only applicable to product configurations with terminal block wiring option*

# Contender™ LED Series Luminaires

Enclosed and Gasketed Fixtures — Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC ① | Class II, Division 1, Groups E,F,G | Zone 21, AEx tb IIIC ① | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

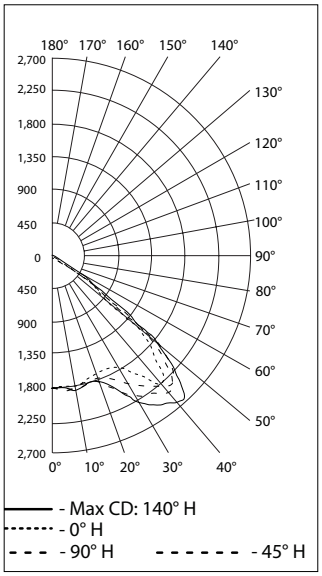
Photometric Data — DATA SHOWN IS ABSOLUTE

Type V, Clear Polycarbonate, 5000K CCT

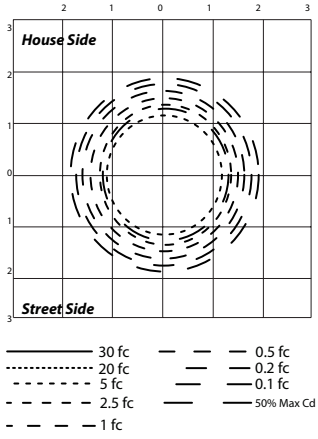
REPORT NUMBER: **VMV5LCG5BU**

Luminaire Lumens 5,529

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,575.5 | 28.5% |
| 0-40 | 2,990.6 | 54.1% |
| 0-60 | 5,434.7 | 98.3% |
| 60-90 | 81.6 | 1.5% |
| 70-100 | 27.7 | 0.5% |
| 90-120 | 10.6 | 0.2% |
| 0-90 | 5,516.3 | 99.8% |
| 90-180 | 13.4 | 0.2% |
| 0-180 | 5,529.7 | 100% |

**LUMENS PER ZONE**

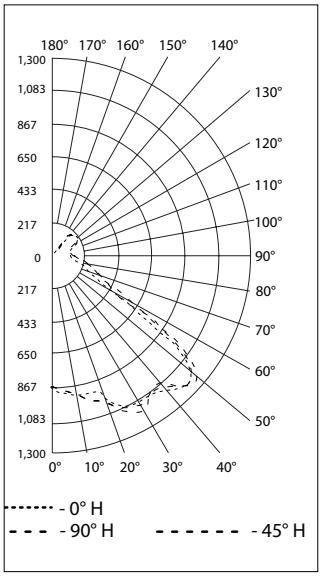
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 173.1 | 3.1% | 90-100 | 3.8 | 0.1% |
| 10-20 | 506.7 | 9.2% | 100-110 | 3.3 | 0.1% |
| 20-30 | 895.7 | 16.2% | 110-120 | 3.5 | 0.1% |
| 30-40 | 1,415.1 | 25.6% | 120-130 | 1.3 | 0% |
| 40-50 | 1,712.6 | 31.0% | 130-140 | 0.5 | 0% |
| 50-60 | 731.4 | 13.2% | 140-150 | 0.4 | 0% |
| 60-70 | 57.6 | 1.0% | 150-160 | 0.4 | 0% |
| 70-80 | 15.7 | 0.3% | 160-170 | 0.2 | 0% |
| 80-90 | 8.2 | 0.1% | 170-180 | 0.1 | 0% |

**Type V, Clear Polycarbonate, 5000K CCT**

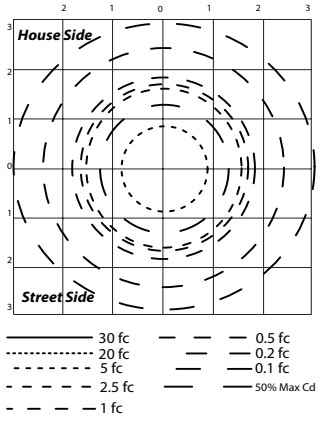
REPORT NUMBER: **VMV5LCJ5BU**

Luminaire Lumens 4,940

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 872.9 | 17.7% |
| 0-40 | 1,570.0 | 31.8% |
| 0-60 | 3,310.7 | 67% |
| 60-90 | 861.5 | 17.4% |
| 70-100 | 606.8 | 12.3% |
| 90-120 | 378.1 | 7.7% |
| 0-90 | 4,172.1 | 84.4% |
| 90-180 | 768.2 | 15.6% |
| 0-180 | 4,940.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 85.6 | 1.7% | 90-100 | 134.2 | 2.7% |
| 10-20 | 278.2 | 5.6% | 100-110 | 116.1 | 2.3% |
| 20-30 | 509.2 | 10.3% | 110-120 | 127.8 | 2.6% |
| 30-40 | 697.1 | 14.1% | 120-130 | 169.8 | 3.4% |
| 40-50 | 923.1 | 18.7% | 130-140 | 148.5 | 3% |
| 50-60 | 817.6 | 16.5% | 140-150 | 63.2 | 1.3% |
| 60-70 | 388.8 | 7.9% | 150-160 | 8.4 | 0.2% |
| 70-80 | 280.0 | 5.7% | 160-170 | 0.1 | 0% |
| 80-90 | 192.7 | 3.9% | 170-180 | 0 | 0% |

*① AEx rating is only applicable to product configurations with terminal block wiring option*

# Code•Master™ LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof
Hazardous Locations.

**NEC/CEC: Class I, Division 1 and 2, Groups B, C, D ① | Class I, Zone 1, Groups IIA, IIB, IIB + $H_2$ | Class II, Division 1, Group E, F, G | Class II, Division 2, Group F, G | Class III | Type 3R, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘ | Approved for use in Paint Spray Booths**



## Applications

- Explosionproof fixtures suitable for use in:
  - — A wide range of hazardous areas where ignitable vapors, dust, moisture and corrosive elements are present.
  - — Areas where access to relamp is difficult, reliability is essential, and environment is costly to maintain. Consistent light levels maintained regardless of cold temperatures.
  - — Areas requiring frequent on-and-off of lights or power cycling- no warm up time required.
  - — Type 4X, marine, wet locations and hose-down environments.
  - — Areas with high energy costs - Code•Master LED consumes 50% or more less power than its HID equivalent.
- Typical applications include:
  - — Chemical
  - — Oil, Gas, and Petrochemical
  - — Pulp and Paper
  - — Foundries
  - — Manufacturing
  - — Waste and sewage treatment
  - — Pharmaceutical
  - — Mining
  - — Power Generation
  - — Paint Spray Booths
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

## Features

- Fixture operates safely in high ambient temperatures -40 ˚C up to +65 ˚C (-40 ˚F up to +149 ˚F).
- 60,000+ hours rated life eliminates the need for frequent relamping.
- Choice of color temperature (CCT): 5000K cool white, 4000K neutral white or 3000K warm white.
- Choice of optics for optimal light distribution in a variety of applications, NEMA Type V and Type V Wide.
- Arrangement of heat-producing components results in more efficient heat dissipation for cooler fixture operation.
- All threaded joints are flame-tight.
- Fixture housing and mounting hoods are copperfree cast aluminum with baked epoxy finish. All exposed hardware is stainless steel.
- Aluminum body utilizes the same Code•Master HID mounting hoods, and is an easy retrofit for existing Code•Master HID installations; can be pendant, ceiling, wall, or stanchion mounted.
- Acme double-lead threads speed installation and fixture removal from mounting hood – only half as many turns are required as for single-lead threads. The threads do not stick or gall, eliminating the troublesome problems often encountered with single lead threads during fixture unit removal.
- Safe, easy servicing without disconnecting any wiring. “Wireless” fixture unit easily threads off mounting hood for convenient servicing or for immediate replacement with a “stand-by” unit.
- Factory sealed. External seals not required.
- Globe and driver are all field replaceable.
- LED arrays generate light outputs from 3,700 to 19,000+ lumens (an equivalent of 100 W HID to 750 W HID lamps) providing exceptional efficacy.
- Choice of replaceable clear or diffused glass globe.

- Universal, high efficiency, drivers cover voltage requirements for 120-277 Vac 50/60 Hz, 125-300 Vdc and 347-480 Vac, 50/60 Hz, Volts +/- 10%.
- 6 kV standard surge suppression for 347-480 Vac and 120-277 Vac input.
- Heavy duty, high temperature silicone gaskets.
- Reported L70 is > 76,000 hours.
- Photometric data and electronic drawings available upon request.
- Approved for use in paint spray booths.
- 5 year standard warranty.

## Standard Materials

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- All hardware, catch assemblies and yoke bracket: stainless steel
- Gaskets: silicone
- Globe: explosionproof glass

## Standard Finishes

- Mounting hoods, bodies, and guards: baked gray epoxy clad finish, electrostatically applied for complete uniform protection

## Options

- Safety cable, add suffix -**C**.
- Lens guard, add suffix -**G**.
- Fusing, add suffix -**F** ⌘.

## NEC/CEC Certifications and Compliances

- UL Standard: UL 50; UL 50E; UL 844; UL 1598; UL 1598A;UL 8750
- CSA Standard: CAN/CSA-C22.2 No. 94.1-07 (R2012); CAN/ CSA-C22.2 No. 94.2-07 (R2012); CAN/CSA-C22.2 No. 137- M1981 (R2009); CAN/ CSA-C22.2 No. 250.0-08 (R2013); CAN/ CSA-C22.2 No. 250.13; CAN/ CSA-C22.2 No. 60529-05 (R2010)
- ANSI Standard: ANSI/IEC 60529
- cCSAus Certified: 70030675

## Design Lights™ Consortium

- Check DLC QPL for current list of products

## Related Products

- Code•Master Jr. LED Factory Sealed Luminaires
- A-51 LED Factory Sealed Luminaires

*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

# Code•Master™ LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof
Hazardous Locations.

**NEC/CEC: Class I, Division 1 and 2, Groups B, C, D ⓘ | Class I, Zone 1, Groups IIA, IIB, IIB + $H_2$ | Class II, Division 1, Group E, F, G | Class II, Division 2, Group F, G | Class III | Type 3R, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘ | Approved for use in Paint Spray Booths**



## Illustrated Features

**Mounting Hood Compatibility**
Code•Master LED is compatible with existing Code•Master mounting hoods. For easy installation, install and wire the mounting hood and simply thread in fixture. Double lead Acme threads are provided for ease of installation.

**Rugged and Durable Housing**
Mounting hoods and bodies are copper free aluminum with baked epoxy-clad finish, electrostatically applied for complete uniform protection.

**Optional Safety Cable**
Provides secondary retention for lighting fixtures.

**Driver Assembly**
Driver can be easily accessed and replaced.

**Optional Fusing ⌘**
Fuse kit includes fuse, fuse holder and necessary hardware for field installation.

**Optional Trunnion/Yoke Mount**
Trunnion/yoke mount allows the fixture to be aimed in a desired position.

**Replaceable Globe Assembly**
The replaceable globe assembly is available with clear or diffuse glass.

**Optional Wire Guard**
Stainless steel wire guard can be used for additional protection.

*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

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## Code•Master™ LED Factory Sealed Luminaires Family Tree

**Pendant**
One Hub
3/4" NPT

**CAP75**

**Ceiling**
Four Hubs
Three Close-Up Plugs
3/4" NPT

**CAC75**

**Bracket**
Four Hubs
Three Close-Up Plugs
3/4" NPT

**CALB75**

**25° Stanchion**
One Hub
1-1/4" NPT 1-1/2" NPT

**CAS150** **CAS150B ①**

**Code•Master LED Fixture Unit**

**CMLED**

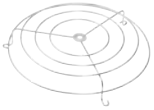
**Clear Glass Globe**

**CGL-CLEAR**

**Diffused Glass Globe**

**CGL-DIFF**

**Globe Guard**
(Optional)



**CMLEDGU**

*① When using the 25° Stanchion mounting hood in group B applications part number CAS-150B must be used.*
*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

# Code•Master™ LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof
Hazardous Locations.

**NEC/CEC: Class I, Division 1 and 2, Groups B, C, D ① | Class I, Zone 1, Groups IIA, IIB, IIB + $H_2$ | Class II, Division 1, Group E, F, G | Class II, Division 2, Group F, G | Class III | Type 3R, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘ | Approved for use in Paint Spray Booths**



**Order Using Catalog Numbering Guide — Code•Master™ LED Factory Sealed Luminaires**

| CMLED | A | 17 | 2 | N | G | 5 | BU | C |
|---|---|---|---|---|---|---|---|---|
| Series Prefix:<br>CMLED - NEC/CEC Certified Code•Master LED Series | Mounting:<br>A - Pendant<br>C - Ceiling<br>S - 25° Stanchion<br>W - Wall<br>Blank - No Mounting Hood | Lumen (Nominal) ①:<br>10 - 3,700<br>15 - 5,400<br>17 - 7,900<br>25 - 10,000<br>35 - 11,600<br>40 - 13600<br>75 - 16700<br>90 - 19300 | Hub Size:<br>2 - 3/4" NPT<br>3 - 1" NPT<br>4 - 1-1/4" NPT stanchion<br>5 - 1-1/2" NPT stanchion<br>Blank - No hub size needed if no mounting hood | Color Temperature (CCT):<br>Blank - Cool, 5000K<br>N - Neutral, 4000K<br>W - Warm, 3000K | Optical Assembly:<br>G - Clear Glass Globe<br>D - Diffused Glass Globe | Light Distribution Pattern:<br>5 - NEMA Type V Symmetrical<br>W - NEMA Type V Wide | Voltage:<br>BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc ①<br>BH - 347-480 Vac, 50/60 Hz | Options:<br>G - Lens Guard<br>C - Safety Cable<br>F - Fusing ⌘<br>Blank - No Options |

*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*① Nominal light value for 5000K clear glass globe.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

# Code•Master™ LED Factory Sealed Luminaires

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**Lumen Output (Efficacy) ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass Globe** | | | | | | | | | | | | | | |
| CMLED10 | 100W | Type V | 3000K | 80 | 3200 | 106 | 4000K | 80 | 3600 | 117 | 5000K | 70 | 3700 | 123 |
| | | Type V Wide | 3000K | 80 | 3000 | 97 | 4000K | 80 | 3300 | 108 | 5000K | 70 | 3300 | 108 |
| CMLED15 | 150W | Type V | 3000K | 80 | 4600 | 104 | 4000K | 80 | 5100 | 115 | 5000K | 70 | 5400 | 120 |
| | | Type V Wide | 3000K | 80 | 4200 | 95 | 4000K | 80 | 4700 | 105 | 5000K | 70 | 5000 | 112 |
| CMLED17 | 175W | Type V | 3000K | 80 | 7200 | 120 | 4000K | 80 | 7900 | 131 | 5000K | 70 | 7900 | 132 |
| | | Type V Wide | 3000K | 80 | 6500 | 108 | 4000K | 80 | 7100 | 118 | 5000K | 70 | 7200 | 120 |
| CMLED25 | 250W | Type V | 3000K | 80 | 9100 | 119 | 4000K | 80 | 9900 | 130 | 5000K | 70 | 10000 | 130 |
| | | Type V Wide | 3000K | 80 | 8000 | 105 | 4000K | 80 | 8800 | 115 | 5000K | 70 | 8900 | 117 |
| CMLED35 | 350W | Type V | 3000K | 80 | 10600 | 117 | 4000K | 80 | 11600 | 128 | 5000K | 70 | 11600 | 128 |
| | | Type V Wide | 3000K | 80 | 9400 | 103 | 4000K | 80 | 10300 | 113 | 5000K | 70 | 10400 | 115 |
| CMLED40 | 400W | Type V | 3000K | 80 | 12000 | 117 | 4000K | 80 | 13500 | 131 | 5000K | 70 | 13600 | 131 |
| | | Type V Wide | 3000K | 80 | 10600 | 103 | 4000K | 80 | 11600 | 112 | 5000K | 70 | 11800 | 114 |
| CMLED75 | 600W | Type V | 3000K | 80 | 14700 | 112 | 4000K | 80 | 16600 | 127 | 5000K | 70 | 16700 | 126 |
| | | Type V Wide | 3000K | 80 | 13000 | 99 | 4000K | 80 | 14200 | 109 | 5000K | 70 | 14500 | 110 |
| CMLED90 | 750W | Type V | 3000K | 80 | 17100 | 109 | 4000K | 80 | 19300 | 122 | 5000K | 70 | 19300 | 123 |
| | | Type V Wide | 3000K | 80 | 15000 | 95 | 4000K | 80 | 16400 | 105 | 5000K | 70 | 16700 | 106 |
| **Diffused Glass Globe** | | | | | | | | | | | | | | |
| CMLED10 | 100W | Type V | 3000K | 80 | 2800 | 91 | 4000K | 80 | 3100 | 100 | 5000K | 70 | 3200 | 106 |
| | | Type V Wide | 3000K | 80 | 2300 | 76 | 4000K | 80 | 2600 | 84 | 5000K | 70 | 2600 | 84 |
| CMLED15 | 150W | Type V | 3000K | 80 | 4000 | 89 | 4000K | 80 | 4400 | 99 | 5000K | 70 | 4600 | 104 |
| | | Type V Wide | 3000K | 80 | 3300 | 75 | 4000K | 80 | 3700 | 83 | 5000K | 70 | 3900 | 88 |
| CMLED17 | 175W | Type V | 3000K | 80 | 5900 | 99 | 4000K | 80 | 6500 | 109 | 5000K | 70 | 6500 | 109 |
| | | Type V Wide | 3000K | 80 | 5200 | 86 | 4000K | 80 | 5600 | 94 | 5000K | 70 | 5700 | 95 |
| CMLED25 | 250W | Type V | 3000K | 80 | 7500 | 98 | 4000K | 80 | 8200 | 107 | 5000K | 70 | 8300 | 108 |
| | | Type V Wide | 3000K | 80 | 6400 | 84 | 4000K | 80 | 7000 | 91 | 5000K | 70 | 7100 | 92 |
| CMLED35 | 350W | Type V | 3000K | 80 | 8800 | 96 | 4000K | 80 | 9600 | 106 | 5000K | 70 | 9600 | 106 |
| | | Type V Wide | 3000K | 80 | 7500 | 82 | 4000K | 80 | 8200 | 90 | 5000K | 70 | 8300 | 91 |
| CMLED40 | 400W | Type V | 3000K | 80 | 9900 | 96 | 4000K | 80 | 11200 | 108 | 5000K | 70 | 11200 | 109 |
| | | Type V Wide | 3000K | 80 | 8500 | 82 | 4000K | 80 | 9200 | 90 | 5000K | 70 | 9400 | 91 |
| CMLED75 | 600W | Type V | 3000K | 80 | 12200 | 93 | 4000K | 80 | 13700 | 104 | 5000K | 70 | 13700 | 104 |
| | | Type V Wide | 3000K | 80 | 10400 | 79 | 4000K | 80 | 11300 | 86 | 5000K | 70 | 11500 | 88 |
| CMLED90 | 750W | Type V | 3000K | 80 | 14100 | 90 | 4000K | 80 | 15700 | 100 | 5000K | 70 | 15800 | 101 |
| | | Type V Wide | 3000K | 80 | 12000 | 76 | 4000K | 80 | 13100 | 83 | 5000K | 70 | 13200 | 84 |

*① All lumen values are typical (tolerance +/-10%).*
*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

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**Electrical Specifications ①**

| Model | Voltage | Input Power (Watts) | Input Current (Amp) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| CMLED10 | 120 Vac | 30 | 0.26 | >.95 | <20% |
| | 277 Vac | 31 | 0.12 | >.90 | <20% |
| | 125 Vdc | 31 | 0.25 | N/A | N/A |
| | 300 Vdc | 31 | 0.10 | N/A | N/A |
| | 347 Vac | 32 | 0.09 | >.95 | <20% |
| | 480 Vac | 32 | 0.07 | >.90 | <20% |
| CMLED15 | 120 Vac | 45 | 0.38 | >.99 | <20% |
| | 277 Vac | 44 | 0.17 | >.95 | <20% |
| | 125 Vdc | 45 | 0.36 | N/A | <20% |
| | 300 Vdc | 45 | 0.15 | N/A | <20% |
| | 347 Vac | 45 | 0.13 | >.95 | <20% |
| | 480 Vac | 45 | 0.10 | >.95 | <20% |
| CMLED17 | 120 Vac | 60 | 0.50 | >.99 | <20% |
| | 277 Vac | 59 | 0.24 | >.90 | <20% |
| | 125 Vdc | 60 | 0.98 | N/A | <20% |
| | 300 Vdc | 60 | 0.20 | N/A | <20% |
| | 347 Vac | 60 | 0.18 | >.95 | <20% |
| | 480 Vac | 60 | 0.14 | >.90 | <20% |
| CMLED25 | 120 Vac | 76 | 0.64 | >.99 | <20% |
| | 277 Vac | 75 | 0.29 | >.90 | <20% |
| | 125 Vdc | 77 | 0.62 | N/A | <20% |
| | 300 Vdc | 76 | 0.25 | N/A | <20% |
| | 347 Vac | 78 | 0.23 | >.95 | <20% |
| | 480 Vac | 78 | 0.17 | >.90 | <20% |
| CMLED35 | 120 Vac | 91 | 0.76 | >.99 | <20% |
| | 277 Vac | 89 | 0.34 | >.95 | <20% |
| | 125 Vdc | 91 | 0.73 | N/A | <20% |
| | 300 Vdc | 89 | 0.30 | N/A | <20% |
| | 347 Vac | 91 | 0.27 | >.99 | <20% |
| | 480 Vac | 91 | 0.20 | >.95 | <20% |
| CMLED40 | 120 Vac | 103 | 0.85 | >.95 | <20% |
| | 277 Vac | 98 | 0.39 | >.90 | <20% |
| | 125 Vdc | 101 | 0.81 | N/A | N/A |
| | 300 Vdc | 98 | 0.33 | N/A | N/A |
| | 347 Vac | 102 | 0.30 | >.99 | <20% |
| | 480 Vac | 102 | 0.22 | >.95 | <20% |
| CMLED75 | 120 Vac | 132 | 1.10 | >.99 | <20% |
| | 277 Vac | 126 | 0.48 | >.90 | <20% |
| | 125 Vdc | 130 | 1.04 | N/A | N/A |
| | 300 Vdc | 126 | 0.42 | N/A | N/A |
| | 347 Vac | 130 | 0.38 | >.99 | <20% |
| | 480 Vac | 130 | 0.28 | >.95 | <20% |
| CMLED90 | 120 Vac | 157 | 1.35 | >.99 | <20% |
| | 277 Vac | 155 | 0.58 | >.90 | <20% |
| | 125 Vdc | 161 | 1.29 | N/A | N/A |
| | 300 Vdc | 156 | 0.52 | N/A | N/A |
| | 347 Vac | 159 | 0.46 | >.99 | <20% |
| | 480 Vac | 158 | 0.33 | >.95 | <20% |

*① All values are typical (tolerance +/-10%).*
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**NEC/CEC Temperature Codes**

| Type ① | Ambient Temperature ° C (° F) | Supply Wire Temperature °C (°F) | Class I, Division 1 (Gas) | Class I, Zone 1 (Gas) | Class II Division 1 (Dust) and Simultaneous Exposure |
|---|---|---|---|---|---|
| CMLED10 | +40 (+104) | +90 (+104) | T6 | T6 | T6 |
| | +55 (+131) | +90 (+104) | T6 | T6 | T6 |
| | +65 (+140) | +90 (+104) | T6 | T6 | T6 |
| CMLED15 | +40 (++104) | +90 (+104) | T6 | T6 | T6 |
| | +55 (+131) | +90 (+104) | T6 | T6 | T6 |
| | +65 (+140) | +90 (+104) | T6 | T6 | T6 |
| CMLED17 | +40 (+104) | +90 (+104) | T6 | T6 | T6 |
| | +55 (+131) | +90 (+104) | T6 | T6 | T6 |
| | +65 (+140) | +90 (+104) | T5 | T5 | T5 |
| CMLED25 | +40 (+104) | +90 (+104) | T6 | T6 | T6 |
| | +55 (+131) | +90 (1+04) | T6 | T6 | T5 |
| | +65 (+140) | +90 (+104) | T5 | T5 | T5 |
| CMLED35 | +40 (+104) | +90 (+104) | T6 | T6 | T6 |
| | +55 (+131) | +90 (+104) | T5 | T5 | T75 |
| | +65 (+140) | +90 (+104) | T5 | T5 | T4A |
| CMLED40 | +40 (+104) | +90 (+104) | T6 | T6 | T6 |
| | +55 (+131) | +90 (+104) | T5 | T5 | T5 |
| | +65 (+140) | +90 (+104) | T4A | T4 | T4A |
| CMLED75 | +40 (+104) | +90 (+104) | T5 | T5 | T5 |
| | +55 (+131) | +90 (+104) | T5 | T5 | T4A |
| | +65 (+140) | +90 (+104) | T4A | T4 | T4A |
| CMLED90 | +40 (+104) | +90 (+104) | T5 | T5 | T4A |
| | +55 (+131) | +90 (+104) | T4A | T4 | T4A |

**"T" Numbers Represent the Maximum Surface Temperature for Class I, Division 1 locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations. ②③**

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*① T-Codes are using the "APMS" drivers.*
*② T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*
*③ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 as designated by the NEC.*
*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

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**Catalog Number for Driver Housing and Globe**

| | HID Equivalent | CCT | Optics | Weight in kg (lb) | Clear Globe ①②③④⑤ | Diffused Globe ②③④⑤ |
|---|---|---|---|---|---|---|
| | 100W | 5000K | Type V | 17.2 (38) | **CMLED10G5** | **CMLED10D5** |
| | 150W | 5000K | Type V | 17.2 (38) | **CMLED15G5** | **CMLED15D5** |
| | 175W | 5000K | Type V | 17.2 (38) | **CMLED17G5** | **CMLED17D5** |
| | 250W | 5000K | Type V | 17.2 (38) | **CMLED25G5** | **CMLED25D5** |
| | 350W | 5000K | Type V | 17.2 (38) | **CMLED35G5** | **CMLED35D5** |
| | 400W | 5000K | Type V | 17.2 (38) | **CMLED40G5** | **CMLED40D5** |
| | 600W | 5000K | Type V | 17.2 (38) | **CMLED75G5** | **CMLED75D5** |
| | 750W | 5000K | Type V | 17.2 (38) | **CMLED90G5** | **CMLED90D5** |

**Mounting Hoods**

| | Hub Size Inches | Certified for Class I, Division 1 and 2, Group cULus Certified | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|
| **Pendant — One Hub** | | | | |
| | 3/4" NPT | B, C, D | 0.80 (1.77) | **CAP-75** |
| | 1" NPT | B, C, D | 0.57 (1.25) | **CAP-100** |
| **Ceiling — Four hubs, Three Close-Up Plugs** | | | | |
| | 3/4" NPT | B, C, D | 1.48 (3.26) | **CAC-75** |
| | 1" NPT | B, C, D | 1.40 (3.09) | **CAC-100** |
| **Bracket — Four hubs, Three Close-Up Plugs** | | | | |
| | 3/4" NPT | B, C, D | 2.69 (5.92) | **CALB-75** |
| | 1" NPT | B, C, D | 2.72 (6.00) | **CALB-100** |
| **25° Stanchion — One Hub** | | | | |
| **CAS-150** | 1-1/4" or 1-1/2" NPT ⑦ | C, D | 0.98 (2.16) | **CAS-150** |
| **CAS-150B** | 1-1/2" NPT | B, C, D | 3.74 (8.25) | **CAS-150B** ⑧ |

*① For other lumen options, change the 6th and 7th digits in the part number. **10** for 3,700, **15** for 5,400, **17** for 7,900, **25** for 10,000, **35** for 11,600, **40** for 13600, **75** for 16700, or **90** for 19300. Example: from 3,700 lumens CMLED**10**G5 to 10,000 lumens CMLED**25**G5.*
*② For other CCT options, change the 8th digit in part number from "**W**" to "**N**" for Neutral 4000K CCT or **remove** the "W" for Cool 5000K CCT. Example: CMLED10**W**G5 to "**N**" for 4000K, CMLED10**N**G5, or CMLED10**W**G5 to **Blank** for 5000K, CMLED10G5.*
*③ To change from a NEMA Type V Symmetrical to a NEMA Type V Wide light distribution pattern, change the 9th digit in part number from "**5**" to "**W**". Example: CMLED10DW.*
*④ For 120-277 Vac, 50/60 Hz, add suffix -**BU** to catalog number. For 347-480 Vac, 50/60 Hz, add suffix -**BH** to catalog number. Example: CMLED10G5**BU**.*
*⑤ For fusing add "**F**" to end of catalog number. Example: CMLED10G5BUF.*
*⑥ Guards are available for fixtures with globe or refractor. See following pages for accessory ordering information.*
*⑦ 1-1/2" tapped hub furnished with 1-1/2" to 1-1/4" reducer.*
*⑧ When using the 25° Stanchion mounting hood in group B applications part number CAS-150B must be used.*
*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

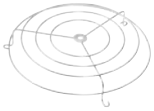
# Code•Master™ LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof
Hazardous Locations.

**NEC/CEC: Class I, Division 1 and 2, Groups B, C, D ① | Class I, Zone 1, Groups IIA, IIB, IIB + $H_2$ | Class II, Division 1, Group E, F, G | Class II, Division 2, Group F, G | Class III | Type 3R, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘ | Approved for use in Paint Spray Booths**



**Accessories and Replacement Parts**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Fuse Kits ⌘** | | | |
| | 5 Amp Fuse Kit | 0.32 (0.70) | **CMLEDF5** |
| **Globes** | | | |
| | Clear Globe Assembly | 3.95 (8.70) | **CGLCLEAR** |
| | Diffused Globe Assembly | 3.95 (8.70) | **CGLDIFF** |
|  | Stainless Steel Wire Guard | 0.16 (0.35) | **CMLEDGU** |
| | Safety Cable | 0.81 (1.78) | **CMLEDSC** |
| | Yoke Bracket | 2.82 (6.23) | **CMLEDYOKE** |

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*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

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**Replacement Drivers**

| | Luminaire Model | Voltage ① | Driver Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|---|
| | CMLED10 | BU | 50 Watt | 500mA | **APMS050C135UD50** |
| | | BH | | | **APMS050C135HD50** |
| | CMLED15 | BU | 50 Watt | 780mA | **APMS050C135UD75** |
| | | BH | | | **APMS050C135HD75** |
| | CMLED17 | BU | 100 Watt | 360mA | **APMS100C105UD37** |
| | | BH | | | **APMS100C105HD37** |
| | CMLED25 | BU | 100 Watt | 480mA | **APMS100C105UD48** |
| | | BH | | | **APMS100C105HD48** |
| | CMLED35 | BU | 100 Watt | 595mA | **APMS100C105UD57** |
| | | BH | | | **APMS100C105HD57** |
| | CMLED40 | BU | 150 Watt | 650mA | **APMS150C105UD65** |
| | | BH | | | **APMS150C105HD65** |
| | CMLED75 | BU | 150 Watt | 820mA | **APMS150C105UD82** |
| | | BH | | | **APMS150C105HD82** |
| | CMLED90 | BU | 150 Watt | 960mA | **APMS150C105UD98** |
| | | BH | | | **APMS150C105HD98** |

**Replacement Drivers for fixtures without "Model A" marking on label**

| | Description | Catalog Number |
|---|---|---|
| | 120 - 277 V Driver (70 thru 250 Watt equivalent only) | **CMLEDBU** |
| | 347 - 480 V Driver (70 thru 350 Watt equivalent only) | **CMLEDBH** |
| | 120 - 277 V Driver (400 Watt equivalent only) | **CMLEDBU40** |

**Luminaire Weight**

| Description | Weight in kg (lb) |
|---|---|
| Fixture Unit (Ballast Housing) | 17.2 (38) |

*① BU = 120 - 277 Vac, 50/60 Hz or 125 - 300 Vdc; BU = 347 - 480, 50/60 Hz.*
*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

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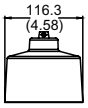
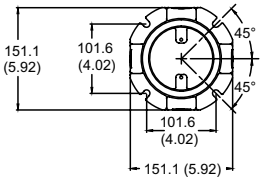
## Dimensions in Millimeters (Inches)

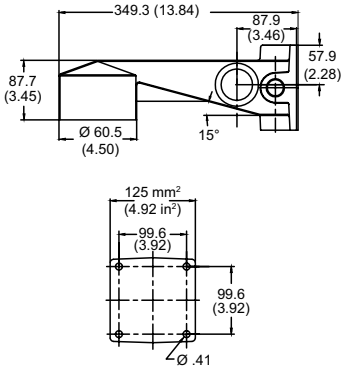
**Pendant**



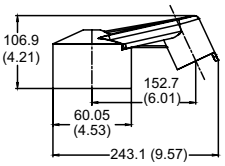

**Ceiling**

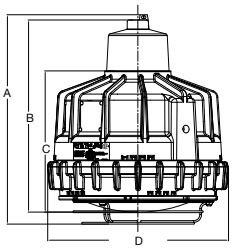


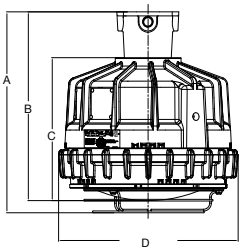

**Bracket**

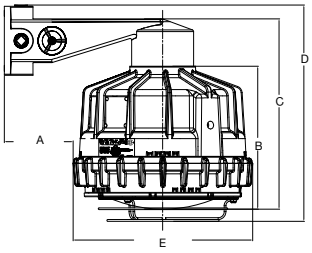


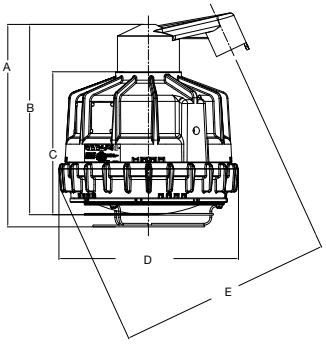

**25° Stanchion**



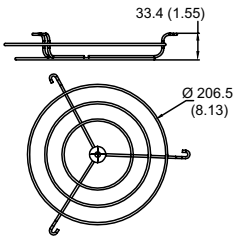



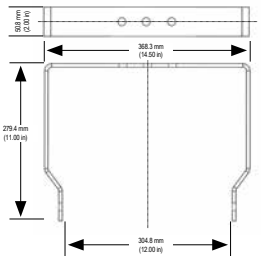




| Pendant | | | | Ceiling | | | | Bracket | | | | | 25° Stanchion | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **A** | **B** | **C** | **D** | **A** | **B** | **C** | **D** | **A** | **B** | **C** | **D** | **E** | **A** | **B** | **C** | **D** | **E** |
| 384.0 | 352.0 | 259.0 | 331.0 | 364.0 | 342.0 | 259.0 | 331.0 | 127.0 | 259.0 | 344.0 | 391.0 | 331.0 | 366.0 | 344.0 | 259.0 | 331.0 | 392.0 |
| (15.1) | (13.9) | (10.2) | (13.0) | (14.3) | (13.5) | (10.2) | (13.0) | (5.0) | (10.2) | (13.6) | (15.4) | (13.0) | (14.4) | (13.6) | (10.2) | (13.0) | (15.4) |

**Wire Guard**




**Yoke Mount**




*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

# Code•Master™ LED Factory Sealed Luminaires

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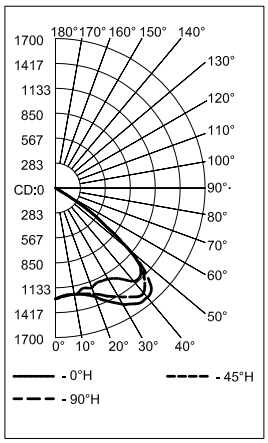
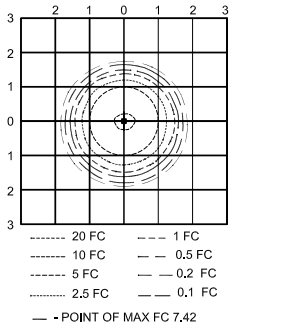
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Glass, 5000K CCT**
REPORT NUMBER: **CMLED10G5BU**

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

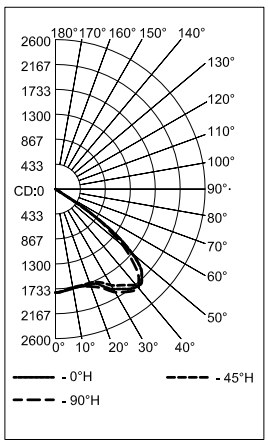
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,090.3 | 29.2% |
| 0-40 | 2,043.9 | 54.7% |
| 0-60 | 3,677.9 | 98.3% |
| 60-90 | 60.4 | 1.6% |
| 70-100 | 10.9 | 0.3% |
| 90-120 | 0.2 | 0% |
| 0-90 | 3,738.2 | 100% |
| 90-180 | 1.5 | 0% |
| 0-180 | 3,739.8 | 100% |

**LUMENS PER ZONE**

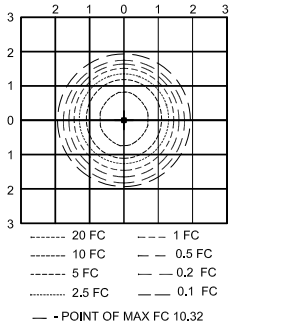
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 116.4 | 3.1% | 90-100 | 0.2 | 0 |
| 10-20 | 349.9 | 9.4% | 100-110 | 0 | 0 |
| 20-30 | 624.0 | 16.7% | 110-120 | 0 | 0 |
| 30-40 | 953.5 | 25.5% | 120-130 | 0 | 0 |
| 40-50 | 1,102.0 | 29.5% | 130-140 | 0.2 | 0 |
| 50-60 | 532.0 | 14.2% | 140-150 | 0.5 | 0 |
| 60-70 | 49.6 | 1.3% | 150-160 | 0.4 | 0 |
| 70-80 | 8.5 | 0.2% | 160-170 | 0.2 | 0 |
| 80-90 | 2.2 | 0.1% | 170-180 | 0.1 | 0 |

**Type V, Clear Glass, 5000K CCT**
REPORT NUMBER: **CMLED15G5BU**

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,573.4 | 29.3% |
| 0-40 | 2,948.7 | 54.9% |
| 0-60 | 5,289.7 | 98.4% |
| 60-90 | 83.0 | 1.5% |
| 70-100 | 14.2 | 0.3% |
| 90-120 | 0.3 | 0% |
| 0-90 | 5,372.7 | 100% |
| 90-180 | 2.2 | 0% |
| 0-180 | 5,374.9 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 167.6 | 3.1% | 90-100 | 0.3 | 0 |
| 10-20 | 504.2 | 9.4% | 100-110 | 0 | 0 |
| 20-30 | 901.6 | 16.8% | 110-120 | 0 | 0 |
| 30-40 | 1,375.2 | 25.6% | 120-130 | 0.1 | 0 |
| 40-50 | 1,584.4 | 29.5% | 130-140 | 0.6 | 0 |
| 50-60 | 756.7 | 14.1% | 140-150 | 0.5 | 0 |
| 60-70 | 69.1 | 1.3% | 150-160 | 0.4 | 0 |
| 70-80 | 11.2 | 0.2% | 160-170 | 0.3 | 0 |
| 80-90 | 2.7 | 0.1% | 170-180 | 0.1 | 0 |

*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

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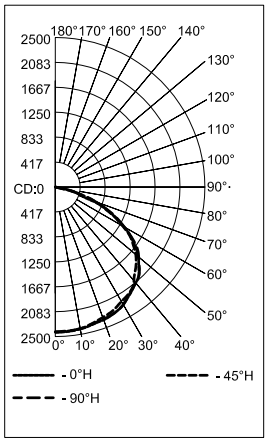
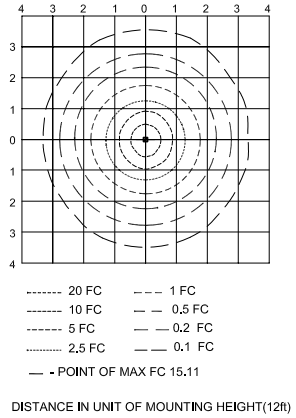
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Glass, 5000K CCT**
REPORT NUMBER: **CMLED17G5BU**

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

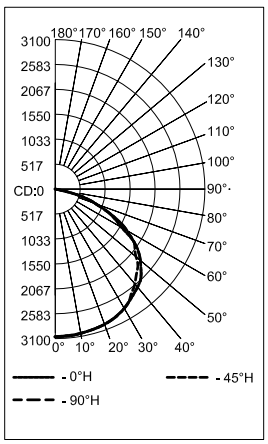
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,959.3 | 24.8% |
| 0-40 | 3,313.1 | 42% |
| 0-60 | 6,266.9 | 79.4% |
| 60-90 | 1,620.6 | 20.5% |
| 70-100 | 560.1 | 7.1% |
| 90-120 | 1.0 | 0% |
| 0-90 | 7,887.5 | 100% |
| 90-180 | 3.2 | 0% |
| 0-180 | 7,890.7 | 100% |

**LUMENS PER ZONE**

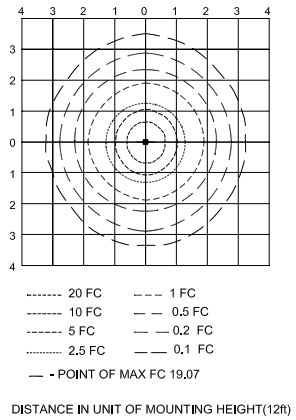
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 116.4 | 3.1% | 90-100 | 0.2 | 0 |
| 10-20 | 349.9 | 9.4% | 100-110 | 0 | 0 |
| 20-30 | 624.0 | 16.7% | 110-120 | 0 | 0 |
| 30-40 | 953.5 | 25.5% | 120-130 | 0 | 0 |
| 40-50 | 1,102.0 | 29.5% | 130-140 | 0.2 | 0 |
| 50-60 | 532.0 | 14.2% | 140-150 | 0.5 | 0 |
| 60-70 | 49.6 | 1.3% | 150-160 | 0.4 | 0 |
| 70-80 | 8.5 | 0.2% | 160-170 | 0.2 | 0 |
| 80-90 | 2.2 | 0.1% | 170-180 | 0.1 | 0 |

**Type V, Clear Glass, 5000K CCT**
REPORT NUMBER:**CMLED25G5BU**

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,482.0 | 24.9% |
| 0-40 | 4,197.1 | 42.1% |
| 0-60 | 7,931.9 | 79.6% |
| 60-90 | 2,033.5 | 20.4% |
| 70-100 | 696.8 | 7% |
| 90-120 | 1.3 | 0% |
| 0-90 | 9,965.4 | 100% |
| 90-180 | 4.0 | 0% |
| 0-180 | 9,969.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 289.4 | 2.9% | 90-100 | 1.2 | 0 |
| 10-20 | 847.5 | 8.5% | 100-110 | 0.1 | 0 |
| 20-30 | 1,345.1 | 13.5% | 110-120 | 0.0 | 0 |
| 30-40 | 1,715.1 | 17.2% | 120-130 | 0.4 | 0 |
| 40-50 | 1,912.2 | 19.2% | 130-140 | 0.8 | 0 |
| 50-60 | 1,822.5 | 18.3% | 140-150 | 0.6 | 0 |
| 60-70 | 1,337.9 | 13.4% | 150-160 | 0.5 | 0 |
| 70-80 | 632.0 | 6.3% | 160-170 | 0.3 | 0 |
| 80-90 | 63.6 | 0.6% | 170-180 | 0.2 | 0 |

*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

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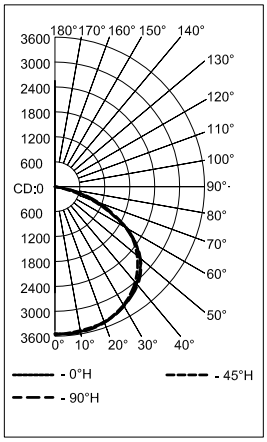
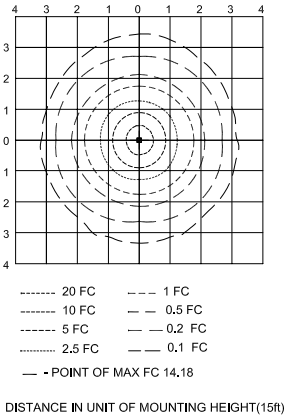
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Glass, 5000K CCT**
REPORT NUMBER: **CMLED35G5BU**

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

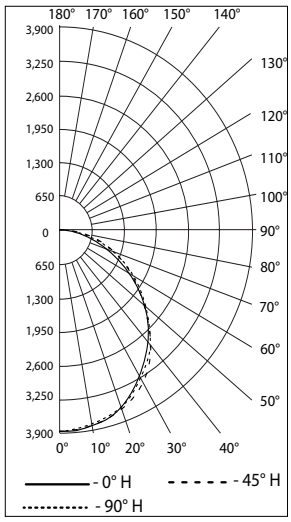
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,894.8 | 24.9% |
| 0-40 | 4,897.1 | 42.1% |
| 0-60 | 9,259.1 | 79.6% |
| 60-90 | 2,372.4 | 20.4% |
| 70-100 | 816.1 | 7% |
| 90-120 | 3.4 | 0% |
| 0-90 | 11,631.6 | 99.9% |
| 90-180 | 7.7 | 0.1% |
| 0-180 | 11,639.3 | 100% |

**LUMENS PER ZONE**

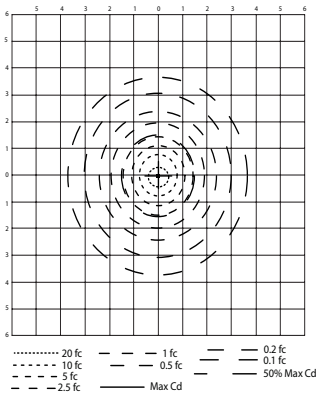
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 337.3 | 2.9% | 90-100 | 1.6 | 0 |
| 10-20 | 988.8 | 8.5% | 100-110 | 0.8 | 0 |
| 20-30 | 1,568.7 | 13.5% | 110-120 | 0.9 | 0 |
| 30-40 | 2,002.3 | 17.2% | 120-130 | 0.9 | 0 |
| 40-50 | 2,232.9 | 19.2% | 130-140 | 0.8 | 0 |
| 50-60 | 2,129.2 | 18.3% | 140-150 | 0.9 | 0 |
| 60-70 | 1,557.9 | 13.4% | 150-160 | 0.9 | 0 |
| 70-80 | 738.7 | 6.3% | 160-170 | 0.6 | 0 |
| 80-90 | 75.8 | 0.7% | 170-180 | 0.2 | 0 |

**Type V, Clear Glass, 5000K CCT**
REPORT NUMBER: **CMLED40G5BU**

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,441.9 | 25.4 |
| 0-40 | 5,808.0 | 42.8 |
| 0-60 | 10,874.3 | 80.2 |
| 60-90 | 2,681.4 | 19.8 |
| 70-100 | 917.3 | 6.8 |
| 90-120 | 4.0 | 0 |
| 0-90 | 13,555.6 | 99.9 |
| 90-180 | 7.2 | 0.1 |
| 0-180 | 13,562.9 | 100 |

**LUMENS PER ZONE**

| Zone | Lumens | % Total |
|---|---|---|
| 0-10 | 402.3 | 3.0 |
| 10-20 | 1,179.4 | 8.7 |
| 20-30 | 1,860.2 | 13.7 |
| 30-40 | 2,366.1 | 17.4 |
| 40-50 | 2,609.2 | 19.2 |
| 50-60 | 2,457.1 | 18.1 |
| 60-70 | 1,766.8 | 13.0 |
| 70-80 | 821.2 | 6.1 |
| 80-90 | 93.4 | 0.7 |
| 90-100 | 2.6 | 0 |
| 100-110 | 0.7 | 0 |

*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

# Code•Master™ LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof
Hazardous Locations.

**NEC/CEC: Class I, Division 1 and 2, Groups B, C, D ① | Class I, Zone 1, Groups IIA, IIB, IIB + $H_2$ | Class II, Division 1, Group E, F, G | Class II, Division 2, Group F, G | Class III | Type 3R, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘ | Approved for use in Paint Spray Booths**

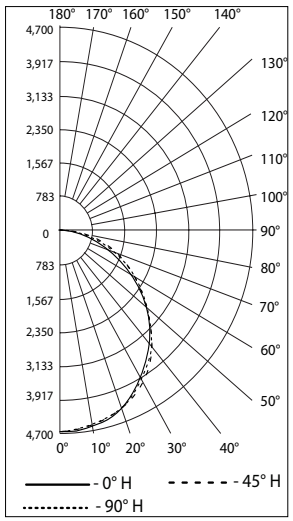


## Photometric Data — DATA SHOWN IS ABSOLUTE

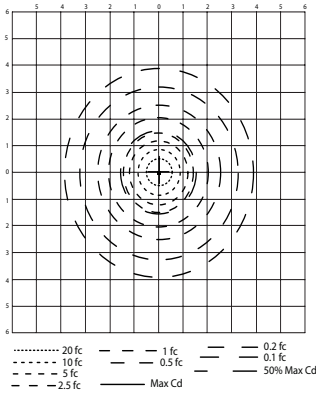
### Type V, Clear Glass, 5000K CCT

REPORT NUMBER: **CMLED75G5BU**

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,249.2 | 25.4 |
| 0-40 | 7,168.9 | 42.9 |
| 0-60 | 13,411.1 | 80.2 |
| 60-90 | 3,295.9 | 19.7 |
| 70-100 | 1,127.6 | 6.7 |
| 90-120 | 4.7 | 0 |
| 0-90 | 16,707.0 | 99.9 |
| 90-180 | 8.8 | 0.1 |
| 0-180 | 16,715.8 | 100.0 |

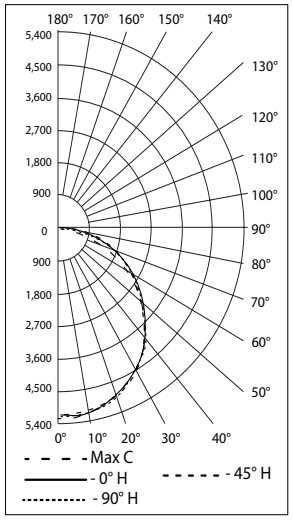
**LUMENS PER ZONE**

| Zone | Lumens | % Total |
|---|---|---|
| 0-10 | 496.7 | 3.0 |
| 10-20 | 1,456.1 | 8.7 |
| 20-30 | 2,296.4 | 13.7 |
| 30-40 | 2,919.7 | 17.5 |
| 40-50 | 3,217.1 | 19.2 |
| 50-60 | 3,025.1 | 18.1 |
| 60-70 | 2,171.4 | 13.0 |
| 70-80 | 1,009.8 | 6.0 |
| 80-90 | 114.7 | 0.7 |
| 90-100 | 3.2 | 0 |
| 100-110 | 0.8 | 0 |

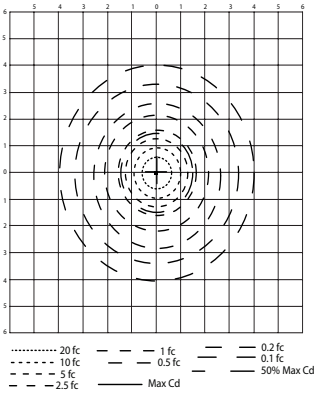
### Type V, Clear Glass, 5000K CCT

REPORT NUMBER:**CMLED90G5BU**

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,927.2 | 25.4 |
| 0-40 | 8,295.2 | 42.9 |
| 0-60 | 15,516.1 | 80.2 |
| 60-90 | 3,810.1 | 19.7 |
| 70-100 | 1,302.8 | 6.7 |
| 90-120 | 5.7 | 0 |
| 0-90 | 19,326.2 | 99.9 |
| 90-180 | 10.3 | 0.1 |
| 0-180 | 19,337.0 | 100 |

**LUMENS PER ZONE**

| Zone | Lumens | % Total |
|---|---|---|
| 0-10 | 574.8 | 3.0 |
| 10-20 | 1,685.1 | 8.7 |
| 20-30 | 2,657.3 | 13.7 |
| 30-40 | 3,378.0 | 17.5 |
| 40-50 | 3,721.6 | 19.2 |
| 50-60 | 3,499.3 | 18.1 |
| 60-70 | 2,511.0 | 13.0 |
| 70-80 | 1,165.7 | 6.0 |
| 80-90 | 133.5 | 0.7 |
| 90-100 | 3.7 | 0 |
| 100-110 | 1.0 | 0 |

*Note: Complete Code•Master LED luminaire consists of fixture unit and a mounting hood.*
*⌘ Use of a fuse voids Marine Outside Type (Salt Water) rating.*

# Code•Master™ Jr. LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Hazardous Locations. For use with threaded metal conduit.

**NEC/CEC: Class I, Division 1, Groups B, C, D ① | Class II, Division 1, Groups E, F, G | Class III | Zone 1, Ex db IIB + $H_2$ | NEMA 3R, 4X | Suitable for use in Wet Locations | Marine Outside Type (Salt Water) | Suitable for use in Paint Spray Booths**



## Applications

- For use in chemical and petrochemical plants, such as manufacturers of plastics, paints and thinners, in refineries, and in other areas where ignitable vapors, dust, moisture and corrosive elements may be present.
- Suitable for outdoor saltwater locations and for other wet locations.
- Typical applications include:
  - — Chemical
  - — Oil, Gas, and Petrochemical
  - — Pulp and Paper
  - — Foundries
  - — Manufacturing
  - — Waste and sewage treatment
  - — Pharmaceutical
  - — Mining
  - — Power Generation
  - — Paint Spray Booths
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

## Features

- Fixtures operate safely in high ambient temperatures:
  -40 °C to +55 °C (-40 °F to +131 °F) for CJLL1 and CJLL2;
  -40 °C to +40 °C (-40 °F to +104 °F) for CJLL3.

| Nominal Lumens | Incandescent Equivalent | HID Equivalent | Model |
|---|---|---|---|
| 1,600 | 100W | 50W | CJLL1 |
| 3,000 | 300W | 70-100W | CJLL2 |
| 5,150 | — | 100-150W | CJLL3 |

- Acme double-lead threads speed installation of fixture into the mounting hood to make electrical connection.
- The only wiring required is attaching two wires to connection block in mounting hood. Also allows safe, easy servicing without disconnecting any wires.
- Heat and impact-resistant globes have smooth dust-resistant exterior.
- Optional guards protect globes from damage. Secured to fixture with three stainless steel screws.
- Choice of mountings: pendant, ceiling, bracket and stanchion.
- Fiberglass-reinforced polyester reflectors, in standard dome or 30° angle styles, are ideal in installations where luminaire is subject to exceptionally severe corrosive atmospheres.
- All threaded joints are flame-tight.
- Universal, high efficient drivers cover voltage requirements for 120-277 Vac, 50/60 Hz, 100 – 300 Vdc for CJLL1 and CJLL2; 120-277 Vac, 50/60 Hz, 125 – 300 Vdc for CJLL3; 347-480 Vac, 50/60 Hz for CJLL3.
- 6 kV surge protection.
- Heavy duty, high temperature silicone gaskets.
- Reported L70 is > 55k hours.
- 5 year standard warranty.

## Options

- Aluminum guard available, purchase separately

## Standard Materials

- Fixture housing, mounting hoods and guards: copperfree (4/10 of 1% max.) aluminum
- Globes: prismatic glass
- Reflectors: fiberglass reinforced polyester
- Gaskets: silicone

## Standard Finishes

- Fixture housing, guards and mounting hoods: epoxy power coat finish, electrostatically applied for complete, uniform corrosion protection

## NEC/CEC Certifications and Compliances

- UL Standard: UL1598 (4th Ed.); UL1598A (1st Ed.); UL8750 (2nd Ed.); UL 844 (13th Ed.)
- CSA Standard: CSA C22.2 No. 250.0-08; CSA C22.2 No. 137-18; CSA C22.2 No. 60079-0; and CSA C22.2 No 60079-1
- UL Listed: E10444

## Design Lights™ Consortium

- Check DLC QPL for current list of products

## Related Products

- Code•Master LED Factory Sealed Luminaires
- A-51 LED Factory Sealed Luminaires

*① For Group B applications, a Group B rated mounting hood must be used.*

# Code•Master™ Jr. LED Factory Sealed Luminaires

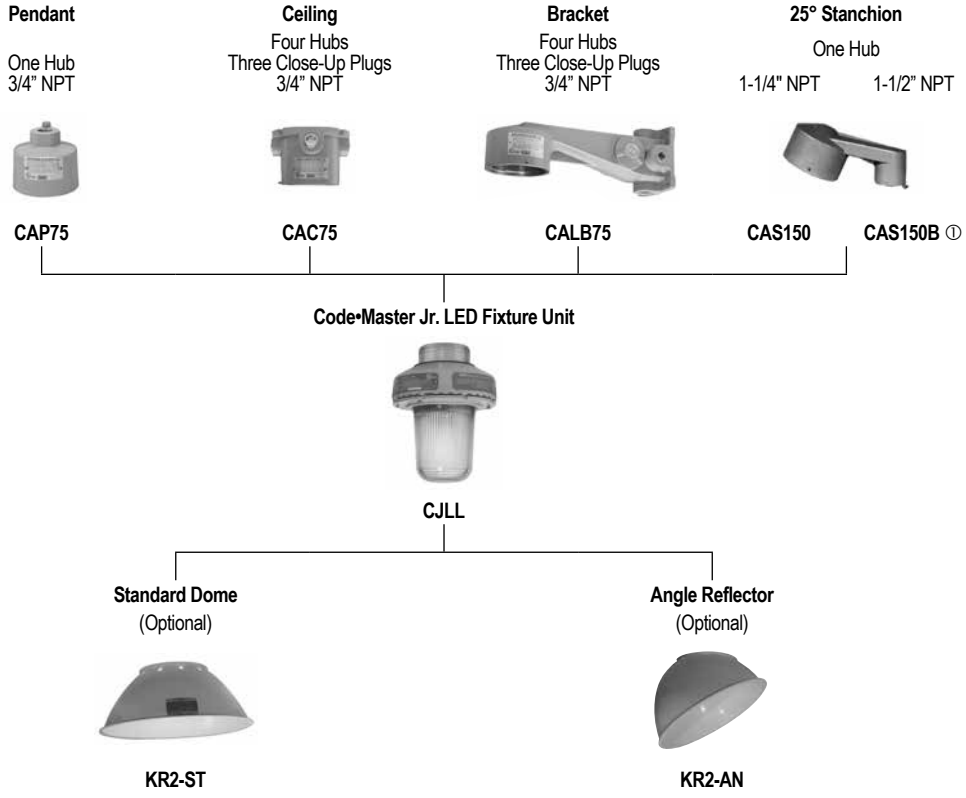
Explosionproof, Dust-Ignitionproof

Hazardous Locations. For use with threaded metal conduit.

**NEC/CEC: Class I, Division 1, Groups B, C, D ① | Class II, Division 1, Groups E, F, G | Class III | Zone 1, Ex db IIB + $H_2$ | NEA 3R, 4X | Suitable for use in Wet Locations | Marine Outside Type (Salt Water) | Suitable for use in Paint Spray Booths**



## Code•Master™ Jr. LED Factory Sealed Luminaires Family Tree




*① When using the 25° Stanchion mounting hood in group B applications part number CAS-150B must be used.*

# Code•Master™ Jr. LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Hazardous Locations. For use with threaded metal conduit.

**NEC/CEC: Class I, Division 1, Groups B, C, D ① | Class II, Division 1, Groups E, F, G | Class III | Zone 1, Ex db IIB + $H_2$ | NEMA 3R, 4X | Suitable for use in Wet Locations | Marine Outside Type (Salt Water) | Suitable for use in Paint Spray Booths**



**Order Using Catalog Numbering Guide — Code•Master™ Jr. LED Factory Sealed Luminaires**

**CJL**
Series Prefix:
CJL - Code•Master Jr. LED

**A**
Mounting Hood:
A - Pendant
W - Wall Bracket
C - Ceiling
S - 25° Stanchion
Blank - No Mounting Hood

**L1**
Lumen Output (nominal):
L1 - 1600
L2 - 3000
L3 - 5150

**2**
Hub Size:
2 - 3/4" NPT
3 - 1" NPT
4 - 1-1/4" or 1-1/2" NPT stanchion
Blank - No hub size needed if no mounting hood

**C**
Color Temperature:
C - Cool, 5000K
W - Warm, 3000K

**BU**
Voltage:
BU - BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc ②
BH - 347-480 Vac, 50/60 Hz ③

**G**
Options:
G - Guard
Blank - No Guard

**Lumen Output (Efficacy) ④**

| Model | HID Equivalency | Incandescent Equivalency | Voltage | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CJL*L1 | 50W | 100W | 120-277 Vac | Type V | 3000K | 80 | 1500 | 115 | 5000K | 70 | 1600 | 123 |
| CJL*L2 | 70-100W | 300W | 120-277 Vac | Type V | 3000K | 80 | 2900 | 112 | 5000K | 70 | 3000 | 115 |
| CJL*L3 | 100-150W | — | 120-277 Vac | Type V | 3000K | 80 | 5100 | 106 | 5000K | 70 | 5150 | 107 |
| CJL*L3 | 100-150W | — | 347-480 Vac | Type V | 3000K | 80 | 5100 | 104 | 5000K | 70 | 5150 | 105 |

*① For Group B applications, a Group B rated mounting hood must be used.*
*② Only for L1 and L2 models, 125–300 Vdc for L3 model.*
*③ Only for L3 models.*
*④ All lumen values are typical (tolerance +/-10%).*

# Code•Master™ Jr. LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Hazardous Locations. For use with threaded metal conduit.

**NEC/CEC: Class I, Division 1, Groups B, C, D ① | Class II, Division 1, Groups E, F, G | Class III | Zone 1, Ex db IIB + $H_2$ | NEMA 3R, 4X | Suitable for use in Wet Locations | Marine Outside Type (Salt Water) | Suitable for use in Paint Spray Booths**



**Electrical Specifications ②**

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| CJLL1 | 120 Vac | 13 | 0.11 | >.9 | <20% |
| | 277 Vac | 14 | 0.05 | >.9 | <20% |
| | 100 Vdc | 13 | 0.13 | N/A | <20% |
| | 300 Vdc | 14 | 0.05 | N/A | <20% |
| CJLL2 | 120 Vac | 26 | 0.22 | >.9 | <20% |
| | 277 Vac | 27 | 0.10 | >.9 | <20% |
| | 100 Vdc | 26 | 0.26 | N/A | <20% |
| | 300 Vdc | 27 | 0.09 | N/A | <20% |
| CJLL3 | 120 Vac | 48 | 0.40 | >.9 | <20% |
| | 277 Vac | 47 | 0.18 | >.9 | <20% |
| | 125 Vdc | 48 | 0.38 | N/A | <20% |
| | 300 Vdc | 47 | 0.16 | N/A | <20% |
| | 347 Vdc | 49 | 0.15 | >.9 | <20% |
| | 480 Vdc | 49 | 0.11 | >.9 | <20% |

**NEC/CEC Temperature Codes**

| Model | Ambient Temperature °C (°F) | Use Wire Supply °C (°F) | Class I, Division 1, Groups B, C and D | Class II, Division 1, Groups E, F and G |
|---|---|---|---|---|
| CJLL1 | +40 (+104)<br>+55 (+131) | +90 (+194) | T6 | T6 |
| CJLL2 | +40 (+104)<br>+55 (+131) | +90 (+194) | T6 | T6 |
| CJLL3 | +40 (+104) | +90 (+194) | T6 | T6 |

**"T" Numbers Represent the Maximum Surface Temperature for Class I, Division 1 locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations. ③④**

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*NOTE: The maximum operating temperature of the fixture must not exceed the ignition temperature of the gas, vapor or dust to be encountered per the National Electrical Code and the Canadian Electrical Code.*

*① For Group B applications, a Group B rated mounting hood must be used.*

*② All values are typical (tolerance +/-10%).*

*③ T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*

*④ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 as designated by the NEC.*

# Code•Master™ Jr. LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Hazardous Locations. For use with threaded metal conduit.

**NEC/CEC: Class I, Division 1, Groups B, C, D ① | Class II, Division 1, Groups E, F, G | Class III | Zone 1, Ex db IIB + $H_2$ | NEMA 3R, 4X | Suitable for use in Wet Locations | Marine Outside Type (Salt Water) | Suitable for use in Paint Spray Booths**



**Catalog Number for Driver Housing and Globe**

| | Lumen Level | CCT | CRI | Optics | Voltage | Weight in kg (lb) | Catalog Number ②③④⑤ |
|---|---|---|---|---|---|---|---|
| | 1600 | 5000K | 70 | Type V | 120-277 Vac, 50/60 Hz; 100-300 Vdc | 5.2 (11.5) | **CJLL1CBU** |
| | 3000 | 5000K | 70 | Type V | 120-277 Vac, 50/60 Hz; 100-300 Vdc | 5.2 (11.5) | **CJLL2CBU** |
| | 5150 | 5000K | 70 | Type V | 120-277 Vac, 50/60 Hz; 125-300 Vdc | 5.5 (12.0) | **CJLL3CBU** |
| | 5150 | 5000K | 70 | Type V | 347-480 Vac, 50/60 Hz | 5.5 (12.0) | **CJLL3CBH** |
| | 1500 | 3000K | 80 | Type V | 120-277 Vac, 50/60 Hz; 100-300 Vdc | 5.2 (11.5) | **CJLL1WBU** |
| | 2900 | 3000K | 80 | Type V | 120-277 Vac, 50/60 Hz; 100-300 Vdc | 5.2 (11.5) | **CJLL2WBU** |
| | 5100 | 3000K | 80 | Type V | 120-277 Vac, 50/60 Hz; 125-300 Vdc | 5.5 (12.0) | **CJLL3WBU** |
| | 5100 | 3000K | 80 | Type V | 347-480 Vac, 50/60 Hz | 5.5 (12.0) | **CJLL3WBH** |

**Mounting Hoods**

| | Hub Size (Inches) | Certified for Class I, Division 1 and 2, Groups | Weight in kg (lb) | Catalog Number |
|---|---|---|---|---|
| **Pendant — One Hub, Rigid Conduit** | | | | |
| | 3/4" NPT | B, C, D | 0.9 (1.98) | **CAP-75** |
| | 1" NPT | B, C, D | 0.9 (1.98) | **CAP-100** |
| **Ceiling — Four Hubs, Three Close-Up Plugs, Rigid Conduit** | | | | |
| | 3/4" NPT | B, C, D | 1.8 (3.97) | **CAC-75** |
| | 1" NPT | B, C, D | 1.8 (3.97) | **CAC-100** |
| **Bracket, Four Hubs, Three Close-Up Plugs, Rigid Conduit** | | | | |
| | 3/4" NPT | B, C, D | 2.7 (5.95) | **CALB-75** |
| | 1" NPT | B, C, D | 2.7 (5.95) | **CALB-100** |
| **25° Stanchion — One Hub** | | | | |
| | 1-1/4" or 1-1/2" NPT | C, D | 0.9 (1.98) | **CAS-150** ⑥ |
| | 1-1/4" or 1-1/2" NPT | B, C, D | 0.9 (1.98) | **CAS-150B** ⑦ |

*① For Group B applications, a Group B rated mounting hood must be used.*

*② For other lumen options, change the 4th and 5th digits in the part number. from **L1** (1600 lumen) to **L2** for 3000 or **L3** for 5150 lumens. Example: For 3000 lumens change CJL**L1**CBU to CJL**L2**CBU.*

*③ To change the color temperature from cool 5000K to Warm 3000K, change the 6th digit in part number from "**C**" to "**W**". Example: CJLL1**C**BU to CJLL1**W**BU.*

*④ For L1 and L2 models, add suffix **-BU** to catalog number for 120-277 Vac, 50/60 Hz voltage. For L3 models add suffix **-BU** to catalog number for 100-300 Vdc voltage. For L3 models add suffix **-BH** to catalog number for 347-480 Vac, 50/60 Hz voltage*

*⑤ For guard, add suffix **-G** to catalog number.*

*⑥ 1-1/2" Tapped hub furnished with 1-1/2" to 1-1/4" reducer.*

*⑦ When using the 25° Stanchion mounting hood in group B applications part number CAS-150B must be used.*

# Code•Master™ Jr. LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Hazardous Locations. For use with threaded metal conduit.

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**Accessories and Replacement Parts**

| | Description | Weight in kg (lb) | Catalog Number |
|---|---|---|---|
| **Reflector** | | | |
| | Standard Dome — White Polyester | 1.1 (2.43) | **KR2ST** |
| | Angled Reflector — White Polyester | 1.1 (2.43) | **KR2AN** |
| **Guard** | | | |
| | Aluminum | 0.2 (0.44) | **CJGU15** |
| **Connection Block for Mounting Hoods** | | | |
| | | 0.2 (0.44) | **VPT7** |

① *For Group B applications, a Group B rated mounting hood must be used.*

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Hazardous Locations. For use with threaded metal conduit.

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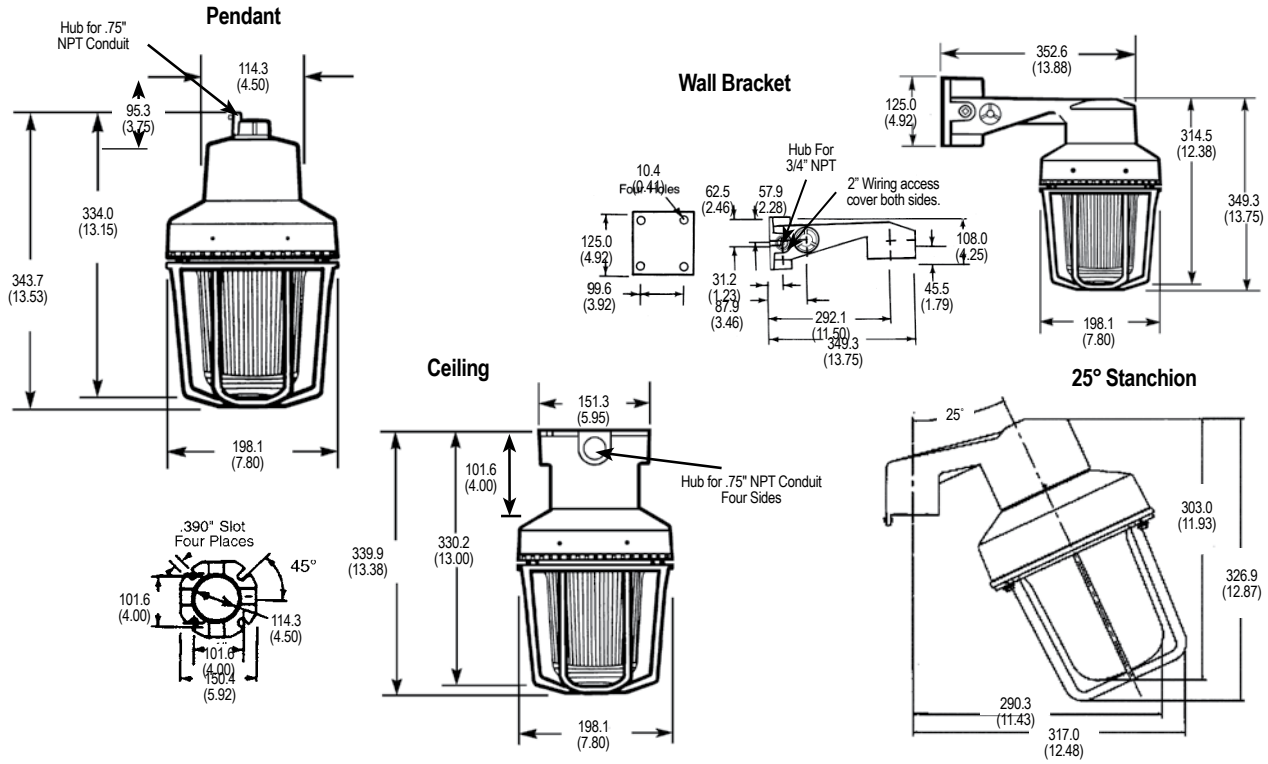
## Dimensions in Millimeters (Inches)




*① For Group B applications, a Group B rated mounting hood must be used.*

# Code•Master™ Jr. LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Hazardous Locations. For use with threaded metal conduit.

**NEC/CEC: Class I, Division 1, Groups B, C, D ① | Class II, Division 1, Groups E, F, G | Class III | Zone 1, Ex db IIB + $H_2$ | NEMA 3R, 4X | Suitable for use in Wet Locations | Marine Outside Type (Salt Water) | Suitable for use in Paint Spray Booths**



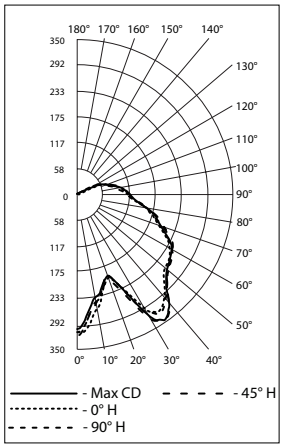
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Prismatic Glass, 5000K CCT**

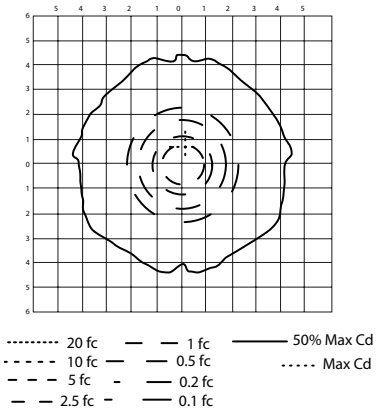
REPORT NUMBER: **CJLAL12CBU**

Luminaire Lumens 1,600

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




Distance in units of mounting height (10ft)

**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 201.0 | 12.4% |
| 0-40 | 403.5 | 24.8% |
| 0-60 | 852.6 | 52.4% |
| 60-90 | 552.9 | 34% |
| 70-100 | 440.0 | 27% |
| 90-120 | 217.0 | 13.3% |
| 0-90 | 1405.5 | 86.4% |
| 90-180 | 221.4 | 13.6% |
| 0-180 | 1626.9 | 100% |

**LUMENS PER ZONE**

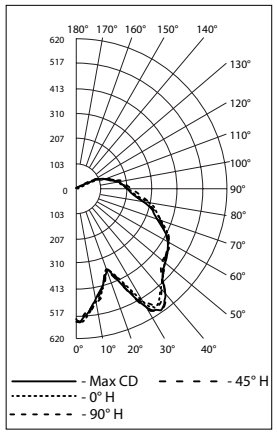
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 25.1 | 1.5% | 90-100 | 109.8 | 6.8% |
| 10-20 | 61.3 | 3.8% | 100-110 | 81.6 | 5% |
| 20-30 | 114.6 | 7.0% | 110-120 | 25.6 | 1.6% |
| 30-40 | 202.5 | 12.4% | 120-130 | 2.2 | 0.1% |
| 40-50 | 220.7 | 13.6% | 130-140 | 1.5 | 0.1% |
| 50-60 | 228.4 | 14.0% | 140-150 | 0.6 | 0% |
| 60-70 | 222.7 | 13.7% | 150-160 | 0.1 | 0% |
| 70-80 | 190.0 | 11.7% | 160-170 | 0 | 0% |
| 80-90 | 140.1 | 8.6 | 170-180 | 0 | 0% |

**Prismatic Glass, 5000K CCT**

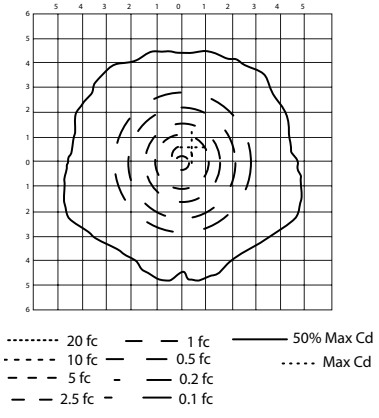
REPORT NUMBER: **CJLAL22CBU**

Luminaire Lumens 3,000

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




Distance in units of mounting height (10ft)

**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 372.8 | 12.4% |
| 0-40 | 737.2 | 24.6% |
| 0-60 | 1550.7 | 51.7% |
| 60-90 | 1022.5 | 34.1% |
| 70-100 | 824.7 | 27.5% |
| 90-120 | 418.7 | 14% |
| 0-90 | 2573.2 | 85.7% |
| 90-180 | 427.8 | 14.3% |
| 0-180 | 3001.0 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 47.7 | 1.6% | 90-100 | 209.5 | 7% |
| 10-20 | 115.2 | 3.8% | 100-110 | 157.4 | 5.2% |
| 20-30 | 209.9 | 7.0% | 110-120 | 51.8 | 1.7% |
| 30-40 | 364.4 | 12.1% | 120-130 | 4.7 | 0.2% |
| 40-50 | 398.9 | 13.3% | 130-140 | 3.1 | 0.1% |
| 50-60 | 414.6 | 13.8% | 140-150 | 1.1 | 0% |
| 60-70 | 407.3 | 13.6% | 150-160 | 0.2 | 0% |
| 70-80 | 352.3 | 11.7% | 160-170 | 0 | 0% |
| 80-90 | 262.9 | 8.8% | 170-180 | 0 | 0% |

*① For Group B applications, a Group B rated mounting hood must be used.*

# Code•Master™ Jr. LED Factory Sealed Luminaires

Explosionproof, Dust-Ignitionproof

Hazardous Locations. For use with threaded metal conduit.

**NEC/CEC: Class I, Division 1, Groups B, C, D ① | Class II, Division 1, Groups E, F, G | Class III | Zone 1, Ex db IIB + $H_2$ | NEMA 3R, 4X | Suitable for use in Wet Locations | Marine Outside Type (Salt Water) | Suitable for use in Paint Spray Booths**



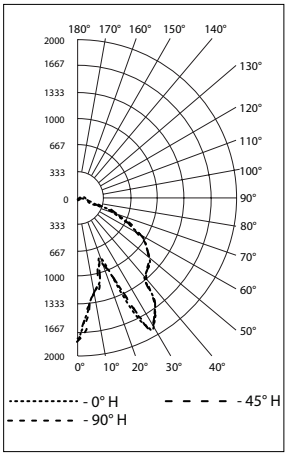
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Prismatic Glass, 5000K CCT**

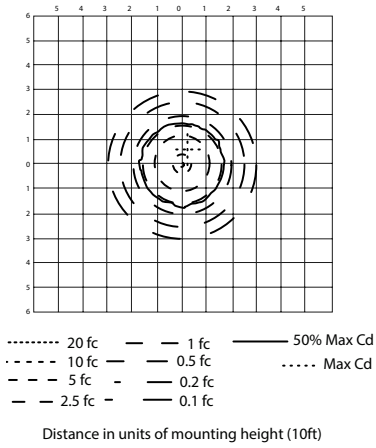
REPORT NUMBER: **CJLAL32CBU**

Luminaire Lumens 5,150

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1009.5 | 19.6% |
| 0-40 | 2057.9 | 40% |
| 0-60 | 3955.0 | 76.9% |
| 60-90 | 1122.9 | 21.8% |
| 70-100 | 410.5 | 8% |
| 90-120 | 42.9 | 0.8% |
| 0-90 | 5077.9 | 98.8% |
| 90-180 | 62.8 | 1.2% |
| 0-180 | 5140.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 130.6 | 2.5% | 90-100 | 17.5 | 0.3% |
| 10-20 | 293.1 | 5.7% | 100-110 | 13.7 | 0.3% |
| 20-30 | 585.8 | 11.4% | 110-120 | 11.7 | 0.2% |
| 30-40 | 1048.3 | 20.4% | 120-130 | 10.2 | 0.2% |
| 40-50 | 956.5 | 18.6% | 130-140 | 6.7 | 0.1% |
| 50-60 | 940.6 | 18.3% | 140-150 | 2.6 | 0% |
| 60-70 | 729.9 | 14.2% | 150-160 | 0.4 | 0% |
| 70-80 | 335.5 | 6.5% | 160-170 | 0 | 0% |
| 80-90 | 57.5 | 1.1% | 170-180 | 0 | 0% |

*① For Group B applications, a Group B rated mounting hood must be used.*

# A-51™ LED Factory Sealed Luminaires

For Group A, B, C, D Locations. Explosionproof

Hazardous Locations. Suitable for use in Wet Locations. UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC — For Group A ① and B: Class I, Division 1, Groups A, B, C, D | Class II, Division 1, Groups F, G | Class III | Suitable for use in Wet Locations**



## Applications

- Ideal for use in:
  - — Chemical and petrochemical plants
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other heavy process areas where ignitable vapors, dust, moisture and corrosive atmospheres may be present
- Suitable for use in wet locations.
- Model for Class I, Division 1 applications where acetylene is always present.

## Features

- All A-51™ LED fixtures are factory sealed; no external sealing fittings required.
- Fixture unit easily threads off mounting hood for convenient servicing or for immediate exchange with new fixture.
- Specially formulated two coat baked epoxy enamel provides superior protective finish to resist corrosion. Applied to all mounting hoods, fixture units and guards.
- Light outputs up to 3,200 lumens.

| Nominal Lumens | HID Equivalent | Incandescent Equivalent | Model |
|---|---|---|---|
| 1700 | 100 - 150W | 100 - 150W | AALL1CBU<br>AALL1WBU |
| 3200 | 200 - 300W | 200 - 300W | AALL2CBU<br>AALL2WBU |

- Globes in A-51™ fixtures are explosionproof, heat- and impact-resistant glass.
- Guards to protect globe are easily mounted to globe ring with 3 screws.
- Fixture units have standardized threads to fit all A-51™ LED mounting hoods.
- Ambient Temperature: -25 °C to +55 °C (-13 °F to +131 °F)
- 6 kV Surge Protection.
- Reported L70 is > 55k hours.
- Choice of mountings:
  - — Group A, B, C, D:
    - Pendant
  - — Group B, C, D:
    - Ceiling and 15° short bracket
- 5 year standard warranty.

**Group A, B, C, D**

## Options

- Aluminum guards available, *purchase separately*.
- Reflectors available, *purchase separately*.

## Standard Materials

- Fixtures and guards: copperfree (4/10 of 1% max.) aluminum
- Pendant mounting hoods: copperfree (4/10 of 1% max.) aluminum
- Ceiling and bracket mounting hoods: malleable iron with aluminum adapters
- Reflectors: powder coated aluminum

## Standard Finishes

- Fixtures, guards and mounting hoods: electrostatically applied for complete, uniform surface protection
- Steel reflectors: white porcelain enamel

## NEC/CEC Certifications and Compliances

- UL Standard: UL 1598; UL 844
- CSA Standard: C22.2 No. 137; C22.2 No 250.0-08
- cULus Listed: E10444
- Suitable for use in Wet Locations

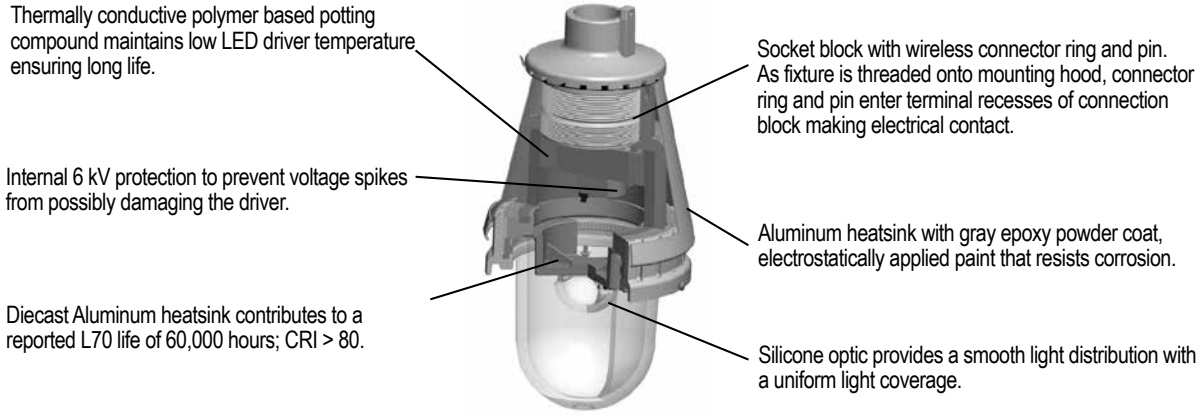
## Design Lights™ Consortium

- Check DLC QPL for current list of products

## Related Products

- Code•Master™ LED Factory Sealed Luminaires
- Code•Master™ Jr. LED Factory Sealed Luminaires

**Illustrated Features A-51™ LED Class I, Division 1, Groups A, B, C, D**




*① For Group A applications, Pendant mounting hood must be used.*

# A-51™ LED Factory Sealed Luminaires

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**NEC/CEC — For Group A ① and B: Class I, Division 1, Groups A, B, C, D | Class II, Division 1, Groups F, G | Class III | Suitable for use in Wet Locations**



## A-51™ LED Factory Sealed Luminaires Family Tree — Groups A ①, B, C, D

**Pendant Mount**
(Groups A, B, C, D)

**AAP**

**Ceiling**
(Groups B, C, D)

**AAC**

**15° Short Bracket**
(Groups B, C, D)

**AASB**

**A-51™ LED Fixture Unit**

**AAL**L1**
**AAL*L2**

**Globe Ring Assembly**

**AAGLA-15**

**Optional Accessories**

Standard Dome Reflector

**AARW15STA**

Aluminum Guard

**AAGUA15**

30° Angled Reflector



**AARW15ANA**

*① For Group A applications, Pendant mounting hood must be used.*

# A-51™ LED Factory Sealed Luminaires

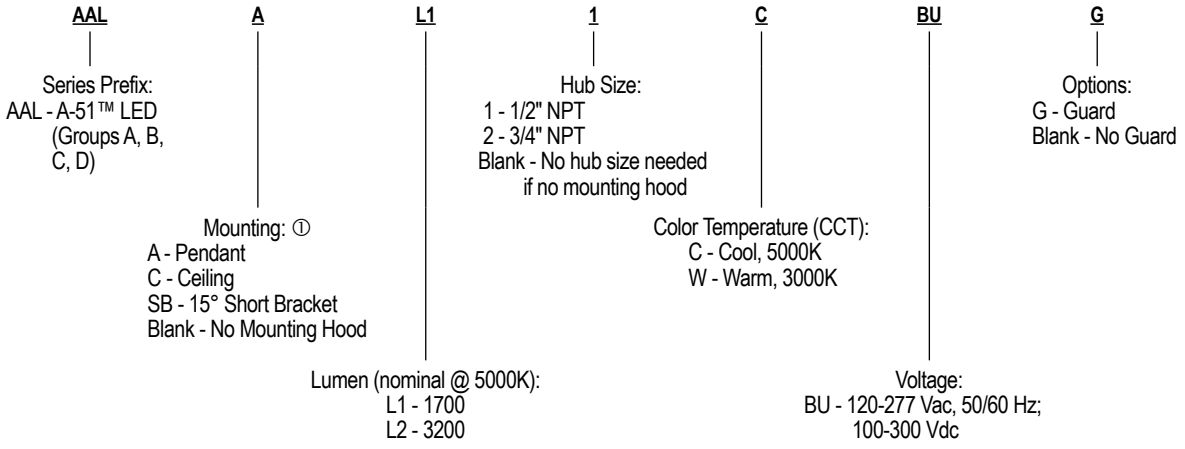
For Group A, B, C, D Locations. Explosionproof

Hazardous Locations. Suitable for use in Wet Locations. UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC — For Group A ① and B: Class I, Division 1, Groups A, B, C, D | Class II, Division 1, Groups F, G | Class III | Suitable for use in Wet Locations**



**Order Using Catalog Numbering Guide — A-51™ LED Factory Sealed Luminaires — For Groups A, B, C, D**




**Lumen Output (Efficacy)** ②

| Model | HID Equivalency | Incandescent Equivalent | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AAL*L1 | 50W | 100 - 150W | Type V | 3000K | 80 | 1600 | 126 | 5000K | 80 | 1700 | 131 |
| AAL*L2 | 70 - 100W | 200 - 300W | Type V | 3000K | 80 | 3100 | 118 | 5000K | 80 | 3200 | 122 |

*① For Group A applications, Pendant mounting hood must be used.*
*② All lumen values are typical (tolerance +/-10%).*

# A-51™ LED Factory Sealed Luminaires

For Group A, B, C, D Locations. Explosionproof

Hazardous Locations. Suitable for use in Wet Locations. UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC — For Group A ① and B: Class I, Division 1, Groups A, B, C, D | Class II, Division 1, Groups F, G | Class III | Suitable for use in Wet Locations**



**Electrical Specifications ①**

| Model | Voltage (V) | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| AAL*L1 | 120 Vac | 12.7 | 0.11 | >.98 | <20% |
| | 277 Vac | 13.6 | 0.05 | >.91 | <20% |
| | 100 Vdc | 12.7 | 0.13 | >.99 | <20% |
| | 300 Vdc | 13.9 | 0.05 | >.99 | <20% |
| AAL*L2 | 120 Vac | 26.3 | 0.22 | >.94 | <20% |
| | 277 Vac | 26.8 | 0.10 | >.92 | <20% |
| | 100 Vdc | 26.4 | 0.26 | >.99 | <20% |
| | 300 Vdc | 27.0 | 0.09 | >.99 | <20% |

**NEC/CEC Temperature Codes**

| Model | Ambient Temperature °C (°F) | Supply Wire °C (°F) | Class I, Division 1 | Class II, Division 1 |
|---|---|---|---|---|
| **Class I Division 1 and Division 2 Groups A ①, B, C and D** | | | | |
| AALL1CBU | -25 to +55 (-13 to +131) | +110 (+230) | T6 | T6 |
| AALL1WBU | | | | |
| AALL2CBU | | | | |
| AALL2WBU | | | | |

**"T" Numbers Represent the Maximum Surface Temperature for Class I, Division 1 locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations. ③④**

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*① For Group A applications, Pendant mounting hood must be used.*
*② All values are typical (tolerance +/-10%).*
*③ T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*
*④ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 as designated by the NEC.*

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Hazardous Locations. Suitable for use in Wet Locations. UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC — For Group A ① and B: Class I, Division 1, Groups A, B, C, D | Class II, Division 1, Groups F, G | Class III | Suitable for use in Wet Locations**



**Catalog Number for Driver Housing and Globe**

| | Lumen Level | CCT | Optics | Weight in kg (lbs) | Catalog Number ② |
|---|---|---|---|---|---|
| | 1700 | 5000K | Type V | 6.1 (13.4) | **AALL1CBU** |
| | 3200 | 5000K | Type V | | **AALL2CBU** |
| | 1600 | 3000K | Type V | | **AALL1WBU** |
| | 3100 | 3000K | Type V | | **AALL2WBU** |

**Mounting Hoods**

| | Hub Size (Inches) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Pendant — One Hub, Rigid or Flexible Mounting** | | | |
| | 1/2" NPT | 0.6 (1.3) | **AAP-50** ① |
| | 3/4" NPT | | **AAP-75** ① |
| **Ceiling — Four Hubs, Three Close-up Plugs** | | | |
| | 1/2" NPT | 2.2 (4.8) | **AAC-50** |
| | 3/4" NPT | | **AAC-75** |
| **15˚ Short Bracket — Two Hubs, One Close-up Plug** | | | |
| | 1/2" NPT | 2.2 (4.8) | **AASB-50** |
| | 3/4" NPT | | **AASB-75** |

**Accessories and Replacement Parts**

| Type | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| | Globe and Ring Assembly<br>For use with AAL1CBU, AALL2CBU, AALL1WBU or AALL2WBU | 2.5 (5.6) | **AAGLA15** |
| | Aluminum Guard<br>For use with (AAL1CBU, AALL2CBU, AALL1WBU or AALL2WBU) | 0.2 (0.4) | **AAGUA15** |
| | Connection block for all A-51™ LED mounting hoods | 0.05 (0.12) | **VPT7** |
| | Standard dome reflector | 0.32 (0.72) | **AARW15STA** |
| | 30° angled reflector | 0.52 (1.16) | **AARW15ANA** |

*① For Group A applications, Pendant mounting hood must be used.*
*② For guard, add suffix -**G** to catalog number.*

# A-51™ LED Factory Sealed Luminaires

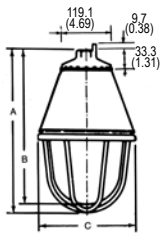
For Group A, B, C, D Locations. Explosionproof

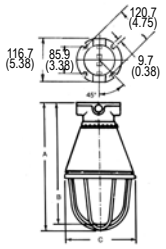
Hazardous Locations. Suitable for use in Wet Locations. UNILETS™ for use with Threaded Metal Conduit.

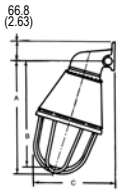
**NEC/CEC — For Group A ① and B: Class I, Division 1, Groups A, B, C, D | Class II, Division 1, Groups F, G | Class III | Suitable for use in Wet Locations**



**Dimensions in Millimeters (Inches)**



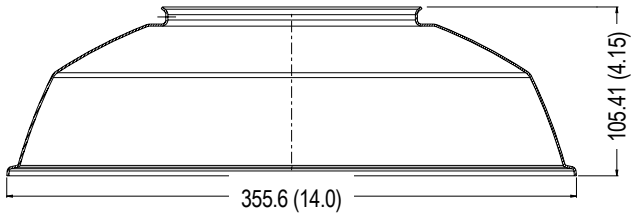



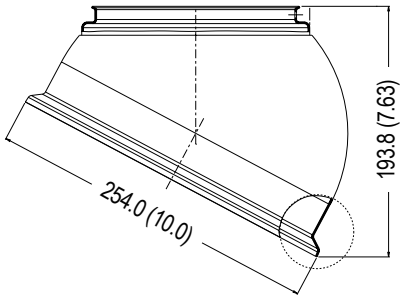

| | Pendant | | | Ceiling | | | Short Bracket | | |
|---|---|---|---|---|---|---|---|---|---|
| **Model** | **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** |
| AAL*L1 or AAL*L2 | 347.7 (13.69) | 333.5 (13.13) | 179.3 (7.06) | 419.1 (16.50) | 404.9 (15.94) | 179.3 (7.06) | 381.0 (15.00) | 366.8 (14.44) | 241.3 (9.50) |

**Dimensional Drawings in Millimeters (Inches) — Reflector**

**AARW15STA**




**AARW15ANA**



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**NEC/CEC — For Group A ① and B: Class I, Division 1, Groups A, B, C, D | Class II, Division 1, Groups F, G | Class III | Suitable for use in Wet Locations**



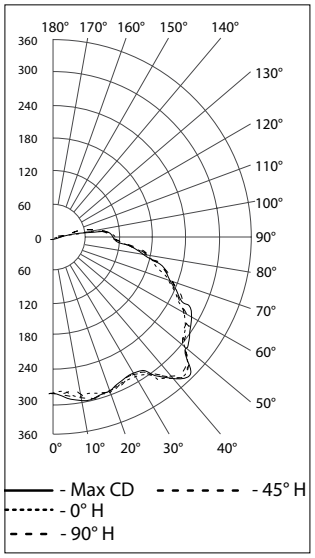
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Clear Glass, 5000K CCT**

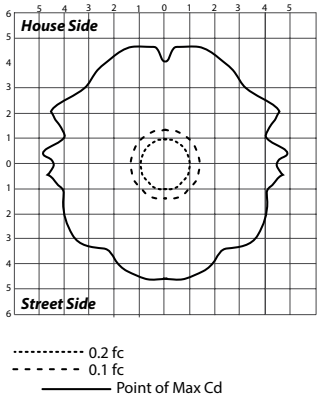
REPORT NUMBER: **AALL1CBU**

Luminaire Lumens 1,700

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 246.9 | 14.5% |
| 0-40 | 439.2 | 25.8% |
| 0-60 | 946.0 | 55.6% |
| 60-90 | 587.7 | 34.6% |
| 70-100 | 458.6 | 27% |
| 90-120 | 162.4 | 9.5% |
| 0-90 | 1,533.7 | 90.2% |
| 90-180 | 167.0 | 9.8% |
| 0-180 | 1,700.7 | 100% |

**LUMENS PER ZONE**

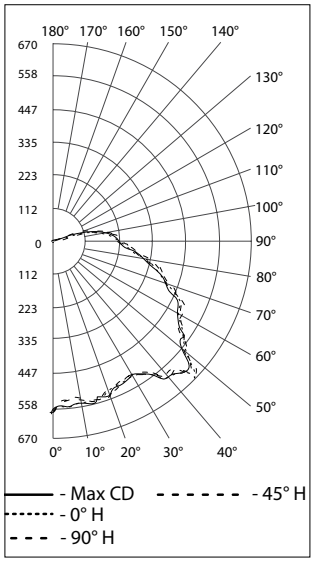
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 28.3 | 1.7% | 90-100 | 108.7 | 6.4% |
| 10-20 | 85.2 | 5.0% | 100-110 | 49.7 | 2.9% |
| 20-30 | 133.4 | 7.8% | 110-120 | 4.0 | 0.2% |
| 30-40 | 192.3 | 11.3% | 120-130 | 3.3 | 0.2% |
| 40-50 | 253.5 | 14.9% | 130-140 | 1.2 | 0.1% |
| 50-60 | 253.2 | 14.9% | 140-150 | 0.1 | 0% |
| 60-70 | 237.7 | 14.0% | 150-160 | 0 | 0% |
| 70-80 | 202.7 | 11.9% | 160-170 | 0 | 0% |
| 80-90 | 147.3 | 8.7% | 170-180 | 0 | 0% |

**Clear Glass, 5000K CCT**

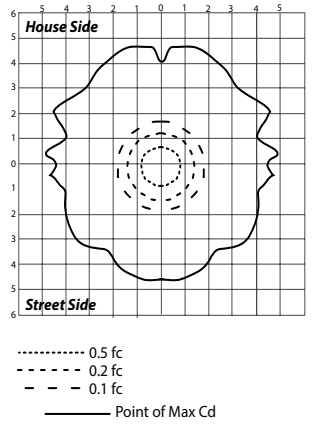
REPORT NUMBER: **AALL2CBU**

Luminaire Lumens 3,200

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 456.9 | 14.4% |
| 0-40 | 802.3 | 25.2% |
| 0-60 | 1,706.4 | 53.7% |
| 60-90 | 1,091.4 | 34.3% |
| 70-100 | 878.5 | 27.6% |
| 90-120 | 372.9 | 11.7% |
| 0-90 | 2,797.8 | 88% |
| 90-180 | 382.7 | 12% |
| 0-180 | 3,180.5 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 52.6 | 1.7% | 90-100 | 225.5 | 7.1% |
| 10-20 | 158.4 | 5.0% | 100-110 | 132.9 | 4.2% |
| 20-30 | 245.9 | 7.7% | 110-120 | 14.5 | 0.5% |
| 30-40 | 345.4 | 10.9% | 120-130 | 6.6 | 0.2% |
| 40-50 | 455.7 | 14.3% | 130-140 | 2.3 | 0.1% |
| 50-60 | 448.4 | 14.1% | 140-150 | 0.7 | 0% |
| 60-70 | 438.4 | 13.8% | 150-160 | 0.1 | 0% |
| 70-80 | 371.1 | 11.7% | 160-170 | 0 | 0% |
| 80-90 | 281.9 | 8.9% | 170-180 | 0 | 0% |

*① For Group A applications, Pendant mounting hood must be used.*

# A-51™ LED Factory Sealed Luminaires

For Group C, D Locations. Explosionproof

Hazardous Locations. Suitable for use in Wet Locations. UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC — For Group C and D: Class I, Division 1, Groups C, D | Class II, Division 1, Groups E, F, G | Class III | Suitable for use in Wet Locations**



## Applications

- Ideal for use in:
  - — Chemical and petrochemical plants
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other heavy process areas where ignitable vapors, dust, moisture and corrosive atmospheres may be present
- Suitable for use in wet locations.

## Features

- All A-51™ LED fixtures are factory sealed; no external sealing fittings required.
- Fixture unit easily threads off mounting hood for convenient servicing or for immediate exchange with new fixture.
- Specially formulated two coat baked epoxy enamel provides superior protective finish to resist corrosion. Applied to all mounting hoods, fixture units and guards.
- Light outputs up to 3,200 lumens.

| Nominal Lumens | HID Equivalent | Incandescent Equivalent | Model |
|---|---|---|---|
| 1700 | 100 - 150W | 100 - 150W | ALL1CBU<br>ALL1WBU |
| 3200 | 200 - 300W | 200 - 300W | ALL2CBU<br>ALL2WBU |

- Globes in A-51™ fixtures are explosionproof, heat- and impact-resistant glass. Prismatic configuration on globe interior provides light control while allowing smooth exterior surface for cleaning.
- Guards to protect globe are easily mounted to globe ring with 3 screws.
- Fixture units have standardized threads to fit all A-51™ LED mounting hoods.
- Ambient Temperature: -25 °C to +55 °C (-13 °F to +131 °F)
- 6 kV Surge Protection.
- Reported L70 is > 55k hours.
- Choice of mountings:
  - — Group C, D:
    - Pendant, ceiling, 25° stanchion ①, long bracket and 15° short bracket.
- 5 year standard warranty.

**Group C, D**

## Options

- Reflectors available, purchase separately
- Aluminum guards available, purchase separately
- Colored glass globes available, purchase separately

## Standard Materials

- Fixtures and guards: copperfree (4/10 of 1% max.) aluminum
- Pendant mounting hoods: copperfree (4/10 of 1% max.) aluminum
- Ceiling and bracket mounting hoods: malleable iron with aluminum adapters
- Reflectors: powder coated aluminum

## Standard Finishes

- Fixtures, guards and mounting hoods: electrostatically applied for complete, uniform surface protection

## NEC/CEC Certifications and Compliances

- UL Standard: UL 1598; UL 844
- CSA Standard: C22.2 No. 137; C22.2 No 250.0-08
- cULus Listed: E10444
- Suitable for use in Wet Locations

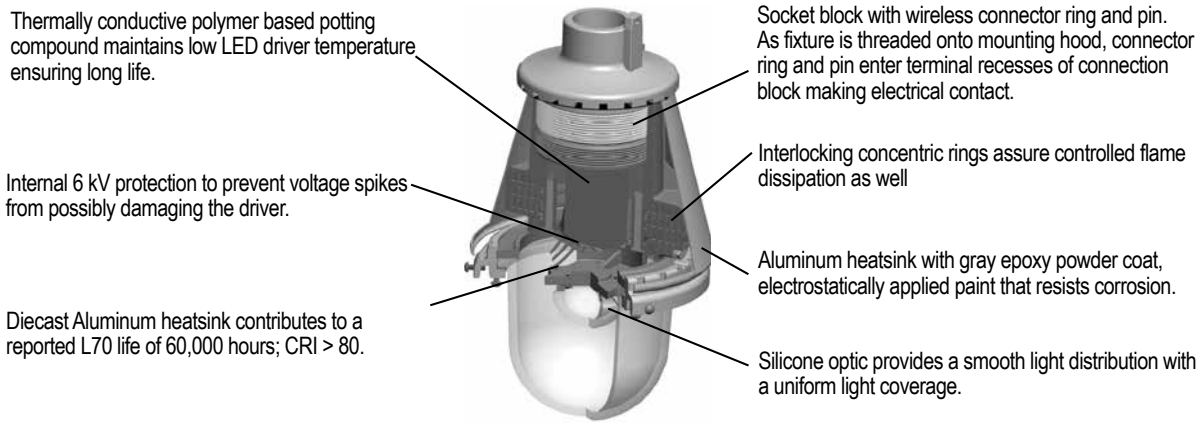
## Design Lights™ Consortium

- Check DLC QPL for current list of products

## Related Products

- Code•Master™ LED Factory Sealed Luminaires
- Code•Master™ Jr. LED Factory Sealed Luminaires

**Illustrated Features A-51™ LED Class I, Division 1, Groups C, D**




*① 25° stanchion mounting hood is not UL certified for use with A-51™ fixtures.*

# A-51™ LED Factory Sealed Luminaires

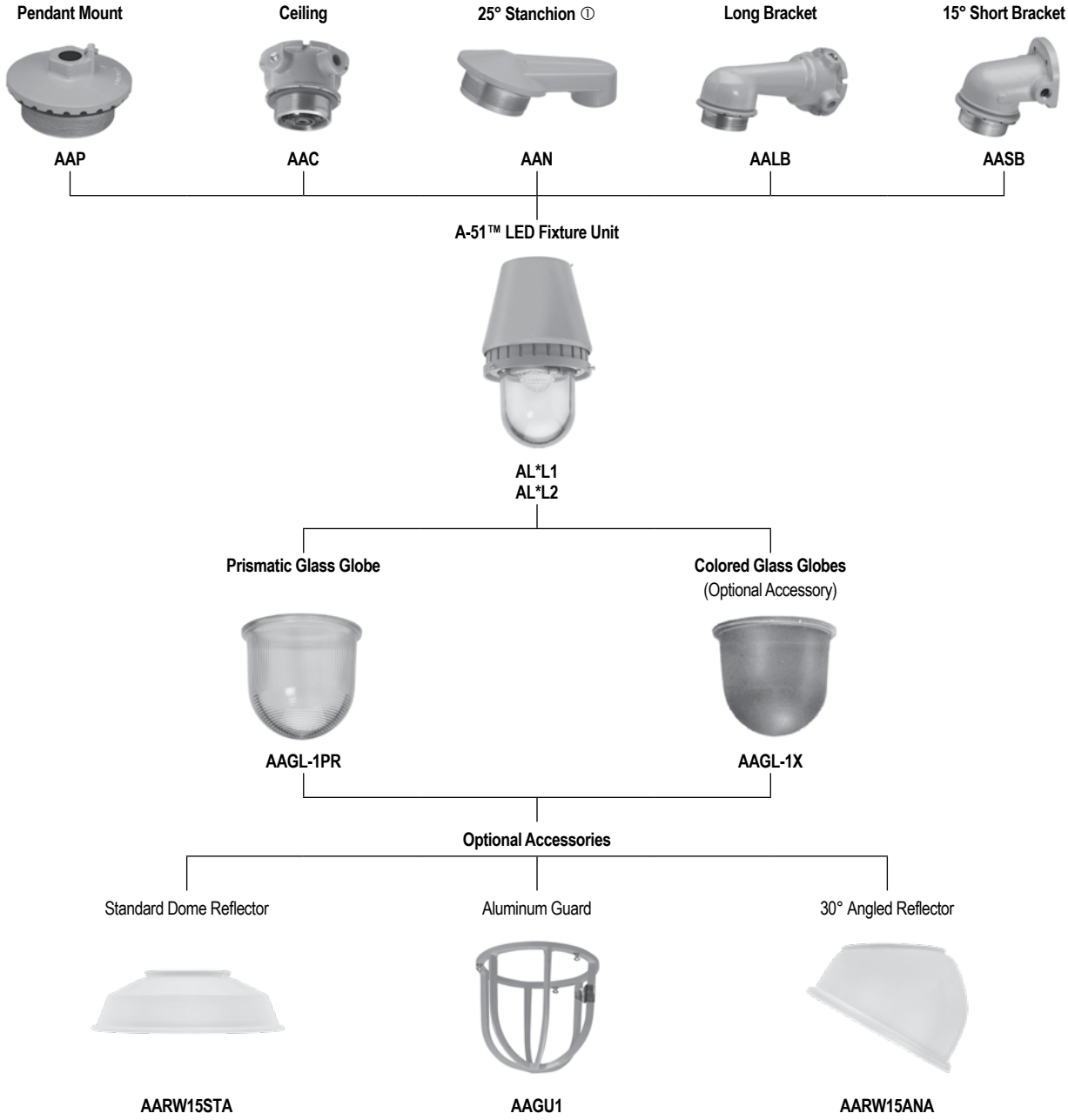
For Group C, D Locations. Explosionproof

Hazardous Locations. Suitable for use in Wet Locations. UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC — For Group C and D: Class I, Division 1, Groups C, D | Class II, Division 1, Groups E, F, G | Class III | Suitable for use in Wet Locations**



## A-51™ LED Factory Sealed Luminaires Family Tree — Groups B, C, D




*① 25° stanchion mounting hood is not UL certified for use with A-51™ fixtures.*

# A-51™ LED Factory Sealed Luminaires

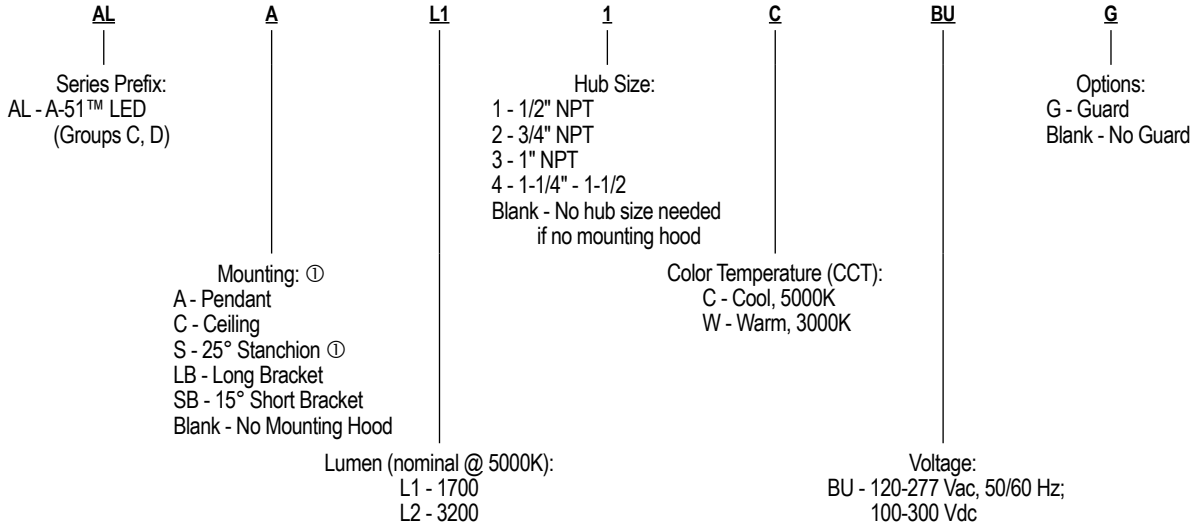
For Group C, D Locations. Explosionproof

Hazardous Locations. Suitable for use in Wet Locations. UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC — For Group C and D: Class I, Division 1, Groups C, D | Class II, Division 1, Groups E, F, G | Class III | Suitable for use in Wet Locations**



**Order Using Catalog Numbering Guide — A-51™ LED Factory Sealed Luminaires — For Groups C, D**




**Lumen Output (Efficacy)** ②

| Model | HID Equivalency | Incandescent Equivalent | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AL*L1 | 50W | 100 - 150W | Type V | 3000K | 80 | 1600 | 126 | 5000K | 80 | 1700 | 134 |
| AL*L2 | 70 - 100W | 200 - 300W | Type V | 3000K | 80 | 3000 | 114 | 5000K | 80 | 3100 | 118 |

*① 25° stanchion mounting hood is not UL certified for use with A-51™ fixtures.*
*② All lumen values are typical (tolerance +/-10%).*

# A-51™ LED Factory Sealed Luminaires

For Group C, D Locations. Explosionproof

Hazardous Locations. Suitable for use in Wet Locations. UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC — For Group C and D: Class I, Division 1, Groups C, D | Class II, Division 1, Groups E, F, G | Class III | Suitable for use in Wet Locations**



**Electrical Specifications** ①

| Model | Voltage (V) | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| AL*L1 | 120 Vac | 12.7 | 0.11 | >.98 | <20% |
| | 277 Vac | 13.6 | 0.05 | >.91 | <20% |
| | 100 Vdc | 12.7 | 0.13 | >.99 | <20% |
| | 300 Vdc | 13.9 | 0.05 | >.99 | <20% |
| AL*L2 | 120 Vac | 26.3 | 0.22 | >.94 | <20% |
| | 277 Vac | 26.8 | 0.10 | >.92 | <20% |
| | 100 Vdc | 26.4 | 0.26 | >.99 | <20% |
| | 300 Vdc | 27.0 | 0.09 | >.99 | <20% |

**NEC/CEC Temperature Codes**

| Model | Maximum Ambient Temperature °C (°F) | Supply Wire °C (°F) | Class I, Division 1 | Class II, Division 1 |
|---|---|---|---|---|
| **Class I Division 1 and Division 2 Groups C and D** | | | | |
| ALL1CBU | +55 (+131) | +125 (+257) | T6 | T6 |
| ALL1WBU | | | | |
| ALL2CBU | | | | |
| ALL2WBU | | | | |

**"T" Numbers Represent the Maximum Surface Temperature for Class I, Division 1 locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.** ②③

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

① *All values are typical (tolerance +/-10%).*

② *T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*

③ *T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 as designated by the NEC.*

# A-51™ LED Factory Sealed Luminaires

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**NEC/CEC — For Group C and D: Class I, Division 1, Groups C, D | Class II, Division 1, Groups E, F, G | Class III | Suitable for use in Wet Locations**



**Catalog Number for Driver Housing and Globe**

| | Lumen Level | CCT | Optics | Weight in kg (lbs) | Catalog Number ② |
|---|---|---|---|---|---|
| | 1700 | 5000K | Type V | 3.7 (8.2) | **ALL1CBU** |
| | 3100 | 5000K | Type V | | **ALL2CBU** |
| | 1600 | 3000K | Type V | | **ALL1WBU** |
| | 3000 | 3000K | Type V | | **ALL2WBU** |

**Mounting Hoods**

| | Hub Size (Inches) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Pendant — One Hub, Rigid or Flexible Mounting** | | | |
| | 1/2" NPT | 0.6 (1.3) | **AAP-50** |
| | 3/4" NPT | | **AAP-75** |
| | 1" NPT | | **AAP-100** |
| **Ceiling — Four Hubs, Three Close-up Plugs** | | | |
| | 1/2" NPT | 2.2 (4.8) | **AAC-50** |
| | 3/4" NPT | | **AAC-75** |
| | 1" NPT | | **AAC-100** |
| **15˚ Short Bracket — Two Hubs, One Close-up Plug** | | | |
| | 1/2" NPT | 2.2 (4.8) | **AASB-50** |
| | 3/4" NPT | | **AASB-75** |
| **25° Stanchion — One Hub ②** | | | |
| | 1-1/2" NPT ③ | 0.7 (1.6) | **AAN-150** |
| **Long Bracket — Four Hubs, Three Close-up Plugs** | | | |
| | 1/2" NPT | 4.0 (8.9) | **AALB-50** |
| | 3/4" NPT | | **AALB-75** |
| | 1" NPT | | **AALB-100** |
| **15˚ Short Bracket — Two Hubs, One Close-up Plug** | | | |
| | 1/2" NPT | 2.2 (4.8) | **AASB-50** |
| | 3/4" NPT | | **AASB-75** |

*① For guard, add suffix -**G** to catalog number.*
*② 25° stanchion mounting hood is not UL certified for use with A-51™ fixtures.*
*③ 1-1/2" tapped hub furnished with a 1-1/2" to 1-1/4" reducer. Not UL Listed.*

# A-51™ LED Factory Sealed Luminaires

For Group C, D Locations. Explosionproof

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**NEC/CEC — For Group C and D: Class I, Division 1, Groups C, D | Class II, Division 1, Groups E, F, G | Class III | Suitable for use in Wet Locations**



**Accessories and Replacement Parts**

| Type | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| | Colored Glass Globe - Amber | 1.2 (2.6) | **AAGL1A** |
| | Colored Glass Globe - Green | 0.8 (1.8) | **AAGL1G** |
| | Colored Glass Globe - Red | 1.0 (2.3) | **AAGL1R** |
| | Prismatic Glass Globe with gaskets for use with (ALL1CBU, ALL2CBU, ALL1WBU, or ALL2WBU) | 0.9 (2.0) | **AAGL1PR** |
| | Aluminum Guard for use with (ALL1CBU, ALL2CBU, ALL1WBU, or ALL2WBU) | 0.2 (0.4) | **AAGU1** |
| | Connection block for all A-51™ LED mounting hoods | 0.05 (0.12) | **VPT7** |
| | Standard dome reflector | 0.32 (0.72) | **AARW15STA** |
| | 30° angled reflector | 0.52 (1.16) | **AARW15ANA** |

# A-51™ LED Factory Sealed Luminaires

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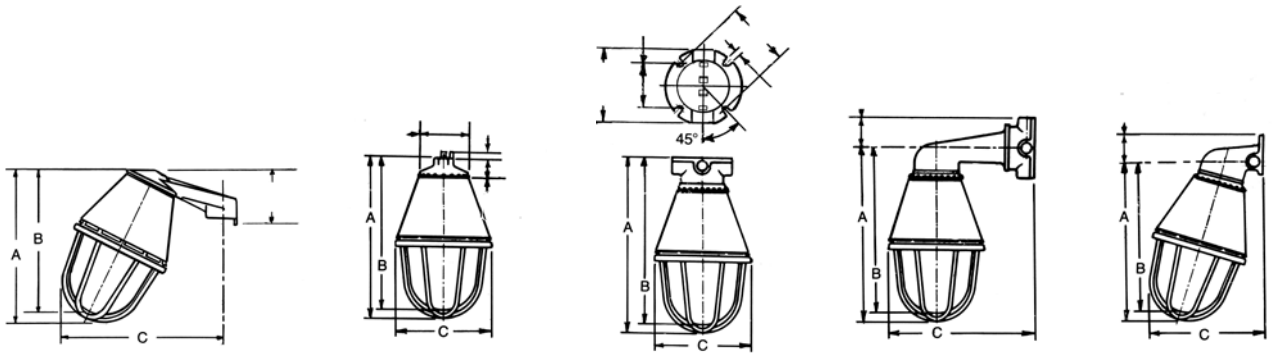
**NEC/CEC — For Group C and D: Class I, Division 1, Groups C, D | Class II, Division 1, Groups E, F, G | Class III | Suitable for use in Wet Locations**



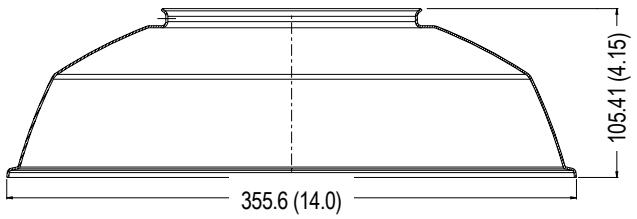
**Dimensions in Millimeters (Inches)**



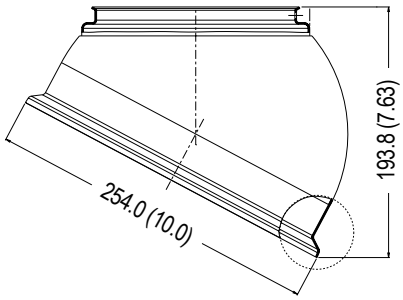

| | 25° Stanchion ① | | | Pendant | | | Ceiling | | | Long Bracket | | | Short Bracket | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Model** | **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** |
| AL*L1 or AL*L2 | 291.3 (11.47) | 275.6 (10.85) | 292.1 (11.50) | 311.2 (12.25) | 295.4 (11.63) | 179.3 (7.06) | 349.3 (13.75) | 333.5 (13.13) | 179.3 (7.06 | 349.3 (13.75) | 333.5 (13.13) | 314.5 (12.38) | 344.4 (13.56) | 328.7 (12.94) | 231.9 (9.13) |

**Dimensional Drawings in Millimeters (Inches) — Reflector**

**AARW15STA**




**AARW15ANA**




*① 25° stanchion mounting hood is not UL certified for use with A-51™ fixtures.*

# A-51™ LED Factory Sealed Luminaires

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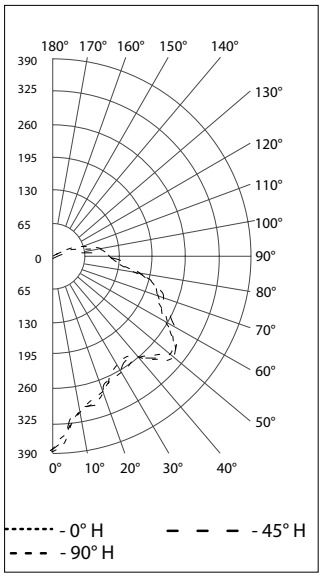
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Prismatic Glass, 5000K CCT**

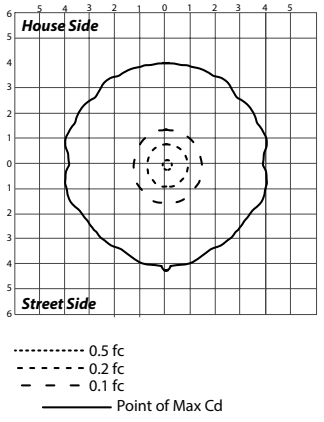
REPORT NUMBER: **ALL1CBU**

Luminaire Lumens 1,700

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 239.1 | 14.3% |
| 0-40 | 394.6 | 23.6% |
| 0-60 | 867.3 | 51.8% |
| 60-90 | 588.8 | 35.2% |
| 70-100 | 475.0 | 28.4% |
| 90-120 | 213.7 | 12.8% |
| 0-90 | 1,456.1 | 87% |
| 90-180 | 218.0 | 13% |
| 0-180 | 1,674.1 | 100% |

**LUMENS PER ZONE**

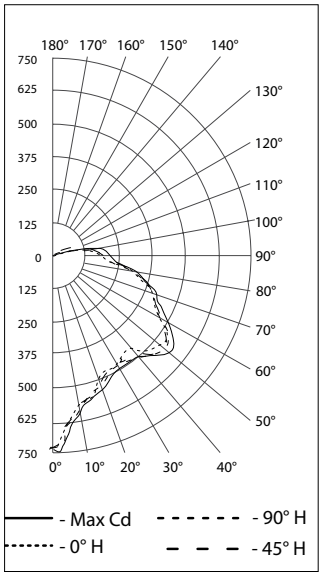
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 32.1 | 1.9% | 90-100 | 120.1 | 7.2% |
| 10-20 | 84.6 | 5.1% | 100-110 | 80.0 | 4.8% |
| 20-30 | 122.4 | 7.3% | 110-120 | 13.7 | 0.8% |
| 30-40 | 155.5 | 9.3% | 120-130 | 3.5 | 0.2% |
| 40-50 | 219.8 | 13.1% | 130-140 | 0.8 | 0% |
| 50-60 | 253.0 | 15.1% | 140-150 | 0.0 | 0% |
| 60-70 | 233.9 | 14.0% | 150-160 | 0 | 0% |
| 70-80 | 205.8 | 12.3% | 160-170 | 0 | 0% |
| 80-90 | 149.1 | 8.9% | 170-180 | 0 | 0% |

**Prismatic Glass, 5000K CCT**

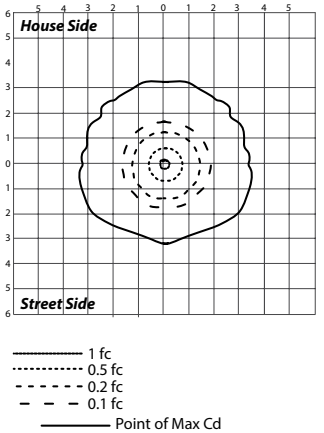
REPORT NUMBER: **ALL2CBU**

Luminaire Lumens 3,100

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 453.8 | 14.6% |
| 0-40 | 757.9 | 24.4% |
| 0-60 | 1,625.8 | 52.3% |
| 60-90 | 1,069.3 | 34.4% |
| 70-100 | 862.9 | 27.7% |
| 90-120 | 406.3 | 13.1% |
| 0-90 | 2,695.1 | 86.7% |
| 90-180 | 415.0 | 13.3% |
| 0-180 | 3,110.0 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 62.2 | 2.0% | 90-100 | 219.1 | 7% |
| 10-20 | 158.9 | 5.1% | 100-110 | 153.6 | 4.9% |
| 20-30 | 232.7 | 7.5% | 110-120 | 33.6 | 1.1% |
| 30-40 | 304.1 | 9.8% | 120-130 | 6.8 | 0.2% |
| 40-50 | 406.9 | 13.1% | 130-140 | 1.6 | 0.1% |
| 50-60 | 461.1 | 14.8% | 140-150 | 0.3 | 0% |
| 60-70 | 425.5 | 13.7% | 150-160 | 0 | 0% |
| 70-80 | 371.3 | 11.9% | 160-170 | 0 | 0% |
| 80-90 | 272.5 | 8.8% | 170-180 | 0 | 0% |

# Industrial Mercmaster™ Connect LED Luminaires

Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**



## Applications

- Typical applications include:
  - — Power plants
  - — Processing plants
  - — Foundries
  - — Pulp and paper mills
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other areas where dust, water, dirt and rough usage are a problem

## Features

- Integrated WirelessHART® ⌑ Sensor Module:
  - — Passive Infrared Motion Sensing with field replaceable PIR Fresnel lens
  - — Embedded illuminance sensor
  - — Device health monitoring and alerts
  - — Strengthens WirelessHART® ⌑ network with a line powered luminaire
- Adjustable LED Driver output:
  - — User selectable maximum lumen output
  - — Fully dimmable driver from 100% to 0%
- Commission within Emerson Plantweb Insight's Connected Lighting Application:
  - — Asset Management
  - — Map Based Commissioning
  - — Programmable central or standalone control modes
- Field provisioning with either Emerson AMS Device Manager or Emerson TREX handheld.
- Modular design provides thousands of combinations for maximum versatility.
- Design is suited for mounting heights ranging from 2 m up to 10 m (7 ft up to 40 ft).
- Three adjustable light outputs provide up to 17,500 lumens (5000K CCT, Type V light distribution, and clear glass globe).

| Nominal Lumens ① | HID Equivalent | Model |
|---|---|---|
| Up to 5500 | 100-150W | IMGCL5 |
| Up to 9500 | 250-350W | IMGCL9 |
| Up to 17,500 | 400-600W | IMGCH6 |

- Choice of optics for optimal light distribution in a variety of applications: Type I, Type III, Type V or Type V Wide.
- Choice of color temperature (CCT): 5000K cool white (70 CRI min), 4500K mid-neutral (80 CRI min), 4000K neutral white (80 CRI min), 3500K mid-warm (80 CRI min), or 3000K warm white (80 CRI min).
- Customize to the application requirements with three different globe options: clear and diffused polycarbonate or clear glass.
- Seven standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster III.
- Retrofit adapters for Crouse-Hinds™ ✢, Mercmaster II , and Killark ✧ hoods available. *See Mounting Hood Adapters table*.
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on fixture housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies installation.

**IMGCL**

**IMGCH**

- Rugged housing with superior thermal design translates to long luminaire life.
- Luminaire housing has wiring compartment with terminal block separate for easy wiring access.
- Spring-loaded screw-type terminal block can accept UL/CSA 14 to 6 $mm^2$ (26-10 AWG) wire.
- HART® Service Port connection inside top hat.
- Standard 6 kV surge protection.
- Heavy duty, high temperature silicone gaskets.
- Photometric data and electronic drawings available upon request.
- Ambient Temperature (standard product): -40 ˚C to +65 ˚C (-40 ˚F to +149 ˚F).
- Standard NPT threads with M20 option.
- LED L70 reported at 76,000 hours.
- Field replaceable globes, LED driver, and PIR Fresnel Lens.
- 5 year standard warranty. 10 year limited warranty for select part number configurations.

## Options

- Globe available, *purchase separately*.
- Safety cable available, *purchase separately*.
- All Mercmaster Connect luminaires have provision for fusing; add suffix **–F** at the end of the catalog number.
- Drain is available to divert water existing in the conduit system, *purchase separately*.

## Standard Materials

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- Sensor housing: polycarbonate
- PIR Fresnel Lens: HDPE
- Gaskets: silicone
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Globe guard and safety cable: stainless steel wire

## Standard Finishes

- Mounting hoods and bodies: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

## NEC/CEC Certifications and Compliances

- UL Standard: UL 1598; UL 50E; UL1598A; UL 8750
- CSA Standard: C22.2 No. 250.0; C22.2 No. 250.13; C22.2 No. 94.2; C22.2 No. 0; C22.2 No. 60529
- NEMA ANSI/IEC Standards:
- cCSAus: 164460, Certificate Number: 80046113

① *Nominal lumen value for 5000K, clear glass globe, Type V Wide optic. Detailed lumen information is provided in the " Lumen Output (Efficacy)" tables.*

✧ *Killark is a registered trademark of Hubbell Incorporated.*

✢ *Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*

⌑ *HART and WirelessHART are registered trademarks of the FieldComm Group.*

# Industrial Mercmaster™ Connect LED Luminaires

Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**



### Design Lights™ Consortium

- Check DLC QPL for current list of products.

### Wireless Spectrum Approvals

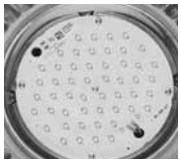
- FCC ID: LW2-RM5801
- IC ID: 2731A-RM5801

### Related Products

- Appleton Wireless Motion Sensor
- Mercmaster Connect LED Luminaires
- Emerson Plantweb Insight Connected Lighting Application
- Emerson 1410S WirelessHART Gateway
- Emerson 1410D WirelessHART Gateway

### Illustrated Features

**Programmable Lumen Output**



Program the nominal lumen value based on the mounting height.

L5 – 3500 or 5500 lumens
L9 – 7500, or 9500 lumens
H6 – 11500, 13500, or 17500 lumens

**Standalone vs Central Controls**

Standalone modes are available. Connected to a WirelessHart network or when by itself in remote locations.

**Standalone Control Modes:**

1. Motion Sensing
2. Lux Sensing
3. Motion + Lux Sensing
4. Daylight Harvesting

Using Plantweb Insight, central control modes operate across an assigned group of luminaires.

**Central Control Modes:**

1. Group Sensing Control - Control a group of luminaires together based on the state of the illuminance and motion sensors
2. Time Based Schedule - Schedule up to four time periods per day to turn on groups of luminaires based on the current network time
3. Always On- Set a group of light fixtures to a common light dimming level from 0 to 100%.

**Dimming**

Mercmaster Connect's LED Driver fully dims the light output from 100% down to 0% based on the active operating mode.

**Plantweb Insight Connected Lighting Application**

PLANTWEB insight

Enables critical system monitoring without adding another lighting control system. Commission lighting controls, monitor lighting performance, and review historical energy analytics.

**Failsafe Operating Mode**

If the rare case of communication loss from a WirelessHART® ⌑ gateway, all Mercmaster Connect LED Luminaires on that gateway will revert to maximum brightness until communication is restored.

**Maintenance Alerts**

Internal sensors monitor the health and reliability of the Mercmaster Connect electronics and provide status updates over WirelessHART® ⌑.

**Robust and Reliable WirelessHart Protocol**

WirelessHART

Emerson's WirelessHART® ⌑ combines HART technology with wireless capabilities to create an adaptable wireless communications protocol for process automation applications. WirelessHART® ⌑ offers simple installation and robust, layered security to ensure network protection.

**Integrated Motion Sensor**

Utilizing passive infrared detection (PIR), Mercmaster Connect can detect human sized objects from up to 40 ft away. Mercmaster Connect offers two PIR Fresnel lens factory options based on the mounting height to optimize the detection performance.

⌑ *HART and WirelessHART are registered trademarks of the FieldComm Group.*

# Industrial Mercmaster™ Connect LED Luminaires

Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Ordinary Locations

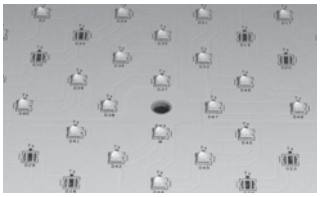
**NEC/CEC: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**



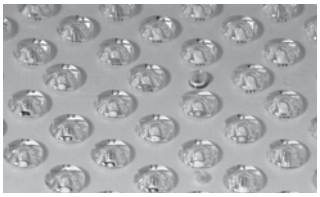
## Illustrated Features

**Type I** - Long and narrow distribution pattern designed with walkways in mind.

**Type III** - Wall mounted distribution pattern designed where you need good forward light projection.



**Type V** - Symmetrical circle distribution pattern ideal when you need even coverage in all directions.



**Type V Wide** - Like the Type V distribution pattern with more vertical lumens designed to help spread the light quicker and more outwards.

Choose from **three color temperatures** (CCT): 3000K, 4000K, and 5000K ‡

**Four light distribution patterns**: Type I, Type III, Type V and Type V Wide for application flexibility.

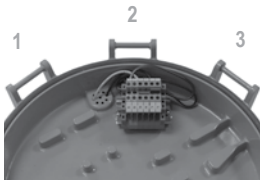
**Seven mounting hoods** allow one fixture to be configured for ceiling, pendant, stanchion, or wall applications.

**Four globes**: clear and diffused polycarbonate, clear glass globe, and prismatic refractor provide just the right level of diffusion.

### Safety Features

**Latch Assembly and Hinge**: Captive, stainless steel latch assembly (bolt and nut) closes securely while providing resistance to corrosive atmospheres. Swing-away design simplifies wiring and installation. Extra high hinge provides additional protection against accidental driver housing disengagement during installation or maintenance.

### Type I and Type III Hinge System



Type I and Type III light distribution patterns use a multiple hinged housing design which allows you to correctly line up the beam pattern in your desired direction. By using one of the three available hinges you can position the fixture for optimal light output.

### Designed for the Environment

Driver housing design incorporates separate sections for the terminal block and driver. The efficient thermal design ensures reliable heat transfer from the LED assembly out via the heatsink and the cast, epoxy powder coat, aluminum housing.

### Safety Cable

Safety cable is slipped around the housing through retention points that are casted in. Safety cable has built in loops combined with a locking carabiner to allow for a quick and secure installation.

### Watertight Pendant Hood

Watertight pendant hood provides protection against water ingress in the conduit utilizing an IP68 cord grip with 3 wire holes 4 mm (0.157") in diameter.

*‡ Other CCT options available upon request. Contact your local sales representative for more information.*

# Industrial Mercmaster™ Connect LED Luminaires

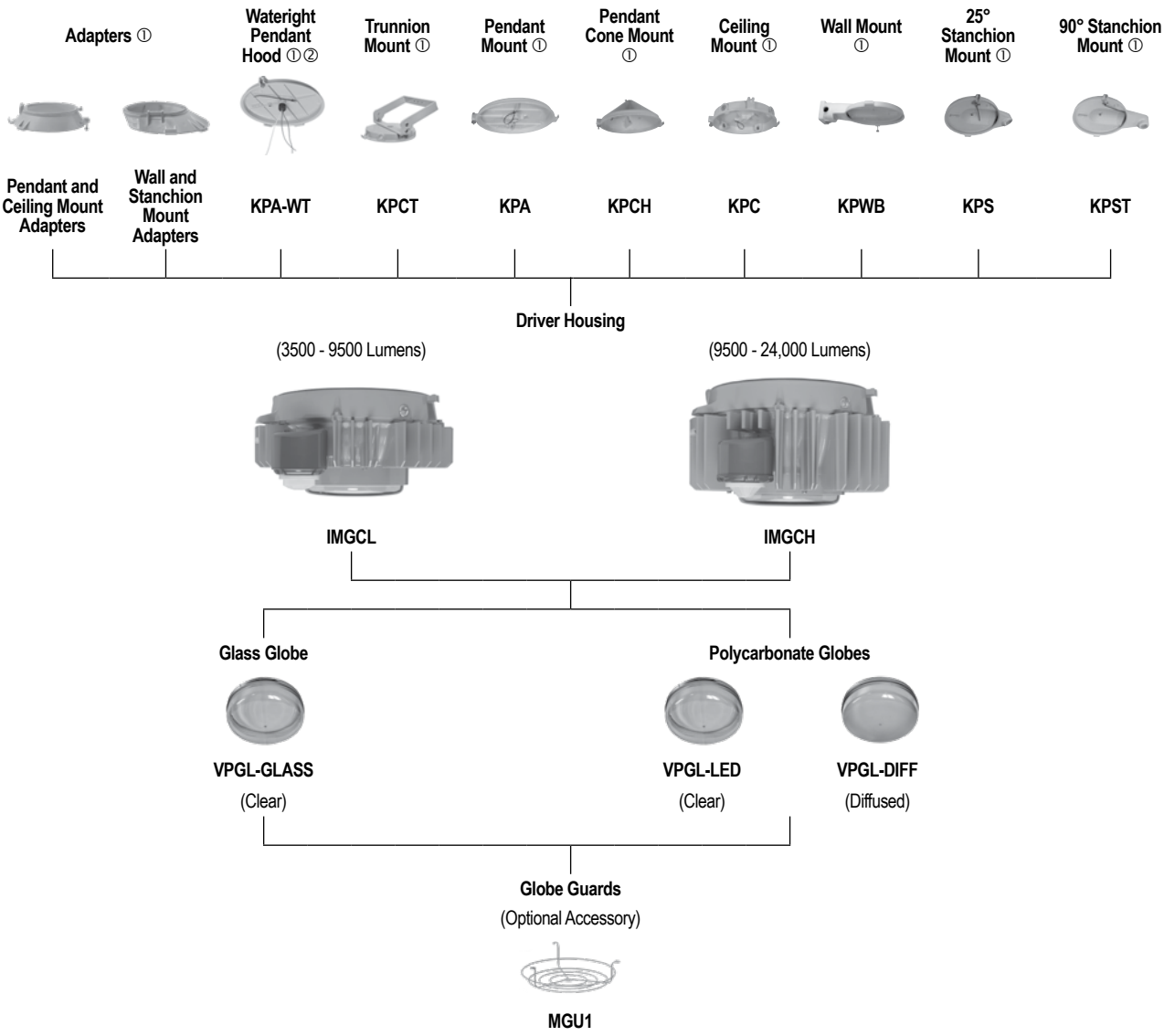
Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**



## Family Tree — Industrial Mercmaster™ Connect LED Luminaires




① *See Mounting Hood Adapters table for part numbers.*
② *Certified for cCSAus only.*

# Industrial Mercmaster™ Connect LED Luminaires

Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Ordinary Locations

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**Order Using Catalog Numbering Guide — Industrial Mercmaster™ Connect LED Hazardous Location Luminaires**

| MGC | A | L5 | 2 | N | D | 5 | BU | F | 7 | N |
|---|---|---|---|---|---|---|---|---|---|---|

**MGC** — Series Prefix:
IMGC - Industrial Mercmaster Connect LED

**A** — Mounting:
A - Pendant
B - Watertight Pendant ⏃
C - Ceiling ②
D - Pendant Cone ②
R - 90° Stanchion ①
S - 25° Stanchion ①
T - Trunnion
K - Killark™ ✧ Adapter Universal ⏃
U - Mercmaster II Adapter, Ceiling or Pendant ⏃
V - Mercmaster II Adapter, Stanchion or Wall ⏃
W - Wall
X - Crouse Hinds™ ✢ Adapter, Ceiling or Pendant ⏃
Y - Crouse Hinds™ ✢ Adapter, Stanchion or Wall ⏃
Blank - No mounting hood

**L5** — Lumen (nominal):
L5 - Up to 5,500
L9 - Up to 9,500
H6 - Up to 17,500

**2** — Hub Size:
2 - 3/4" NPT
3 - 1" NPT
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion
6 - Metric M20
Blank - If using adapter or no hood

**N** — Color Temperature: ‡
C - Cool, 5000K
N - Neutral, 4000K
M- Mid Neutral, 4500K
W - Warm, 3000K
R- Mid-Warm, 3500K (retail)

**D** — Globe Material:
P - Clear Polycarbonate Globe
D - Diffused Polycarbonate Globe
G - Clear Glass Globe

**5** — Light Distribution Pattern:
1 - Type I
3 - Type III
5 - Type V
W - Type V Wide

**BU** — Voltage:
BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc

**F** — Options: ⌘
F - Fusing
Blank - No fusing

**7** — Control Options:
7 - Motion and Illuminance Sensor, WirelessHart™ ⌑ Interface

**N** — PIR Fresnel Lens:
N - Between 20 to 40 ft mounting height
P- Below 20 ft mounting height

*① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in this mounting option.*
*② Only allowed for Type V and Type V Wide light distribution.*
*⌘ Fusing only permitted for NEC/CEC rating. Factory installed. Use of fuse voids Marine Outside Type (Salt Water) rating. Fusing is mounted in the driver housing.*
*‡ Other CCT options available upon request. Contact your local sales representative for more information.*
*⏃ Adapters, watertight pendant hood and BH Voltage only certified for NEC/CEC.*
*✧ Killark is a registered trademark of Hubbell Incorporated.*
*✢ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*
*⌑ HART and WirelessHART are registered trademarks of the FieldComm Group.*
*Note: For other lighting combinations, please contact your local Appleton representative for more information.*

# Industrial Mercmaster™ Connect LED Luminaires

Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**



**Lumen Output (Efficacy) ①②**

| Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe — Model MGCL5 — 100-150W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 4400 | 92 | 3500K | 80 | 4500 | 93 | 4000K | 80 | 4580 | 95 | 4500K | 80 | 4750 | 99 | 5000K | 70 | 4900 | 102 |
| Type-III | 3000K | 80 | 4620 | 96 | 3500K | 80 | 4700 | 98 | 4000K | 80 | 4800 | 100 | 4500K | 80 | 4990 | 104 | 5000K | 70 | 5140 | 107 |
| Type-V | 3000K | 80 | 4770 | 99 | 3500K | 80 | 4860 | 101 | 4000K | 80 | 4960 | 103 | 4500K | 80 | 5150 | 107 | 5000K | 70 | 5300 | 110 |
| Type-V Wide | 3000K | 80 | 4520 | 94 | 3500K | 80 | 4600 | 96 | 4000K | 80 | 4700 | 98 | 4500K | 80 | 4870 | 101 | 5000K | 70 | 5020 | 105 |
| **Clear Polycarbonate Globe — Model MGCL9 — 250-350W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 7860 | 100 | 3500K | 80 | 8060 | 103 | 4000K | 80 | 8170 | 104 | 4500K | 80 | 8400 | 107 | 5000K | 70 | 9300 | 119 |
| Type-III | 3000K | 80 | 8250 | 105 | 3500K | 80 | 8460 | 108 | 4000K | 80 | 8570 | 109 | 4500K | 80 | 8800 | 112 | 5000K | 70 | 9750 | 125 |
| Type-V | 3000K | 80 | 8430 | 108 | 3500K | 80 | 8650 | 111 | 4000K | 80 | 8770 | 112 | 4500K | 80 | 9010 | 115 | 5000K | 70 | 9970 | 127 |
| Type-V Wide | 3000K | 80 | 8120 | 104 | 3500K | 80 | 8330 | 106 | 4000K | 80 | 8450 | 108 | 4500K | 80 | 8670 | 111 | 5000K | 70 | 9600 | 123 |
| **Clear Polycarbonate Globe — Model MGCH6 — 400-600W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 13600 | 93 | 3500K | 80 | 13900 | 95 | 4000K | 80 | 14100 | 97 | 4500K | 80 | 14470 | 99 | 5000K | 70 | 16100 | 110 |
| Type-III | 3000K | 80 | 14200 | 97 | 3500K | 80 | 14500 | 100 | 4000K | 80 | 14700 | 101 | 4500K | 80 | 15100 | 104 | 5000K | 70 | 16800 | 115 |
| Type-V | 3000K | 80 | 15200 | 104 | 3500K | 80 | 15600 | 107 | 4000K | 80 | 15800 | 108 | 4500K | 80 | 16200 | 111 | 5000K | 70 | 18000 | 124 |
| Type-V Wide | 3000K | 80 | 13940 | 95 | 3500K | 80 | 14270 | 98 | 4000K | 80 | 14450 | 99 | 4500K | 80 | 14850 | 102 | 5000K | 70 | 16500 | 113 |
| **Diffused Polycarbonate Globe — Model MGCL5 — 100-150W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 4180 | 87 | 3500K | 80 | 4260 | 88 | 4000K | 80 | 4350 | 90 | 4500K | 80 | 4510 | 94 | 5000K | 70 | 4650 | 97 |
| Type-III | 3000K | 80 | 4400 | 91 | 3500K | 80 | 4480 | 93 | 4000K | 80 | 4570 | 95 | 4500K | 80 | 4740 | 98 | 5000K | 70 | 4890 | 102 |
| Type-V | 3000K | 80 | 4660 | 97 | 3500K | 80 | 4750 | 99 | 4000K | 80 | 4850 | 101 | 4500K | 80 | 5030 | 105 | 5000K | 70 | 5180 | 108 |
| Type-V Wide | 3000K | 80 | 4310 | 90 | 3500K | 80 | 4390 | 91 | 4000K | 80 | 4480 | 93 | 4500K | 80 | 4650 | 97 | 5000K | 70 | 4790 | 100 |
| **Diffused Polycarbonate Globe — Model MGCL9 — 250-350W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 7470 | 96 | 3500K | 80 | 7660 | 98 | 4000K | 80 | 7770 | 99 | 4500K | 80 | 7980 | 102 | 5000K | 70 | 8830 | 113 |
| Type-III | 3000K | 80 | 7820 | 100 | 3500K | 80 | 8030 | 102 | 4000K | 80 | 8140 | 104 | 4500K | 80 | 8360 | 107 | 5000K | 70 | 9250 | 118 |
| Type-V | 3000K | 80 | 8200 | 105 | 3500K | 80 | 8400 | 107 | 4000K | 80 | 8520 | 109 | 4500K | 80 | 8750 | 112 | 5000K | 70 | 9680 | 124 |
| Type-V Wide | 3000K | 80 | 7740 | 99 | 3500K | 80 | 7940 | 101 | 4000K | 80 | 8050 | 103 | 4500K | 80 | 8270 | 106 | 5000K | 70 | 9140 | 117 |
| **Diffused Polycarbonate Globe — Model MGCH6 — 400-600W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 12870 | 88 | 3500K | 80 | 13170 | 90 | 4000K | 80 | 13340 | 92 | 4500K | 80 | 13700 | 94 | 5000K | 70 | 15230 | 105 |
| Type-III | 3000K | 80 | 13430 | 92 | 3500K | 80 | 13740 | 94 | 4000K | 80 | 13900 | 96 | 4500K | 80 | 14300 | 98 | 5000K | 70 | 15900 | 109 |
| Type-V | 3000K | 80 | 14670 | 100 | 3500K | 80 | 15010 | 103 | 4000K | 80 | 15200 | 104 | 4500K | 80 | 15620 | 107 | 5000K | 70 | 17360 | 119 |
| Type-V Wide | 3000K | 80 | 13220 | 91 | 3500K | 80 | 13530 | 93 | 4000K | 80 | 13700 | 94 | 4500K | 80 | 14100 | 97 | 5000K | 70 | 15640 | 107 |

*① All lumen values are typical (tolerance +/-10%).*

*② Diffused polycarbonate globe can be used with Type I, III and V wide. Refer to photometric files for lumen output information.*

# Industrial Mercmaster™ Connect LED Luminaires

Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**



**Lumen Output (Efficacy) ①②**

| Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass Globe — Model MGCL5 — 100-150W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 4610 | 96 | 3500K | 80 | 4700 | 98 | 4000K | 80 | 4800 | 100 | 4500K | 80 | 4980 | 103 | 5000K | 70 | 5130 | 107 |
| Type-III | 3000K | 80 | 4850 | 101 | 3500K | 80 | 4940 | 103 | 4000K | 80 | 5040 | 105 | 4500K | 80 | 5230 | 109 | 5000K | 70 | 5400 | 112 |
| Type-V | 3000K | 80 | 4970 | 104 | 3500K | 80 | 5060 | 106 | 4000K | 80 | 5170 | 108 | 4500K | 80 | 5360 | 112 | 5000K | 70 | 5530 | 115 |
| Type-V Wide | 3000K | 80 | 4730 | 98 | 3500K | 80 | 4820 | 100 | 4000K | 80 | 4920 | 102 | 4500K | 80 | 5100 | 106 | 5000K | 70 | 5260 | 109 |
| **Clear Glass Globe — Model MGCL9 — 250-350W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 8220 | 105 | 3500K | 80 | 8430 | 108 | 4000K | 80 | 8550 | 109 | 4500K | 80 | 8780 | 112 | 5000K | 70 | 9710 | 124 |
| Type-III | 3000K | 80 | 8630 | 110 | 3500K | 80 | 8850 | 113 | 4000K | 80 | 8980 | 115 | 4500K | 80 | 9220 | 118 | 5000K | 70 | 10200 | 131 |
| Type-V | 3000K | 80 | 8800 | 112 | 3500K | 80 | 9030 | 116 | 4000K | 80 | 9150 | 117 | 4500K | 80 | 9400 | 120 | 5000K | 70 | 10400 | 133 |
| Type-V Wide | 3000K | 80 | 8480 | 108 | 3500K | 80 | 8700 | 111 | 4000K | 80 | 8820 | 113 | 4500K | 80 | 9060 | 116 | 5000K | 70 | 10020 | 128 |
| **Clear Glass Globe — Model MGCH6 — 400-600W HID Equivalency** | | | | | | | | | | | | | | | | | | | | |
| Type-I | 3000K | 80 | 14230 | 98 | 3500K | 80 | 14570 | 100 | 4000K | 80 | 14750 | 101 | 4500K | 80 | 15160 | 104 | 5000K | 70 | 16800 | 115 |
| Type-III | 3000K | 80 | 14900 | 102 | 3500K | 80 | 15250 | 105 | 4000K | 80 | 15450 | 106 | 4500K | 80 | 15870 | 109 | 5000K | 70 | 17640 | 121 |
| Type-V | 3000K | 80 | 15940 | 109 | 3500K | 80 | 16320 | 112 | 4000K | 80 | 16530 | 113 | 4500K | 80 | 16980 | 116 | 5000K | 70 | 18870 | 129 |
| Type-V Wide | 3000K | 80 | 14600 | 100 | 3500K | 80 | 14950 | 102 | 4000K | 80 | 15150 | 104 | 4500K | 80 | 15560 | 107 | 5000K | 70 | 17300 | 118 |

**Electrical Specifications ③**

| Model | Voltage | Input Power | Input Current (Amp) | Power Factor | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| IMGCL5 | 120 Vac | 46 | 0.39 | >0.9 | < 20% |
| | 277 Vac | 46 | 0.17 | | |
| | 170 Vdc | 46 | 0.27 | N/A | N/A |
| IMGCL9 | 120 Vac | 75 | 0.64 | >0.9 | < 20% |
| | 277 Vac | 75 | 0.29 | | |
| | 170 Vdc | 75 | 0.45 | N/A | N/A |
| IMGCH6 | 120 Vac | 145 | 1.24 | >0.9 | < 20% |
| | 277 Vac | 145 | 0.54 | | |
| | 170 Vdc | 145 | 0.86 | N/A | N/A |

*① All lumen values are typical (tolerance +/-10%).*

*② Diffused polycarbonate globe can be used with Type I, III and V wide. Refer to photometric files for lumen output information.*

*③ All values are typical (tolerance +/-10%). Rated Input current corresponds to light intensity set at 100% brightness*

# Industrial Mercmaster™ Connect LED Luminaires

Plantweb™ Insight Connected Lighting Application

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**NEC/CEC: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**

**Mounting Hoods**

| | Hub Size | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Pendant — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.0 (2.3) | **KPA-75** |
| | 1" NPT | | **KPA-100** |
| | M20 | | **KPA-M20** |
| **Watertight Pendant Hood — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.1 (2.4) | **KPA-75-WT** |
| | 1" NPT | | **KPA-100-WT** |
| | M20 | | **KPA-WT-M20** |
| **Pendant Cone — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.1 (2.5) | **KPCH-75** |
| | 1" NPT | | **KPCH-100** |
| | M20 | | **KPCH-M20** |
| **Trunnion — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 6.1 (13.4) | **KPCT-75** |
| | 1" NPT | | **KPCT-100** |
| | M20 | | **KPCT-M20** |
| **Ceiling — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 1.4 (3.0) | **KPC-75** |
| | 1" NPT | | **KPC-100** |
| | M20 | | **KPC-M20** |
| **Wall — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 1.8 (4.0) | **KPWB-75** |
| | 1" NPT | | **KPWB-100** |
| | M20 | | **KPWB-M20** |
| **25° Stanchion — One Hub** | | | |
| | 1-1/4" NPT | 1.5 (3.3) | **KPS-125** |
| | 1-1/2" NPT | | **KPS-150** |
| **90° Stanchion — One Hub** | | | |
| | 1-1/4" NPT | 1.7 (3.8) | **KPST-125** |
| | 1-1/2" NPT | | **KPST-150** |

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Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**



**Accessories and Replacement Parts — All Models**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Globes** | | | |
| | Clear Globe — Polycarbonate | 0.2 (0.5) | **VPGL-LED** |
| | Diffused Globe — Polycarbonate | 0.2 (0.5) | **VPGL-DIFF** |
| | Clear Globe — Glass | 0.8 (1.7) | **VPGL-GLASS** |
| **Guard** | | | |
| | Globe Guard | 0.2 (0.4) | **MGU1** |
| **Safety Cable** | | | |
| | Stainless steel | 0.2 (0.4) | **LEDSC** |
| **Drain Plug** | | | |
| | 76 mm (3") long, 1/2" NPT trade size drain assembly used to divert water existing in the conduit system | 0.4 (0.9) | **LEDDR3** |

**Mounting Hood Adapters — All Models** ①

| | Manufacturer | Installed Mounting Hood | Weight in kg (lbs) | Appleton Adapter Catalog Number |
|---|---|---|---|---|
| | Crouse-Hinds™ Champ® ✢ | Pendant: APM2/3<br>Ceiling: CM2/3<br>Flexible Pendant: HPM2 | 0.9 (2.00) | **MMADCHVS** |
| | Appleton™ Mercmaster™ II | Pendant: LPA75/100<br>Ceiling: LPC75/100 | 0.9 (2.00) | **MMADIIS** |
| | Crouse-Hinds™ Champ® ✢ | Wall: TWM2/3<br>25° Angle Stanchion: JM5<br>90° Angle Stanchion: PM5 | 0.9 (2.00) | **MMADCHVA** |
| | Appleton™ Mercmaster™ II | Wall: LPWB75, LPWB100<br>25° Angle Stanchion: LPS125, LPS150 | 0.9 (2.00) | **MMADIIA** |
| | Killark™ ✧ | Ceiling: VMX2B, VMX3B, VMX6B, VMX7B, VMX9B<br>Pendant: VMA2B, VMA3B<br>Stanchion: VMD4B, VMD5B, VMS4B, VMS5B<br>Wall: VMB2B, VMB3B<br>Pendant Cone: VMC2B, VMC3B | 1.0 (2.3) | **MMADKVA** |

**Luminaire Specifications**

| Model | Lumen Outputs | Weight in kg (lbs) |
|---|---|---|
| IMGCL5 | 5500 | 11.1 (24.4) |
| IMGCL9 | 9500 | 11.1 (24.4) |
| IMGCH6 | 17,500 | 13.6 (29.9) |

① *Adapters are cCSAus rated only.*

✧ *Killark is a registered trademark of Hubbell Incorporated.*

✢ *Crouse-Hinds and Champ are a registered trademarks of Cooper Crouse-Hinds.*

# Industrial Mercmaster™ Connect LED Luminaires

Plantweb™ Insight Connected Lighting Application

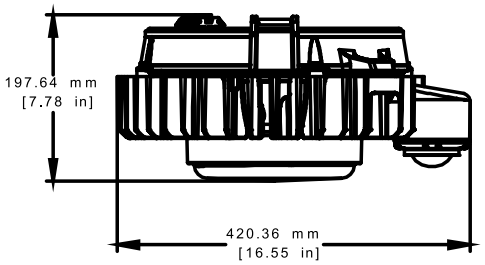
Enclosed and Gasketed Fixtures — Ordinary Locations

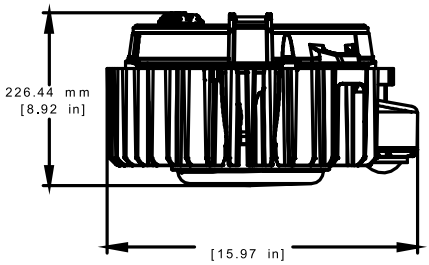
**NEC/CEC: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**

## Dimensional Drawings — Driver Housing with Globe

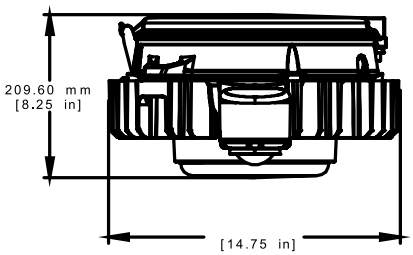
| MGCL | MGCH |
|---|---|

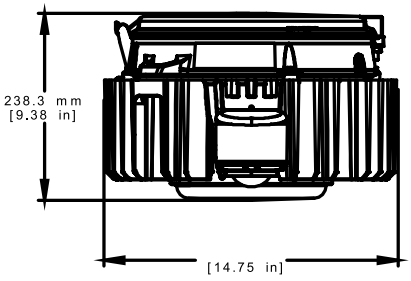
### Driver Housing



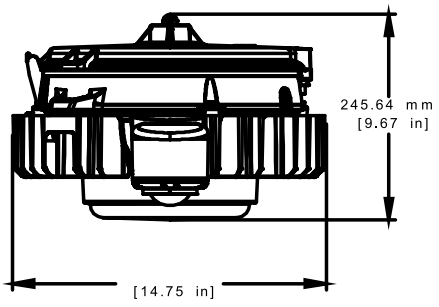



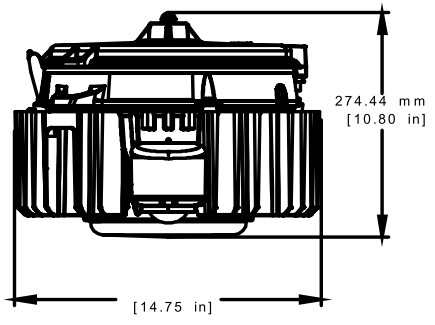

### Pendant




### Watertight Pendant



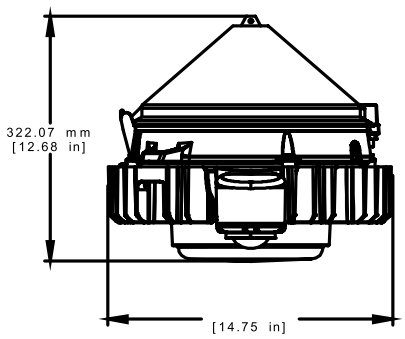



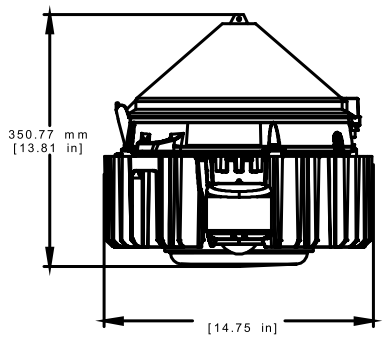

*Note: For other lighting combinations, please contact your local Appleton representative for more information.*

## Dimensional Drawings — Driver Housing with Globe

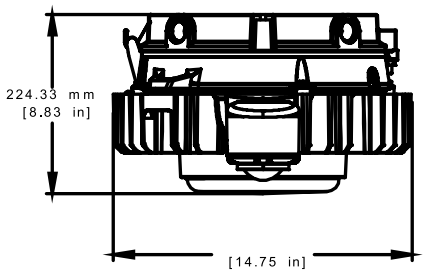
| MGCL | MGCH |
|---|---|

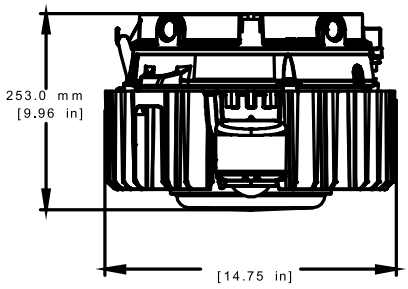
### Pendant Cone



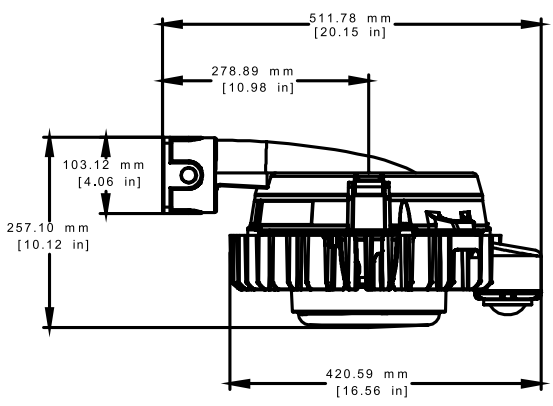



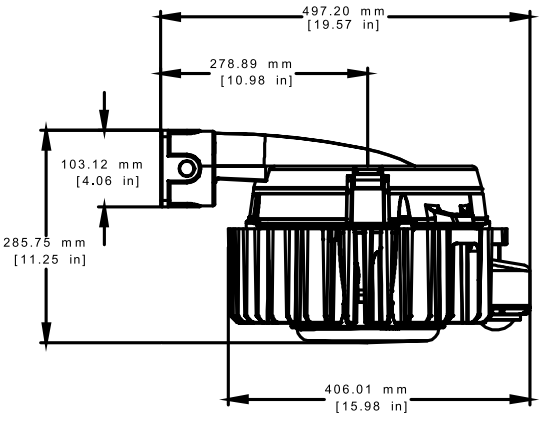

### Ceiling




### Wall Mount




*Note: For other lighting combinations, please contact your local Appleton representative for more information.*

# Industrial Mercmaster™ Connect LED Luminaires

## Plantweb™ Insight Connected Lighting Application

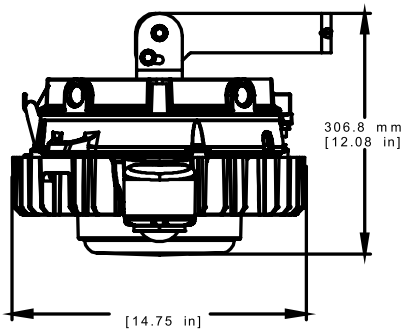
Enclosed and Gasketed Fixtures — Ordinary Locations

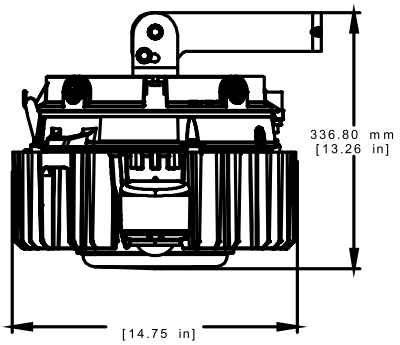
**NEC/CEC: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**

### Dimensional Drawings — Driver Housing with Globe

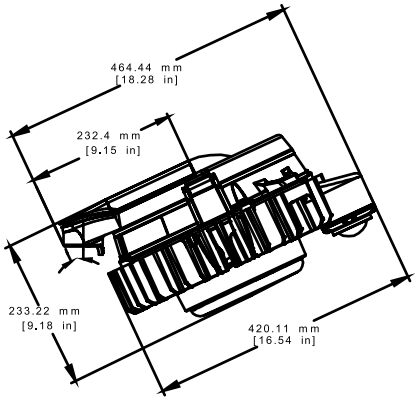
| MGCL | MGCH |
|---|---|

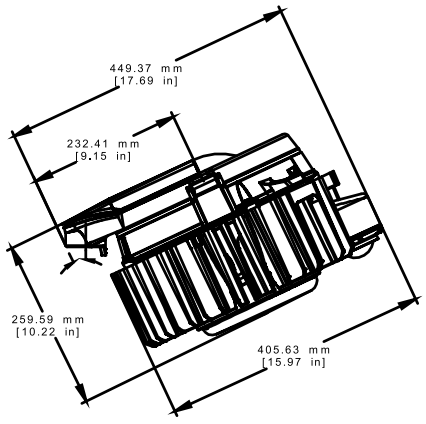
**Trunnion Mount**



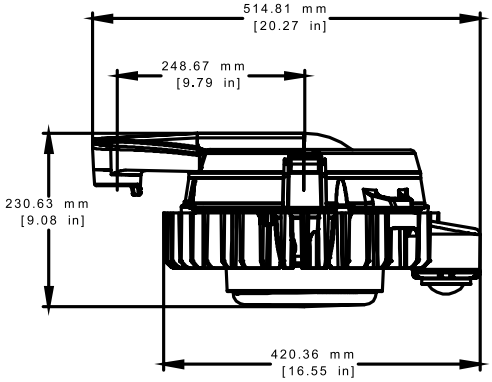



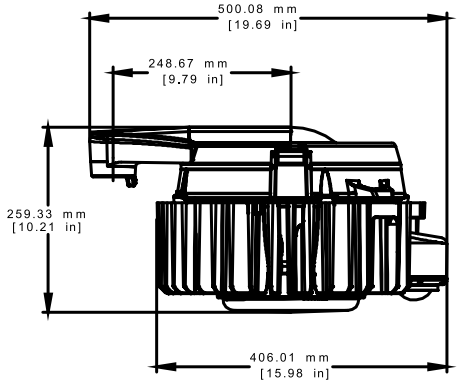

**25° Stanchion Mount**




**90° Stanchion Mount**




*Note: For other lighting combinations, please contact your local Appleton representative for more information.*

# Industrial Mercmaster™ Connect LED Luminaires

Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**



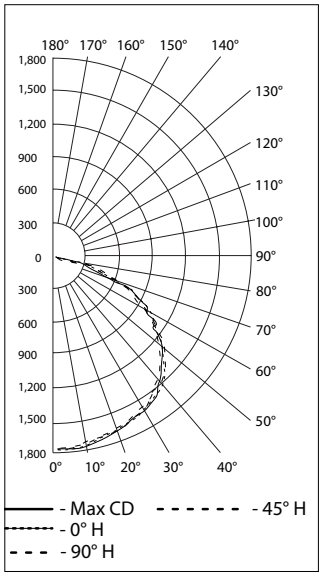
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Polycarbonate 5000K CCT**

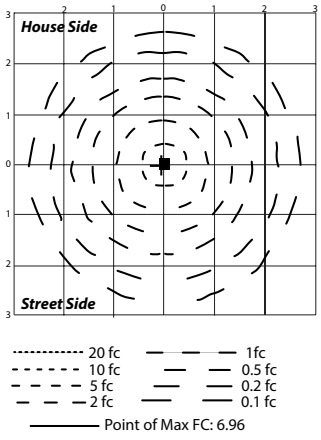
REPORT NUMBER: **IMGCL5CP5**

Luminaire Lumens 5,660

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,410.3 | 24.9% |
| 0-40 | 2,381.3 | 42.1% |
| 0-60 | 4,457.9 | 78.8% |
| 60-90 | 1,179.2 | 20.8% |
| 70-100 | 406.4 | 7.2% |
| 90-120 | 20.7 | 0.4% |
| 0-90 | 5,637.2 | 99.6% |
| 90-180 | 22.7 | 0.4% |
| 0-180 | 5,659.8 | 100% |

**LUMENS PER ZONE**

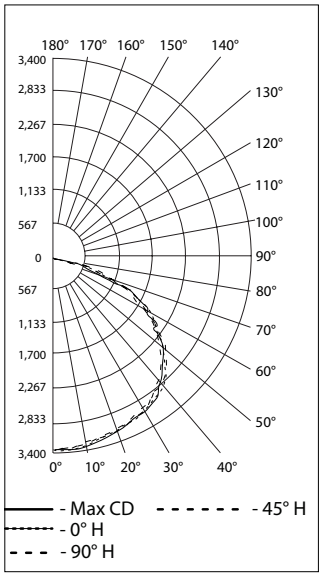
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 166.5 | 2.9% | 90-100 | 8.8 | 0.2% |
| 10-20 | 483.1 | 8.5% | 100-110 | 7.1 | 0.1% |
| 20-30 | 760.6 | 13.4% | 110-120 | 4.8 | 0.1% |
| 30-40 | 971.0 | 17.2% | 120-130 | 1.2 | 0% |
| 40-50 | 1,0667.7 | 18.8% | 130-140 | 0.1 | 0% |
| 50-60 | 1,010.0 | 17.8% | 140-150 | 0.2 | 0% |
| 60-70 | 781.6 | 13.8% | 150-160 | 0.2 | 0% |
| 70-80 | 331.7 | 5.9% | 160-170 | 0.2 | 0% |
| 80-90 | 65.9 | 1.2% | 170-180 | 0.1 | 0% |

**Type V, Clear Polycarbonate 5000K CCT**

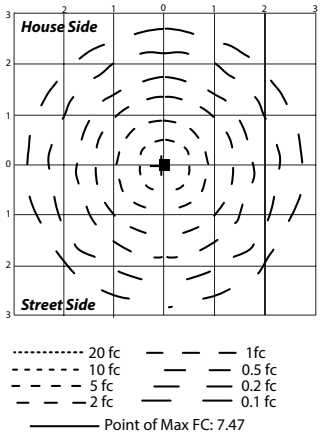
REPORT NUMBER: **IMGCL9CP5**

Luminaire Lumens 10,845

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,709.1 | 25% |
| 0-40 | 4,571.0 | 42.1% |
| 0-60 | 8,535.2 | 78.7% |
| 60-90 | 2,272.7 | 21% |
| 70-100 | 806.0 | 7.4% |
| 90-120 | 33.3 | 0.3% |
| 0-90 | 10,808.0 | 99.7% |
| 90-180 | 37.2 | 0.3% |
| 0-180 | 10,845.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 319.9 | 2.9% | 90-100 | 17.5 | 0.2% |
| 10-20 | 928.5 | 8.6% | 100-110 | 9.9 | 0.1% |
| 20-30 | 1,460.7 | 13.5% | 110-120 | 5.9 | 0.1% |
| 30-40 | 1,861.9 | 17.2% | 120-130 | 1.6 | 0% |
| 40-50 | 2,042.3 | 18.8% | 130-140 | 0.7 | 0% |
| 50-60 | 1,922.0 | 17.7% | 140-150 | 0.6 | 0% |
| 60-70 | 1,484.2 | 13.7% | 150-160 | 0.5 | 0% |
| 70-80 | 649.2 | 6.0% | 160-170 | 0.3 | 0% |
| 80-90 | 139.3 | 1.3% | 170-180 | 0.1 | 0% |

*Note: For other lighting combinations, please contact your local Appleton representative for more information.*

# Industrial Mercmaster™ Connect LED Luminaires

Plantweb™ Insight Connected Lighting Application

Enclosed and Gasketed Fixtures — Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**

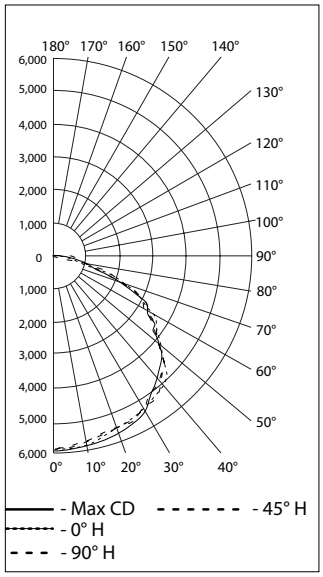
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Polycarbonate 5000K CCT**

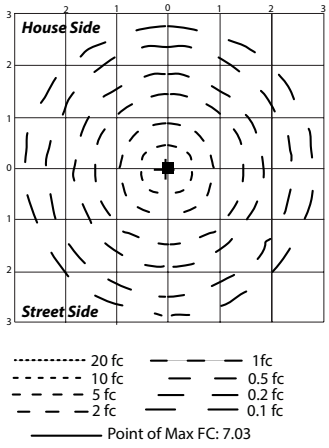
REPORT NUMBER: **IMGCH6CP5**

Luminaire Lumens 19,107

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,772.9 | 25% |
| 0-40 | 8,053.1 | 42.1% |
| 0-60 | 15,037.2 | 78.7% |
| 60-90 | 4,004.0 | 21% |
| 70-100 | 1,420.0 | 7.4% |
| 90-120 | 58.7 | 0.3% |
| 0-90 | 19,041.2 | 99.7% |
| 90-180 | 65.7 | 0.3% |
| 0-180 | 19,107.0 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 563.6 | 2.9% | 90-100 | 30.8 | 0.2% |
| 10-20 | 1,635.8 | 8.6% | 100-110 | 17.4 | 0.1% |
| 20-30 | 2,573.5 | 13.5% | 110-120 | 10.5 | 0.1% |
| 30-40 | 3,280.3 | 17.2% | 120-130 | 2.9 | 0% |
| 40-50 | 3,598.0 | 18.8% | 130-140 | 1.3 | 0% |
| 50-60 | 3,386.1 | 17.7% | 140-150 | 1.2 | 0% |
| 60-70 | 2,614.9 | 13.7% | 150-160 | 0.9 | 0% |
| 70-80 | 1,143.7 | 6.0% | 160-170 | 0.6 | 0% |
| 80-90 | 245.5 | 1.3% | 170-180 | 0.2 | 0% |

*Note: For other lighting combinations, please contact your local Appleton representative for more information.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



## Applications

- Powerful, efficient weatherproof lighting suitable for use in:
  - — Warehouses, storage facilities, and receiving areas
  - — Machine shops
  - — Manufacturing plants
  - — Walkways and catwalks
  - — Locations requiring IP66/IP67, Type 4X, marine and wet location luminaires
  - — Locations requiring dependable, consistent lighting in extreme hot/cold temperature environments
- Typical harsh industrial environments include:
  - — Power generation plants
  - — Foundries
  - — Waste and sewage treatment plants
  - — Steel and other metal processing facilities
  - — Pulp and paper mills
  - — Processing plants
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other areas where dust, water, dirt and rough usage are a problem

## Features

- All Models:
  - — Modular design provides thousands of combinations for maximum versatility.
  - — Choice of optics for optimal light distribution in a variety of applications: Type I, Type III, Type V or Type V Wide.
  - — Choice of color temperature (CCT): 5000K cool white (70 CRI min), 4500K mid-neutral (80 CRI min), 4000K neutral white (80 CRI min), 3500K mid-warm (80 CRI min), or 3000K warm white (80 CRI min).
  - — Seven standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster™ III HID.
  - — Retrofit adapters for Crouse-Hinds™ ✢, Mercmaster™ II HID, and Killark ✧ hoods available. *See Mounting Hood Adapters table*.
  - — Watertight Pendant Hood with IP 68 cord grip available to address water ingress into luminaire via conduit.
  - — Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on fixture housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies installation.
  - — Rugged housing with superior thermal design translates to long luminaire life.
  - — Luminaire housing has wiring compartment with terminal block separate for easy wiring access.
  - — Spring-loaded screw-type terminal block can accept 0.14 - 6 $mm^2$ (26 - 10 AWG) wire.
  - — Heavy duty, high temperature silicone gaskets.
  - — Photometric data and electronic drawings available upon request.
  - — Standard NPT threads with M20 option.
  - — Reported L70 is >76,000 hours.
  - — 5 year standard warranty. 10 year limited warranty for select part number configurations.
- Standard Model:
  - — Design is suited for low mounting heights, from 2 m up to 9 m (7 ft up to 30 ft).
  - — Options for High Ambient luminaires (up to 75 ˚C [167 ˚F]).
  - — Customize to the application requirements with four different globe options: clear and diffused polycarbonate, clear glass, or prismatic glass refractor.

**IMLGL**

**IMLGH**

  - — Standard 6 kV/3 kA surge protection. Optional 10 kV/5 kA available.
  - — Field replaceable globes and LED driver.
  - — Nine light outputs provide up to 24,000 lumens.

| Standard Mode Nominal Lumens ① | HID Equivalent | Model |
|---|---|---|
| 3500 | 70-100W | IMLGL3 |
| 5500 | 100-150W | IMLGL5 |
| 7500 | 175-250W | IMLGL7 |
| 9500 | 250-350W | IMLGL9/IMLGH9 |
| 11,500 | 350-400W | IMLGH1 |
| 14,500 | 400W | IMLGH3 |
| 17,500 | 400-600W | IMLGH6 |
| 20,000 | 600-750W | IMLGX1 |
| 24,000 | 1000W | IMLGX5 |

- Emergency Battery Backup Model:
  - — Provides up to 1450 lumens of illumination for 90 minutes of emergency lighting with clear lens or 800 lumens of illumination for 180 minutes of emergency lighting.

| Standard Mode Nominal Lumens ① | HID Equivalent | Emergency Mode Nominal Lumens ① | Model |
|---|---|---|---|
| 3500 | 70-100W | 1450 | IMLGL3*H |
| | | 800 | IMLGL3*E |
| 5500 | 100-150W | 1450 | IMLGL5*H |
| | | 800 | IMLGL5*E |

  - — Functional diagnostic test self-initiates every 14 days after initial start up.
  - — Duration test is automatically performed once per year.
  - — Green and Red LED lights indicate charging status and provide fault warning.
  - — Simple quick disconnect connector disconnects power between LEDs and battery management module to allow for easy maintenance.
  - — Suitable for mounting heights up to 4.27 meters (14 feet).
  - — Customize to the application requirements with three different globe options: clear polycarbonate, diffused polycarbonate, and clear glass.
  - — Standard 6 kV/3 kA surge protection.
  - — Ambient Temperature: -20 ˚C to +55 ˚C (-4 ˚F to +131 ˚F).
  - — Field replaceable globes, battery management module (BMM), battery pack and LED driver.

## Options

- All Models:
  - — Globe guard available, *purchase separately.*
  - — Safety cable available, *purchase separately.*
  - — Drain is available to divert water existing in the conduit system, *purchase separately*.

① *Nominal lumen value for 5000K, clear glass globe Type V Wide. Detailed lumen information is provided in the " Lumen Output (Efficacy)" tables.*
✧ *Killark is a registered trademark of Killark Manufacturing Company.*
✢ *Crouse-Hinds is a registered trademark of Cooper Industries, Inc.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



- Standard Model:
  - — Refractor guard available, *purchase separately.*
  - — All Mercmaster™ luminaires have provision for fusing; add suffix **–F** at the end of the catalog number. See *Ambient Temperature* table for specifics.
  - — High Ambient luminaires. Add **-A** at end of eligible part numbers.
  - — Photocontrols are available and are configured to your operating voltage. Add suffix **-1** for 120V, **-2** for 208V, **-3** for 240V, **-4** for 277V.

### Standard Materials

- Mounting hoods and driver housing: cast copperfree (4/10 of 1% max.) aluminum
- Gaskets: silicone rubber
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Refractor: heat-resistant prismatic glass
- Globe guard, short refractor guard and safety cable: stainless steel wire
- Reflector: fiberglass reinforced white polyester

### Standard Finishes

- Mounting hoods, driver housing and glass refractor guard: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

### NEC/CEC Certifications and Compliances

- Standard Model:
  - — UL Standard: UL 1598; UL 50E; UL1598A; UL 8750
  - — CSA Standard: C22.2 No. 250.0; C22.2 No. 250.13; C22.2 No. 94.2; C22.2 No. 0; C22.2 No. 60529
  - — NEMA ANSI/IEC Standards: 60529
  - — cCSAus: 164460, Certificate Number: 70129364
- Emergency Battery Backup Model:
  - — UL Standard: UL 1598; UL 924; UL 8750
  - — CSA Standard: C22.2 No. 250.0-18; C22.2 No. 250.13-20; C22.2 No. 141-15
  - — cCSAus: 164460, Certificate Number: 70172440

### NOM: Norma Oficial Mexicana:

- Standard Model:
  - — NOM-003-SCFI-2014 (NMX-J-307-ANCE-2017)
  - — NOM Certificate: ULM-NOM-09900

### IECEE CB Certificates and Compliances:

- Standard Model:
  - — IEC 60598-1, IEC 60598-2-1
  - — IECEE CB Certificates: 64460-80075816

### ABS Certifications

- Standard Model: 18-HS1714308-PDA
- Emergency Battery Backup Model: 22-2207901-PDA

### International Dark-Sky Association

- Standard Model:
  - — IDA Dark-Sky Approved when ordering [I]MLG[A/B/C/D/R/W] xxW[P/D/G]5Bxxx with MMVISOR accessory

### Design Lights™ Consortium

- All Models:
  - — Check DLC QPL for current list of products.

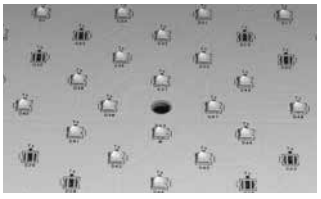
### Related Products

- Mercmaster LED Generation 3 Series Luminaires
- Mercmaster LED Low Profile Luminaires
- Industrial Mercmaster LED Low Profile Series Luminaires

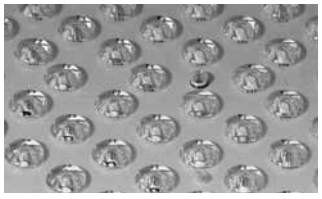
### Illustrated Features — All Models

**Type I** - Long and narrow distribution pattern designed with walkways in mind.

**Type III** - Wall mounted distribution pattern designed where you need good forward light projection.



**Type V** - Symmetrical circle distribution pattern ideal when you need even coverage in all directions.



**Type V Wide** - Like the Type V distribution pattern with more vertical lumens designed to help spread the light quicker and more outwards.

Choose from **three color temperatures** (CCT): 3000K, 4000K, and 5000K ‡

**Four light distribution patterns**: Type I, Type III, Type V and Type V Wide for application flexibility.

**Seven mounting hoods** allow one fixture to be configured for ceiling, pendant, stanchion, or wall applications.

Standard Model — **Four globes**: clear and diffused polycarbonate, clear glass globe, and prismatic refractor provide just the right level of diffusion.

Emergency Battery Backup Model — **Three globes**: clear and diffused polycarbonate and clear glass globe provide just the right level of diffusion.

*‡ Other CCT options available upon request. Contact your local sales representative for more information.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

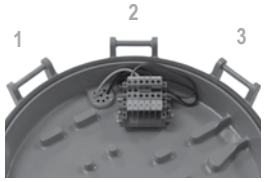


## Illustrated Features — All Models

### Safety Features

**Latch Assembly and Hinge**: Captive, stainless steel latch assembly (bolt and nut) closes securely while providing resistance to corrosive atmospheres. Swing-away design simplifies wiring and installation. Extra high hinge provides additional protection against accidental driver housing disengagement during installation or maintenance.

### Type I and Type III Hinge System

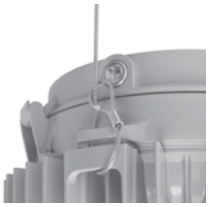


Type I and Type III light distribution patterns use a multiple hinged housing design which allows you to correctly line up the beam pattern in your desired direction. By using one of the three available hinges you can position the fixture for optimal light output.

### Designed for the Environment

Driver housing design incorporates separate sections for the terminal block and driver. The efficient thermal design ensures reliable heat transfer from the LED assembly out via the heatsink and the cast, epoxy powder coat, aluminum housing.

### Safety Cable



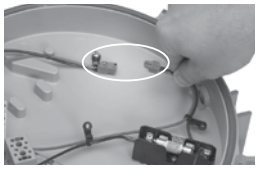
Safety cable is slipped around the housing through retention points that are casted in. Safety cable has built in loops combined with a locking carabiner to allow for a quick and secure installation.

### Watertight Pendant Hood

Watertight pendant hood provides protection against water ingress in the conduit utilizing an IP68 cord grip with 3 wire holes 4 mm (0.157") in diameter.

## Illustrated Features — Emergency Battery Backup Model

### Quick Disconnect



Simple quick disconnect connector disconnects power between LEDs and battery management module to allow for easy maintenance.

### Field Changeable Duration Setting

Easy field changeable duration setting between 90 and 180 minutes.

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

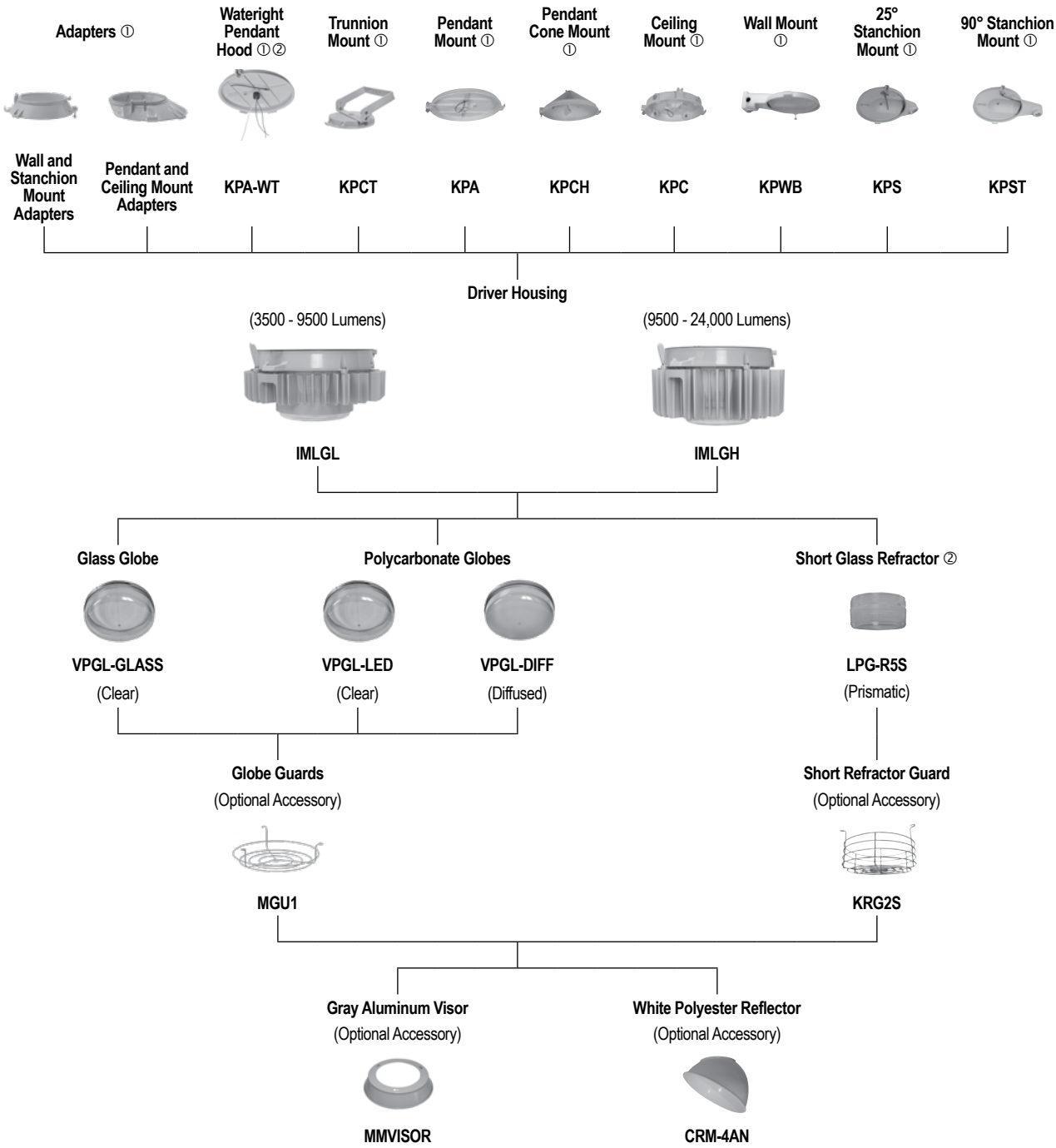
Standard

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



## Family Tree — Industrial Mercmaster™ LED Generation 3 Series Luminaires — Standard Model




*① See Mounting Hood Adapters table for part numbers.*
*② Certified for cCSAus only.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

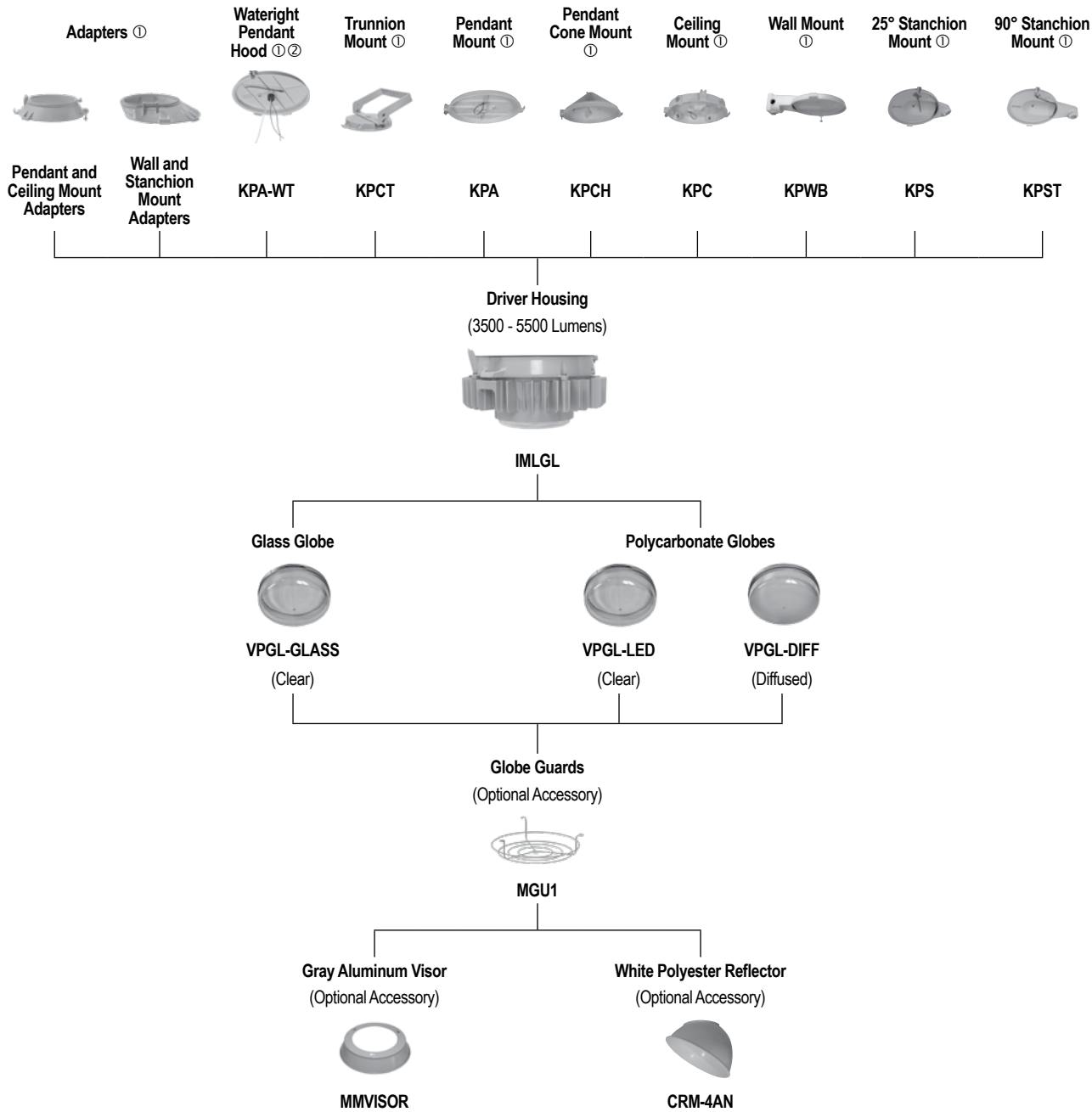
With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Family Tree — Industrial Mercmaster™ LED Generation 3 Series Luminaires — Emergency Battery Backup Model**




① *See Mounting Hood Adapters table for part numbers.*
② *Certified for cCSAus only.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Order Using Catalog Numbering Guide — Industrial Mercmaster™ LED Generation 3 Series Luminaires — Standard Model**

**IMLG** | **A** | **L3** | **2** | **C** | **P** | **5** | **BU** | **F** | **1**

Series Prefix:
IMLG - Industrial Mercmaster LED Generation 3 Series

Mounting:
A - Pendant
B - Watertight Pendant ⅄
C - Ceiling ⑥
D - Pendant Cone ⅄ ⑥
R - 90° Stanchion ①
S - 25° Stanchion ①
T - Trunnion
K - Killark™ ✧ Adapter Universal ⅄
U - Mercmaster II Adapter, Ceiling or Pendant ⅄
V - Mercmaster II Adapter, Stanchion or Wall ⅄
W - Wall
X - Crouse Hinds™ ✣ Adapter, Ceiling or Pendant ⅄ ⑦
Y - Crouse Hinds™ ✣ Adapter, Stanchion or Wall ⅄
Blank - No mounting hood

Lumen (nominal): ② ★
L3 - 3,500
L5 - 5,500
L7 - 7,500
L9 - 9,500
H9 - 9,500 ♦
H1 - 11,500
H3 - 13,500
H6 - 17,500
X1 - 20,000
X5 - 24,000

Hub Size: ⑨
2 - 3/4" NPT
3 - 1" NPT
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion
6 - Metric M20
Blank - No hub if using adapter or ordering driver housing only (no mounting hood)

Color Temperature: ‡
C - Cool, 5000K
N - Neutral, 4000K
W - Warm, 3000K

Globe Material:
P - Clear Polycarbonate Globe
D - Diffused Polycarbonate Globe
G - Clear Glass Globe ③
J - Glass Prismatic Refractor ③ ⑩

Light Distribution Pattern:
1 - Type I ⑧
3 - Type III ⑧
5 - Type V
W - Type V Wide

Voltage:
BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc
BH - 347-480 Vac, 50/60 Hz ⅄

Options: ④
F - Fusing
Blank - No fusing

Options:
1 - Photocontrol 120V ⑤
2 - Photocontrol 208V ⑤
3 - Photocontrol 240V ⑤
4 - Photocontrol 277V ⑤
S - Additional surge to 10 kV †
A- High Ambient ★
Blank - No Options Chosen

① *3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in this mounting option.*
② *For lumen output information, see Lumen Output (Efficacy) Table.*
③ *Guards for the glass refractors and globes are ordered separately. See the Accessories for more information.*
④ *Fusing only permitted for cCSAus rating. Factory installed. Use of fuse voids Marine Outside Type (Salt Water) rating. Fusing is mounted in the driver housing. For retrofit applications, fusing must be removed from the mounting hood and ordered in the luminaire.*
⑤ *Luminaires with photocontrol are not rated IECEE, IP66/67, 3R, 4, 4X, or Marine Outside Type (Salt Water). Photocontrol available for 120-277 Vac only. Factory installed in the mounting hood.*
⑥ *Ceiling-mount and pendant cone mounting hoods and adapters are not designed to use the in hood photocontrol. Ceiling and pendant cone mounts must use an FS/FD box with photocontrol. Contact your local sales rep for more information.*
⑦ *Only allowed for Type V and Type V Wide light distribution.*
⑧ *Type I and Type III use a multiple hinge housing.*
⑨ *Hub size does not apply to luminaires ordered with adapters.*
⑩ *Short glass prismatic refractor (J) is only available in light distribution pattern Type V.*
★ *For NEC/CEC, high ambient is available with lumen packages L3 to H3. For IECEE, high ambient is available with lumen packages L7, H9 and H1. See details in Temperature Code tables for specific NEC/CEC or IECEE applications.*
♦ *H9 only available with High Ambient option (-A). See details in Temperature code tables for specific NEC/CEC applications.*
† *10 year warranty standard when ordered with light distribution pattern Type I, III or V Wide or additional (10 kV) surge protection (not available with high ambient options).*
‡ *Other CCT options available upon request. Contact your local sales representative for more information.*
⅄ *Adapters, watertight pendant hood and BH Voltage only certified for cCSAus. Not available for use with photocontrol.*
✧ *Killark is a registered trademark of Hubbell Incorporated.*
✣ *Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Order Using Catalog Numbering Guide — Industrial Mercmaster™ LED Generation 3 Series Luminaires — Emergency Battery Backup Model**

**IMLG** **A** **L3** **2** **C** **P** **5** **BU** **H**

Series Prefix:
IMLG - Industrial Mercmaster LED Generation 3 Series with Emergency Battery Backup

Mounting:
A - Pendant
B - Watertight Pendant ⅄
C - Ceiling
D - Pendant Cone ⅄
R - 90° Stanchion ①
S - 25° Stanchion ①
T - Trunnion
K - Killark™ ✧ Adapter Universal ⅄
U - Mercmaster II Adapter, Ceiling or Pendant ⅄
V - Mercmaster II Adapter, Stanchion or Wall ⅄
W - Wall
X - Crouse Hinds™ ✢ Adapter, Ceiling or Pendant ⅄ ④
Y - Crouse Hinds™ ✢ Adapter, Stanchion or Wall ⅄
Blank - No mounting hood

Lumen (nominal): ②
L3 - 3,500
L5 - 5,500

Hub Size: ⑥
2 - 3/4" NPT
3 - 1" NPT
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion
6 - Metric M20
Blank - No hub if using adapter or ordering driver housing only (no mounting hood)

Color Temperature:
C - Cool, 5000K
N - Neutral, 4000K
W - Warm, 3000K

Globe Material:
P - Clear Polycarbonate Globe
D - Diffused Polycarbonate Globe
G - Clear Glass Globe ③

Light Distribution Pattern:
1 - Type I ⑤
3 - Type III ⑤
5 - Type V
W - Type V Wide

Voltage:
BU - 120-277 Vac, 50/60 Hz

Emergency:
H - 90 Minutes
E - 180 Minutes

*① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in this mounting option.*
*② For lumen output information, see Lumen Output (Efficacy) Table.*
*③ Guards for the globes are ordered separately. See the Accessories for more information.*
*④ Only allowed for Type V and Type V Wide light distribution.*
*⑤ Type I and Type III use a multiple hinge housing.*
*⑥ Hub size does not apply to luminaires ordered with adapters.*
*⅄ Adapters only certified for cCSAus.*
*✧ Killark is a registered trademark of Hubbell Incorporated.*
*✢ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Lumen Output (Efficacy) — Standard Model** ①

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe** | | | | | | | | | | | | | | |
| IMLGL3 | 70-100W | Type I | 3000K | 80 | 2600 | 87 | 4000K | 80 | 2800 | 93 | 5000K | 70 | 3200 | 107 |
| | | Type III | 3000K | 80 | 2800 | 93 | 4000K | 80 | 3000 | 100 | 5000K | 70 | 3500 | 117 |
| | | Type V | 3000K | 80 | 2950 | 98 | 4000K | 80 | 3100 | 103 | 5000K | 70 | 3300 | 110 |
| | | Type V Wide | 3000K | 80 | 3000 | 100 | 4000K | 80 | 3150 | 105 | 5000K | 70 | 3350 | 112 |
| IMLGL5 | 100-150W | Type I | 3000K | 80 | 3800 | 83 | 4000K | 80 | 4200 | 91 | 5000K | 70 | 4800 | 104 |
| | | Type III | 3000K | 80 | 4100 | 89 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 5200 | 113 |
| | | Type V | 3000K | 80 | 4400 | 96 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 4950 | 108 |
| | | Type V Wide | 3000K | 80 | 4450 | 97 | 4000K | 80 | 4700 | 102 | 5000K | 70 | 5000 | 109 |
| IMLGL7 | 175-250W | Type I | 3000K | 80 | 6000 | 105 | 4000K | 80 | 6600 | 116 | 5000K | 70 | 7500 | 132 |
| | | Type III | 3000K | 80 | 6300 | 111 | 4000K | 80 | 7000 | 123 | 5000K | 70 | 7900 | 139 |
| | | Type V | 3000K | 80 | 6950 | 114 | 4000K | 80 | 7300 | 120 | 5000K | 70 | 7650 | 125 |
| | | Type V Wide | 3000K | 80 | 7150 | 117 | 4000K | 80 | 7550 | 124 | 5000K | 70 | 7950 | 130 |
| IMLGL9 | 250-350W | Type I | 3000K | 80 | 7800 | 104 | 4000K | 80 | 8400 | 112 | 5000K | 70 | 9400 | 125 |
| | | Type III | 3000K | 80 | 8900 | 112 | 4000K | 80 | 8800 | 117 | 5000K | 70 | 9800 | 131 |
| | | Type V | 3000K | 80 | 8300 | 104 | 4000K | 80 | 8700 | 109 | 5000K | 70 | 9800 | 123 |
| | | Type V Wide | 3000K | 80 | 8500 | 106 | 4000K | 80 | 8950 | 112 | 5000K | 70 | 10100 | 126 |
| IMLGH9 | 250-350W | Type I | 3000K | 80 | 7800 | 104 | 4000K | 80 | 8400 | 112 | 5000K | 70 | 9400 | 125 |
| | | Type III | 3000K | 80 | 8100 | 108 | 4000K | 80 | 8800 | 117 | 5000K | 70 | 9800 | 131 |
| | | Type V | 3000K | 80 | 9150 | 116 | 4000K | 80 | 9500 | 120 | 5000K | 70 | 10800 | 137 |
| | | Type V Wide | 3000K | 80 | 8400 | 106 | 4000K | 80 | 8700 | 110 | 5000K | 70 | 9900 | 125 |
| IMLGH1 | 350-400W | Type I | 3000K | 80 | 9500 | 102 | 4000K | 80 | 10200 | 110 | 5000K | 70 | 11500 | 124 |
| | | Type III | 3000K | 80 | 10700 | 109 | 4000K | 80 | 10700 | 115 | 5000K | 70 | 12000 | 129 |
| | | Type V | 3000K | 80 | 10900 | 117 | 4000K | 80 | 11800 | 127 | 5000K | 70 | 13200 | 142 |
| | | Type V Wide | 3000K | 80 | 9700 | 104 | 4000K | 80 | 10500 | 113 | 5000K | 70 | 11800 | 127 |
| IMLGH3 | 400W | Type I | 3000K | 80 | 11400 | 99 | 4000K | 80 | 12300 | 107 | 5000K | 70 | 13800 | 120 |
| | | Type III | 3000K | 80 | 11900 | 103 | 4000K | 80 | 12900 | 112 | 5000K | 70 | 14500 | 126 |
| | | Type V | 3000K | 80 | 13100 | 114 | 4000K | 80 | 14200 | 123 | 5000K | 70 | 15900 | 138 |
| | | Type V Wide | 3000K | 80 | 11700 | 102 | 4000K | 80 | 12700 | 110 | 5000K | 70 | 14300 | 124 |
| IMLGH6 | 400-600W | Type I | 3000K | 80 | 13900 | 96 | 4000K | 80 | 15100 | 104 | 5000K | 70 | 16900 | 117 |
| | | Type III | 3000K | 80 | 14900 | 104 | 4000K | 80 | 15600 | 108 | 5000K | 70 | 17500 | 121 |
| | | Type V | 3000K | 80 | 16300 | 113 | 4000K | 80 | 17100 | 118 | 5000K | 70 | 19100 | 132 |
| | | Type V Wide | 3000K | 80 | 14700 | 102 | 4000K | 80 | 15500 | 107 | 5000K | 70 | 17400 | 120 |
| IMLGX1 | 600-750W | Type I | 3000K | 80 | 16431 | 97 | 4000K | 80 | 17336 | 103 | 5000K | 70 | 18338 | 109 |
| | | Type III | 3000K | 80 | 17110 | 101 | 4000K | 80 | 18084 | 107 | 5000K | 70 | 19096 | 113 |
| | | Type V | 3000K | 80 | 18623 | 110 | 4000K | 80 | 19863 | 118 | 5000K | 70 | 21019 | 124 |
| | | Type V Wide | 3000K | 80 | 17072 | 101 | 4000K | 80 | 18044 | 107 | 5000K | 70 | 19054 | 113 |
| IMLGX5 | 1000W | Type I | 3000K | 80 | 18859 | 90 | 4000K | 80 | 19932 | 95 | 5000K | 70 | 21048 | 100 |
| | | Type III | 3000K | 80 | 19514 | 93 | 4000K | 80 | 20625 | 98 | 5000K | 70 | 21779 | 104 |
| | | Type V | 3000K | 80 | 22103 | 105 | 4000K | 80 | 23575 | 112 | 5000K | 70 | 24947 | 119 |
| | | Type V Wide | 3000K | 80 | 20424 | 97 | 4000K | 80 | 21586 | 103 | 5000K | 70 | 22794 | 109 |

① *All lumen values are typical (tolerance +/-10%).*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard

Ordinary Locations

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**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Lumen Output (Efficacy) — Standard Model** ①

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Diffused Polycarbonate Globe** | | | | | | | | | | | | | | |
| IMLGL3 | 70-100W | Type I | 3000K | 80 | 2700 | 87 | 4000K | 80 | 2900 | 95 | 5000K | 70 | 3200 | 108 |
| | | Type III | 3000K | 80 | 2800 | 92 | 4000K | 80 | 3000 | 101 | 5000K | 70 | 3300 | 112 |
| | | Type V | 3000K | 80 | 2900 | 97 | 4000K | 80 | 3200 | 107 | 5000K | 70 | 3700 | 123 |
| | | Type V Wide | 3000K | 80 | 2800 | 91 | 4000K | 80 | 3000 | 101 | 5000K | 70 | 3400 | 113 |
| IMLGL5 | 100-150W | Type I | 3000K | 80 | 4000 | 85 | 4000K | 80 | 4400 | 94 | 5000K | 70 | 4900 | 107 |
| | | Type III | 3000K | 80 | 4200 | 91 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 5100 | 110 |
| | | Type V | 3000K | 80 | 4400 | 96 | 4000K | 80 | 4800 | 104 | 5000K | 70 | 5500 | 120 |
| | | Type V Wide | 3000K | 80 | 4200 | 90 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 5100 | 110 |
| IMLGL7 | 175-250W | Type I | 3000K | 80 | 6000 | 101 | 4000K | 80 | 6600 | 109 | 5000K | 70 | 6900 | 122 |
| | | Type III | 3000K | 80 | 6400 | 108 | 4000K | 80 | 6900 | 114 | 5000K | 70 | 7200 | 126 |
| | | Type V | 3000K | 80 | 6600 | 116 | 4000K | 80 | 7300 | 128 | 5000K | 70 | 8300 | 129 |
| | | Type V Wide | 3000K | 80 | 6200 | 105 | 4000K | 80 | 6600 | 115 | 5000K | 70 | 7200 | 126 |
| IMLGL9/ IMLGH9 | 250-350W | Type I | 3000K | 80 | 8000 | 101 | 4000K | 80 | 8300 | 106 | 5000K | 70 | 9300 | 118 |
| | | Type III | 3000K | 80 | 8400 | 106 | 4000K | 80 | 8800 | 113 | 5000K | 70 | 9700 | 124 |
| | | Type V | 3000K | 80 | 8500 | 113 | 4000K | 80 | 9200 | 123 | 5000K | 70 | 10300 | 137 |
| | | Type V Wide | 3000K | 80 | 8200 | 105 | 4000K | 80 | 8700 | 111 | 5000K | 70 | 9700 | 124 |
| IMLGH1 | 350-400W | Type I | 3000K | 80 | 9600 | 98 | 4000K | 80 | 10000 | 104 | 5000K | 70 | 11100 | 115 |
| | | Type III | 3000K | 80 | 10100 | 104 | 4000K | 80 | 10600 | 110 | 5000K | 70 | 11700 | 121 |
| | | Type V | 3000K | 80 | 10300 | 111 | 4000K | 80 | 11200 | 120 | 5000K | 70 | 12500 | 134 |
| | | Type V Wide | 3000K | 80 | 9900 | 102 | 4000K | 80 | 10400 | 109 | 5000K | 70 | 11700 | 121 |
| IMLGH3 | 400W | Type I | 3000K | 80 | 10900 | 96 | 4000K | 80 | 11600 | 103 | 5000K | 70 | 12900 | 114 |
| | | Type III | 3000K | 80 | 11700 | 103 | 4000K | 80 | 12400 | 109 | 5000K | 70 | 13600 | 120 |
| | | Type V | 3000K | 80 | 12500 | 109 | 4000K | 80 | 13500 | 117 | 5000K | 70 | 15100 | 131 |
| | | Type V Wide | 3000K | 80 | 11500 | 101 | 4000K | 80 | 12100 | 107 | 5000K | 70 | 13700 | 120 |
| IMLGH6 | 400-600W | Type I | 3000K | 80 | 13200 | 93 | 4000K | 80 | 14000 | 99 | 5000K | 70 | 15700 | 109 |
| | | Type III | 3000K | 80 | 14200 | 99 | 4000K | 80 | 15000 | 105 | 5000K | 70 | 16500 | 115 |
| | | Type V | 3000K | 80 | 15800 | 109 | 4000K | 80 | 17000 | 118 | 5000K | 70 | 18200 | 126 |
| | | Type V Wide | 3000K | 80 | 14000 | 97 | 4000K | 80 | 14800 | 104 | 5000K | 70 | 16600 | 116 |
| IMLGX1 | 600-750W | Type I | 3000K | 80 | 15587 | 92 | 4000K | 80 | 16491 | 98 | 5000K | 70 | 17377 | 103 |
| | | Type III | 3000K | 80 | 16221 | 96 | 4000K | 80 | 17161 | 102 | 5000K | 70 | 18083 | 107 |
| | | Type V | 3000K | 80 | 18036 | 107 | 4000K | 80 | 19260 | 114 | 5000K | 70 | 20063 | 119 |
| | | Type V Wide | 3000K | 80 | 16153 | 96 | 4000K | 80 | 17089 | 101 | 5000K | 70 | 18007 | 107 |
| IMLGX5 | 1000W | Type I | 3000K | 80 | 17885 | 85 | 4000K | 80 | 18922 | 90 | 5000K | 70 | 19939 | 95 |
| | | Type III | 3000K | 80 | 18499 | 88 | 4000K | 80 | 19571 | 93 | 5000K | 70 | 20623 | 98 |
| | | Type V | 3000K | 80 | 21475 | 102 | 4000K | 80 | 22932 | 109 | 5000K | 70 | 23888 | 114 |
| | | Type V Wide | 3000K | 80 | 19275 | 92 | 4000K | 80 | 20393 | 97 | 5000K | 70 | 21489 | 102 |

① *All lumen values are typical (tolerance +/-10%).*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Lumen Output (Efficacy) — Standard Model** ①

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass Globe** | | | | | | | | | | | | | | |
| MLGL3 | 70-100W | Type I | 3000K | 80 | 2800 | 93 | 4000K | 80 | 3100 | 103 | 5000K | 70 | 3500 | 117 |
| | | Type III | 3000K | 80 | 3100 | 102 | 4000K | 80 | 3200 | 107 | 5000K | 70 | 3700 | 123 |
| | | Type V | 3000K | 80 | 3100 | 103 | 4000K | 80 | 3200 | 107 | 5000K | 70 | 3450 | 115 |
| | | Type V Wide | 3000K | 80 | 3150 | 105 | 4000K | 80 | 3250 | 108 | 5000K | 70 | 3500 | 117 |
| MLGL5 | 100-150W | Type I | 3000K | 80 | 4200 | 91 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 5300 | 115 |
| | | Type III | 3000K | 80 | 4400 | 96 | 4000K | 80 | 4800 | 104 | 5000K | 70 | 5400 | 117 |
| | | Type V | 3000K | 80 | 4650 | 101 | 4000K | 80 | 4800 | 114 | 5000K | 70 | 5150 | 112 |
| | | Type V Wide | 3000K | 80 | 4700 | 102 | 4000K | 80 | 4900 | 107 | 5000K | 70 | 5250 | 114 |
| MLGL7 | 175-250W | Type I | 3000K | 80 | 6400 | 112 | 4000K | 80 | 7100 | 125 | 5000K | 70 | 8000 | 140 |
| | | Type III | 3000K | 80 | 6600 | 116 | 4000K | 80 | 7300 | 128 | 5000K | 70 | 8300 | 146 |
| | | Type V | 3000K | 80 | 7250 | 119 | 4000K | 80 | 7600 | 125 | 5000K | 70 | 8000 | 131 |
| | | Type V Wide | 3000K | 80 | 7750 | 124 | 4000K | 80 | 7900 | 130 | 5000K | 70 | 8300 | 136 |
| MLGL9 | 250-350W | Type I | 3000K | 80 | 8500 | 111 | 4000K | 80 | 8800 | 117 | 5000K | 70 | 9900 | 132 |
| | | Type III | 3000K | 80 | 8600 | 115 | 4000K | 80 | 9300 | 124 | 5000K | 70 | 10400 | 139 |
| | | Type V | 3000K | 80 | 8550 | 107 | 4000K | 80 | 9000 | 113 | 5000K | 70 | 10150 | 127 |
| | | Type V Wide | 3000K | 80 | 8850 | 111 | 4000K | 80 | 9300 | 116 | 5000K | 70 | 10500 | 131 |
| MLGH9 | 250-350W | Type I | 3000K | 80 | 8100 | 108 | 4000K | 80 | 8800 | 117 | 5000K | 70 | 9900 | 132 |
| | | Type III | 3000K | 80 | 8600 | 115 | 4000K | 80 | 9300 | 124 | 5000K | 70 | 10400 | 139 |
| | | Type V | 3000K | 80 | 9300 | 124 | 4000K | 80 | 10100 | 135 | 5000K | 70 | 11200 | 149 |
| | | Type V Wide | 3000K | 80 | 8500 | 113 | 4000K | 80 | 9200 | 123 | 5000K | 70 | 10300 | 137 |
| MLGH1 | 350-400W | Type I | 3000K | 80 | 9900 | 106 | 4000K | 80 | 10700 | 115 | 5000K | 70 | 12000 | 129 |
| | | Type III | 3000K | 80 | 11200 | 115 | 4000K | 80 | 11300 | 122 | 5000K | 70 | 12600 | 135 |
| | | Type V | 3000K | 80 | 11400 | 123 | 4000K | 80 | 12300 | 132 | 5000K | 70 | 13600 | 146 |
| | | Type V Wide | 3000K | 80 | 10300 | 111 | 4000K | 80 | 11200 | 120 | 5000K | 70 | 12500 | 134 |
| MLGH3 | 400W | Type I | 3000K | 80 | 12000 | 104 | 4000K | 80 | 12900 | 112 | 5000K | 70 | 14500 | 126 |
| | | Type III | 3000K | 80 | 12600 | 110 | 4000K | 80 | 13600 | 118 | 5000K | 70 | 15300 | 133 |
| | | Type V | 3000K | 80 | 13700 | 119 | 4000K | 80 | 14900 | 130 | 5000K | 70 | 16400 | 143 |
| | | Type V Wide | 3000K | 80 | 12500 | 109 | 4000K | 80 | 13500 | 117 | 5000K | 70 | 15100 | 131 |
| MLGH6 | 400-600W | Type I | 3000K | 80 | 14500 | 100 | 4000K | 80 | 15700 | 108 | 5000K | 70 | 17700 | 122 |
| | | Type III | 3000K | 80 | 15100 | 104 | 4000K | 80 | 16400 | 113 | 5000K | 70 | 18400 | 127 |
| | | Type V | 3000K | 80 | 17000 | 117 | 4000K | 80 | 18000 | 124 | 5000K | 70 | 20100 | 139 |
| | | Type V Wide | 3000K | 80 | 15000 | 103 | 4000K | 80 | 16300 | 112 | 5000K | 70 | 18200 | 126 |
| MLGX1 | 600-750W | Type I | 3000K | 80 | 17170 | 102 | 4000K | 80 | 18188 | 108 | 5000K | 70 | 19206 | 114 |
| | | Type III | 3000K | 80 | 17931 | 106 | 4000K | 80 | 18994 | 112 | 5000K | 70 | 20057 | 119 |
| | | Type V | 3000K | 80 | 20006 | 118 | 4000K | 80 | 21366 | 126 | 5000K | 70 | 21937 | 130 |
| | | Type V Wide | 3000K | 80 | 17830 | 106 | 4000K | 80 | 18887 | 112 | 5000K | 70 | 19944 | 118 |
| MLGX5 | 1000W | Type I | 3000K | 80 | 19468 | 93 | 4000K | 80 | 20623 | 98 | 5000K | 70 | 21777 | 104 |
| | | Type III | 3000K | 80 | 20342 | 97 | 4000K | 80 | 21548 | 103 | 5000K | 70 | 22754 | 108 |
| | | Type V | 3000K | 80 | 23776 | 113 | 4000K | 80 | 25392 | 121 | 5000K | 70 | 26070 | 124 |
| | | Type V Wide | 3000K | 80 | 21285 | 101 | 4000K | 80 | 22547 | 107 | 5000K | 70 | 23809 | 113 |

*① All lumen values are typical (tolerance +/-10%).*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

**Lumen Output (Efficacy) — Standard Model** ①

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Glass Prismatic Refractor** | | | | | | | | | | | | | | |
| MLGL3 | 70-100W | Type V | 3000K | 80 | 2800 | 91 | 4000K | 80 | 3000 | 101 | 5000K | 70 | 3400 | 111 |
| MLGL5 | 100-150W | Type V | 3000K | 80 | 4200 | 90 | 4000K | 80 | 4600 | 99 | 5000K | 70 | 5100 | 110 |
| MLGL7 | 175-250W | Type V | 3000K | 80 | 6300 | 107 | 4000K | 80 | 6700 | 113 | 5000K | 70 | 7300 | 123 |
| MLGL9/ MLGH9 | 250-350W | Type V | 3000K | 80 | 8400 | 107 | 4000K | 80 | 8800 | 112 | 5000K | 70 | 9700 | 124 |
| MLGH1 | 350-400W | Type V | 3000K | 80 | 10100 | 105 | 4000K | 80 | 10600 | 110 | 5000K | 70 | 11700 | 121 |
| MLGH3 | 400W | Type V | 3000K | 80 | 11800 | 104 | 4000K | 80 | 12400 | 109 | 5000K | 70 | 13600 | 120 |
| MLGH6 | 400-600W | Type V | 3000K | 80 | 14500 | 100 | 4000K | 80 | 15100 | 105 | 5000K | 70 | 16700 | 116 |
| MLGX1 | 600-750W | Type V | 3000K | 80 | 16798 | 99 | 4000K | 80 | 17915 | 106 | 5000K | 70 | 18318 | 108 |
| MLGX5 | 1000W | Type V | 3000K | 80 | 19962 | 95 | 4000K | 80 | 21290 | 101 | 5000K | 70 | 21769 | 104 |

*① All lumen values are typical (tolerance +/-10%).*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Lumen Output (Efficacy) — Emergency Battery Backup Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe** | | | | | | | | | | | | | | |
| IMLGL3 | 70-100W | Type I | 3000K | 80 | 2600 | 87 | 4000K | 80 | 3000 | 100 | 5000K | 70 | 3200 | 107 |
| | | Type III | 3000K | 80 | 2800 | 93 | 4000K | 80 | 3000 | 100 | 5000K | 70 | 3500 | 117 |
| | | Type V | 3000K | 80 | 3000 | 100 | 4000K | 80 | 3300 | 110 | 5000K | 70 | 3800 | 127 |
| | | Type V Wide | 3000K | 80 | 2900 | 96 | 4000K | 80 | 2900 | 97 | 5000K | 70 | 3600 | 119 |
| IMLGL3 — 90 Minute Emergency Mode | 70-100W | Type I | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| | | Type III | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| | | Type V | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| | | Type V Wide | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| IMLGL5 | 100-150W | Type I | 3000K | 80 | 3800 | 83 | 4000K | 80 | 4200 | 91 | 5000K | 70 | 4800 | 104 |
| | | Type III | 3000K | 80 | 4100 | 89 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 5200 | 113 |
| | | Type V | 3000K | 80 | 4500 | 98 | 4000K | 80 | 5000 | 109 | 5000K | 70 | 5700 | 124 |
| | | Type V Wide | 3000K | 80 | 4400 | 94 | 4000K | 80 | 4800 | 105 | 5000K | 70 | 6000 | 129 |
| IMLGL5 — 90 Minute Emergency Mode | 100-150W | Type I | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| | | Type III | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| | | Type V | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| | | Type V Wide | 3000K | 80 | 1150 | N/A | 4000K | 80 | 1280 | N/A | 5000K | 70 | 1400 | N/A |
| **Diffused Polycarbonate Globe** | | | | | | | | | | | | | | |
| IMLGL3 | 70-100W | Type I | 3000K | 80 | 2700 | 87 | 4000K | 80 | 2900 | 95 | 5000K | 70 | 3200 | 108 |
| | | Type III | 3000K | 80 | 2800 | 92 | 4000K | 80 | 3000 | 101 | 5000K | 70 | 3300 | 112 |
| | | Type V | 3000K | 80 | 2900 | 97 | 4000K | 80 | 3200 | 107 | 5000K | 70 | 3700 | 123 |
| | | Type V Wide | 3000K | 80 | 2800 | 91 | 4000K | 80 | 3000 | 101 | 5000K | 70 | 3400 | 113 |
| IMLGL3 — 90 Minute Emergency Mode | 70-100W | Type I | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| | | Type III | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| | | Type V | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| | | Type V Wide | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| IMLGL5 | 100-150W | Type I | 3000K | 80 | 4000 | 85 | 4000K | 80 | 4400 | 94 | 5000K | 70 | 4900 | 107 |
| | | Type III | 3000K | 80 | 4200 | 91 | 4000K | 80 | 6400 | 100 | 5000K | 70 | 5100 | 110 |
| | | Type V | 3000K | 80 | 4400 | 96 | 4000K | 80 | 4800 | 104 | 5000K | 70 | 5500 | 120 |
| | | Type V Wide | 3000K | 80 | 4200 | 90 | 4000K | 80 | 4600 | 100 | 5000K | 70 | 5100 | 110 |
| IMLGL5 — 90 Minute Emergency Mode | 100-150W | Type I | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| | | Type III | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| | | Type V | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |
| | | Type V Wide | 3000K | 80 | 1100 | N/A | 4000K | 80 | 1230 | N/A | 5000K | 70 | 1350 | N/A |

*① All lumen values are typical (tolerance +/-10%). For Lumen Output (Efficacy) of the emergency battery backup model in 180 minute emergency mode, contact your local sales representative.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Lumen Output (Efficacy) — Emergency Battery Backup Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass Globe** | | | | | | | | | | | | | | |
| IMLGL3 | 70-100W | Type I | 3000K | 80 | 2800 | 93 | 4000K | 80 | 3100 | 103 | 5000K | 70 | 3500 | 111 |
| | | Type III | 3000K | 80 | 3100 | 102 | 4000K | 80 | 3200 | 107 | 5000K | 70 | 3700 | 116 |
| | | Type V | 3000K | 80 | 3100 | 102 | 4000K | 80 | 3600 | 120 | 5000K | 70 | 4000 | 133 |
| | | Type V Wide | 3000K | 80 | 3100 | 101 | 4000K | 80 | 3200 | 107 | 5000K | 70 | 3600 | 120 |
| IMLGL3 — 90 Minute Emergency Mode | 70-100W | Type I | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| | | Type III | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| | | Type V | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| | | Type V Wide | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1350 | N/A |
| IMLGL5 | 100-150W | Type I | 3000K | 80 | 4200 | 91 | 4000K | 80 | 5000 | 106 | 5000K | 70 | 5300 | 115 |
| | | Type III | 3000K | 80 | 4400 | 95 | 4000K | 80 | 5200 | 110 | 5000K | 70 | 5400 | 117 |
| | | Type V | 3000K | 80 | 4800 | 104 | 4000K | 80 | 5300 | 113 | 5000K | 70 | 6000 | 130 |
| | | Type V Wide | 3000K | 80 | 4900 | 99 | 4000K | 80 | 5200 | 110 | 5000K | 70 | 5400 | 117 |
| IMLGL5 — 90 Minute Emergency Mode | 100-150W | Type I | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| | | Type III | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| | | Type V | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| | | Type V Wide | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1330 | N/A | 5000K | 70 | 1350 | N/A |

*① All lumen values are typical (tolerance +/-10%). For Lumen Output (Efficacy) of the emergency battery backup model in 180 minute emergency mode, contact your local sales representative.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Electrical Specifications — Standard Model** ①

| Model | Voltage | Input Power | Input Current (Amp) | Power Factor | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| IMLGL3 | 120 Vac | 30 | 0.26 | >0.9 | < 20% |
| | 277 Vac | 30 | 0.12 | | |
| | 170 Vdc | 30 | 0.18 | N/A | N/A |
| | 300 Vdc | 31 | 0.10 | | |
| | 347 Vac | 33 | 0.10 | >0.9 | < 20% |
| | 480 Vac | 33 | 0.07 | | |
| IMLGL5 | 120 Vac | 46 | 0.39 | >0.9 | < 20% |
| | 277 Vac | 46 | 0.17 | | |
| | 170 Vdc | 46 | 0.27 | N/A | N/A |
| | 300 Vdc | 46 | 0.16 | | |
| | 347 Vac | 49 | 0.14 | >0.9 | < 20% |
| | 480 Vac | 49 | 0.11 | | |
| IMLGL7 | 120 Vac | 57 | 0.48 | >0.9 | < 20% |
| | 277 Vac | 57 | 0.23 | | |
| | 170 Vdc | 57 | 0.34 | N/A | N/A |
| | 300 Vdc | 57 | 0.19 | | |
| | 347 Vac | 60 | 0.18 | >0.9 | < 20% |
| | 480 Vac | 60 | 0.14 | | |
| IMLGL9/IMLGH9 | 120 Vac | 75 | 0.64 | >0.9 | < 20% |
| | 277 Vac | 75 | 0.29 | | |
| | 170 Vdc | 75 | 0.45 | N/A | N/A |
| | 300 Vdc | 75 | 0.25 | | |
| | 347 Vac | 79 | 0.23 | >0.9 | < 20% |
| | 480 Vac | 79 | 0.17 | | |
| IMLGH1 | 120 Vac | 93 | 0.79 | >0.9 | < 20% |
| | 277 Vac | 93 | 0.35 | | |
| | 170 Vdc | 93 | 0.55 | N/A | N/A |
| | 300 Vdc | 93 | 0.31 | | |
| | 347 Vac | 97 | 0.28 | >0.9 | < 20% |
| | 480 Vac | 97 | 0.21 | | |
| IMLGH3 | 120 Vac | 115 | 0.99 | >0.9 | < 20% |
| | 277 Vac | 115 | 0.44 | | |
| | 170 Vdc | 115 | 0.68 | N/A | N/A |
| | 300 Vdc | 115 | 0.38 | | |
| | 347 Vac | 118 | 0.34 | >0.9 | < 20% |
| | 480 Vac | 118 | 0.25 | | |
| IMLGH6 | 120 Vac | 145 | 1.24 | >0.9 | < 20% |
| | 277 Vac | 145 | 0.54 | | |
| | 170 Vdc | 145 | 0.86 | N/A | N/A |
| | 300 Vdc | 145 | 0.48 | | |
| | 347 Vac | 145 | 0.42 | >0.9 | < 20% |
| | 480 Vac | 145 | 0.31 | | |
| IMLGX1 | 120 Vac | 169 | 1.43 | >0.9 | < 20% |
| | 277 Vac | 165 | 0.63 | | |
| | 170 Vdc | 169 | 1.30 | N/A | N/A |
| | 300 Vdc | 166 | 0.64 | | |
| | 347 Vac | 171 | 0.50 | >0.9 | < 20% |
| | 480 Vac | 170 | 0.37 | | |
| IMLGX5 | 120 Vac | 210 | 1.79 | >0.9 | < 20% |
| | 277 Vac | 204 | 0.82 | | |
| | 170 Vdc | 209 | 1.60 | N/A | N/A |
| | 300 Vdc | 203 | 0.76 | | |
| | 347 Vac | 209 | 0.61 | >0.9 | < 20% |
| | 480 Vac | 209 | 0.45 | | |

*① All values are typical (tolerance +/-10%).*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

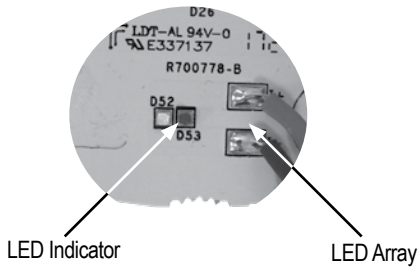


**Electrical Specifications — Emergency Battery Backup Model ①**

| Model | Voltage | Input Power (Watts) | Input Current (Amp) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| IMLGL3 | 120 Vac | 30 | 0.26 | >0.9 | < 20% |
| | 277 Vac | 30 | 0.12 | | |
| IMLGL5 | 120 Vac | 46 | 0.39 | >0.9 | < 20% |
| | 277 Vac | 46 | 0.17 | | |

**Automatic Testing System (ATS) — Emergency Battery Backup Model — Functionality**

| Functional | Full Duration |
|---|---|
| Starts within 24 to 45 hours after the initial powerup of the module | Starts within 5 to 26 days after the initial power of the module |
| Occurs every 14 days after the initial aforementioned functional test | Occurs every 364 days after the initial aforementioned functional test |
| Lasts for 30 seconds | Lasts for the full duration of the rated emergency period |
| At the completion of functional and full duration tests, LED indicator will display the status of the emergency luminaire when AC is present | |




**LED Signals**

| Indicator Color | Timing | Description |
|---|---|---|
| Green | 1 sec ON: 1 sec OFF | Normal charging ok, Battery not yet fully charged, No fault detected, Testing ok |
| Green | 0.25 sec ON: 0.25 sec OFF | Functional / Duration Self-Test on-going |
| Green | Steady ON | Charging ok, Battery fully charged, No fault detected, Testing ok |
| Red | 1 sec ON: 1 sec OFF | Fault condition. Installation issue. Battery is reverse, not connected or shorted. Functional test failure, full duration test failure |
| LED Indicators OFF, LED Array ON | LED Indicator Lights (Red and Green) OFF | No AC, Emergency mode ON |

*① All values are typical (tolerance +/-10%).*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**NEC/CEC Ambient Temperature — All Models ①**

| Model | Maximum Ambient Temperature °C (°F) |
|---|---|
| IMLGL3 | 65 (149) |
| IMLGL3 - A | 75 (167) |
| IMLGL5 | 65 (149) |
| IMLGL5 - A | 75 (167) |
| IMLGL7 | 65 (149) |
| IMLGL7 - A | 75 (167) |
| IMLGL9 | 65 (149) |
| IMLGL9 - A | 70 (158) |
| IMLGH9 - A | 70 (158) |
| IMLGH1 | 65 (149) |
| IMLGH1 - A | 70 (158) |
| IMLGH3 | 65 (149) |
| IMLGH3 - A | 70 (158) |
| IMLGH6 | 65 (149) |
| IMLGX1 | 60 (140) |
| IMLGX5 | 55 (131) |

**IECCC Temperature Codes — All Models ②**

| Model ② | Maximum Ambient Temperature °C (°F) |
|---|---|
| IMLGL3 | 65 (149) |
| IMLGL5 | 65 (149) |
| IMLGL7 | 65 (149) |
| IMLGL7-A | 70 (158) |
| IMLGL9 | 65 (149) |
| IMLGH9-A | 70 (158) |
| IMLGH1 | 65 (149) |
| IMLGH1 - A | 70 (158) |
| IMLGH3 | 65 (149) |
| IMLGH6 | 65 (149) |
| IMLGX1 | 60 (140) |
| IMLGX5 | 55 (131) |

*① Ambient Temperature Range: -40 °C to +65 °C (-40 °F to +149 °F).*
*② For 125-170 Vdc, operating Temp. range is -40°C to +55 °C (For IECEx/ATEX only). NEC/CEC operating temp remains -40°C to +65°C (-40 °F to +149 °F) for full Vdc range.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Catalog Number for Driver Housing and Globe or Refractor — Standard Model**

| Lumen Level | CCT | Optics | Clear Polycarbonate Globe ①②③④⑤ | Polycarbonate Diffused Globe ①②③④⑤ | Clear Glass Globe ①②③④⑤ | Refractor ①②③④⑤ |
|---|---|---|---|---|---|---|
| 3500 | 5000K | Type I | IMLGL3CP1 | IMLGL3CD1 | IMLGL3CG1 | — |
| | | Type III | IMLGL3CP3 | IMLGL3CD3 | IMLGL3CG3 | — |
| | | Type V | IMLGL3CP5 | IMLGL3CD5 | IMLGL3CG5 | IMLGL3CJ5 |
| | | Type V Wide | IMLGL3CPW | IMLGL3CDW | IMLGL3CGW | — |
| 5500 | 5000K | Type I | IMLGL5CP1 | IMLGL5CD1 | IMLGL5CG1 | — |
| | | Type III | IMLGL5CP3 | IMLGL5CD3 | IMLGL5CG3 | — |
| | | Type V | IMLGL5CP5 | IMLGL5CD5 | IMLGL5CG5 | IMLGL5CJ5 |
| | | Type V Wide | IMLGL5CPW | IMLGL5CDW | IMLGL5CGW | — |
| 7500 | 5000K | Type I | IMLGL7CP1 | IMLGL7CD1 | IMLGL7CG1 | — |
| | | Type III | IMLGL7CP3 | IMLGL7CD3 | IMLGL7CG3 | — |
| | | Type V | IMLGL7CP5 | IMLGL7CD5 | IMLGL7CG5 | IMLGL7CJ5 |
| | | Type V Wide | IMLGL7CPW | IMLGL7CDW | IMLGL7CGW | — |
| 9500 ⑥ | 5000K | Type I | IMLGL9CP1/IMLGH9CP1 | IMLGL9CD1/IMLGH9CD1 | IMLGL9CG1/IMLGH9CG1 | — |
| | | Type III | IMLGL9CP3/ IMLGH9CP3 | IMLGL9CD3/IMLGH9CD3 | IMLGL9CG3/IMLGH9CG3 | — |
| | | Type V | IMLGL9CP5/IMLGH9CP5 | IMLGL9CD5/IMLGH9CD5 | IMLGL9CG5/IMLGH9CG5 | IMLGL9CJ5/IMLGH9CJ5 |
| | | Type V Wide | IMLGL9CPW/IMLGH9CPW | IMLGL9CDW/IMLGH9CDW | IMLGL9CGW/IMLGH9CGW | — |
| 11,500 | 5000K | Type I | IMLGH1CP1 | IMLGH1CD1 | IMLGH1CG1 | — |
| | | Type III | IMLGH1CP3 | IMLGH1CD3 | IMLGH1CG3 | — |
| | | Type V | IMLGH1CP5 | IMLGH1CD5 | IMLGH1CG5 | IMLGH1CJ5 |
| | | Type V Wide | IMLGH1CPW | IMLGH1CDW | IMLGH1CGW | — |
| 14,500 | 5000K | Type I | IMLGH3CP1 | IMLGH3CD1 | IMLGH3CG1 | — |
| | | Type III | IMLGH3CP3 | IMLGH3CD3 | IMLGH3CG3 | — |
| | | Type V | IMLGH3CP5 | IMLGH3CD5 | IMLGH3CG5 | IMLGH3CJ5 |
| | | Type V Wide | IMLGH3CPW | IMLGH3CDW | IMLGH3CGW | — |
| 17,500 | 5000K | Type I | IMLGH6CP1 | IMLGH6CD1 | IMLGH6CG1 | — |
| | | Type III | IMLGH6CP3 | IMLGH6CD3 | IMLGH6CG3 | — |
| | | Type V | IMLGH6CP5 | IMLGH6CD5 | IMLGH6CG5 | IMLGH6CJ5 |
| | | Type V Wide | IMLGH6CPW | IMLGH6CDW | IMLGH6CGW | — |
| 20,000 | 5000K | Type I | IMLGX1CP1 | IMLGX1CD1 | IMLGX1CG1 | — |
| | | Type III | IMLGX1CP3 | IMLGX1CD3 | IMLGX1CG3 | — |
| | | Type V | IMLGX1CP5 | IMLGX1CD5 | IMLGX1CG5 | IMLGX1CJ5 |
| | | Type V Wide | IMLGX1CPW | IMLGX1CDW | IMLGX1CGW | — |
| 24,000 | 5000K | Type I | IMLGX5CP1 | IMLGX5CD1 | IMLGX5CG1 | — |
| | | Type III | IMLGX5CP3 | IMLGX5CD3 | IMLGX5CG3 | — |
| | | Type V | IMLGX5CP5 | IMLGX5CD5 | IMLGX5CG5 | IMLGX5CJ5 |
| | | Type V Wide | IMLGX5CPW | IMLGX5CDW | IMLGX5CGW | — |

*① For 120-277 Vac, 50/60 Hz, add suffix **-BU** to catalog number. For 347-480 Vac, 50/60 Hz, add suffix **-BH** to catalog number.*
*② For other CCT options, change the 7th digit in part number from "**C**" to "**W**" for Warm 3000K CCT or "**N**" for Neutral 4000K CCT. Example: IMLGL7**C**P5BU to "**W**" for Warm, IMLGL7**W**P5BU.*
*③ Guards are available for fixtures with globe or refractor. See following pages for accessory ordering information.*
*④ For fusing add "**F**" to end of catalog number. Example: IMLGL7CP5BU**F**.*
*⑤ Use of fuse voids Marine Outside Type (Salt Water) rating. Only available for cCSAus rating. For additional 10 kV of surge, add "**S**" to the end of catalog number. Example: IMLGH6CD5BU**S**.*
*⑥ IMLGH9 only available with certified High Ambient option (-**A**).*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Catalog Number for Driver Housing and Globe — Emergency Battery Backup Model**

| Lumen Level | CCT | Optics | Clear Polycarbonate Globe ①② | | Polycarbonate Diffused Globe ①② | | Clear Glass Globe ①② | |
|---|---|---|---|---|---|---|---|---|
| | | | 90 Min | 180 Min | 90 Min | 180 Min | 90 Min | 180 Min |
| 3500 | 5000K | Type I | **IMLGL3CP1BUH** | **IMLGL3CP1BUE** | **IMLGL3CD1BUH** | **IMLGL3CD1BUE** | **IMLGL3CG1BUH** | **IMLGL3CG1BUE** |
| | | Type III | **IMLGL3CP3BUH** | **IMLGL3CP3BUE** | **IMLGL3CD3BUH** | **IMLGL3CD3BUE** | **IMLGL3CG3BUH** | **IMLGL3CG3BUE** |
| | | Type V | **IMLGL3CP5BUH** | **IMLGL3CP5BUE** | **IMLGL3CD5BUH** | **IMLGL3CD5BUE** | **IMLGL3CG5BUH** | **IMLGL3CG5BUE** |
| | | Type V Wide | **IMLGL3CPWBUH** | **IMLGL3CPWBUE** | **IMLGL3CDWBUH** | **IMLGL3CDWBUE** | **IMLGL3CGWBUH** | **IMLGL3CGWBUE** |
| 5500 | 5000K | Type I | **IMLGL5CP1BUH** | **IMLGL5CP1BUE** | **IMLGL5CD1BUH** | **IMLGL5CD1BUE** | **IMLGL5CG1BUH** | **IMLGL5CG1BUE** |
| | | Type III | **IMLGL5CP3BUH** | **IMLGL5CP3BUE** | **IMLGL5CD3BUH** | **IMLGL5CD3BUE** | **IMLGL5CG3BUH** | **IMLGL5CG3BUE** |
| | | Type V | **IMLGL5CP5BUH** | **IMLGL5CP5BUE** | **IMLGL5CD5BUH** | **IMLGL5CD5BUE** | **IMLGL5CG5BUH** | **IMLGL5CG5BUE** |
| | | Type V Wide | **IMLGL5CPWBUH** | **IMLGL5CPWBUE** | **IMLGL5CDWBUH** | **IMLGL5CDWBUE** | **IMLGL5CGWBUH** | **IMLGL5CGWBUE** |

*① For other CCT options, change the 7th digit in part number from "**C**" to "**W**" for Warm 3000K CCT or "**N**" for Neutral 4000K CCT. Example: IMLGL7**C**P5BUH to "**W**" for Warm, IMLGL7**W**P5BUH.*
*② Guards are available. See following pages for accessory ordering information.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Mounting Hoods — All Models**

| | Hub Size | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Pendant — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.0 (2.3) | **KPA-75** |
| | 1" NPT | | **KPA-100** |
| | M20 | | **KPA-M20** |
| **Watertight Pendant Hood — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.1 (2.4) | **KPA-75-WT** |
| | 1" NPT | | **KPA-100-WT** |
| | M20 | | **KPA-WT-M20** |
| **Pendant Cone — One Hub, Rigid Mounting** | | | |
| | 3/4" NPT | 1.1 (2.5) | **KPCH-75** |
| | 1" NPT | | **KPCH-100** |
| | M20 | | **KPCH-M20** |
| **Trunnion — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 6.1 (13.4) | **KPCT-75** |
| | 1" NPT | | **KPCT-100** |
| | M20 | | **KPCT-M20** |
| **Ceiling — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 1.4 (3.0) | **KPC-75** |
| | 1" NPT | | **KPC-100** |
| | M20 | | **KPC-M20** |
| **Wall — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | 1.8 (4.0) | **KPWB-75** |
| | 1" NPT | | **KPWB-100** |
| | M20 | | **KPWB-M20** |
| **25° Stanchion — One Hub** | | | |
| | 1-1/4" NPT | 1.5 (3.3) | **KPS-125** |
| | 1-1/2" NPT | | **KPS-150** |
| **90° Stanchion — One Hub** | | | |
| | 1-1/4" NPT | 1.7 (3.8) | **KPST-125** |
| | 1-1/2" NPT | | **KPST-150** |

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

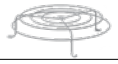
Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Accessories and Replacement Parts — All Models**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Globes** | | | |
| | Clear Globe — Polycarbonate | 0.2 (0.5) | **VPGL-LED** |
| | Diffused Globe — Polycarbonate | 0.2 (0.5) | **VPGL-DIFF** |
| | Clear Globe — Glass | 0.8 (1.7) | **VPGL-GLASS** |
| **Guard** | | | |
|  | Globe Guard | 0.2 (0.4) | **MGU1** |
| **Safety Cable** | | | |
| | Stainless steel | 0.2 (0.4) | **LEDSC** |
| **Visor** | | | |
| | Electrostatically applied gray epoxy powder coat finish on Aluminum Visor | 0.4 (0.9) | **MMVISOR** |
| **Reflector** | | | |
| | 30° Angle White Polyester Reflectors | 1.3 (2.7) | **CMR-4AN** |
| **Drain Plug** | | | |
| | 76 mm (3") long, 1/2" NPT trade size drain assembly used to divert water existing in the conduit system | 0.4 (0.9) | **LEDDR3** |

**Mounting Hood Adapters — All Models** ①

| | Manufacturer | Installed Mounting Hood | Weight in kg (lbs) | Appleton Adapter Catalog Number |
|---|---|---|---|---|
| | Crouse-Hinds™ Champ® ✣ | Pendant: APM2/3<br>Ceiling: CM2/3<br>Flexible Pendant: HPM2 | 0.9 (2.00) | **MMADCHVS** |
| | Appleton™ Mercmaster™ II | Pendant: LPA75/100<br>Ceiling: LPC75/100 | 0.9 (2.00) | **MMADIIS** |
| | Crouse-Hinds™ Champ® ✣ | Wall: TWM2/3<br>25° Angle Stanchion: JM5<br>90° Angle Stanchion: PM5 | 0.9 (2.00) | **MMADCHVA** |
| | Appleton™ Mercmaster™ II | Wall: LPWB75, LPWB100<br>25° Angle Stanchion: LPS125, LPS150 | 0.9 (2.00) | **MMADIIA** |
| | Killark™ ✧ | Ceiling: VMX2B, VMX3B, VMX6B, VMX7B, VMX9B<br>Pendant: VMA2B, VMA3B<br>Stanchion: VMD4B, VMD5B, VMS4B, VMS5B<br>Wall: VMB2B, VMB3B<br>Pendant Cone: VMC2B, VMC3B | 1.0 (2.3) | **MMADKVA** |

① *Adapters are cCSAus rated only.*
✧ *Killark is a registered trademark of Hubbell Incorporated.*
✣ *Crouse-Hinds and Champ are a registered trademarks of Cooper Crouse-Hinds.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Accessories and Replacement Parts — Standard Model**

| | Light Distribution | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Prismatic Glass Refractor — All Heat-Resistant** ① | | | |
| | Short Prismatic Glass Refractor — NEMA Type V | 1.4 (3.0) | **LPG-R5S** |

| | Description | | Catalog Number |
|---|---|---|---|
| **Guards** | | | |
| | Short Refractor Guard for LPG-R5S | 0.3 (0.7) | **KRG2S** |

| | Model | Voltage | Driver Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|---|
| **Replacement Drivers** | | | | | |
| | IMLGL3 | BU | 50 Watt | 500mA | **APMS050C135UD50** |
| | | BH | | 500mA | **APMS050C135HD50** |
| | IMLGL5 | BU | 50 Watt | 780mA | **APMS050C135UD78** |
| | | BH | | 780mA | **APMS050C135HD78** |
| | IMLGL7 | BU | 100 Watt | 360mA | **APMS100C105UD36** |
| | | BH | | 360mA | **APMS100C105HD36** |
| | IMLGL9 / IMLGH9 | BU | 100 Watt | 480mA | **APMS100C105UD48** |
| | | BH | | 480mA | **APMS100C105HD48** |
| | IMLGH1 | BU | 100 Watt | 595mA | **APMS100C105UD59** |
| | | BH | | 595mA | **APMS100C105HD59** |
| | IMLGH3 | BU | 150 Watt | 720mA | **APMS150C105UD72** |
| | | BH | | 720mA | **APMS150C105HD72** |
| | IMLGH6 | BU | 150 Watt | 900mA | **APMS150C105UD90** |
| | | BH | | 900mA | **APMS150C105HD90** |
| | IMLGX1 | BU | 2 x 100 Watt | 520mA | **APMS100C105UD52** |
| | | BH | 2 x 100 Watt | 520mA | **APMS100C105HD52** |
| | IMLGX5 | BU | 2 x 150 Watt | 650mA | **APMS150C105UD65** |
| | | BH | 2 x 100 Watt | 650mA | **APMS100C105HD65** |

① *Glass Prismatic Refractor is cCSAus rated only.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Accessories and Replacement Parts — Emergency Battery Backup Model**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| | Replacement Battery Pack | 0.7 (1.5) | **BPMLLED** |
| | Replacement Battery Management Module | 0.7 (1.5) | **BMMLLED** |
| | Replacement Fuse (Emergency system) | 0.2 (0.4) | **MLF5** |

| | Model | Voltage | Driver Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|---|
| **Replacement Drivers** | | | | | |
| | IMLGL3 | BU | 50 Watt | 500mA | **APMS050C135UD50** |
| | | BH | | 500mA | **APMS050C135HD50** |
| | IMLGL5 | BU | 50 Watt | 780mA | **APMS050C135UD78** |
| | | BH | | 780mA | **APMS050C135HD78** |

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Mounting Hood with Factory Installed Photocontrol ① — All Models**

| | Mounting Hood | Hub Size | Photocontrol Option | Catalog Number |
|---|---|---|---|---|
| | Pendant | 3/4" NPT | 120 V | **KPA75PC12** |
| | | | 208 V, 240 V, 277 V | **KPA75PC24** |
| | | 1" NPT | 120 V | **KPA100PC12** |
| | | | 208 V, 240 V, 277 V | **KPA100PC24** |
| | Wall | 3/4" NPT | 120 V | **KPWB75PC12** |
| | | | 208 V, 240 V, 277 V | **KPWB75PC24** |
| | | 1" NPT | 120 V | **KPWB100PC12** |
| | | | 208 V, 240 V, 277 V | **KPWB100PC24** |
| | 25° Stanchion | 1-1/4" NPT stanchion | 120 V | **KPS125PC12** |
| | | | 208 V, 240 V, 277 V | **KPS125PC24** |
| | | 1-1/2" NPT stanchion | 120 V | **KPS150PC12** |
| | | | 208 V, 240 V, 277 V | **KPS150PC24** |
| | 90° Stanchion | 1-1/4" NPT stanchion | 120 V | **KPST125PC12** |
| | | | 208 V, 240 V, 277 V | **KPST125PC24** |
| | | 1-1/2" NPT stanchion | 120 V | **KPST150PC12** |
| | | | 208 V, 240 V, 277 V | **KPST150PC24** |

**Luminaire Weights — All Models**

| Model | Lumen Outputs | Weight in kg (lbs) |
|---|---|---|
| **Standard Models** | | |
| IMLGL3 | 3500 | 9.20 (20.3) |
| IMLGL5 | 5500 | 9.20 (20.3) |
| IMLGL7 | 7500 | 9.20 (20.3) |
| IMLGL9 | 9500 | 9.20 (20.3) |
| IMLGH9 | 9500 | 12.00 (26.4) |
| IMLGH1 | 11,500 | 12.00 (26.4) |
| IMLGH3 | 14,500 | 12.00 (26.4) |
| IMLGH6 | 17,500 | 12.00 (26.4) |
| IMLGX1 | 20,000 | 13.15 (29.0) |
| IMLGX5 | 25,000 | 13.15 (29.0) |
| **Emergency Battery Backup Models** | | |
| IMLGL3H | 3500 | 10.5 (23.2) |
| IMLGL5H | 5500 | 10.5 (23.2) |

① *Fixtures with photocontrols are rated Type 3R.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

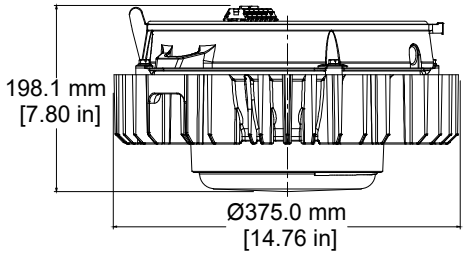
**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

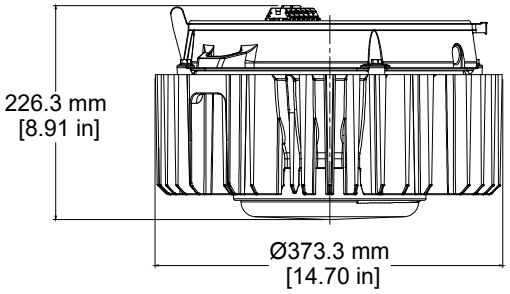


## Dimensional Drawings

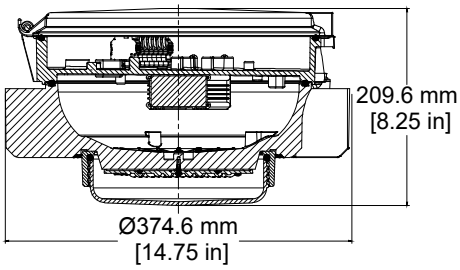
| IMLGL3 to IMLGL9 | IMLGH6 to IMLGH9 and IMLGX1 to IMLGX5 |
|---|---|

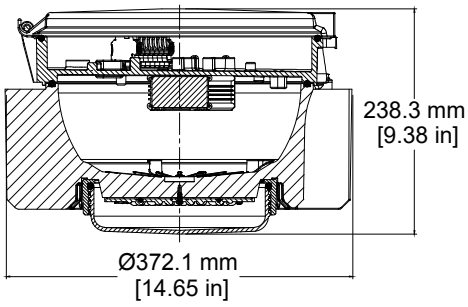
### Driver Housing



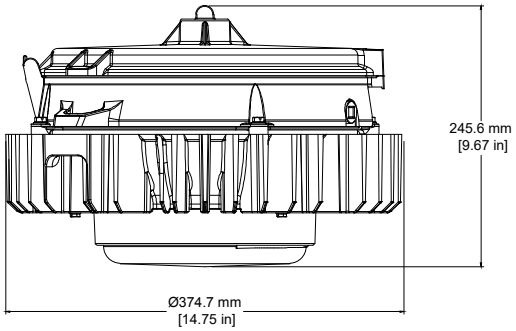



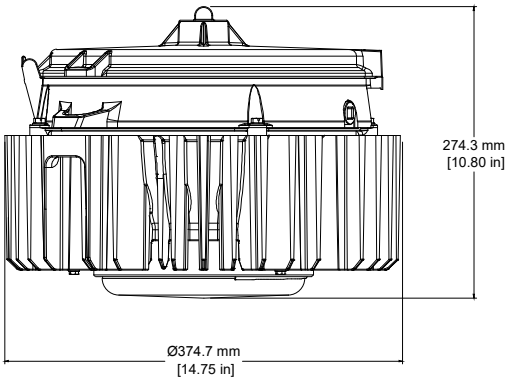

### Pendant




### Watertight Pendant



# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

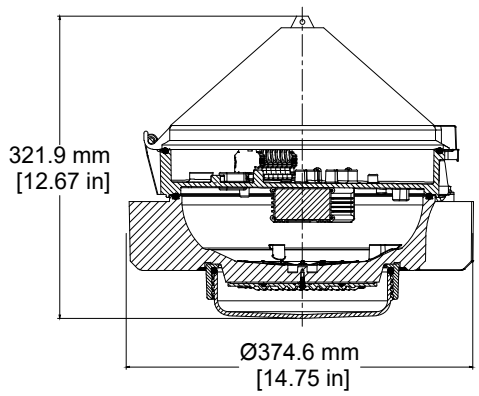
**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

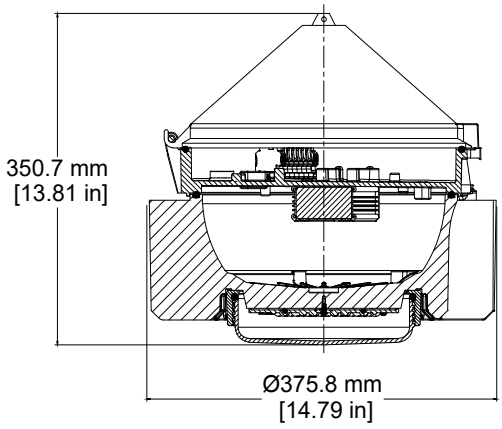


## Dimensional Drawings

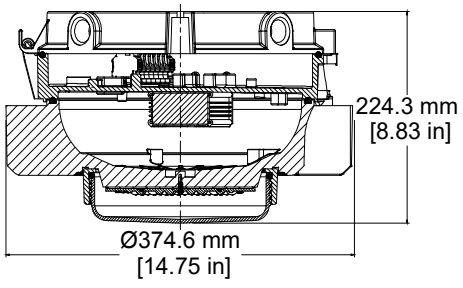
| IMLGL3 to IMLGL9 | IMLGH6 to IMLGH9 and IMLGX1 to IMLGX5 |
|---|---|

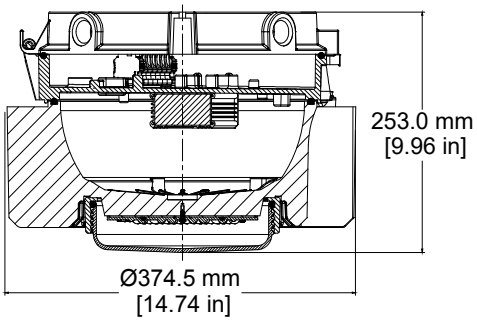
### Pendant Cone



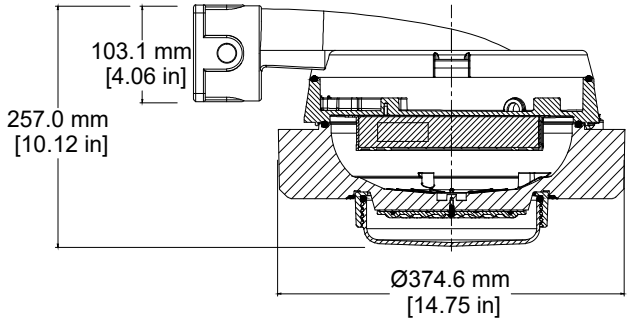



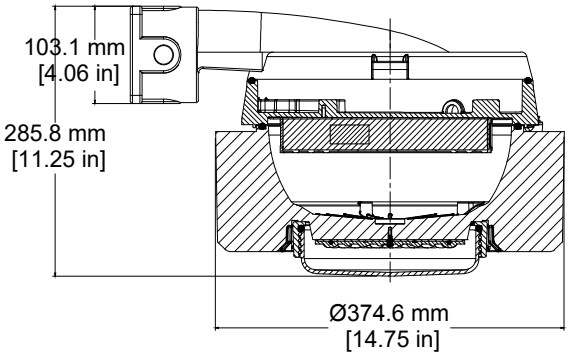

### Ceiling




### Wall Mount



# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

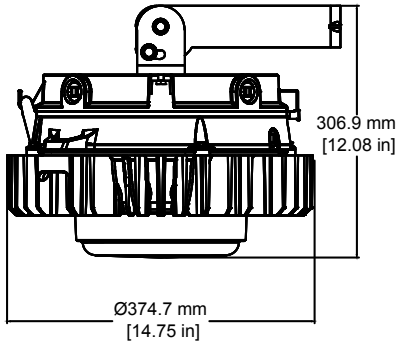
**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



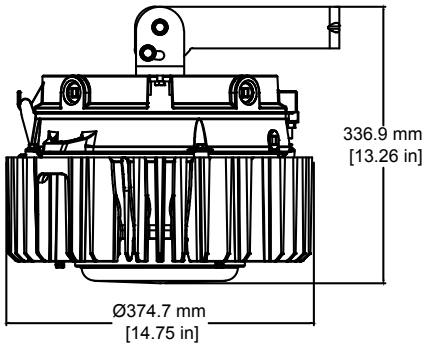
## Dimensional Drawings

### Trunnion Mount

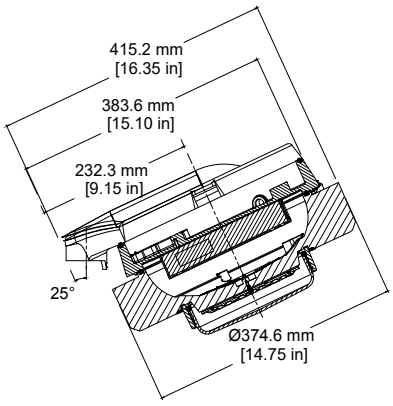
**IMLGL3 to IMLGL9**

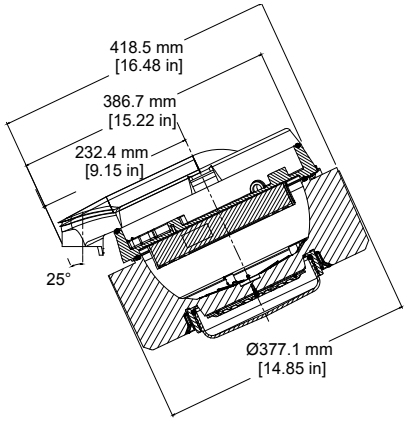



**IMLGH6 to IMLGH9 and IMLGX1 to IMLGX5**

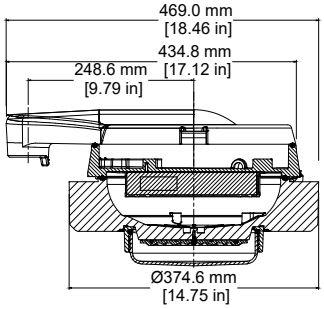


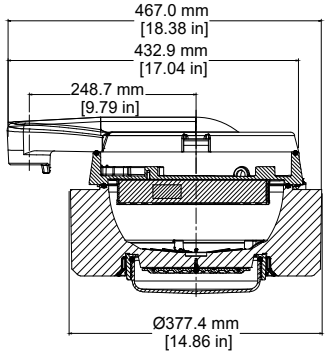

### 25° Stanchion Mount




### 90° Stanchion Mount



# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

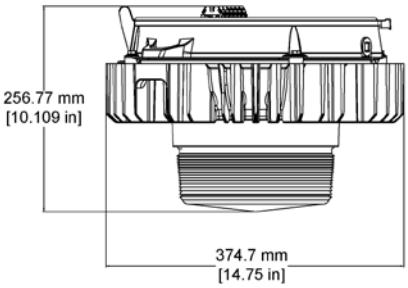
**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**

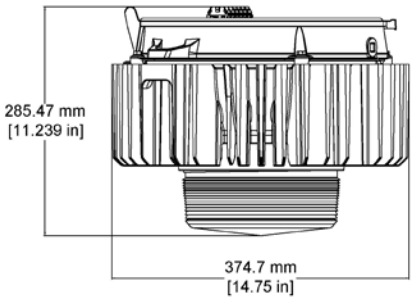


## Dimensional Drawings

| IMLGL3 to IMLGL9 | IMLGH6 to IMLGH9 and IMLGX1 to IMLGX5 |
|---|---|

**Driver Housing with Short Prismatic Glass Refractor ①**




① *For additional configurations dimensions, review the Product Drawing configurator page on the website.*

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



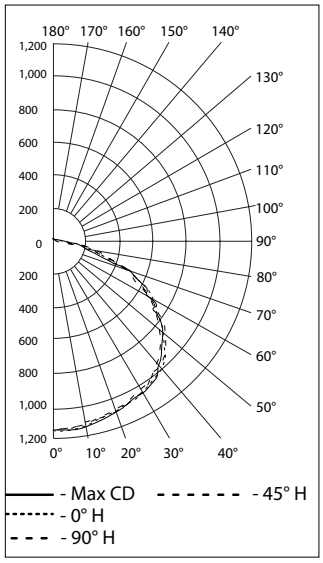
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

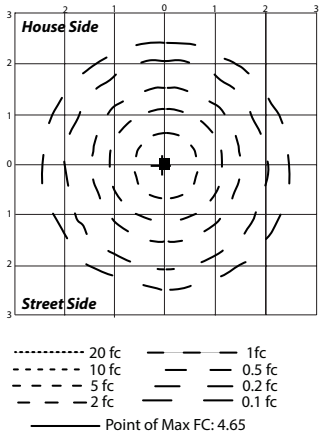
REPORT NUMBER: **MLGAL33CP5**

Luminaire Lumens 3,783

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 942.7 | 24.9% |
| 0-40 | 1,591.7 | 42.1% |
| 0-60 | 2,979.8 | 78.8% |
| 60-90 | 788.2 | 20.8% |
| 70-100 | 271.6 | 7.2% |
| 90-120 | 13.9 | 0.4% |
| 0-90 | 3,768.1 | 99.6% |
| 90-180 | 15.1 | 0.4% |
| 0-180 | 3,783.2 | 100% |

**LUMENS PER ZONE**

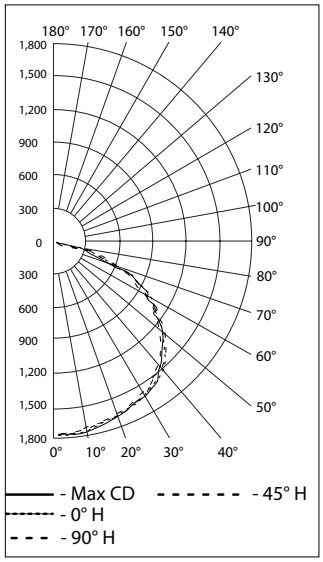
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 111.3 | 2.9% | 90-100 | 5.9 | 0.2% |
| 10-20 | 322.9 | 8.5% | 100-110 | 4.8 | 0.1% |
| 20-30 | 508.4 | 13.4% | 110-120 | 3.2 | 0.1% |
| 30-40 | 649.0 | 17.2% | 120-130 | 0.8 | 0% |
| 40-50 | 713.0 | 18.8% | 130-140 | 0.1 | 0% |
| 50-60 | 675.1 | 17.8% | 140-150 | 0.1 | 0% |
| 60-70 | 522.5 | 13.8% | 150-160 | 0.2 | 0% |
| 70-80 | 221.7 | 5.9% | 160-170 | 0.1 | 0% |
| 80-90 | 44.1 | 1.2% | 170-180 | 0.0 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

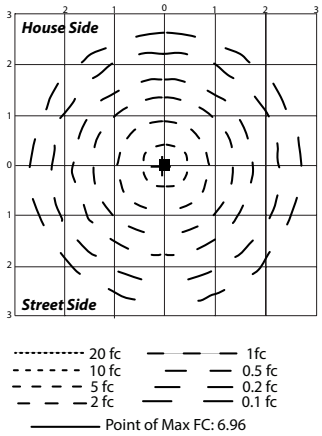
REPORT NUMBER: **MLGAL53CP5**

Luminaire Lumens 5,660

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,410.3 | 24.9% |
| 0-40 | 2,381.3 | 42.1% |
| 0-60 | 4,457.9 | 78.8% |
| 60-90 | 1,179.2 | 20.8% |
| 70-100 | 406.4 | 7.2% |
| 90-120 | 20.7 | 0.4% |
| 0-90 | 5,637.2 | 99.6% |
| 90-180 | 22.7 | 0.4% |
| 0-180 | 5,659.8 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 166.5 | 2.9% | 90-100 | 8.8 | 0.2% |
| 10-20 | 483.1 | 8.5% | 100-110 | 7.1 | 0.1% |
| 20-30 | 760.6 | 13.4% | 110-120 | 4.8 | 0.1% |
| 30-40 | 971.0 | 17.2% | 120-130 | 1.2 | 0% |
| 40-50 | 1,0667.7 | 18.8% | 130-140 | 0.1 | 0% |
| 50-60 | 1,010.0 | 17.8% | 140-150 | 0.2 | 0% |
| 60-70 | 781.6 | 13.8% | 150-160 | 0.2 | 0% |
| 70-80 | 331.7 | 5.9% | 160-170 | 0.2 | 0% |
| 80-90 | 65.9 | 1.2% | 170-180 | 0.1 | 0% |

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



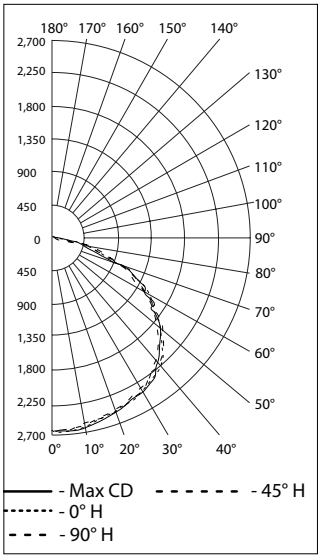
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

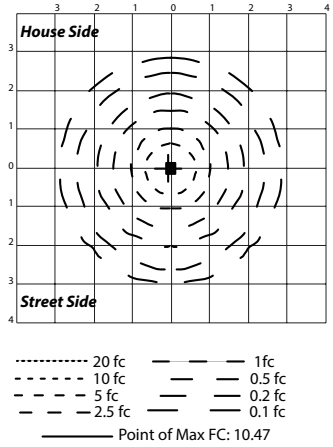
REPORT NUMBER: **MLGAL73CP5**

Luminaire Lumens 8,524

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,123.9 | 24.9% |
| 0-40 | 3,586.2 | 42.1% |
| 0-60 | 6,713.7 | 78.8% |
| 60-90 | 1,775.9 | 20.8% |
| 70-100 | 612.0 | 7.2% |
| 90-120 | 31.2 | 0.4% |
| 0-90 | 8,489.6 | 99.6% |
| 90-180 | 34.1 | 0.4% |
| 0-180 | 8,523.7 | 100% |

**LUMENS PER ZONE**

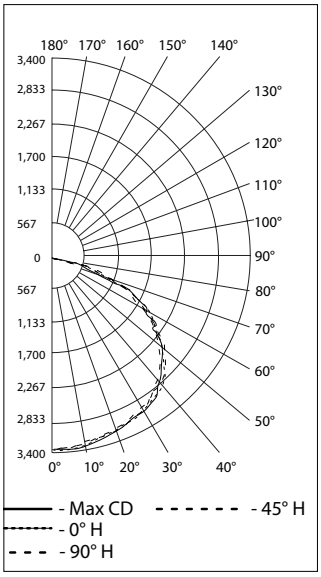
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 250.8 | 2.9% | 90-100 | 13.2 | 0.2% |
| 10-20 | 727.6 | 8.5% | 100-110 | 10.8 | 0.1% |
| 20-30 | 1,145.5 | 13.4% | 110-120 | 7.2 | 0.1% |
| 30-40 | 1,462.3 | 17.2% | 120-130 | 1.7 | 0% |
| 40-50 | 1,606.4 | 18.8% | 130-140 | 0.1 | 0% |
| 50-60 | 1,521.0 | 17.8% | 140-150 | 0.3 | 0% |
| 60-70 | 1,177.1 | 13.8% | 150-160 | 0.4 | 0% |
| 70-80 | 499.5 | 5.9% | 160-170 | 0.3 | 0% |
| 80-90 | 99.3 | 1.2% | 170-180 | 0.1 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

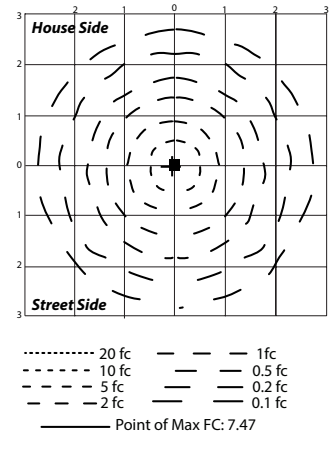
REPORT NUMBER: **MLGAH93CP5 / MLGAL93CP5**

Luminaire Lumens 10,845

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,709.1 | 25% |
| 0-40 | 4,571.0 | 42.1% |
| 0-60 | 8,535.2 | 78.7% |
| 60-90 | 2,272.7 | 21% |
| 70-100 | 806.0 | 7.4% |
| 90-120 | 33.3 | 0.3% |
| 0-90 | 10,808.0 | 99.7% |
| 90-180 | 37.2 | 0.3% |
| 0-180 | 10,845.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 319.9 | 2.9% | 90-100 | 17.5 | 0.2% |
| 10-20 | 928.5 | 8.6% | 100-110 | 9.9 | 0.1% |
| 20-30 | 1,460.7 | 13.5% | 110-120 | 5.9 | 0.1% |
| 30-40 | 1,861.9 | 17.2% | 120-130 | 1.6 | 0% |
| 40-50 | 2,042.3 | 18.8% | 130-140 | 0.7 | 0% |
| 50-60 | 1,922.0 | 17.7% | 140-150 | 0.6 | 0% |
| 60-70 | 1,484.2 | 13.7% | 150-160 | 0.5 | 0% |
| 70-80 | 649.2 | 6.0% | 160-170 | 0.3 | 0% |
| 80-90 | 139.3 | 1.3% | 170-180 | 0.1 | 0% |

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



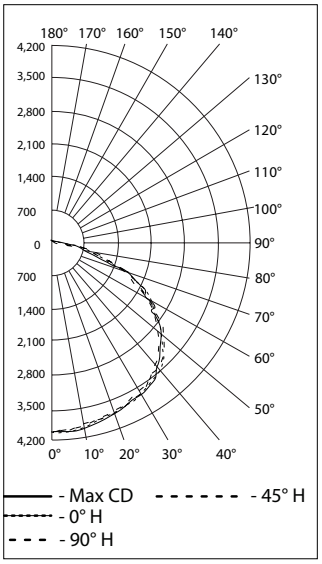
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

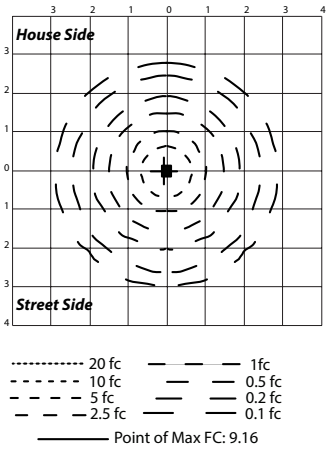
REPORT NUMBER: **MLGAH13CP5**

Luminaire Lumens 13,204

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,298.3 | 25% |
| 0-40 | 5,565.1 | 42.1% |
| 0-60 | 10,391.5 | 78.7% |
| 60-90 | 2,767.0 | 21% |
| 70-100 | 981.3 | 7.4% |
| 90-120 | 40.6 | 0.3% |
| 0-90 | 13,158.5 | 99.7% |
| 90-180 | 45.3 | 0.3% |
| 0-180 | 13,203.8 | 100% |

**LUMENS PER ZONE**

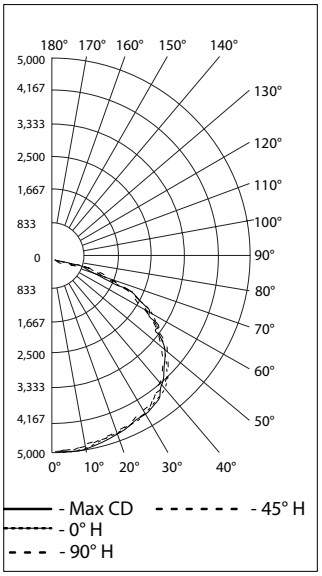
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 389.5 | 2.9 | 90-100 | 21.3 | 0.2% |
| 10-20 | 1,130.4 | 8.6 | 100-110 | 12.0 | 0.1% |
| 20-30 | 1,778.4 | 13.5 | 110-120 | 7.2 | 0.1% |
| 30-40 | 2,266.8 | 17.2 | 120-130 | 2.0 | 0% |
| 40-50 | 2,486.4 | 18.8 | 130-140 | 0.8 | 0% |
| 50-60 | 2,340.0 | 17.7 | 140-150 | 0.8 | 0% |
| 60-70 | 1,807.0 | 13.7 | 150-160 | 0.6 | 0% |
| 70-80 | 790.4 | 6.0 | 160-170 | 0.4 | 0% |
| 80-90 | 169.6 | 1.3 | 170-180 | 0.1 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

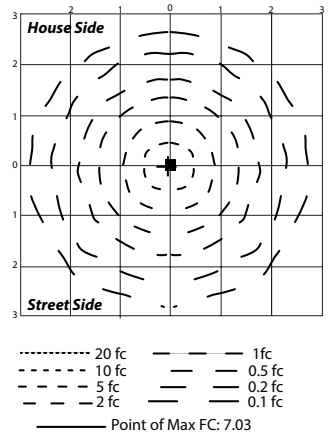
REPORT NUMBER: **MLGAH33CP5**

Luminaire Lumens 15,937

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,981.1 | 25% |
| 0-40 | 6,717.3 | 42.1% |
| 0-60 | 12,542.8 | 78.7% |
| 60-90 | 3,339.8 | 21% |
| 70-100 | 1,184.5 | 7.4% |
| 90-120 | 49.0 | 0.3% |
| 0-90 | 15,882.6 | 99.7% |
| 90-180 | 54.7 | 0.3% |
| 0-180 | 15,937.3 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 470.1 | 2.9% | 90-100 | 25.7 | 0.2% |
| 10-20 | 1,364.4 | 8.6% | 100-110 | 14.5 | 0.1% |
| 20-30 | 2,146.6 | 13.5% | 110-120 | 8.7 | 0.1% |
| 30-40 | 2,736.1 | 17.2% | 120-130 | 2.4 | 0% |
| 40-50 | 3,001.2 | 18.8% | 130-140 | 1.0 | 0% |
| 50-60 | 2,824.4 | 17.7% | 140-150 | 0.9 | 0% |
| 60-70 | 2,181.1 | 13.7% | 150-160 | 0.7 | 0% |
| 70-80 | 954.0 | 6.0% | 160-170 | 0.5 | 0% |
| 80-90 | 204.7 | 1.3% | 170-180 | 0.2 | 0% |

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



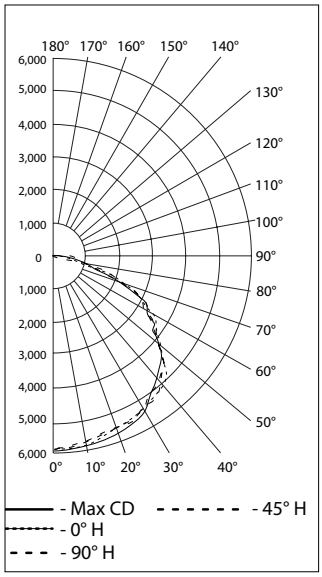
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

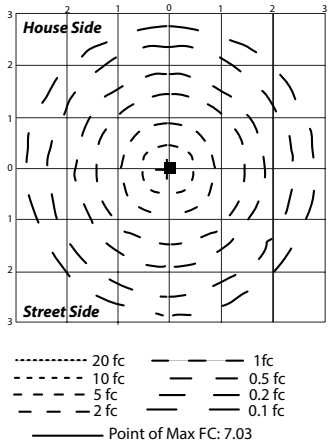
REPORT NUMBER: **MLGAH63CP5**

Luminaire Lumens 19,107

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,772.9 | 25% |
| 0-40 | 8,053.1 | 42.1% |
| 0-60 | 15,037.2 | 78.7% |
| 60-90 | 4,004.0 | 21% |
| 70-100 | 1,420.0 | 7.4% |
| 90-120 | 58.7 | 0.3% |
| 0-90 | 19,041.2 | 99.7% |
| 90-180 | 65.7 | 0.3% |
| 0-180 | 19,107.0 | 100% |

**LUMENS PER ZONE**

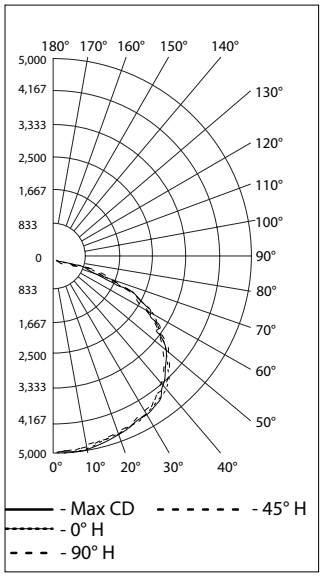
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 563.6 | 2.9% | 90-100 | 30.8 | 0.2% |
| 10-20 | 1,635.8 | 8.6% | 100-110 | 17.4 | 0.1% |
| 20-30 | 2,573.5 | 13.5% | 110-120 | 10.5 | 0.1% |
| 30-40 | 3,280.3 | 17.2% | 120-130 | 2.9 | 0% |
| 40-50 | 3,598.0 | 18.8% | 130-140 | 1.3 | 0% |
| 50-60 | 3,386.1 | 17.7% | 140-150 | 1.2 | 0% |
| 60-70 | 2,614.9 | 13.7% | 150-160 | 0.9 | 0% |
| 70-80 | 1,143.7 | 6.0% | 160-170 | 0.6 | 0% |
| 80-90 | 245.5 | 1.3% | 170-180 | 0.2 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

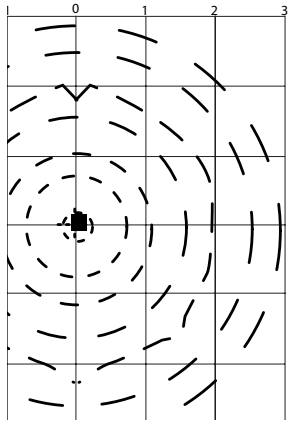
REPORT NUMBER: **MLGAX1CP5BU**

Luminaire Lumens 21,019

Polar Candela Distribution




Isofoot Candle Plot



**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 5,119.8 | 24.4% |
| 0-40 | 8,659.0 | 42.2% |
| 0-60 | 16,329.0 | 77.7% |
| 60-90 | 4,613.9 | 22% |
| 70-100 | 1,675.4 | 8% |
| 90-120 | 66.4 | 0.3% |
| 0-90 | 20,942.9 | 99.6% |
| 90-180 | 75.7 | 0.4% |
| 0-180 | 21,018.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 603.0 | 2.9% | 90-100 | 34.1 | 0.2% |
| 10-20 | 1,752.5 | 8.3% | 100-110 | 19.8 | 0.1% |
| 20-30 | 2,764.2 | 13.2% | 110-120 | 12.4 | 0.1% |
| 30-40 | 3,539.2 | 16.8% | 120-130 | 4.2 | 0% |
| 40-50 | 3,921.3 | 18.7% | 130-140 | 1.5 | 0% |
| 50-60 | 3,748.7 | 17.8% | 140-150 | 1.3 | 0% |
| 60-70 | 2,972.6 | 14.1% | 150-160 | 1.1 | 0% |
| 70-80 | 1,339.0 | 6.4% | 160-170 | 0.8 | 0% |
| 80-90 | 302.3 | 1.4% | 170-180 | 0.3 | 0% |

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

Standard

Ordinary Locations

**NEC/CEC/NOM Standard Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**IECEE CB Standard Model: IP66 | IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



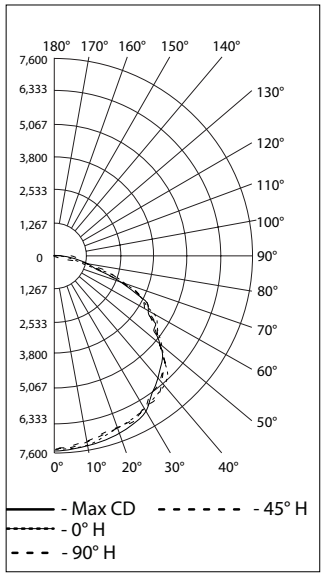
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Polycarbonate, 5000K CCT**

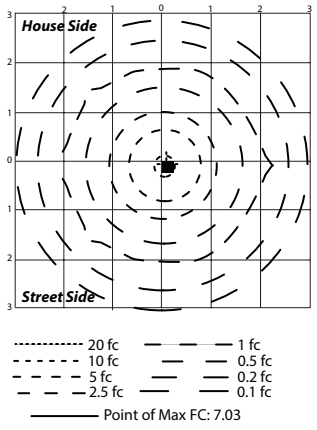
REPORT NUMBER: **MLGAX5CP5BU**

Luminaire Lumens 24,947

### POLAR CANDELA DISTRIBUTION




### ISOFOOT CANDLE PLOT




### ZONAL LUMEN SUMMARY

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 6,052.6 | 24.3% |
| 0-40 | 10,253.4 | 41.1% |
| 0-60 | 19,374.1 | 77.7% |
| 60-90 | 5,481.6 | 22% |
| 70-100 | 1,965.5 | 7.9% |
| 90-120 | 80.1 | 0.3% |
| 0-90 | 24,855.7 | 99.6% |
| 90-180 | 90.9 | 0.4% |
| 0-180 | 24,946.6 | 100% |

### LUMENS PER ZONE

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 711.8 | 2.9% | 90-100 | 41.8 | 0.2% |
| 10-20 | 2,070.1 | 8.3% | 100-110 | 24.0 | 0.1% |
| 20-30 | 3,270.8 | 13.1% | 110-120 | 14.3 | 0.1% |
| 30-40 | 4,200.7 | 16.8% | 120-130 | 5.0 | 0% |
| 40-50 | 4,661.8 | 18.7% | 130-140 | 1.5 | 0% |
| 50-60 | 4,458.9 | 17.9% | 140-150 | 1.5 | 0% |
| 60-70 | 3,558.0 | 14.3% | 150-160 | 1.4 | 0% |
| 70-80 | 1,574.4 | 6.3% | 160-170 | 0.9 | 0% |
| 80-90 | 349.2 | 1.4% | 170-180 | 0.4 | 0% |

# Industrial Mercmaster™ LED Generation 3 Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | IK08 | Suitable for Use in Wet Locations**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



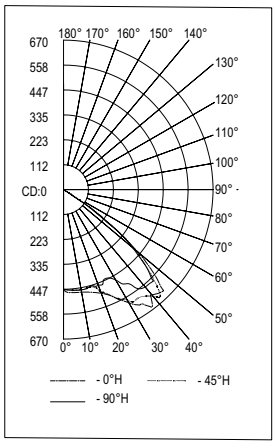
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 5000K CCT, Emergency

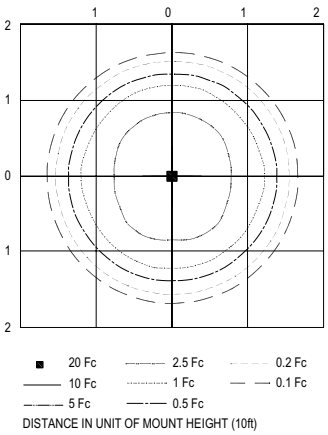
REPORT NUMBER: **MLGL3CG5BUH+EMR**

Luminaire Lumens 1,422

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




DISTANCE IN UNIT OF MOUNT HEIGHT (10ft)

Total LLF = 0.9

**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 410.9 | 28.9% |
| 0-40 | 775.3 | 54.5% |
| 0-60 | 1,405.6 | 98.8% |
| 60-90 | 16.7 | 1.2% |
| 70-100 | 3 | 0.2% |
| 90-120 | 0 | 0% |
| 0-90 | 1,422.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 1,422.4 | 100% |

**LUMENS PER ZONE**

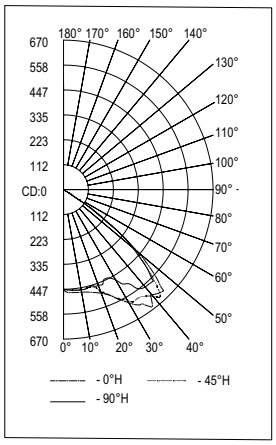
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 43.6 | 3.10% | 90-100 | 0 | 0% |
| 10-20 | 131.4 | 9.20% | 100-110 | 0 | 0% |
| 20-30 | 235.8 | 16.60% | 110-120 | 0 | 0% |
| 30-40 | 364.5 | 25.60% | 120-130 | 0 | 0% |
| 40-50 | 431.8 | 30.40% | 130-140 | 0 | 0% |
| 50-60 | 198.5 | 14% | 140-150 | 0 | 0% |
| 60-70 | 13.7 | 1% | 150-160 | 0 | 0% |
| 70-80 | 2.3 | 0% | 160-170 | 0 | 0% |
| 80-90 | 0.7 | 0% | 170-180 | 0 | 0% |

### Type V, Clear Glass, 5000K CCT, Emergency

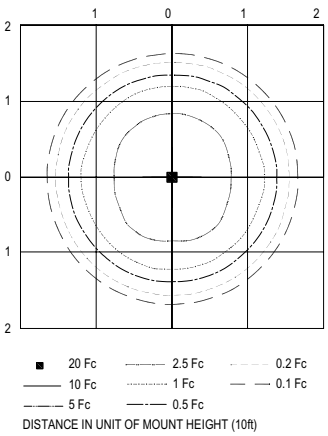
REPORT NUMBER: **MLGL5CG5BUH+EMR**

Luminaire Lumens 1,422

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




DISTANCE IN UNIT OF MOUNT HEIGHT (10ft)

Total LLF = 0.9

**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 410.9 | 28.9% |
| 0-40 | 775.3 | 54.5% |
| 0-60 | 1,405.6 | 98.8% |
| 60-90 | 16.7 | 1.2% |
| 70-100 | 3 | 0.2% |
| 90-120 | 0 | 0% |
| 0-90 | 1,422.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 1,422.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 43.6 | 3.1% | 90-100 | 0 | 0% |
| 10-20 | 131.4 | 9.2% | 100-110 | 0 | 0% |
| 20-30 | 235.8 | 16.6% | 110-120 | 0 | 0% |
| 30-40 | 364.5 | 25.6% | 120-130 | 0 | 0% |
| 40-50 | 431.8 | 30.4% | 130-140 | 0 | 0% |
| 50-60 | 198.5 | 14% | 140-150 | 0 | 0% |
| 60-70 | 13.7 | 1% | 150-160 | 0 | 0% |
| 70-80 | 2.3 | 0% | 160-170 | 0 | 0% |
| 80-90 | 0.7 | 0% | 170-180 | 0 | 0% |

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



## Applications

- Enclosed and gasketed fixtures suitable for use in:
  - — A wide range of harsh industrial environments
  - — Marine and wet locations
  - — Areas of low clearance, low ceiling heights or where fixture weights must be minimized
  - — Areas where dust, water, dirt and rough usage are a problem
- Typical applications include:
  - — Walkways and catwalks
  - — Stairwells
  - — Tunnels
  - — Pipe racks
  - — Processing areas
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

## Features

- All Models:
  - — Compact light weight low profile design is suited for low mounting heights.
  - — Three light output levels provide up to 5500 lumens.

| Standard Mode Nominal Lumens ① | HID Equivalent | Model |
|---|---|---|
| 3300 | 70-100W | IMLLED2 |
| 4400 | 100-150W | IMLLED3 |
| 5500 | 150-175W | IMLLED4 |

  - — Choice of color temperature (CCT): 5000K cool white (70 CRI min), 4000K neutral white (80 CRI min), or 3000K warm white (80 CRI min).
  - — Seven standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster™ III HID, Mercmaster™ Premium LED and Mercmaster™ Generation 3.
  - — Retrofit adapters for Crouse Hinds™ ✣, Mercmaster™ II HID, and Killark™ ✧ available. See Mercmaster™ Adapters.
  - — Watertight Pendant Hood available to address water ingress into luminaire via conduit.
  - — Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on fixture housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
  - — Rugged housing with superior thermal design translates to long luminaire life.
  - — Standard 6 kV/3 kA surge protection.
  - — Spring-loaded screw-type terminal block can accept 0.14 - 6 $mm^2$ (26 - 10 AWG) wire.
  - — Heavy duty, high temperature silicone gaskets.
  - — Standard NPT threads.
  - — Reported L70 is >108,000 hours.
  - — Photometric data and electronic drawings available upon request.
  - — 5 year standard warranty.
- Standard Model:
  - — Customize to the application requirements with four different field replaceable globe options: clear and diffused polycarbonate, clear glass, or prismatic glass refractor.
  - — BU and BH Ambient Temperature: -40 °C to +65 °C (-40 °F to +149 °F).
  - — Field replaceable globes and LED driver.

**KPA + IMLLED + VPGL-GLASS**

**KPCH + IMLLED + LPG-R5S**

- Emergency Battery Backup Model:
  - — Provides up to 1450 lumens of illumination for 90 minutes of emergency lighting or 800 lumens of illumination for 180 minutes of emergency lighting with clear lens.
  - — Functional diagnostic test self-initiates every 14 days after initial start up.
  - — Duration test is automatically performed once per year.
  - — Green and Red LED lamps indicate charging status and provide fault warning.
  - — Simple quick disconnect connector disconnects power between LEDs and battery management module to allow for easy maintenance.
  - — Customize to the application requirements with three different field replaceable globe options: clear and diffused polycarbonate, or clear glass.
  - — Ambient Temperature: BU: -20 °C to +55 °C (-4 °F to +131 °F).
  - — Field replaceable globes, battery management module (BMM), battery pack and LED driver.

## Options

- All Models:
  - — Globe guard available, *purchase separately*
  - — Safety cable available, *purchase separately*
- Standard Model:
  - — Refractor guard available, *purchase separately*
  - — All Mercmaster™ luminaires have provision for fusing; add suffix **–F** at the end of the catalog number.
  - — Photocontrols are available and are configured to your operating voltage. Add suffix **-1** for 120V, **-2** for 208V, **-3** for 240V, **-4** for 277V.
  - — Colored Glass globes available, purchase separately: Amber (VPGLGLASSAM), Blue (VPGLGLASSBL), Red (VPGLGLASSRE), Green (VPGLGLASSGR)

## Standard Materials

- Mounting hoods and housing: cast copperfree (4/10 of 1% max.) aluminum
- Gaskets: silicone rubber
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Refractor: heat-resistant prismatic glass
- Globe guard, short refractor guard and safety cable: stainless steel wire
- Reflector: fiberglass reinforced white polyester

## Standard Finishes

- Mounting hoods, driver housing and glass refractor guard: gray epoxy powder coat finish, electrostatically applied for complete uniform protection.

*① Nominal lumen value for 5000K, clear glass globe Type V Wide. Detailed lumen information is provided in the " Lumen Output (Efficacy)" tables.*
*✧ Killark is a registered trademark of Killark Manufacturing Company.*
*✣ Crouse-Hinds is a registered trademark of Cooper Industries, Inc.*
*⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



### NEC/CEC Certifications and Compliances

- Standard Model:
  - — UL Standard: UL 1598; UL 8750
  - — CSA Standard: C22.2 No. 250.0-08; C22.2 No. 250.13-17
  - — NEMA ANSI/IEC Standard: 60529
  - — cCSAus: 164460, Certificate Number: 70129363
- Emergency Battery Backup Model:
  - — UL Standard: UL 1598; UL 8750; UL 924
  - — CSA Standard: C22.2 No. 250.0-08; C22.2 No. 250.13-17; C22.2 No. 141-15
  - — cCSAus: 164460, Certificate Number: 70172444

### IECEE CB Certificates and Compliances:

- Standard Model:
  - — IEC 60598-1, IEC 60598-2-1
  - — IECEE CB Certificates: 64460-80075816

### NOM: Norma Oficial Mexicana:

- Standard Model:
  - — NOM-003-SCFI-2014 (NMX-J-307-ANCE-2017)
  - — NOM Certificate: ULM-NOM-06823

### ABS Certifications

- Standard Model: 18-HS1714308-PDA
- Emergency Battery Backup Model: 22-2207901-PDA

### International Dark-Sky Association

- Standard Model:
  - — IDA Dark-Sky Approved when ordering [I]MLLED[A/B/C/D/R/W] xxW[P/D/G]5Bxxx with MMVISOR accessory.

### DesignLights™ Consortium

- Check DLC QPL for current list of products.

### Related Products

- Mercmaster LED Generation 3 Series Luminaires
- Mercmaster LED Low Profile Luminaires
- Industrial Mercmaster LED Generation 3 Series Luminaires

### Illustrated Features — All Models

**Driver Housing Assembly:** Easy to access terminal block and driver.

**Latch Assembly and Hinge**: Captive, stainless steel latch assembly (bolt and nut) closes securely while providing resistance to corrosive atmospheres. Swing-away design simplifies wiring and installation. Extra high hinge provides additional protection against accidental driver housing disengagement during installation or maintenance.

**Watertight Pendant Hood:** Provides protection against water ingress in the conduit utilizing an IP68 cord grip with 3 wire holes 4 mm (0.157") in diameter.

**Safety Cable:** Safety cable is slipped around the housing through retention points that are casted in. Safety cable has built in loops combined with a locking carabiner to allow for a quick and secure installation.

**Heatsink:** Reliable heat transfer via the cast, epoxy powder coat aluminum housing. Provides maximum heat dissipation from the LED assembly to the outside environment.

**Electrical Protection:** Ground wire provided to bond mounting hood to fixture housing. External Grounding provision for additional safety.

**Mounting Hood and Globe Gaskets:** Silicone rubber gaskets seal out moisture, dirt and dust. Stays flexible, withstands extreme temperatures. Closure design assures uniform gasket compression.

**Terminal Blocks:** A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from 0.14 - 6 $mm^2$ (26 - 10 AWG) wire.

**Epoxy Finish:** Fixture housing, mounting hoods and guards are copperfree aluminum with epoxy powder coat finish.

### Illustrated Features — Standard Model

**Prismatic Refractors:** Heat-resistant refractor threads directly into fixture housing and seal against a high-temperature silicone rubber gasket.

**Fuses (optional):** Fuses factory installed in luminaire housing.

**Photocell (optional):** Factory Installed in the Mounting Hood. Available for all fixtures except cone and ceiling mount. Provides continuous ON-OFF dusk-to-dawn control.

### Illustrated Features — Emergency Battery Backup Model

**Quick Disconnect:** Simple quick disconnect connector disconnects power between LEDs and battery management module to allow for easy maintenance.

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

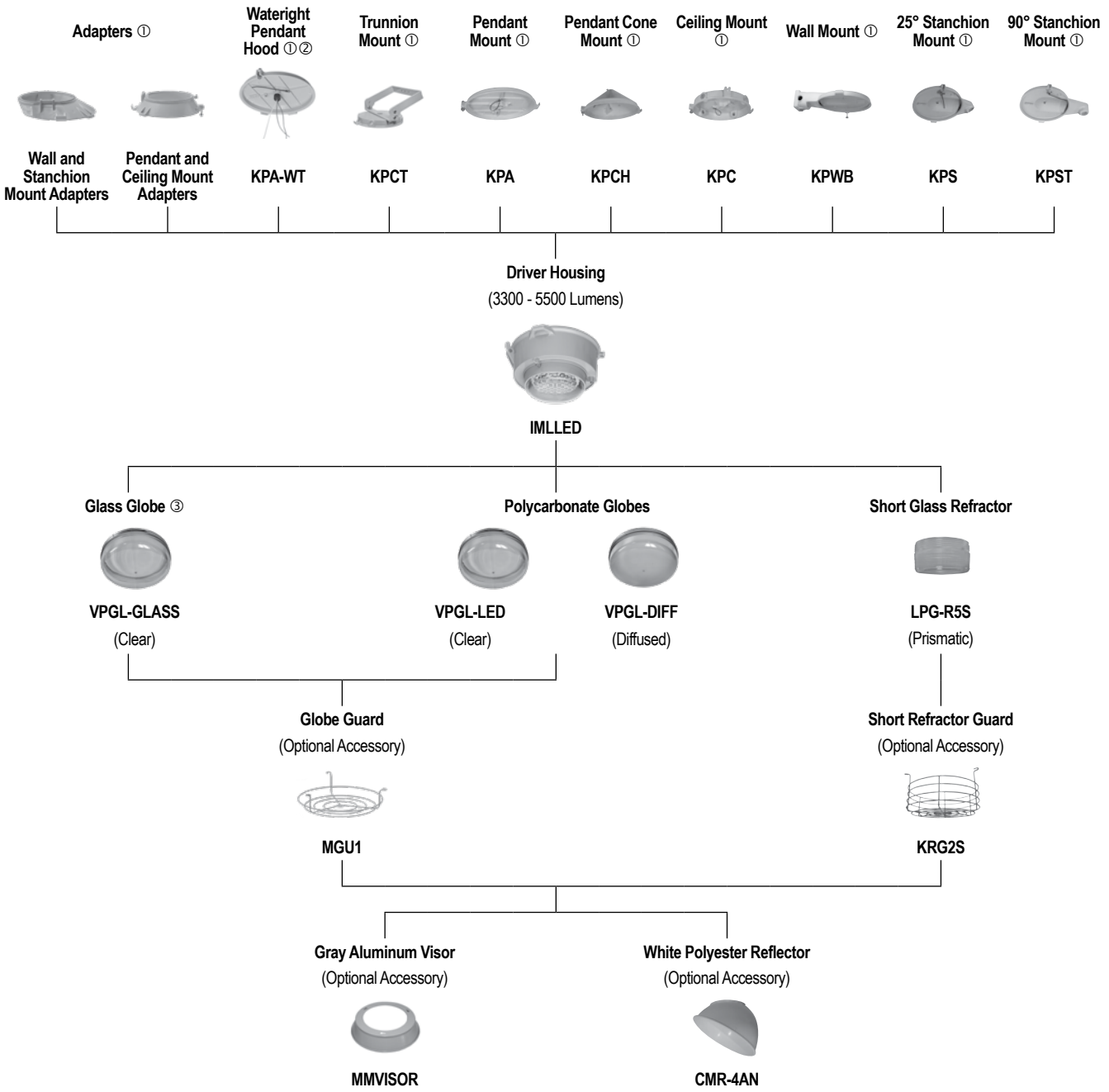
Standard

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



## Family Tree — Industrial Mercmaster™ LED Low Profile Series Luminaires — Standard Model




① *See Mounting Hood Adapters table for part numbers.*
② *Certified for cCSAus only.*
③ *Colored glass globes can be ordered separately, see Accessories and Replacement Parts table for more details.*
⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

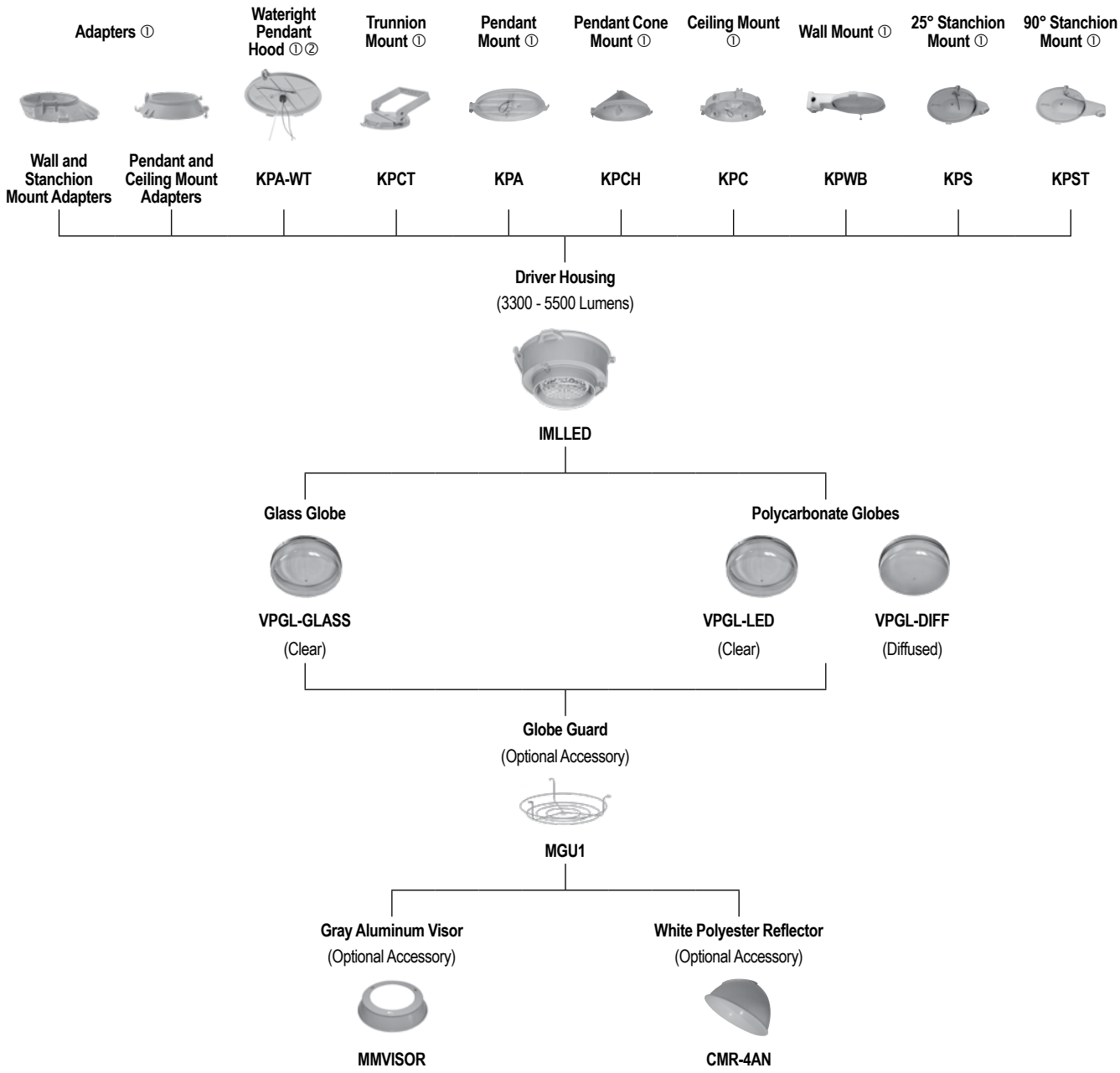
With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**



## Family Tree — Industrial Mercmaster™ LED Low Profile Series Luminaires — Emergency Battery Backup Model




① *See Mounting Hood Adapters table for part numbers.*
② *Certified for cCSAus only.*
⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



**Order Using Catalog Numbering Guide — Industrial Mercmaster™ LED Low Profile Series Luminaires — Standard Model**

| IMLLED | A | 4 | 2 | C | P | 5 | BU | F | 1 |
|---|---|---|---|---|---|---|---|---|---|

**IMLLED** — Series Prefix:
IMLLED - Industrial Mercmaster LED Low Profile Series

**A** — Mounting:
A - Pendant
B - Watertight Pendant ⅄
C - Ceiling ⑥
D - Pendant Cone ⅄ ⑥
R - 90° Stanchion ①
S - 25° Stanchion ①
T - Trunnion
K - Killark™ ✧ Adapter Universal ⅄
U - Mercmaster II Adapter, Ceiling or Pendant ⅄
V - Mercmaster II Adapter, Stanchion or Wall ⅄
W - Wall
X - Crouse Hinds™ ✢ Adapter, Ceiling or Pendant ⅄
Y - Crouse Hinds™ ✢ Adapter, Stanchion or Wall ⅄
Blank - No mounting hood

**4** — Lumen (nominal): ②
2 - 3,300
3 - 4,400
4 - 5,500

**2** — Hub Size: ⑦
2 - 3/4" NPT
3 - 1" NPT
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion
6 - Metric M20
Blank - No hub if using adapter or ordering driver housing only (no mounting hood)

**C** — Color Temperature:
C - Cool, 5000K
N - Neutral, 4000K
W - Warm, 3000K

**P** — Globe Material:
P - Clear Polycarbonate Globe
D - Diffused Polycarbonate Globe
G - Clear Glass Globe ③
J - Glass Prismatic Refractor ③

**5** — Light Distribution Pattern:
5 - Type V

**BU** — Voltage:
BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc
BH - 347-480 Vac, 50/60 Hz ⅄

**F** — Options: ④
F - Fusing
Blank - No fusing

**1** — Options:
1 - Photocontrol 120V ⑤
2 - Photocontrol 208V ⑤
3 - Photocontrol 240V ⑤
4 - Photocontrol 277V ⑤
Blank - No Options Chosen

*① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in this mounting option.*
*② For lumen output information, see Lumen Output (Efficacy) Table.*
*③ Guards for the glass refractors and globes are ordered separately. See the Accessories for more information.*
*④ Fusing only permitted for cCSAus rating. Factory installed. Use of fuse voids Marine Outside Type (Salt Water) rating. Fusing is mounted in the driver housing. For retrofit applications, fusing must be removed from the mounting hood and ordered in the luminaire.*
*⑤ Luminaires with photocontrol are not rated IP66/67, 3R, 4, 4X, or Marine Outside Type (Salt Water). Photocontrol available for 120-277 Vac only. Factory installed in the mounting hood.*
*⑥ Ceiling-mount and pendant cone mounting hoods and adapters are not designed to use the in hood photocontrol. Ceiling and pendant cone mounts must use an FS/FD box with photocontrol. Contact your local sales rep for more information.*
*⑦ Hub size does not apply to luminaires ordered with adapters.*
*⅄ Adapters, watertight pendant hood and BH Voltage only certified for cCSAus. Not available for use with photocontrol.*
*✧ Killark is a registered trademark of Hubbell Incorporated.*
*✢ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*
*⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**



**Order Using Catalog Numbering Guide — Industrial Mercmaster™ LED Low Profile Series Luminaires — Emergency Battery Backup Model**

| IMLLED | A | 4 | 2 | C | P | 5 | BU | H |
|---|---|---|---|---|---|---|---|---|

**Series Prefix:**
IMLLED - Industrial Mercmaster LED Low Profile Series with Emergency Battery Backup

**Mounting:**
A - Pendant
B - Watertight Pendant ⅄
C - Ceiling
D - Pendant Cone ⅄
R - 90° Stanchion ①
S - 25° Stanchion ①
T - Trunnion
K - Killark™ ✧ Adapter Universal ⅄
U - Mercmaster II Adapter, Ceiling or Pendant ⅄
V - Mercmaster II Adapter, Stanchion or Wall ⅄
W - Wall
X - Crouse Hinds™ ✢ Adapter, Ceiling or Pendant ⅄
Y - Crouse Hinds™ Adapter, Stanchion or Wall ⅄
Blank - No mounting hood

**Lumen (nominal): ②**
2 - 3,300
3 - 4,400
4 - 5,500

**Hub Size: ④**
2 - 3/4" NPT
3 - 1" NPT
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion
6 - Metric M20
Blank - No hub if using adapter or ordering driver housing only (no mounting hood)

**Color Temperature:**
C - Cool, 5000K
N - Neutral, 4000K
W - Warm, 3000K

**Globe Material:**
P - Clear Polycarbonate Globe
D - Diffused Polycarbonate Globe
G - Clear Glass Globe ③

**Light Distribution Pattern:**
5 - Type V

**Voltage:**
BU - 120-277 Vac, 50/60 Hz

**Emergency:**
H - 90 Minutes
E - 180 Minutes

*① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in this mounting option.*
*② For lumen output information, see Lumen Output (Efficacy) Table.*
*③ Guard for the glass globe must be ordered separately. See the Accessories for more information.*
*④ Hub size does not apply to luminaires ordered with adapters.*
*⅄ Adapters and watertight pendant hood only certified for cCSAus.*
*✧ Killark is a registered trademark of Hubbell Incorporated.*
*✢ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*
*⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



**Lumen Output (Efficacy) — Standard Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe** | | | | | | | | | | | | | | |
| IMLLED2 | 70-100W | Type V | 3000K | 70 | 3000 | 107 | 4000K | 70 | 3000 | 107 | 5000K | 70 | 3200 | 114 |
| IMLLED3 | 100-150W | Type V | 3000K | 70 | 3900 | 103 | 4000K | 70 | 4000 | 105 | 5000K | 70 | 4200 | 111 |
| IMLLED4 | 150-175W | Type V | 3000K | 70 | 4900 | 102 | 4000K | 70 | 5000 | 104 | 5000K | 70 | 5300 | 110 |
| **Diffused Polycarbonate Globe** | | | | | | | | | | | | | | |
| IMLLED2 | 70-100W | Type V | 3000K | 70 | 2900 | 104 | 4000K | 70 | 2900 | 104 | 5000K | 70 | 3100 | 111 |
| IMLLED3 | 100-150W | Type V | 3000K | 70 | 3800 | 100 | 4000K | 70 | 3900 | 103 | 5000K | 70 | 4100 | 108 |
| IMLLED4 | 150-175W | Type V | 3000K | 70 | 4800 | 100 | 4000K | 70 | 4900 | 102 | 5000K | 70 | 5150 | 107 |
| **Clear Glass Globe** | | | | | | | | | | | | | | |
| IMLLED2 | 70-100W | Type V | 3000K | 70 | 3100 | 111 | 4000K | 70 | 3100 | 111 | 5000K | 70 | 3300 | 118 |
| IMLLED3 | 100-150W | Type V | 3000K | 70 | 4100 | 108 | 4000K | 70 | 4200 | 111 | 5000K | 70 | 4400 | 116 |
| IMLLED4 | 150-175W | Type V | 3000K | 70 | 5100 | 106 | 4000K | 70 | 5200 | 108 | 5000K | 70 | 5500 | 115 |
| **Glass Prismatic Refractor** | | | | | | | | | | | | | | |
| IMLLED2 | 70-100W | Type V | 3000K | 70 | 2800 | 100 | 4000K | 70 | 2800 | 100 | 5000K | 70 | 3000 | 107 |
| IMLLED3 | 100-150W | Type V | 3000K | 70 | 3700 | 97 | 4000K | 70 | 3800 | 100 | 5000K | 70 | 4000 | 105 |
| IMLLED4 | 150-175W | Type V | 3000K | 70 | 4600 | 96 | 4000K | 70 | 4650 | 97 | 5000K | 70 | 4900 | 102 |

*① All lumen values are typical (tolerance +/- 10%).*
*⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**

**Lumen Output (Efficacy) — Emergency Battery Backup Model ①②**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe — Standard Mode** | | | | | | | | | | | | | | |
| IMLLED2 | 70-100W | Type V | 3000K | 70 | 3000 | 91 | 4000K | 70 | 3200 | 97 | 5000K | 70 | 3200 | 97 |
| IMLLED3 | 100-150W | Type V | 3000K | 70 | 3900 | 98 | 4000K | 70 | 4200 | 105 | 5000K | 70 | 4200 | 105 |
| IMLLED4 | 150-175W | Type V | 3000K | 70 | 4900 | 100 | 4000K | 70 | 5000 | 102 | 5000K | 70 | 5300 | 108 |
| **Clear Polycarbonate Globe — 90 Minute Emergency Mode** | | | | | | | | | | | | | | |
| IMLLED2 | 70-100W | Type V | 3000K | 70 | 1150 | N/A | 4000K | 70 | 1270 | N/A | 5000K | 70 | 1400 | N/A |
| IMLLED3 | 100-150W | Type V | 3000K | 70 | 1150 | N/A | 4000K | 70 | 1270 | N/A | 5000K | 70 | 1400 | N/A |
| IMLLED4 | 150-175W | Type V | 3000K | 70 | 1150 | N/A | 4000K | 70 | 1270 | N/A | 5000K | 70 | 1400 | N/A |
| **Diffused Polycarbonate Globe — Standard Mode** | | | | | | | | | | | | | | |
| IMLLED2 | 70-100W | Type V | 3000K | 70 | 2900 | 88 | 4000K | 70 | 3100 | 94 | 5000K | 70 | 3100 | 94 |
| IMLLED3 | 100-150W | Type V | 3000K | 70 | 3800 | 95 | 4000K | 70 | 3900 | 98 | 5000K | 70 | 4100 | 103 |
| IMLLED4 | 150-175W | Type V | 3000K | 70 | 4800 | 98 | 4000K | 70 | 4900 | 100 | 5000K | 70 | 5150 | 105 |
| **Diffused Polycarbonate Globe — 90 Minute Emergency Mode** | | | | | | | | | | | | | | |
| IMLLED2 | 70-100W | Type V | 3000K | 70 | 1100 | N/A | 4000K | 70 | 1200 | N/A | 5000K | 70 | 1350 | N/A |
| IMLLED3 | 100-150W | Type V | 3000K | 70 | 1100 | N/A | 4000K | 70 | 1200 | N/A | 5000K | 70 | 1350 | N/A |
| IMLLED4 | 150-175W | Type V | 3000K | 70 | 1100 | N/A | 4000K | 70 | 1200 | N/A | 5000K | 70 | 1350 | N/A |
| **Clear Glass Globe — Standard Mode** | | | | | | | | | | | | | | |
| IMLLED2 | 70-100W | Type V | 3000K | 70 | 3100 | 94 | 4000K | 70 | 3100 | 94 | 5000K | 70 | 3300 | 100 |
| IMLLED3 | 100-150W | Type V | 3000K | 70 | 4100 | 103 | 4000K | 70 | 4200 | 105 | 5000K | 70 | 4400 | 110 |
| IMLLED4 | 150-175W | Type V | 3000K | 70 | 5000 | 102 | 4000K | 70 | 5200 | 106 | 5000K | 70 | 5500 | 112 |
| **Clear Glass Globe — 90 Minute Emergency Mode** | | | | | | | | | | | | | | |
| IMLLED2 | 70-100W | Type V | 3000K | 70 | 1200 | N/A | 4000K | 70 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| IMLLED3 | 100-150W | Type V | 3000K | 70 | 1200 | N/A | 4000K | 70 | 1330 | N/A | 5000K | 70 | 1450 | N/A |
| IMLLED4 | 150-175W | Type V | 3000K | 70 | 1200 | N/A | 4000K | 70 | 1330 | N/A | 5000K | 70 | 1450 | N/A |

*① All lumen values are typical (tolerance +/-10%). For Lumen Output (Efficacy) of the emergency battery backup model in 180 minute emergency mode, contact your local sales representative.*
*② 70 minimum.*
*⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



**Electrical Specifications — Standard Model** ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| IMLLED2 | 120 Vac | 28 | .28 | >0.9 | < 20% |
| | 277 Vac | 28 | .13 | | |
| | 170 Vdc | 27 | .16 | N/A | N/A |
| | 300 Vdc | 27 | .09 | | |
| | 347 Vac | 30 | .10 | >0.9 | < 20% |
| | 480 Vac | 30 | .06 | | |
| IMLLED3 | 120 Vac | 38 | .38 | >0.9 | < 20% |
| | 277 Vac | 38 | .16 | | |
| | 170 Vdc | 37 | .22 | N/A | N/A |
| | 300 Vdc | 39 | .13 | | |
| | 347 Vac | 40 | .13 | >0.9 | < 20% |
| | 480 Vac | 40 | .08 | | |
| IMLLED4 | 120 Vac | 48 | .48 | >0.9 | < 20% |
| | 277 Vac | 48 | .20 | | |
| | 170 Vdc | 49 | .29 | N/A | N/A |
| | 300 Vdc | 48 | .16 | | |
| | 347 Vac | 51 | .16 | >0.9 | < 20% |
| | 480 Vac | 50 | .10 | | |

① *All values are typical (tolerance +/-10%).*
⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**

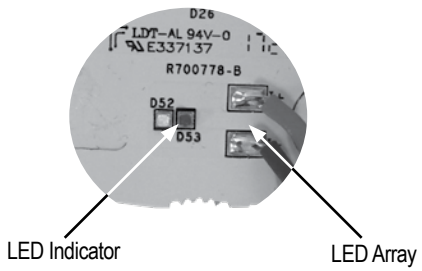


**Electrical Specifications — Emergency Model ①**

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| IMLLED2 | 120 Vac | 33 | .27 | >0.9 | < 15% |
| | 277 Vac | | .13 | | |
| IMLLED3 | 120 Vac | 40 | .33 | >0.9 | |
| | 277 Vac | | .16 | | |
| IMLLED4 | 120 Vac | 49 | .42 | >0.9 | |
| | 277 Vac | | .20 | | |

**Automatic Testing System (ATS) — Emergency Battery Backup Model — Functionality**

| Functional | Full Duration |
|---|---|
| Starts within 24 to 45 hours after the initial powerup of the module | Starts within 5 to 26 days after the initial power of the module |
| Occurs every 14 days after the initial aforementioned functional test | Occurs every 364 days after the initial aforementioned functional test |
| Lasts for 30 seconds | Lasts for the full duration of the rated emergency period |
| At the completion of functional and full duration tests, LED indicator will display the status of the emergency luminaire when AC is present | |




**LED Signals**

| Indicator Color | Timing | Description |
|---|---|---|
| Green | 1 sec ON: 1 sec OFF | Normal charging ok, Battery not yet fully charged, No fault detected, Testing ok |
| Green | 0.25 sec ON: 0.25 sec OFF | Functional / Duration Self-Test on-going |
| Green | Steady ON | Charging ok, Battery fully charged, No fault detected, Testing ok |
| Red | 1 sec ON: 1 sec OFF | Fault condition. Installation issue. Battery is reverse, not connected or shorted. Functional test failure, full duration test failure |
| LED Indicators OFF, LED Array ON | LED Indicator Lights (Red and Green) OFF | No AC, Emergency mode ON |

*① All values are typical (tolerance +/-10%).*
*⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



**Fixture Unit — Driver Housing and Globe or Refractor**

| | Lumen Level | LED Wattage | HID Light Level Equivalent | NEMA Type | Voltage | Catalog Number Polycarbonate Globe | Polycarbonate Diffused Globe | Clear Glass Globe | Glass Prismatic Refractor |
|---|---|---|---|---|---|---|---|---|---|
| **Driver Housing — Standard Model** | | | | | | | | | |
| | 3000K | 28 | 70-100W | Type V | 120-277 Vac | **IMLLED2WP5BU** | **IMLLED2WD5BU** | **IMLLED2WG5BU** | **IMLLED2WJ5BU** |
| | 4000K | 38 | 100-150W | Type V | 120-277 Vac | **IMLLED3NP5BU** | **IMLLED3ND5BU** | **IMLLED3NG5BU** | **IMLLED3NJ5BU** |
| | 5000K | 48 | 150-175W | Type V | 120-277 Vac | **IMLLED4CP5BU** | **IMLLED4CD5BU** | **IMLLED4CG5BU** | **IMLLED4CJ5BU** |
| | 3000K | 28 | 70-100W | Type V | 347-480 Vac | **IMLLED2WP5BH** | **IMLLED2WD5BH** | **IMLLED2WG5BH** | **IMLLED2WJ5BH** |
| | 4000K | 38 | 100-150W | Type V | 347-480 Vac | **IMLLED3NP5BH** | **IMLLED3ND5BH** | **IMLLED3NG5BH** | **IMLLED3NJ5BH** |
| | 5000K | 48 | 150-175W | Type V | 347-480 Vac | **IMLLED4CP5BH** | **IMLLED4CD5BH** | **IMLLED4CG5BH** | **IMLLED4CJ5BH** |
| **Driver Housing — Emergency Battery Backup Model — 90 Minute** | | | | | | | | | |
| | 3000K | 28 | 70-100W | Type V | 120-277 Vac | **IMLLED2WP5BUH** | **IMLLED2WD5BUH** | **IMLLED2WG5BUH** | — |
| | 4000K | 38 | 100-150W | Type V | 120-277 Vac | **IMLLED3NP5BUH** | **IMLLED3ND5BUH** | **IMLLED3NG5BUH** | — |
| | 5000K | 48 | 150-175W | Type V | 120-277 Vac | **IMLLED4CP5BUH** | **IMLLED4CD5BUH** | **IMLLED4CG5BUH** | — |
| **Driver Housing — Emergency Battery Backup Model —180 Minute** | | | | | | | | | |
| | 3000K | 28 | 70-100W | Type V | 120-277 Vac | **IMLLED2WP5BUE** | **IMLLED2WD5BUE** | **IMLLED2WG5BUE** | — |
| | 4000K | 38 | 100-150W | Type V | 120-277 Vac | **IMLLED3NP5BUE** | **IMLLED3ND5BUE** | **IMLLED3NG5BUE** | — |
| | 5000K | 48 | 150-175W | Type V | 120-277 Vac | **IMLLED4CP5BUE** | **IMLLED4CD5BUE** | **IMLLED4CG5BUE** | — |

**Mounting Hoods — All Models**

| | Hub Size | Weight in kg (lbs) | Catalog Number | | Hub Size | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|---|---|
| **Pendant — One Hub, Rigid Mounting** | | | | **Ceiling — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | | **KPA-75** | | 3/4" NPT | | **KPC-75** |
| | 1" NPT | 1.0 (2.3) | **KPA-100** | | 1" NPT | 1.4 (3.0) | **KPC-100** |
| | M20 | | **KPA-M20** | | M20 | | **KPC-M20** |
| **Pendant Cone — One Hub, Rigid Mounting** | | | | **Wall — Five Hubs, Four Close-Up Plugs** | | | |
| | 3/4" NPT | | **KPCH-75** | | 3/4" NPT | | **KPWB-75** |
| | 1" NPT | 1.1 (2.5) | **KPCH-100** | | 1" NPT | 1.8 (4.0) | **KPWB-100** |
| | M20 | | **KPCH-M20** | | M20 | | **KPWB-M20** |
| **Watertight Pendant Hood — One Hub, Rigid Mounting** | | | | **25° Stanchion — One Hub** | | | |
| | 3/4" NPT | | **KPA-75-WT** | | 1-1/4" NPT | 1.5 (3.3) | **KPS-125** |
| | 1" NPT | 1.1 (2.4) | **KPA-100-WT** | | 1-1/2" NPT | | **KPS-150** |
| | M20 | | **KPA-WT-M20** | | | | |
| **Trunnion — Five Hubs, Four Close-Up Plugs** | | | | **90° Stanchion — One Hub** | | | |
| | 3/4" NPT | | **KPCT-75** | | 1-1/4" NPT | 1.7 (3.8) | **KPST-125** |
| | 1" NPT | 6.1 (13.4) | **KPCT-100** | | 1-1/2" NPT | | **KPST-150** |
| | M20 | | **KPCT-M20** | | | | |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



**Accessories and Replacement Parts — All Models**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Globes** | | | |
| | Clear Globe — Polycarbonate | 0.2 (0.5) | **VPGL-LED** |
| | Diffused Globe — Polycarbonate | 0.2 (0.5) | **VPGL-DIFF** |
| | Clear Globe — Glass | 0.8 (1.7) | **VPGL-GLASS** |
| **Guard** | | | |
| | Globe Guard — Stainless Steel | 0.2 (0.4) | **MGU1** |
| **Safety Cable** | | | |
| | Safety Cable — Stainless Steel | 0.2 (0.4) | **LEDSC** |
| **Visor** | | | |
| | Electrostatically applied gray epoxy powder coat finish on Aluminum Visor | 0.4 (0.9) | **MMVISOR** |
| **Reflector** | | | |
| | 30° Angle White Polyester Reflector | 1.3 (2.7) | **CMR-4AN** |

**Mounting Hood Adapters — All Models** ①

| | Manufacturer | Installed Mounting Hood | Weight in kg (lbs) | Appleton Adapter Catalog Number |
|---|---|---|---|---|
| | Crouse-Hinds™ Champ® ✣ | Pendant: APM2/3<br>Ceiling: CM2/3<br>Flexible Pendant: HPM2 | 0.9 (2.00) | **MMADCHVS** |
| | Appleton™ Mercmaster™ II | Pendant: LPA75/100<br>Ceiling: LPC75/100 | 0.9 (2.00) | **MMADIIS** |
| | Crouse-Hinds™ Champ® ✣ | Wall: TWM2/3<br>25° Angle Stanchion: JM5<br>90° Angle Stanchion: PM5 | 0.9 (2.00) | **MMADCHVA** |
| | Appleton™ Mercmaster™ II | Wall: LPWB75, LPWB100<br>25° Angle Stanchion: LPS125, LPS150 | 0.9 (2.00) | **MMADIIA** |
| | Killark™ ✧ | Ceiling: VMX2B, VMX3B, VMX6B, VMX7B, VMX9B<br>Pendant: VMA2B, VMA3B<br>Stanchion: VMD4B, VMD5B, VMS4B, VMS5B<br>Wall: VMB2B, VMB3B<br>Pendant Cone: VMC2B, VMC3B | 1.0 (2.3) | **MMADKVA** |

① *Adapters are cCSAus rated only.*
✧ *Killark is a registered trademark of Hubbell Incorporated.*
✣ *Crouse-Hinds and Champ are a registered trademarks of Cooper Crouse-Hinds.*
⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

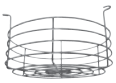
Standard

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



## Accessories and Replacement Parts — Standard Model

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Globes** ① | | | |
| | Glass Globe — Amber | 0.2 (0.5) | **VPGLGLASSAM** |
| | Glass Globe — Blue | 0.2 (0.5) | **VPGLGLASSBL** |
| | Glass Globe — Red | 0.8 (1.7) | **VPGLGLASSRE** |
| | Glass Globe — Green | 0.8 (1.7) | **VPGLGLASSGR** |
| | **Light Distribution** | **Weight in kg (lbs)** | **Catalog Number** |
| **Prismatic Glass Refractor — All Heat-Resistant** ② | | | |
| | Short Prismatic Glass Refractor — NEMA Type V | 1.4 (3.0) | **LPG-R5S** |
| | **Description** | | **Catalog Number** |
| **Guard** | | | |
|  | Short Refractor Guard for LPG-R5S | 0.3 (0.7) | **KRG2S** |

| | Model | Voltage | Driver Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|---|
| **Replacement Drivers** | | | | | |
| | MLLED2 | BU | 50 Watt | 720mA | **APMS050C135UD72** |
| | | BH | | 720mA | **APMS050C135HD72** |
| | MLLED3 | BU | 50 Watt | 1000mA | **APMS050C135UD10** |
| | | BH | | 1000mA | **APMS050C135HD10** |
| | MLLED4 | BU | 50 Watt | 1300mA | **APMS050C135UD13** |
| | | BH | | 1300mA | **APMS050C135HD13** |

① *Certified for cCSAus only.*
② *Glass Prismatic Refractors are cCSAus rated only.*
⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



**Accessories and Replacement Parts — Emergency Battery Backup Model**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| | Replacement Battery Pack | 0.7 (1.5) | **BPMLLED** |
| | Replacement Battery Management Module | 0.7 (1.5) | **BMMLLED** |
| | Replacement Fuse (Emergency system) | 0.2 (0.4) | **MLF5** |

| | Model | Voltage | Driver Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|---|
| **Replacement Drivers and Battery Management Module with Battery** | | | | | |
| | IMLLED2 | BH | 50 Watt | 415mA | **APMS050C135UD41** |
| | IMLLED3 | | | 550mA | **APMS050C135UD55** |
| | IMLLED4 | | | 690mA | **APMS050C135UD69** |

**Mounting Hood with Factory Installed Photocontrol ① — All Models**

| | Mounting Hood | Hub Size | Photocontrol Option | Catalog Number |
|---|---|---|---|---|
| | Pendant | 3/4" NPT | 120 V | **KPA75PC12** |
| | | | 208 V, 240 V, 277 V | **KPA75PC24** |
| | | 1" NPT | 120 V | **KPA100PC12** |
| | | | 208 V, 240 V, 277 V | **KPA100PC24** |
| | Wall | 3/4" NPT | 120 V | **KPWB75PC12** |
| | | | 208 V, 240 V, 277 V | **KPWB75PC24** |
| | | 1" NPT | 120 V | **KPWB100PC12** |
| | | | 208 V, 240 V, 277 V | **KPWB100PC24** |
| | 25° Stanchion | 1-1/4" NPT stanchion | 120 V | **KPS125PC12** |
| | | | 208 V, 240 V, 277 V | **KPS125PC24** |
| | | 1-1/2" NPT stanchion | 120 V | **KPS150PC12** |
| | | | 208 V, 240 V, 277 V | **KPS150PC24** |
| | 90° Stanchion | 1-1/4" NPT stanchion | 120 V | **KPST125PC12** |
| | | | 208 V, 240 V, 277 V | **KPST125PC24** |
| | | 1-1/2" NPT stanchion | 120 V | **KPST150PC12** |
| | | | 208 V, 240 V, 277 V | **KPST150PC24** |

**Luminaire Weights — All Models**

| Description | Weight kg (lb) |
|---|---|
| Standard Model Fixture Unit | 4.6 (10.10) |
| Emergency Battery Backup Model Fixture Unit | 5.8 (13.80) |

① *Fixtures with photocontrols are rated Type 3R.*
⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard or with Emergency Battery Backup

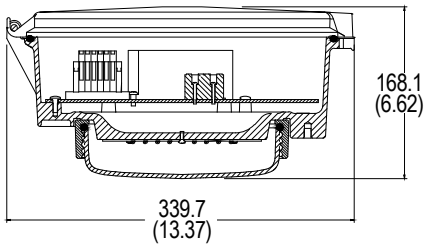
Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

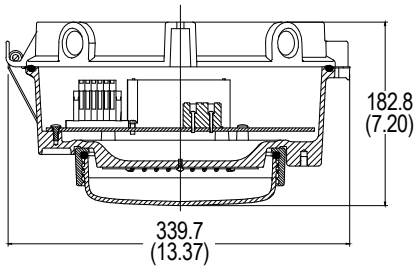


**Dimensions in Millimeters (Inches) — With Polycarbonate Globe — All Models**

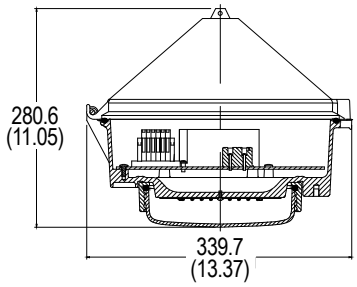
**Pendant Mount**



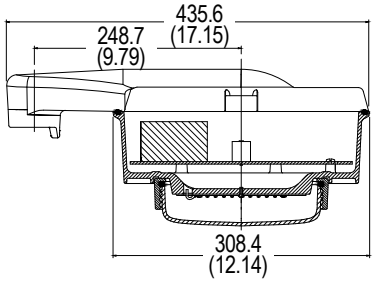

**Ceiling Mount**



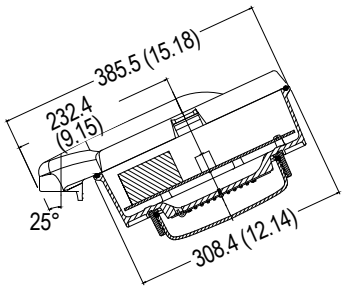

**Pendant Cone Mount**



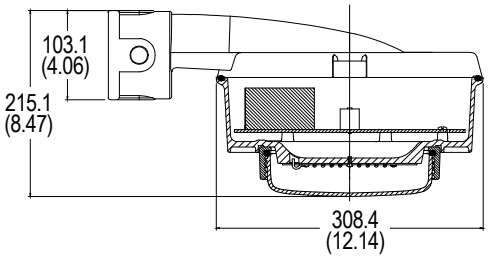

**90° Stanchion Mount**



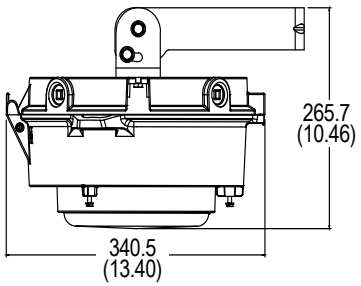

**25° Stanchion Mount**



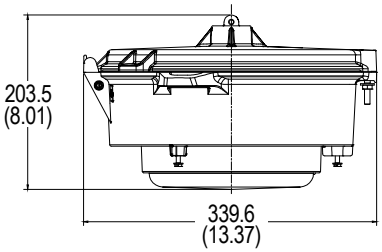

**Wall Mount**




**Trunnion Mount**




**Watertight Pendant Hood**




⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard or with Emergency Battery Backup

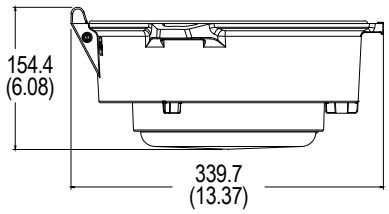
Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**

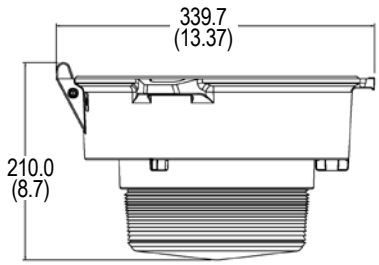


## Dimensions in Millimeters (Inches)

**Driver Housing with Polycarbonate Globe — All Models**

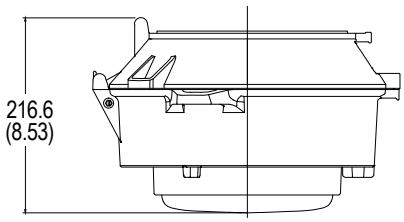



**Driver Housing with Short Prismatic Glass Refractor — Standard Model**

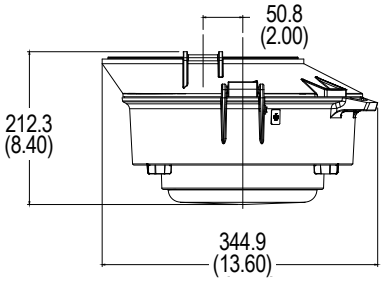



## Dimensions in Millimeters (Inches) — With Polycarbonate Globe — All Models

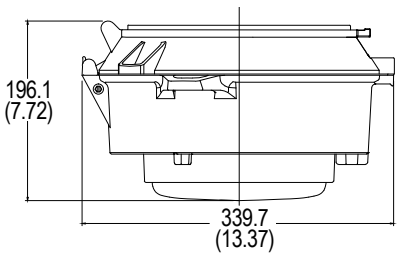
**Mercmaster II Adapter — Ceiling or Pendant**



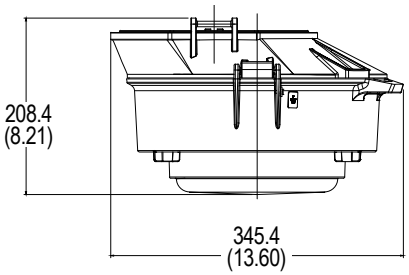

**Mercmaster II Adapter — Stanchion or Wall**



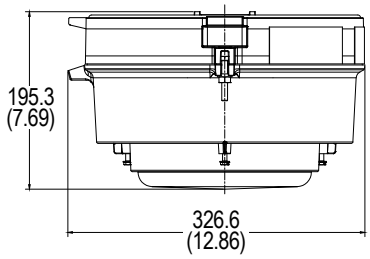

**Crouse-Hinds™ ✢ Adapter — Ceiling or Pendant**




**Crouse-Hinds™ ✢ Adapter — Stanchion or Wall**




**Killark™ ✧ Adapter**




*✧ Killark is a registered trademark of Hubbell Incorporated.*
*✢ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.*
*⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



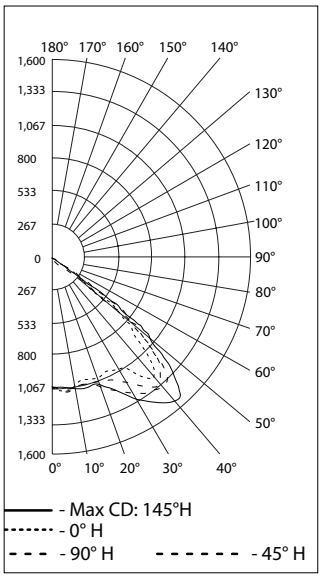
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

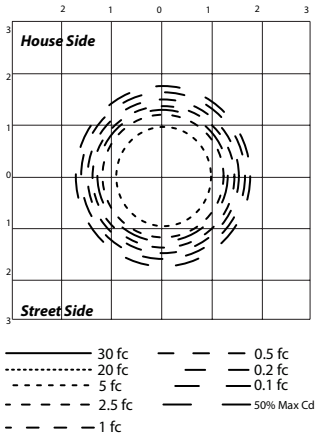
REPORT NUMBER: **MLLED2CP5BU**

Luminaire Lumens 3,198

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 932.7 | 29.2% |
| 0-40 | 1,750.7 | 54.7% |
| 0-60 | 3,144.3 | 98.3% |
| 60-90 | 48.0 | 1.5% |
| 70-100 | 17.6 | 0.6% |
| 90-120 | 4.8 | 0.2% |
| 0-90 | 3,192.3 | 99.8% |
| 90-180 | 5.7 | 0.2% |
| 0-180 | 3,198.0 | 100% |

**LUMENS PER ZONE**

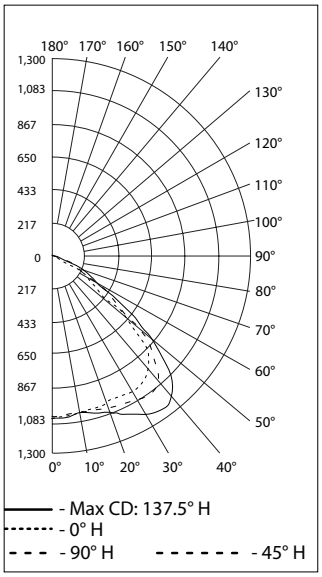
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 102.0 | 3.2% | 90-100 | 1.9 | 0.1% |
| 10-20 | 302.3 | 9.5% | 100-110 | 1.9 | 0.1% |
| 20-30 | 528.5 | 16.5% | 110-120 | 1.0 | 0% |
| 30-40 | 817.9 | 25.6% | 120-130 | 0.8 | 0% |
| 40-50 | 969.4 | 30.3% | 130-140 | 0.0 | 0% |
| 50-60 | 424.2 | 13.3% | 140-150 | 0 | 0% |
| 60-70 | 32.3 | 1.0% | 150-160 | 0.0 | 0% |
| 70-80 | 10.3 | 0.3% | 160-170 | 0.0 | 0% |
| 80-90 | 5.4 | 0.2% | 170-180 | 0.0 | 0% |

### Type V, Diffused Polycarbonate, 5000K CCT

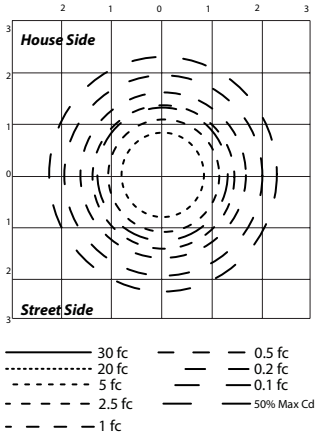
REPORT NUMBER: **MLLED2CD5BU**

Luminaire Lumens 3,103

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 903.1 | 29.1% |
| 0-40 | 1,609.3 | 51.9% |
| 0-60 | 2,795.0 | 90.1% |
| 60-90 | 283.4 | 9.1% |
| 70-100 | 107.9 | 3.5% |
| 90-120 | 24.0 | 0.8% |
| 0-90 | 3,078.4 | 99.2% |
| 90-180 | 25.3 | 0.8% |
| 0-180 | 3,103.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 100.3 | 3.2% | 90-100 | 9.0 | 0.3% |
| 10-20 | 298.2 | 9.6% | 100-110 | 10.7 | 0.3% |
| 20-30 | 504.6 | 16.3% | 110-120 | 4.3 | 0.1% |
| 30-40 | 706.2 | 22.8% | 120-130 | 1.2 | 0% |
| 40-50 | 735.2 | 23.7% | 130-140 | 0.1 | 0% |
| 50-60 | 450.5 | 14.5% | 140-150 | 0 | 0% |
| 60-70 | 184.5 | 5.9% | 150-160 | 0 | 0% |
| 70-80 | 75.4 | 2.4% | 160-170 | 0 | 0% |
| 80-90 | 23.5 | 0.8% | 170-180 | 0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



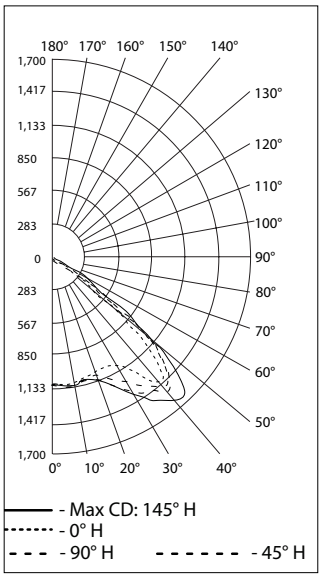
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 5000K CCT

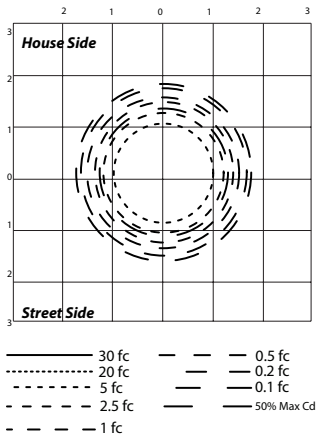
REPORT NUMBER: **MLLED2CG5BU**

Luminaire Lumens 3,334

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 960.0 | 28.8% |
| 0-40 | 1,828.8 | 54.8% |
| 0-60 | 3,298.1 | 98.9% |
| 60-90 | 32.1 | 1% |
| 70-100 | 8.4 | 0.3% |
| 90-120 | 3.9 | 0.1% |
| 0-90 | 3,330.2 | 99.9% |
| 90-180 | 4.2 | 0.1% |
| 0-180 | 3,334.5 | 100% |

**LUMENS PER ZONE**

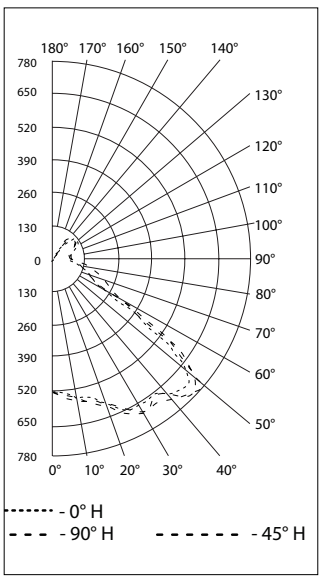
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 105.6 | 3.2% | 90-100 | 1.1 | 0% |
| 10-20 | 309.3 | 9.3% | 100-110 | 1.2 | 0% |
| 20-30 | 545.0 | 16.3% | 110-120 | 1.6 | 0% |
| 30-40 | 868.8 | 26.1% | 120-130 | 0.3 | 0% |
| 40-50 | 1,049.7 | 31.5% | 130-140 | 0.0 | 0% |
| 50-60 | 419.6 | 12.6% | 140-150 | 0.1 | 0% |
| 60-70 | 24.8 | 0.7% | 150-160 | 0 | 0% |
| 70-80 | 4.9 | 0.1% | 160-170 | 0 | 0% |
| 80-90 | 2.4 | 0.1% | 170-180 | 0 | 0% |

### Type V, Glass Refractor, 5000K CCT

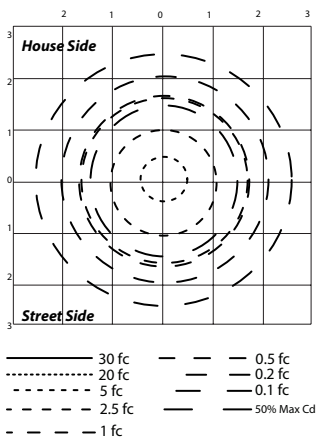
REPORT NUMBER: **MLLED2CJ5BU**

Luminaire Lumens 3,020

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 526.8 | 17.4% |
| 0-40 | 959.4 | 31.8% |
| 0-60 | 2,035.0 | 67.4% |
| 60-90 | 516.7 | 17.1% |
| 70-100 | 363.7 | 12% |
| 90-120 | 231.1 | 7.6% |
| 0-90 | 2,551.7 | 84.5% |
| 90-180 | 468.9 | 15.5% |
| 0-180 | 3,020.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 52.5 | 1.7% | 90-100 | 81.0 | 2.7% |
| 10-20 | 167.2 | 5.5% | 100-110 | 70.8 | 2.3% |
| 20-30 | 307.0 | 10.2% | 110-120 | 79.3 | 2.6% |
| 30-40 | 432.6 | 14.3% | 120-130 | 104.8 | 3.5% |
| 40-50 | 573.9 | 19.0% | 130-140 | 90.3 | 3% |
| 50-60 | 501.7 | 16.6% | 140-150 | 37.8 | 1.3% |
| 60-70 | 234.1 | 7.7% | 150-160 | 4.9 | 0.2% |
| 70-80 | 167.4 | 5.5% | 160-170 | 0.0 | 0% |
| 80-90 | 115.3 | 3.8% | 170-180 | 0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



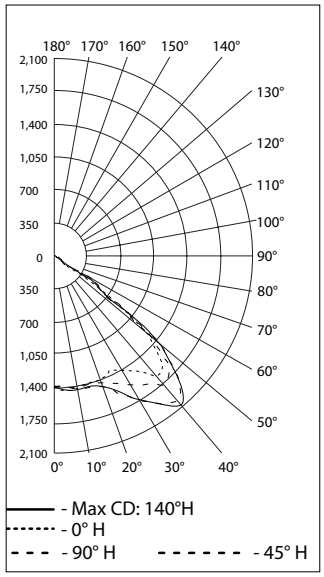
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

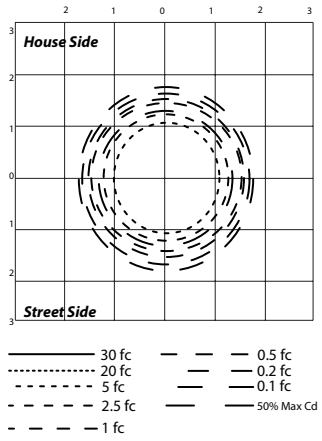
REPORT NUMBER: **MLLED3CP5BU**

Luminaire Lumens 4,234

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,229.4 | 29% |
| 0-40 | 2,320.7 | 54.8% |
| 0-60 | 4,178.7 | 98.7% |
| 60-90 | 49.5 | 1.2% |
| 70-100 | 18.7 | 0.4% |
| 90-120 | 5.2 | 0.1% |
| 0-90 | 4,228.2 | 99.9% |
| 90-180 | 6.0 | 0.1% |
| 0-180 | 4,234.3 | 100% |

**LUMENS PER ZONE**

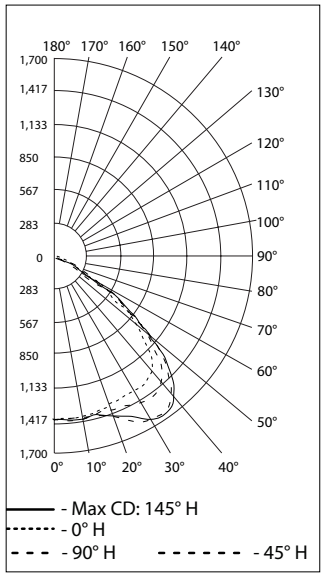
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 134.1 | 3.2% | 90-100 | 2.3 | 0.1% |
| 10-20 | 396.8 | 9.4% | 100-110 | 1.9 | 0% |
| 20-30 | 698.5 | 16.5% | 110-120 | 1.0 | 0% |
| 30-40 | 1,091.3 | 25.8% | 120-130 | 0.8 | 0% |
| 40-50 | 1,302.8 | 30.8% | 130-140 | 0.0 | 0% |
| 50-60 | 555.3 | 13.1% | 140-150 | 0.0 | 0% |
| 60-70 | 33.0 | 0.8% | 150-160 | 0.0 | 0% |
| 70-80 | 10.5 | 0.2% | 160-170 | 0.0 | 0% |
| 80-90 | 5.9 | 0.1% | 170-180 | 0.0 | 0% |

### Type V, Diffused Polycarbonate, 5000K CCT

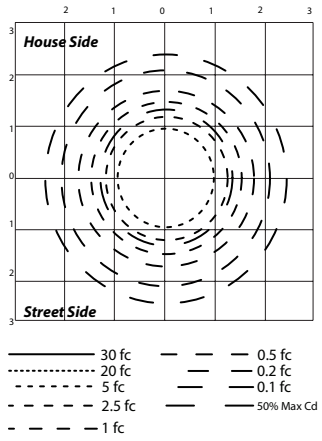
REPORT NUMBER: **MLLED3CD5BU**

Luminaire Lumens 4,151

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,206.1 | 29.1% |
| 0-40 | 2,153.6 | 51.9% |
| 0-60 | 3,742.1 | 90.2% |
| 60-90 | 375.5 | 9% |
| 70-100 | 142.2 | 3.4% |
| 90-120 | 31.3 | 0.8% |
| 0-90 | 4,117.6 | 99.2% |
| 90-180 | 33.1 | 0.8% |
| 0-180 | 4,150.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 133.5 | 3.2% | 90-100 | 11.7 | 0.3% |
| 10-20 | 397.0 | 9.6% | 100-110 | 14.0 | 0.3% |
| 20-30 | 675.6 | 16.3% | 110-120 | 5.5 | 0.1% |
| 30-40 | 947.5 | 22.8% | 120-130 | 1.6 | 0% |
| 40-50 | 986.1 | 23.8% | 130-140 | 0.1 | 0% |
| 50-60 | 602.4 | 14.5% | 140-150 | 0.1 | 0% |
| 60-70 | 245.0 | 5.9% | 150-160 | 0.0 | 0% |
| 70-80 | 99.5 | 2.4% | 160-170 | 0.0 | 0% |
| 80-90 | 30.9 | 0.7% | 170-180 | 0.0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



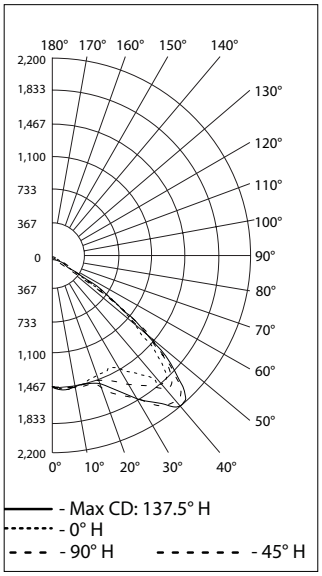
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 5000K CCT

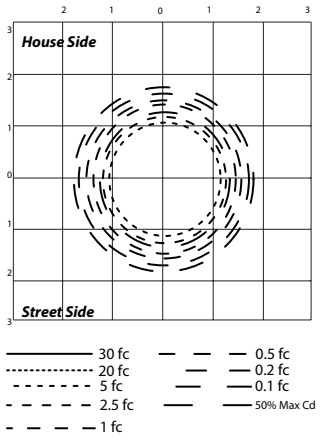
REPORT NUMBER: **MLLED3CG5BU**

Luminaire Lumens 4,468

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,282.8 | 28.7% |
| 0-40 | 2,447.8 | 54.8% |
| 0-60 | 4,419.1 | 98.9% |
| 60-90 | 42.9 | 1% |
| 70-100 | 11.0 | 0.2% |
| 90-120 | 4.8 | 0.1% |
| 0-90 | 4,461.9 | 99.9% |
| 90-180 | 6.1 | 0.1% |
| 0-180 | 4,468.0 | 100% |

**LUMENS PER ZONE**

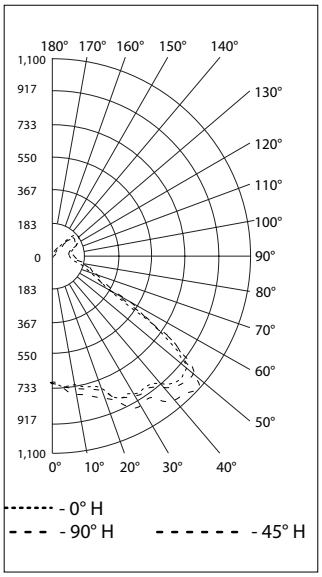
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 140.3 | 3.1% | 90-100 | 1.2 | 0% |
| 10-20 | 411.6 | 9.2% | 100-110 | 1.4 | 0% |
| 20-30 | 730.9 | 16.4% | 110-120 | 2.1 | 0% |
| 30-40 | 1,164.9 | 26.1% | 120-130 | 0.6 | 0% |
| 40-50 | 1,407.0 | 31.5% | 130-140 | 0.1 | 0% |
| 50-60 | 564.3 | 12.6% | 140-150 | 0.4 | 0% |
| 60-70 | 33.0 | 0.7% | 150-160 | 0.2 | 0% |
| 70-80 | 6.5 | 0.1% | 160-170 | 0.1 | 0% |
| 80-90 | 3.3 | 0.1% | 170-180 | 0.0 | 0% |

### Type V, Glass Refractor, 5000K CCT

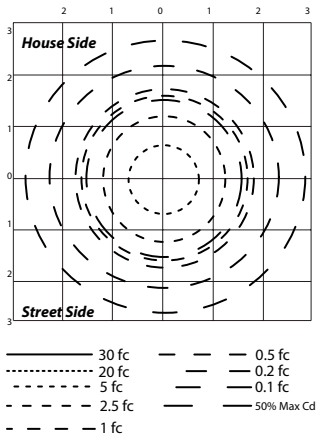
REPORT NUMBER: **MLLED3CJ5BU**

Luminaire Lumens 4,020

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 699.2 | 17.4% |
| 0-40 | 1,275.6 | 31.7% |
| 0-60 | 2,714.3 | 67.5% |
| 60-90 | 689.0 | 17.1% |
| 70-100 | 484.7 | 12.1% |
| 90-120 | 307.5 | 7.6% |
| 0-90 | 3,403.3 | 84.6% |
| 90-180 | 617.3 | 15.4% |
| 0-180 | 4,020.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 70.0 | 1.7% | 90-100 | 107.5 | |
| 10-20 | 222.3 | 5.5% | 100-110 | 94.0 | |
| 20-30 | 406.9 | 10.1% | 110-120 | 106.0 | |
| 30-40 | 576.4 | 14.3% | 120-130 | 137.5 | |
| 40-50 | 768.1 | 19.1% | 130-140 | 116.8 | |
| 50-60 | 670.6 | 16.7% | 140-150 | 49.1 | |
| 60-70 | 311.8 | 7.8% | 150-160 | 6.2 | |
| 70-80 | 223.5 | 5.6% | 160-170 | 0.0 | |
| 80-90 | 153.7 | 3.8% | 170-180 | 0 | |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



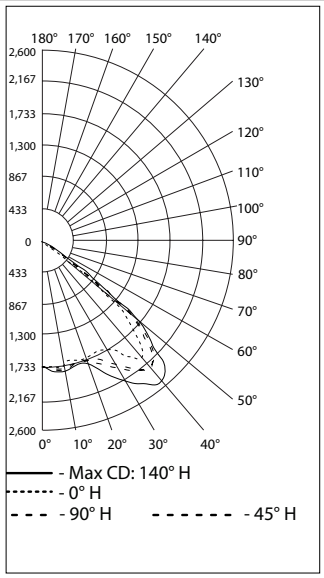
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

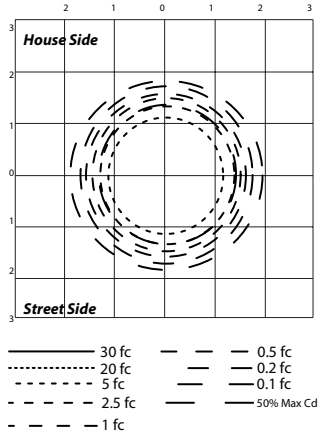
REPORT NUMBER: **MLLED4CP5BU**

Luminaire Lumens 5,330

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,525.8 | 28.6% |
| 0-40 | 2,872.5 | 53.9% |
| 0-60 | 5,237.4 | 98.3% |
| 60-90 | 82.4 | 1.5% |
| 70-100 | 29.4 | 0.6% |
| 90-120 | 7.9 | 0.1% |
| 0-90 | 5,319.8 | 99.8% |
| 90-180 | 10.7 | 0.2% |
| 0-180 | 5,330.5 | 100% |

**LUMENS PER ZONE**

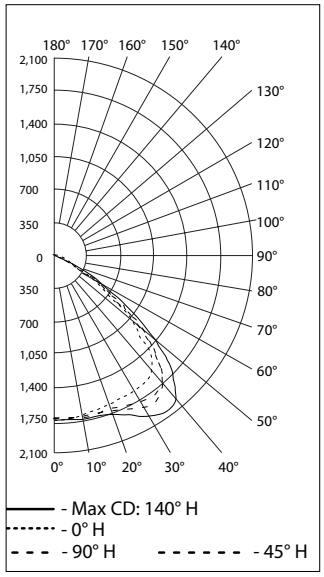
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 166.7 | 3.1% | 90-100 | 3.1 | 0.1% |
| 10-20 | 493.8 | 9.3% | 100-110 | 3.0 | 0.1% |
| 20-30 | 865.2 | 16.2% | 110-120 | 1.7 | 0% |
| 30-40 | 1,346.8 | 25.3% | 120-130 | 0.9 | 0% |
| 40-50 | 1,619.8 | 30.4% | 130-140 | 0.6 | 0% |
| 50-60 | 745.2 | 14.0% | 140-150 | 0.6 | 0% |
| 60-70 | 56.1 | 1.1% | 150-160 | 0.4 | 0% |
| 70-80 | 17.0 | 0.3% | 160-170 | 0.2 | 0% |
| 80-90 | 9.2 | 0.2% | 170-180 | 0.1 | 0% |

### Type V, Diffused Polycarbonate, 5000K CCT

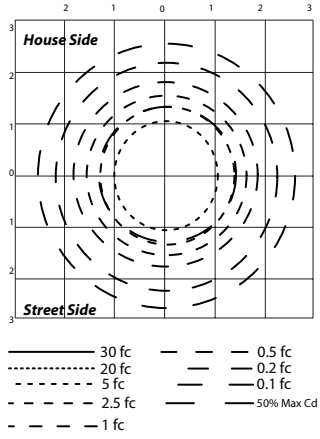
REPORT NUMBER: **MLLED4CD5BU**

Luminaire Lumens 5,150

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,484.5 | 28.8% |
| 0-40 | 2,652.4 | 51.5% |
| 0-60 | 4,632.4 | 89.9% |
| 60-90 | 475.6 | 9.2% |
| 70-100 | 180.0 | 3.5% |
| 90-120 | 39.1 | 0.8% |
| 0-90 | 5,108.0 | 99.2% |
| 90-180 | 42.1 | 0.8% |
| 0-180 | 5,150.1 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 164.4 | 3.2% | 90-100 | 14.5 | 0.3% |
| 10-20 | 488.7 | 9.5% | 100-110 | 17.8 | 0.3% |
| 20-30 | 831.4 | 16.1% | 110-120 | 6.9 | 0.1% |
| 30-40 | 1,167.9 | 22.7% | 120-130 | 2.0 | 0% |
| 40-50 | 1,223.7 | 23.8% | 130-140 | 0.3 | 0% |
| 50-60 | 756.3 | 14.7% | 140-150 | 0.2 | 0% |
| 60-70 | 310.0 | 6.0% | 150-160 | 0.2 | 0% |
| 70-80 | 125.8 | 2.4% | 160-170 | 0.1 | 0% |
| 80-90 | 39.8 | 0.8% | 170-180 | 0.1 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

Standard

Ordinary Locations

**NEC/CEC Standard Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**IECEE CB Standard Model: IK08**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)**



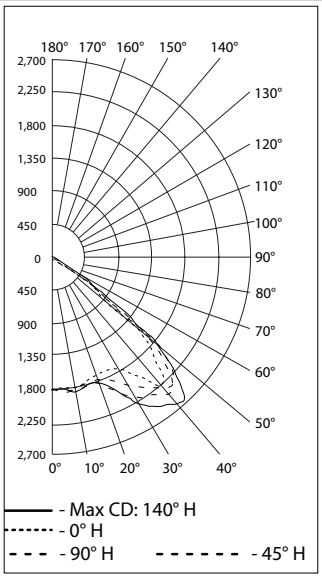
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 5000K CCT

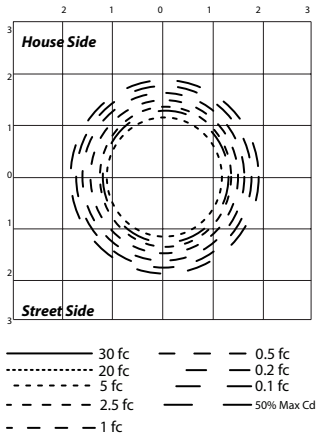
REPORT NUMBER: **MLLED4CG5BU**

Luminaire Lumens 5,529

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,575.5 | 28.5% |
| 0-40 | 2,990.6 | 54.1% |
| 0-60 | 5,434.7 | 98.3% |
| 60-90 | 81.6 | 1.5% |
| 70-100 | 27.7 | 0.5% |
| 90-120 | 10.6 | 0.2% |
| 0-90 | 5,516.3 | 99.8% |
| 90-180 | 13.4 | 0.2% |
| 0-180 | 5,529.7 | 100% |

**LUMENS PER ZONE**

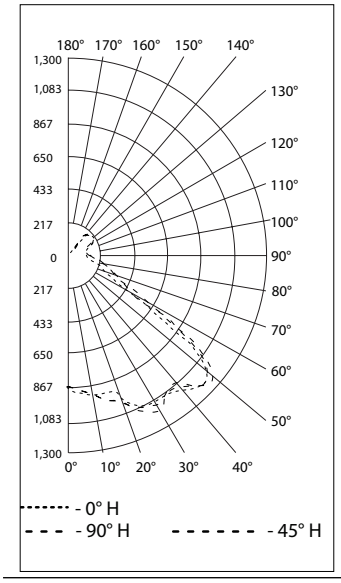
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 173.1 | 3.1% | 90-100 | 3.8 | 0.1% |
| 10-20 | 506.7 | 9.2% | 100-110 | 3.3 | 0.1% |
| 20-30 | 895.7 | 16.2% | 110-120 | 3.5 | 0.1% |
| 30-40 | 1,415.1 | 25.6% | 120-130 | 1.3 | 0% |
| 40-50 | 1,712.6 | 31.0% | 130-140 | 0.5 | 0% |
| 50-60 | 731.4 | 13.2% | 140-150 | 0.4 | 0% |
| 60-70 | 57.6 | 1.0% | 150-160 | 0.4 | 0% |
| 70-80 | 15.7 | 0.3% | 160-170 | 0.2 | 0% |
| 80-90 | 8.2 | 0.1% | 170-180 | 0.1 | 0% |

### Type V, Glass Refractor, 5000K CCT

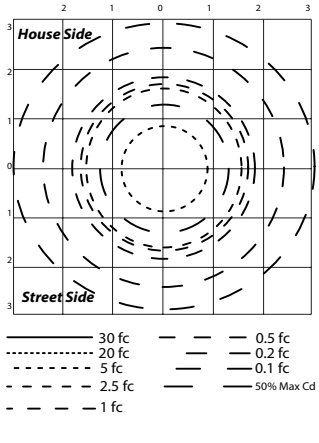
REPORT NUMBER: **MLLED4CJ5BU**

Luminaire Lumens 4,940

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 872.9 | 17.7% |
| 0-40 | 1,570.0 | 31.8% |
| 0-60 | 3,310.7 | 67% |
| 60-90 | 861.5 | 17.4% |
| 70-100 | 606.8 | 12.3% |
| 90-120 | 378.1 | 7.7% |
| 0-90 | 4,172.1 | 84.4% |
| 90-180 | 768.2 | 15.6% |
| 0-180 | 4,940.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 85.6 | 1.7% | 90-100 | 134.2 | 2.7% |
| 10-20 | 278.2 | 5.6% | 100-110 | 116.1 | 2.3% |
| 20-30 | 509.2 | 10.3% | 110-120 | 127.8 | 2.6% |
| 30-40 | 697.1 | 14.1% | 120-130 | 169.8 | 3.4% |
| 40-50 | 923.1 | 18.7% | 130-140 | 148.5 | 3% |
| 50-60 | 817.6 | 16.5% | 140-150 | 63.2 | 1.3% |
| 60-70 | 388.8 | 7.9% | 150-160 | 8.4 | 0.2% |
| 70-80 | 280.0 | 5.7% | 160-170 | 0.1 | 0% |
| 80-90 | 192.7 | 3.9% | 170-180 | 0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**



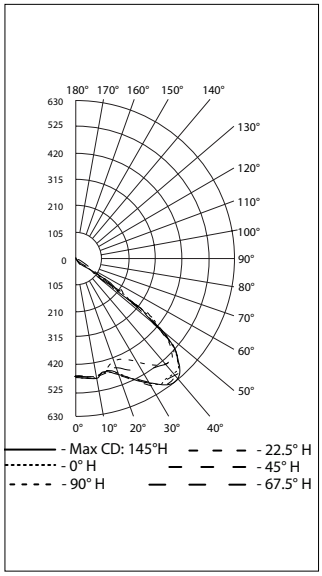
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

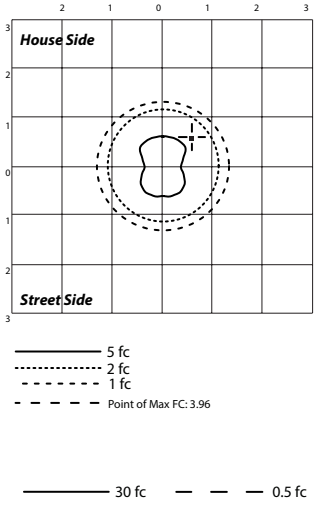
REPORT NUMBER: **MLLED2CP5BUH+EMR**

Luminaire Lumens 1,404

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 407.0 | 29% |
| 0-40 | 763.6 | 54.4% |
| 0-60 | 1,388.0 | 98.8% |
| 60-90 | 16.4 | 1.2% |
| 70-100 | 3.5 | 0.3% |
| 90-120 | 0.1 | 0% |
| 0-90 | 1,404.4 | 100% |
| 90-180 | 0.1 | 0% |
| 0-180 | 1,404.5 | 100% |

**LUMENS PER ZONE**

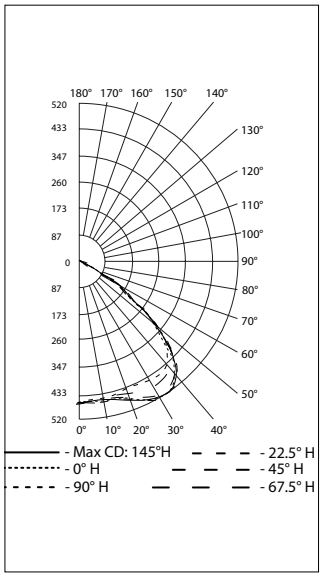
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 44.3 | 3.2% | 90-100 | 0.1 | 0% |
| 10-20 | 130.2 | 9.3% | 100-110 | 0 | 0% |
| 20-30 | 232.5 | 16.6% | 110-120 | 0 | 0% |
| 30-40 | 356.6 | 25.4% | 120-130 | 0 | 0% |
| 40-50 | 424.6 | 30.2% | 130-140 | 0 | 0% |
| 50-60 | 199.9 | 14.2% | 140-150 | 0 | 0% |
| 60-70 | 12.9 | 0.9% | 150-160 | 0 | 0% |
| 70-80 | 2.4 | 0.2% | 160-170 | 0 | 0% |
| 80-90 | 1.1 | 0.1% | 170-180 | 0 | 0% |

### Type V, Diffused Polycarbonate, 5000K CCT

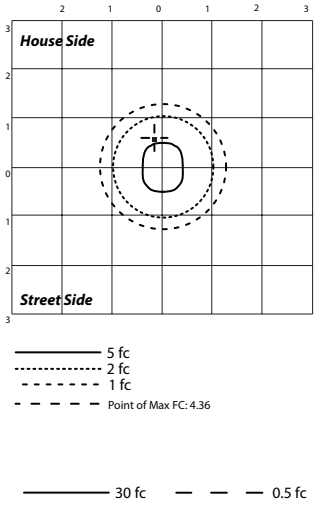
REPORT NUMBER: **MLLED2CD5BUH+EMR**

Luminaire Lumens 1,369

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 395.3 | 28.9% |
| 0-40 | 702.3 | 51.3% |
| 0-60 | 1,231.5 | 89.9% |
| 60-90 | 126.7 | 9.2% |
| 70-100 | 44.8 | 3.3% |
| 90-120 | 10.6 | 0.8% |
| 0-90 | 1,358.2 | 99.2% |
| 90-180 | 11.1 | 0.8% |
| 0-180 | 1,369.3 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 43.5 | 3.2% | 90-100 | 4.2 | 0.3% |
| 10-20 | 129.9 | 9.5% | 100-110 | 4.7 | 0.3% |
| 20-30 | 221.9 | 16.2% | 110-120 | 1.8 | 0.1% |
| 30-40 | 307.0 | 22.4% | 120-130 | 0.5 | 0% |
| 40-50 | 321.3 | 23.5% | 130-140 | 0 | 0% |
| 50-60 | 208.0 | 15.2% | 140-150 | 0 | 0% |
| 60-70 | 86.0 | 6.3% | 150-160 | 0 | 0% |
| 70-80 | 31.5 | 2.3% | 160-170 | 0 | 0% |
| 80-90 | 9.1 | 0.7% | 170-180 | 0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**



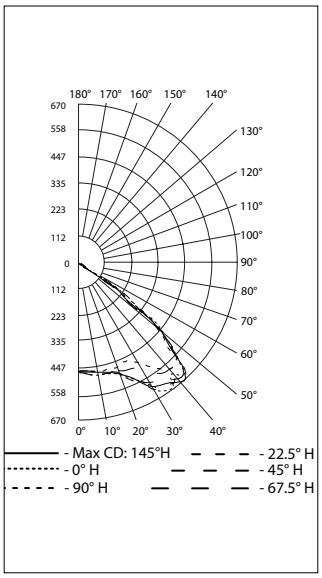
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 5000K CCT

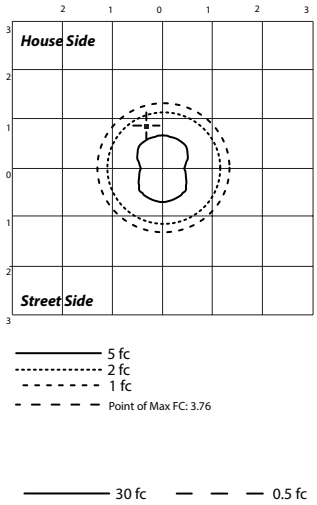
REPORT NUMBER: **MLLED2CG5BUH+EMR**

Luminaire Lumens 1,460

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 420.1 | 28.8% |
| 0-40 | 792.8 | 54.3% |
| 0-60 | 1,443.4 | 98.8% |
| 60-90 | 16.8 | 1.1% |
| 70-100 | 3.0 | 0.2% |
| 90-120 | 0.1 | 0% |
| 0-90 | 1,460.2 | 100% |
| 90-180 | 0.1 | 0% |
| 0-180 | 1,460.2 | 100% |

**LUMENS PER ZONE**

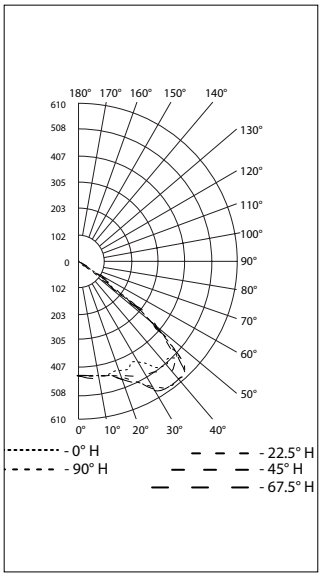
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 44.3 | 3.0% | 90-100 | 0.1 | 0% |
| 10-20 | 133.9 | 9.2% | 100-110 | 0 | 0% |
| 20-30 | 242.0 | 16.6% | 110-120 | 0 | 0% |
| 30-40 | 372.6 | 25.5% | 120-130 | 0 | 0% |
| 40-50 | 444.7 | 30.5% | 130-140 | 0 | 0% |
| 50-60 | 205.9 | 14.1% | 140-150 | 0 | 0% |
| 60-70 | 13.8 | 0.9% | 150-160 | 0 | 0% |
| 70-80 | 2.1 | 0.1% | 160-170 | 0 | 0% |
| 80-90 | 0.8 | 0.1% | 170-180 | 0 | 0% |

### Type V, Clear Glass, 4000K CCT

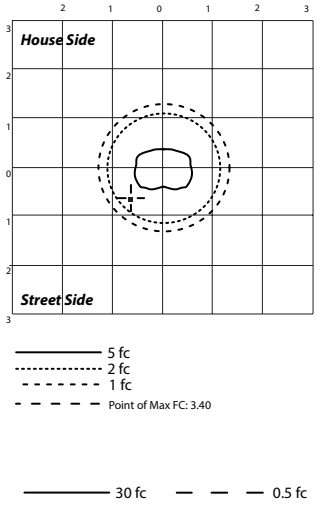
REPORT NUMBER: **MLLED4NG5BUH+EMR**

Luminaire Lumens 1,330

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 392.5 | 29.5% |
| 0-40 | 733.5 | 55.1% |
| 0-60 | 1,315.4 | 98.9% |
| 60-90 | 15.0 | 1.1% |
| 70-100 | 2.6 | 0.2% |
| 90-120 | 0 | 0% |
| 0-90 | 1,330.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 1,330.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 41.9 | 3.1% | 90-100 | 0 | 0% |
| 10-20 | 125.8 | 9.5% | 100-110 | 0 | 0% |
| 20-30 | 224.8 | 16.9% | 110-120 | 0 | 0% |
| 30-40 | 341.0 | 25.6% | 120-130 | 0 | 0% |
| 40-50 | 399.6 | 30.0% | 130-140 | 0 | 0% |
| 50-60 | 182.3 | 13.7% | 140-150 | 0 | 0% |
| 60-70 | 12.4 | 0.9% | 150-160 | 0 | 0% |
| 70-80 | 1.9 | 0.1% | 160-170 | 0 | 0% |
| 80-90 | 0.7 | 0.1% | 170-180 | 0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Mercmaster™ LED Low Profile Series Luminaires

With Emergency Battery Backup

Ordinary Locations

**NEC/CEC Emergency Battery Backup Model: Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘**
**Notable: American Bureau of Shipping (ABS) Certified**



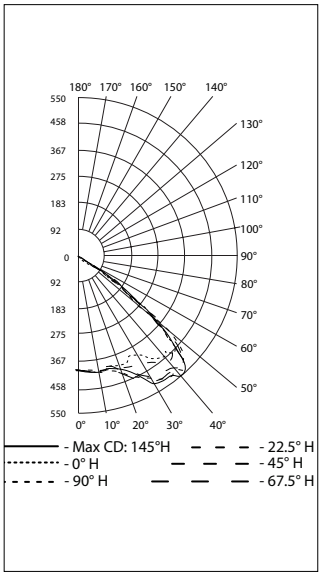
## Photometric Data — DATA SHOWN IS ABSOLUTE

**Type V, Clear Glass, 3000K CCT**

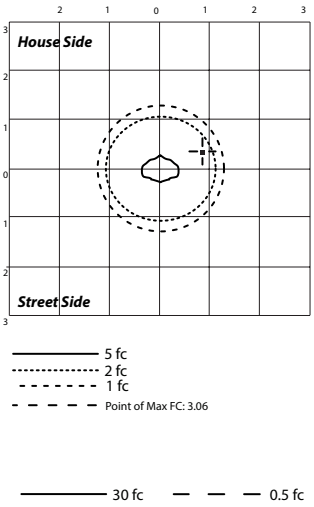
REPORT NUMBER: **MLLED4WG5BUH+EMR**

Luminaire Lumens 1,207

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 355.1 | 29.4% |
| 0-40 | 659.9 | 54.6% |
| 0-60 | 1,193.4 | 98.8% |
| 60-90 | 14.4 | 1.2% |
| 70-100 | 2.4 | 0.2% |
| 90-120 | 0 | 0% |
| 0-90 | 1,207.8 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 1,207.8 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 38.1 | 3.2% | 90-100 | 0 | 0% |
| 10-20 | 114.1 | 9.4% | 100-110 | 0 | 0% |
| 20-30 | 202.9 | 16.8% | 110-120 | 0 | 0% |
| 30-40 | 304.8 | 25.2% | 120-130 | 0 | 0% |
| 40-50 | 360.5 | 29.8% | 130-140 | 0 | 0% |
| 50-60 | 173.0 | 14.3% | 140-150 | 0 | 0% |
| 60-70 | 12.0 | 1.0% | 150-160 | 0 | 0% |
| 70-80 | 1.7 | 0.1% | 160-170 | 0 | 0% |
| 80-90 | 0.7 | 0.1% | 170-180 | 0 | 0% |

⌘ *Use of fuse voids Marine Outside Type (Salt Water) rating.*

# Industrial Contender™ LED Series Luminaires

For Direct Mounting Into Another Manufacturers Mounting Hood

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



## Applications

- Enclosed and gasketed fixtures suitable for use in:
  - — A wide range of harsh industrial environments
  - — Marine and wet locations
  - — Areas of low clearance, low ceiling heights or where fixture weights must be minimized
- Typical industries include:
  - — Pulp and paper mills
  - — Processing plants
  - — Manufacturing plants
  - — Foundries
  - — Waste treatment
  - — Warehouses
  - — Receiving areas
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
- Typical applications include:
  - — Walkways/catwalks
  - — Stairwells
  - — Tunnels
  - — Pipe racks
  - — Processing areas

## Features

- Mounts directly to the following Crouse Hinds™ ✣ Champ® ✣ VMV mounting hoods.

| Mounting Hoods | Model |
|---|---|
| Pendant | APM2, APM3 |
| Flexible Pendant | HPM2 |
| Ceiling | CM2, CM3 |
| Wall | TWM2, TWM3 |
| Quad | QM25 |
| 25° Stanchion | JM5 |
| Straight Stanchion | PM5 |

- Compact light weight low profile design is suited for low mounting heights (less than 5.44 kg. [12 lbs]).
- Customize to the application requirements with four different field replaceable globe options: clear and diffused polycarbonate, clear glass, or prismatic glass refractor.
- Three Correlated Color Temperatures (CCTs) for a wide variety of applications: Cool (5000K), Neutral (4000K) and Warm (3000K)
- Three light output levels for retrofit of HID fixtures up to 175 W.

| Nominal Lumens ① | HID Equivalent | Model |
|---|---|---|
| 3300 | 70-100W | IVMV3LCG5BU |
| 4400 | 100-150W | IVMV4LCG5BU |
| 5500 | 150-175W | IVMV5LCG5BU |

- Standard 6 kV/3 kA surge protection.
- Ambient Temperature: BU: -40 °C to +65 °C (-40 °F to +149 °F); BH: -40 °C up to +65 °C (-40 °F up to +149 °F).

- Heavy duty, high temperature silicone rubber gaskets.
- Reported L70 is >108,000.
- Field replaceable globes and IP66 rated LED driver.
- Rugged housing with superior thermal design translates to long luminaire life.
- Luminaire comes pre-wired with three conductors, approximately 12" long, of 14 AWG TEW wire from the IP68 watertight NPT hub at the top of the luminaire lid.
- Product can be configured with wirenuts or screw terminal blocks for ease of wiring.
- Photometric data and electronic drawings available upon request.
- 5 year standard warranty.

## Options

- Glass and Polycarbonate globe and glass refractor guards available, purchase separately.

## Standard Materials

- Luminaire body: cast copperfree (4/10 of 1% max.) aluminum
- All hardware: stainless steel
- Globe: polycarbonate or glass
- Refractor: heat-resistant prismatic glass
- Globe guard, short refractor guard and safety cable: stainless steel wire
- Reflector: fiberglass reinforced white polyester
- Visor: aluminum
- Gasket: silicone rubber

## Standard Finishes

- Luminaire bodies, glass refractor guard and visor: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

## NEC/CEC Certifications and Compliances

- UL Standard: UL 1598 (3rd Ed.); UL 1598A (1st Ed.); UL 8750 (2nd Ed.)
- CSA Standard: C22.2 No. 250.0-.08; C22.2 No. 250.13-14
- cCSAus Listed: Master contract 164460; Certificate Number 70170002

## ABS Certifications

- VMV: 18-HS1741303-PDA

## International Dark-Sky Association

- IDA Dark-Sky Approved when ordering IVMV[3L/4L/5L]W[P5/D5/G5]xxx with MMVISOR accessory (3000K CCT).

## DesignLights™ Consortium

- Check DLC QPL for current list of products.

*① Nominal Lumen value for 5000K CCT, clear glass globe. Detailed lumen information is provided in the " Lumen Output (Efficacy)" tables.*

*✣ Crouse-Hinds and Champ are registered trademark of Cooper Industries, Inc.*

# Industrial Contender™ LED Series Luminaires

For Direct Mounting Into Another Manufacturers Mounting Hood

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



## Illustrated Features

**Wiring Flexibility**
Choose between wire nuts and screw terminal blocks to suit end user wiring preferences. Terminal blocks support UL/CSA 24 to 12 AWG wire.

**Globe Gaskets**
Silicone rubber gaskets seal out moisture, dirt and dust. Stays flexible, withstands extreme temperatures. Closure design assures uniform gasket compression.

**Watertight**
Watertight IP68 rated bushing where cord enters luminaire hood ensures no water will enter the luminaire from the conduit through the mounting hood.

**Prismatic Refractors**
Heat-resistant refractor threads directly into fixture housing and seal against a high-temperature silicone rubber gasket.

**Angled Reflector and Visor**
Angled reflector is thick, tough fiberglass reinforced white polyester. Visor is aluminum with electrostatically applied, gray epoxy powder coat finish. Quickly attach either accessory to luminaire with furnished stainless steel screws.

**"Safety" Cable**
Safety cable option threads through the fixture housing for additional safety.

**Driver Assembly:** IP66 rated driver utilizes non-sparking components avoiding the ignition of gases or vapors that may be present.

**Electrical Protection:** External Grounding provisions for additional safety.

**Epoxy Finish:** Fixture housing, hoods and guards are copperfree aluminum with triple protection epoxy powder coat finish.

# Industrial Contender™ LED Series Luminaires

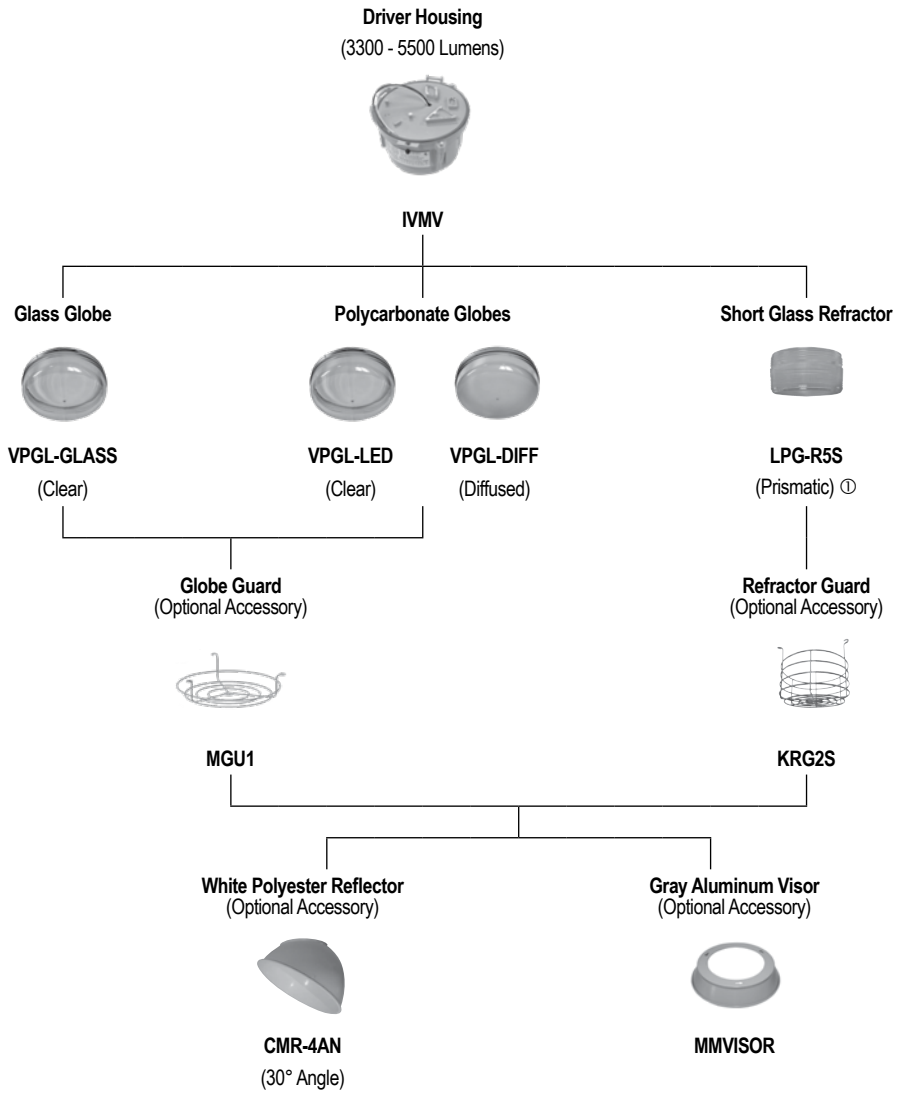
For Direct Mounting Into Another Manufacturers Mounting Hood

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



## Industrial Contender™ LED Family Tree




① *Certified for cCSAus only.*

# Industrial Contender™ LED Series Luminaires

For Direct Mounting Into Another Manufacturers Mounting Hood

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Order Using Catalog Numbering Guide — Industrial Contender™ LED Series Luminaires**

| IVMV | 3L | C | P5 | BU | T |
|---|---|---|---|---|---|
| Series Prefix:<br>IVMV - Industrial Contender LED Series | Lumen Output ①:<br>3L - 3K Lumens<br>4L - 4K Lumens<br>5L - 5K Lumens | Color Temperature:<br>C - Cool 5000K CCT<br>N - Neutral 4000K CCT<br>W - Warm 3000K CCT | Globe Material, Light Pattern ②:<br>P5 - Clear Polycarbonate Globe, NEMA Type V<br>D5 - Diffused Polycarbonate Globe,NEMA Type V<br>G5 - Clear Glass Globe, NEMA Type V<br>J5 - Prismatic Glass Refractor,NEMA Type V | Voltage:<br>BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc<br>BH - 347-480 Vac, 50/60 Hz | Wiring Method ③:<br>Blank - Wire Nuts (Standard)<br>T - Terminal Blocks |

*① For specific lumen output information, see Lumen Output table.*
*② Guards for the glass refractor and globes are ordered separately. See the Accessories section for more information.*
*③ Terminal block wiring option is only available with BU voltage configuration.*

# Industrial Contender™ LED Series Luminaires

For Direct Mounting Into Another Manufacturers Mounting Hood

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Lumen Output (Efficacy) ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Globe** | | | | | | | | | | | | | | |
| IVMV3L | 70-100W | Type V | 3000K | >70 | 3000 | 107 | 4000K | >70 | 3000 | 107 | 5000K | >70 | 3200 | 114 |
| IVMV4L | 100-150W | Type V | 3000K | >70 | 3900 | 102 | 4000K | >70 | 4000 | 105 | 5000K | >70 | 4200 | 110 |
| IVMV5L | 150-175W | Type V | 3000K | >70 | 4900 | 102 | 4000K | >70 | 5000 | 104 | 5000K | >70 | 5300 | 110 |
| **Diffused Polycarbonate Globe ②** | | | | | | | | | | | | | | |
| IVMV3L | 70-100W | Type V | 3000K | >70 | 2900 | 103 | 4000K | >70 | 2900 | 103 | 5000K | >70 | 3100 | 110 |
| IVMV4L | 100-150W | Type V | 3000K | >70 | 3800 | 100 | 4000K | >70 | 3900 | 102 | 5000K | >70 | 4100 | 107 |
| IVMV5L | 150-175W | Type V | 3000K | >70 | 4800 | 100 | 4000K | >70 | 4900 | 102 | 5000K | >70 | 5150 | 107 |
| **Clear Glass Globe** | | | | | | | | | | | | | | |
| IVMV3L | 70-100W | Type V | 3000K | >70 | 3100 | 110 | 4000K | >70 | 3100 | 110 | 5000K | >70 | 3300 | 117 |
| IVMV4L | 100-150W | Type V | 3000K | >70 | 4100 | 107 | 4000K | >70 | 4200 | 110 | 5000K | >70 | 4400 | 115 |
| IVMV5L | 150-175W | Type V | 3000K | >70 | 5100 | 106 | 4000K | >70 | 5200 | 108 | 5000K | >70 | 5500 | 114 |
| **Glass Prismatic Refractor** | | | | | | | | | | | | | | |
| IVMV3L | 70-100W | Type V | 3000K | >70 | 2800 | 100 | 4000K | >70 | 2800 | 100 | 5000K | >70 | 3000 | 107 |
| IVMV4L | 100-150W | Type V | 3000K | >70 | 3700 | 97 | 4000K | >70 | 3800 | 100 | 5000K | >70 | 4000 | 105 |
| IVMV5L | 150-175W | Type V | 3000K | >70 | 4600 | 96 | 4000K | >70 | 4650 | 97 | 5000K | >70 | 4900 | 102 |

**Electrical Specifications ③**

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| IVMV3L | 120 Vac | 28.0 | .28 | > .94 | < 20% |
| | 277 Vac | 28.0 | .13 | | |
| | 125 Vdc | 27.2 | .24 | — | |
| | 300 Vdc | 27.2 | .09 | | |
| | 347 Vac | 29.7 | .10 | > .93 | |
| | 480 Vac | 29.8 | .06 | | |
| IVMV4L | 120 Vac | 38.0 | .38 | > .96 | < 20% |
| | 277 Vac | 38.0 | .16 | | |
| | 125 Vdc | 37.4 | .32 | — | |
| | 300 Vdc | 39.0 | .13 | | |
| | 347 Vac | 39.6 | .13 | > .96 | |
| | 480 Vac | 39.7 | .08 | | |
| IVMV5L | 120 Vac | 48.0 | .48 | > .97 | < 20% |
| | 277 Vac | 48.0 | .20 | | |
| | 125 Vdc | 50.2 | .40 | — | |
| | 300 Vdc | 48.0 | .16 | | |
| | 347 Vac | 50.5 | .16 | > .97 | |
| | 480 Vac | 50.4 | .10 | | |

*① All lumen values are typical (tolerance +/- 10%).*
*② 70 minimum.*
*③ All values are typical (tolerance +/-10%).*

# Industrial Contender™ LED Series Luminaires

Ordinary Locations

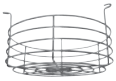
**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



## Fixture Unit — Driver Housing and Globe or Refractor

| Lumen Level | LED Wattage | Light Level Equivalent | NEMA Type | Catalog Number Polycarbonate Clear Globe ①②③ | Polycarbonate Diffused Globe ①②③ | Glass Globe ①②③ | With Type V Glass Refractor ①②③④ |
|---|---|---|---|---|---|---|---|
| **Driver Housing - For Ordinary Locations** | | | | | | | |
| 3K | 28 | 70-100W HPS | Type V | **IVMV3LCP5** | **IVMV3LCD5** | **IVMV3LCG5** | **IVMV3LCJ5** |
| 4K | 38 | 100-150W HPS | Type V | **IVMV4LCP5** | **IVMV4LCD5** | **IVMV4LCG5** | **IVMV4LCJ5** |
| 5K | 48 | 150-175W HPS | Type V | **IVMV5LCP5** | **IVMV5LCD5** | **IVMV5LCG5** | **IVMV5LCJ5** |

## Accessories and Replacement Parts

| | | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|
| **Globes** | | | | |
| | | Clear Globe — Polycarbonate | 0.2 (0.5) | **VPGL-LED** |
| | | Diffused Globe — Polycarbonate | 0.2 (0.5) | **VPGL-DIFF** |
| | | Clear Globe — Glass | 0.9 (1.9) | **VPGL-GLASS** |
| | | **Light Distribution** | **Weight in kg (lbs)** | **Catalog Number** |
| **Prismatic Glass Refractor — All Heat-Resistant** | | | | |
| | | Short Prismatic Glass Refractor NEMA Type V | 1.7 (3.7) | **LPG-R5S** |
| | | **Description** | **Weight in kg (lbs)** | **Catalog Number** |
| **Guards** | | | | |
| | **Globe Guard** | Globe Guard | 0.2 (0.4) | **MGU1** |
| |  **Short Refractor Guard** | Short Refractor Guard for LPG-R5S | 0.3 (0.7) | **KRG2S** |
| **Reflector** | | | | |
| | | 30° Angle White Polyester Reflectors | 1.3 (2.7) | **CMR-4AN** |
| **Visor** | | | | |
| | | Electrostatically applied gray epoxy powder coat finish on Aluminum Visor | 0.4 (0.9) | **MMVISOR** |
| **Safety Cable** | | | | |
| | | Stainless steel | 0.2 (0.4) | **LEDSC** |

*① For 120-277 Vac, use suffix **-BU**. For 347-480 Vac, use suffix **-BH.***
*② Guards are available for fixtures with glass globe or refractor. See Accessories and Replacement Parts table for ordering information.*
*④ Correlated Color Temperature (CCT) indicated by C, N or W; C = Cool, 5000K CCT, N = Neutral, 4000K CCT, W = Warm, 3000K CCT. Example: **IVMV5LCD5BU.***

# Industrial Contender™ LED Series Luminaires

For Direct Mounting Into Another Manufacturers Mounting Hood

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



**Replacement Drivers**

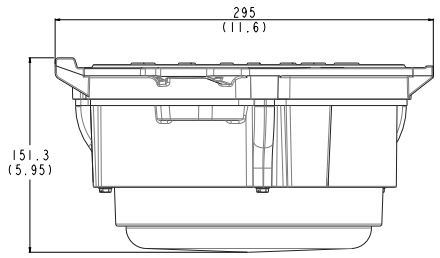
| | Model | Voltage | Driver Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|---|
| | IVMV3L | BU | 50 Watt | 720mA | **APMS050C135UD72** |
| | | BH | | 720mA | **APMS050C135HD72** |
| | IVMV4L | BU | 50 Watt | 1000mA | **APMS050C135UD10** |
| | | BH | | 1000mA | **APMS050C135HD10** |
| | IVMV5L | BU | 50 Watt | 1300mA | **APMS050C135UD13** |
| | | BH | | 1300mA | **APMS050C135HD13** |

**Luminaire Weights**

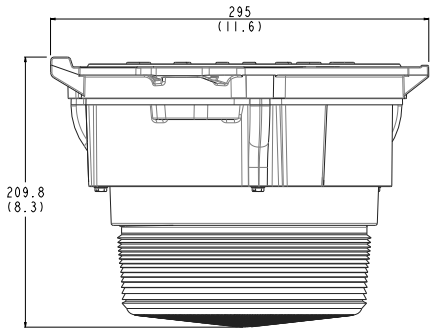
| Description | Weight kg (lb) |
|---|---|
| Fixture Unit with Polycarbonate Clear Globe | 5.3 (11.8) |
| Fixture Unit with Polycarbonate Diffused Globe | 5.3 (11.8) |
| Fixture Unit with Polycarbonate Glass Globe | 5.9 (13.0) |
| Fixture Unit with Short Prismatic Glass Refractor | 6.7 (14.9) |
| Fixture Unit with Tall Prismatic Glass Refractor | 7.4 (16.4) |

**Dimensions in Millimeters (Inches)**

**Clear/Diffused/Glass Globes**




**Short Prismatic Glass Refractor**



# Industrial Contender™ LED Series Luminaires

For Direct Mounting Into Another Manufacturers Mounting Hood

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



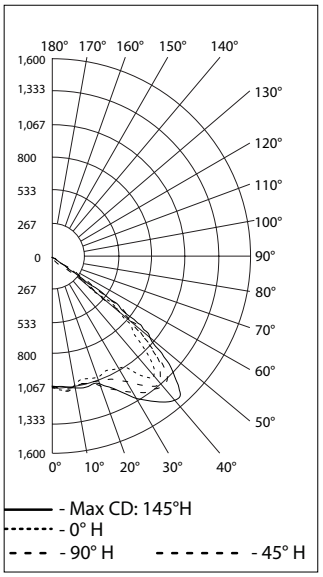
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

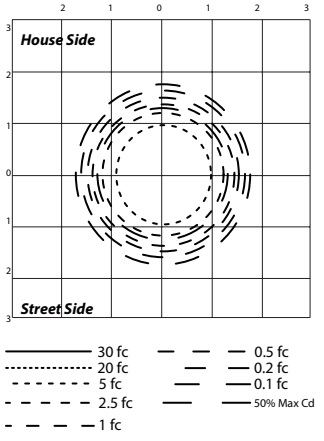
REPORT NUMBER: **IVMV3LCP5BU**

Luminaire Lumens 3,198

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 932.7 | 29.2% |
| 0-40 | 1,750.7 | 54.7% |
| 0-60 | 3,144.3 | 98.3% |
| 60-90 | 48.0 | 1.5% |
| 70-100 | 17.6 | 0.6% |
| 90-120 | 4.8 | 0.2% |
| 0-90 | 3,192.3 | 99.8% |
| 90-180 | 5.7 | 0.2% |
| 0-180 | 3,198.0 | 100% |

**LUMENS PER ZONE**

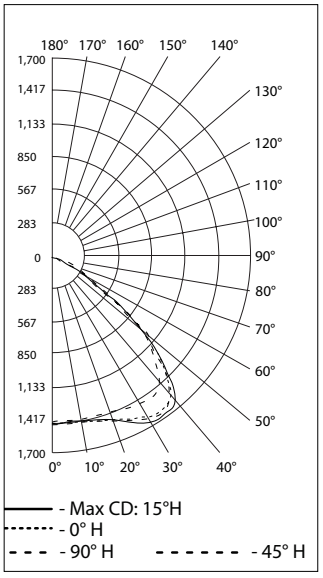
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 102.0 | 3.2% | 90-100 | 1.9 | 0.1% |
| 10-20 | 302.3 | 9.5% | 100-110 | 1.9 | 0.1% |
| 20-30 | 528.5 | 16.5% | 110-120 | 1.0 | 0% |
| 30-40 | 817.9 | 25.6% | 120-130 | 0.8 | 0% |
| 40-50 | 969.4 | 30.3% | 130-140 | 0.0 | 0% |
| 50-60 | 424.2 | 13.3% | 140-150 | 0.0 | 0% |
| 60-70 | 32.3 | 1.0% | 150-160 | 0.0 | 0% |
| 70-80 | 10.3 | 0.3% | 160-170 | 0.0 | 0% |
| 80-90 | 5.4 | 0.2% | 170-180 | 0.0 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

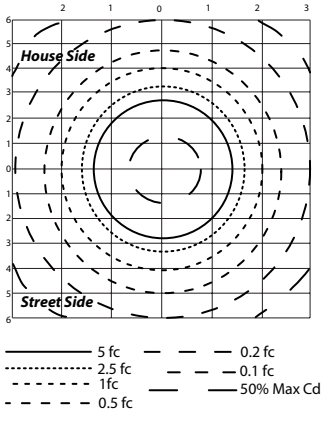
REPORT NUMBER: **IVMV3LCD5BU**

Luminaire Lumens 3,103

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 903.1 | 29.1% |
| 0-40 | 1,609.3 | 51.9% |
| 0-60 | 2,795.0 | 90.1% |
| 60-90 | 283.4 | 9.1% |
| 70-100 | 107.9 | 3.5% |
| 90-120 | 24.0 | 0.8% |
| 0-90 | 3,078.4 | 99.2% |
| 90-180 | 25.3 | 0.8% |
| 0-180 | 3,103.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 100.3 | 3.2% | 90-100 | 9.0 | 0.3% |
| 10-20 | 298.2 | 9.6% | 100-110 | 10.7 | 0.3% |
| 20-30 | 504.6 | 16.3% | 110-120 | 4.3 | 0.1% |
| 30-40 | 706.2 | 22.8% | 120-130 | 1.2 | 0% |
| 40-50 | 735.2 | 23.7% | 130-140 | 0.1 | 0% |
| 50-60 | 450.5 | 14.5% | 140-150 | 0.0 | 0% |
| 60-70 | 184.5 | 5.9% | 150-160 | 0.0 | 0% |
| 70-80 | 75.4 | 2.4% | 160-170 | 0.0 | 0% |
| 80-90 | 23.5 | 0.8% | 170-180 | 0.0 | 0% |

# Industrial Contender™ LED Series Luminaires

For Direct Mounting Into Another Manufacturers Mounting Hood

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



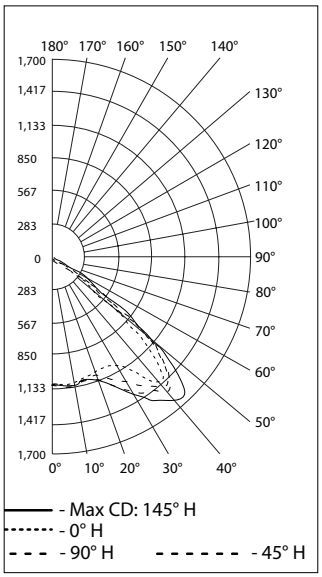
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

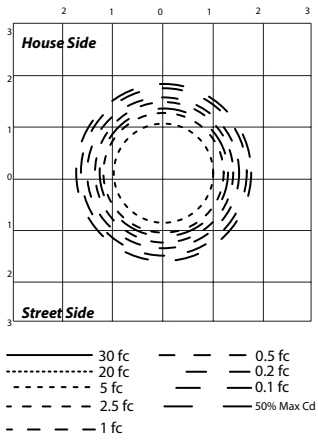
REPORT NUMBER: **IVMV3LCG5BU**

Luminaire Lumens 3,334

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 960.0 | 28.8% |
| 0-40 | 1,828.8 | 54.8% |
| 0-60 | 3,298.1 | 98.9% |
| 60-90 | 32.1 | 1% |
| 70-100 | 8.4 | 0.3% |
| 90-120 | 3.9 | 0.1% |
| 0-90 | 3,330.2 | 99.9% |
| 90-180 | 4.2 | 0.1% |
| 0-180 | 3,334.5 | 100% |

**LUMENS PER ZONE**

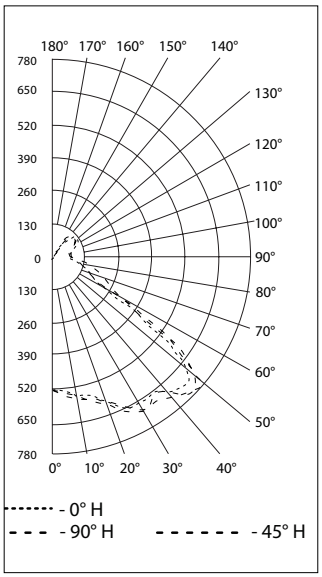
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 105.6 | 3.2% | 90-100 | 1.1 | 0% |
| 10-20 | 309.3 | 9.3% | 100-110 | 1.2 | 0% |
| 20-30 | 545.0 | 16.3% | 110-120 | 1.6 | 0% |
| 30-40 | 868.8 | 26.1% | 120-130 | 0.3 | 0% |
| 40-50 | 1,049.7 | 31.5% | 130-140 | 0.0 | 0% |
| 50-60 | 419.6 | 12.6% | 140-150 | 0.1 | 0% |
| 60-70 | 24.8 | 0.7% | 150-160 | 0.0 | 0% |
| 70-80 | 4.9 | 0.1% | 160-170 | 0.0 | 0% |
| 80-90 | 2.4 | 0.1% | 170-180 | 0.0 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

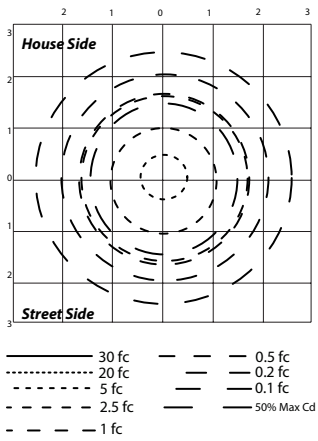
REPORT NUMBER: **IVMV3LCJ5BU**

Luminaire Lumens 3,020

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 526.8 | 17.4% |
| 0-40 | 959.4 | 31.8% |
| 0-60 | 2,035.0 | 67.4% |
| 60-90 | 516.7 | 17.1% |
| 70-100 | 363.7 | 12% |
| 90-120 | 231.1 | 7.6% |
| 0-90 | 2,551.7 | 84.5% |
| 90-180 | 468.9 | 15.5% |
| 0-180 | 3,020.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 52.5 | 1.7% | 90-100 | 81.0 | 2.7% |
| 10-20 | 167.2 | 5.5% | 100-110 | 70.8 | 2.3% |
| 20-30 | 307.0 | 10.2% | 110-120 | 79.3 | 2.6% |
| 30-40 | 432.6 | 14.3% | 120-130 | 104.8 | 3.5% |
| 40-50 | 573.9 | 19.0% | 130-140 | 90.3 | 3% |
| 50-60 | 501.7 | 16.6% | 140-150 | 37.8 | 1.3% |
| 60-70 | 234.1 | 7.7% | 150-160 | 4.9 | 0.2% |
| 70-80 | 167.4 | 5.5% | 160-170 | 0.0 | 0% |
| 80-90 | 115.3 | 3.8% | 170-180 | 0.0 | 0% |

# Industrial Contender™ LED Series Luminaires

For Direct Mounting Into Another Manufacturers Mounting Hood

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



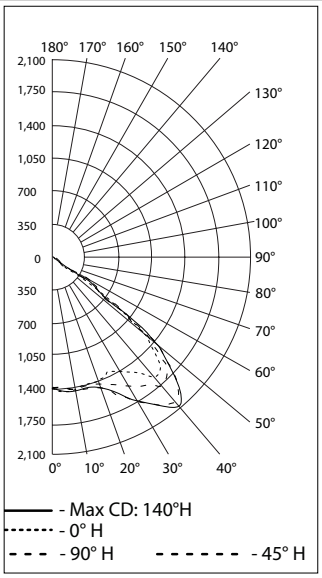
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

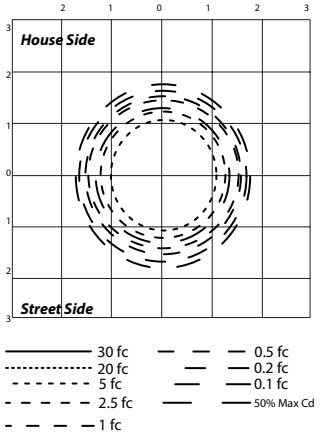
REPORT NUMBER: **IVMV4LCP5BU**

Luminaire Lumens 4,234

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,229.4 | 29% |
| 0-40 | 2,320.7 | 54.8% |
| 0-60 | 4,178.7 | 98.7% |
| 60-90 | 49.5 | 1.2% |
| 70-100 | 18.7 | 0.4% |
| 90-120 | 5.2 | 0.1% |
| 0-90 | 4,228.2 | 99.9% |
| 90-180 | 6.0 | 0.1% |
| 0-180 | 4,234.3 | 100% |

**LUMENS PER ZONE**

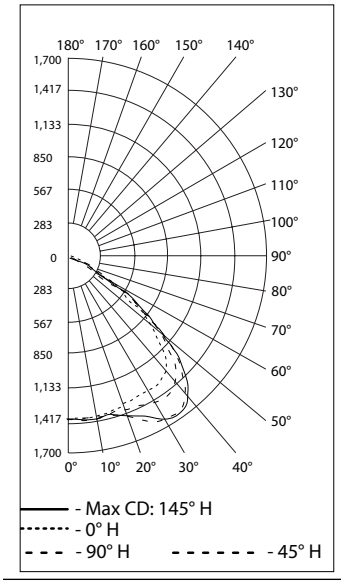
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 134.1 | 3.2% | 90-100 | 2.3 | 0.1% |
| 10-20 | 396.8 | 9.4% | 100-110 | 1.9 | 0% |
| 20-30 | 698.5 | 16.5% | 110-120 | 1.0 | 0% |
| 30-40 | 1,091.3 | 25.8% | 120-130 | 0.8 | 0% |
| 40-50 | 1,302.8 | 30.8% | 130-140 | 0.0 | 0% |
| 50-60 | 555.3 | 13.1% | 140-150 | 0.0 | 0% |
| 60-70 | 33.0 | 0.8% | 150-160 | 0.0 | 0% |
| 70-80 | 10.5 | 0.2% | 160-170 | 0.0 | 0% |
| 80-90 | 5.9 | 0.1% | 170-180 | 0.0 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

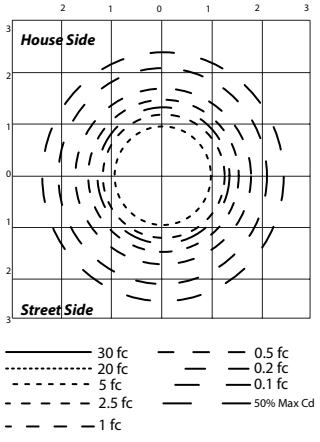
REPORT NUMBER: **IVMV4LCD5BU**

Luminaire Lumens 4,151

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,206.1 | 29.1% |
| 0-40 | 2,153.6 | 51.9% |
| 0-60 | 3,742.1 | 90.2% |
| 60-90 | 375.5 | 9% |
| 70-100 | 142.2 | 3.4% |
| 90-120 | 31.3 | 0.8% |
| 0-90 | 4,117.6 | 99.2% |
| 90-180 | 33.1 | 0.8% |
| 0-180 | 4,150.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 133.5 | 3.2% | 90-100 | 11.7 | 0.3% |
| 10-20 | 397.0 | 9.6% | 100-110 | 14.0 | 0.3% |
| 20-30 | 675.6 | 16.3% | 110-120 | 5.5 | 0.1% |
| 30-40 | 947.5 | 22.8% | 120-130 | 1.6 | 0% |
| 40-50 | 986.1 | 23.8% | 130-140 | 0.1 | 0% |
| 50-60 | 602.4 | 14.5% | 140-150 | 0.1 | 0% |
| 60-70 | 245.0 | 5.9% | 150-160 | 0.0 | 0% |
| 70-80 | 99.5 | 2.4% | 160-170 | 0.0 | 0% |
| 80-90 | 30.9 | 0.7% | 170-180 | 0.0 | 0% |

# Industrial Contender™ LED Series Luminaires

For Direct Mounting Into Another Manufacturers Mounting Hood

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



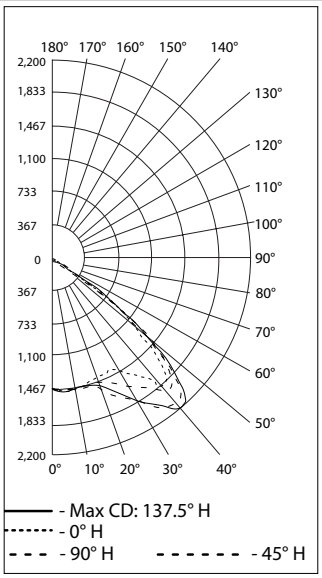
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

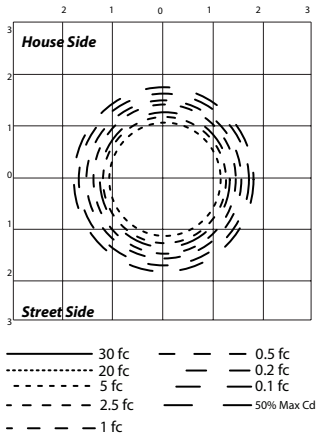
REPORT NUMBER: **IVMV4LCG5BU**

Luminaire Lumens 4,468

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,282.8 | 28.7% |
| 0-40 | 2,447.8 | 54.8% |
| 0-60 | 4,419.1 | 98.9% |
| 60-90 | 42.9 | 1% |
| 70-100 | 11.0 | 0.2% |
| 90-120 | 4.8 | 0.1% |
| 0-90 | 4,461.9 | 99.9% |
| 90-180 | 6.1 | 0.1% |
| 0-180 | 4,468.0 | 100% |

**LUMENS PER ZONE**

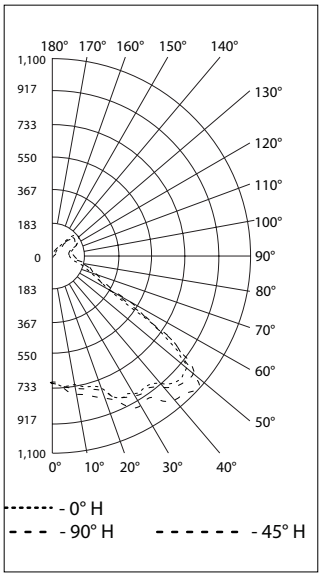
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 140.3 | 3.1% | 90-100 | 1.2 | 0% |
| 10-20 | 411.6 | 9.2% | 100-110 | 1.4 | 0% |
| 20-30 | 730.9 | 16.4% | 110-120 | 2.1 | 0% |
| 30-40 | 1,164.9 | 26.1% | 120-130 | 0.6 | 0% |
| 40-50 | 1,407.0 | 31.5% | 130-140 | 0.1 | 0% |
| 50-60 | 564.3 | 12.6% | 140-150 | 0.4 | 0% |
| 60-70 | 33.0 | 0.7% | 150-160 | 0.2 | 0% |
| 70-80 | 6.5 | 0.1% | 160-170 | 0.1 | 0% |
| 80-90 | 3.3 | 0.1% | 170-180 | 0.0 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

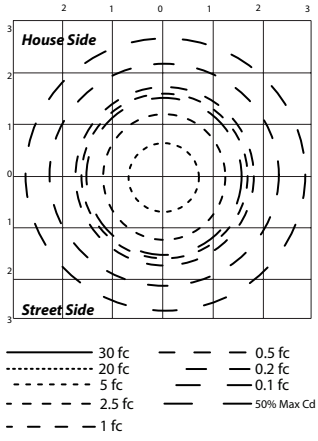
REPORT NUMBER: **IVMV4LCJ5BU**

Luminaire Lumens 4,020

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 699.2 | 17.4% |
| 0-40 | 1,275.6 | 31.7% |
| 0-60 | 2,714.3 | 67.5% |
| 60-90 | 689.0 | 17.1% |
| 70-100 | 484.7 | 12.1% |
| 90-120 | 307.5 | 7.6% |
| 0-90 | 3,403.3 | 84.6% |
| 90-180 | 617.3 | 15.4% |
| 0-180 | 4,020.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 70.0 | 1.7% | 90-100 | 107.5 | 2.7% |
| 10-20 | 222.3 | 5.5% | 100-110 | 94.0 | 2.3% |
| 20-30 | 406.9 | 10.1% | 110-120 | 106.0 | 2.6% |
| 30-40 | 576.4 | 14.3% | 120-130 | 137.5 | 3.4% |
| 40-50 | 768.1 | 19.1% | 130-140 | 116.8 | 2.9% |
| 50-60 | 670.6 | 16.7% | 140-150 | 49.1 | 1.2% |
| 60-70 | 311.8 | 7.8% | 150-160 | 6.2 | 0.2% |
| 70-80 | 223.5 | 5.6% | 160-170 | 0.0 | 0% |
| 80-90 | 153.7 | 3.8% | 170-180 | 0 | 0% |

# Industrial Contender™ LED Series Luminaires

For Direct Mounting Into Another Manufacturers Mounting Hood

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



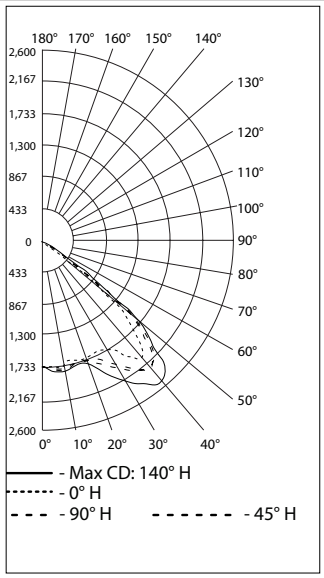
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

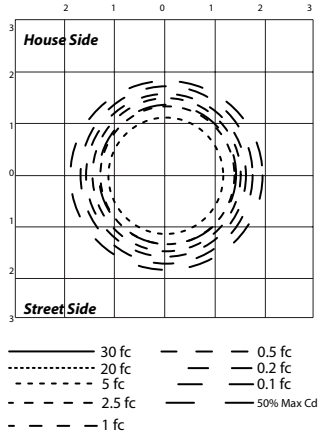
REPORT NUMBER: **IVMV5LCP5BU**

Luminaire Lumens 5,330

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,525.8 | 28.6% |
| 0-40 | 2,872.5 | 53.9% |
| 0-60 | 5,237.4 | 98.3% |
| 60-90 | 82.4 | 1.5% |
| 70-100 | 29.4 | 0.6% |
| 90-120 | 7.9 | 0.1% |
| 0-90 | 5,319.8 | 99.8% |
| 90-180 | 10.7 | 0.2% |
| 0-180 | 5,330.5 | 100% |

**LUMENS PER ZONE**

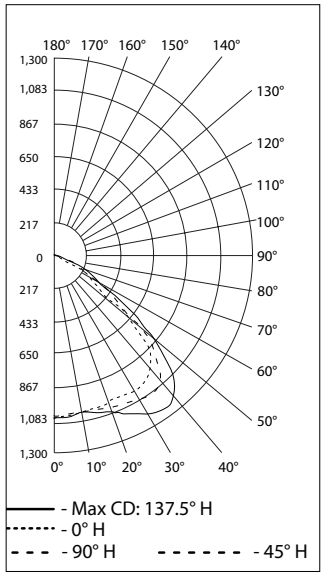
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 166.7 | 3.1% | 90-100 | 3.1 | 0.1% |
| 10-20 | 493.8 | 9.3% | 100-110 | 3.0 | 0.1% |
| 20-30 | 865.2 | 16.2% | 110-120 | 1.7 | 0% |
| 30-40 | 1,346.8 | 25.3% | 120-130 | 0.9 | 0% |
| 40-50 | 1,619.8 | 30.4% | 130-140 | 0.6 | 0% |
| 50-60 | 745.2 | 14.0% | 140-150 | 0.6 | 0% |
| 60-70 | 56.1 | 1.1% | 150-160 | 0.4 | 0% |
| 70-80 | 17.0 | 0.3% | 160-170 | 0.2 | 0% |
| 80-90 | 9.2 | 0.2% | 170-180 | 0.1 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

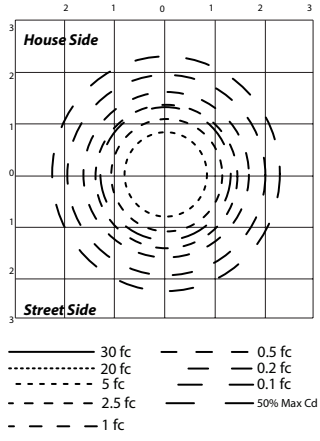
REPORT NUMBER: **IVMV5LCD5BU**

Luminaire Lumens 5,150

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,484.5 | 28.8% |
| 0-40 | 2,652.4 | 51.5% |
| 0-60 | 4,632.4 | 89.9% |
| 60-90 | 475.6 | 9.2% |
| 70-100 | 180.0 | 3.5% |
| 90-120 | 39.1 | 0.8% |
| 0-90 | 5,108.0 | 99.2% |
| 90-180 | 42.1 | 0.8% |
| 0-180 | 5,150.1 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 164.4 | 3.2% | 90-100 | 14.5 | 0.3% |
| 10-20 | 488.7 | 9.5% | 100-110 | 17.8 | 0.3% |
| 20-30 | 831.4 | 16.1% | 110-120 | 6.9 | 0.1% |
| 30-40 | 1,167.9 | 22.7% | 120-130 | 2.0 | 0% |
| 40-50 | 1,223.7 | 23.8% | 130-140 | 0.3 | 0% |
| 50-60 | 756.3 | 14.7% | 140-150 | 0.2 | 0% |
| 60-70 | 310.0 | 6.0% | 150-160 | 0.2 | 0% |
| 70-80 | 125.8 | 2.4% | 160-170 | 0.1 | 0% |
| 80-90 | 39.8 | 0.8% | 170-180 | 0.1 | 0% |

# Industrial Contender™ LED Series Luminaires

For Direct Mounting Into Another Manufacturers Mounting Hood

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved**



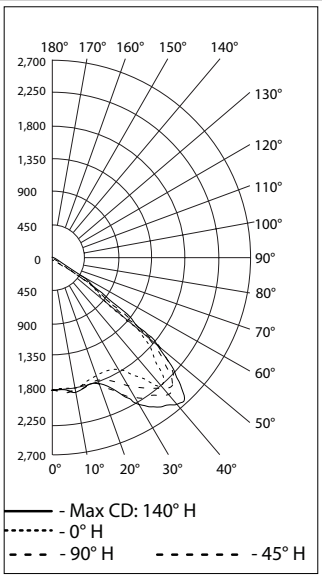
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Polycarbonate, 5000K CCT

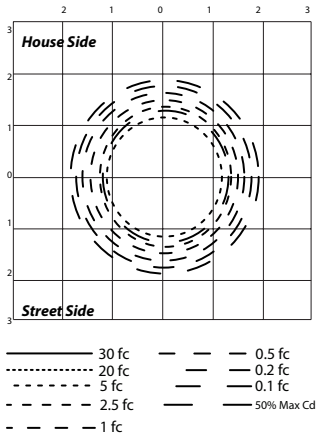
REPORT NUMBER: **IVMV5LCG5BU**

Luminaire Lumens 5,529

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,575.5 | 28.5% |
| 0-40 | 2,990.6 | 54.1% |
| 0-60 | 5,434.7 | 98.3% |
| 60-90 | 81.6 | 1.5% |
| 70-100 | 27.7 | 0.5% |
| 90-120 | 10.6 | 0.2% |
| 0-90 | 5,516.3 | 99.8% |
| 90-180 | 13.4 | 0.2% |
| 0-180 | 5,529.7 | 100% |

**LUMENS PER ZONE**

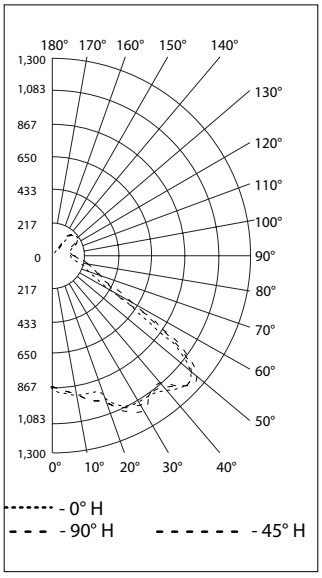
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 173.1 | 3.1% | 90-100 | 3.8 | 0.1% |
| 10-20 | 506.7 | 9.2% | 100-110 | 3.3 | 0.1% |
| 20-30 | 895.7 | 16.2% | 110-120 | 3.5 | 0.1% |
| 30-40 | 1,415.1 | 25.6% | 120-130 | 1.3 | 0% |
| 40-50 | 1,712.6 | 31.0% | 130-140 | 0.5 | 0% |
| 50-60 | 731.4 | 13.2% | 140-150 | 0.4 | 0% |
| 60-70 | 57.6 | 1.0% | 150-160 | 0.4 | 0% |
| 70-80 | 15.7 | 0.3% | 160-170 | 0.2 | 0% |
| 80-90 | 8.2 | 0.1% | 170-180 | 0.1 | 0% |

### Type V, Clear Polycarbonate, 5000K CCT

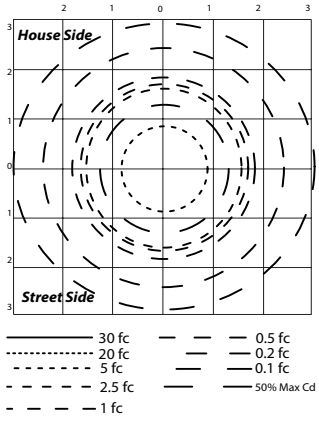
REPORT NUMBER: **IVMV5LCJ5BU**

Luminaire Lumens 4,940

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 872.9 | 17.7% |
| 0-40 | 1,570.0 | 31.8% |
| 0-60 | 3,310.7 | 67% |
| 60-90 | 861.5 | 17.4% |
| 70-100 | 606.8 | 12.3% |
| 90-120 | 378.1 | 7.7% |
| 0-90 | 4,172.1 | 84.4% |
| 90-180 | 768.2 | 15.6% |
| 0-180 | 4,940.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 85.6 | 1.7% | 90-100 | 134.2 | 2.7% |
| 10-20 | 278.2 | 5.6% | 100-110 | 116.1 | 2.3% |
| 20-30 | 509.2 | 10.3% | 110-120 | 127.8 | 2.6% |
| 30-40 | 697.1 | 14.1% | 120-130 | 169.8 | 3.4% |
| 40-50 | 923.1 | 18.7% | 130-140 | 148.5 | 3% |
| 50-60 | 817.6 | 16.5% | 140-150 | 63.2 | 1.3% |
| 60-70 | 388.8 | 7.9% | 150-160 | 8.4 | 0.2% |
| 70-80 | 280.0 | 5.7% | 160-170 | 0.1 | 0% |
| 80-90 | 192.7 | 3.9% | 170-180 | 0 | 0% |

# Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**



## Applications

- For use in locations where:
  - — Flammable gases and dusts may be present
  - — A high degree of corrosion resistance is required
  - — Protection against dirt, water and moisture is necessary
- Typical industries include:
  - — Drilling rigs
  - — Oil refineries
  - — Petrochemical facilities
  - — Waste and sewer treatment
  - — Underground tunnels
  - — Analyzer houses
  - — Cooling towers
  - — Grain elevators
  - — Coal and metal manufacturing
  - — Flour and feed mills
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

## Features

- All Models:
  - — Lightweight design makes mounting and installation easy.
  - — Low fixture profile allows installation in compact spaces.
  - — Two sizes and output options deliver up to 7600 lumens.

| Nominal Lumens ② | Fluorescent Equivalent | Replacement Lamp Type | Model |
|---|---|---|---|
| 4300 | 2 x 32W | T8 | RM*2 |
| 7600 | 3 x 32W | T8 | RM*4 |

  - — Precision engineered clear polycarbonate lens offers wide light distribution for greater area coverage.
  - — Choice of color temperature (CCT): 5000K cool white, 4000K neutral white or 3000K warm white with minimum 80 CRI.
  - — Field replaceable lens and LED driver.
  - — Diverse mounting bracket options allow for mounting in any location and retrofitting third party fixtures.
  - — For ease of retrofitting, mounting brackets accommodate most bolt patterns for Crouse-Hinds™ ✣, Dialight™ ❖ and other manufacturers. See *Mounting Brackets*.
  - — Wirenuts and screw terminal block ③ option for added flexibility.
  - — Hinged wire compartment cover is secured with captive screws for safety and convenience.
  - — Loop in/out wiring capability for inter connecting fixtures
  - — Standard screw-type terminal block can accept UL/CSA 22-12 AWG wire.
  - — 5 casted points for secondary safety retention.
  - — Heavy duty, high temperature silicone gaskets.
  - — Standard 6 kV/3 kA surge protection.
  - — Fixture position locking mechanism provides ease and consistency of aiming.
  - — Rugged housing with superior thermal design translates to long luminaire life.
  - — Reported L70 is >60,000 hours.
  - — Photometric data and electronic drawings available upon request.
  - — 5 year standard warranty.

**RM*2 with Small Swivel Bracket**

**RM*4 with Large Swivel Bracket**

- Standard Model:
  - — Ambient Temperature: -40 °C to +65 °C (-40 °F to +149 °F).
- Emergency Battery Backup Model:
  - — Emergency version is suitable for heights up to 14 feet.
  - — Ambient Temperature: -20°C to +55 °C (-4°F to +131°F).
  - — Suitable for heights up to 4.27 m (14 ft).
  - — Field replaceable battery pack and battery management module (BMM)

## Options

- All Models:
  - — Yoke brackets can be factory installed or purchased separately.
  - — Pendant mount kits ④ can be purchased separately.
  - — Safety cable can be purchased separately or configured as an add on option to be shipped with the LED fixture.
  - — Available with 3/4" or 1/2" NPT threaded hubs.
  - — Clear or diffused polycarbonate lens.
  - — Wirenuts or screw terminal blocks ③ available.
- Emergency Battery Backup Model:
  - — 90 or 180 minutes of emergency battery back up available.

## Standard Materials

- Housing: copperfree (4/10 of 1% max.) aluminum
- Lens: thermal shock- and impact-resistant polycarbonate lens
- Gasket: silicone rubber
- Bolts: stainless steel
- Close up plugs: (3) aluminum provided
- Mounting brackets: zinc plated steel

## Standard Finishes

- Housing: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

## NEC/CEC Certifications and Compliances

- All Models:
  - — UL Standard: UL 924; UL 844; UL 1598; UL1598A; UL 50E; UL 8750
  - — CSA Standard: C22.2 No. 0 - 10; C22.2 No. 94.2 - 15; C22.2 No. 137-18; C22.2 No 141-15; C22.2 No. 250.0 - 18; C22.2 No. 250.13 -17; C22.2 No. 60529-16
  - — NEMA ANSI/IEC Standards: 60529

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② Nominal lumen value for 5000K, clear Lens. Detailed lumen information is provided in the " Lumen Output (Efficacy)" tables.*
*③ Terminal block option available for BU voltage configuration only.*
*④ Pendant mount kit option is not available with Type 3R, 4, 4X, IP66, and Marine Outside Type (Salt Water) ratings.*
*✣ Crouse-Hinds is a registered trademark of Eaton Corporation.*
*❖ Dialight is a registered trademark of Dialight.*

# Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

- Standard Model:
  - — cCSAus: 164460, Certificate Number: 70212106
  - — Vibration Rating:
    - – Small and large swivel brackets: 10G, 2 hours, 3 axis at first mode resonant frequency.
    - – Low profile bracket : 5G, 2 hours, 3 axis at first mode resonant frequency.
- Emergency Battery Backup Model:
  - — cCSAus: 164460, Certificate Number: 70218504
  - — Vibration Rating: 5G, 2 hours, 3 axis at first mode resonant frequency

### ABS Certifications

- IRM/RM: 19-HS1867599-PDA

### International Dark-Sky Association

- IDA Dark Sky Approved when ordering RM[A/B/L/N][2/4][1/2]W[D/P]L [BU/BH][N/H/E]G[W/T][Blank/1/2] with [RMPENDKIT/RMHPENDKIT] (3000K CCT). ⑤

### DesignLights™ Consortium

- Check DLC QPL for current list of products.

### Related Products

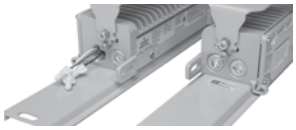
- Industrial Rigmaster LED Series Luminaires
- Explosionproof Rigmaster LED Series Luminaires

## Illustrated Features — All Models

**Flexibility and Modular Design**

**Hinged wirebox cover with captive screws:** Allows hassle free installation in challenging conditions and prevents accidental disengagement to enhance workplace safety.

**Light where you need it:** Notched position locking mechanism enables fixture to be aimed consistently.



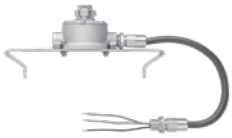
**Facilitates plug n play installation and decreases installation time:** Two NPT hubs on each end for through wiring. Leads are placed outside the wiring compartment allowing installer to bypass the screw cover.

Choose from **three color temperatures** (CCT): 3000K, 4000K, and 5000K.

**Standard linear light distribution pattern:** wide distribution maximizes spread and work plane brightness to optimize number of luminaires needed.

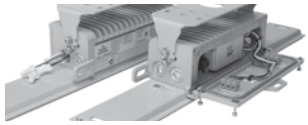
**Configurable Options**

**Yoke Mounting Brackets ③④:** Ability to mount using one of three distinctly designed brackets to best suit your installation needs. All brackets can be factory installed to save time in the field or purchased separately.



**Pendant Mounting Kits ④⑤:** The pendant mount kits consist of Appleton GRF Outlet Box with a built in union cover as well as the necessary mounting and wiring accessories. For ease of installation and added flexibility, it is field installable and purchased separately.

**Clear or Diffused Polycarbonate Lens:** Select a clear or diffused polycarbonate lens for the optimal level of work plane brightness and visual comfort. These lenses are field interchangeable for convenience and flexibility.



**Wirenuts or Screw Terminal Blocks ①②:** For ease of field installation, choose between wirenuts and screw terminal blocks ④ for 120-277 Vac configured models. Terminal blocks support UL/CSA 22 to 12 AWG wire.

**Safety Features**

**Retention Points:** Five points for secondary retention provide protection against infield vibration.

**Safety cables ③:** Can be purchased separately or included with fixture to reduce ordering and receiving complexity.

*① Applicable to standard (non emergency) fixtures only.*
*② Terminal block option is available for standard unit, BU voltage configuration only.*
*③ Brackets and safety cables can be ordered separately or included with fixture. See Ordering Table for more information.*
*④ Mounting Brackets compatible with standard and emergency versions are not the same. Please refer to mounting bracket details for more information.*
*⑤ Pendant mount kit option is not available with Type 3R, 4, 4X, IP66, and Marine Outside Type (Salt Water) ratings.*

# Rigmaster™ LED Series Luminaires

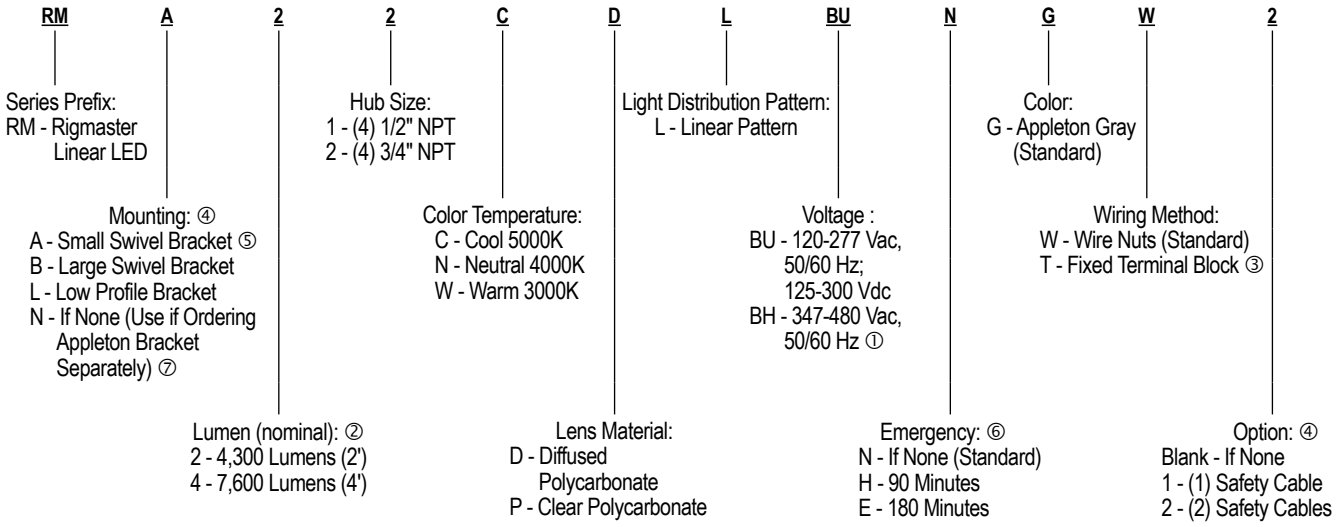
Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**



**Order Using Catalog Numbering Guide — Rigmaster™ LED Series Luminaires**




**Lumen Output (Efficacy) — Standard Model — Standard Mode ⑧**

| Model | Fluorescent Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Lens** | | | | | | | | | | | | | | |
| RM*2 | 2 x 32W | Linear | 3000K | >80 | 4160 | 126 | 4000K | >80 | 4230 | 128 | 5000K | >80 | 4390 | 133 |
| RM*4 | 3 x 32W | Linear | 3000K | >80 | 7250 | 132 | 4000K | >80 | 7370 | 134 | 5000K | >80 | 7650 | 139 |
| **Diffused Polycarbonate Lens** | | | | | | | | | | | | | | |
| RM*2 | 2 x 32W | Linear | 3000K | >80 | 3890 | 118 | 4000K | >80 | 3950 | 120 | 5000K | >80 | 4100 | 124 |
| RM*4 | 3 x 32W | Linear | 3000K | >80 | 6770 | 125 | 4000K | >80 | 6870 | 125 | 5000K | >80 | 7130 | 130 |

**Lumen Output (Efficacy) — Emergency Model — Emergency Mode ⑥⑧**

| Model | Emergency Duration in Minutes | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Lens** | | | | | | | | | | | | | | |
| RM*2/RM*4 | 90 | Linear | 3000K | >80 | 1200 | N/A | 4000K | >80 | 1260 | N/A | 5000K | >80 | 1350 | N/A |
| | 180 | Linear | 3000K | >80 | 720 | N/A | 4000K | >80 | 760 | N/A | 5000K | >80 | 800 | N/A |
| **Diffused Polycarbonate Lens** | | | | | | | | | | | | | | |
| RM*2/RM*4 | 90 | Linear | 3000K | >80 | 1080 | N/A | 4000K | >80 | 1090 | N/A | 5000K | >80 | 1130 | N/A |
| | 180 | Linear | 3000K | >80 | 670 | N/A | 4000K | >80 | 680 | N/A | 5000K | >80 | 700 | N/A |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② For lumen output information, see Lumen Output (Efficacy) Table.*
*③ Terminal block option available for standard unit, BU voltage configuration only.*
*④ Brackets and safety cables can be ordered separately or included with fixture. See Mounting Brackets Table for more information.*
*⑤ Mounting option A is not available with emergency version.*
*⑥ Emergency battery back up version is only available with BU voltage configuration for 120-277 Vac operation.*
*⑦ See Mounting Brackets table for details.*
*⑧ All lumen values are typical (tolerance +/- 10%).*

# Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

**Electrical Specifications ②**

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Standard Model** | | | | | |
| RM*2 | 120 Vac | 33 | 0.28 | >0.9 | <20 |
| | 277 Vac | 33 | 0.12 | >0.9 | <20 |
| | 125 Vdc | 33 | 0.27 | NA | NA |
| | 300 Vdc | 33 | 0.11 | NA | NA |
| | 347 Vac | 36 | 0.11 | >0.9 | <20 |
| | 480 Vac | 36 | 0.08 | >0.9 | <20 |
| RM*4 | 120 Vac | 55 | 0.47 | >0.9 | <20 |
| | 277 Vac | 55 | 0.20 | >0.9 | <20 |
| | 125 Vdc | 55 | 0.44 | NA | NA |
| | 300 Vdc | 55 | 0.18 | NA | NA |
| | 347 Vac | 56 | 0.16 | >0.9 | <20 |
| | 480 Vac | 56 | 0.12 | >0.9 | <20 |
| **Emergency Model** | | | | | |
| RM*2 | 120 Vac | 39 | 0.35 | >0.9 | <20 |
| | 277 Vac | 39 | 0.15 | >0.9 | <20 |
| RM*4 | 120 Vac | 60 | 0.57 | >0.9 | <20 |
| | 277 Vac | 60 | 0.20 | >0.9 | <20 |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② All values are typical (tolerance +/-10%).*

# Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**



**NEC/CEC Temperature Codes**

| Model | Ambient Temperature °C (°F) | Supply wire Temperature °C (°F) | Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 1, Groups E, F, G | Zone 20, Group IIIC | Class I, Division 2 and Class II, Division 1 |
|---|---|---|---|---|---|---|---|
| **Standard Model ②** | | | | | | | |
| RM*2 | +40 (+104) | +90 (+194) | T6 | T6 | T6 | T6 | T5 |
| | +55 (+131) | | T5 | T5 | T5 | T5 | T4A |
| | +65 (+149) | | T4A | T4 | T4A | T4 | T4A |
| RM*4 | +40 (+104) | +90 (+194) | T5 | T5 | T6 | T6 | T5 |
| | +55 (+131) | | T4A | T4 | T5 | T5 | T4A |
| | +65 (+149) | | T4A | T4 | T4A | T4 | T4A |
| **Emergency Model ③** | | | | | | | |
| RM*2 | +40 (+104) | +90 (+194) | T5 | T5 | T5 | T5 | T4A |
| | +55 (+131) | | T5 | T5 | T4A | T4 | T4A |
| RM*4 | +40 (+104) | +90 (+194) | T5 | T5 | T5 | T5 | T4A |
| | +55 (+131) | | T5 | T5 | T4A | T4 | T4A |

**NEC/CEC — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature ④⑤**

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② Standard Models Ambient Temperature Range: -40 °C to +65 °C (-40 °F to +149 °F).*
*③ Emergency Models Ambient Temperature Range: -20 °C to +55 °C (-4 °F to +131 °F).*
*④ T numbers represent the maximum internal temperature for Class I, Division 1 and Class II, Division 1 locations designated by the NEC.*
*⑤ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 2 as designated by the NEC.*

# Rigmaster™ LED Series Luminaires

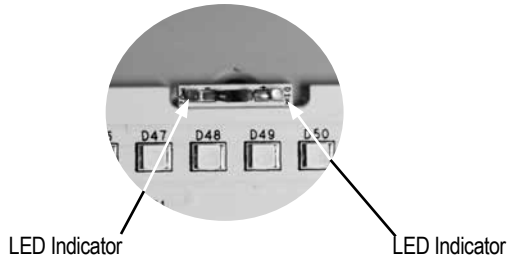
With Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

**Automatic Testing System (ATS) — Emergency Battery Backup Model — Functionality ②**

| Functional | Full Duration |
|---|---|
| Starts within 24 to 45 hours after the initial powerup of the module | Starts within 5 to 26 days after the initial power of the module |
| Occurs every 14 days after the initial aforementioned functional test | Occurs every 364 days after the initial aforementioned functional test |
| Lasts for 30 seconds | Lasts for the full duration of the rated emergency period |
| At the completion of functional and full duration tests, LED indicator will display the status of the emergency luminaire when AC is present | |




**LED Signals**

| Indicator Color | Timing | Description |
|---|---|---|
| Green | 1 sec ON: 1 sec OFF | Normal charging ok, Battery not yet fully charged, No fault detected, Testing ok |
| Green | 0.25 sec ON: 0.25 sec OFF | Functional / Duration Self-Test on-going |
| Green | Steady ON | Charging ok, Battery fully charged, No fault detected, Testing ok |
| Red | 1 sec ON: 1 sec OFF | Fault condition. Installation issue. Battery is reverse, not connected or shorted. Functional test failure, full duration test failure |
| LED Indicators OFF, LED Array ON | LED Indicator Lights (Red and Green) OFF | No AC, Emergency mode ON |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② Applicable only for Emergency model.*

# Rigmaster™ LED Series Luminaires

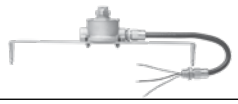
Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

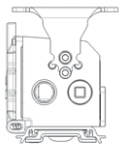


## Mounting Brackets

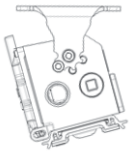
| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Standard Model** | | | |
| | Small Swivel Bracket | 0.74 (1.7) | **RMSSB** |
| | Large Swivel Bracket | 1.08 (2.4) | **RMLSB** |
| | Low Profile Bracket | 0.80 (1.8) | **RMLPB** |
| | Pendant Mount and Top Wire Entry Kit | 4.54 (10.0) | **RMPENDKIT** ② |
| **Emergency Model** | | | |
| | Emergency Swivel Bracket | 2.0 (4.4) | **RMHLSB** |
| | Emergency Low Profile Bracket | 1.9 (4.1) | **RMHLPB** |
|  | Pendant Mount and Top Wire Entry Kit | 5.4 (12.0) | **RMHPENDKIT** ② |

## Bracket Mounting Angles

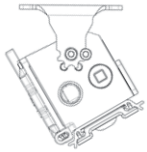
**0°**



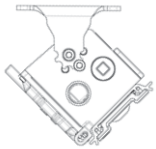
**15°**



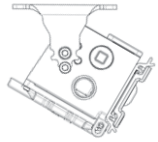
**30°**



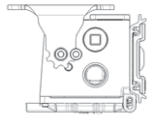
**45°**



**60°**



**90°**



*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② Pendant mount kit option is not available with Type 3R, 4, 4X, IP66, and Marine Outside Type (Salt Water) ratings.*

# Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

### Mounting Bracket Selection Guide ②

*For customers trying to retrofit an existing fixture and match bolt patterns, use the table below as a guide to select the best bracket to suit your needs*

| Other Manufacturer | Other Manufacturer Part Number | Description | Catalog Number | Description | Catalog Number | Description | Catalog Number |
|---|---|---|---|---|---|---|---|
| **Standard Model** | | | | | | | |
| Crouse Hinds™✢ | DP1057MTK | — | — | Large Swivel Bracket | **RMLSB** | Low Profile Bracket | **RMLPB** |
| Dialight™❖ | LTXW4 | Small Swivel Bracket | **RMSSB** | Large Swivel Bracket | **RMLSB** | — | — |
| | LTXW4LP | — | — | Large Swivel Bracket | **RMLSB** | Low Profile Bracket | **RMLPB** |
| AZZ™✸ Rig-A-Lite™✸ | 53050 | Small Swivel Bracket | **RMSSB** | Large Swivel Bracket | **RMLSB** | — | — |
| **Emergency Model** | | | | | | | |
| Crouse Hinds™✢ | DP1057MTK | — | — | Emergency Swivel Bracket | **RMHLSB** | Emergency Low Profile Bracket | **RMHLPB** |
| Dialight™❖ | LTXW4 | — | — | Emergency Swivel Bracket | **RMHLSB** | Emergency Low Profile Bracket | **RMHLPB** |
| | LSXW5 | — | — | Emergency Swivel Bracket | **RMHLSB** | Emergency Low Profile Bracket | **RMHLPB** |
| | LSXW4 | — | — | Emergency Swivel Bracket | **RMHLSB** | Emergency Low Profile Bracket | **RMHLPB** |
| AZZ™✸ Rig-A-Lite™✸ | 53050 | — | — | Emergency Swivel Bracket | **RMHLSB** | Emergency Low Profile Bracket | **RMHLPB** |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② The above information is strictly for guidance purposes and does not guarantee compatibility and fit. Please carefully review bolt patterns on each bracket to ensure it meets your needs*
✢ *Crouse-Hinds is a registered trademark of Eaton Corporation.*
❖ *Dialight is a registered trademark of Dialight.*
✸ *AZZ and Rig-A-Lite are registered trademarks of AZZ.*

# Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**



### Replacement Lenses — All Models

| | Description | Model | Quantity Per Luminaire | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| | Clear Polycarbonate Lens | RM*2 | 1 | 1.0 (2.2) | **RMCL** |
| | | RM*4 | 2 | | |
| | Diffused Polycarbonate Lens | RM*2 | 1 | 1.0 (2.2) | **RMDL** |
| | | RM*4 | 2 | | |

### Replacement Drivers — All Models

| | Model | Voltage | Driver Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|---|
| | IRM*2 | 50W | BU | 600mA | **APM050C135UD060** |
| | IRM*2 | 50W | BH | 600mA | **APM050C135HD060** |
| | IRM*4 | 50W | BU | 1040mA | **APM050C135UD104** |
| | IRM*4 | 50W | BH | 1040mA | **APM050C135HD104** |

### Accessories and Replacement Parts — Emergency Model

| | Description | Weight in kg (lbs) | Catalog Numbers |
|---|---|---|---|
| | Replacement Battery — Management Module | 1.0 (2.2) | **BPMLLED** |
| | Replacement Battery Pack | 0.7 (1.6) | **BMMRM** |

### Mounting Accessories — All Models

| | Description | Weight in kg (lbs) | Catalog Numbers |
|---|---|---|---|
| | Safety Cable — Stainless Steel | 0.2 (0.4) | **LEDSC** |
| | Half clamp 316 stainless steel brackets for pole mounting (set of two) ② | | |
| | • For 42 mm to 49 mm (1-1/4 to 1-1/2") pole | 0.3 (0.7) | **FEHC49S** ② |
| | • For 60 mm (2") pole | 0.5 (1.2) | **FEHC60S** ② |
| | Conduit clamp ③ | | |
| | • Zinc plated steel conduit hanger with swing bolts | 0.03 (0.07) | **H75-SWB** ③ |

### Alternate Beam Clamp Mounting Option — All Models

| | Dimensions in Millimeters (Inches) | | | | | Max Load kg (lbs) | Weight per 100 kg (lbs) | Catalog Number |
|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | | | |
| | 52.3 (2.06) | 50.8 (2.00) | 35.1 (1.38) | 25.4 (1.00) | 3/8 - 16 | 340.00 (750.00) | 37.65 (83.00) | **RMBCKIT** |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② Additional hardware (not supplied) is required to use this accessory with the Rigmaster fixture and mounting bracket. Please use two M8 x 20 mm bolts, two M8 split lock washers and two M8 nuts. For additional details contact Appleton Technical Support.*
*③ For compatibility of other Appleton conduit clamps, contact Appleton Technical Support.*

# Rigmaster™ LED Series Luminaires

Standard

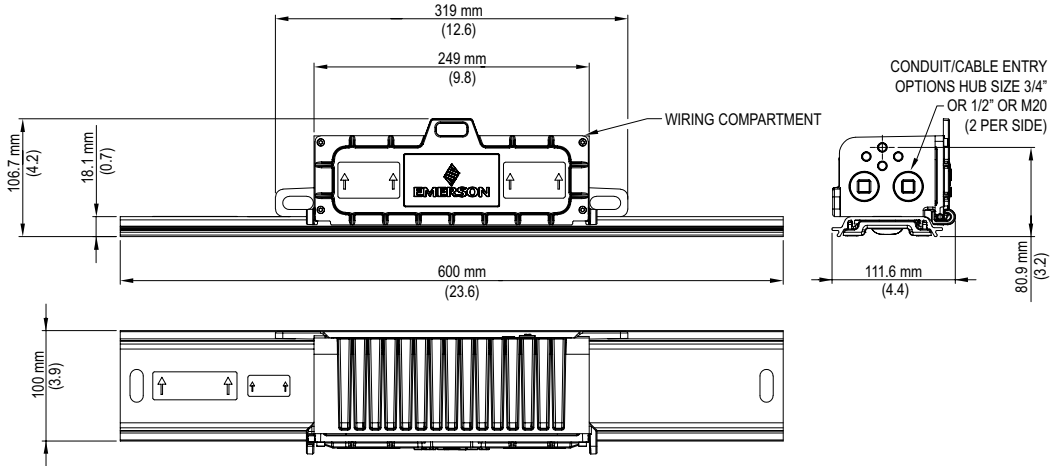
Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

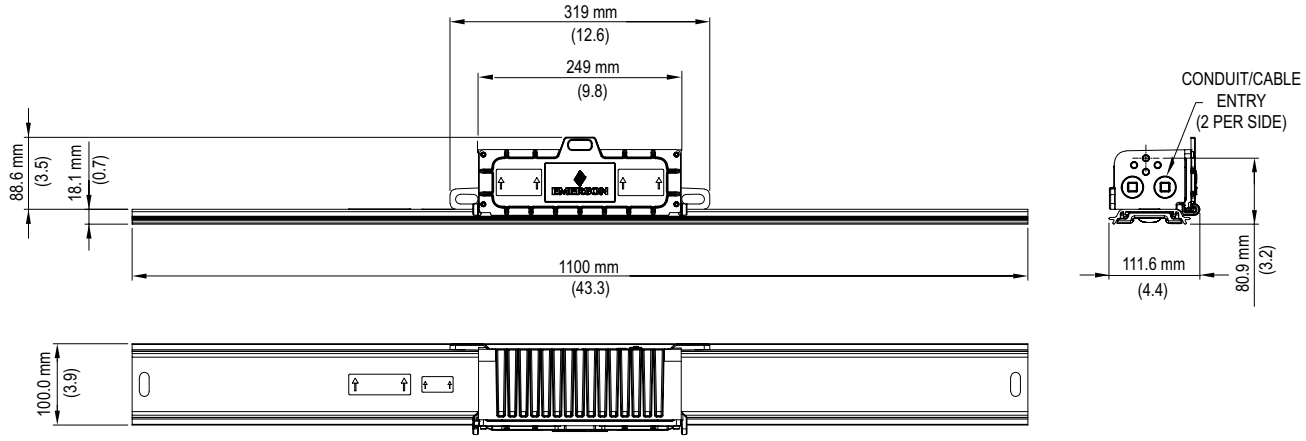


## Fixture — Dimensions in Millimeters (Inches) — Standard Model

### RM*2 - Standard




### RM*4 - Standard




## Luminaire Specifications

| Model | Weight in kg (lb) ② | Length in m (ft) |
|---|---|---|
| RM*2 — Standard | 3.7 (8.2) | 0.6 (2.0) |
| RM*4 — Standard | 4.6 (10.1) | 1.1 (3.6) |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② Weight of brackets are not included. See Mounting Brackets Table for details.*

# Rigmaster™ LED Series Luminaires

With Emergency Battery Backup

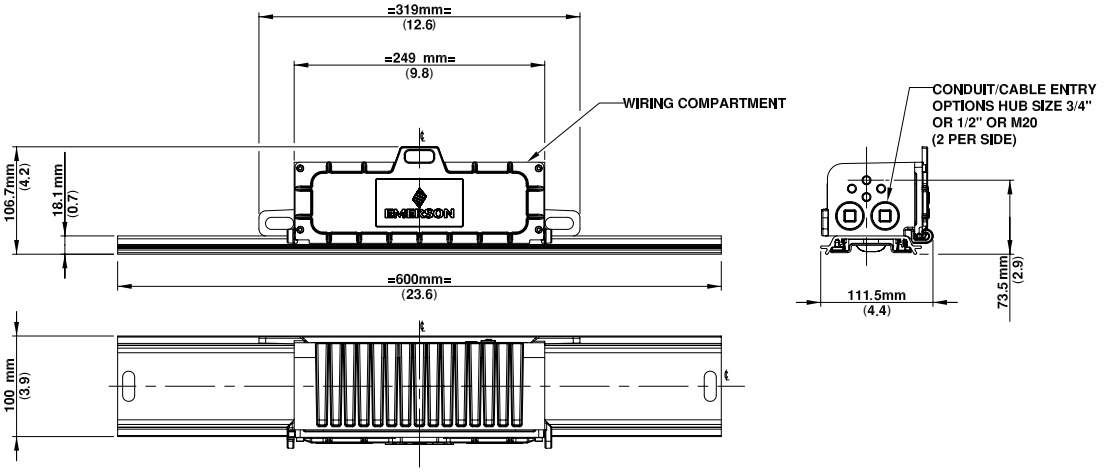
Ordinary Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

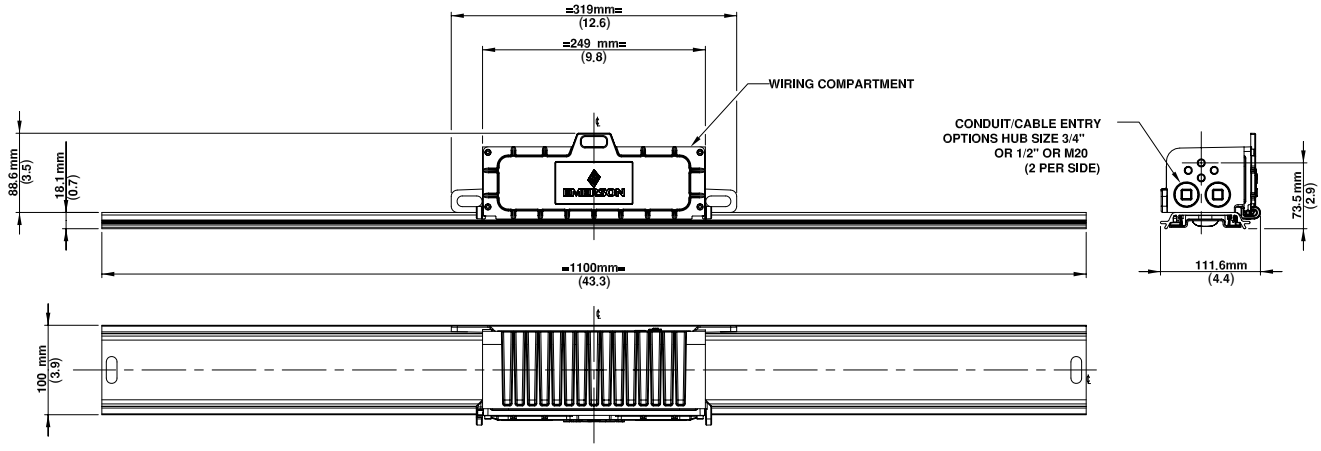


## Fixture — Dimensions in Millimeters (Inches) — Emergency Model

### RM*2 - Emergency




### RM*4 - Emergency




## Luminaire Specifications

| Model | Weight in kg (lb) ② | Length in m (ft) |
|---|---|---|
| RM*2 — Emergency | 7.6 (16.8) | 0.6 (2.0) |
| RM*4 — Emergency | 8.6 (19.0) | 1.1 (3.6) |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② Weight of brackets are not included. See Mounting Brackets Table for details.*

# Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

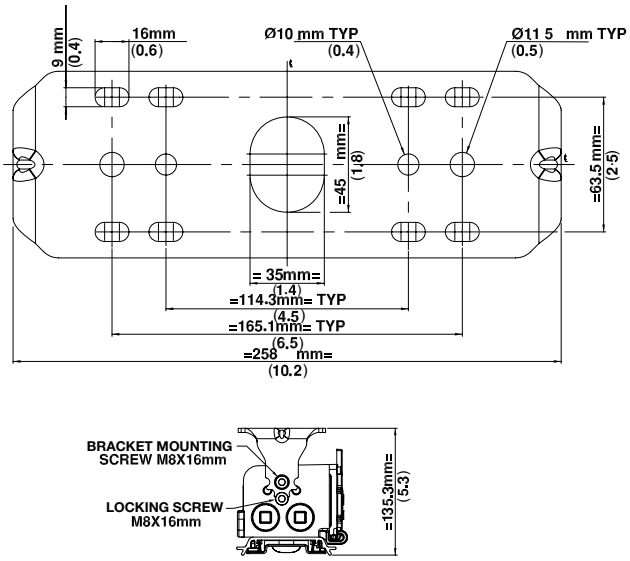
Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

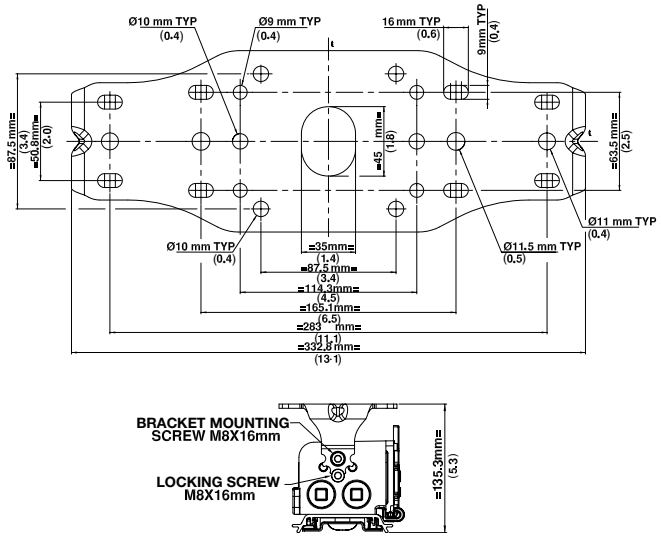


## Mounting Brackets — Dimensions in Millimeters (Inches) — Standard Model

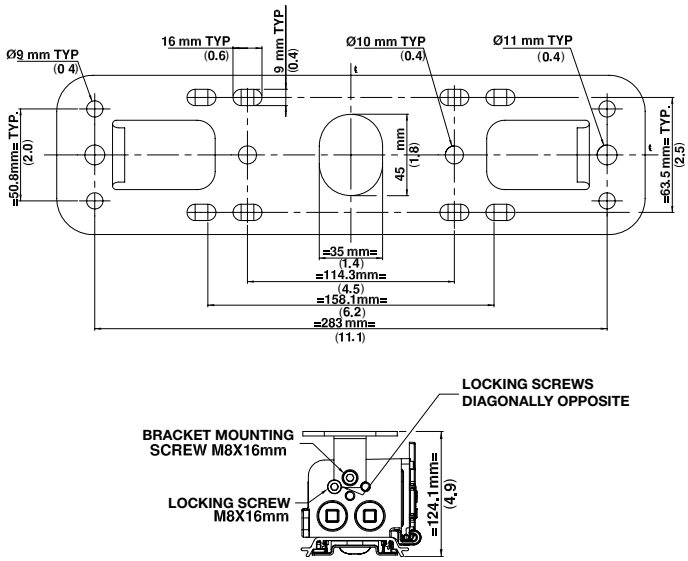
### RMSSB - Small Swivel Bracket




### RMLSB - Large Swivel Bracket




### RMLPB - Low Profile Bracket




① *Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*

# Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

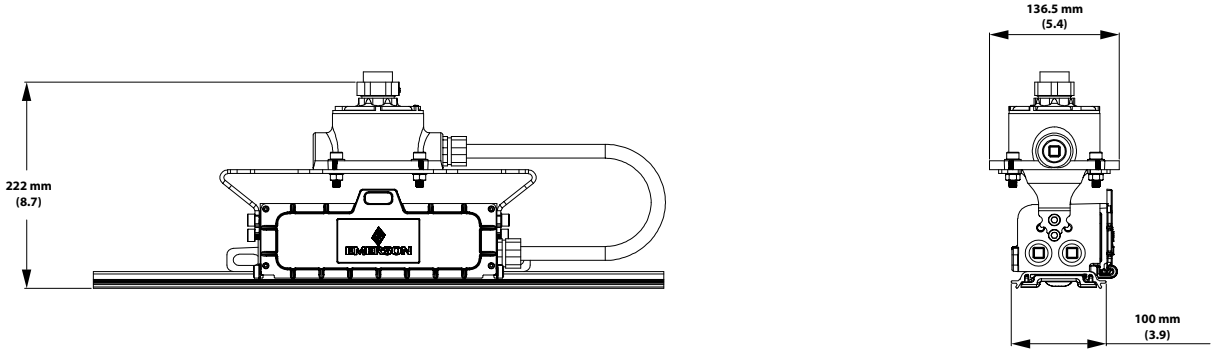
Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

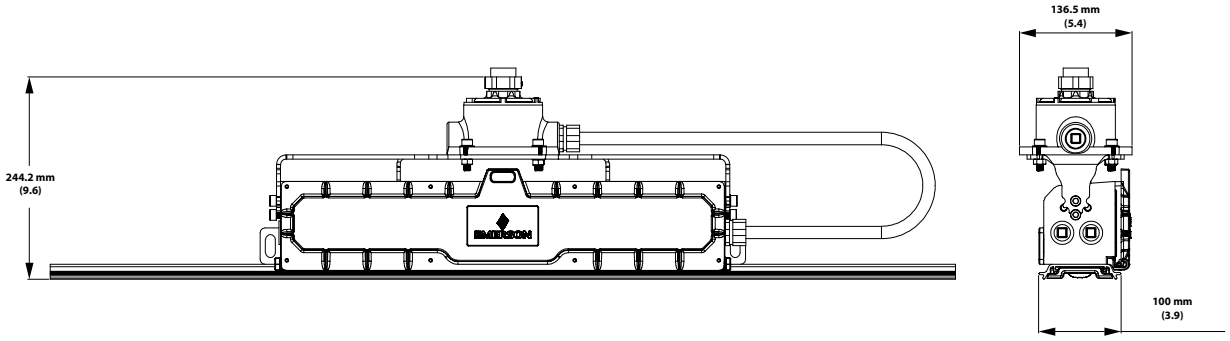


## Mounting Brackets — Dimensions in Millimeters (Inches) — Standard Model

### RMPENDKIT - Standard Pendant Mount Bracket




### RMHPENDKIT - Emergency Pendant Mount Bracket



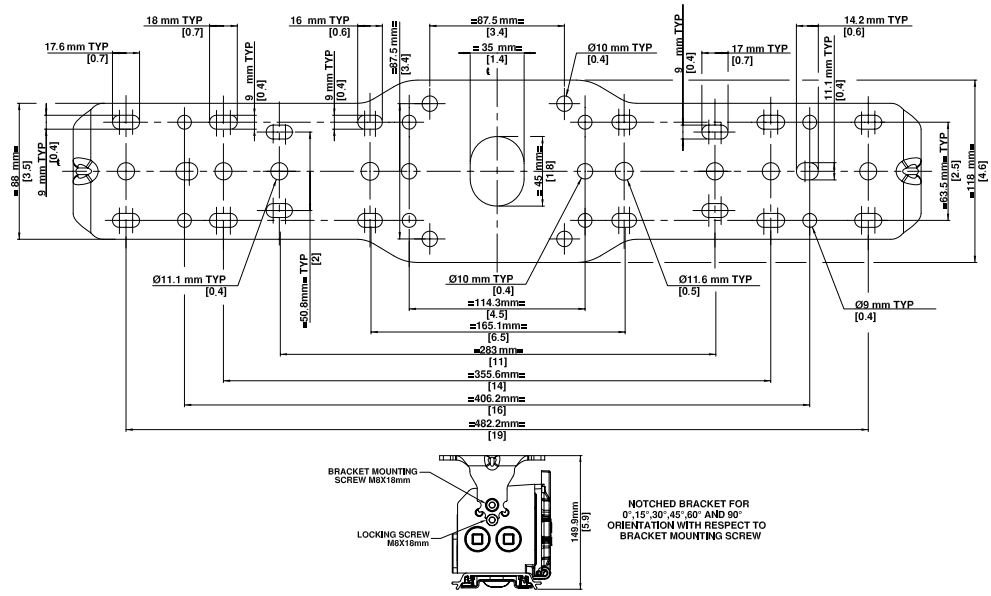

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

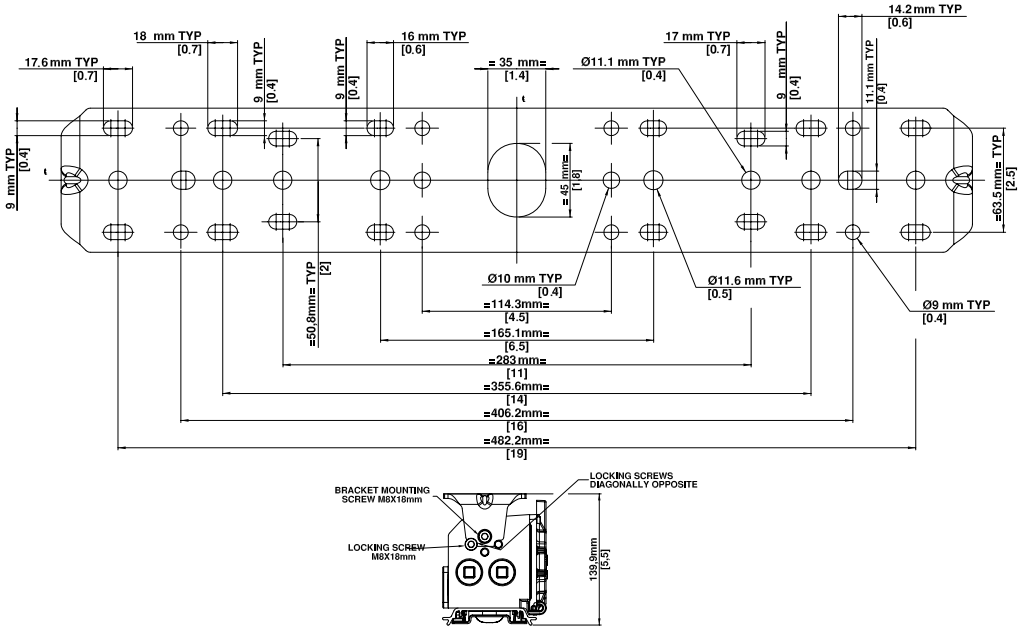


## Mounting Brackets — Dimensions in Millimeters (Inches) — Emergency Model

### RMHLSB - Emergency Swivel Bracket




### RMHLPB - Emergency Low Profile Bracket




*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*

# Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

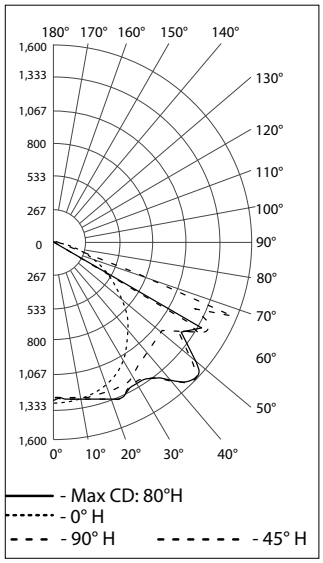


## Photometric Data — DATA SHOWN IS ABSOLUTE

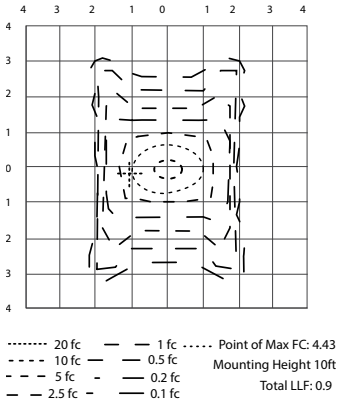
### 2ft, Clear Polycarbonate Lens, 5000K CCT

Luminaire Lumens 4,474.5

**POLAR CANDELA DISTRIBUTION**




**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,056.6 | 23.6% |
| 0-40 | 1,794.3 | 40.1% |
| 0-60 | 3,627.9 | 81.1% |
| 60-90 | 845.6 | 18.9% |
| 70-100 | 254.1 | 5.7% |
| 90-120 | 0.8 | 0% |
| 0-90 | 4,473.4 | 100% |
| 90-180 | 1.1 | 0% |
| 0-180 | 4,474.5 | 100% |

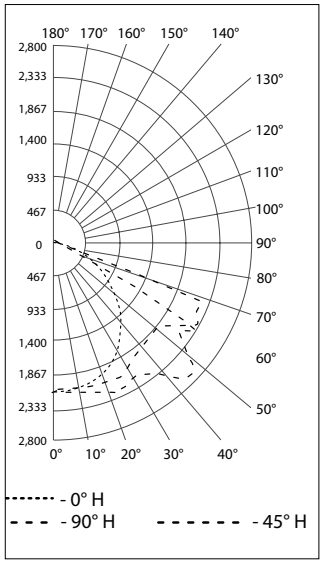
**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 120.8 | 2.7% | 90-100 | 0.7 | 0% |
| 10-20 | 359.4 | 8.0% | 100-110 | 0.1 | 0% |
| 20-30 | 576.4 | 12.9% | 110-120 | 0 | 0% |
| 30-40 | 737.7 | 16.5% | 120-130 | 0 | 0% |
| 40-50 | 894.4 | 20.0% | 130-140 | 0 | 0% |
| 50-60 | 939.2 | 21.0% | 140-150 | 0.0 | 0% |
| 60-70 | 592.2 | 13.2% | 150-160 | 0.1 | 0% |
| 70-80 | 200.8 | 4.5% | 160-170 | 0.1 | 0% |
| 80-90 | 52.6 | 1.2% | 170-180 | 0.0 | 0% |

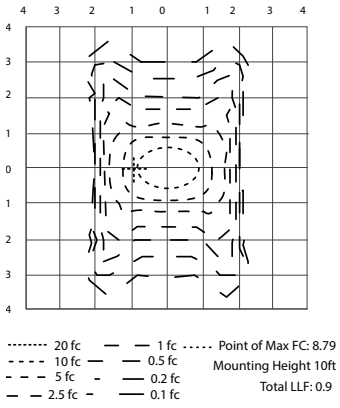
### 4ft, Clear Polycarbonate Lens, 5000K CCT

Luminaire Lumens 7,699.2

**POLAR CANDELA DISTRIBUTION**




**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,801.0 | 23.4% |
| 0-40 | 3,067.9 | 39.8% |
| 0-60 | 6,235.4 | 81% |
| 60-90 | 1,461.1 | 19% |
| 70-100 | 432.4 | 5.6% |
| 90-120 | 1.3 | 0% |
| 0-90 | 7,696.5 | 100% |
| 90-180 | 2.8 | 0% |
| 0-180 | 7,699.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 205.3 | 2.7% | 90-100 | 0.8 | 0% |
| 10-20 | 612.0 | 7.9% | 100-110 | 0.3 | 0% |
| 20-30 | 983.7 | 12.8% | 110-120 | 0.2 | 0% |
| 30-40 | 1,266.9 | 16.5% | 120-130 | 0.2 | 0% |
| 40-50 | 1,546.7 | 20.1% | 130-140 | 0.2 | 0% |
| 50-60 | 1,620.8 | 21.1% | 140-150 | 0.3 | 0% |
| 60-70 | 1,029.4 | 13.4% | 150-160 | 0.3 | 0% |
| 70-80 | 343.5 | 4.5% | 160-170 | 0.3 | 0% |
| 80-90 | 88.1 | 1.1% | 170-180 | 0.1 | 0% |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*

# Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

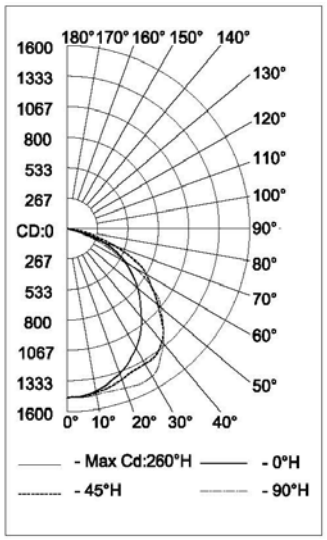


## Photometric Data — DATA SHOWN IS ABSOLUTE

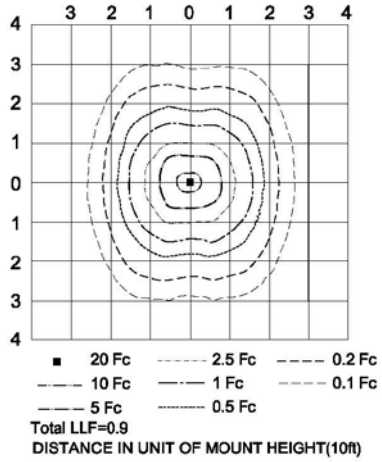
### 2ft, Diffused Polycarbonate Lens, 5000K CCT

Luminaire Lumens 4001.8

**POLAR CANDELA DISTRIBUTION**




**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,040.1 | 26% |
| 0-40 | 1,755.2 | 43.8% |
| 0-60 | 3,209.6 | 80.2% |
| 60-90 | 784.0 | 19.6% |
| 70-100 | 294.5 | 7.4% |
| 90-120 | 2.1 | 0.1% |
| 0-90 | 3,993.7 | 99.8% |
| 90-180 | 8.2 | 0.2% |
| 0-180 | 4,001.8 | 100% |

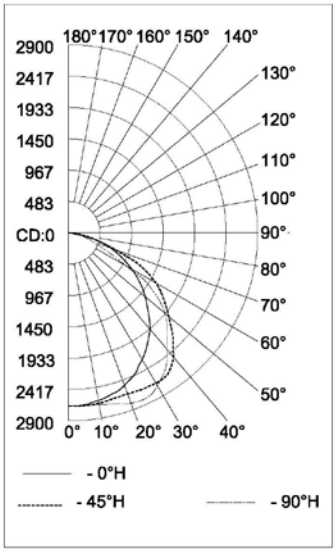
**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 121.6 | 3.0% | 90-100 | 0.3 | 0% |
| 10-20 | 354.9 | 8.9% | 100-110 | 0.7 | 0% |
| 20-30 | 563.6 | 14.1% | 110-120 | 1.1 | 0% |
| 30-40 | 715.1 | 17.9% | 120-130 | 1.3 | 0% |
| 40-50 | 757.1 | 18.9% | 130-140 | 1.4 | 0% |
| 50-60 | 697.3 | 17.4% | 140-150 | 1.3 | 0% |
| 60-70 | 489.8 | 12.2% | 150-160 | 1.0 | 0% |
| 70-80 | 243.4 | 6.1% | 160-170 | 0.7 | 0% |
| 80-90 | 50.8 | 1.3% | 170-180 | 0.3 | 0% |

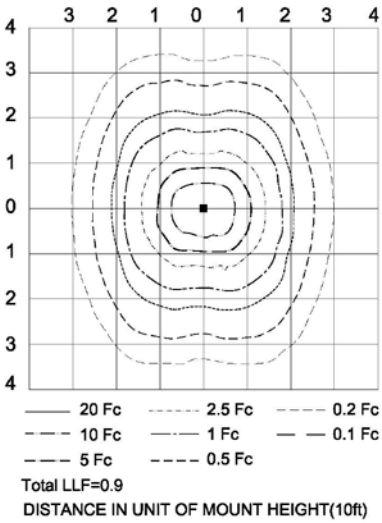
### 4ft, Diffused Polycarbonate Lens, 5000K CCT

Luminaire Lumens 6704.4

**POLAR CANDELA DISTRIBUTION**




**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,746.5 | 26% |
| 0-40 | 2,955.5 | 44.1% |
| 0-60 | 5,403.7 | 80.6% |
| 60-90 | 1,287.3 | 19.2% |
| 70-100 | 490.5 | 7.3% |
| 90-120 | 4.2 | 0.1% |
| 0-90 | 6,691.0 | 99.8% |
| 90-180 | 13.1 | 0.2% |
| 0-180 | 6,704.1 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 202.2 | 3.0% | 90-100 | 1.4 | 0% |
| 10-20 | 593.8 | 8.9% | 100-110 | 1.2 | 0% |
| 20-30 | 950.5 | 14.2% | 110-120 | 1.7 | 0% |
| 30-40 | 1,209.0 | 18.0% | 120-130 | 1.9 | 0% |
| 40-50 | 1,278.4 | 19.1% | 130-140 | 2.0 | 0% |
| 50-60 | 1,169.8 | 17.4% | 140-150 | 1.9 | 0% |
| 60-70 | 798.1 | 11.9% | 150-160 | 1.5 | 0% |
| 70-80 | 398.7 | 5.9% | 160-170 | 1.0 | 0% |
| 80-90 | 90.5 | 1.4% | 170-180 | 0.4 | 0% |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*

# Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Class I, Zone 2, Group IIC | Class II, Zone 20 and 21, Group IIIC | Type 3R, 4, 4X | IP66 | IK10 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 10G Vibration**

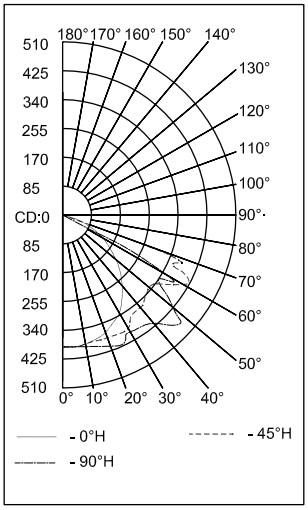


## Photometric Data — DATA SHOWN IS ABSOLUTE

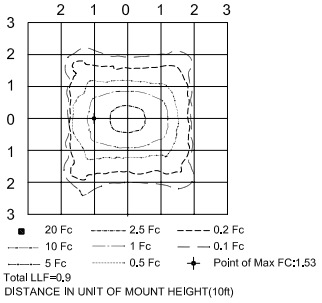
### 2ft Clear Polycarbonate Lens, 5000K CCT - Emergency Mode

Luminaire Lumens 1,364.9

**POLAR CANDELA DISTRIBUTION**




**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 323.0 | 23.7% |
| 0-40 | 549.1 | 40.2% |
| 0-60 | 1,106.0 | 81% |
| 60-90 | 255.9 | 18.7% |
| 70-100 | 77.6 | 5.7% |
| 90-120 | 0.7 | 0% |
| 0-90 | 1,361.8 | 99.8% |
| 90-180 | 2.9 | 0.2% |
| 0-180 | 1,364.7 | 100% |

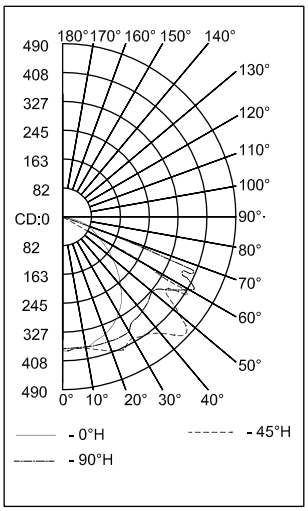
**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 37.0 | 2.7% | 90-100 | 0.2 | 0% |
| 10-20 | 109.8 | 8.0% | 100-110 | 0.2 | 0% |
| 20-30 | 176.3 | 12.9% | 110-120 | 0.3 | 0% |
| 30-40 | 226.1 | 16.6% | 120-130 | 0.5 | 0% |
| 40-50 | 271.8 | 19.9% | 130-140 | 0.5 | 0% |
| 50-60 | 285.1 | 20.9% | 140-150 | 0.5 | 0% |
| 60-70 | 178.4 | 13.1% | 150-160 | 0.4 | 0% |
| 70-80 | 71.2 | 5.2% | 160-170 | 0.3 | 0% |
| 80-90 | 6.2 | 0.5% | 170-180 | 0.1 | 0% |

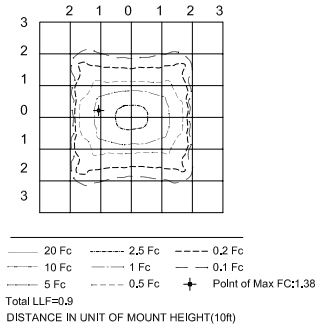
### 4ft Clear Polycarbonate Lens, 5000K CCT - Emergency Mode

Luminaire Lumens 1,360.2

**POLAR CANDELA DISTRIBUTION**




**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 318.7 | 23.4% |
| 0-40 | 544.4 | 40% |
| 0-60 | 1,104.7 | 81.2% |
| 60-90 | 253.8 | 18.7% |
| 70-100 | 76.6 | 5.6% |
| 90-120 | 0.3 | 0% |
| 0-90 | 1,358.5 | 99.9% |
| 90-180 | 1.5 | 0.1% |
| 0-180 | 1,360.0 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 36.1 | 2.7% | 90-100 | 0.1 | 0% |
| 10-20 | 107.7 | 7.9% | 100-110 | 0.1 | 0% |
| 20-30 | 174.9 | 12.9% | 110-120 | 0.2 | 0% |
| 30-40 | 225.7 | 16.6% | 120-130 | 0.2 | 0% |
| 40-50 | 273.7 | 20.1% | 130-140 | 0.3 | 0% |
| 50-60 | 286.7 | 21.1% | 140-150 | 0.3 | 0% |
| 60-70 | 177.3 | 13.0% | 150-160 | 0.2 | 0% |
| 70-80 | 70.4 | 5.2% | 160-170 | 0.2 | 0% |
| 80-90 | 6.2 | 0.5% | 170-180 | 0.1 | 0% |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*

# Explosionproof Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**

## Applications

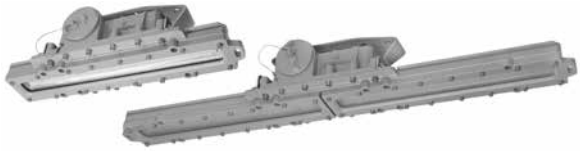
- For use in locations where:
  - — Flammable gases, dusts and ignitable vapors are present
  - — A high degree of corrosion resistance is required
  - — Protection against dirt, water and moisture is necessary
  - — Access to relamp is difficult
  - — Extreme temperature conditions are present
- Typical applications include:
  - — Drilling rigs
  - — Offshore rigs
  - — Oil refineries
  - — Petrochemical facilities
  - — Foundries
  - — Waste and sewer treatment
  - — Mining and underground tunnels
  - — Power generation
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Select paint booth areas ③

## Features

- All Models:
  - — Low fixture profile allows installation in compact spaces.
  - — Two sizes and output options deliver up to 7600 lumens.

| Nominal Lumens ② | Fluorescent Equivalent | Replacement Lamp Type | Model |
|---|---|---|---|
| 4300 | 2 x 32W | T8 | ERM*2 |
| 7600 | 3 x 32W | T8 | ERM*4 |

  - — Choice of color temperature (CCT): 5000K cool white, 4000K neutral white or 3000K warm white with minimum 80 CRI.
  - — Field replaceable lens, LED driver, battery pack and battery management module (BMM).
  - — Two unique mounting bracket options allow for mounting in any location and retrofitting third party fixtures.
  - — For ease of retrofitting, mounting brackets accommodate most bolt patterns for Crouse-Hinds™ ✣, Dialight™ ❖ and other manufacturers. See *Mounting Bracket Selection Guide*.
  - — Power leads are shipped with wire-nuts as standard.
  - — Loop in/out wiring capability for interconnecting fixtures.
  - — Precision threaded wire cover provides hassle free access to wiring department for easy installation and maintenance.
  - — Up to 4 casted points for secondary safety retention.
  - — Standard 6 kV/3 kA surge protection.
  - — Fixture position locking mechanism provides ease and consistency of aiming.
  - — Rugged housing with superior thermal design translates to long luminaire life.
  - — LED L70 of 60,000 hours reported at +65 ˚C (+149 ˚F).
  - — Photometric data and electronic drawings available upon request.
  - — 5 year standard warranty.
- Standard Model:
  - — Ambient Temperature ①: -40˚C to +65˚C (-40˚F to +149˚F).
  - — Screw-type terminal block can accept UL/CSA 22-12 AWG wire. ①
- Emergency Battery Backup Model:
  - — Ambient Temperature: -20˚C to +55˚C (-4˚F to +131˚F).



  - — Suitable for mounting heights up to 4.6 m (15 ft) for 90 minute duration and up to 3.7 m (12 ft) for 180 minute duration.

## Options

- All Models:
  - — Brackets can be factory installed or purchased separately.
  - — Safety cable can be purchased separately or configured as an add on option to be shipped with the LED fixture.
  - — Available with 3/4" or 1/2" NPT threaded hubs.
- Standard Model:
  - — Clear or diffused polycarbonate lens.
  - — Wirenuts or screw terminal blocks ③ available.
- Emergency Battery Backup Model:
  - — 90 or 180 minutes of emergency battery back up available.

## Standard Materials

- Housing: copperfree (4/10 of 1% max.) aluminum
- Lens: thermal shock- and impact-resistant glass lens
- Gasket: silicone rubber
- Bolts: Highly corrosion resistant stainless steel (SS 316)
- Close up plugs: (1) aluminum provided
- Mounting brackets: zinc plated steel

## Standard Finishes

- Housing: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

## NEC/CEC Certifications and Compliances

- All Models:
  - — UL Standard: UL 50 (13th Ed.); UL 50E (2nd Ed.); UL 844 (13th Ed.); UL 1598 (4th Ed.); UL 1598A (1st Ed.)①; UL 8750 (2nd Ed.); UL 924 (10th Ed.)
  - — CSA Standard: CSA C22.2 No. 94.1-15; CSA 22.2 No 94.2 -15; CSA C22.2 No 137-18; CSA 22.2 No 250.0-18; CSA C22.2 No 250.13-17; CSA C22.2 No 60529 -16; CSA C22.2 No 141-15
  - — ANSI Standard: ANSI/IEC 60529
- Standard Model:
  - — UL Certified, File Number: E10444
  - — Vibration Rating: 4G, 2 hours, 3 axis at first mode resonant frequency
- Emergency Battery Backup Model:
  - — UL Certified, File Number: E175025
  - — Vibration Rating: 3G, 2 hours, 3 axis at first mode resonant frequency

## ABS Certifications

- ERM: 19-HS1903883-PDA

## DesignLights™ Consortium

- Check DLC QPL for current list of products.

## Related Products

- Industrial Rigmaster LED Series Luminaires
- Rigmaster LED Series Luminaires

*① Applicable to standard (non emergency) fixtures only.*

*② Nominal lumen value for 5000K, clear Lens. Detailed lumen information is provided in the " Lumen Output (Efficacy)" tables.*

*③ Suitable for use in applications described under NEC 516.6(C)(1) and 516.6(C)(2), 2020 edition.*

*✣ Crouse-Hinds is a registered trademark of Eaton Corporation.*

*❖ Dialight is a registered trademark of Dialight.*

# Explosionproof Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

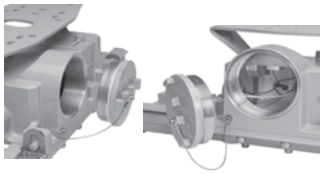
**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**

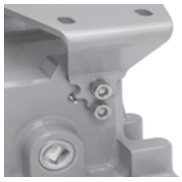


## Illustrated Features — All Models

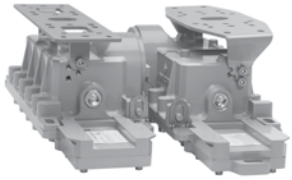
### Flexibility and Modular Design



**Precision threaded wirebox and cover allows hassle free access** to power leads for easy wiring and maintenance in challenging conditions. Cover is secured with a safety chain to prevent accidental disengagement and enhances workplace safety.



Notched position locking mechanism enables **multiple fixtures to be aimed consistently** without spending significant time.



Rigmaster offers a NPT hub on each end for through wiring. The power leads are placed inside the wiring compartment and can be easily accessed by removing the **tool-less wire box cover**.

Choose from **three color temperatures** (CCT): 3000K, 4000K, and 5000K.

**Standard linear light distribution pattern:** wide distribution maximizes spread and work plane brightness to optimize number of luminaires needed.

### Configurable Options

**Mounting Brackets: ②③**
Choose to mount your Rigmaster using one of these distinctly designed brackets to best suit your installation needs. All brackets can be factory installed to save time in the field or purchased separately.

**ERMLSB Large Swivel Bracket:**
Can be used to tilt and aim the fixture up to 90 degrees in increments of 15 degrees using the pre-notched locking mechanism.

**ERMLPB Low Profile Bracket:**
This fixed position bracket can be used to lower overall mounting profile in low ceiling applications.

### Safety Features

**Retention Points:**
Up to four points for secondary retention provide protection against infield vibration.

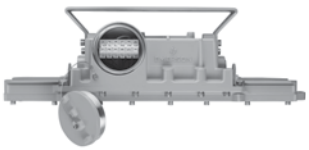
**Safety cables ③:**
Can be purchased separately or included with fixture to reduce ordering and receiving complexity.

## Illustrated Features — Standard Models

### Configurable Options

**Clear or Diffused Polycarbonate Lens:** Select a clear or diffused polycarbonate lens for the optimal level of work plane brightness and visual comfort. These lenses are field interchangeable for convenience and flexibility.

**Wirenuts or Screw Terminal Blocks ①:** Choose between wirenuts and screw terminal blocks to suit end user wiring preferences. Terminal blocks support UL/CSA 22 to 12 AWG wire.



*① Applicable to standard (non emergency) fixtures only.*

*② Brackets and safety cables can be ordered separately or included with fixture. See Ordering Table for more information.*

*③ Mounting Brackets compatible with standard and emergency versions are not the same. please refer to mounting bracket details on page 9 for details.*

# Explosionproof Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**

**Order Using Catalog Numbering Guide — Explosionproof Rigmaster™ LED Series Luminaires**

| ERM | B | 4 | 2 | C | C | L | BU | N | G | W | 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Series Prefix: ERM - Explosionproof Rigmaster Linear LED CID1 | Mounting: ③ N - If None (Use if Ordering Appleton Bracket Separately) B - Large Swivel Bracket L - Low Profile Bracket | Lumen (nominal): ② 2 - 4,300 Lumens (2') 4 - 7,600 Lumens (4') | Hub Size: 1 - (4) 1/2" NPT 2 - (4) 3/4" NPT | Color Temperature: C - Cool 5000K N - Neutral 4000K W - Warm 3000K | Lens Material: C - Clear Glass F - Frosted Glass ① | Light Distribution Pattern: L - Linear Pattern (non-optic) (standard) | Voltage: ④ BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc BH - 347-480 Vac, 50/60 Hz | Emergency: N - If None (Standard) H - 90 minutes E - 180 minutes | Color: G - Appleton Gray (Standard) | Wiring Method: W - Wire Nuts (Standard) T - Terminal Blocks ① | Option: ③ Blank - If None 1 - (1) Safety Cable 2 - (2) Safety Cables |

**Lumen Output (Efficacy) — Standard Model — Standard Mode ⑤**

| Model | Fluorescent Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass Lens — Standard or Emergency Model — Standard Mode** | | | | | | | | | | | | | | |
| ERM*2 | 2 x 32W | Linear | 3000K | 80 | 4070 | 123 | 4000K | 80 | 4125 | 125 | 5000K | 80 | 4310 | 131 |
| ERM*4 | 3 x 32W | Linear | 3000K | 80 | 7100 | 129 | 4000K | 80 | 7200 | 131 | 5000K | 80 | 7530 | 137 |
| **Frosted Glass Lens — Standard Model — Standard Mode ①** | | | | | | | | | | | | | | |
| ERM*2 | 2 x 32W | Linear | 3000K | 80 | 3040 | 92 | 4000K | 80 | 3080 | 93 | 5000K | 80 | 3190 | 97 |
| ERM*4 | 3 x 32W | Linear | 3000K | 80 | 5230 | 95 | 4000K | 80 | 5310 | 97 | 5000K | 80 | 5490 | 100 |

**Lumen Output (Efficacy) — Emergency Model — Emergency Mode ④⑤**

| Model | Emergency Duration in Minutes | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass Lens** | | | | | | | | | | | | | | |
| ERM*2 | 90 | Linear | 3000K | 80 | 1200 | N/A | 4000K | 80 | 1260 | N/A | 5000K | 80 | 1350 | N/A |
| ERM*4 | 180 | Linear | 3000K | 80 | 720 | N/A | 4000K | 80 | 760 | N/A | 5000K | 80 | 800 | N/A |

*① Applicable to standard (non emergency) fixtures only.*

*② For lumen output information, see Lumen Output (Efficacy) Table.*

*③ Brackets and safety cables can be ordered separately or included with fixture. See Mounting Brackets Table for more information.*

*④ Emergency battery back up version is only available with BU voltage configuration for 120-277 Vac operation.*

*⑤ All lumen values are typical (tolerance +/- 10%).*

# Explosionproof Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**



**Electrical Specifications ②**

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Standard Model** | | | | | |
| ERM*2 | 120 Vac | 33 | 0.28 | >0.9 | <20 |
| | 277 Vac | 33 | 0.12 | >0.9 | <20 |
| | 125 Vdc | 33 | 0.27 | NA | NA |
| | 300 Vdc | 33 | 0.11 | NA | NA |
| | 347 Vac | 36 | 0.11 | >0.9 | <20 |
| | 480 Vac | 36 | 0.08 | >0.9 | <20 |
| ERM*4 | 120 Vac | 55 | 0.47 | >0.9 | <20 |
| | 277 Vac | 55 | 0.20 | >0.9 | <20 |
| | 125 Vdc | 55 | 0.44 | NA | NA |
| | 300 Vdc | 55 | 0.18 | NA | NA |
| | 347 Vac | 56 | 0.16 | >0.9 | <20 |
| | 480 Vac | 56 | 0.12 | >0.9 | <20 |
| **Emergency Model** | | | | | |
| ERM*2 | 120 Vac | 39 | 0.35A | >0.9 | <20 |
| | 277 Vac | 39 | 0.15A | >0.9 | <20 |
| ERM*4 | 120 Vac | 60 | 0.57A | >0.9 | <20 |
| | 277 Vac | 60 | 0.20A | >0.9 | <20 |

**NEC/CEC Temperature Codes**

| Model | Ambient Temperature °C (°F) | Supply wire Temperature °C (°F) | Class I, Division 1, Groups C, D | Class II, Division 1, Groups E, F, G | Simultaneous Class I Division 1, Groups C, D and Class II Division 1 Groups E,F, G |
|---|---|---|---|---|---|
| **Standard Model — Ambient Temperature Range: -40 °C to +65 °C (-40 °F to +149 °F)** | | | | | |
| ERM*2 | +40 (+104) | +90 (+194) | T6 | T6 | T6 |
| | +55 (+131) | | T6 | T6 | T6 |
| | +65 (+149) | | T6 | T5 | T5 |
| ERM*4 | +40 (+104) | +90 (+194) | T6 | T6 | T6 |
| | +55 (+131) | | T6 | T6 | T6 |
| | +65 (+149) | | T6 | T5 | T5 |
| **Emergency Model — Ambient Temperature Range: -20 °C to +55 °C (-4 °F to +131 °F)** | | | | | |
| ERM*2 | +40 (+104) | +90 (+194) | T6 | T6 | T6 |
| | +55 (+131) | | T6 | T6 | T6 |
| ERM*4 | +40 (+104) | 90 (194) | T6 | T6 | T6 |
| | +55 (+131) | | T6 | T6 | T6 |

**"T" Numbers Represent the Maximum Internal Temperature ③ or Maximum Surface Temperature ④**

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*① Applicable to standard (non emergency) fixtures only.*

*② All values are typical (tolerance +/-10%).*

*③ T numbers represent the maximum internal temperature for Class I, Division 1 and Class II, Division 1 locations designated by the NEC.*

*④ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 2 as designated by the NEC.*

# Explosionproof Rigmaster™ LED Series Luminaires

With Emergency Battery Backup

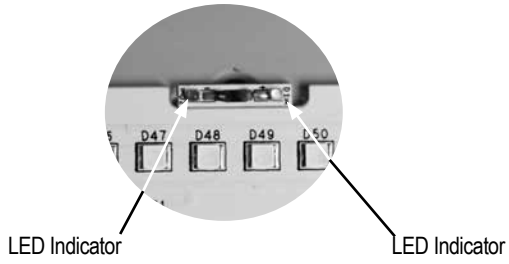
Hazardous Locations

**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**

**Automatic Testing System (ATS) — Emergency Battery Backup Model — Functionality ①**

| Functional | Full Duration |
|---|---|
| Starts within 24 to 45 hours after the initial powerup of the module | Starts within 5 to 26 days after the initial power of the module |
| Occurs every 14 days after the initial aforementioned functional test | Occurs every 364 days after the initial aforementioned functional test |
| Lasts for 30 seconds | Lasts for the full duration of the rated emergency period |
| At the completion of functional and full duration tests, LED indicator will display the status of the emergency luminaire when AC is present | |




**LED Signals**

| Indicator Color | Timing | Description |
|---|---|---|
| Green | 1 sec ON: 1 sec OFF | Normal charging ok, Battery not yet fully charged, No fault detected, Testing ok |
| Green | 0.25 sec ON: 0.25 sec OFF | Functional / Duration Self-Test on-going |
| Green | Steady ON | Charging ok, Battery fully charged, No fault detected, Testing ok |
| Red | 1 sec ON: 1 sec OFF | Fault condition. Installation issue. Battery is reverse, not connected or shorted. Functional test failure, full duration test failure |
| LED Indicators OFF, LED Array ON | LED Indicator Lights (Red and Green) OFF | No AC, Emergency mode ON |

*① Applicable to standard (non emergency) fixtures only.*

# Explosionproof Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**



**Replacement Lenses — All Models**

| | Description | Luminaire Model | Quantity Per Luminaire | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| | Clear Glass Lens | ERM*2 | 1 | 1.35 (2.98) | **ERMCL** |
| | | ERM*4 | 2 | | |

**Replacement Lenses — Standard Model**

| | Description | Luminaire Model | Quantity Per Luminaire | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| | Frosted Glass Lens | ERM*2 | 1 | 1.35 (2.98) | **ERMFL** |
| | | ERM*4 | 2 | | |

**Accessories and Replacement Parts — All Models**

| | Description | Weight in kg (lbs) | Catalog Numbers |
|---|---|---|---|
| | Safety Cable — Stainless Steel | 0.2 (0.4) | **LEDSC** |

**Accessories and Replacement Parts — Emergency Model**

| | Description | Weight in kg (lbs) | Catalog Numbers |
|---|---|---|---|
| | Replacement Battery — Management Module | 1.0 (2.2) | **BPMLLED** |
| | Replacement Battery Pack | 0.7 (1.6) | **BMMRM** |

**Replacement Drivers — All Models**

| | Luminaire Model | Voltage | Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|---|
| | ERM*2 | 50W | BU | 600mA | **APM050C135UD060** |
| | ERM*2 | 50W | BH | 600mA | **APM050C135HD060** |
| | ERM*4 | 50W | BU | 1040mA | **APM050C135UD104** |
| | ERM*4 | 50W | BH | 1040mA | **APM050C135HD104** |

*① Applicable to standard (non emergency) fixtures only.*

# Explosionproof Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

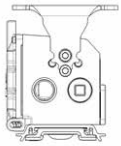
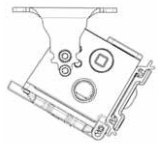
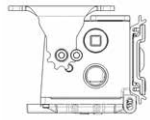
**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**

## Mounting Brackets

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Standard Model** | | | |
| | Large Swivel Bracket | 1.5 (3.3) | **ERMLSB** |
| | Low Profile Bracket | 1.3 (2.8) | **ERMLPB** |
| **Emergency Model** | | | |
| | Emergency Swivel Bracket | 1.8 (4.0) | **ERMHLSB** |
| | Emergency Low Profile Bracket | 1.6 (3.5) | **ERMHLPB** |

## Bracket Mounting Angles

| 0° | 15° | 30° | 45° | 60° | 90° |
|---|---|---|---|---|---|
|  | | | |  |  |

① *Applicable to standard (non emergency) fixtures only.*

# Explosionproof Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**



## Mounting Brackets

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Standard Model** | | | |
| | Large Swivel Bracket | 1.5 (3.3) | **ERMLSB** |
| | Low Profile Bracket | 1.3 (2.8) | **ERMLPB** |
| **Emergency Model** | | | |
| | Emergency Swivel Bracket | 1.8 (4.0) | **ERMHLSB** |
| | Emergency Low Profile Bracket | 1.6 (3.5) | **ERMHLPB** |

## Mounting Bracket Selection Guide ②

*For customers trying to retrofit an existing fixture and match bolt patterns, use the table below as a guide to select the best bracket to suit your needs*

| Other Manufacturer | Other Manufacturer Part Number | Description | Weight kg (lbs) | Catalog Number | Description | Weight kg (lbs) | Catalog Number |
|---|---|---|---|---|---|---|---|
| **Standard Version** | | | | | | | |
| Crouse Hinds™✣ | DP1057MTK | Large Swivel Bracket | 1.5 (3.3) | **ERMLSB** | Low Profile Bracket | 1.3 (2.8) | **ERMLPB** |
| Dialight™❖ | LTXW4 | Large Swivel Bracket | 1.5 (3.3) | **ERMLSB** | Low Profile Bracket | — | — |
| | LSXW5 | Large Swivel Bracket | — | — | Low Profile Bracket | 1.3 (2.8) | **ERMLPB** |
| AZZ™✸ Rig-A-Lite™✸ | 53050 | Large Swivel Bracket | 1.5 (3.3) | **ERMLSB** | Low Profile Bracket | — | — |
| Appleton Accessories | GRFC75A junction box | Large Swivel Bracket | 1.5 (3.3) | **ERMLSB** | Low Profile Bracket | — | — |
| **Emergency Version** | | | | | | | |
| Crouse Hinds™✣ | DP1057MTK | Emergency Swivel Bracket | 1.8 (4.0) | **ERMHLSB** | Emergency Low Profile Bracket | 1.6 (3.5) | **ERMHLPB** |
| Dialight™❖ | LTXW4 | Emergency Swivel Bracket | 1.8 (4.0) | **ERMHLSB** | Emergency Low Profile Bracket | 1.6 (3.5) | **ERMHLPB** |
| | LSXW5 | Emergency Swivel Bracket | 1.8 (4.0) | **ERMHLSB** | Emergency Low Profile Bracket | 1.6 (3.5) | **ERMHLPB** |
| AZZ™✸ Rig-A-Lite™✸ | 53050 | Emergency Swivel Bracket | 1.8 (4.0) | **ERMHLSB** | Emergency Low Profile Bracket | — | — |

*① Applicable to standard (non emergency) fixtures only.*

*② The above information is strictly for guidance purposes and does not guarantee compatibility and fit. Please carefully review bolt patterns on each bracket to ensure it meets your needs.*

*✣ Crouse-Hinds is a registered trademark of Eaton Corporation.*

*❖ Dialight is a registered trademark of Dialight.*

*✸ AZZ and Rig-A-Lite are registered trademarks of AZZ.*

# Explosionproof Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

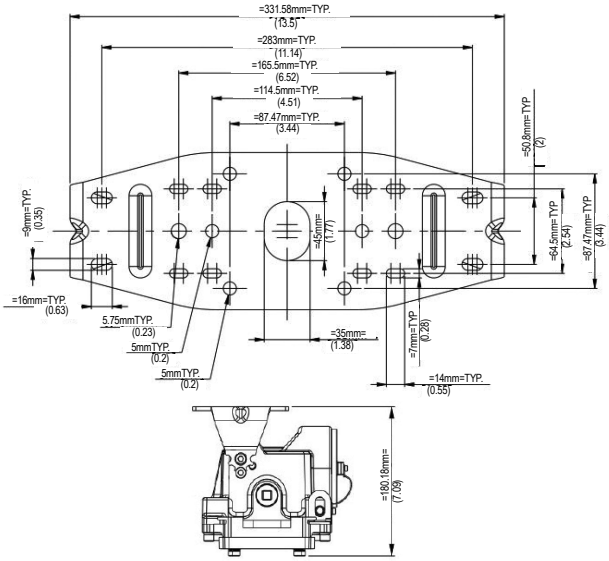
**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**

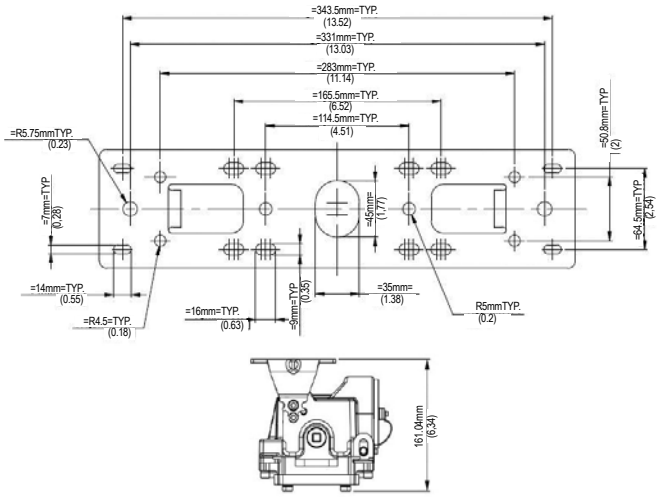


## Mounting Brackets — Dimensions in Millimeters (Inches) — Standard Model

### ERMLSB - Large Swivel Bracket

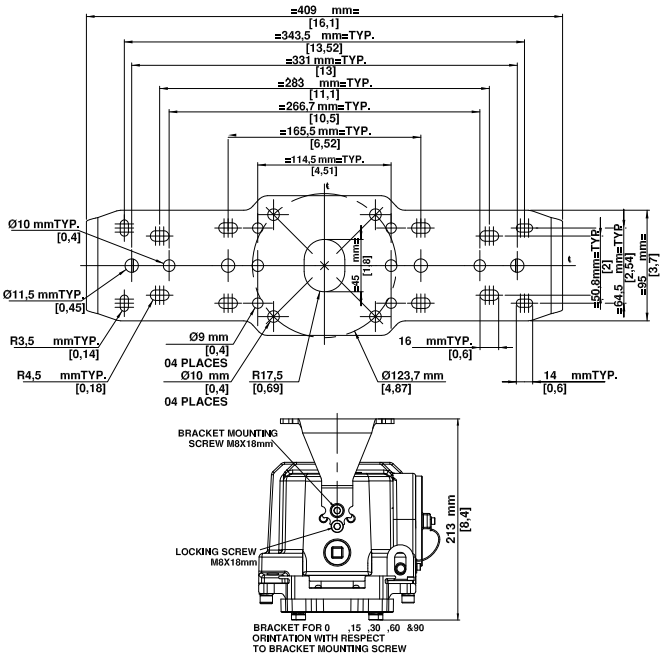



### ERMLPB - Low Profile Bracket

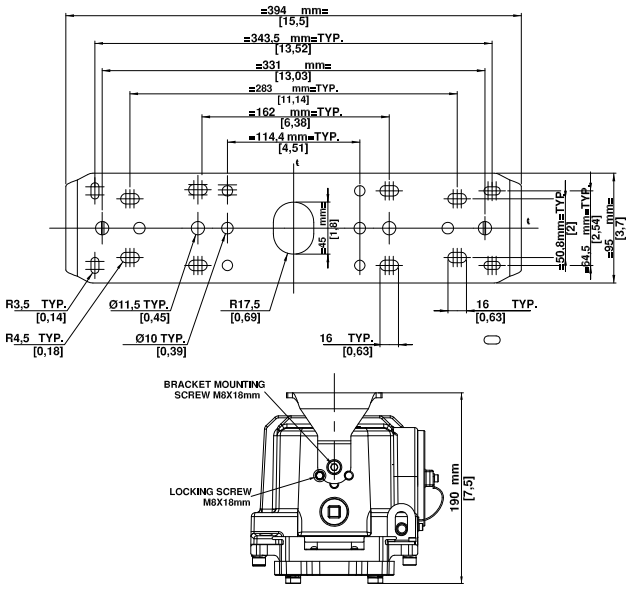



## Mounting Brackets — Dimensions in Millimeters (Inches) — Emergency Model

### ERMHLSB - Emergency Swivel Bracket




### ERMHLPB - Emergency Low Profile Bracket




*① Applicable to standard (non emergency) fixtures only.*

# Explosionproof Rigmaster™ LED Series Luminaires

Standard

Hazardous Locations

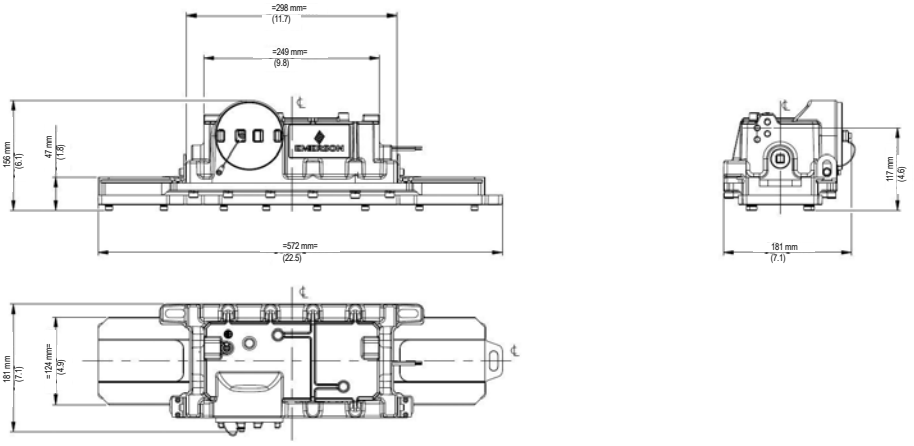
**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**

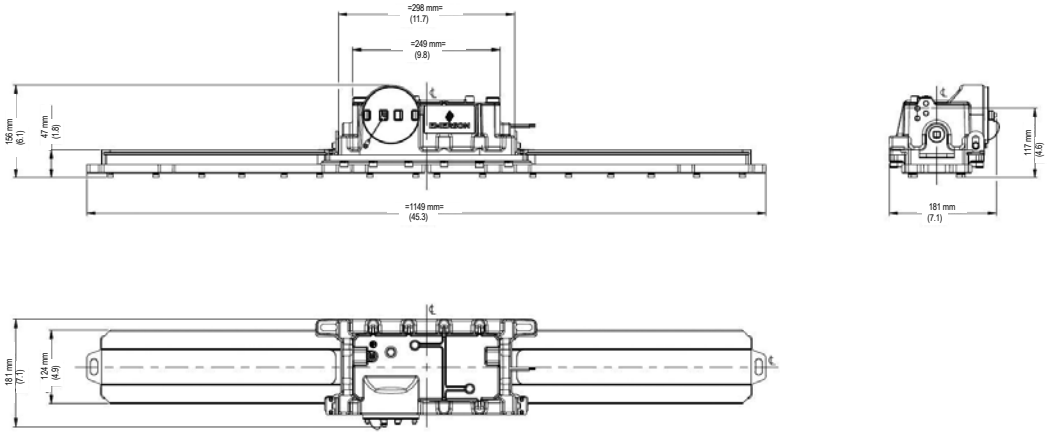


## Dimensions in Millimeters (Inches) — Standard Model

**ERM*2**




**ERM*4**




## Luminaire Specifications

| Model | Weight in kg (lb) ② | Length in m (ft) |
|---|---|---|
| ERM*2 | 8.9 (19.6) | 0.57 (1.9) |
| ERM*4 | 13.4 (29.5) | 1.15 (3.8) |

*① Applicable to standard (non emergency) fixtures only.*

*② Weight of brackets are not included. See Mounting Brackets Table for details. .*

# Explosionproof Rigmaster™ LED Series Luminaires

With Emergency Battery Backup

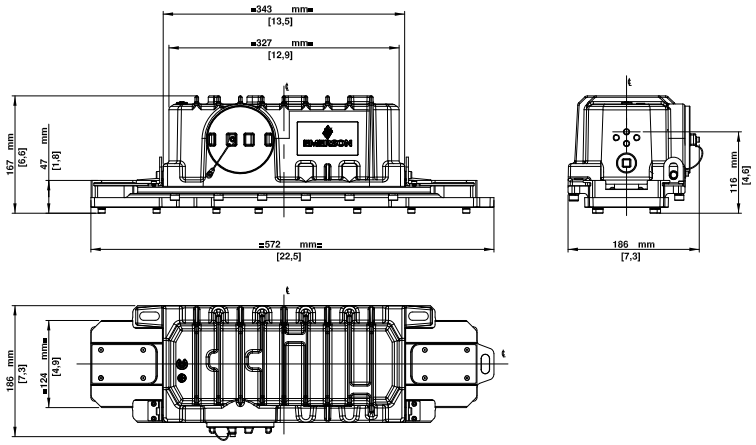
Hazardous Locations

**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

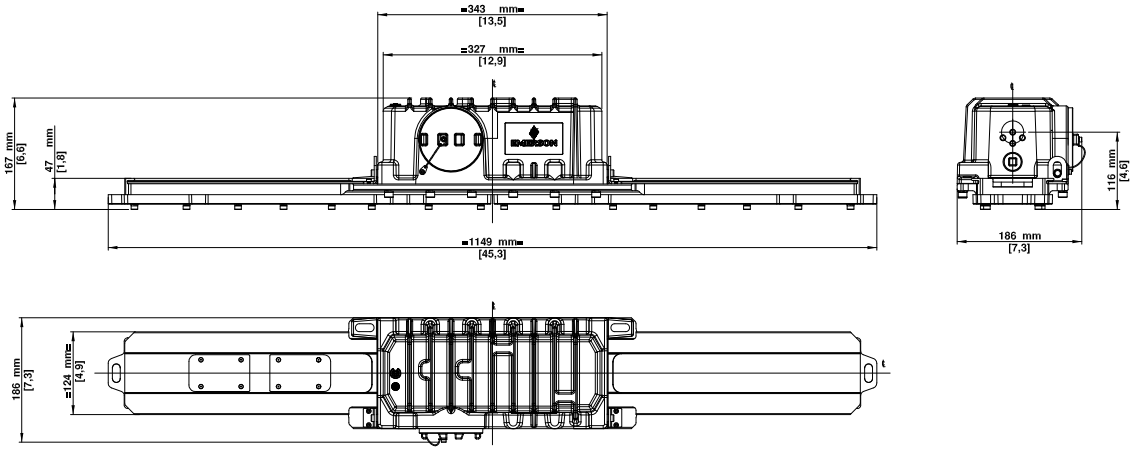
**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**

## Dimensions in Millimeters (Inches) — Emergency Model

**ERM*2**




**ERM*4**




## Luminaire Specifications

| Model | Weight in kg (lb) ② | Length in m (ft) |
|---|---|---|
| ERM*2 — Emergency | 12.8 (28.2) | 0.57 (1.9) |
| ERM*4 — Emergency | 18.4 (40.6) | 1.15 (3.8) |

*① Applicable to standard (non emergency) fixtures only.*

*② Weight of brackets are not included. See Mounting Brackets Table for details. .*

# Explosionproof Rigmaster™ LED Series Luminaires

Standard

Hazardous Locations

**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**

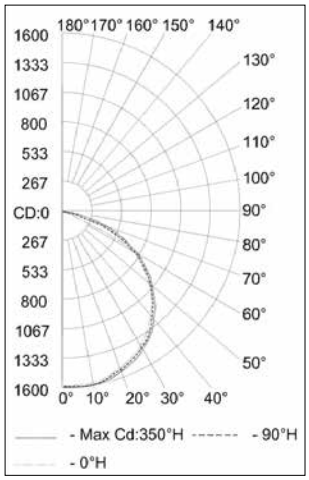


## Photometric Data — DATA SHOWN IS ABSOLUTE

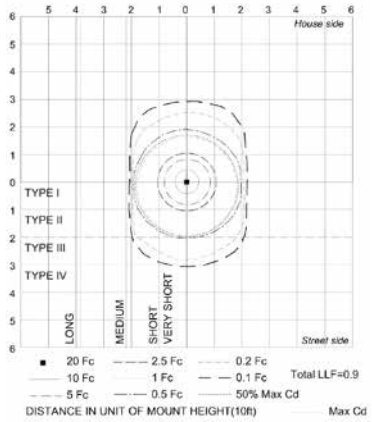
### 2ft, Clear Glass Lens, 5000K CCT

Luminaire Lumens 4325.5

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Lamp | % Luminaire |
|---|---|---|---|
| 0-30 | 1,246.9 | 28.8% | 28.8% |
| 0-40 | 2,062.9 | 47.7% | 47.7% |
| 0-60 | 3,703.1 | 85.6% | 85.6% |
| 60-90 | 609.8 | 14.1% | 14.1% |
| 70-100 | 131.1 | 3% | 3% |
| 90-120 | 2.4 | 0.1% | 0.1% |
| 0-90 | 4,312.9 | 99.7% | 99.7% |
| 90-180 | 13.0 | 0.3% | 0.3% |
| 0-180 | 4,325.9 | 100% | 100% |

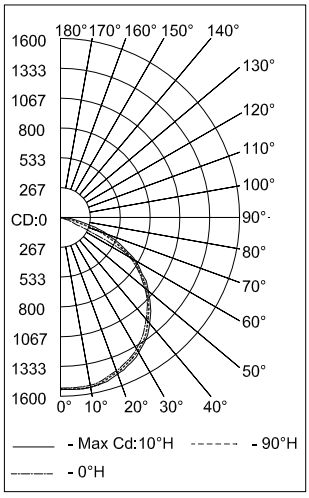
**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 149.6 | 3.5% | 90-100 | 0.2 | 0% |
| 10-20 | 432.2 | 10.0% | 100-110 | 0.7 | 0% |
| 20-30 | 665.1 | 15.4% | 110-120 | 1.5 | 0% |
| 30-40 | 816.1 | 18.9% | 120-130 | 2.1 | 0% |
| 40-50 | 859.6 | 19.9% | 130-140 | 2.4 | 0.1% |
| 50-60 | 780.6 | 18.0% | 140-150 | 2.3 | 0.1% |
| 60-70 | 478.8 | 11.1% | 150-160 | 1.9 | 0% |
| 70-80 | 120.4 | 2.8% | 160-170 | 1.4 | 0% |
| 80-90 | 10.6 | 0.2% | 170-180 | 0.5 | 0% |

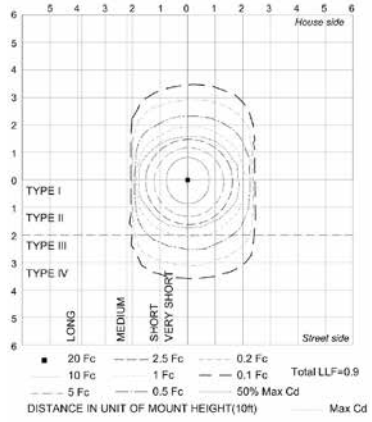
### 4ft, Clear Glass Lens, 5000K CCT

Luminaire Lumens 7646.5

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Lamp | % Luminaire |
|---|---|---|---|
| 0-30 | 2,221.6 | 29.1% | 29.1% |
| 0-40 | 3,680.0 | 48.1% | 48.1% |
| 0-60 | 6,587.3 | 86.1% | 86.1% |
| 60-90 | 1,040.7 | 13.6% | 13.6% |
| 70-100 | 223.5 | 2.9% | 2.9% |
| 90-120 | 4.1 | 0.1% | 0.1% |
| 0-90 | 7,628.1 | 99.7% | 99.8% |
| 90-180 | 18.4 | 0.2% | 0.2% |
| 0-180 | 7,646.5 | 100% | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 265.0 | 3.5% | 90-100 | 0.5 | 0% |
| 10-20 | 769.1 | 10.1% | 100-110 | 1.3 | 0% |
| 20-30 | 1,187.6 | 15.5% | 110-120 | 2.3 | 0% |
| 30-40 | 1,458.4 | 19.1% | 120-130 | 3.0 | 0% |
| 40-50 | 1,530.8 | 20.0% | 130-140 | 3.2 | 0% |
| 50-60 | 1,376.5 | 18.0% | 140-150 | 3.1 | 0% |
| 60-70 | 817.7 | 10.7% | 150-160 | 2.5 | 0% |
| 70-80 | 205.0 | 2.7% | 160-170 | 1.8 | 0% |
| 80-90 | 18.1 | 0.2% | 170-180 | 0.7 | 0% |

*① Applicable to standard (non emergency) fixtures only.*

# Explosionproof Rigmaster™ LED Series Luminaires

With Emergency Battery Backup

Hazardous Locations

**NEC/CEC: Class I, Division 1, Groups C and D | Class II, Division 1, Groups E, F, G | Class III | Class I Zone 1, Group IIB | Type 3R, 4, 4X | IP66 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**

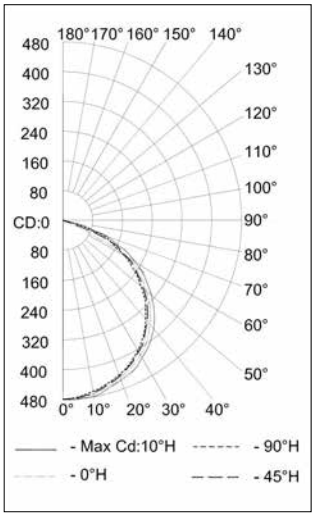
**Notable: American Bureau of Shipping (ABS) Certified ① | 4G Vibration**

## Photometric Data — DATA SHOWN IS ABSOLUTE

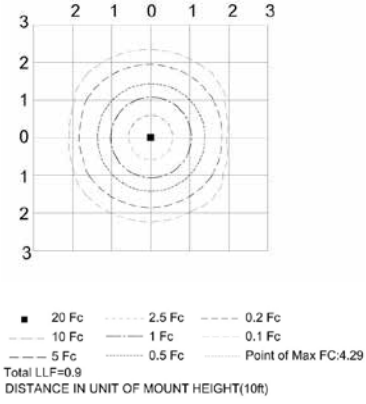
### 2ft Clear Glass Lens, 5000K CCT - 90 min Emergency Mode

Luminaire Lumens 1287.4

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Lamp |
|---|---|---|
| 0-30 | 375.6 | 29.2% |
| 0-40 | 620.0 | 48.2% |
| 0-60 | 1107.3 | 86% |
| 60-90 | 177.9 | 13.8% |
| 70-100 | 37.6 | 2.9% |
| 90-120 | 0.2 | 0% |
| 0-90 | 1285.2 | 99.8% |
| 90-180 | 2.2 | 0.2% |
| 0-180 | 1287.4 | 100% |

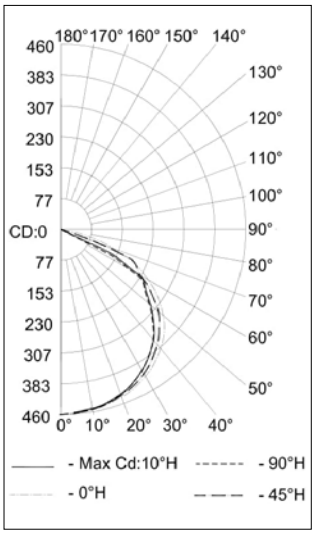
**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 45.3 | 3.5% | 90-100 | 0.0 | 0% |
| 10-20 | 130.4 | 10.0% | 100-110 | 0.0 | 0% |
| 20-30 | 199.9 | 15.5% | 110-120 | 0.1 | 0% |
| 30-40 | 244.4 | 19.0% | 120-130 | 0.3 | 0% |
| 40-50 | 256.2 | 19.9% | 130-140 | 0.5 | 0% |
| 50-60 | 231.1 | 17.9% | 140-150 | 0.5 | 0% |
| 60-70 | 140.3 | 10.9% | 150-160 | 0.4 | 0% |
| 70-80 | 34.8 | 2.7% | 160-170 | 0.3 | 0% |
| 80-90 | 2.8 | 0.2% | 170-180 | 0.1 | 0% |

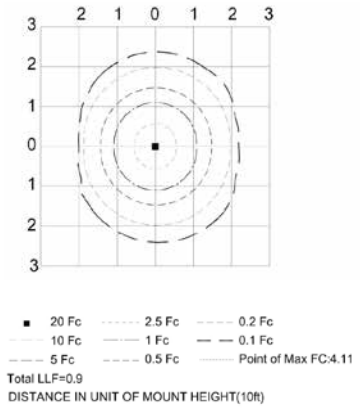
### 4ft Clear Glass Lens, 5000K CCT - 90 min Emergency Mode

Luminaire Lumens 1316.5

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Lamp |
|---|---|---|
| 0-30 | 364.8 | 27.2% |
| 0-40 | 608.8 | 46.2% |
| 0-60 | 1115.0 | 84.7% |
| 60-90 | 200.5 | 15.2% |
| 70-100 | 46.1 | 3.5% |
| 90-120 | 0.2 | 0% |
| 0-90 | 1315.5 | 99.9% |
| 90-180 | 1.0 | 0.1% |
| 0-180 | 1316.5 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 43.4 | 3.3% | 90-100 | 0.0 | 0% |
| 10-20 | 125.8 | 9.6% | 100-110 | 0.1 | 0% |
| 20-30 | 195.6 | 14.9% | 110-120 | 0.1 | 0% |
| 30-40 | 244.0 | 18.5% | 120-130 | 0.2 | 0% |
| 40-50 | 262.2 | 19.9% | 130-140 | 0.2 | 0% |
| 50-60 | 244.0 | 18.5% | 140-150 | 0.2 | 0% |
| 60-70 | 154.4 | 11.7% | 150-160 | 0.1 | 0% |
| 70-80 | 42.5 | 3.2% | 160-170 | 0.1 | 0% |
| 80-90 | 3.5 | 0.3% | 170-180 | 0.0 | 0% |

*① Applicable to standard (non emergency) fixtures only.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**



## Applications

- For use in locations where:
  - — Flammable gases, vapors and dusts are present
  - — A high degree of corrosion resistance is required
  - — Protection against dirt, water and moisture is necessary
- Typical applications include:
  - — Oil refineries
  - — Petrochemical facilities
  - — Pulp and paper mills
  - — Food processing plants
  - — Waste and sewer treatment
  - — Underground tunnels
  - — General manufacturing facilities
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

## Features

- All Models
  - — 60,000+ hour LED life for years of maintenance free operation.
  - — Lightweight design, hinged cover with captive screws, and terminal block wiring for easy installation and maintenance.
  - — Contemporary, low profile design suitable for tight spaces.
  - — Standard screw-type terminal block can accept UL/CSA 26 to 10 AWG wire.
  - — Field replaceable LED driver and lens.
  - — Industry-leading thermal management for safe, reliable operation over wide temperature range.
  - — Standard 2 kV surge suppression.
  - — Full range of lumen outputs, with light distribution equivalent to the Appleton FV Series fluorescent fixtures
  - — Hinged cover with captive screws, and terminal block wiring for easy installation and maintenance.
  - — Easy to retrofit in same mounting footprint as the Appleton FV Series fluorescent fixtures.
  - — 2 opposing 3/4" NPT hubs with adjacent terminal blocks for thru wiring. (1) 3/4" NPT close up plug provided.
  - — 5 year warranty for the luminaire. 3 year warranty for the battery.
- Standard Model:
  - — Universal, high efficiency, driver covers voltage requirements for 120-277 Vac, 50/60 Hz +/- 10%.
  - — Ambient Temperature: -40 °C up to +65 °C (-40 °F up to +149 °F).
- Emergency Battery Backup Model
  - — Provides up to 1250 lumens illumination for 90 minutes of emergency lighting with clear lens.
  - — Functional diagnostic test self-initiates every 14 days after initial start up.
  - — Duration test is automatically performed once per year.
  - — Green and Red LED lamps indicate charging status and provide fault warning.
  - — Positive safety switch disconnects power between LEDs and battery management module to allow maintenance in hazardous locations.
  - — Universal, high efficiency, driver covers voltage requirements for 120-277 Vac, 50/60 Hz +/- 10%.
  - — Ambient Temperature: -20 °C up to +55 °C (-4 °F up to +131 °F).
  - — Field replaceable LED driver, battery management module (BMM), battery pack, and lens.
  - — 5 Cell NiMH battery pack for longer emergency capability.
  - — Plug in connectors on battery pack for easy maintenance.

## Options

- Safety cable for fall safe retention; add suffix -**C** to the end of the catalog number.
- Diffused lens is available; add suffix -**D** to the end of the catalog number.
- Fusing is available; add suffix -**F** to the end of the catalog number. ⌘

## Standard Materials

- Housing: copperfree (4/10 of 1% max.) aluminum
- Lens: thermal shock- and impact-resistant polycarbonate lens
- Gasket: silicone rubber, mechanically secured
- Bolts: stainless steel
- Close up plugs: nickel plated brass
- Mounting hardware: see ordering information

## Standard Finishes

- Housing: gray polyester

## NEC/CEC Certifications and Compliances

- All Models
  - — UL Standard: UL 1598, UL 8750, UL 844
- Standard Model:
  - — UL Standard: UL 924
  - — cULus Certified: E165014
- Emergency Battery Backup Model
  - — UL Standard: UL1598A, UL50E
  - — cCSAus Certified: 065182. cULus E10444

## DesignLights™ Consortium

- Check DLC QPL for current list of products.

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**

**Order Using Catalog Numbering Guide — NEC/CEC Viamaster™ LED Series Luminaires — Standard Model**

| LLED | A | 2 | 2 | LU | 2 | C |
|---|---|---|---|---|---|---|
| Series Prefix: LLED - NEC/CEC Certified Linear LED Series | Housing: A - Aluminum | Size of Cable Entries: 1 - (2) 3/4" NPT | Lumens [Length of Fixture]: 2 - 2K Lumens, [0.61 m (2 ft)] 5 - 5K Lumens, [0.61 m (2 ft)] 7 - 7K Lumens, [1.22 m (4 ft)] | Voltage: LU - 120-277 Vac, 50/60 Hz BH - 347-480 Vac, 50/60 Hz | Hazardous Rating: 2 - Division 2/Zone 2 | Options: C - Safety Cables D - Diffused Lens F - Fuse ⌘ |

**Order Using Catalog Numbering Guide — NEC/CEC Viamaster™ LED Series Luminaires — Emergency Battery Backup Model**

| LLED | A | 2 | 2 | LU | 2 | C | H |
|---|---|---|---|---|---|---|---|
| Series Prefix: LLED - NEC/CEC Certified Linear LED Series | Housing: A - Aluminum | Size of Cable Entries: 1 - (2) 3/4" NPT | Lumens [Length of Fixture]: 2 - 2K Lumens, [0.61 m (2 ft)] 5 - 5K Lumens, [0.61 m (2 ft)] 7 - 7K Lumens, [1.22 m (4 ft)] | Voltage: LU - 120-277 Vac, 50/60 Hz | Hazardous Rating: 2 - Division 2/Zone 2 | Options: C - Safety Cables D - Diffused Lens F - Fuse ⌘ | Emergency: H - 90 Minutes |

**Lumen Output (Efficacy) ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|
| **Clear Polycarbonate Lens — All Models** | | | | | | |
| LLED | 1 x 32W | Linear | 5650K | >70 | 2200 | 100 |
| | 2 x 32W | | | | 4400 | 97.8 |
| | 3 x 32W | | | | 7800 | 96.3 |
| **Diffused Polycarbonate Lens — Standard Model** | | | | | | |
| LLED | 1 x 32W | Linear | 5650K | >70 | 1800 | 81.8 |
| | 2 x 32W | | | | 3800 | 84.4 |
| | 3 x 32W | | | | 6400 | 79.0 |
| **Clear Polycarbonate Lens — Emergency Battery Backup Model — 90 Minute Emergency Mode** | | | | | | |
| LLED | 1 x 32W | Linear | 5650K | >70 | 1250 | N/A |
| | 2 x 32W | | | | | |
| | 3 x 32W | | | | | |
| **Diffused Polycarbonate Lens — Emergency Battery Backup Model — 90 Minute Emergency Mode** | | | | | | |
| LLED | 1 x 32W | Linear | 5650K | >70 | 1000 | N/A |
| | 2 x 32W | | | | | |
| | 3 x 32W | | | | | |

① *All lumen values are typical (tolerance +/- 10%).*

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**



**Electrical Specifications** ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Standard Model** | | | | | |
| LLED*2 | 120 Vac | 22 | .20 | >0.95 | <20% |
| | 277 Vac | 22 | .12 | >0.87 | <20% |
| | 347 Vac | 22 | .07 | >0.95 | <20% |
| | 480 Vac | 22 | .06 | >0.77 | <20% |
| LLED*5 | 120 Vac | 45 | .37 | >0.95 | <20% |
| | 277 Vac | 45 | .17 | >0.95 | <20% |
| | 347 Vac | 45 | .14 | >0.95 | <20% |
| | 480 Vac | 45 | .10 | >0.95 | <20% |
| LLED*7 | 120 Vac | 81 | .70 | >0.95 | <20% |
| | 277 Vac | 81 | .31 | >0.95 | <20% |
| | 347 Vac | 81 | .24 | >0.95 | <20% |
| | 480 Vac | 81 | .18 | >0.95 | <20% |
| **Emergency Battery Backup Model** | | | | | |
| LLED*2 | 120 Vac | 22 | .20 | >0.95 | <20% |
| | 277 Vac | 22 | .12 | >0.87 | <20% |
| LLED*5 | 120 Vac | 45 | .37 | >0.95 | <20% |
| | 277 Vac | 45 | .17 | >0.95 | <20% |
| LLED*7 | 120 Vac | 81 | .70 | >0.95 | <20% |
| | 277 Vac | 81 | .31 | >0.95 | <20% |

*① All values are typical (tolerance +/-10%). Same electrical ratings apply to each luminaire with different LED position, mounting versions and cable entries.*

*⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**

**Temperature Codes**

| | | Gas | | Dust |
|---|---|---|---|---|
| **Model** | **Max Ambient C° (F°)** | **Class I, Division 2 Groups A, B, C, D ②** | **Class I, Zone 2 Group AEx ec IIC** | **Class II, Division 2, Groups E, F ③** |
| **Standard Models** | | | | |
| | 40 (104) | T4 | T4 | T5 |
| LLEDA12LU2 | 55 (131) | T4 | T4 | T5 |
| | 65 (149) | T4 | T4 | T4A |
| | 40 (104) | T4A | T4 | T6 |
| LLEDA12BH2 | 55 (131) | T4A | T4 | T5 |
| | 65 (149) | T4 | T4 | T4A |
| | 40 (104) | T4A | T4 | T5 |
| LLEDA15LU2 | 55 (131) | T4 | T4 | T4A |
| | 65 (149) | T4 | T4 | T4A |
| | 40 (104) | T4 | T4 | T5 |
| LLEDA15BH2 | 55 (131) | T4 | T4 | T4A |
| | 65 (149) | T4 | T4 | T4A |
| | 40 (104) | T4A | T4 | T5 |
| LLEDA17LU2 | 55 (131) | T5 | T5 | T4A |
| | 65 (149) | T4 | T4 | T4A |
| | 40 (104) | T4A | T4 | T5 |
| LLEDA17BH2 | 55 (131) | T4A | T4 | T5 |
| | 65 (149) | T4 | T4 | T4A |
| **Emergency Battery Backup Models** | | | | |
| | 40 (104) | T4 | T4 | T6 |
| LLEDA12LU2H | 55 (131) | T3C | T3 | T5 |
| | 65 (149) | T3C | T3 | T4A |
| | 40 (104) | T4A | T4 | T5 |
| LLEDA15LU2H | 55 (131) | T4A | T4 | T5 |
| | 65 (149) | T4 | T4 | T4A |
| | 40 (104) | T4A | T4 | T5 |
| LLEDA17LU2H | 55 (131) | T4 | T4 | T4A |
| | 65 (149) | T4 | T4 | T4A |

**NEC/CEC — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature ②③**

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*Note: Supply Wire Temperature for all: 75°C, 167°F*

*① All values are typical (tolerance +/-10%).*

*② T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*

*③ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 as designated by the NEC.*

*⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

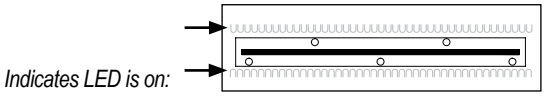
With Emergency Battery Backup

Hazardous Locations

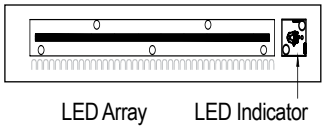
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**



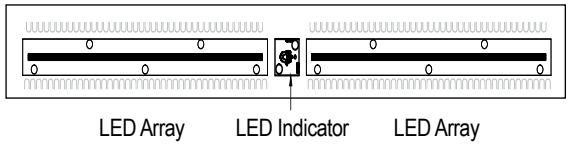
**Emergency Battery Backup Model — Illustration of LED operation in Emergency Mode**



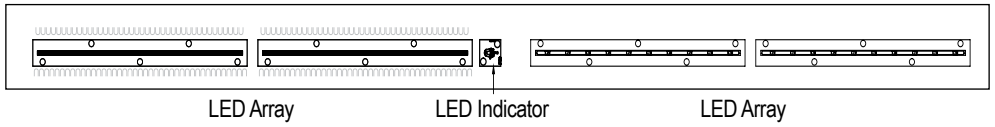

**2000K Lumen — 0.843 m (3 ft) — Single Array ON**




**5000K Lumens — 0.843 m (3 ft) — Two Arrays ON**




**7000K Lumens — 1.22 m (4 ft) — Two Arrays ON, Two Arrays OFF**




**Battery Charging Circuit Specifications**

| Battery Charge Current: | Battery Intermittent Charge: | Battery Type: | Battery Quantity: | Battery Voltage (total): | Battery Capacity: | Battery Charge Time: |
|---|---|---|---|---|---|---|
| 300 mA | 60 mA | "D" Cell NiMH | 5 | 6 V nominal | 6 A-hr | 24 hrs |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

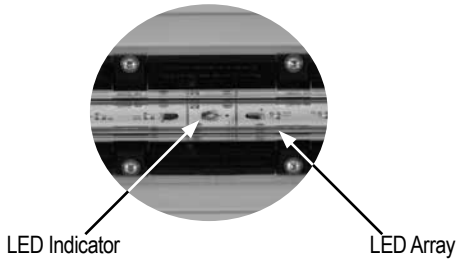
With Emergency Battery Backup

Hazardous Locations

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**

**Automatic Testing System (ATS) — Emergency Battery Backup Model — Functionality**

| Functional | Full Duration |
|---|---|
| Starts within 24 to 45 hours after the initial powerup of the module | Starts within 14 to 35 days after the initial power of the module |
| Occurs every 14 days after the initial aforementioned functional test | Occurs every 364 days after the initial aforementioned functional test |
| Lasts for 5 minutes | Lasts for the full duration of the rated emergency period |
| At the completion of functional and full duration tests, LED indicator will display the status of the emergency luminaire when AC is present | |




**LED Signals**

| Indicator Color | Timing | Description |
|---|---|---|
| Green | 1 sec ON: 1 sec OFF | Normal charging ok, Battery not yet fully charged, No fault detected, Testing ok |
| Green | 0.25 sec ON: 0.25 sec OFF | Functional / Duration Self-Test on-going |
| Green | Steady ON | Charging ok, Battery fully charged, No fault detected, Testing ok |
| Red | 1 sec ON: 1 sec OFF | Fault condition. Installation issue. Battery is reverse, not connected or shorted. Functional test failure, full duration test failure |
| LED Indicators OFF, LED Array ON | LED Indicator Lights (Red and Green) OFF | No AC, Emergency mode ON |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

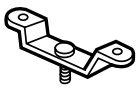
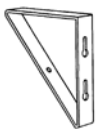
Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**



**Accessories and Replacement Parts — All Models**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Fixing Brackets for Surface Installation — Set of Two** | | | |
| | 316 stainless steel | 0.14 (0.3) | **FEFBS** |
| **Brackets for Surface Mounting — Set of Two** | | | |
|  | Aluminium (gray painted) | 0.34 (0.7) | **FESBA** |
| | 316 stainless steel | 0.64 (1.4) | **FESBS** |
| | 14-gauge stainless steel | 0.41 (0.9) | **FVSM** |
| **Fixed 45° Wall Mount** | | | |
|  | 11-gauge (1/8") stainless steel | 0.59 (1.3) | **FVWFM** |
| **Hinged Brackets for Adjusting Luminaire** | | | |
| | Aluminum | 0.75 (1.7) | **FEHBA** |
| **M8 Ring Bolts — Set of Two** | | | |
| | Zinc plated steel | 0.11 (0.2) | **FERBM8Z** |
| **Safety Cables — Set of Two** | | | |
| | Attached to fixtures to guard against them falling when the primary method of attachment fails. | 0.30 (0.7) | **LLEDSC** |
| **Replacement Drivers** | | | |
| | 120-277 Vac driver (-40 °C to +65 °C [-40 °F to + 149 °F]) | 0.41 (0.9) | **LLEDBU2** |
| **Replacement Lenses** | | | |
| | Clear Polycarbonate lens with an integral gasket | 0.68 (1.5) | **LLEDCPL** |
| | Diffused lens with an integral gasket | 1.1 (2.4) | **LLEDDPL** |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**

**Accessories and Replacement Parts —Standard Models**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Half Clamps Brackets for Pole Mounting — Set of two** | | | |
| | Diameter for 1-1/4 to 1-1/2" pole: 42 mm to 49 mm (1.65 in to 1.93 in) | | |
| | • Zinc plated steel | 0.34 (0.7) | **FEHC49Z** |
| | • 316 stainless steel | 0.34 (0.7) | **FEHC49S** |
| | Diameter for 2" pole: 60 mm (2.36 in) | | |
| | • Zinc plated steel | 0.48 (1.1) | **FEHC60Z** |
| | • 316 stainless steel | 0.52 (1.2) | **FEHC60S** |
| **Replacement Drivers** | | | |
| | 347-480 Vac driver | 0.39 (0.9) | **LLEDBH** |

**Accessories and Replacement Parts —Emergency Battery Backup Models**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Replacement Battery Management Module** | | | |
| | | 0.7 (1.6) | **BMMLLED** |
| **Replacement Battery Pack** | | | |
| | | 0.84 (1.85) | **BPLLED** |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard

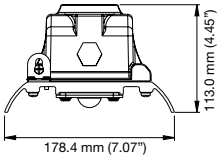
Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**

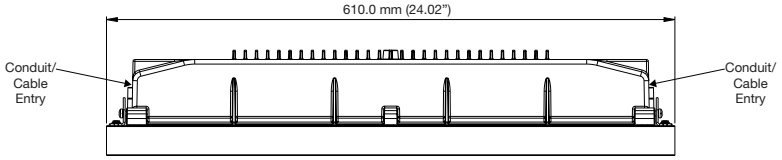


## Luminaire Dimensions in Millimeters (Inches) — Standard Models

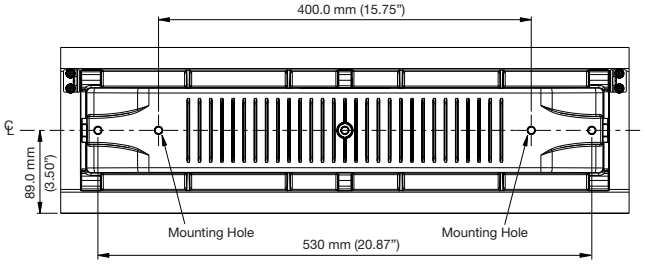
### End View — Standard Models — LLED*2 and LLED*5



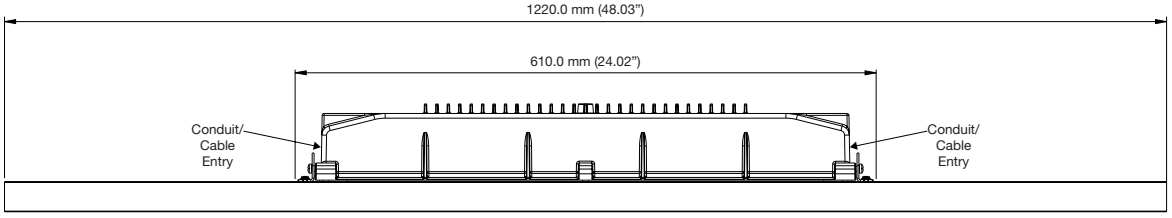

### Side View — Standard Models — LLED*2 and LLED*5



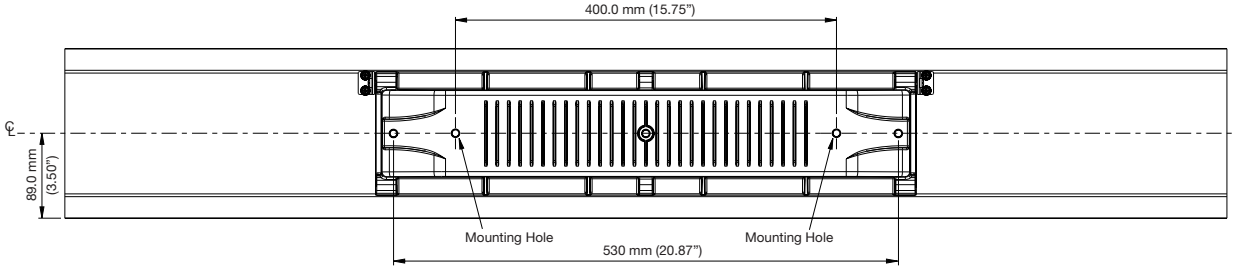

### Top (Mounting) View — Standard Models — LLED*2 and LLED*5




### Side View — Standard Models — LLED*7




### Top (Mounting) View — Standard Models — LLED*7




## Luminaire Specifications

| Model | Length in m (ft) | Weight in kg (lb) |
|---|---|---|
| LLED*2 | 0.61 m (2 ft) | 6.21 (13.7) |
| LLED*5 | 0.61 m (2 ft) | 6.35 (14.0) |
| LLED*7 | 1.22 m (4 ft) | 8.69 (19.15) |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

With Emergency Battery Backup

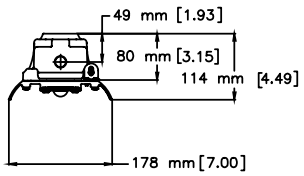
Hazardous Locations

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**

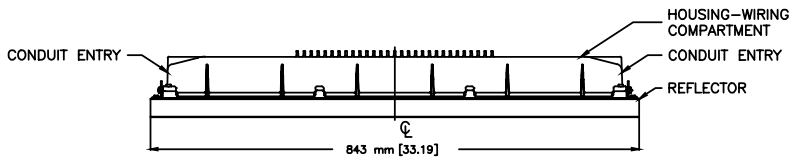


## Luminaire Dimensions in Millimeters (Inches) — Emergency Battery Backup Models

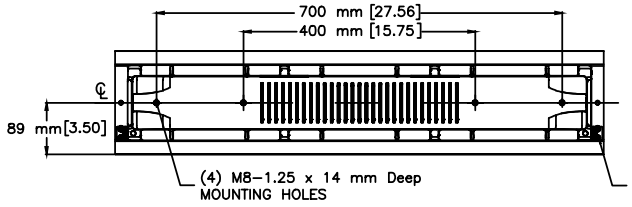
### End View — Standard Models — LLED*2 and LLED*5



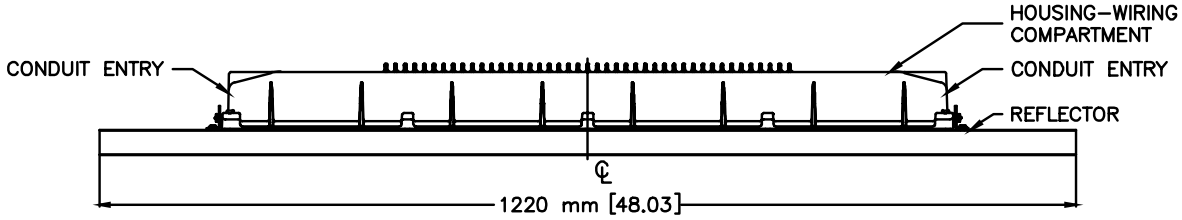

### Side View — Standard Models — LLED*2 and LLED*5



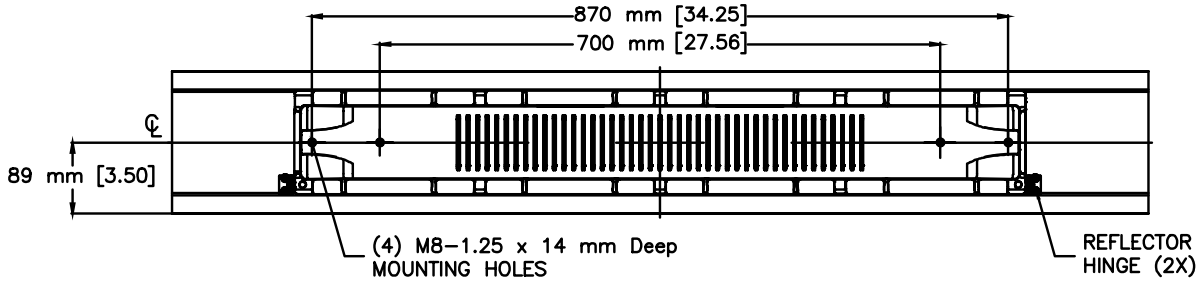

### Top (Mounting) View — Standard Models — LLED*2 and LLED*5




### Side View — Standard Models — LLED*7




### Top (Mounting) View — Standard Models — LLED*7




## Luminaire Specifications

| Model | Length in m (ft) | Weight in kg (lb) |
|---|---|---|
| LLED*2 | 0.84 m (3 ft) | 8.75 (19.30) |
| LLED*5 | 0.84 m (3 ft) | 8.89 (19.60) |
| LLED*7 | 1.22 m (4 ft) | 9.07 (20.00) |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

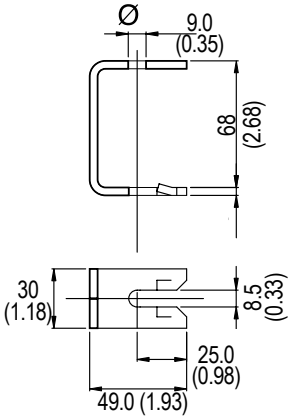
**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**

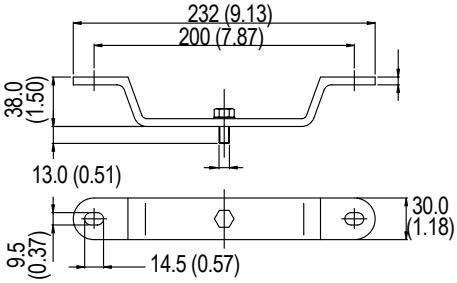


**Mounting Bracket Dimensions in Millimeters (Inches) — All Models**

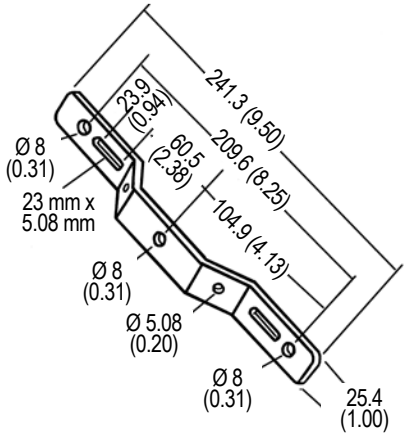
**FEFBS**



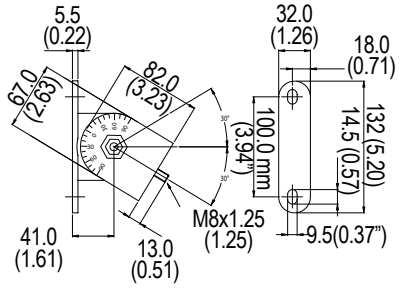

**FESBA/FESBS**



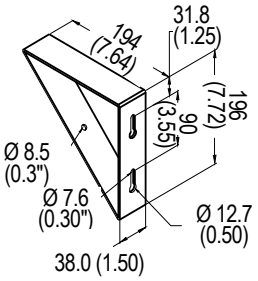

**FVSM**



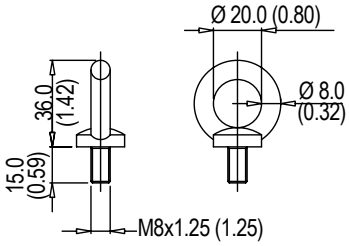

**FEHBA**



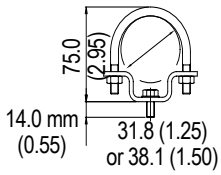

**FVWFM**



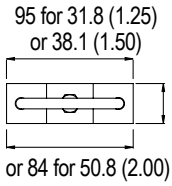

**FERBM8Z**



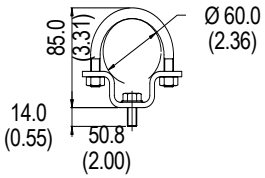

**FEHC49Z/FEHC49S**




**FEHC49Z/FEHC49S/FEHC60Z/FEHC60S**




**FEHC60Z/FEHC60S**




⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard

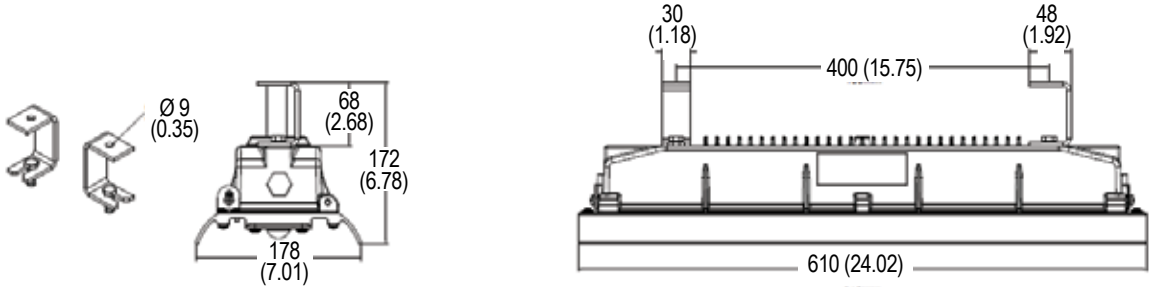
Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**

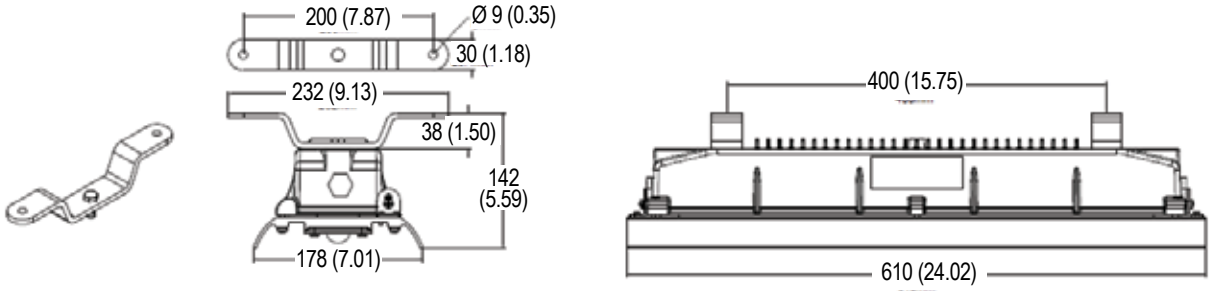


## Mounting Options Dimensions in Millimeters (Inches) — Standard Models

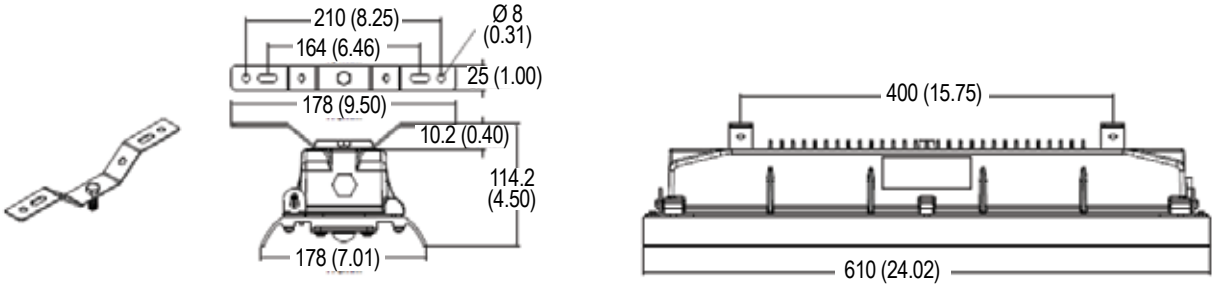
### Ceiling/Surface Mount — FEFBS




### Ceiling/Surface Mount — FESBA/FESBS




### Ceiling/Surface Mount — FVSM




⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard

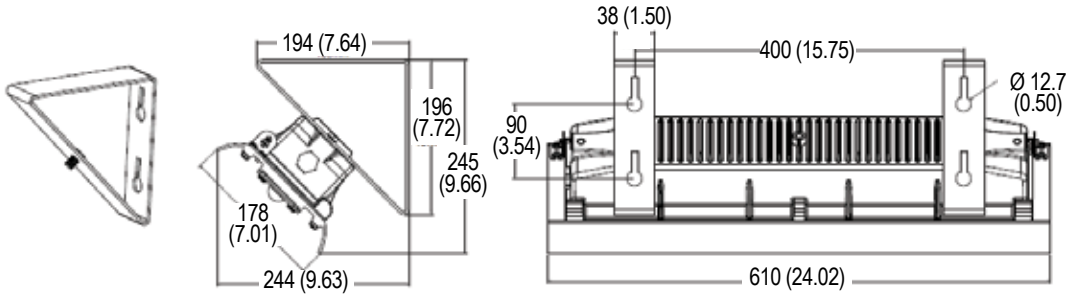
Hazardous Locations

**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**

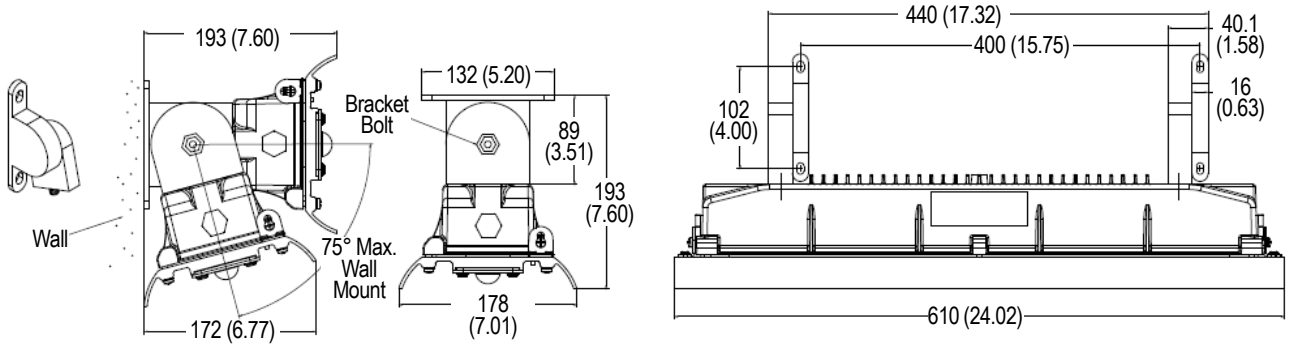


**Mounting Options Dimensions in Millimeters (Inches) — Standard Models**

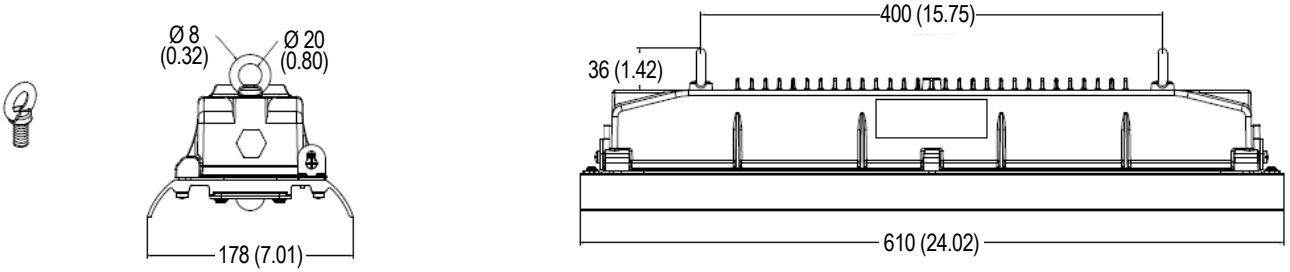
**Wall/Fixed 45° Mount — FVWFM**




**Wall/Hinged Mount — FEHBA**




**Ceiling/Chain Mount — FERBM8Z**



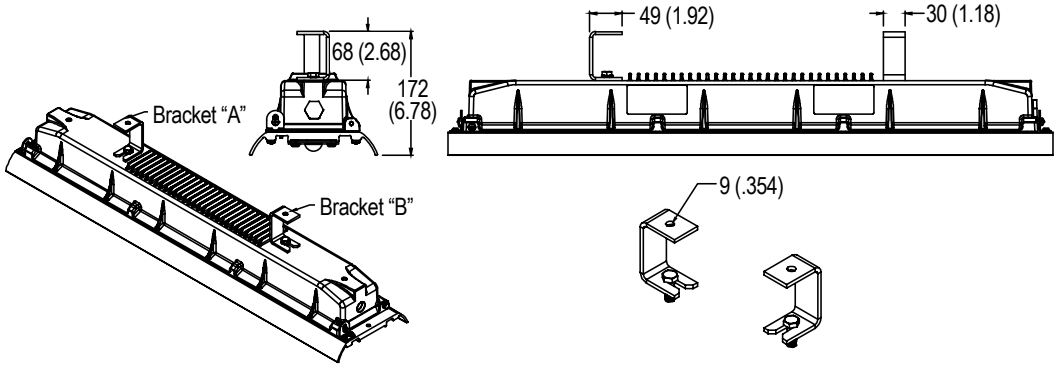

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**

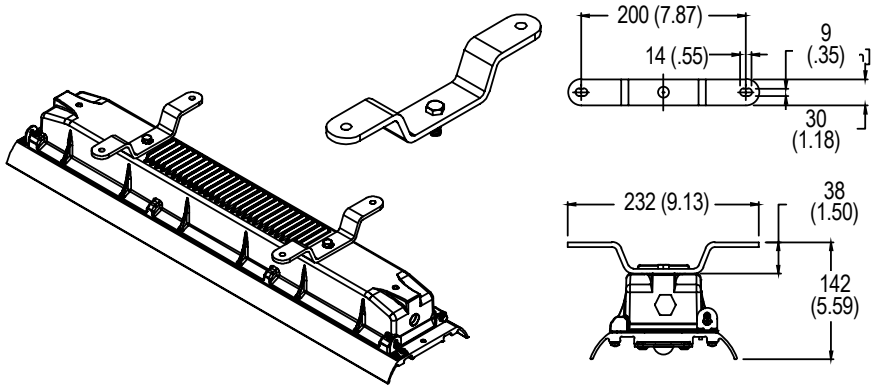


**Mounting Options Dimensions in Millimeters (Inches) — Emergency Battery Backup Models**

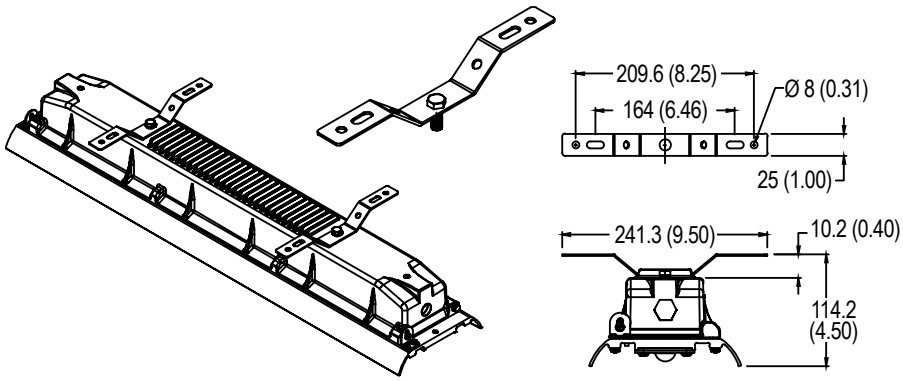
**Ceiling/Surface Mount — FEFBS**




**Ceiling/Surface Mount — FESBA/FESBS**




**Ceiling/Surface Mount — FVSM**




⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

With Emergency Battery Backup

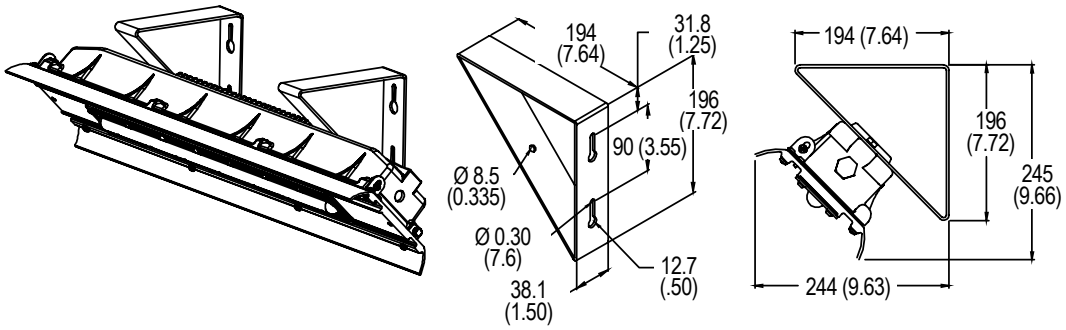
Hazardous Locations

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**

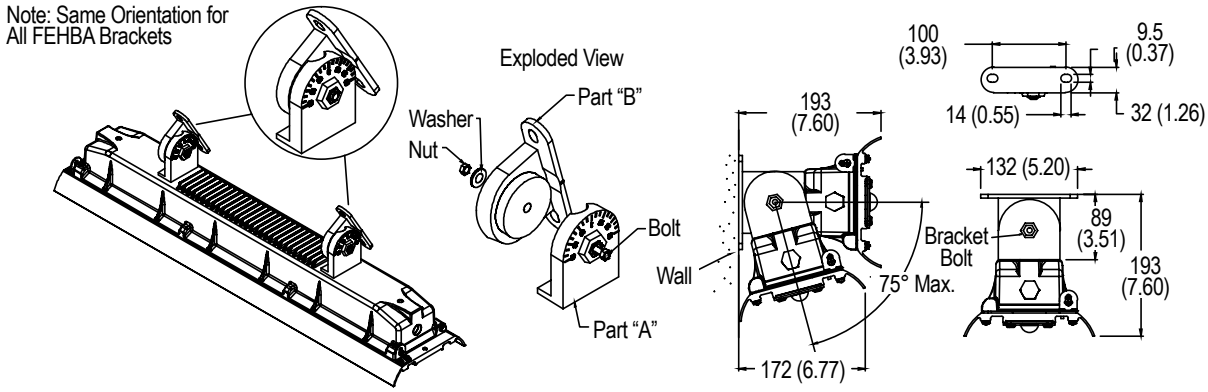


**Mounting Options Dimensions in Millimeters (Inches) — Emergency Battery Backup Models**

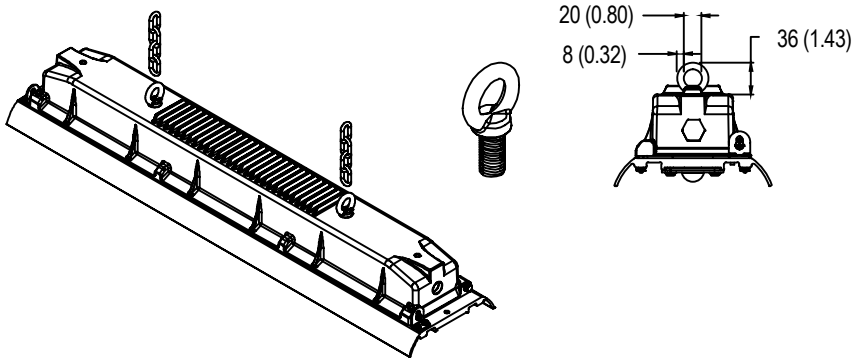
**Wall/Fixed 45° Mount — FVWFM**




**Wall/Hinged Mount — FEHBA**




**Ceiling/Chain Mount — FERBM8Z**




⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard

Hazardous Locations

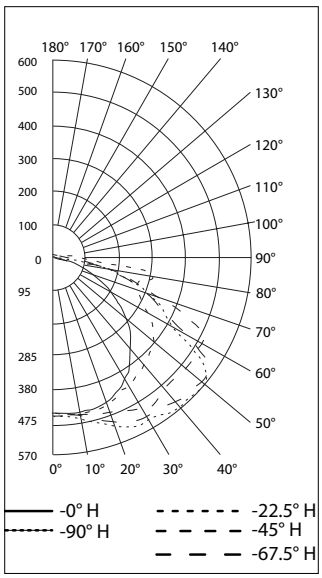
**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**



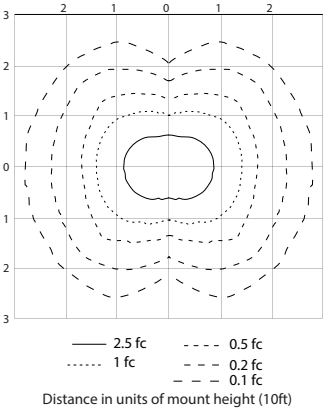
## Photometric Data — DATA SHOWN IS ABSOLUTE

### LLEDA12LU2 with Clear Polycarbonate Lens

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**



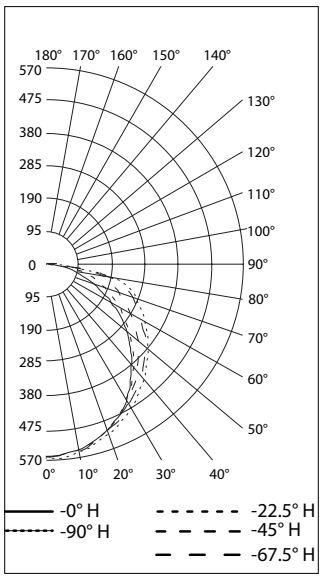

**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 424.1 | 20.2 |
| 0-40 | 741.2 | 35.4 |
| 0-60 | 1521 | 72.6 |
| 60-90 | 573.3 | 27.4 |
| 0-90 | 2094 | 100.0 |
| 90-180 | 0.3 | 0.0 |
| 0-180 | 2095 | 100.0 |

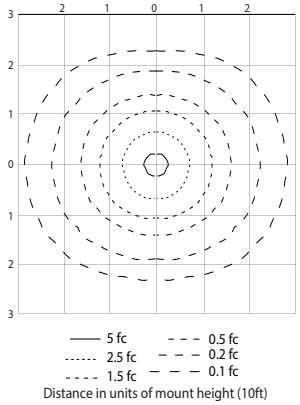
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 46.7 | 2.2 |
| 10-20 | 140.9 | 6.7 |
| 20-30 | 236.4 | 11.3 |
| 30-40 | 317.2 | 15.1 |
| 40-50 | 378.4 | 18.1 |
| 50-60 | 401.5 | 19.2 |
| 60-70 | 324.6 | 15.5 |
| 70-80 | 209.6 | 10.0 |
| 80-90 | 39.1 | 1.9 |
| 90-100 | 0.3 | 0.0 |

### LLEDA12LU2D with Diffused Polycarbonate Lens

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**




**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 429.7 | 24.6 |
| 0-40 | 702.7 | 40.3 |
| 0-60 | 1264 | 72.4 |
| 60-90 | 482.0 | 27.6 |
| 0-90 | 1746 | 100.0 |
| 90-180 | 0.0 | 0.0 |
| 0-180 | 1746 | 100.0 |

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 52.8 | 3.0 |
| 10-20 | 150.5 | 8.6 |
| 20-30 | 226.5 | 13.0 |
| 30-40 | 272.9 | 15.6 |
| 40-50 | 287.4 | 16.5 |
| 50-60 | 273.6 | 15.7 |
| 60-70 | 236.9 | 13.6 |
| 70-80 | 183.1 | 10.5 |
| 80-90 | 62.1 | 3.6 |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard

Hazardous Locations

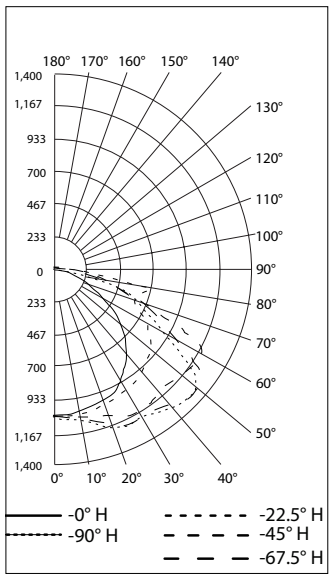
**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**



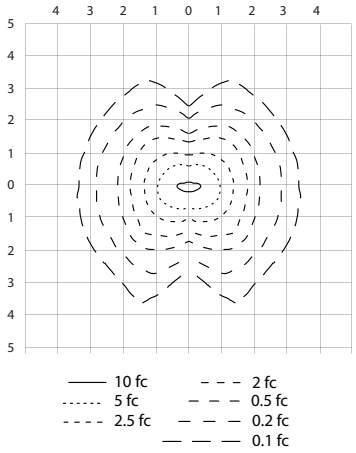
## Photometric Data — DATA SHOWN IS ABSOLUTE

### LLEDA15LU2 with Clear Polycarbonate Lens

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**




Distance in units of mount height (10ft)

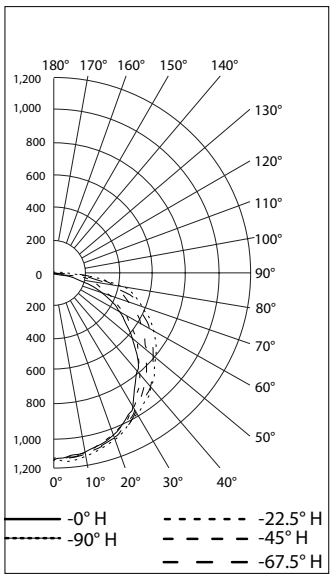
**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 912.8 | 20.3 |
| 0-40 | 1593 | 35.5 |
| 0-60 | 3282 | 73.0 |
| 60-90 | 1206 | 26.8 |
| 0-90 | 4488 | 99.9 |
| 90-180 | 4.5 | 0.1 |
| 0-180 | 4492 | 100.0 |

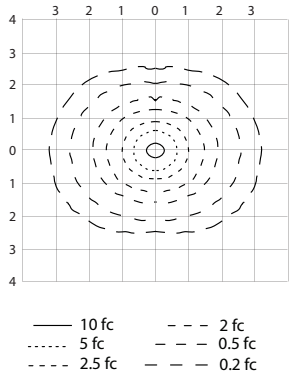
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 100.4 | 2.2 |
| 10-20 | 303.6 | 6.8 |
| 20-30 | 508.8 | 11.3 |
| 30-40 | 680.0 | 15.1 |
| 40-50 | 822.5 | 18.3 |
| 50-60 | 866.3 | 19.3 |
| 60-70 | 682.0 | 15.2 |
| 70-80 | 438.3 | 9.8 |
| 80-90 | 85.9 | 1.9 |
| 90-100 | 4.2 | 0.1 |
| 100-110 | 0.3 | 0.0 |

### LLEDA15LU2D with Diffused Polycarbonate Lens

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**




Distance in units of mount height (10ft)

**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 884.1 | 24.3 |
| 0-40 | 1450 | 39.8 |
| 0-60 | 2618 | 71.9 |
| 60-90 | 1017 | 27.9 |
| 0-90 | 3635 | 99.8 |
| 90-180 | 7.9 | 0.2 |
| 0-180 | 3643 | 100.0 |

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 108.2 | 3.0 |
| 10-20 | 308.9 | 8.5 |
| 20-30 | 467.0 | 12.8 |
| 30-40 | 565.5 | 15.5 |
| 40-50 | 598.1 | 16.4 |
| 50-60 | 570.3 | 15.7 |
| 60-70 | 494.4 | 13.6 |
| 70-80 | 382.9 | 10.5 |
| 80-90 | 139.8 | 3.8 |
| 90-100 | 7.4 | 0.2 |
| 100-110 | 0.5 | 0.0 |

*⌘ Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

Standard

Hazardous Locations

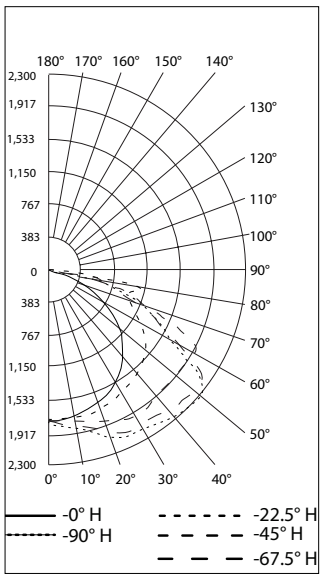
**NEC/CEC Standard Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/IP67 | Suitable for Use in Wet Locations | Marine Outside Type - For USA Only ⌘**



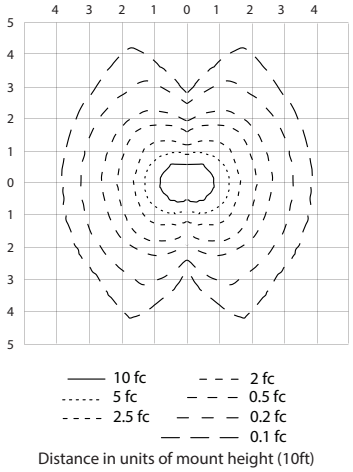
## Photometric Data — DATA SHOWN IS ABSOLUTE

### LLEDA17LU2 with Clear Polycarbonate Lens

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**



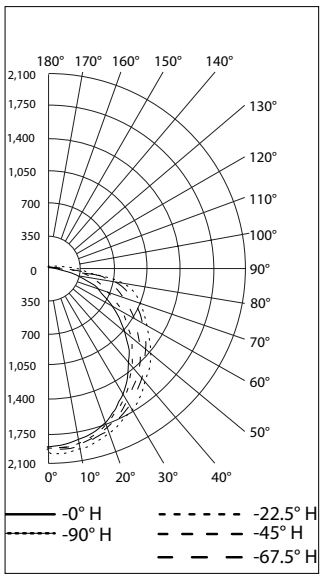

**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1560 | 20.0 |
| 0-40 | 2728 | 34.9 |
| 0-60 | 5631 | 72.1 |
| 60-90 | 2171 | 27.8 |
| 0-90 | 7802 | 100.0 |
| 90-180 | 2.8 | 0.0 |
| 0-180 | 7805 | 100.0 |

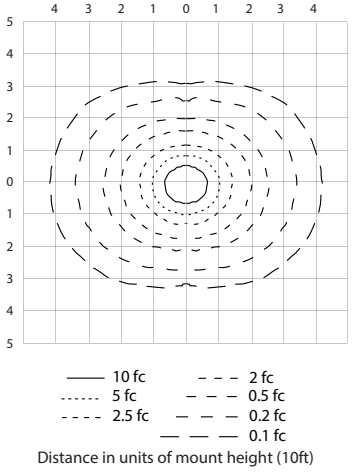
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 170.7 | 2.2 |
| 10-20 | 518.4 | 6.6 |
| 20-30 | 870.5 | 11.2 |
| 30-40 | 1168 | 15.0 |
| 40-50 | 1406 | 18.0 |
| 50-60 | 1497 | 19.2 |
| 60-70 | 1229 | 15.7 |
| 70-80 | 785.7 | 10.1 |
| 80-90 | 156.6 | 2.0 |
| 90-100 | 2.7 | 0.0 |
| 100-110 | 0.3 | 0.0 |

### LLEDA17LU2D with Diffused Polycarbonate Lens

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**




**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1518 | 24.1 |
| 0-40 | 2494 | 39.5 |
| 0-60 | 4528 | 71.8 |
| 60-90 | 1775 | 28.1 |
| 0-90 | 6303 | 99.9 |
| 90-180 | 3.4 | 0.1 |
| 0-180 | 6307 | 100.0 |

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 185.3 | 2.9 |
| 10-20 | 529.7 | 8.4 |
| 20-30 | 802.9 | 12.7 |
| 30-40 | 976.2 | 15.5 |
| 40-50 | 1038 | 16.5 |
| 50-60 | 995.8 | 15.8 |
| 60-70 | 868.1 | 13.8 |
| 70-80 | 673.7 | 10.7 |
| 80-90 | 233.4 | 3.7 |
| 90-100 | 3.4 | 0.1 |
| 100-110 | 0.5 | 0.0 |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

With Emergency Battery Backup

Hazardous Locations

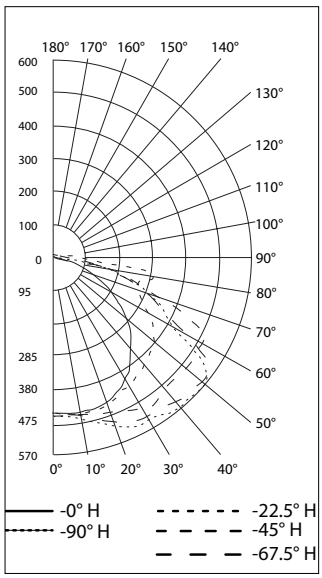
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**



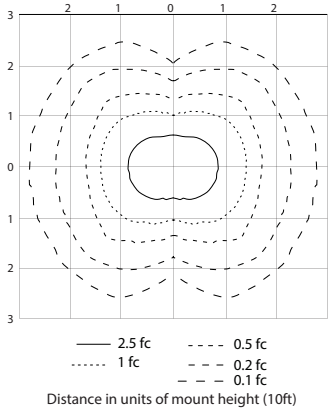
## Photometric Data — DATA SHOWN IS ABSOLUTE

### LLEDA12LU2H with Clear Polycarbonate Lens — Standard Mode

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**



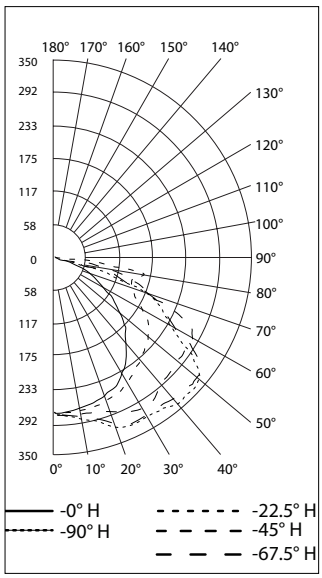

**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 424.1 | 20.2 |
| 0-40 | 741.2 | 35.4 |
| 0-60 | 1521 | 72.6 |
| 60-90 | 573.3 | 27.4 |
| 0-90 | 2094 | 100.0 |
| 90-180 | 0.3 | 0.0 |
| 0-180 | 2095 | 100.0 |

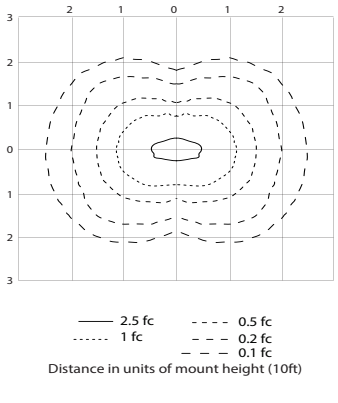
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 46.7 | 2.2 |
| 10-20 | 140.9 | 6.7 |
| 20-30 | 236.4 | 11.3 |
| 30-40 | 317.2 | 15.1 |
| 40-50 | 378.4 | 18.1 |
| 50-60 | 401.5 | 19.2 |
| 60-70 | 324.6 | 15.5 |
| 70-80 | 209.6 | 10.0 |
| 80-90 | 39.1 | 1.9 |
| 90-100 | 0.3 | 0.0 |
| 100-110 | 0.3 | 0.0 |

### LLEDA12LU2H with Clear Polycarbonate Lens — Emergency Mode

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**




**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 243.3 | 20.3 |
| 0-40 | 423.5 | 35.3 |
| 0-60 | 863.5 | 71.9 |
| 60-90 | 337.3 | 28.1 |
| 0-90 | 1201 | 100.0 |
| 90-180 | 0.1 | 0.0 |
| 0-180 | 1201 | 100.0 |

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 26.8 | 2.2 |
| 10-20 | 80.9 | 6.7 |
| 20-30 | 135.6 | 11.3 |
| 30-40 | 180.3 | 15.0 |
| 40-50 | 213.9 | 17.8 |
| 50-60 | 226.0 | 18.8 |
| 60-70 | 188.3 | 15.7 |
| 70-80 | 123.1 | 10.2 |
| 80-90 | 26.0 | 2.2 |
| 90-100 | 0.1 | 0.0 |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

With Emergency Battery Backup

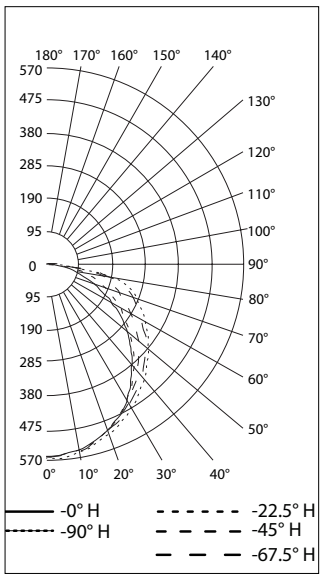
Hazardous Locations

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**

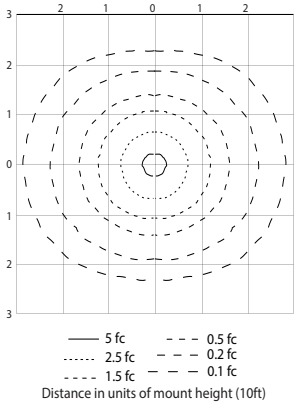
## Photometric Data — DATA SHOWN IS ABSOLUTE

### LLEDA12LU2DH with Diffused Polycarbonate Lens — Standard Mode

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**



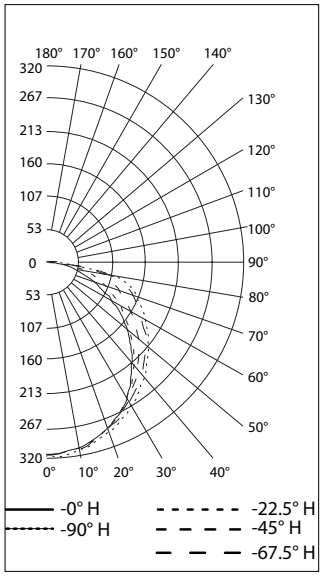

**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 429.7 | 24.6 |
| 0-40 | 702.7 | 40.3 |
| 0-60 | 1264 | 72.4 |
| 60-90 | 482.0 | 27.6 |
| 0-90 | 1746 | 100.0 |
| 90-180 | 0.0 | 0.0 |
| 0-180 | 1746 | 100.0 |

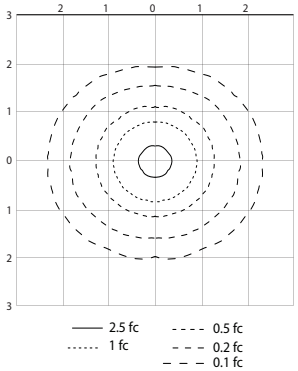
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 52.8 | 3.0 |
| 10-20 | 150.5 | 8.6 |
| 20-30 | 226.5 | 13.0 |
| 30-40 | 272.9 | 15.6 |
| 40-50 | 287.4 | 16.5 |
| 50-60 | 273.6 | 15.7 |
| 60-70 | 236.9 | 13.6 |
| 70-80 | 183.1 | 10.5 |
| 80-90 | 62.1 | 3.6 |
| 90-100 | 0.3 | 0.0 |

### LLEDA12LU2DH with Diffused Polycarbonate Lens — Emergency Mode

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**




**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 239.3 | 24.6 |
| 0-40 | 391.3 | 40.2 |
| 0-60 | 704.3 | 72.4 |
| 60-90 | 268.1 | 27.6 |
| 0-90 | 972.3 | 100.0 |
| 90-180 | 0.0 | 0.0 |
| 0-180 | 972.4 | 100.0 |

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 29.4 | 3.0 |
| 10-20 | 83.8 | 8.6 |
| 20-30 | 126.1 | 13.0 |
| 30-40 | 152.0 | 15.6 |
| 40-50 | 160.4 | 16.5 |
| 50-60 | 152.6 | 15.7 |
| 60-70 | 132.2 | 13.6 |
| 70-80 | 102.2 | 10.5 |
| 80-90 | 33.6 | 3.5 |
| 90-100 | 0.1 | 0.0 |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

With Emergency Battery Backup

Hazardous Locations

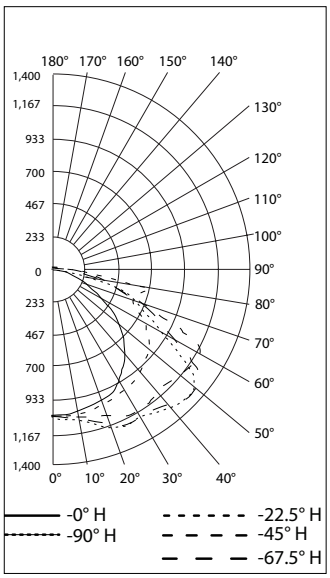
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**



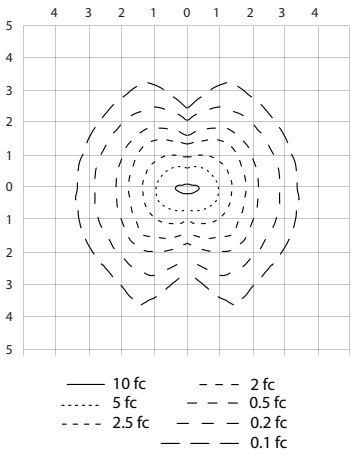
## Photometric Data — DATA SHOWN IS ABSOLUTE

### LLEDA15LU2H with Clear Polycarbonate Lens — Standard Mode

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**



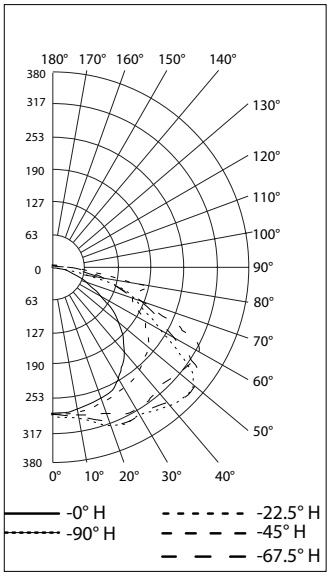

**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 912.8 | 20.3 |
| 0-40 | 1593 | 35.5 |
| 0-60 | 3282 | 73.0 |
| 60-90 | 1206 | 26.8 |
| 0-90 | 4488 | 99.9 |
| 90-180 | 4.5 | 0.1 |
| 0-180 | 4492 | 100.0 |

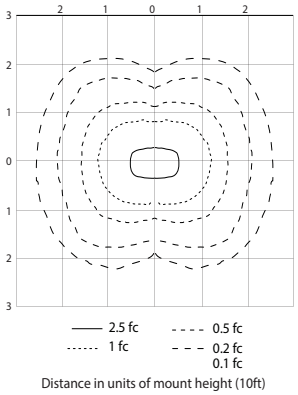
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 100.4 | 2.2 |
| 10-20 | 303.6 | 6.8 |
| 20-30 | 508.8 | 11.3 |
| 30-40 | 680.0 | 15.1 |
| 40-50 | 822.5 | 18.3 |
| 50-60 | 866.3 | 19.3 |
| 60-70 | 682.0 | 15.2 |
| 70-80 | 438.3 | 9.8 |
| 80-90 | 85.9 | 1.9 |
| 90-100 | 4.2 | 0.1 |
| 100-110 | 0.3 | 0.0 |

### LLEDA15LU2H with Clear Polycarbonate Lens — Emergency Mode

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**




**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 260.7 | 19.9 |
| 0-40 | 455.2 | 34.7 |
| 0-60 | 939.1 | 71.6 |
| 60-90 | 371.6 | 28.3 |
| 0-90 | 1311 | 100.0 |
| 90-180 | 0.4 | 0.0 |
| 0-180 | 1311 | 100.0 |

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 28.7 | 2.2 |
| 10-20 | 86.6 | 6.6 |
| 20-30 | 145.4 | 11.1 |
| 30-40 | 194.4 | 14.8 |
| 40-50 | 233.1 | 17.8 |
| 50-60 | 250.8 | 19.1 |
| 60-70 | 209.7 | 16.0 |
| 70-80 | 133.0 | 10.1 |
| 80-90 | 28.9 | 2.2 |
| 90-100 | 0.4 | 0.0 |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

With Emergency Battery Backup

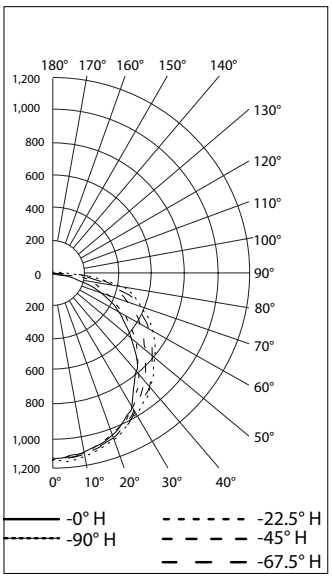
Hazardous Locations

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**

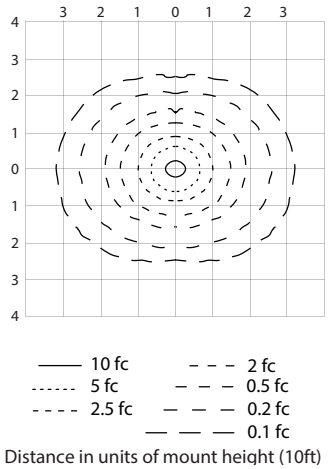
## Photometric Data — DATA SHOWN IS ABSOLUTE

### LLEDA15LU2DH with Diffused Polycarbonate Lens — Standard Mode

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**



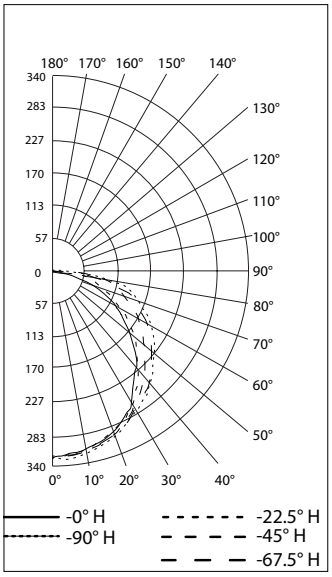

**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 884.1 | 24.3 |
| 0-40 | 1450 | 39.8 |
| 0-60 | 2618 | 71.9 |
| 60-90 | 1017 | 27.9 |
| 0-90 | 3635 | 99.8 |
| 90-180 | 7.9 | 0.2 |
| 0-180 | 3643 | 100.0 |

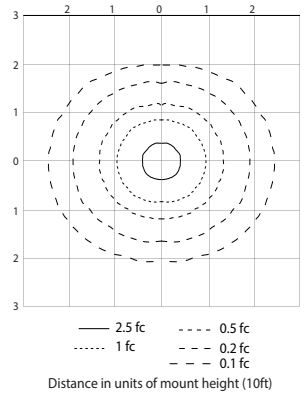
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 108.2 | 3.0 |
| 10-20 | 308.9 | 8.5 |
| 20-30 | 467.0 | 12.8 |
| 30-40 | 565.5 | 15.5 |
| 40-50 | 598.1 | 16.4 |
| 50-60 | 570.3 | 15.7 |
| 60-70 | 494.4 | 13.6 |
| 70-80 | 382.9 | 10.5 |
| 80-90 | 139.8 | 3.8 |
| 90-100 | 7.4 | 0.2 |
| 100-110 | 0.5 | 0.0 |

### LLEDA15LU2DH with Diffused Polycarbonate Lens — Emergency Mode

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**




**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 256.6 | 24.2 |
| 0-40 | 421.3 | 39.8 |
| 0-60 | 763.1 | 72.1 |
| 60-90 | 295.6 | 27.9 |
| 0-90 | 1059 | 100.0 |
| 90-180 | 0.3 | 0.0 |
| 0-180 | 1059 | 100.0 |

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 31.4 | 3.0 |
| 10-20 | 89.6 | 8.5 |
| 20-30 | 135.6 | 12.8 |
| 30-40 | 164.7 | 15.6 |
| 40-50 | 174.6 | 16.5 |
| 50-60 | 167.1 | 15.8 |
| 60-70 | 145.4 | 13.7 |
| 70-80 | 112.5 | 10.6 |
| 80-90 | 37.7 | 3.6 |
| 90-100 | 0.3 | 0.0 |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

With Emergency Battery Backup

Hazardous Locations

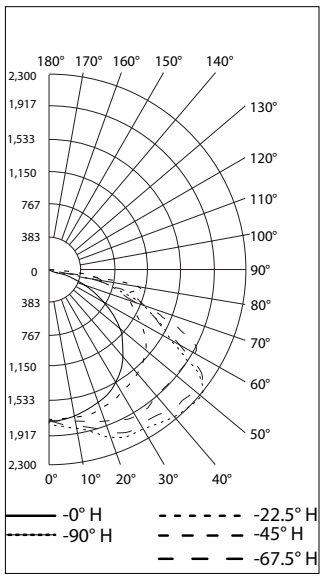
**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**



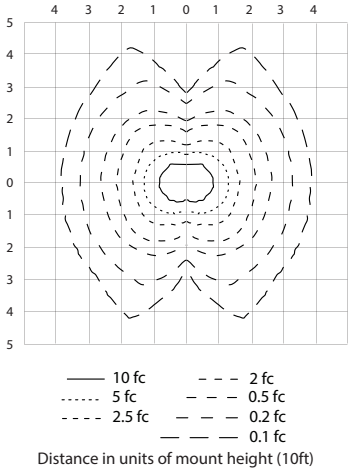
## Photometric Data — DATA SHOWN IS ABSOLUTE

### LLEDA17LU2H with Clear Polycarbonate Lens — Standard Mode

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**




Distance in units of mount height (10ft)

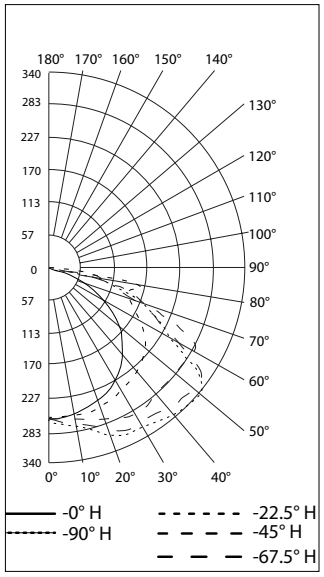
**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1560 | 20.0 |
| 0-40 | 2728 | 34.9 |
| 0-60 | 5631 | 72.1 |
| 60-90 | 2171 | 27.8 |
| 0-90 | 7802 | 100.0 |
| 90-180 | 2.8 | 0.0 |
| 0-180 | 7805 | 100.0 |

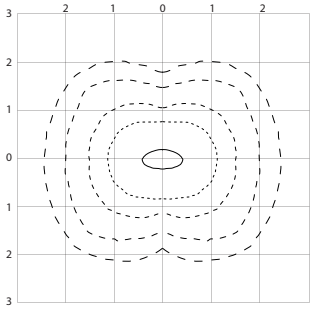
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 170.7 | 2.2 |
| 10-20 | 518.4 | 6.6 |
| 20-30 | 870.5 | 11.2 |
| 30-40 | 1168 | 15.0 |
| 40-50 | 1406 | 18.0 |
| 50-60 | 1497 | 19.2 |
| 60-70 | 1229 | 15.7 |
| 70-80 | 785.7 | 10.1 |
| 80-90 | 156.6 | 2.0 |
| 90-100 | 2.7 | 0.0 |

### LLEDA17LU2H with Clear Polycarbonate Lens — Emergency Mode

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**




Distance in units of mount height (10ft)

**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 234.0 | 19.9 |
| 0-40 | 408.1 | 34.7 |
| 0-60 | 840.6 | 71.4 |
| 60-90 | 335.1 | 28.5 |
| 0-90 | 1176 | 99.9 |
| 90-180 | 1.0 | 0.1 |
| 0-180 | 1177 | 100.0 |

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 25.7 | 2.2 |
| 10-20 | 77.9 | 6.6 |
| 20-30 | 130.4 | 11.1 |
| 30-40 | 174.0 | 14.8 |
| 40-50 | 208.6 | 17.7 |
| 50-60 | 223.9 | 19.0 |
| 60-70 | 186.3 | 15.8 |
| 70-80 | 121.0 | 10.3 |
| 80-90 | 27.9 | 2.4 |
| 90-100 | 1.0 | 0.1 |

⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# NEC/CEC Viamaster™ LED Series Luminaires

With Emergency Battery Backup

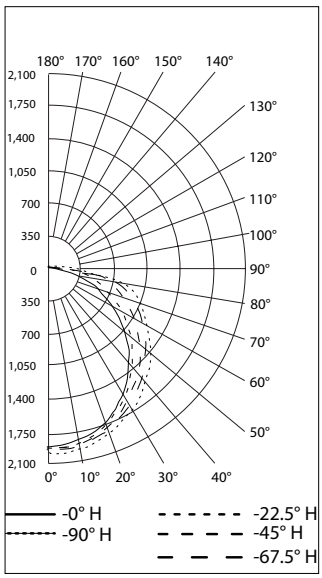
Hazardous Locations

**NEC/CEC Emergency Battery Backup Model: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | Class II, Division 2, Groups F, G | Zone 22, Group IIIB | Class III | Type 3R, 4, 4X | IP66/67 | Suitable for Use in Wet Locations**

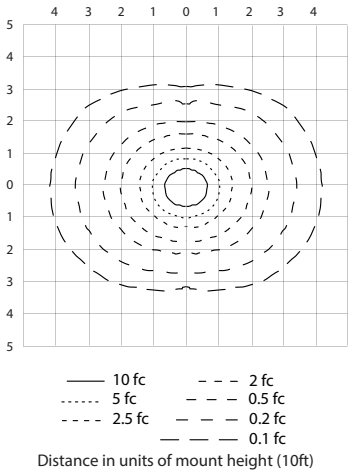
## Photometric Data — DATA SHOWN IS ABSOLUTE

### LLEDA17LU2DH with Diffused Polycarbonate Lens — Standard Mode

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**




Distance in units of mount height (10ft)

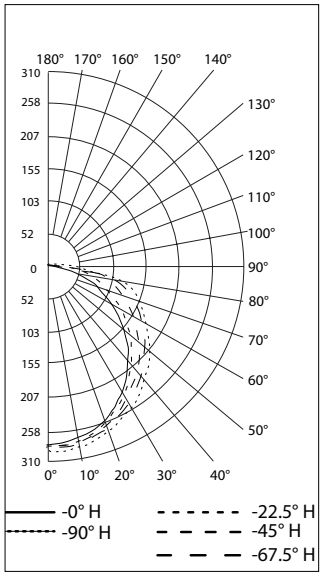
**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1518 | 24.1 |
| 0-40 | 2494 | 39.5 |
| 0-60 | 4528 | 71.8 |
| 60-90 | 1775 | 28.1 |
| 0-90 | 6303 | 99.9 |
| 90-180 | 3.4 | 0.1 |
| 0-180 | 6307 | 100.0 |

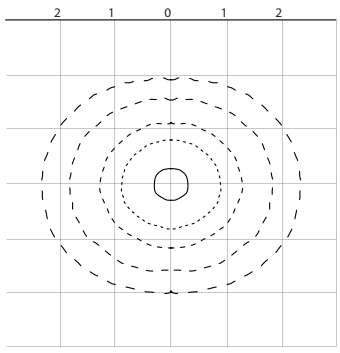
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 185.3 | 2.9 |
| 10-20 | 529.7 | 8.4 |
| 20-30 | 802.9 | 12.7 |
| 30-40 | 976.2 | 15.5 |
| 40-50 | 1038 | 16.5 |
| 50-60 | 995.8 | 15.8 |
| 60-70 | 868.1 | 13.8 |
| 70-80 | 673.7 | 10.7 |
| 80-90 | 233.4 | 3.7 |
| 90-100 | 3.4 | 0.1 |
| 100-110 | 0.5 | 0.0 |

### LLEDA17LU2DH with Diffused Polycarbonate Lens — Emergency Mode

**POLAR CANDELA DISTRIBUTION**




**ISOILLUMINATION PLOT**




Distance in units of mount height (10ft)

**ZONAL LUMENS AND PERCENTAGES AT 25°C**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 232.0 | 24.2 |
| 0-40 | 380.8 | 39.7 |
| 0-60 | 690.0 | 71.9 |
| 60-90 | 269.3 | 28.1 |
| 0-90 | 959.4 | 99.9 |
| 90-180 | 0.7 | 0.1 |
| 0-180 | 960.1 | 100.0 |

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 28.4 | 3.0 |
| 10-20 | 81.0 | 8.4 |
| 20-30 | 122.6 | 12.8 |
| 30-40 | 148.8 | 15.5 |
| 40-50 | 157.9 | 16.5 |
| 50-60 | 151.3 | 15.8 |
| 60-70 | 131.9 | 13.7 |
| 70-80 | 102.4 | 10.7 |
| 80-90 | 35.0 | 3.6 |
| 90-100 | 0.7 | 0.1 |

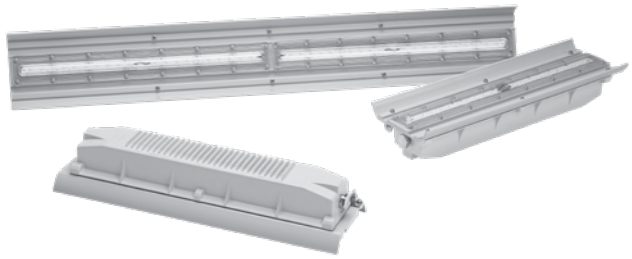
⌘ *Fusing option not available with Marine Outside Type (Salt Water) rating. Fusing option not permitted for cUL.*

# ATEX/IECEx Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**ATEX/IECEx: Zones 2 and 22 | ⟨Ex⟩ II 3 GD | EPL Gc and Dc | Ex nA IIC; Ex tc IIIC | IP66/IK08 | ⟨Ex⟩ II 2 D | EPL Db | Ex tb IIIC | IP66/IK08**



## Applications

- For use in locations where:
  - — Flammable gases, vapors and dusts are present
  - — A high degree of corrosion resistance is required
  - — Protection against dirt, water and moisture is necessary
- Typical applications include:
  - — Oil refineries
  - — Petrochemical facilities
  - — Pulp and paper mills
  - — Food processing plants
  - — Waste and sewer treatment
  - — Underground tunnels
  - — General manufacturing facilities
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

## Features

- 60,000+ hour LED life for years of maintenance free operation.
- Lightweight design, hinged cover with captive screws, and terminal block wiring for easy installation and maintenance.
- Standard screw-type terminal block can accept 1 to 6 $mm^2$ wire.
- Contemporary, low profile design suitable for tight spaces.
- Field replaceable LED driver and lens.
- Industry-leading thermal management for safe, reliable operation over wide temperature range.
- Full range of lumen outputs, with light distribution equivalent to the Appleton FN Series fluorescent fixtures.
- Easy to retrofit in same mounting footprint as the Appleton FE and FN Series fluorescent fixtures.
- M20 plug or M25 plug provided.
- Universal, high efficiency, drivers cover voltage requirements for 120-277 Vac, 50/60 Hz +/- 10%, 125-300 Vdc.
- Standard 2 kV surge suppression.
- 5 year standard warranty.

## Options

- Safety cable for fall safe retention; add suffix **-C** to the end of the catalog number.

## Standard Materials

- Housing: copperfree (4/10 of 1% max.) aluminum.
- Lens: thermal shock- and impact-resistant polycarbonate lens.
- Gasket: silicone rubber, mechanically secured.
- Bolts: stainless steel.
- Close up plugs: nickel plated brass.
  - — Mounting hardware: See ordering information.

## Standard Finishes

- Housing: gray RAL 7038 epoxy

## ATEX/IECEx Certifications and Compliances

- Certification Type: LLEDA
  - — Gas: Zone 2
    - – Conforming to ATEX 94/9/EC: ⟨Ex⟩ II 3 G
    - – Protection Level: EPL Gc
    - – Type of Protection: Ex nA IIC
    - – Temperature Class: *See Temperature Codes table* (T6 to T3)
    - – EC Declaration of Conformity: 50309
    - – ATEX Certificate: LCIE 15 ATEX 1003X
    - – IECEx Certificate: IECEx LCIE 15.0010X
  - — Dust: Zones 21 and 22
    - – Conforming to ATEX 2014/34/EU: ⟨Ex⟩ II 2 D and ⟨Ex⟩ II 3 D
    - – Protection Level: EPL Db and Dc
    - – Type of Protection: Ex tb IIIC and Ex tc IIIC
    - – Surface Temperature: *See Temperature Codes table* [+63 °C to +84 °C (+145 °F to +183 °F)]
    - – EC Declaration of Conformity: 50309
    - – ATEX Certificate, Zone 21: LCIE 15 ATEX 3006X
    - – ATEX Certificate, Zone 22: LCIE 15 ATEX 1003X
    - – IECEx Certificate, Zone 21 and 22: IECEx LCIE 15.0010X
- Ambient Temperature:
  - — Standard Version:
    - – LLEDAA2: -40 °C up to +65 °C (-40 °F up to +149 °F)
    - – LLEDAA5/7: -40 °C up to +60 °C (-40 °F up to +140 °F)
  - — Emergency Version:
    - – LLEDAA2: -40 °C up to +65 °C (-40 °F up to +149 °F)
    - – LLEDAA5/7: -40 °C up to +60 °C (-40 °F up to +140 °F)
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK08
- Ex Standards: EN/IEC 60079-0; 60079-15; 60079-31
- Product Standards: EN/IEC 61347-1; EN/IEC 61347-2-13; 60598-1
- EMC Standards: EN/IEC 61000.4.2; 61000.4.3; 61000.4.4; 61000.4.5; 61000.4.6; 61000.4.8; 61000.4.11; EN/IEC 55015; 61547

## Related Products

- For NEC/CEC certified products, refer to NEC/CEC Viamaster LED Series Luminaires.

# ATEX/IECEx Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**ATEX/IECEx: Zones 2 and 22 | Ex II 3 GD | EPL Gc and Dc | Ex nA IIC; Ex tc IIIC | IP66/IK08 | Ex II 2 D | EPL Db | Ex tb IIIC | IP66/IK08**

**Order Using Catalog Numbering Guide — ATEX/IECEx Viamaster™ LED Series Luminaires**

| LLEDA | A | 2 | L | 2 | BU | Z2 | C |
|---|---|---|---|---|---|---|---|
| Series Prefix:<br>LLEDA - ATEX/IECEx Certified Linear LED Series | Housing:<br>A - Aluminum | Size of Cable Entries:<br>2 - M20<br>3 - M25 | Termination/Wiring:<br>L - Loop In/Out (3 entries, 1 at one end and 2 at the other)<br>S - Standard (2 entries on the same side)<br>T - Through Wired (2 entries, one at each end) | Lumens [Length of Fixture]:<br>2 - 2K Lumens, [0.61 m (2 ft)]<br>5 - 5K Lumens, [0.61 m (2 ft)]<br>7 - 7K Lumens, [1.22 m (4 ft)] | Voltage:<br>BU - 120-277 Vac, 50/60 Hz | Hazardous Rating:<br>Z2 - Zone 2 and 21-22 | Options:<br>C - Safety Cables<br>D - Diffused lens<br>E - 3h Non-maintained Emergency<br>H - 90 Minutes Non-maintained Emergency |

**Lumen Output (Efficacy)** ①

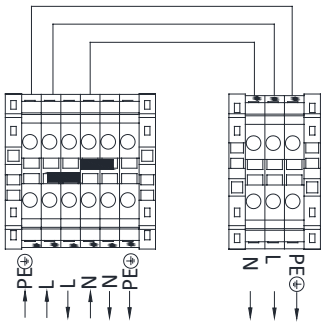
| Model | Fluorescent Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|
| **Clear Polycarbonate Lens** | | | | | | |
| LLEDA*2 | 3 x 18W | Linear | 5650K | 70 | 2,200 | 100 |
| LLEDA*5 | 2 x 36W | Linear | 5650K | 70 | 4,400 | 98 |
| LLEDA*7 | 3 x 58W | Linear | 5650K | 70 | 7,800 | 96.3 |

**Electrical Specifications** ②

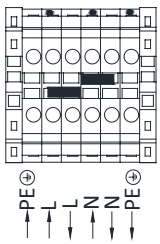
| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| LLEDA*2 | 120 Vac | 22 | .24 | >0.95 | <20% |
| | 277 Vac | 22 | .15 | >0.87 | <20% |
| LLEDA*5 | 120 Vac | 45 | .51 | >0.95 | <20% |
| | 277 Vac | 45 | .30 | >0.95 | <20% |
| LLEDA*7 | 120 Vac | 81 | .90 | >0.95 | <20% |
| | 277 Vac | 81 | .53 | >0.95 | <20% |

**Wiring Diagrams**

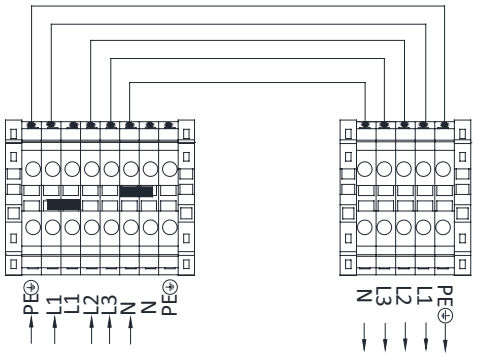
**Version : L**
Dual Loop In / Out — Through Wiring (Single Phase)
3 Entries, 1 at one end and 2 at the other




**Version : S**
Standard (Single Phase)
2 Entries on the same side




**Version : L**
Through Wiring (Three Phase)
2 Entries, one at each end




① *All lumen values are typical (tolerance +/- 10%).*
② *All values are typical (tolerance +/-10%). Same electrical ratings apply to each luminaire with different LED position, mounting versions and cable entries.*

# ATEX/IECEx Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**ATEX/IECEx: Zones 2 and 22 | ⟨Ex⟩ II 3 GD | EPL Gc and Dc | Ex nA IIC; Ex tc IIIC | IP66/IK08 | ⟨Ex⟩ II 2 D | EPL Db | Ex tb IIIC | IP66/IK08**

**Temperature Codes**

| Model | Ambient Temperature °C (°F) | Supply Wire Temperature °C (°F) | Zone 2 - 22 ② Gas Class of Temperature °C (°F) ① | Zone 2 - 22 ② Dust Surface Temperature °C (°F) | Zone 21 Dust Surface Temperature °C (°F) |
|---|---|---|---|---|---|
| LLEDA*2 | +40 (+104) | +75 (+167) | T6 +75 (+167) | +54 (+129) | +54 (+129) |
| | +55 (+131) | +75 (+167) | T5 +90 (+203) | +69 (+156) | +69 (+156) |
| | +60 (+140) | +75 (+167) | T5 +90 (+203) | +74 (+165) | +74 (+165) |
| | +65 (+149) | +75 (+167) | T5 +100 (+212) | +79 (+174) | +79 (+174) |
| LLEDA*5 | +40 (+104) | +75 (+167) | T4 +129 (+264) | +64 (+147) | +64 (+147) |
| | +55 (+131) | +75 (+167) | T3 +144 (+291) | +79 (+174) | +79 (+174) |
| | +60 (+140) | +75 (+167) | T3 +148 (+298) | +84 (+183) | +84 (+183) |
| LLEDA*7 | +40 (+104) | +75 (+167) | T4 +130 (+266) | +64 (+147) | +64 (+147) |
| | +55 (+131) | +75 (+167) | T3 +145 (+293) | +79 (+174) | +79 (+174) |
| | +60 (+140) | +75 (+167) | T3 +149 (+300) | +84 (+183) | +84 (+183) |

**"T" Numbers Represent the Maximum External Surface Temperature**

| "T" # | T1 | T2 | T3 | T4 | T5 | T6 |
|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +301 to +450 (+547 to +842) | +201 to +300 (+394 to +572) | +136 to +200 (+277 to +392) | +101 to +135 (+214 to +275) | +86 to +100 (+187 to +212) | +85 (+185) |

*① T-Codes provided in catalog pages are based on worst case data.*

*② Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.*

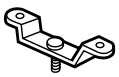
# ATEX/IECEx Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**ATEX/IECEx: Zones 2 and 22 | Ⓔx II 3 GD | EPL Gc and Dc | Ex nA IIC; Ex tc IIIC | IP66/IK08 | Ⓔx II 2 D | EPL Db | Ex tb IIIC | IP66/IK08**

**Accessories and Replacement Parts**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Fixing Brackets for Surface Installation — Set of Two** | | | |
| | 316 stainless steel | 0.14 (0.3) | **FEFBS** |
| **Brackets for Surface Mounting — Set of Two** | | | |
|  | Aluminium (gray painted) | 0.34 (0.7) | **FESBA** |
| | 316 stainless steel | 0.64 (1.4) | **FESBS** |
| | 14-gauge stainless steel | 0.41 (0.9) | **FVSM** ① |
| **Fixed 45° Wall Mount** | | | |
| | 11-gauge (1/8”) stainless steel | 0.59 (1.3) | **FVWFM** |
| **Hinged Brackets for Adjusting Luminaire** | | | |
| | Aluminum | 0.75 (1.7) | **FEHBA** |
| **M8 Ring Bolts — Set of Two** | | | |
| | Zinc plated steel | 0.11 (0.2) | **FERBM8Z** |
| **Half Clamps Brackets for Pole Mounting — Set of two** | | | |
| | Diameter for 1-1/4" to 1-1/2" pole: 42 mm to 49 mm (1.65" to 1.93") | | |
| | • Zinc plated steel | 0.34 (0.7) | **FEHC49Z** |
| | • 316 stainless steel | 0.34 (0.7) | **FEHC49S** |
| | Diameter for 2" pole: 60 mm (2.3") | | |
| | • Zinc plated steel | 0.48 (1.1) | **FEHC60Z** |
| | • 316 stainless steel | 0.52 (1.2) | **FEHC60S** |
| **Retrofit Brackets — Set of Two** | | | |
| | Adapts mounting holes for 1.22 m (4 ft) fixture to 700 mm (27.56") mounting centers. | 0.57 (1.25) | **LLEDRB** |
| **Safety Cables — Set of Two** | | | |
| | Attached to fixtures to guard against them falling when the primary method of attachment fails. | 0.30 (0.7) | **LLEDSC** |
| **Replacement Drivers** | | | |
| | 120-277 Vac driver (-40 °C to +65 °C [-40 °F to + 149 °F]) | 0.41 (0.9) | **LLEDBU2** |
| **Replacement Lenses** | | | |
| | Clear Polycarbonate lens with an integral gasket | 0.68 (1.5) | **LLEDCPL** |

① *FVSM does not retrofit in same mounting footprint as the Appleton FN and FE Series.*

# ATEX/IECEx Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

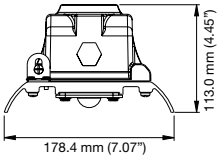
Hazardous Locations

**ATEX/IECEx: Zones 2 and 22 | Ⓔx II 3 GD | EPL Gc and Dc | Ex nA IIC; Ex tc IIIC | IP66/IK08 | Ⓔx II 2 D | EPL Db | Ex tb IIIC | IP66/IK08**

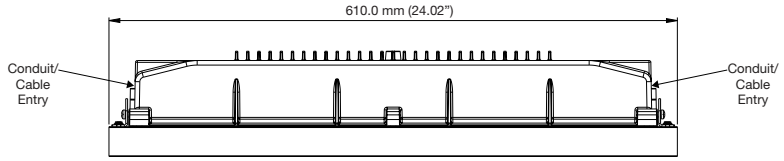


## Luminaire Dimensions in Millimeters (Inches)

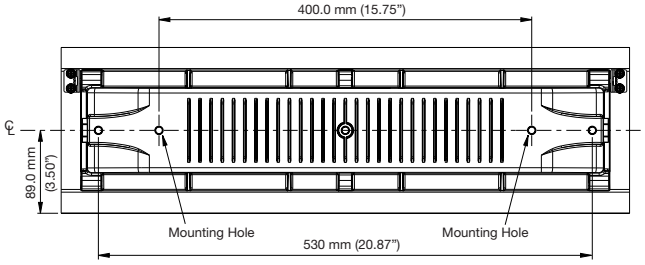
### End View — LLEDA*2 and LLEDA*5



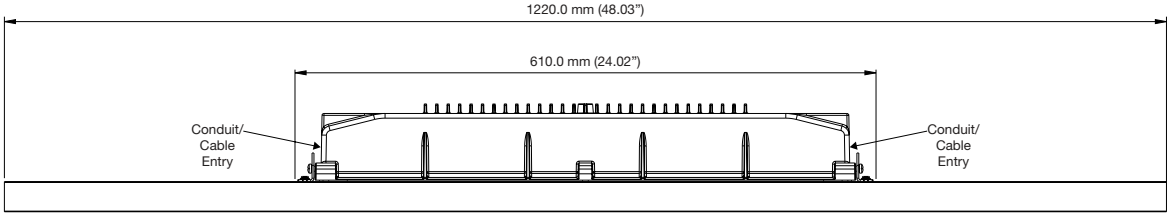

### Side View — LLEDA*2 and LLEDA*5



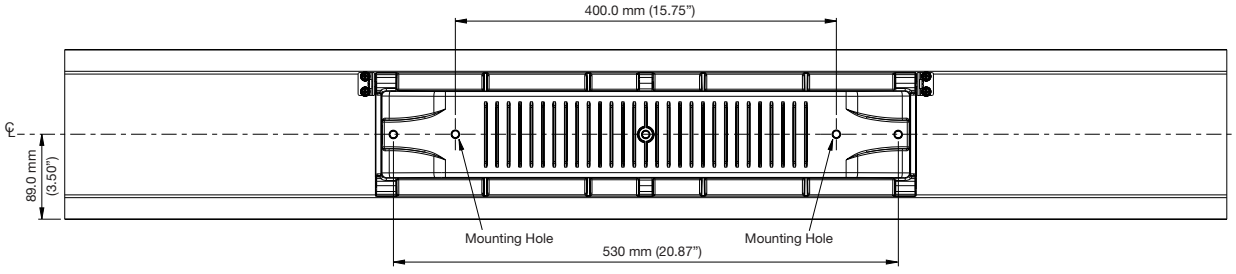

### Top (Mounting) View — LLEDA*2 and LLEDA*5




### Side View — LLEDA*7




### Top (Mounting) View — LLEDA*7



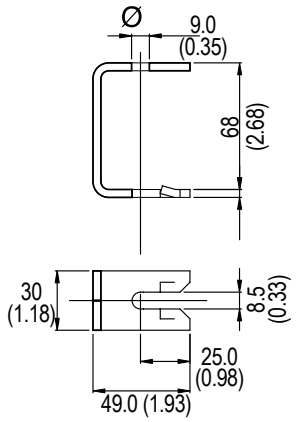

## Luminaire Specifications

| Model | Length in m (ft) | Weight in kg (lb) |
|---|---|---|
| LLEDA*2 | 0.61 m (2 ft) | 6.21 (13.7) |
| LLEDA*5 | 0.61 m (2 ft) | 6.35 (14.0) |
| LLEDA*7 | 1.22 m (4 ft) | 8.69 (19.15) |

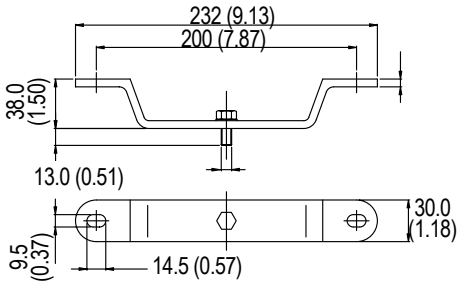
**ATEX/IECEx: Zones 2 and 22 | Ⓔx II 3 GD | EPL Gc and Dc | Ex nA IIC; Ex tc IIIC | IP66/IK08 | Ⓔx II 2 D | EPL Db | Ex tb IIIC | IP66/IK08**

**Mounting Bracket Dimensions in Millimeters (Inches)**

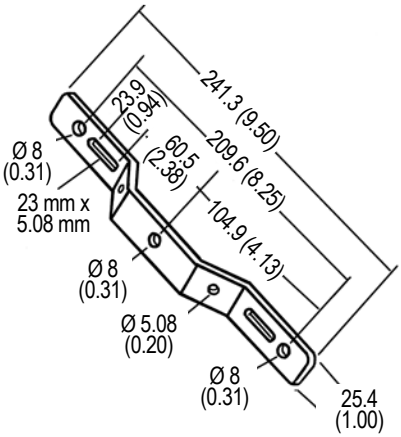
**FEFBS**



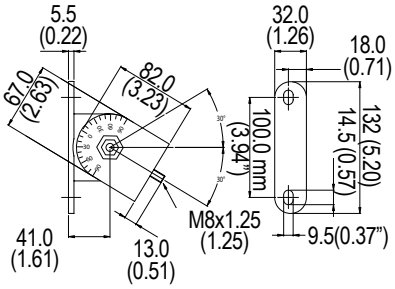

**FESBA/FESBS**



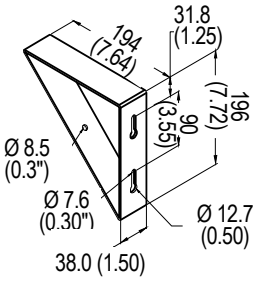

**FVSM**



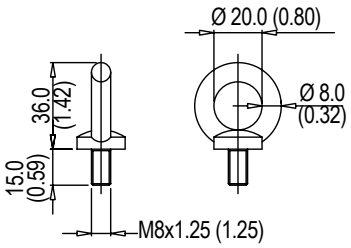

**FEHBA**



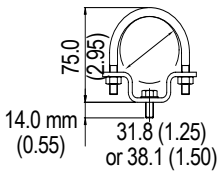

**FVWFM**



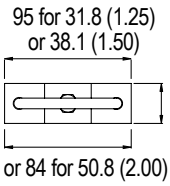

**FERBM8Z**



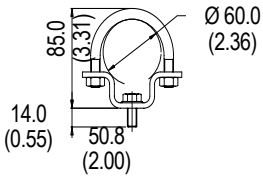

**FEHC49Z/FEHC49S**




**FEHC49Z/FEHC49S/FEHC60Z/FEHC60S**




**FEHC60Z/FEHC60S**



# ATEX/IECEx Viamaster™ LED Series Luminaires

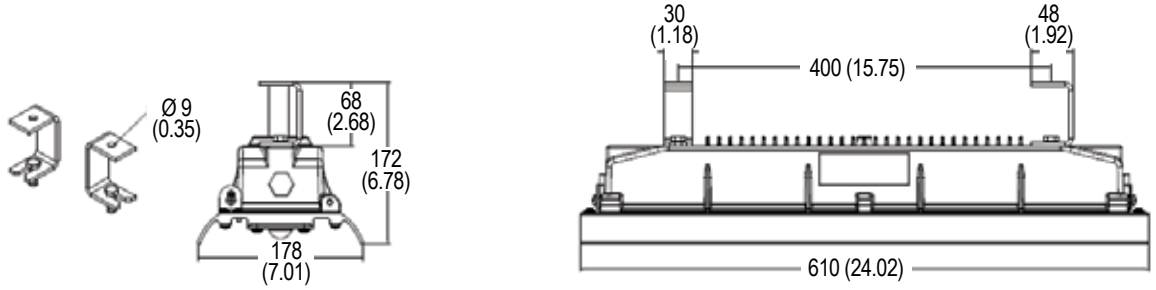
Standard or with Emergency Battery Backup

Hazardous Locations

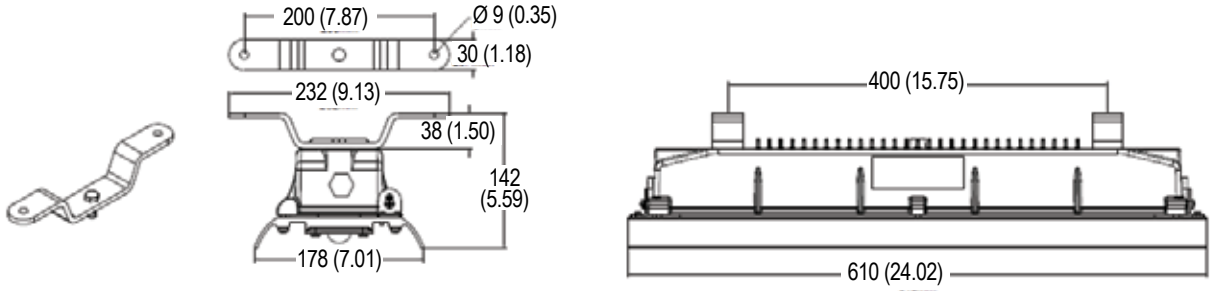
**ATEX/IECEx: Zones 2 and 22 | ⟨Ex⟩ II 3 GD | EPL Gc and Dc | Ex nA IIC; Ex tc IIIC | IP66/IK08 | ⟨Ex⟩ II 2 D | EPL Db | Ex tb IIIC | IP66/IK08**

**Mounting Options Dimensions in Millimeters (Inches)**

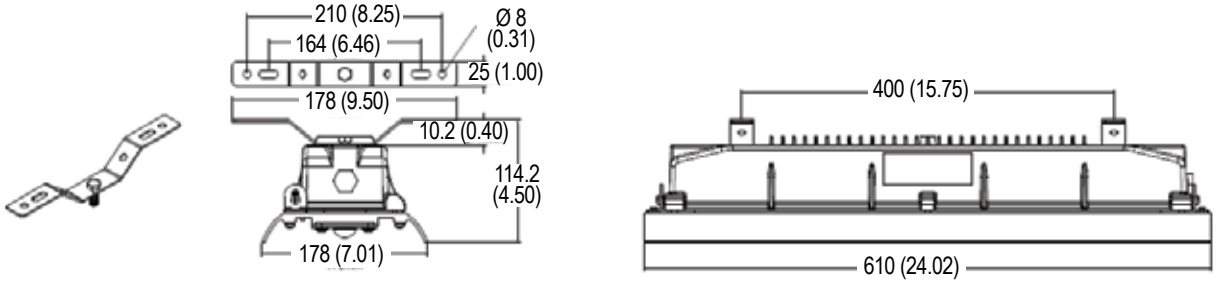
**Ceiling/Surface Mount — FEFBS**




**Ceiling/Surface Mount — FESBA/FESBS**




**Ceiling/Surface Mount — FVSM**



# ATEX/IECEx Viamaster™ LED Series Luminaires

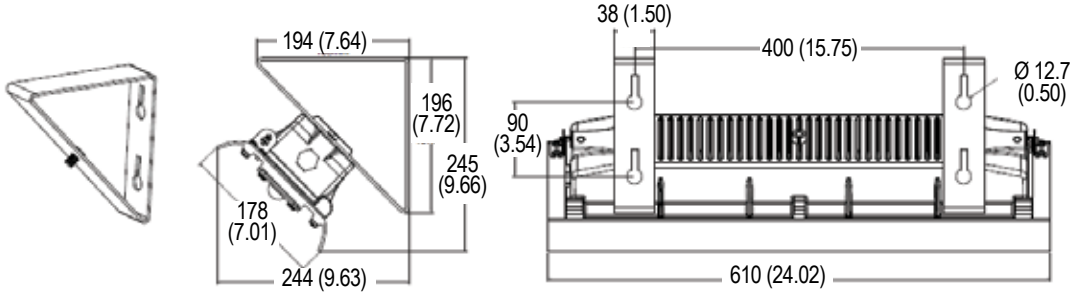
Standard or with Emergency Battery Backup

Hazardous Locations

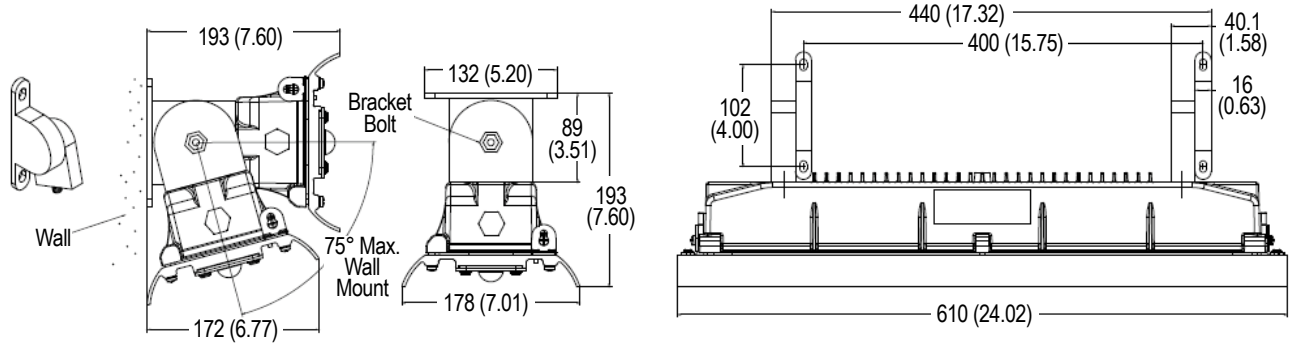
**ATEX/IECEx: Zones 2 and 22 | Ⓔx II 3 GD | EPL Gc and Dc | Ex nA IIC; Ex tc IIIC | IP66/IK08 | Ⓔx II 2 D | EPL Db | Ex tb IIIC | IP66/IK08**

**Mounting Options Dimensions in Millimeters (Inches)**

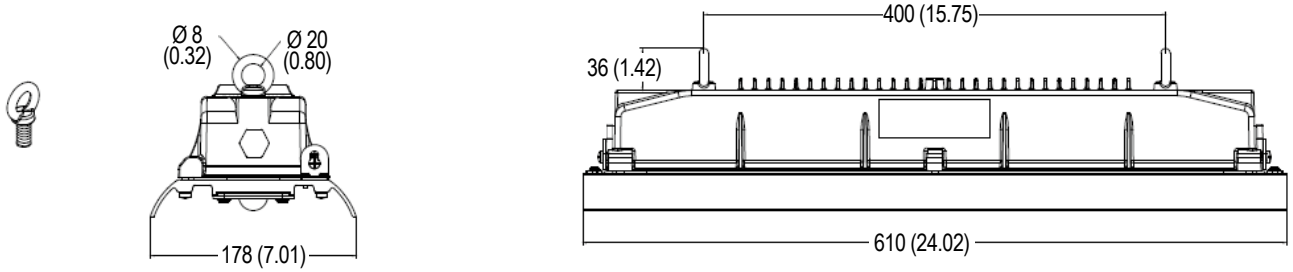
**Wall/Fixed 45° Mount — FVWFM**




**Wall/Hinged Mount — FEHBA**




**Ceiling/Chain Mount — FERBM8Z**



# ATEX/IECEx Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**ATEX/IECEx: Zones 2 and 22 | Ⓔ II 3 GD | EPL Gc and Dc | Ex nA IIC; Ex tc IIIC | IP66/IK08 | Ⓔ II 2 D | EPL Db | Ex tb IIIC | IP66/IK08**

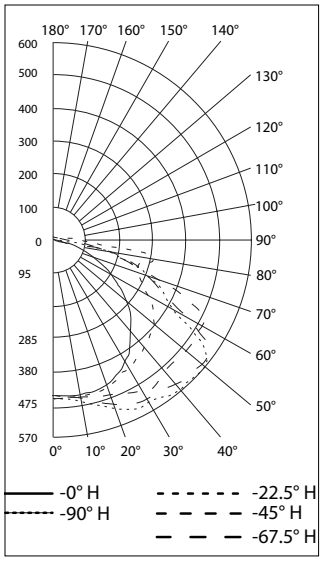
## Photometric Data — DATA SHOWN IS ABSOLUTE

### LLEDAA(XY)2BUZ2 with Clear Polycarbonate Lens

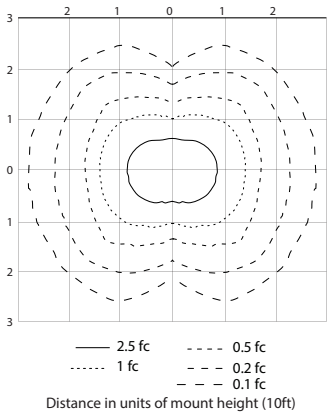
***X** = cable entry size, **Y** = style of termination*

Zonal Lumens and Percentages at +25 °C (-77 °F)

**POLAR CANDELA DISTRIBUTION**




**ISOCANDELA PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 424.1 | 20.2 |
| 0-40 | 741.2 | 35.4 |
| 0-60 | 1521 | 72.6 |
| 60-90 | 573.3 | 27.4 |
| 0-90 | 2094 | 100.0 |
| 90-180 | 0.3 | 0.0 |
| 0-180 | 2095 | 100.0 |

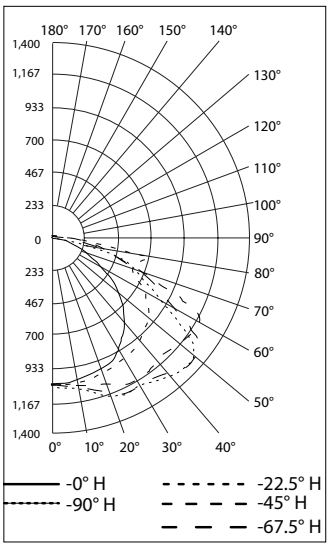
| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 46.7 | 2.2 |
| 10-20 | 140.9 | 6.7 |
| 20-30 | 236.4 | 11.3 |
| 30-40 | 317.2 | 15.1 |
| 40-50 | 378.4 | 18.1 |
| 50-60 | 401.5 | 19.2 |
| 60-70 | 324.6 | 15.5 |
| 70-80 | 209.6 | 10.0 |
| 80-90 | 39.1 | 1.9 |
| 90-100 | 0.3 | 0.0 |

### LLEDAA(XY)5BUZ2 with Clear Polycarbonate Lens

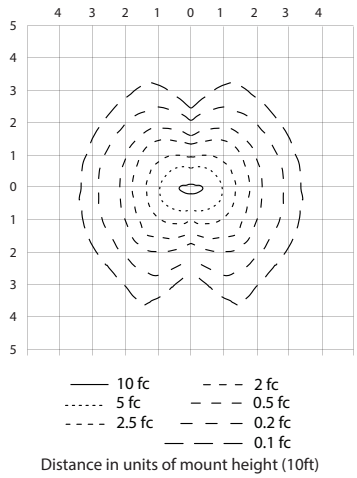
***X** = cable entry size, **Y** = style of termination*

Zonal Lumens and Percentages at +25 °C (-77 °F)

**POLAR CANDELA DISTRIBUTION**




**ISOCANDELA PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 912.8 | 20.3 |
| 0-40 | 1593 | 35.5 |
| 0-60 | 3282 | 73.0 |
| 60-90 | 1206 | 26.8 |
| 0-90 | 4488 | 99.9 |
| 90-180 | 4.5 | 0.1 |
| 0-180 | 4492 | 100.0 |

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 100.4 | 2.2 |
| 10-20 | 303.6 | 6.8 |
| 20-30 | 508.8 | 11.3 |
| 30-40 | 680.0 | 15.1 |
| 40-50 | 822.5 | 18.3 |
| 50-60 | 866.3 | 19.3 |
| 60-70 | 682.0 | 15.2 |
| 70-80 | 438.3 | 9.8 |
| 80-90 | 85.9 | 1.9 |
| 90-100 | 4.2 | 0.1 |
| 100-110 | 0.3 | 0.0 |

# ATEX/IECEx Viamaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Hazardous Locations

**ATEX/IECEx: Zones 2 and 22 | Ⓔx II 3 GD | EPL Gc and Dc | Ex nA IIC; Ex tc IIIC | IP66/IK08 | Ⓔx II 2 D | EPL Db | Ex tb IIIC | IP66/IK08**

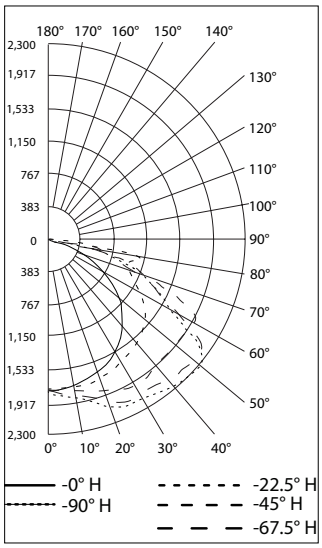
## Photometric Data — DATA SHOWN IS ABSOLUTE

### LLEDAA(XY)7BUZ2 with Clear Polycarbonate Lens

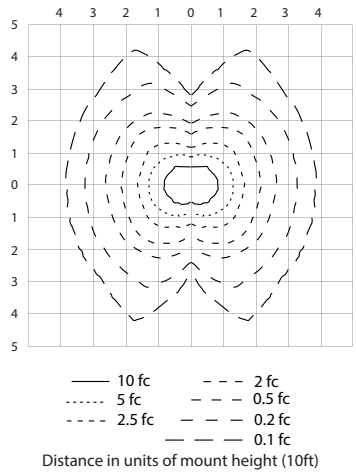
***X** = cable entry size, **Y** = style of termination*

Zonal Lumens and Percentages at +25 °C (-77 °F)

**POLAR CANDELA DISTRIBUTION**




**ISOCANDELA PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1560 | 20.0 |
| 0-40 | 2728 | 34.9 |
| 0-60 | 5631 | 72.1 |
| 60-90 | 2171 | 27.8 |
| 0-90 | 7802 | 100.0 |
| 90-180 | 2.8 | 0.0 |
| 0-180 | 7805 | 100.0 |

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-10 | 170.7 | 2.2 |
| 10-20 | 518.4 | 6.6 |
| 20-30 | 870.5 | 11.2 |
| 30-40 | 1168 | 15.0 |
| 40-50 | 1406 | 18.0 |
| 50-60 | 1497 | 19.2 |
| 60-70 | 1229 | 15.7 |
| 70-80 | 785.7 | 10.1 |
| 80-90 | 156.6 | 2.0 |
| 90-100 | 2.7 | 0.0 |

# ATX™ FELED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

Increased Safety

**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ⓔx II 2 GD | IP66 | IK10**

## Applications

- For use in locations where:
  - — Hazardous areas are designated as Zone 1 and 2 – 21 and 22
  - — A high degree of corrosion resistance is required
  - — Protection against dirt, water and moisture is necessary
- Typical applications include:
  - — Oil refineries
  - — Petrochemical facilities
  - — Food processing plants
  - — Waste and water treatment plants
  - — Underground tunnels
  - — General manufacturing facilities
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

**FELED3 | FELED4**

**FELED5 | FELED7**

## Features

- Available in 5000K or 4000K Color Temperatures.
- Meets photobiological requirement for Risk Group 0 (RG0).
- Easy to retrofit in same mounting footprint as the Appleton FE Series nonmetallic fluorescent luminaires.
- Full range of lumen outputs, with light distribution equivalent to the Appleton FE Series fluorescent luminaires.
- Corrosion-resistant fiberglass reinforced polyester body and hinged polycarbonate lens.
- High impact resistance housing (20 Joules – IK10) from -30 °C to +55 °C (-22 °F to +131 °F) ambient temperature and wind profile for use in extreme offshore and onshore environments.
- Reported L70 > 100,000 hours at +30 °C (+86 °F).
- Lightweight design, hinged cover with captive screws, and terminal block wiring for easy installation and maintenance.
- Contemporary, low profile design suitable for tight spaces.
- Standard screw-type terminal block can accept 4 mm²/6 mm² (flexible/rigid) wire.
- Field replaceable LED driver.
- Industry-leading thermal management for safe, reliable operation over wide temperature range.
- Universal, high efficiency, drivers cover voltage requirements for 120-277 Vac, 125-300 Vdc, 50/60 Hz +/-10%.
- High power factor electronic driver (>0.95).
- Standard 6 kV surge suppression.
- M20 plug or M25 plug provided.
- Latch assembly and elastomer gasket seals against water and dust ingress, IP66.
- Easily accessed for maintenance using Allen key or straight blade screwdriver.
- Central opening with unique patented release system to prevent damage.
- Can be horizontally or vertically mounted.
- Available in 3 hour emergency version, including built-in monthly self-test. Test results through multi-colored LED.
- Positive safety switch disconnects power to LED's and driver to allow maintenance in hazardous locations (emergency version).
- Ex e battery with plug-in connector.
- 5 year standard warranty.

## Options

- 3 Hours Emergency/Battery Back-Up available ①;
  - — Add suffix **-E** to the end of the catalog number.
    Example: FELED5CBUSAD**E**

## Standard Materials

- Housing: fiberglass reinforced polyester
- Lens: polycarbonate
- Diffuser: polycarbonate
- Gasket: elastomer
- Internal reflector: highly reflective white polycarbonate (standard versions) or powder coated aluminum (emergency versions)
- Mounting accessories available in different materials such as gray painted aluminum, zinc plated steel, galvanized steel or 316 stainless steel

## ATEX/IECEx Certifications and Compliances

- Certification Type: FELED30
  - — Gas: Zones 1 and 2
    - – Conforming to ATEX 2014/34/EU: II 2 G
    - – Type of Protection: Ex eb mb IIC Gb
    - – Temperature Class: T4
  - — Dust: Zones 21 and 22
    - – Conforming to ATEX 2014/34/EU: II 2 D
    - – Type of Protection: Ex tb IIIC Db
    - – Surface Temperature: +60 °C to +75 °C (+140 °F to +167 °F)
  - — Ambient Temperature: -30 °C up to +55 °C (-22 °F up to +131 °F)
  - — ATEX Certificate: INERIS 18 ATEX 0042X
  - — IECEx Certificate: IECEx INE 18.0039X
  - — UKEX Certificate: CML 21UKEX1154X
- Certification Type: FELED30 Emergency
  - — Gas: Zones 1 and 2
    - – Conforming to ATEX 2014/34/EU: II 2 G
    - – Type of Protection: Ex db eb mb IIC Gb
    - – Temperature Class: T4
  - — Dust: Zones 21 and 22
    - – Conforming to ATEX 2014/34/EU: II 2 D
    - – Type of Protection: Ex tb IIIC Db
    - – Surface Temperature: +60 °C to +70 °C (+140 °F to +158 °F)
  - — Ambient Temperature: -20 °C up to +50 °C (-4 °F up to +122 °F)
  - — ATEX Certificate: INERIS 18 ATEX 0042X
  - — IECEx Certificate: IECEx INE 18.0039X
- Standard and Emergency:
  - — Index of Protection according EN/IEC 60529: IP66
  - — Impact Resistance (shock): IK10
  - — Photobiological Safety, IEC 62778 and IEC 62471: RG0 at 0.25 m mounting height

*① Available for 3K and 5K lumen models only.*

# ATX™ FELED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

Increased Safety

**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ex II 2 GD | IP66 | IK10**

**Order Using Catalog Numbering Guide — ATX™ FELED Series Nonmetallic LED Luminaires**

| FELED | 3 | C | BU | S | A | D |
|---|---|---|---|---|---|---|
| Series Prefix:<br>FELED - Zone 1, 2, 21, 22 ATEX/IECEx Certified | Lumen Output ①:<br>3 - 3K<br>4 - 4K<br>5 - 5K<br>7 - 7K | Color Temperature:<br>C - 5000K (Cool)<br>N - 4000K (Neutral) | Voltage:<br>BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc | Mounting Version ②:<br>S - Surface/Suspension Mount Standard Wiring (single phase)<br>L - Surface/Suspension Mount Dual Loop In/Out Through Wiring (single phase) | Cable Entry:<br>A - Armored M20 ③<br>N - Unarmored M25 ④ | Options:<br>D - Diffused ⑤<br>E - 3H Emergency (combined) ⑥<br>F - Cutoff Switch ⑦ |

**Lumen Output (Efficacy)** ①

| Model | Fluorescent Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Lens With Internal Diffuser— Standard Mode** | | | | | | | | | | |
| FELED3 | 3 x 18W | 7x7 | 4000K | >80 | 2512 | 81 | 5000K | >70 | 3058 | 99 |
| FELED4 | 2 x 36W | 7x7 | 4000K | >80 | 3428 | 78 | 5000K | >70 | 4196 | 95 |
| FELED5 | 1 x 58W | 7x7 | 4000K | >80 | 4380 | 88 | 5000K | >70 | 5290 | 106 |
| FELED7 | 3 x 58W | 7x7 | 4000K | >80 | 5878 | 78 | 5000K | >70 | 7181 | 96 |
| **Clear Polycarbonate Lens With Internal Diffuser — Emergency Model** | | | | | | | | | | |
| FELED3 | 3 x 18W | 7x7 | 4000K | >80 | 2512 \| 560 | 81 | 5000K | >70 | 3058 \| 640 | 99 |
| FELED5 | 1 x 58W | 7x7 | 4000K | >80 | 4380 \| 550 | 88 | 5000K | >70 | 5290 \| 620 | 106 |

*① All lumen values are typical (tolerance +/- 10%).*
*② Standard and Loop In/Out cable entries provide 3 entries; 1 at one and 2 at the other end of the housing.*
*③ Must order armored cable glands separately. M20 entries are with brass earth continuity plate for armored cable.*
*④ Cable glands provided in luminaires with unarmored hub entries.*
*⑤ Diffuser required. Only available on standard, non-emergency model.*
*⑥ Available for 3K and 5K lumen models only.*
*⑦ Select to have cutoff switch with standard model. Cutoff Switch included with Emergency option.*

# ATX™ FELED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

Increased Safety

**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ex II 2 GD | IP66 | IK10**

**Electrical Specifications** ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Standard Model** | | | | | |
| FELED3 | 230 Vac | 31 | 0.14 | >0.9 | <20% |
| FELED4 | 230 Vac | 44 | 0.195 | >0.9 | <20% |
| FELED5 | 230 Vac | 50 | 0.244 | >0.9 | <20% |
| FELED7 | 230 Vac | 75 | 0.333 | >0.9 | <20% |
| **Emergency Model** | | | | | |
| FELED3 | 230 Vac | 31 | 0.14 | >0.9 | <20% |
| FELED5 | 230 Vac | 50 | 0.244 | >0.9 | <20% |

**Temperature Codes**

| | Gas — T Rating | | | | Dust — Surface T° | | | |
|---|---|---|---|---|---|---|---|---|
| Model Type | Ta = +40 °C (+104 °F) | Ta = +45 °C (+113 °F) | Ta = +50 °C (+122 °F) | Ta = +55 °C (+131 °F) | Ta = +40 °C (+104 °F) | Ta = +45 °C (+104 °F) | Ta = +50 °C (+122 °F) | Ta = +55 °C (+131 °F) |
| **Standard Model** | | | | | | | | |
| FELED3 | T4 | T4 | T4 | T4 | +60 °C (+140 °F) | +60 °C (+140 °F) | +70 °C (+158 °F) | +75 °C (+167 °F) |
| FELED4 | T4 | T4 | T4 | T4 | +60 °C (+140 °F) | +60 °C (+140 °F) | +70 °C (+158 °F) | +75 °C (+167 °F) |
| FELED5 | T4 | T4 | T4 | T4 | +60 °C (+140 °F) | +60 °C (+140 °F) | +70 °C (+158 °F) | +75 °C (+167 °F) |
| FELED5 Emergency | T6 | T6 | T6 | — | 63 °C (145 °F) | — | +73 °C (+163 °F) | — |
| FELED7 | T4 | T4 | T4 | T4 | +60 °C (+140 °F) | +65 °C (+140 °F) | +70 °C (+158 °F) | +75 °C (+167 °F) |
| **Emergency Model** | | | | | | | | |
| FELED3 Emergency Model | T4 | T4 | T4 | T4 | +60 °C (+140 °F) | +65 °C (+140 °F) | +70 °C (+158 °F) | +75 °C (+167 °F) |
| FELED5 Emergency Model | T4 | T4 | T4 | T4 | +60 °C (+140 °F) | +65 °C (+140 °F) | +70 °C (+158 °F) | +75 °C (+167 °F) |

**"T" Numbers Represent the Maximum Temperature**

| "T" # | T1 | T2 | T3 | T4 | T5 | T6 |
|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +301 to +450 (+547 to +842) | +201 to +300 (+394 to +572) | +136 to +200 (+277 to +392) | +101 to +135 (+214 to +275) | +86 to +100 (+187 to +212) | +85 (+185) |

*① All values are typical (tolerance +/-10%). Same electrical ratings apply to each luminaire with different LED position, mounting versions and cable entries.*

# ATX™ FELED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

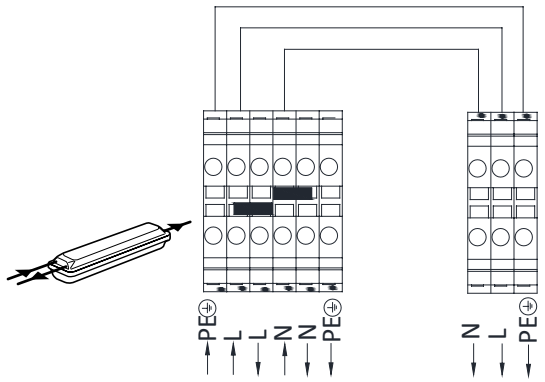
Increased Safety

**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ex II 2 GD | IP66 | IK10**

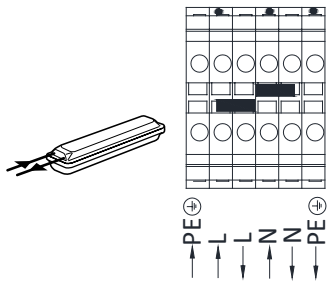
## Wiring Diagrams

### Standard Model

**Version : L**
Dual Loop In / Out — Through Wiring (Single Phase)
3 Entries, 1 at one end and 2 at the other

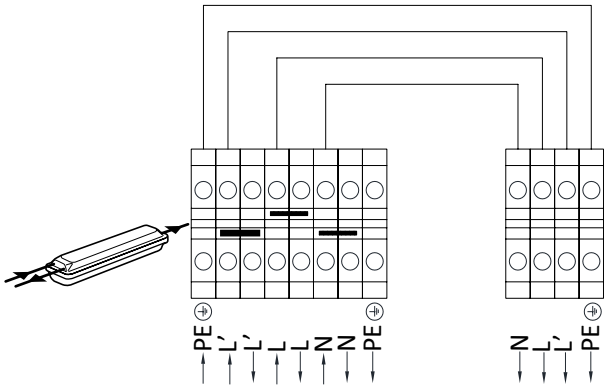



**Version : S**
Standard (Single Phase)
3 Entries, 1 at one end and 2 at the other

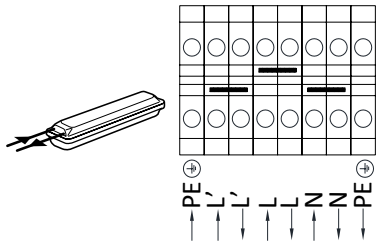



### Emergency Model

**Version : L**
Dual Loop In / Out — Through Wiring (Single Phase)
3 Entries, 1 at one end and 2 at the other




**Version : S**
Standard (Single Phase)
3 Entries, 1 at one end and 2 at the other



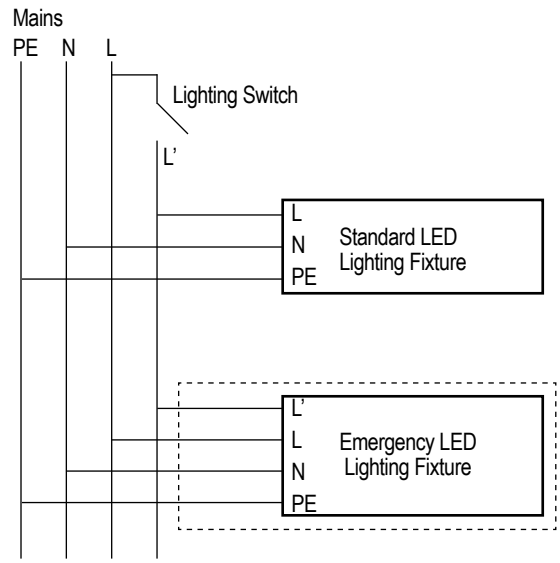
# ATX™ FELED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

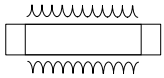
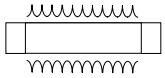
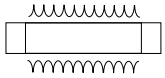
Increased Safety

**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ⓔx II 2 GD | IP66 | IK10**

**Wiring Diagram**




**Emergency Function Diagram**

| Mains | Lighting Switch Open | Lighting Switch Closed |
|---|---|---|
| ON |  | |
| OFF |  |  |

**LED Signals**

| Indicator Color | Timing | Function |
|---|---|---|
| Green | 1 sec ON: 1 sec OFF | Normal charging ok, Battery not yet fully charged, No fault detected, Testing ok |
| Green | 0.25 sec ON: 0.25 sec OFF | Functional / Duration Self-Test on-going |
| Green | Steady ON | Charging ok, Battery fully charged, No fault detected, Testing ok |
| Red | 1 sec ON: 1 sec OFF | Fault condition. Installation issue. Battery is reverse, not connected or shorted. Functional test failure, full duration test failure |
| LED Indicators OFF, LED Array ON | LED Indicators Light OFF, Light ON | No AC, Emergency mode ON |

**Automatic Testing System (ATS) — Emergency Battery Backup Model — Functionality**

At the completion of functional and full duration tests, and when AC power is present, LED indicators will display status of the emergency luminaire.

| Functional Test | Full Duration Test |
|---|---|
| Starts within 24-48 hours after the initial power up of the luminaire | Starts within 5 to 26 days after the initial power up of the module |
| Occurs every 14 days after the initial functional test | Occurs once every 364 days after the initial duration test |
| Lasts for 30 seconds | Lasts for 180 minutes |
| At the completion of functional and full duration tests, LED indicator will display the status of the emergency luminaire when AC is present | |

**Emergency Light Duration**

| Lumen Level | Battery Capacity | Duration | Light Output |
|---|---|---|---|
| 3K (FELED3) | 6 Ah – 6V | 180 minutes | 5000K CCT: 650 lumens |
| 5K (FELED5) | | | 5000K CCT: 455 lumens |

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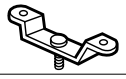
**Accessories and Replacement Parts**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Replacement Lens** | | | |
| | 0.79 m (2.6 ft) clear polycarbonate external lens with gasket | 0.8 (1.76) | **Z00650** |
| | 1.39 m (4.6 ft) clear polycarbonate external lens with gasket | 1.4 (3.09) | **Z00651** |
| | 0.79 m (2.6 ft) internal diffuser lens | 0.08 (0.18) | **Z00962** |
| | 1.39 m (4.6 ft) internal diffuser lens | 1.7 (3.75) | **Z00965** |
| **Replacement Drivers and Inverter** ① | | | |
| | FELED3 Replacement Driver (1 each) | 0.95 (2.09) | **APMZ050C135UD55** |
| | FELED4 Replacement Driver (1 each) | 0.95 (2.09) | **APMZ050C135UD80** |
| | FELED5 Replacement Driver (1 each) | 0.95 (2.09) | **APMZ050C135UD95** |
| | FELED7 Replacement Driver (2 each) | 0.95 (2.09) | **APMZ050C135UD67** |
| | FELED3 and FELED5 Emergency Model Inverter (BMM) (1 each) | 0.65 (1.43) | **BMMLLED** |
| **Battery Pack** ① | | | |
| | FELED3 and FELED5 Emergency 6V 6Ah Battery Pack (1 each) | 0.73 (1.6) | **BPLLED** |
| **Fuse Assembly** ① | | | |
| | FELED3 and FELED5 Replacement Fuse Assembly (1 each) | 0.02 (0.04) | **APPFUSEZ1** |
| **Fixing Brackets for Surface Installation — Set of Two** | | | |
| | Zinc plated steel | 0.39 (0.85) | **FEFBZ** |
| **Brackets for Surface Mounting — Set of Two** | | | |
|  | 316 stainless steel | 0.64 (1.4) | **FESBS** |
| **Hinged Brackets for Adjusting Luminaire** | | | |
| | Aluminum | 0.75 (1.7) | **FEHBA** |
| | 316 stainless steel | 0.57 (1.25) | **FEHBS** |
| **M8 Ring Bolts — Set of Two** | | | |
| | Zinc plated steel | 0.11 (0.2) | **FERBM8Z** |
| **Half Clamps Brackets for Pole Mounting — Set of two** | | | |
| | Diameter for 1-1/4" to 1-1/2" pole: 42 mm to 49 mm (1.65" to 1.93") | | |
| | • Zinc plated steel | 0.34 (0.7) | **FEHC49Z** |
| | • 316 stainless steel | 0.34 (0.7) | **FEHC49S** |
| | Diameter for 2" pole: 60 mm (2.3") | | |
| | • Zinc plated steel | 0.48 (1.1) | **FEHC60Z** |
| | • 316 stainless steel | 0.52 (1.2) | **FEHC60S** |
| **Fall Prevention Kit — Safety chain retains fixture temporarily to ease installation** | | | |
| | For M25 cable entry | 0.76 (1.7) | **FESCM25** |
| | For M20 cable entry | 0.76 (1.7) | **FESCM20** |

① *Replacement parts FELED luminaires purchased prior to 2019 may differ. Contact your local sales representative for more information.*

# ATX™ FELED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

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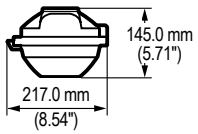
**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ⓔ II 2 GD | IP66 | IK10**

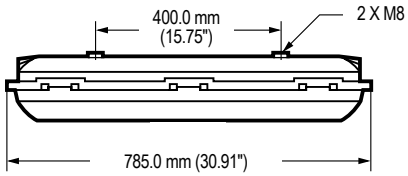


**Luminaire Dimensions in Millimeters (Inches)**

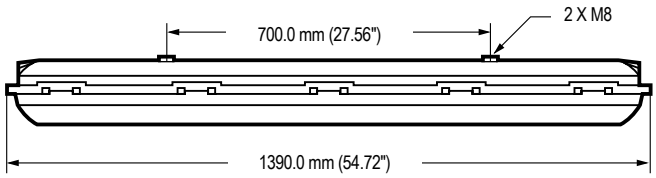
**End View**




**Side View — 0.785 m (2.58 ft)**




**Side View — 1.39 m (4.56 ft) Version**




**Luminaire Specifications**

| Model | Length m (ft) | Weight in kg (lb) |
|---|---|---|
| **Standard Model** | | |
| FELED3 | 0.785 (2.58) | 4.5 (9.9) |
| FELED4 | | |
| FELED5 | 1.39 (4.56) | 8.5 (18.7) |
| FELED7 | | 10.5 (23) |
| **Emergency Model** | | |
| FELED3 | 0.785 (2.58) | 6 (13) |
| FELED5 | 1.39 (4.56) | 10 (22) |

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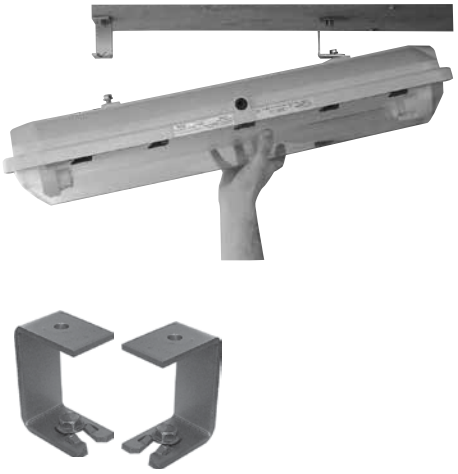
Standard or with Emergency Battery Backup

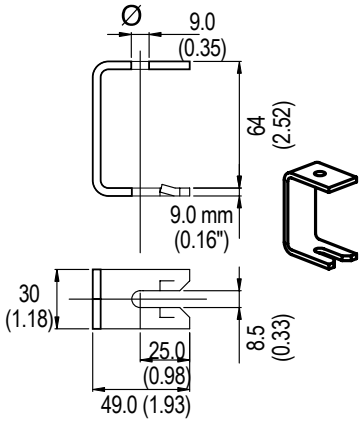
Increased Safety

**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | ⟨Ex⟩ II 2 GD | IP66 | IK10**

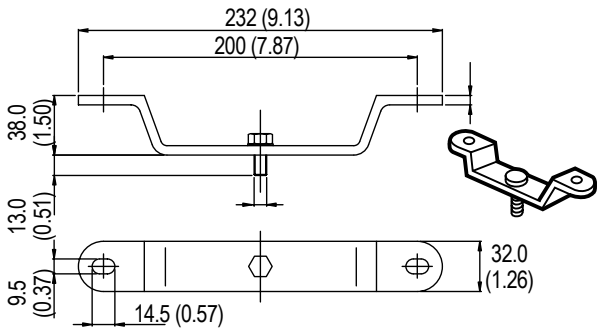
**Mounting Options Dimensions in Millimeters (Inches)**

**FEFBZ: zinc plated steel — Set of two quick fixing brackets for ease of surface mounting**

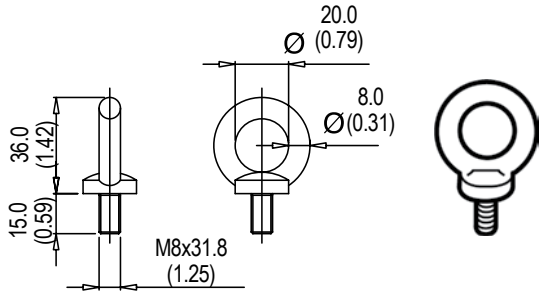





**FESBS: 316 stainless steel — Set of two brackets for surface mounting**

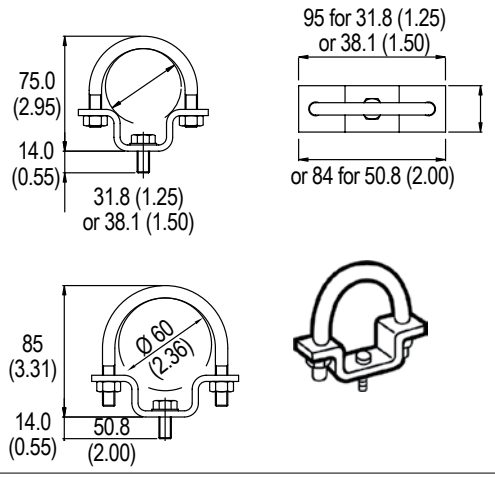



**FERBM8Z: zinc plated steel — Set of two ring bolts**

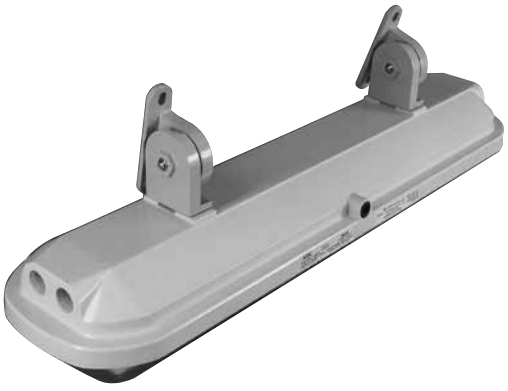


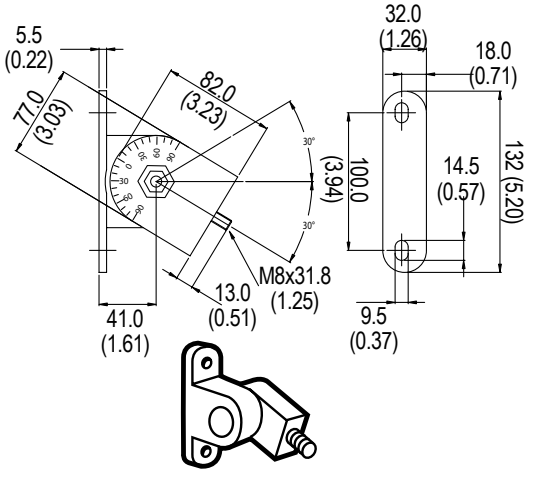
**Mounting Options Dimensions in Millimeters (Inches)**

**FEHC49Z: zinc plated steel or FEHC49S: 316 stainless steel — Set of two clamps for pole diameter 42 mm to 49 mm (for 1-1/4" to 1-1/2" pole).**
**FEHC60Z: zinc plated steel or FEHC60S: 316 stainless steel — Set of two clamps for pole diameter 60 mm (for 2" pole).**




**FEHBA: aluminum or FEHBS: 316 stainless steel — Set of two hinged brackets for adjusting luminaire.**





# ATX™ FELED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

Increased Safety

**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ⓔx II 2 GD | IP66 | IK10**

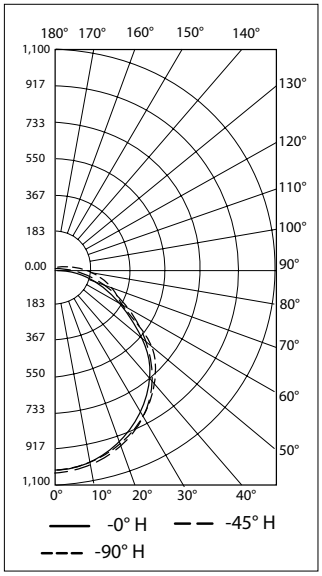
## Photometric Data — DATA SHOWN IS ABSOLUTE

**5000K CCT, With Diffuser**

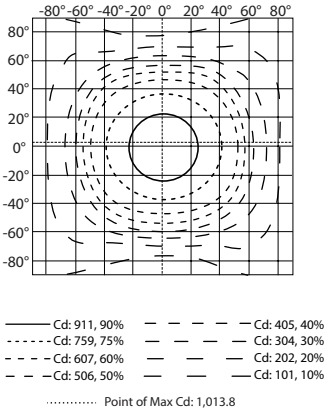
REPORT NUMBER: **FELED3CBUxxD**

Luminaire Lumens: 3,057

**POLAR CANDELA DISTRIBUTION**




**ISOCANDELA PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Lamp | % Luminaire |
|---|---|---|---|
| 0-30 | 785.8 | 25.7% | 25.7% |
| 0-40 | 1,285.8 | 42% | 42.1% |
| 0-60 | 2,256.9 | 73.8% | 73.8% |
| 60-90 | 650.7 | 21.3% | 21.3% |
| 70-100 | 385.9 | 12.6% | 12.6% |
| 90-120 | 133.2 | 4.4% | 4.4% |
| 0-90 | 2,907.6 | 95.1% | 95.1% |
| 90-180 | 150.1 | 4.9% | 4.9% |
| 0-180 | 3,057.7 | 100% | 100% |

**LUMENS PER ZONE**

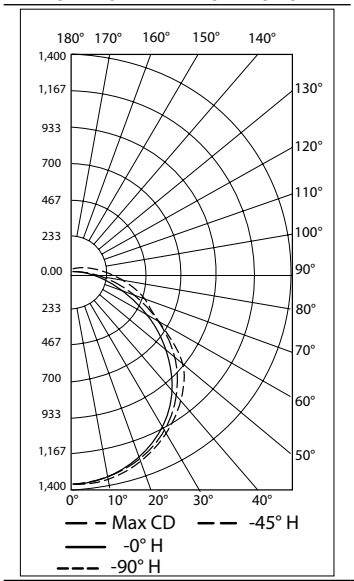
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 95.8 | 3.1% | 90-100 | 58.8 | 1.9% |
| 10-20 | 274.2 | 9.0% | 100-110 | 43.6 | 1.4% |
| 20-30 | 415.8 | 13.6% | 110-120 | 30.8 | 1% |
| 30-40 | 500.0 | 16.4% | 120-130 | 11.0 | 0.4% |
| 40-50 | 519.2 | 17.0% | 130-140 | 2.3 | 0.1% |
| 50-60 | 451.8 | 14.8% | 140-150 | 1.4 | 0% |
| 60-70 | 323.6 | 10.6% | 150-160 | 1.1 | 0% |
| 70-80 | 209.4 | 6.8% | 160-170 | 0.8 | 0% |
| 80-90 | 117.6 | 3.8% | 170-180 | 0.3 | 0% |

**5000K CCT, With Diffuser**

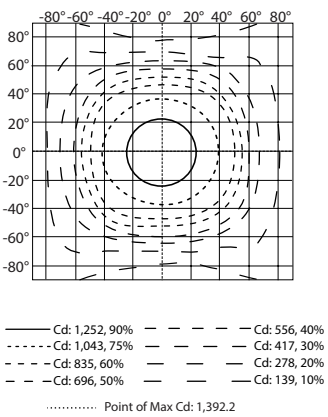
REPORT NUMBER: **FELED4CBUxxD**

Luminaire Lumens: 4,195

**POLAR CANDELA DISTRIBUTION**




**ISOCANDELA PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Lamp | % Luminaire |
|---|---|---|---|
| 0-30 | 1,078.1 | 25.7% | 25.7% |
| 0-40 | 1,763.6 | 42% | 42% |
| 0-60 | 3,095.2 | 73.8% | 73.8% |
| 60-90 | 894.2 | 21.3% | 21.3% |
| 70-100 | 530.3 | 12.6% | 12.6% |
| 90-120 | 182.8 | 4.4% | 4.4% |
| 0-90 | 3,989.4 | 95.1% | 95.1% |
| 90-180 | 206.3 | 4.9% | 4.9% |
| 0-180 | 4,195.7 | 100% | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 131.5 | 3.1% | 90-100 | 80.8 | 1.9% |
| 10-20 | 376.3 | 9.0% | 100-110 | 59.7 | 1.4% |
| 20-30 | 570.3 | 13.6% | 110-120 | 42.3 | 1% |
| 30-40 | 685.5 | 16.3% | 120-130 | 15.3 | 0.4% |
| 40-50 | 712.1 | 17.0% | 130-140 | 3.3 | 0.1% |
| 50-60 | 619.5 | 14.8% | 140-150 | 2.0 | 0% |
| 60-70 | 444.6 | 10.6% | 150-160 | 1.5 | 0% |
| 70-80 | 288.2 | 6.9% | 160-170 | 1.1 | 0% |
| 80-90 | 161.4 | 3.8% | 170-180 | 0.4 | 0% |

# ATX™ FELED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

Increased Safety

**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | ⟨Ex⟩ II 2 GD | IP66 | IK10**



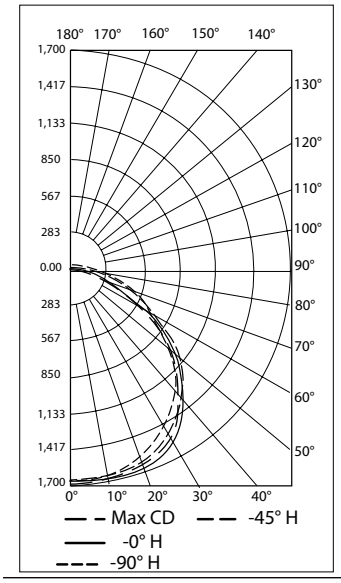
## Photometric Data — DATA SHOWN IS ABSOLUTE

**5000K CCT, With Diffuser**

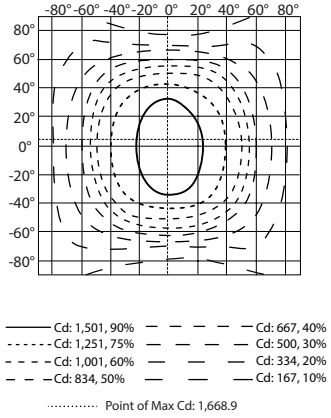
REPORT NUMBER: **FELED5CBUxxD**

Luminaire Lumens: 5,289

**POLAR CANDELA DISTRIBUTION**




**ISOCANDELA PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Lamp | % Luminaire |
|---|---|---|---|
| 0-30 | 1,326.7 | 25.1% | 25.1% |
| 0-40 | 2,201.8 | 41.6% | 41.6% |
| 0-60 | 3,907.1 | 73.9% | 73.9% |
| 60-90 | 1,149.8 | 21.7% | 21.7% |
| 70-100 | 671.2 | 12.7% | 12.7% |
| 90-120 | 209.3 | 4% | 4% |
| 0-90 | 5,057.0 | 95.6% | 95.6% |
| 90-180 | 232.5 | 4.4% | 4.4% |
| 0-180 | 5,289.5 | 100% | 100% |

**LUMENS PER ZONE**

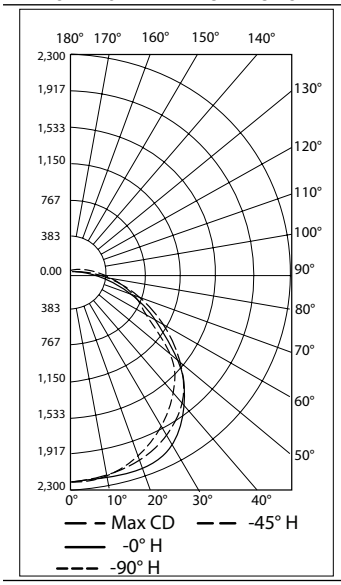
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 158.0 | 3.0% | 90-100 | 100.4 | 1.9% |
| 10-20 | 458.6 | 8.7% | 100-110 | 64.4 | 1.2% |
| 20-30 | 710.2 | 13.4% | 110-120 | 44.6 | 0.8% |
| 30-40 | 875.0 | 16.5% | 120-130 | 15.6 | 0.3% |
| 40-50 | 913.0 | 17.3% | 130-140 | 3.0 | 0.1% |
| 50-60 | 792.3 | 15.0% | 140-150 | 1.8 | 0% |
| 60-70 | 579.0 | 10.9% | 150-160 | 1.4 | 0% |
| 70-80 | 370.8 | 7.0% | 160-170 | 1.0 | 0% |
| 80-90 | 200.1 | 3.8% | 170-180 | 0.4 | 0% |

**5000K CCT, With Diffuser**

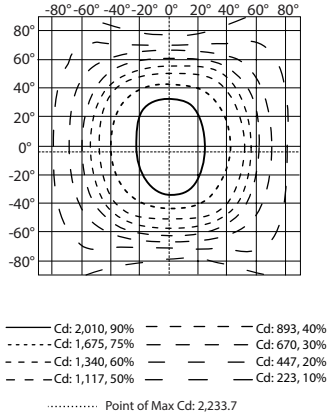
REPORT NUMBER: **FELED7CBUxxD**

Luminaire Lumens: 7,038

**POLAR CANDELA DISTRIBUTION**




**ISOCANDELA PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Lamp | % Luminaire |
|---|---|---|---|
| 0-30 | 1,784.7 | 24.9% | 24.9% |
| 0-40 | 2,966.4 | 41.3% | 41.3% |
| 0-60 | 5,282.4 | 73.6% | 73.6% |
| 60-90 | 1,560.7 | 21.7% | 21.7% |
| 70-100 | 911.3 | 12.7% | 12.7% |
| 90-120 | 304.8 | 4.2% | 4.2% |
| 0-90 | 6,843.1 | 95.3% | 95.3% |
| 90-180 | 337.9 | 4.7% | 4.7% |
| 0-180 | 7,180.9 | 100% | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 211.9 | 3.0% | 90-100 | 138.3 | 1.9% |
| 10-20 | 615.8 | 8.6% | 100-110 | 97.5 | 1.4% |
| 20-30 | 957.1 | 13.3% | 110-120 | 69.0 | 1% |
| 30-40 | 1,181.6 | 16.5% | 120-130 | 22.9 | 0.3% |
| 40-50 | 1,235.6 | 17.2% | 130-140 | 3.9 | 0.1% |
| 50-60 | 1,080.4 | 15.0% | 140-150 | 2.5 | 0% |
| 60-70 | 787.7 | 11.0% | 150-160 | 1.9 | 0% |
| 70-80 | 499.0 | 6.9% | 160-170 | 1.4 | 0% |
| 80-90 | 274.0 | 3.8% | 170-180 | 0.5 | 0% |

# ATX™ FDLED Series Luminaires

Standard or with Emergency Battery Backup

Flameproof

**ATEX/IECEx: Zone 1 and 2, 21 and 22 | Ex II 2 GD | IP66/68 | IK08 or IK09**

## Applications

- Can be installed in hazardous areas designated as Zone 1 and 2 – 21 and 22.
- For use in locations where a high degree of corrosion resistance is required.
- For indoor/outdoor use where protection against dirt, water and moisture is necessary.
- Typical applications include:
  - — Oil refineries
  - — Petrochemical facilities
  - — Pulp and paper, mills
  - — Painting, sewage and water treatment facilities
  - — Warehouses
  - — Underground tunnels
  - — General manufacturing facilities
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

**4725 lm (IIB)**

**2400 lm (IIB+$H_2$)**

## Features

- Impact resistant borosilicate glass sealed tube.
- Easy access to LED array through gray painted aluminum threaded entry cap.
- Supplied with O-ring for improved ingress protection.
- Corrosion-resistant gray painted aluminum.
- Supplied with energy efficient electronic driver on a removable gear tray.
- Supplied with external and internal ground/earth connection.
- Fixture supplied with one M20 blanking plug.
- Easy connection to wire and disconnect with plug-in terminal blocks.
- 5 year standard warranty.

## Standard Materials

- End caps and cover: aluminum.
- Glass tube: tempered borosilicate glass.
- O-ring gasket: nitrile (NBR).
- Internal reflector: aluminium.
- Mounting accessories: several accessories in different material such as zinc plated steel, galvanized steel or 316 stainless steel.

## Options

- Diffused polycarbonate lens
- Ta -50 °C (-58 °F) IP66 (without gasket)
- Ta -40 °C (-40 °F) IP66/68 (with gasket)

## ATEX/IECEx Certifications and Compliances

- Certification Type FDLED
  - — Gas: Zone 1 and 2:
    - – Conforming to ATEX 2014/34/UE: Ex II 2 G
    - – Type of Protection: Ex db IIC Gb
    - – Temperature Class: T6
  - — Dust: Zone 21 and 22:
    - – Conforming to ATEX 2014/34/UE: Ex II 2 D
    - – Type of Protection: Ex tb IIC Db
    - – Surface Temperature: +80 °C (+176 °F)
- Ambient Temperature:
  - — Standard Version: -50 °C to +60 °C (-58 °F to +140 °F)
  - — Emergency Version: -20 °C to +60 °C (-4 °F to +140 °F)
- CE Declaration of Conformity: 50312
- ATEX Certificate: INERIS 15 ATEX 0042X
- IECEx Certificate: IECEx INE 15.0046X
- UKEX Certificate: CML 21UKEX1156X
- Index of Protection according EN/IEC 60529: IP66/68
- Impact Resistance (shock): IK09 (2400 lm version), IK08 (4725 lm version)
- Internal Volume: > 2 $dm^3$ (122 $in^3$) - 2 liters

## Other Certifications

- INMETRO Certificate: BVC17.5710-X

# ATX™ FDLED Series Luminaires

Standard or with Emergency Battery Backup
Flameproof

**ATEX/IECEx: Zone 1 and 2, 21 and 22 | Ⓔ II 2 GD | IP66/68 | IK08 or IK09**

**Order Using Catalog Numbering Guide — FDLED Series Luminaires**

**FDLED**
Series Prefix:
FDLED - Zone 1 and 2 - 21 and 22
ATEX/IECEx Certified

**25**
Lumen Output:
25 - 2400 lm
50 - 4725 lm

**BU**
Voltage :
BU - 110-254 Vac, 50/60 Hz

**1**
Cable Entry:
1 - 3/4" NPT
2 - Metric M20
3 - Metric M25

**D**
Options:
*(Options must be listed alphabetically)*
D - Diffused Polycarbonate Lens
E - 3H Emergency

**Lumen Output (Efficacy)**

| Model | Fluorescent Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|
| **Standard Model — Clear Lens** | | | | | | |
| FDLED25BU* | 2X18W, 3X18W, 1X36W | Linear | 5650K | 70 | 2300 | 104 |
| **Emergency Model — Diffused Polycarbonate Lens** | | | | | | |
| FDLED50BU* | 2X36W, 1X58W | Linear | 5650K | 70 | 4700 | 102 |

**Electrical Specifications** ②

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Standard Model** | | | | | |
| FDLED25BU* | 110 to 254 | 23 | 0.21 @110V | >0.9 | <20% |
| FDLED50BU* | 110 to 254 | 46 | 0.42 @110V | >0.9 | <20% |
| **Emergency Model** | | | | | |
| FDLED25BU*E | 110 to 254 | 23 | 0.21 @110V | >0.9 | <20% |
| FDLED50BU*E | 110 to 254 | 46 | 0.42 @110V | >0.9 | <20% |

**Temperature Codes**

| | Gas IIC — T Rating | | | Dust — Surface T° | | |
|---|---|---|---|---|---|---|
| Model Type | Ta = +40 °C (+104 °F) | Ta = +50 °C (+122 °F) | Ta = +55 °C (+131 °F) | Ta = +40 °C (+104 °F) | Ta = +50 °C (+122 °F) | Ta = +55 °C (+131 °F) |
| **Standard Models** | | | | | | |
| FDLED | T6 | T6 | T6 | +80 °C (+176 °F) | +80 °C (+176 °F) | +80 °C (+176 °F) |
| FDLED*D | T6 | T6 | T6 | +85 °C (+185 °F) | +85 °C (+185 °F) | +85 °C (+185 °F) |
| **Emergency Models** | | | | | | |
| FDLED | T6 | T6 | T6 | +80 °C (+176 °F) | +80 °C (+176 °F) | +80 °C (+176 °F) |
| FDLED*D | T6 | T6 | T6 | +85 °C (+185 °F) | +85 °C (+185 °F) | +85 °C (+185 °F) |

**"T" Numbers Represent the Maximum Temperature**

| "T" # | T1 | T2 | T3 | T4 | T5 | T6 |
|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +301 to +450 (+547 to +842) | +201 to +300 (+394 to +572) | +136 to +200 (+277 to +392) | +101 to +135 (+214 to +275) | +86 to +100 (+187 to +212) | +85 (+185) |

① *All lumen values are typical (tolerance +/- 10%).*
② *All values are typical (tolerance +/-10%). Same electrical ratings apply to each luminaire with different LED position, mounting versions and cable entries.*

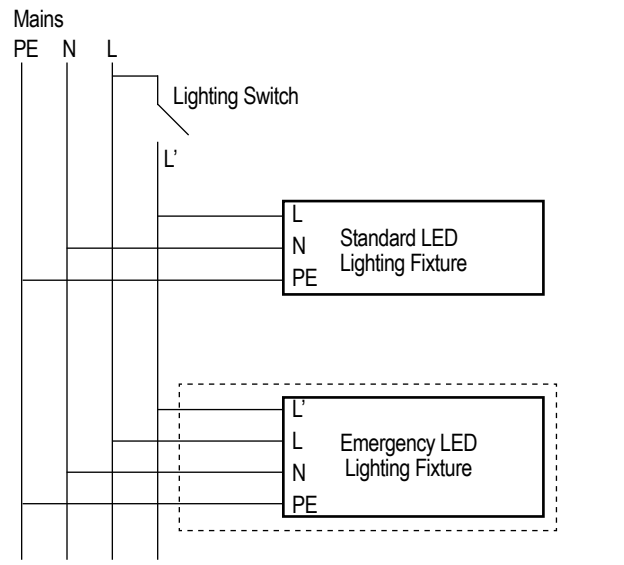
# ATX™ FDLED Series Luminaires

Standard or with Emergency Battery Backup

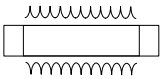
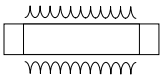
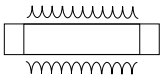
Flameproof

**ATEX/IECEx: Zone 1 and 2, 21 and 22 | Ex II 2 GD | IP66/68 | IK08 or IK09**

**Wiring Diagram**




**Emergency Function Diagram**

| Mains | Lighting Switch Open | Lighting Switch Closed |
|---|---|---|
| ON |  | |
| OFF |  |  |

**LED Indicator Signals**

| Color | Timing | Function |
|---|---|---|
| Green | LED Blinking | Mains voltage available - Battery Charging |
| | LED Continuous | Mains voltage available - Battery connected and loaded |
| Green and Red | LED Blinking Alternately (2s) | Mains voltage available - Battery in repair mode |
| Red | LED Blinking | Mains voltage available - No battery connected or defective |
| | LED Continuous | Mains voltage NOT available - Light unit powered by batteries (emergency mode) |
| | LED Flashing | Mains voltage NOT available - Battery low (emergency mode completed) |
| Yellow (Orange) and another color | LED Blinking Alternately | Mains voltage available - Last automatic or manual operational check has been unsuccessful |
| None (Off) | No Light Emitted | Mains voltage NOT available - Battery completely empty |

*Self-Test: In 3 month intervals batteries are automatically discharged and recharged once.*

**Emergency Light Duration**

| Version | Battery Capacity | Duration | Light Output |
|---|---|---|---|
| 2400 lm | 4 Ah – 6 V | 180 minutes | 757 lm |
| 4725 lm | 7 Ah – 6 V | | 1417 lm |

# ATX™ FDLED Series Luminaires

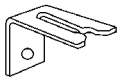
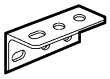
Standard or with Emergency Battery Backup

Flameproof

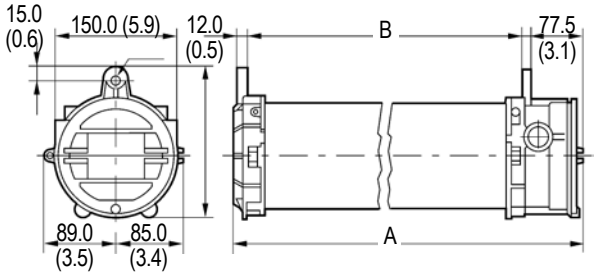
**ATEX/IECEx: Zone 1 and 2, 21 and 22 | ⟨Ex⟩ II 2 GD | IP66/68 | IK08 or IK09**



## Accessories and Replacement Parts

| | Description | Weight in kg (lb) | Catalog Number |
|---|---|---|---|
| **Protective Guard — Zinc Plated Steel** | | | |
| | Model 0.4 (for 2400 lm) | 0.42 (0.92) | **FDPG5Z** |
| | Model 0.6 (for 4725 lm) | 0.69 (1.52) | **FDPG2Z** |
| **Fixing Brackets for Ease of Surface Installation — Set of Two** | | | |
|  | Zinc plated steel | 0.2 (0.44) | **FDFBZ** |
| | 316 stainless steel | 0.27(0.60) | **FDFBS** |
| **Surface Mounting Brackets — Set of Two** | | | |
|  | Zinc plated steel | 0.54 (1.20) | **FDSBZ** |
| | 316 stainless steel | 0.45 (1.00) | **FDSBS** |
| **Half Clamp Brackets for Pole Mounting — Set of Two** | | | |
| | Diameter for 1-1/4" to 1-1/2" pole: 42 mm to 49 mm (1.65" to 1.93") | | |
| | • Zinc plated steel | 0.34 (0.7) | **FDHC49Z** |
| | • 316 stainless steel | 0.34 (0.7) | **FDHC49S** |
| | Diameter for 2" pole: 60 mm (2.3") | | |
| | • Zinc plated steel | 0.48 (1.1) | **FDHC60Z** |
| | • 316 stainless steel | 0.52 (1.2) | **FDHC60S** |
| **Fall Prevention Kit** | | | |
| | 1.20 meter (3.93 feet) stainless steel chain | 0.15 (0.33) | **FDSCS** |

## Luminaire Specifications




| Catalog Number | Dimension A in mm (in) | Dimension B in mm (in) | Weight in kg (lb) | Volume in $dm^3$ ($in^3$) |
|---|---|---|---|---|
| FDLED25BU2 | 470 (18.50) | 375 (14.76) | 8.1 (17.9) | 37.1 (2264.0) |
| FDLED50BU2 | 745 (29.33) | 650 (25.59) | 9.0 (19.8) | 58.0 (3539.4) |
| FDLED25BU2DE | 470 (18.50) | 375 (14.76) | 8.1 (17.9) | 37.1 (2264.0) |
| FDLED50BU2DE | 745 (29.33) | 650 (25.59) | 9.0 (19.8) | 58.0 (3539.4) |

# ATX™ FNLED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

Increased Safety

**ATEX/IECEx: Zone 2, 21 and 22 | Ex II 3 GD, 2 D | IP66 | IK10**

## Applications

- For use in locations where:
  - Hazardous areas are designated as Zone 2, 21 and 22
  - A high degree of corrosion resistance is required
  - Protection against dirt, water and moisture is necessary
- Typical applications include:
  - Oil refineries
  - Petrochemical facilities
  - Food processing plants
  - Waste and water treatment plants
  - Underground tunnels
  - General manufacturing facilities
  - Hydrogen and Biofuels plants
  - LNG (Liquid Natural Gas) plants

**FNLED3 | FNLED4**

**FNLED5 | FNLED7**

## Features

- Available in 5000K or 4000K Color Temperatures.
- Meets photobiological requirement for Risk Group 0 (RG0).
- Easy to retrofit in same mounting footprint as the Appleton FN Series nonmetallic fluorescent luminaires.
- Full range of lumen outputs, with light distribution equivalent to the Appleton FN Series fluorescent luminaires.
- Corrosion-resistant fiberglass reinforced polyester body and hinged polycarbonate lens.
- High impact resistance housing (20 Joules – IK10) from -30 °C to +55 °C (-22 °F to +131 °F) ambient temperature and wind profile for use in extreme offshore and onshore environments.
- Reported L70 > 100,000 hours at +30 °C (+86 °F).
- Lightweight design, hinged cover with captive screws, and terminal block wiring for easy installation and maintenance.
- Contemporary, low profile design suitable for tight spaces.
- Standard screw-type terminal block can accept 1.5 to 6 $mm^2$ wire.
- Field replaceable LED driver.
- Industry-leading thermal management for safe, reliable operation over wide temperature range.
- Universal, high efficiency, drivers cover voltage requirements for 120-277 Vac, 125-300 Vdc, 50/60 Hz +/- 10%.
- High power factor electronic driver (>0.95).
- Standard 6 kV surge suppression.
- M20 plug or M25 plug provided.
- Latch assembly and elastomer gasket seals against water and dust ingress, IP66.
- Easily accessed for maintenance using Allen key or straight blade screwdriver.
- Central opening with unique patented release system to prevent damage.
- Can be horizontally or vertically mounted.
- Available in 3 hour emergency version, including built-in monthly self-test. Test results through multi-colored LED.
- Positive safety switch disconnects power to LED's and driver to allow maintenance in hazardous locations (emergency version).
- Ex e battery with plug-in connector.
- 5 year standard warranty.

## Options

- 3 Hours Emergency/Battery Back-Up available ①;
  - Add suffix -**E** to the end of the catalog number. Example: FNLED5CBUSAD**E**, FNLED3CBUSAD**E**

## Standard Materials

- Housing: fiberglass reinforced polyester
- Lens: polycarbonate
- Diffuser: polycarbonate
- Gasket: elastomer
- Internal reflector: highly reflective white polycarbonate
- Mounting accessories available in different materials such as gray painted aluminum, zinc plated steel, galvanized steel or 316 stainless steel

## ATEX/IECEx Certifications and Compliances

- Certification Type: FNLED
  - Gas: Zone 2
    - Conforming to ATEX 2014/34/EU: II 3 G
    - Type of Protection: Ex ec IIC Gc
    - Temperature Class: T5 to T3
  - Dust: Zone 22
    - Conforming to ATEX 2014/34/EU: II 3 D
    - Type of Protection: Ex tc IIIC Dc
    - Surface Temperature: +60 °C to +80 °C (+140 °F to +176 °F)
- Ambient Temperature:
  - Standard: -30 °C up to +55 °C (-22 °F up to +131 °F)
  - Emergency: -20 °C up to +50 °C (-4 °F up to +122 °F)
- ATEX Certificate: INERIS 19 ATEX 3005X
- IECEx Certificate: IECEx INE 19.0006X
- UKEX Certificates: CML 21UKEX11410X and CML 21UKEX31412X
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK10
- Photobiological Safety, IEC 62778 and IEC 62471: RG0 at 0.25 m mounting height

*① Available for 3K and 5K lumen models only.*

# ATX™ FNLED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

Increased Safety

**ATEX/IECEx: Zone 2, 21 and 22 | Ex II 3 GD, 2 D | IP66 | IK10**

**Order Using Catalog Numbering Guide — ATX™ FNLED Series Nonmetallic LED Luminaires**

**FNLED**
Series Prefix:
FNLED - Zone 2, 22 ATEX/IECEx Certified

**3**
Lumen Output ①:
3 - 3K
4 - 4K
5 - 5K
7 - 7K

**C**
Color Temperature:
C - 5000K (Cool)
N - 4000K (Neutral)

**BU**
Voltage:
BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc

**S**
Mounting Version ②:
S - Surface/Suspension Mount Standard Wiring (single phase)
L - Surface/Suspension Mount Dual Loop In/Out Through Wiring (single phase)

**A**
Cable Entry:
A - Armored M20 ③
N - Unarmored M25 ④

**D**
Options:
D - Diffused ⑤
E - 3H Emergency (combined) ⑥
F - Cutoff Switch ⑦
R - 90M Non-maintained Emergency ⑧



**Lumen Output (Efficacy) — All Models** ①

| Model | HID Equivalency (Max. Wattage) | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Standard Model** | | | | | | | | | | |
| FNLED3 | 3 x 18W | Linear | 4000K | >80 | 3,200 | 107 | 5000K | >80 | 3,300 | 110 |
| FNLED4 | 2 x 36W | Linear | 4000K | >80 | 4,200 | 105 | 5000K | >80 | 4,300 | 108 |
| FNLED5 | 1 x 58W | Linear | 4000K | >80 | 5,290 | 106 | 5000K | >80 | 5,100 | 119 |
| FNLED7 | 3 x 58W | Linear | 4000K | >80 | 7,000 | 106 | 5000K | >80 | 7,000 | 106 |
| **Emergency Model** | | | | | | | | | | |
| FNLED3 | 3 x 18W | Linear | 4000K | >80 | 3,200 \| 550 | 107 | 5000K | >80 | 3,300 \| 650 | 110 |
| FNLED5 | 2 x 58W | Linear | 4000K | >80 | 5,000 \| 550 | 116 | 5000K | >80 | 5,100 \| 650 | 119 |

*① All lumen values are typical (tolerance +/- 10%).*
*② Standard and Loop In/Out cable entries provide 3 entries; 1 at one and 2 at the other end of the housing.*
*③ Must order armored cable glands separately. M20 entries are with brass earth continuity plate for armored cable.*
*④ Cable glands provided in luminaires with unarmored hub entries.*
*⑤ Diffuser required for direct.*
*⑥ Available for 3K and 5K lumen models only.*
*⑦ Select to have cutoff switch with standard model. Cutoff Switch included with Emergency option.*
*⑧ Non-maintained Emergency option includes 90 minutes of battery backup. To include cutoff switch, please order with -**F** option also. Ex: FNLED5CBUSA**F**R.*

# ATX™ FNLED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

Increased Safety

**ATEX/IECEx: Zone 2, 21 and 22 | Ex II 3 GD, 2 D | IP66 | IK10**

**Electrical Specifications** ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Standard Model** | | | | | |
| FNLED3 | 230 Vac | 30 | 0.132 | >0.9 | <20% |
| FNLED4 | 230 Vac | 40 | 0.173 | >0.9 | <20% |
| FNLED5 | 230 Vac | 43 | 0.193 | >0.9 | <20% |
| FNLED7 | 230 Vac | 66 | 0.296 | >0.9 | <20% |
| **Emergency Model** | | | | | |
| FNLED3 | 230 Vac | 33 | 0.180 | >0.9 | <20% |
| FNLED5 | 230 Vac | 50 | 0.270 | >0.9 | <20% |

**Temperature Codes**

| | Gas — T Rating | | | Dust — Surface T° | | |
|---|---|---|---|---|---|---|
| Model Type | Ta = +40 °C (+104 °F) | Ta = +50 °C (+122 °F) | Ta = +55 °C (+131 °F) | Ta = +40 °C (+104 °F) | Ta = +50 °C (+122 °F) | Ta = +55 °C (+131 °F) |
| **Standard Model** | | | | | | |
| FNLED3 | T4 | T4 | T4 | +60 °C (+140 °F) | +70 °C (+158 °F) | +75 °C (+167 °F) |
| FNLED4 | T4 | T3 | T3 | +60 °C (+140 °F) | +70 °C (+158 °F) | +75 °C (+167 °F) |
| | T4 | T4 | T3 | | | |
| FNLED5 | T5 | T4 | T4 | +60 °C (+140 °F) | +70 °C (+158 °F) | +75 °C (+167 °F) |
| | | | | +65 °C (+149 °F) | +75 °C (+167 °F) | +80 °C (+176 °F) |
| FNLED7 | T4 | T4 | T4 | +65 °C (+149 °F) | +75 °C (+167 °F) | +80 °C (+176 °F) |
| **Emergency Model** | | | | | | |
| FNLED3 | T4 | T4 | — | +60 °C (+140 °F) | +70 °C (+158 °F) | — |
| FNLED5 | T4 | T4 | — | +60 °C (+140 °F) | +70 °C (+158 °F) | — |

**"T" Numbers Represent the Maximum Temperature**

| "T" # | T1 | T2 | T3 | T4 | T5 | T6 |
|---|---|---|---|---|---|---|
| Temp. Range °C (°°F) | +301 to +450 (+547 to +842) | +201 to +300 (+394 to +572) | +136 to +200 (+277 to +392) | +101 to +135 (+214 to +275) | +86 to +100 (+187 to +212) | +85 (+185) |

① *All values are typical (tolerance +/-10%). Same electrical ratings apply to each luminaire with different LED position, mounting versions and cable entries.*

# ATX™ FNLED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

Increased Safety

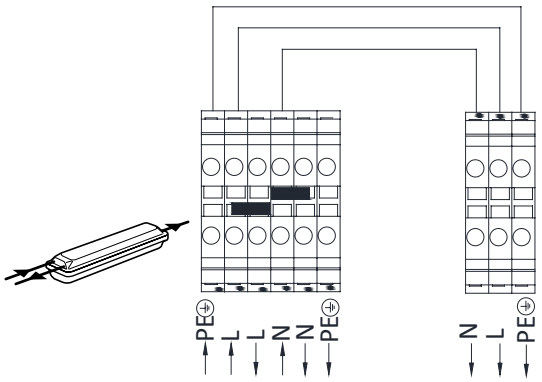
**ATEX/IECEx: Zone 2, 21 and 22 | ⟨Ex⟩ II 3 GD, 2 D | IP66 | IK10**



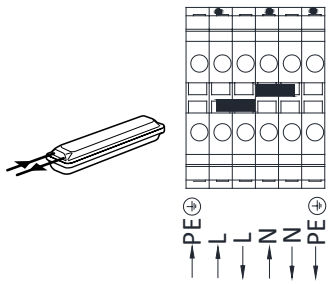
## Wiring Diagrams

### Standard Model

**Version : L**
Dual Loop In / Out — Through Wiring (Single Phase)
3 Entries, 1 at one end and 2 at the other

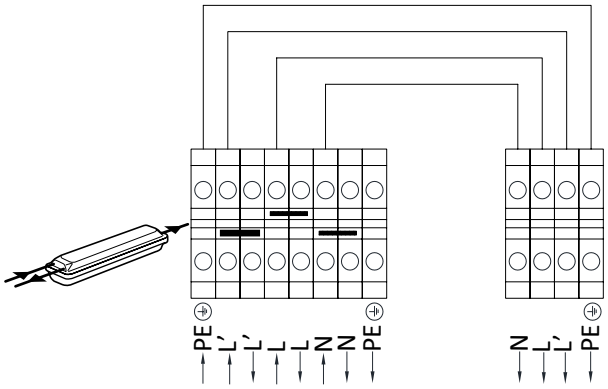



**Version : S**
Standard (Single Phase)
3 Entries, 1 at one end and 2 at the other

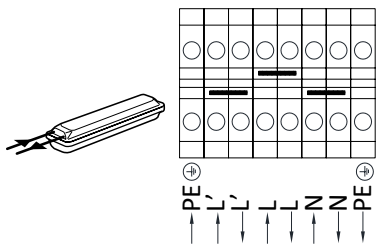



### Emergency Model

**Version : L**
Dual Loop In / Out — Through Wiring (Single Phase)
3 Entries, 1 at one end and 2 at the other




**Version : S**
Standard (Single Phase)
3 Entries, 1 at one end and 2 at the other

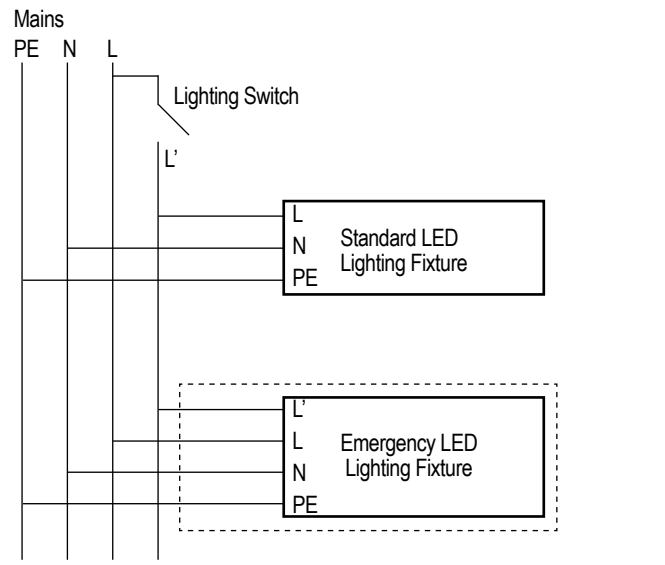


# ATX™ FNLED Series Nonmetallic LED Luminaires

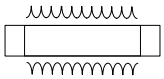
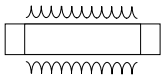
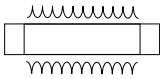
Standard or with Emergency Battery Backup
Increased Safety

**ATEX/IECEx: Zone 2, 21 and 22 | Ex II 3 GD, 2 D | IP66 | IK10**

**Wiring Diagram**




**Emergency Function Diagram**

| Mains | Lighting Switch Closed | Lighting Switch Open |
|---|---|---|
| ON |  | |
| OFF |  |  |

**LED Signals**

| Color | Timing | Function |
|---|---|---|
| Green | 1 sec ON: 1 sec OFF | Normal charging ok, Battery not yet fully charged, No fault detected, Testing ok |
| Green | 0.25 sec ON: 0.25 sec OFF | Functional / Duration Self-Test on-going |
| Green | Steady ON | Charging ok, Battery fully charged, No fault detected, Testing ok |
| Red | 1 sec ON: 1 sec OFF | Fault condition. Installation issue. Battery is reverse, not connected or shorted. Functional test failure, full duration test failure |
| LED Indicators OFF, LED Array ON | LED Indicator (Red and Green) OFF | No AC, Emergency mode ON |

**Automatic Testing System (ATS) — Emergency Battery Backup Model — Functionality**

| Functional Test | Full Duration Test |
|---|---|
| Starts within 24-48 hours after the initial power up of the luminaire | Starts within 5 to 26 days after the initial power up of the module |
| Occurs every 14 days after the initial functional test | Occurs once every 364 days after the initial duration test |
| Lasts for 30 seconds | Lasts for 180 minutes |
| At the completion of functional and full duration tests, and when AC power is present, LED indicators will display status of the emergency luminaire. | |

**Emergency Light Duration**

| Lumen Level | Battery Capacity | Duration | Light Output |
|---|---|---|---|
| 3K (FNLED3) | 6 Ah – 6V | 180 minutes | 5000K CCT: 650 lumens |
| 5K (FNLED5) | | | 4000K CCT: 550 lumens |

# ATX™ FNLED Series Nonmetallic LED Luminaires

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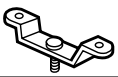
**ATEX/IECEx: Zone 2, 21 and 22 | ⟨Ex⟩ II 3 GD, 2 D | IP66 | IK10**

**Accessories and Replacement Parts**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Replacement Lens** | | | |
| | 0.79 m (2.6 ft) clear polycarbonate external lens with gasket | 0.8 (1.76) | **Z00650** |
| | 1.39 m (4.6 ft) clear polycarbonate external lens with gasket | 1.4 (3.09) | **Z00651** |
| | 0.61 m (2 ft), 1 pc needed and 1.22 m (4 ft), 2 pc needed | 0.07 (0.154) | **Z00966** |
| **Replacement Drivers and Inverter** ① | | | |
| | FNLED3 Replacement Driver (1 each) | 0.95 (2.09) | **APMS050C135UD52** |
| | FNLED4 Replacement Driver (1 each) | 0.95 (2.09) | **APMS050C135UD70** |
| | FNLED5 Replacement Driver (1 each) | 0.95 (2.09) | **APMS050C135UD84** |
| | FNLED7 Replacement Driver (1 each) | 0.95 (2.09) | **APMS050C135UD60** |
| | FNLED3 and FNLED5 Emergency Model Inverter (BMM) (1 each) | 0.65 (1.43) | **BMMLED** |
| **Battery Pack and BMM** ① | | | |
| | FNLED3 and FNLED5 Emergency 6V 6Ah Battery Pack (1 each) | 0.73 (1.6) | **BPLLED** |
| **Fuse Assembly** ① | | | |
| | FNLED3 and FNLED5 Replacement Fuse Assembly (1 each) | N/A | **APPFUSEZ1** |
| **Fixing Brackets for Surface Installation — Set of Two** | | | |
| | Zinc plated steel | 0.39 (0.85) | **FEFBZ** |
| **Brackets for Surface Mounting — Set of Two** | | | |
|  | 316 stainless steel | 0.64 (1.4) | **FESBS** |
| **Hinged Brackets for Adjusting Luminaire** | | | |
| | Aluminum | 0.75 (1.7) | **FEHBA** |
| | 316 stainless steel | 0.57 (1.25) | **FEHBS** |
| **M8 Ring Bolts — Set of Two** | | | |
| | Zinc plated steel | 0.11 (0.2) | **FERBM8Z** |
| **Half Clamps Brackets for Pole Mounting — Set of two** | | | |
| | Diameter for 1-1/4 to 1-1/2" pole: 42 mm to 49 mm (1.65 in to 1.93 in) | | |
| | • Zinc plated steel | 0.34 (0.7) | **FEHC49Z** |
| | • 316 stainless steel | 0.34 (0.7) | **FEHC49S** |
| | Diameter for 2" pole: 60 mm (2.36 in) | | |
| | • Zinc plated steel | 0.48 (1.1) | **FEHC60Z** |
| | • 316 stainless steel | 0.52 (1.2) | **FEHC60S** |
| **Fall Prevention Kit — Safety chain retains fixture temporarily to ease installation** | | | |
| | For M25 cable entry | 0.76 (1.7) | **FESCM25** |
| | For M20 cable entry | 0.76 (1.7) | **FESCM20** |

① *Replacement parts FNLED luminaires purchased prior to 2019 may differ. Contact your local sales representative for more information.*

# ATX™ FNLED Series Nonmetallic LED Luminaires

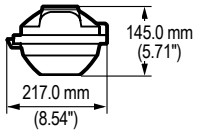
Standard or with Emergency Battery Backup

Increased Safety

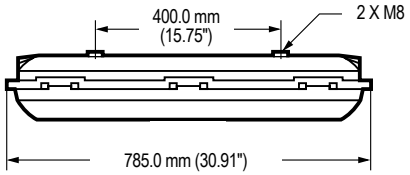
**ATEX/IECEx: Zone 2, 21 and 22 | Ex II 3 GD, 2 D | IP66 | IK10**

## Luminaire Dimensions in Millimeters (Inches)

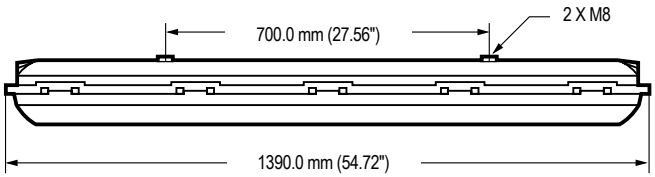
**End View**




**Side View — 0.785 m (2.58 ft)**




**Side View — 1.39 m (4.56 ft) Version**




## Luminaire Specifications

| Model | Length m (ft) | Weight in kg (lb) |
|---|---|---|
| **Standard Model** | | |
| FNLED3 | 0.79 (2.58) | 5.00 (11.00) |
| FNLED4 | 0.79 (2.58) | 5.00 (11.00) |
| FNLED5 | 1.39 (4.56) | 8.00 (17.50) |
| FNLED7 | 1.39 (4.56) | 8.75 (19.00) |
| **Emergency Model** | | |
| FNLED3 | 0.79 (2.58) | 6.00 (13.00) |
| FNLED5 | 1.39 (4.56) | 10.00 (22.00) |

# ATX™ FNLED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

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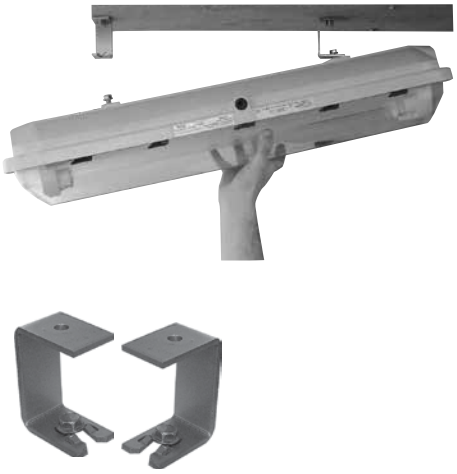
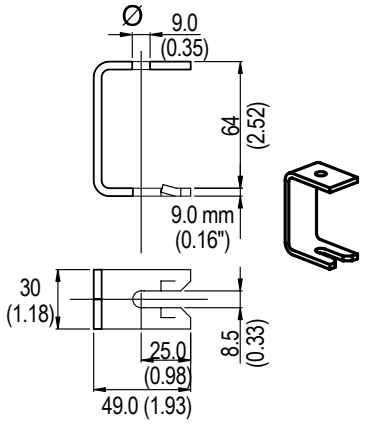
**ATEX/IECEx: Zone 2, 21 and 22 | ⟨Ex⟩ II 3 GD, 2 D | IP66 | IK10**



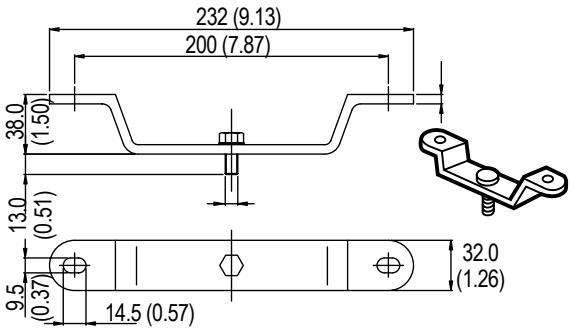
**Mounting Options Dimensions in Millimeters (Inches)**

**FEFBZ: zinc plated steel — Set of two quick fixing brackets for ease of surface mounting**

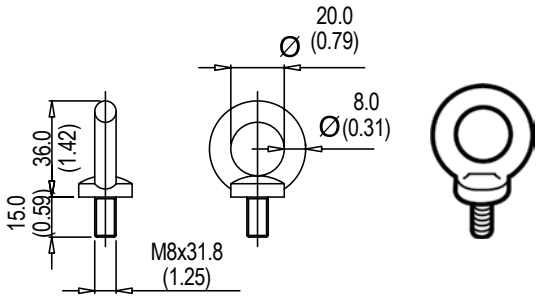





**FESBS: 316 stainless steel — Set of two brackets for surface mounting**




**FERBM8Z: zinc plated steel — Set of two ring bolts**



# ATX™ FNLED Series Nonmetallic LED Luminaires

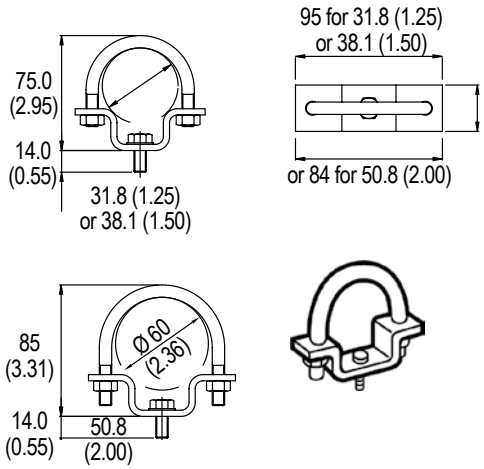
Standard or with Emergency Battery Backup

Increased Safety

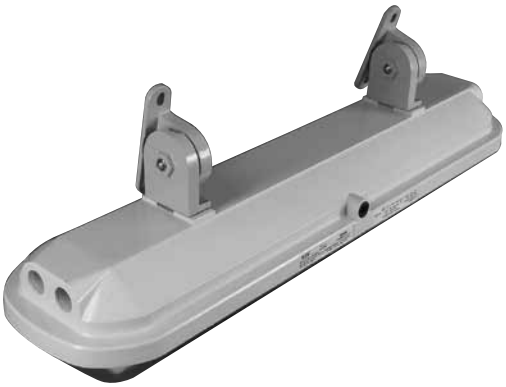
**ATEX/IECEx: Zone 2, 21 and 22 | Ex II 3 GD, 2 D | IP66 | IK10**

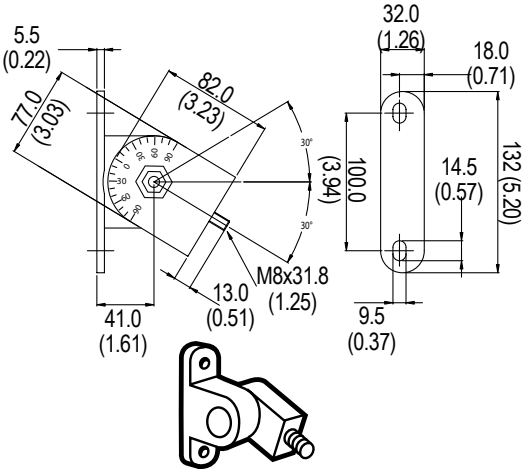
**Mounting Options Dimensions in Millimeters (Inches)**

**FEHC49Z: zinc plated steel or FEHC49S: 316 stainless steel — Set of two clamps for pole diameter 42 mm to 49 mm (for 1-1/4" to 1-1/2" pole).**
**FEHC60Z: zinc plated steel or FEHC60S: 316 stainless steel — Set of two clamps for pole diameter 60 mm (for 2" pole).**




**FEHBA: aluminum or FEHBS: 316 stainless steel — Set of two hinged brackets for adjusting luminaire.**





# ATX™ FNLED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

Increased Safety

**ATEX/IECEx: Zone 2, 21 and 22 | ⟨Ex⟩ II 3 GD, 2 D | IP66 | IK10**



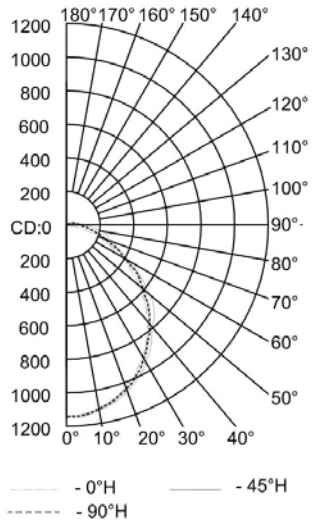
## Photometric Data — DATA SHOWN IS ABSOLUTE

**5000K CCT, With Diffuser**

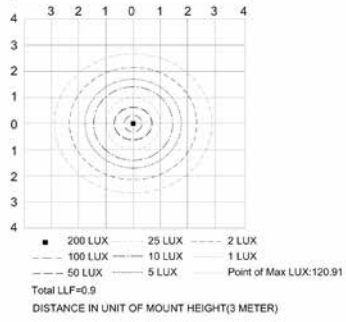
REPORT NUMBER: **FNLED3CBUxxD**

Luminaire Lumens: 3,333

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Lamp | % Luminaire |
|---|---|---|---|
| 0-30 | 921.2 | 27.6% | 27.6% |
| 0-40 | 1,485.3 | 44.6% | 44.6% |
| 0-60 | 2,529.8 | 75.9% | 75.9% |
| 60-90 | 654.9 | 19.6% | 19.6% |
| 70-100 | 377.6 | 11.3% | 11.3% |
| 90-120 | 131.3 | 3.9% | 3.9% |
| 0-90 | 3,184.7 | 95.5% | 95.5% |
| 90-180 | 148.4 | 4.5% | 4.5% |
| 0-180 | 3,333.0 | 100% | 100% |

**LUMENS PER ZONE**

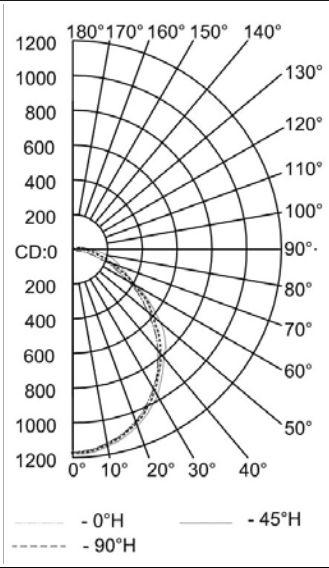
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 114.4 | 3.4% | 90-100 | 57.2 | 1.7% |
| 10-20 | 324.4 | 9.7% | 100-110 | 43.2 | 1.3% |
| 20-30 | 482.3 | 14.5% | 110-120 | 30.9 | 0.9% |
| 30-40 | 564.1 | 16.9% | 120-130 | 10.6 | 0.3% |
| 40-50 | 565.8 | 17.0% | 130-140 | 2.3 | 0.1% |
| 50-60 | 478.8 | 14.4% | 140-150 | 1.6 | 0% |
| 60-70 | 334.5 | 10.0% | 150-160 | 1.3 | 0% |
| 70-80 | 206.9 | 6.2% | 160-170 | 0.9 | 0% |
| 80-90 | 113.4 | 3.4% | 170-180 | 0.3 | 0% |

**5000K CCT, With Diffuser**

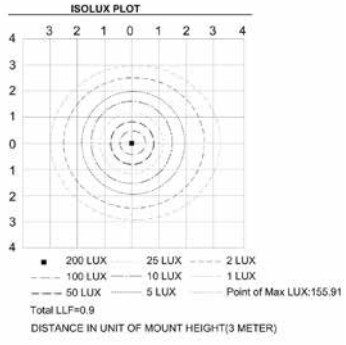
REPORT NUMBER: **FNLED4CBUxxD**

Luminaire Lumens: 4,294

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Lamp | % Luminaire |
|---|---|---|---|
| 0-30 | 1,186.7 | 27.6% | 27.6% |
| 0-40 | 1,913.0 | 44.6% | 44.6% |
| 0-60 | 3,258.4 | 75.9% | 75.9% |
| 60-90 | 844.0 | 19.7% | 19.7% |
| 70-100 | 486.8 | 11.3% | 11.3% |
| 90-120 | 168.3 | 3.9% | 3.9% |
| 0-90 | 4,102.4 | 95.5% | 95.6% |
| 90-180 | 190.8 | 4.4% | 4.4% |
| 0-180 | 4,293.2 | 100% | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 147.4 | 3.4% | 90-100 | 73.8 | 1.7% |
| 10-20 | 418.0 | 9.7% | 100-110 | 55.1 | 1.3% |
| 20-30 | 621.3 | 14.5% | 110-120 | 39.5 | 0.9% |
| 30-40 | 726.3 | 16.9% | 120-130 | 13.9 | 0.3% |
| 40-50 | 729.5 | 17.0% | 130-140 | 3.0 | 0.1% |
| 50-60 | 616.0 | 14.3% | 140-150 | 2.1 | 0% |
| 60-70 | 431.0 | 10.0% | 150-160 | 1.7 | 0% |
| 70-80 | 267.0 | 6.2% | 160-170 | 1.3 | 0% |
| 80-90 | 146.0 | 3.4% | 170-180 | 0.5 | 0% |

# ATX™ FNLED Series Nonmetallic LED Luminaires

Standard or with Emergency Battery Backup

Increased Safety

**ATEX/IECEx: Zone 2, 21 and 22 | Ⓔx II 3 GD, 2 D | IP66 | IK10**

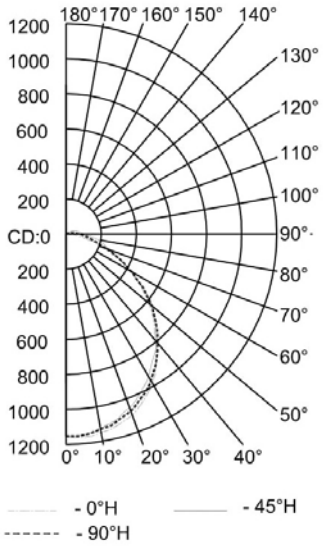
## Photometric Data — DATA SHOWN IS ABSOLUTE

**5000K CCT, With Diffuser**

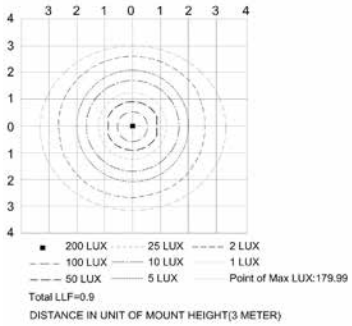
REPORT NUMBER: **FNLED5CBUxxD**

Luminaire Lumens: 5,094

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Lamp | % Luminaire |
|---|---|---|---|
| 0-30 | 1,393.3 | 27.4% | 27.4% |
| 0-40 | 2,263.1 | 44.4% | 44.4% |
| 0-60 | 3,874.4 | 76.1% | 76.1% |
| 60-90 | 999.6 | 19.6% | 19.6% |
| 70-100 | 566.8 | 11.1% | 11.1% |
| 90-120 | 196.1 | 3.8% | 3.8% |
| 0-90 | 4,874.0 | 95.7% | 95.7% |
| 90-180 | 219.2 | 4.3% | 4.3% |
| 0-180 | 5,093.2 | 100% | 100% |

**LUMENS PER ZONE**

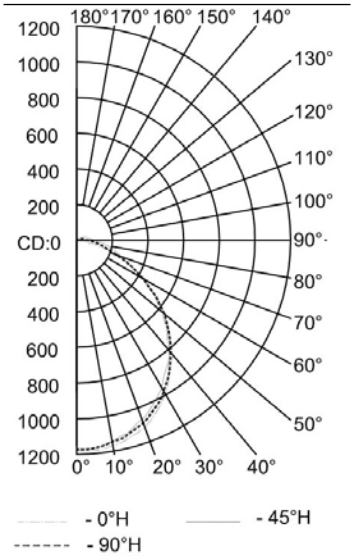
| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 170.6 | 3.4% | 90-100 | 83.6 | 1.6% |
| 10-20 | 488.2 | 9.6% | 100-110 | 63.7 | 1.3% |
| 20-30 | 734.5 | 14.4% | 110-120 | 48.7 | 1% |
| 30-40 | 869.8 | 17.1% | 120-130 | 15.8 | 0.3% |
| 40-50 | 874.4 | 17.2% | 130-140 | 2.7 | 0.1% |
| 50-60 | 736.9 | 14.5% | 140-150 | 1.8 | 0% |
| 60-70 | 516.4 | 10.1% | 150-160 | 1.4 | 0% |
| 70-80 | 314.7 | 6.2% | 160-170 | 1.0 | 0% |
| 80-90 | 168.5 | 3.3% | 170-180 | 0.4 | 0% |

**5000K CCT, With Diffuser**

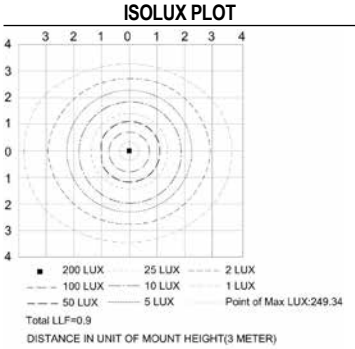
REPORT NUMBER: **FNLED7CBUxxD**

Luminaire Lumens: 7,038

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Lamp | % Luminaire |
|---|---|---|---|
| 0-30 | 1,927.1 | 27.4% | 27.4% |
| 0-40 | 3,129.4 | 44.5% | 44.5% |
| 0-60 | 5,354.9 | 76.1% | 76.1% |
| 60-90 | 1,378.2 | 19.6% | 19.6% |
| 70-100 | 781.8 | 11.1% | 11.1% |
| 90-120 | 271.9 | 3.9% | 3.9% |
| 0-90 | 6,733.2 | 95.7% | 95.7% |
| 90-180 | 304.2 | 4.3% | 4.3% |
| 0-180 | 7,037.4 | 100% | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 236.0 | 3.4% | 90-100 | 115.6 | 1.6% |
| 10-20 | 675.4 | 9.6% | 100-110 | 88.6 | 1.3% |
| 20-30 | 1,015.7 | 14.4% | 110-120 | 67.7 | 1% |
| 30-40 | 1,202.3 | 17.1% | 120-130 | 22.0 | 0.3% |
| 40-50 | 1,208.0 | 17.2% | 130-140 | 3.8 | 0.1% |
| 50-60 | 1,017.5 | 14.5% | 140-150 | 2.5 | 0% |
| 60-70 | 712.0 | 10.1% | 150-160 | 2.0 | 0% |
| 70-80 | 433.6 | 6.2% | 160-170 | 1.4 | 0% |
| 80-90 | 232.7 | 3.3% | 170-180 | 0.5 | 0% |

# Industrial Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

## Applications

- For use in locations where:
  - — A high degree of corrosion resistance is required
  - — Protection against dirt, water and moisture is necessary
- Typical industries include:
  - — Waste and sewer treatment
  - — Pulp and paper mills
  - — Food processing plants
  - — Foundries
  - — General manufacturing facilities
  - — Underground tunnels
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

## Features

- All Models:
  - Lightweight design makes mounting and installation easy.
  - — Low fixture profile allows installation in compact spaces.
  - — Two sizes and output options deliver up to 7600 lumens.

| Nominal Lumens ② | Fluorescent Equivalent | Replacement Lamp Type | Model |
|---|---|---|---|
| 4300 | 2 x 32W | T8 | IRM*2 |
| 7600 | 3 x 32W | T8 | IRM*4 |

  - — Precision engineered clear polycarbonate lens offers wide light distribution for greater area coverage.
  - — Choice of color temperature (CCT): 5000K cool white, 4000K neutral white or 3000K warm white with minimum 80 CRI.
  - — Field replaceable lens and LED driver.
  - — Diverse mounting bracket options allow for mounting in any location and retrofitting third party fixtures.
  - — For ease of retrofitting, mounting brackets accommodate most bolt patterns for Crouse-Hinds™ ✣, Dialight™ ❖ and other manufacturers. See *Mounting Bracket Selection Guide*.
  - — Wirenuts and screw terminal block ③ option for added flexibility.
  - — Hinged wire compartment cover is secured with captive screws for safety and convenience.
  - — Loop in/out wiring capability for inter connecting fixtures
  - — Standard screw-type terminal block can accept UL/CSA 22-12 AWG wire.
  - — 5 casted points for secondary safety retention.
  - — Heavy duty, high temperature silicone gaskets.
  - — Standard 6 kV/3 kA surge protection.
  - — Fixture position locking mechanism provides ease and consistency of aiming.
  - — Rugged housing with superior thermal design translates to long luminaire life.
  - — Reported L70 is >60,000 hours.
  - — Photometric data and electronic drawings available upon request.
  - — 5 year standard warranty.
- Standard Model:
  - — Ambient Temperature: -40˚C to +65˚C (-40˚F to +149˚F).
- Emergency Battery Backup Model:
  - — Ambient Temperature: -20˚C to +55˚C (-4˚F to +131˚F).
  - — Suitable for heights up to 4.27 m (14 ft).
  - — Field replaceable battery pack and battery management module (BMM).

**IRM*2 with Small Swivel Bracket**

**IRM*4 with Large Swivel Bracket**

## Options

- All Models:
  - — Yoke brackets can be factory installed or purchased separately.
  - — Pendant mount kits ④ can be purchased separately.
  - — Safety cable can be purchased separately or configured as an add on option to be shipped with the LED fixture.
  - — Available with 3/4" or 1/2" NPT threaded hubs.
  - — Clear or diffused polycarbonate lens.
  - — Wirenuts or screw terminal blocks ③ available.
- Emergency Battery Backup Model:
  - — 90 or 180 minutes of emergency battery back up available.

## Standard Materials

- Housing: copperfree (4/10 of 1% max.) aluminum
- Lens: thermal shock- and impact-resistant polycarbonate lens
- Gasket: silicone rubber
- Bolts: stainless steel
- Close up plugs: (3) aluminum provided
- Mounting brackets: zinc plated steel

## Standard Finishes

- Housing: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

## NEC/CEC Certifications and Compliances

- All Models:
  - — UL Standard: UL 924; UL 844; UL 1598; UL 1598A; UL 50E; UL 8750
  - — CSA Standard: C22.2 No. 0 - 10; C22.2 No. 94.2 - 15; C22.2 No. 137-18; C22.2 No 141-15; C22.2 No. 250.0 - 18; C22.2 No. 250.13 -17; C22.2 No. 60529-16
  - — NEMA ANSI/IEC Standards: 60529
- Standard Model:
  - — cCSAus: 164460, Certificate Number: 70208309
  - — ABS: 19-HS1867599-PDA
  - — Vibration Rating: 5G, 2 hours, 3 axis at first mode resonant frequency
- Emergency Battery Backup Model:
  - — cCSAus: 164460, Certificate Number: 70218502

## NOM: Norma Oficial Mexicana:

- NOM-003-SCFI-2014 (NMX-J-307-ANCE-2017)
- NOM Certificate: ULM-NOM-10627

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② Nominal lumen value for 5000K, clear Lens. Detailed lumen information is provided in data tables.*
*③ Terminal block option available for BU voltage configuration only.*
*④ Pendant mount kit option is not available with Type 3R, 4, 4X, IP66, and Marine Outside Type (Salt Water) ratings.*
*✣ Crouse-Hinds is a registered trademark of Eaton Corporation.*
*❖ Dialight is a registered trademark of Dialight.*

# Industrial Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

### ABS Certifications

- IRM/RM: 19-HS1867599-PDA

### International Dark-Sky Association

- IDA Dark Sky Approved when ordering IRM[A/B/L/N][2/4][1/2]W[D/P] L[BU/BH][N/H/E]G[W/T][Blank/1/2] with [IRMPENDKIT/IRMHPENDKIT] (3000K CCT). ⑤

### DesignLights™ Consortium

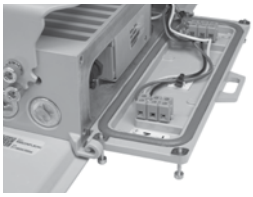
- Check DLC QPL for current list of products.

### Related Products

- Rigmaster LED Series Luminaires
- Explosionproof Rigmaster LED Series Luminaires

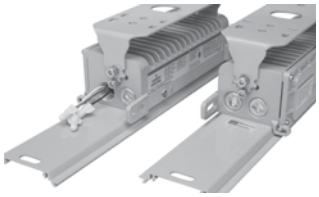
## Illustrated Features — All Models

**Flexibility and Modular Design**



**Hinged wirebox cover with captive screws:** Allows hassle free installation in challenging conditions and prevents accidental disengagement to enhance workplace safety.

**Light where you need it:** Notched position locking mechanism enables fixture to be aimed consistently.



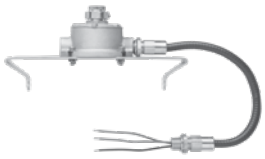
**Facilitates plug n play installation and decreases installation time:** Two NPT hubs on each end for through wiring. Leads are placed outside the wiring compartment allowing installer to bypass the screw cover.

Choose from **three color temperatures** (CCT): 3000K, 4000K, and 5000K.

**Standard linear light distribution pattern:** wide distribution maximizes spread and work plane brightness to optimize number of luminaires needed.

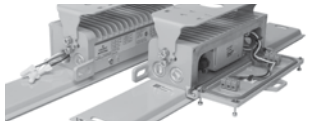
**Configurable Options**

**Yoke Mounting Brackets ③④:** Ability to mount using one of three distinctly designed brackets to best suit your installation needs. All brackets can be factory installed to save time in the field or purchased separately.



**Pendant Mounting Kits ⑤:** The pendant mount kits consist of Appleton GRF Outlet Box with a built in union cover as well as the necessary mounting and wiring accessories. For ease of installation and added flexibility, it is field installable and purchased separately..

**Clear or Diffused Polycarbonate Lens:** Select a clear or diffused polycarbonate lens for the optimal level of work plane brightness and visual comfort. These lenses are field interchangeable for convenience and flexibility.



**Wirenuts or Screw Terminal Blocks ①②:** For ease of field installation, choose between wirenuts and screw terminal blocks ④ for 120-277 Vac configured models. Terminal blocks support UL/CSA 22 to 12 AWG wire.

**Safety Features**

**Retention Points:** Five points for secondary retention provide protection against infield vibration.

**Safety cables ③:** Can be purchased separately or included with fixture to reduce ordering and receiving complexity.

*① Applicable to standard (non emergency) fixtures only.*
*② Terminal block option is available for standard unit, BU voltage configuration only.*
*③ Brackets and safety cables can be ordered separately or included with fixture. See Ordering Table for more information.*
*④ Mounting Brackets compatible with standard and emergency versions are not the same. Please refer to mounting bracket details for more information.*
*⑤ Pendant mount kit option is not available with Type 3R, 4, 4X, IP66, and Marine Outside Type (Salt Water) ratings.*

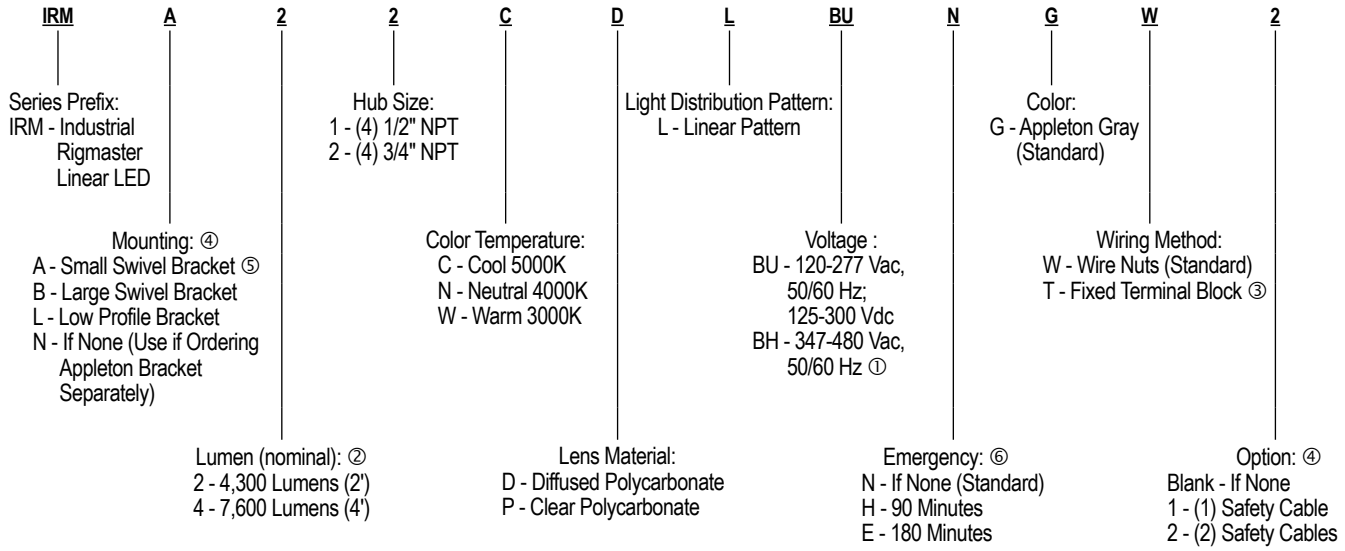
# Industrial Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

**Order Using Catalog Numbering Guide — Industrial Rigmaster™ LED Series Luminaires**




**Lumen Output (Efficacy) — Standard Model — Standard Mode ⑦**

| Model | Fluorescent Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Lens** | | | | | | | | | | | | | | |
| IRM*2 | 2 x 32W | Linear | 3000K | >80 | 4160 | 126 | 4000K | >80 | 4230 | 128 | 5000K | >80 | 4390 | 133 |
| IRM*4 | 3 x 32W | Linear | 3000K | >80 | 7250 | 132 | 4000K | >80 | 7370 | 134 | 5000K | >80 | 7650 | 139 |
| **Diffused Polycarbonate Lens** | | | | | | | | | | | | | | |
| IRM*2 | 2 x 32W | Linear | 3000K | >80 | 3890 | 118 | 4000K | >80 | 3950 | 120 | 5000K | >80 | 4100 | 124 |
| IRM*4 | 3 x 32W | Linear | 3000K | >80 | 6770 | 125 | 4000K | >80 | 6870 | 125 | 5000K | >80 | 7130 | 130 |

**Lumen Output (Efficacy) — Emergency Model — Emergency Mode ⑥⑦**

| Model | Emergency Duration in Minutes | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate Lens** | | | | | | | | | | | | | | |
| IRM*2/IRM*4 | 90 | Linear | 3000K | >80 | 1200 | N/A | 4000K | >80 | 1260 | N/A | 5000K | >80 | 1350 | N/A |
| | 180 | Linear | 3000K | >80 | 720 | N/A | 4000K | >80 | 760 | N/A | 5000K | >80 | 800 | N/A |
| **Diffused Polycarbonate Lens** | | | | | | | | | | | | | | |
| IRM*2/IRM*4 | 90 | Linear | 3000K | >80 | 1080 | N/A | 4000K | >80 | 1090 | N/A | 5000K | >80 | 1130 | N/A |
| | 180 | Linear | 3000K | >80 | 670 | N/A | 4000K | >80 | 680 | N/A | 5000K | >80 | 700 | N/A |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② For lumen output information, see Lumen Output (Efficacy) Table.*
*③ Terminal block option available for standard unit, BU voltage configuration only.*
*④ Brackets and safety cables can be ordered separately or included with fixture. See Mounting Brackets Table for more information.*
*⑤ Mounting option A is not available with emergency version.*
*⑥ Emergency battery back up version is only available with BU voltage configuration for 120-277 Vac operation.*
*⑦ All lumen values are typical (tolerance +/- 10%).*

# Industrial Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

**Electrical Specifications ②**

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Standard Model** | | | | | |
| IRM*2 | 120 Vac | 33 | 0.28 | >0.9 | <20 |
| | 277 Vac | 33 | 0.12 | >0.9 | <20 |
| | 125 Vdc | 33 | 0.27 | NA | NA |
| | 300 Vdc | 33 | 0.11 | NA | NA |
| | 347 Vac | 36 | 0.11 | >0.9 | <20 |
| | 480 Vac | 36 | 0.08 | >0.9 | <20 |
| IRM*4 | 120 Vac | 55 | 0.47 | >0.9 | <20 |
| | 277 Vac | 55 | 0.20 | >0.9 | <20 |
| | 125 Vdc | 55 | 0.44 | NA | NA |
| | 300 Vdc | 55 | 0.18 | NA | NA |
| | 347 Vac | 56 | 0.16 | >0.9 | <20 |
| | 480 Vac | 56 | 0.12 | >0.9 | <20 |
| **Emergency Model** | | | | | |
| IRM*2 | 120 Vac | 39 | 0.35 | >0.9 | <20 |
| | 277 Vac | 39 | 0.15 | >0.9 | <20 |
| IRM*4 | 120 Vac | 60 | 0.57 | >0.9 | <20 |
| | 277 Vac | 60 | 0.20 | >0.9 | <20 |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② All values are typical (tolerance +/-10%).*

# Industrial Rigmaster™ LED Series Luminaires

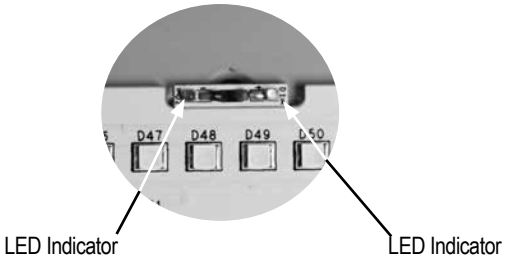
With Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

**Automatic Testing System (ATS) — Emergency Battery Backup Model — Functionality ②**

| Functional | Full Duration |
|---|---|
| Starts within 24 to 45 hours after the initial powerup of the module | Starts within 5 to 26 days after the initial power of the module |
| Occurs every 14 days after the initial aforementioned functional test | Occurs every 364 days after the initial aforementioned functional test |
| Lasts for 30 seconds | Lasts for the full duration of the rated emergency period |
| At the completion of functional and full duration tests, LED indicator will display the status of the emergency luminaire when AC is present | |




**LED Signals**

| Indicator Color | Timing | Description |
|---|---|---|
| Green | 1 sec ON: 1 sec OFF | Normal charging ok, Battery not yet fully charged, No fault detected, Testing ok |
| Green | 0.25 sec ON: 0.25 sec OFF | Functional / Duration Self-Test on-going |
| Green | Steady ON | Charging ok, Battery fully charged, No fault detected, Testing ok |
| Red | 1 sec ON: 1 sec OFF | Fault condition. Installation issue. Battery is reverse, not connected or shorted. Functional test failure, full duration test failure |
| LED Indicators OFF, LED Array ON | LED Indicator Lights (Red and Green) OFF | No AC, Emergency mode ON |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② Applicable only for Emergency model.*

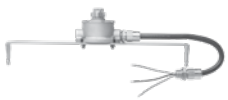
# Industrial Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

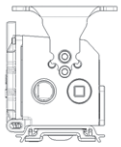
**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

## Mounting Brackets

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Standard Model** | | | |
| | Small Swivel Bracket | 0.74 (1.7) | **RMSSB** |
| | Large Swivel Bracket | 1.08 (2.4) | **RMLSB** |
| | Low Profile Bracket | 0.80 (1.8) | **RMLPB** |
| | Pendant Mount and Top Wire Entry Kit | 4.54 (10.0) | **IRMPENDKIT ②** |
| **Emergency Model** | | | |
| | Emergency Swivel Bracket | 2.0 (4.4) | **RMHLSB** |
| | Emergency Low Profile Bracket | 1.9 (4.1) | **RMHLPB** |
|  | Pendant Mount and Top Wire Entry Kit | 5.44 (12.0) | **IRMHPENDKIT ②** |

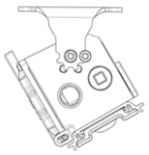
## Bracket Mounting Angles

**0°**

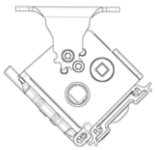


**15°**

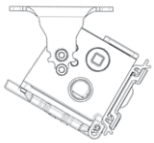
**30°**



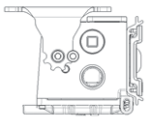
**45°**



**60°**



**90°**



① *Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
② *Pendant mount kit option is not available with Type 3R, 4, 4X, IP66, and Marine Outside Type (Salt Water) ratings.*

# Industrial Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

### Mounting Bracket Selection Guide ②

*For customers trying to retrofit an existing fixture and match bolt patterns, use the table below as a guide to select the best bracket to suit your needs*

| Other Manufacturer | Other Manufacturer Part Number | Description | Catalog Number | Description | Catalog Number | Description | Catalog Number |
|---|---|---|---|---|---|---|---|
| **Standard Model** | | | | | | | |
| Crouse Hinds™✣ | DP1057MTK | — | — | Large Swivel Bracket | **RMLSB** | Low Profile Bracket | **RMLPB** |
| Dialight™❖ | LTXW4 | Small Swivel Bracket | **RMSSB** | Large Swivel Bracket | **RMLSB** | — | — |
| | LTXW4LP | — | — | Large Swivel Bracket | **RMLSB** | Low Profile Bracket | **RMLPB** |
| AZZ™✸ Rig-A-Lite™✸ | 53050 | Small Swivel Bracket | **RMSSB** | Large Swivel Bracket | **RMLSB** | — | — |
| **Emergency Model** | | | | | | | |
| Crouse Hinds™✣ | DP1057MTK | — | — | Emergency Swivel Bracket | **RMHLSB** | Emergency Low Profile Bracket | **RMHLPB** |
| Dialight™❖ | LTXW4 | — | — | Emergency Swivel Bracket | **RMHLSB** | Emergency Low Profile Bracket | **RMHLPB** |
| | LSXW5 | — | — | Emergency Swivel Bracket | **RMHLSB** | Emergency Low Profile Bracket | **RMHLPB** |
| | LSXW4 | — | — | Emergency Swivel Bracket | **RMHLSB** | Emergency Low Profile Bracket | **RMHLPB** |
| AZZ™✸ Rig-A-Lite™✸ | 53050 | — | — | Emergency Swivel Bracket | **RMHLSB** | Emergency Low Profile Bracket | **RMHLPB** |



*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② The above information is strictly for guidance purposes and does not guarantee compatibility and fit. Please carefully review bolt patterns on each bracket to ensure it meets your needs.*
*✣ Crouse-Hinds is a registered trademark of Eaton Corporation.*
*❖ Dialight is a registered trademark of Dialight.*
*✸ AZZ and Rig-A-Lite are registered trademarks of AZZ.*

# Industrial Rigmaster™ LED Series Luminaires

Standard or with Emergency Battery Backup

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

### Mounting Accessories — All Models

| | Description | Weight in kg (lbs) | Catalog Numbers |
|---|---|---|---|
| | Safety Cable — Stainless Steel | 0.2 (0.4) | **LEDSC** |
| | Half clamp 316 stainless steel brackets for pole mounting (set of two) ② | | |
| | • For 42 mm to 49 mm pole (1-1/4 to 1-1/2" tube) | 0.3 (0.7) | **FEHC49S** ② |
| | • For 60 mm pole (2" tube) | 0.5 (1.2) | **FEHC60S** ② |
| | Conduit clamp ③ | | |
| | • Zinc plated steel conduit hanger with swing bolts | 0.03 (0.07) | **H75-SWB** ③ |

### Replacement Lenses — All Models

| | Description | Model | Quantity Per Luminaire | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| | Clear Polycarbonate Lens | IRM*2 | 1 | 1.0 (2.2) | **RMCL** |
| | | IRM*4 | 2 | | |
| | Diffused Polycarbonate Lens | IRM*2 | 1 | 1.0 (2.2) | **RMDL** |
| | | IRM*4 | 2 | | |

### Replacement Drivers — All Models

| | Model | Voltage | Driver Wattage | Constant Current Settings | Catalog Number |
|---|---|---|---|---|---|
| | IRM*2 | 50W | BU | 600mA | **APM050C135UD060** |
| | IRM*2 | 50W | BH | 600mA | **APM050C135HD060** |
| | IRM*4 | 50W | BU | 1040mA | **APM050C135UD104** |
| | IRM*4 | 50W | BH | 1040mA | **APM050C135HD104** |

### Accessories and Replacement Parts — Emergency Model

| | Description | Weight in kg (lbs) | Catalog Numbers |
|---|---|---|---|
| | Replacement Battery — Management Module | 1.0 (2.2) | **BPMLLED** |
| | Replacement Battery Pack | 0.7 (1.6) | **BMMRM** |

### Alternate Beam Clamp Mounting Option — All Models

| | Dimensions in Millimeters (Inches) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | Max Load kg (lbs) | Weight per 100 kg (lbs) | Catalog Number |
| | 52.3 (2.06) | 50.8 (2.00) | 35.1 (1.38) | 25.4 (1.00) | 3/8 - 16 | 340.00 (750.00) | 37.65 (83.00) | **RMBCKIT** |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② Additional hardware (not supplied) is required to use this accessory with the Rigmaster fixture and mounting bracket. Please use two M8 x 20 mm bolts, two M8 split lock washers and two M8 nuts. For additional details contact Appleton Technical Support.*
*③ For compatibility of other Appleton conduit clamps, contact Appleton Technical Support.*

# Industrial Rigmaster™ LED Series Luminaires

Standard

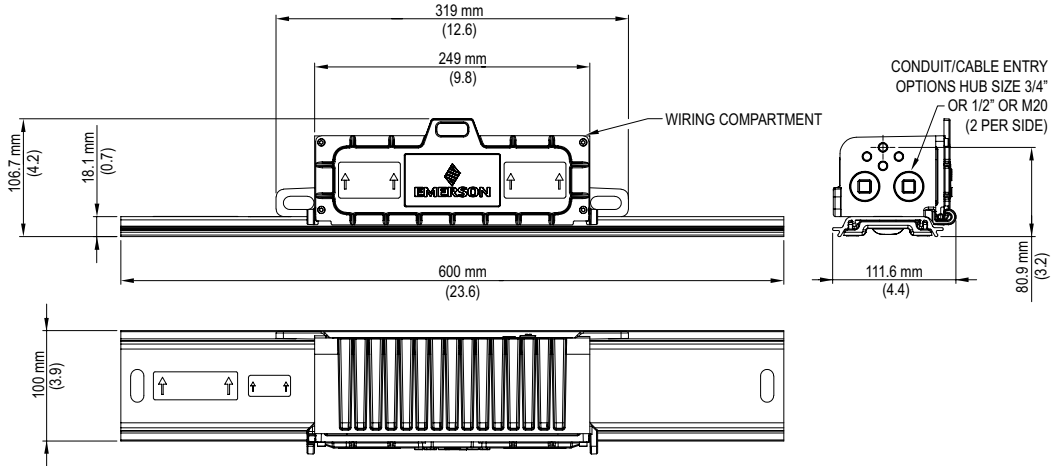
Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

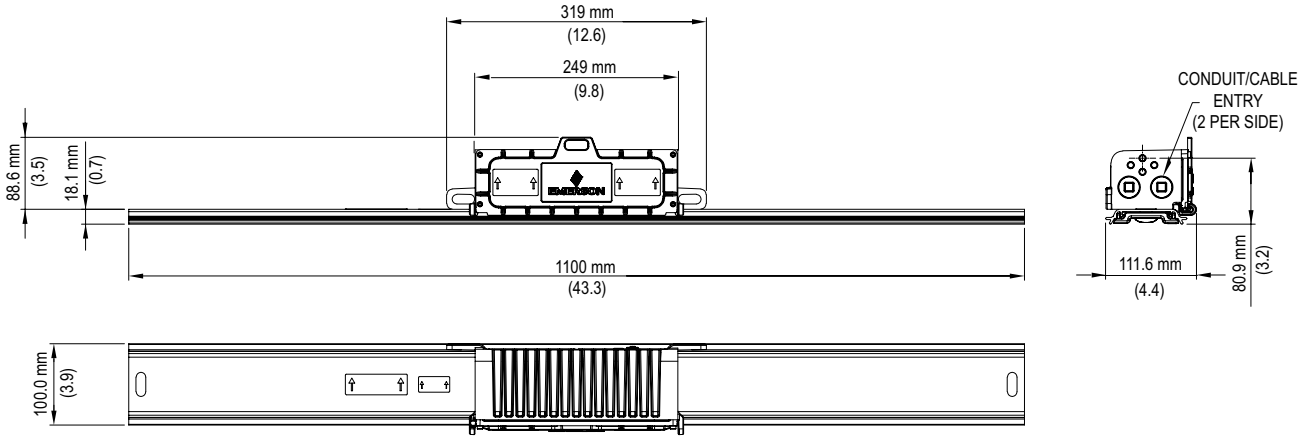


## Fixture — Dimensions in Millimeters (Inches) — Standard Model

### IRM*2 - Standard




### IRM*4 - Standard




## Luminaire Specifications

| Model | Weight in kg (lb) ② | Length in m (ft) |
|---|---|---|
| IRM*2 — Standard | 3.7 (8.2) | 0.6 (2.0) |
| IRM*4 — Standard | 4.6 (10.1) | 1.1 (3.6) |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② Weight of brackets are not included. See Mounting Brackets Table for details.*

# Industrial Rigmaster™ LED Series Luminaires

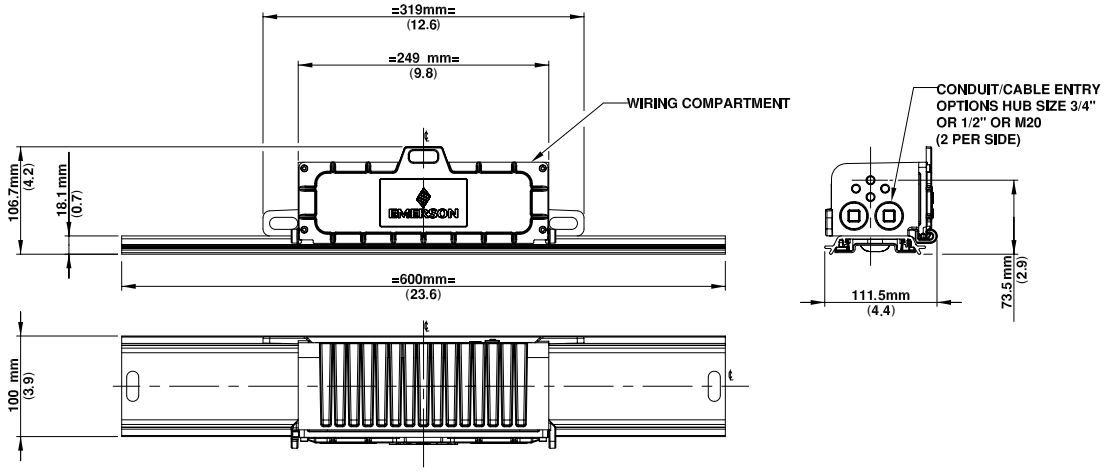
With Emergency Battery Backup

Ordinary Locations

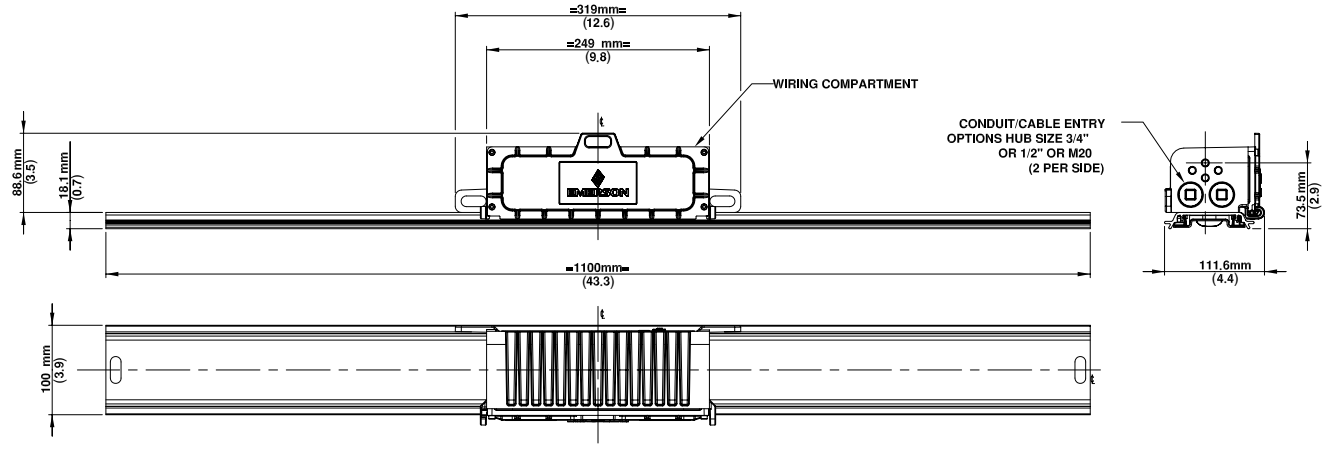
**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

## Fixture — Dimensions in Millimeters (Inches) — Emergency Model

### IRM*2 - Emergency




### IRM*4 - Emergency




## Luminaire Specifications

| Model | Weight in kg (lb) ② | Length in m (ft) |
|---|---|---|
| IRM*2 — Emergency | 7.6 (16.8) | 0.6 (2.0) |
| IRM*4 — Emergency | 8.6 (19.0) | 1.1 (3.6) |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*
*② Weight of brackets are not included. See Mounting Brackets Table for details.*

# Industrial Rigmaster™ LED Series Luminaires

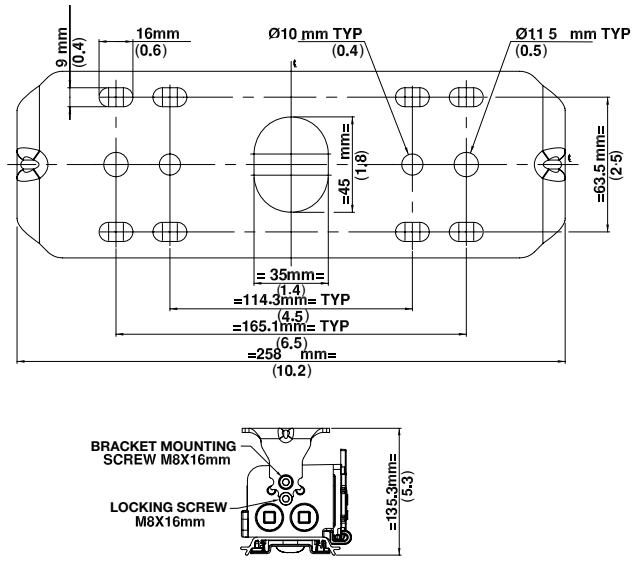
Standard

Ordinary Locations

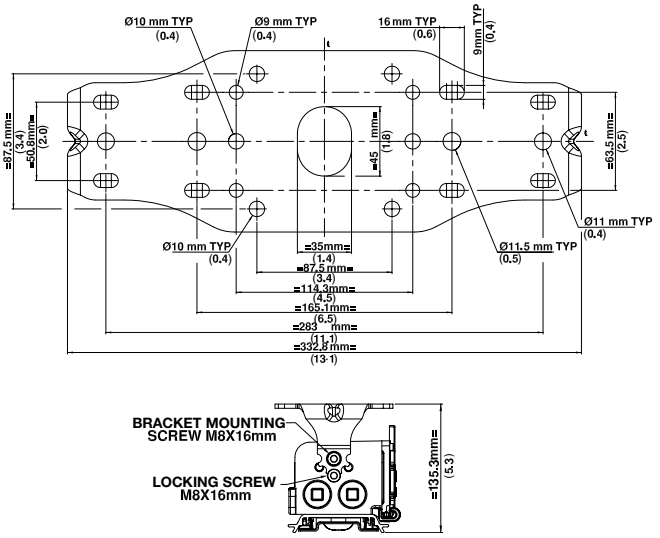
**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

## Mounting Brackets — Dimensions in Millimeters (Inches) — Standard Model

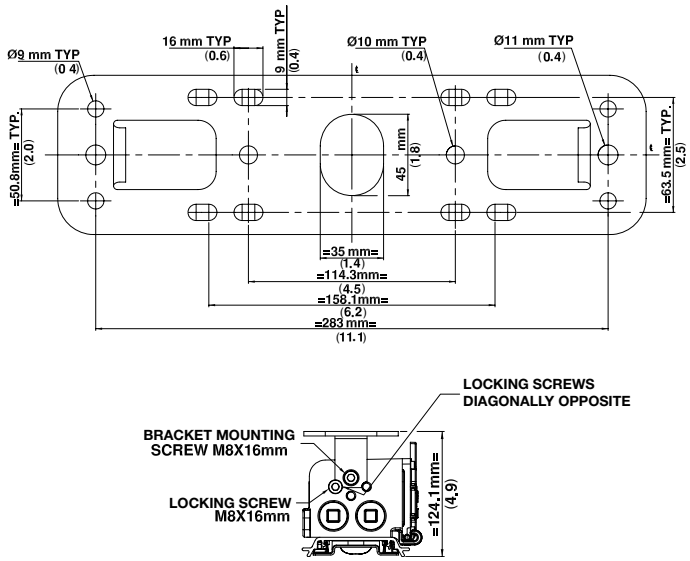
### RMSSB - Small Swivel Bracket




### RMLSB - Large Swivel Bracket




### RMLPB - Low Profile Bracket




*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*

# Industrial Rigmaster™ LED Series Luminaires

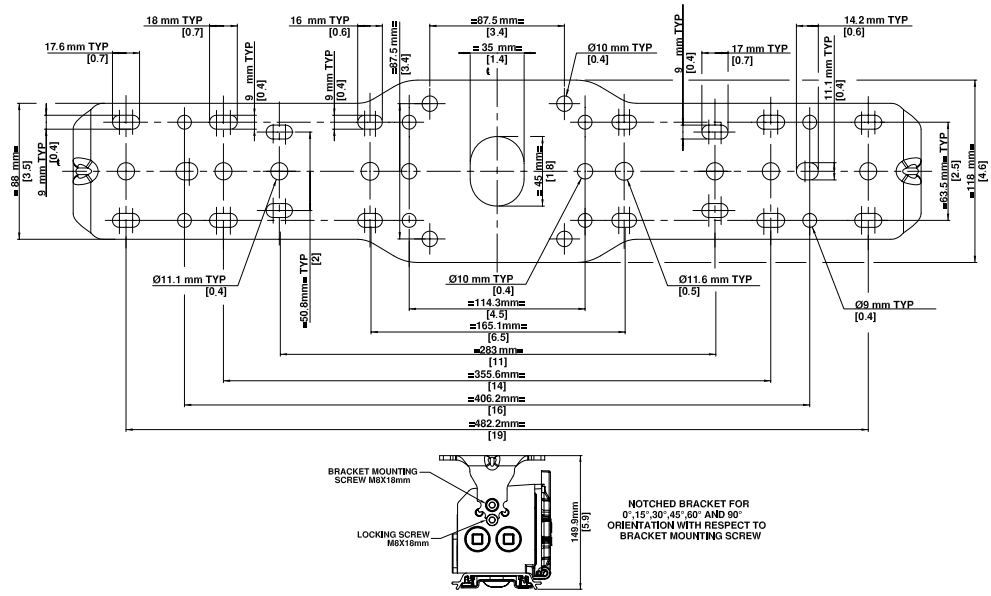
With Emergency Battery Backup

Ordinary Locations

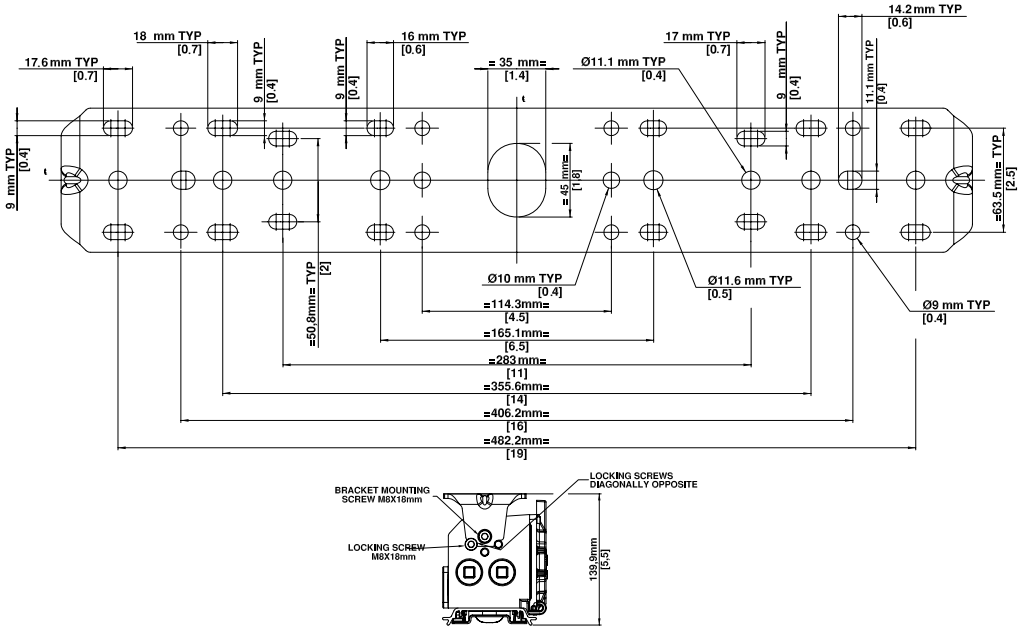
**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

## Mounting Brackets — Dimensions in Millimeters (Inches) — Emergency Model

### RMHLSB - Emergency Swivel Bracket




### RMHLPB - Emergency Low Profile Bracket




*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*

# Industrial Rigmaster™ LED Series Luminaires

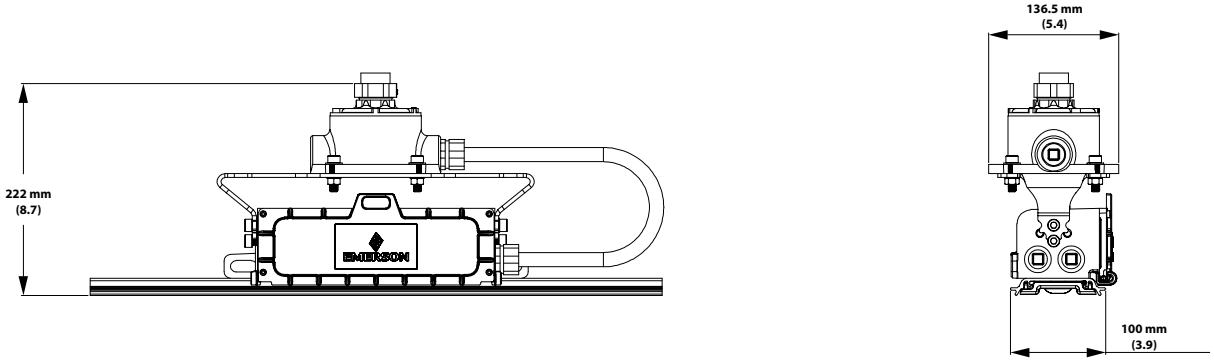
With Emergency Battery Backup

Ordinary Locations

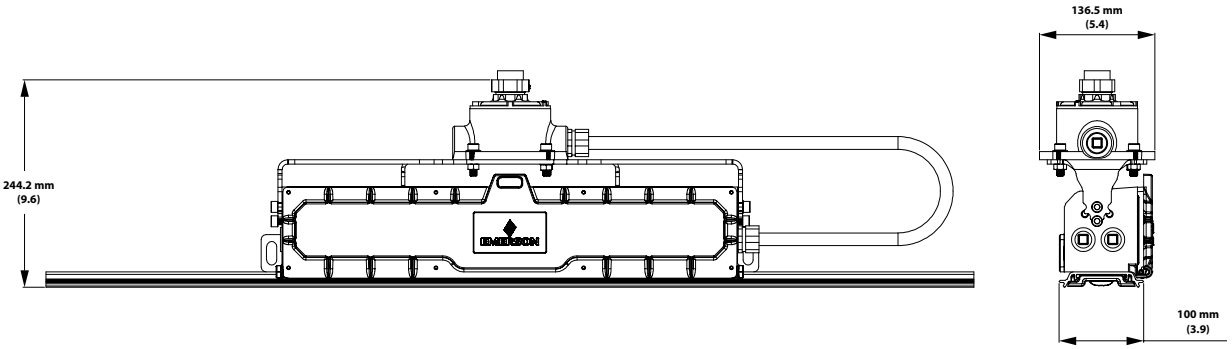
**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

## Mounting Brackets — Dimensions in Millimeters (Inches) — Emergency Model

### IRMPENKIT - Industrial Pendant Mount Bracket




### IRMHPENDKIT - Emergency Pendant Mount Bracket

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# Industrial Rigmaster™ LED Series Luminaires

Standard

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
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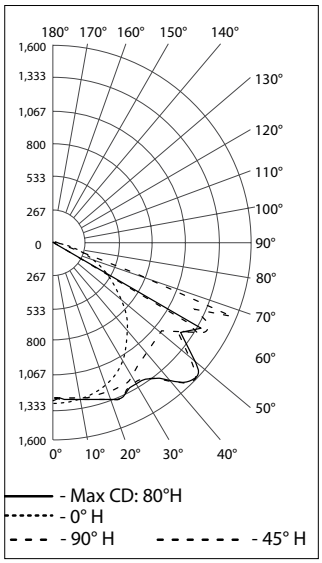
## Photometric Data — DATA SHOWN IS ABSOLUTE

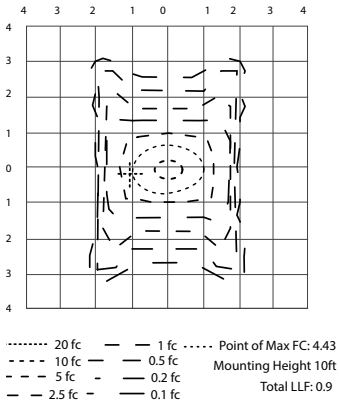
### 2ft, Clear Polycarbonate Lens, 5000K CCT

Luminaire Lumens 4,474.5

**POLAR CANDELA DISTRIBUTION**




**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,056.6 | 23.6% |
| 0-40 | 1,794.3 | 40.1% |
| 0-60 | 3,627.9 | 81.1% |
| 60-90 | 845.6 | 18.9% |
| 70-100 | 254.1 | 5.7% |
| 90-120 | 0.8 | 0% |
| 0-90 | 4,473.4 | 100% |
| 90-180 | 1.1 | 0% |
| 0-180 | 4,474.5 | 100% |

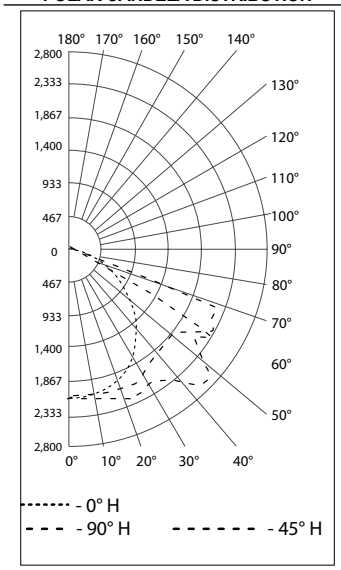
**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 120.8 | 2.7% | 90-100 | 0.7 | 0% |
| 10-20 | 359.4 | 8.0% | 100-110 | 0.1 | 0% |
| 20-30 | 576.4 | 12.9% | 110-120 | 0 | 0% |
| 30-40 | 737.7 | 16.5% | 120-130 | 0 | 0% |
| 40-50 | 894.4 | 20.0% | 130-140 | 0 | 0% |
| 50-60 | 939.2 | 21.0% | 140-150 | 0.0 | 0% |
| 60-70 | 592.2 | 13.2% | 150-160 | 0.1 | 0% |
| 70-80 | 200.8 | 4.5% | 160-170 | 0.1 | 0% |
| 80-90 | 52.6 | 1.2% | 170-180 | 0.0 | 0% |

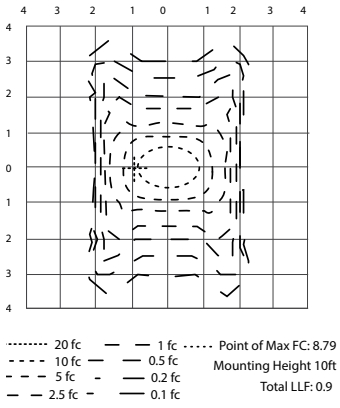
### 4ft, Clear Polycarbonate Lens, 5000K CCT

Luminaire Lumens 7,699.2

**POLAR CANDELA DISTRIBUTION**




**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,801.0 | 23.4% |
| 0-40 | 3,067.9 | 39.8% |
| 0-60 | 6,235.4 | 81% |
| 60-90 | 1,461.1 | 19% |
| 70-100 | 432.4 | 5.6% |
| 90-120 | 1.3 | 0% |
| 0-90 | 7,696.5 | 100% |
| 90-180 | 2.8 | 0% |
| 0-180 | 7,699.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 205.3 | 2.7% | 90-100 | 0.8 | 0% |
| 10-20 | 612.0 | 7.9% | 100-110 | 0.3 | 0% |
| 20-30 | 983.7 | 12.8% | 110-120 | 0.2 | 0% |
| 30-40 | 1,266.9 | 16.5% | 120-130 | 0.2 | 0% |
| 40-50 | 1,546.7 | 20.1% | 130-140 | 0.2 | 0% |
| 50-60 | 1,620.8 | 21.1% | 140-150 | 0.3 | 0% |
| 60-70 | 1,029.4 | 13.4% | 150-160 | 0.3 | 0% |
| 70-80 | 343.5 | 4.5% | 160-170 | 0.3 | 0% |
| 80-90 | 88.1 | 1.1% | 170-180 | 0.1 | 0% |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*

# Industrial Rigmaster™ LED Series Luminaires

Standard

Ordinary Locations

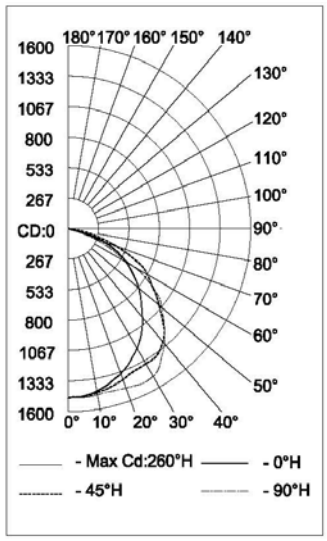
**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

## Photometric Data — DATA SHOWN IS ABSOLUTE

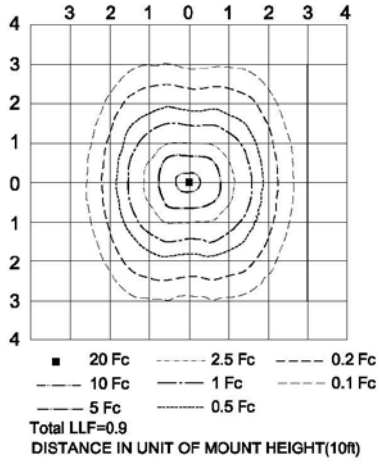
### 2ft, Diffused Polycarbonate Lens, 5000K CCT

Luminaire Lumens 4001.8

**POLAR CANDELA DISTRIBUTION**




**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,040.1 | 26% |
| 0-40 | 1,755.2 | 43.8% |
| 0-60 | 3,209.6 | 80.2% |
| 60-90 | 784.0 | 19.6% |
| 70-100 | 294.5 | 7.4% |
| 90-120 | 2.1 | 0.1% |
| 0-90 | 3,993.7 | 99.8% |
| 90-180 | 8.2 | 0.2% |
| 0-180 | 4,001.8 | 100% |

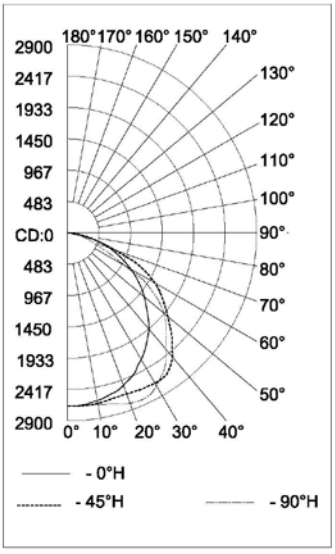
**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 121.6 | 3.0% | 90-100 | 0.3 | 0% |
| 10-20 | 354.9 | 8.9% | 100-110 | 0.7 | 0% |
| 20-30 | 563.6 | 14.1% | 110-120 | 1.1 | 0% |
| 30-40 | 715.1 | 17.9% | 120-130 | 1.3 | 0% |
| 40-50 | 757.1 | 18.9% | 130-140 | 1.4 | 0% |
| 50-60 | 697.3 | 17.4% | 140-150 | 1.3 | 0% |
| 60-70 | 489.8 | 12.2% | 150-160 | 1.0 | 0% |
| 70-80 | 243.4 | 6.1% | 160-170 | 0.7 | 0% |
| 80-90 | 50.8 | 1.3% | 170-180 | 0.3 | 0% |

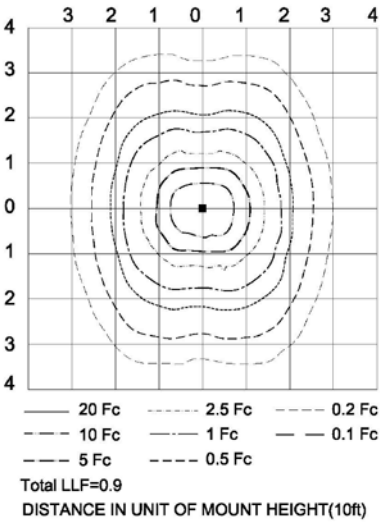
### 4ft, Diffused Polycarbonate Lens, 5000K CCT

Luminaire Lumens 6704.4

**POLAR CANDELA DISTRIBUTION**




**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,746.5 | 26% |
| 0-40 | 2,955.5 | 44.1% |
| 0-60 | 5,403.7 | 80.6% |
| 60-90 | 1,287.3 | 19.2% |
| 70-100 | 490.5 | 7.3% |
| 90-120 | 4.2 | 0.1% |
| 0-90 | 6,691.0 | 99.8% |
| 90-180 | 13.1 | 0.2% |
| 0-180 | 6,704.1 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 202.2 | 3.0% | 90-100 | 1.4 | 0% |
| 10-20 | 593.8 | 8.9% | 100-110 | 1.2 | 0% |
| 20-30 | 950.5 | 14.2% | 110-120 | 1.7 | 0% |
| 30-40 | 1,209.0 | 18.0% | 120-130 | 1.9 | 0% |
| 40-50 | 1,278.4 | 19.1% | 130-140 | 2.0 | 0% |
| 50-60 | 1,169.8 | 17.4% | 140-150 | 1.9 | 0% |
| 60-70 | 798.1 | 11.9% | 150-160 | 1.5 | 0% |
| 70-80 | 398.7 | 5.9% | 160-170 | 1.0 | 0% |
| 80-90 | 90.5 | 1.4% | 170-180 | 0.4 | 0% |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*

# Industrial Rigmaster™ LED Series Luminaires

With Emergency Battery Backup

Ordinary Locations

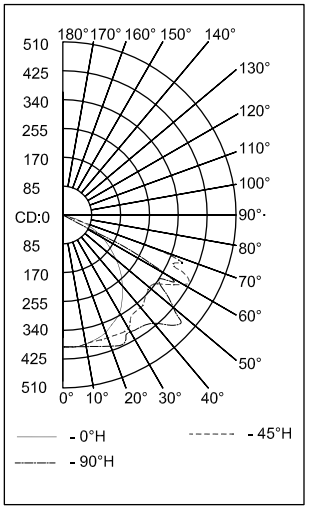
**NEC/CEC/NOM: Type 3R, 4, 4X | IP66 | IK10 | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ①**
**Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved | 5G Vibration**

## Photometric Data — DATA SHOWN IS ABSOLUTE

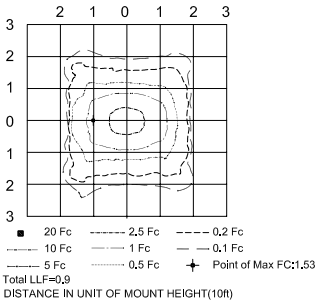
### 2ft Clear Polycarbonate Lens, 5000K CCT - Emergency Mode

Luminaire Lumens 1,364.9

**POLAR CANDELA DISTRIBUTION**




**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 323.0 | 23.7% |
| 0-40 | 549.1 | 40.2% |
| 0-60 | 1,106.0 | 81% |
| 60-90 | 255.9 | 18.7% |
| 70-100 | 77.6 | 5.7% |
| 90-120 | 0.7 | 0% |
| 0-90 | 1,361.8 | 99.8% |
| 90-180 | 2.9 | 0.2% |
| 0-180 | 1,364.7 | 100% |

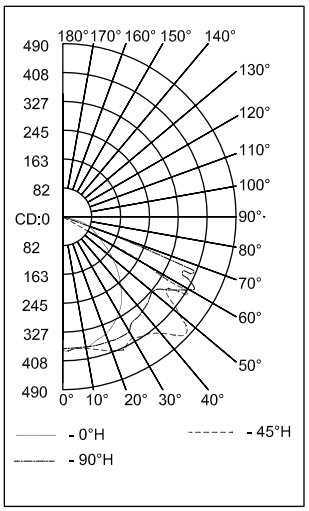
**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 37.0 | 2.7% | 90-100 | 0.2 | 0% |
| 10-20 | 109.8 | 8.0% | 100-110 | 0.2 | 0% |
| 20-30 | 176.3 | 12.9% | 110-120 | 0.3 | 0% |
| 30-40 | 226.1 | 16.6% | 120-130 | 0.5 | 0% |
| 40-50 | 271.8 | 19.9% | 130-140 | 0.5 | 0% |
| 50-60 | 285.1 | 20.9% | 140-150 | 0.5 | 0% |
| 60-70 | 178.4 | 13.1% | 150-160 | 0.4 | 0% |
| 70-80 | 71.2 | 5.2% | 160-170 | 0.3 | 0% |
| 80-90 | 6.2 | 0.5% | 170-180 | 0.1 | 0% |

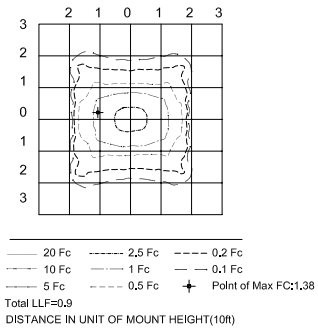
### 4ft Clear Polycarbonate Lens, 5000K CCT - Emergency Mode

Luminaire Lumens 1,360.2

**POLAR CANDELA DISTRIBUTION**




**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 318.7 | 23.4% |
| 0-40 | 544.4 | 40% |
| 0-60 | 1,104.7 | 81.2% |
| 60-90 | 253.8 | 18.7% |
| 70-100 | 76.6 | 5.6% |
| 90-120 | 0.3 | 0% |
| 0-90 | 1,358.5 | 99.9% |
| 90-180 | 1.5 | 0.1% |
| 0-180 | 1,360.0 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|---|---|---|---|---|---|
| 0-10 | 36.1 | 2.7% | 90-100 | 0.1 | 0% |
| 10-20 | 107.7 | 7.9% | 100-110 | 0.1 | 0% |
| 20-30 | 174.9 | 12.9% | 110-120 | 0.2 | 0% |
| 30-40 | 225.7 | 16.6% | 120-130 | 0.2 | 0% |
| 40-50 | 273.7 | 20.1% | 130-140 | 0.3 | 0% |
| 50-60 | 286.7 | 21.1% | 140-150 | 0.3 | 0% |
| 60-70 | 177.3 | 13.0% | 150-160 | 0.2 | 0% |
| 70-80 | 70.4 | 5.2% | 160-170 | 0.2 | 0% |
| 80-90 | 6.2 | 0.5% | 170-180 | 0.1 | 0% |

*① Marine Outside Type (Salt Water) is applicable to standard (non emergency) fixtures only.*

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

## Applications

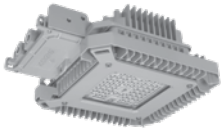
- Enclosed and gasketed fixtures suitable for use in a wide range of industrial, chemical processing and other areas where flammable gases and vapors are present, for example:
  - — Oil and Gas Refineries
  - — Petrochemical Plants
  - — Foundries
  - — Drilling Rigs
  - — Pulp and Paper Mills
  - — Food and Beverage Processing Facilities
  - — Loading Docks
  - — Power Plants
  - — Water and Wastewater Treatment Facilities
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other areas where corrosive, wet, dirty and tough environments are a problem.
- IP66/IP67, Type 4X, marine and wet locations. IP66 for IECEx/ATEX.
- Locations requiring dependable, consistent lighting in extreme hot/cold temperature environments. -40 °C to +65 °C (-40 °F to +149 °F) ambient temperature range. -40 °C to +55 °C (-40 °F to +131 °F) for high lumen BHLL3 output.
- Globally rated luminaires with all applicable certification labels for NEC/CEC and ATEX/IECEx environments. See Certifications and Compliances for details.

## Features

- Six lumen outputs provide up to 38,000 lumens.

| Nominal Lumens ① | HID Equivalent | Model Number |
|---|---|---|
| 9,500 | 175-250W | BLLL6/ BLLPL6 |
| 15,000 | 250-400W | BLLL7/ BLLPL7 |
| 19,500 | 400-750W | BLLL8/ BLLPL8 |
| 24,000 | 1000W | BHLL1/ BHLPL1 |
| 30,000 | 1000-1500W | BHLL2/ BHLPL2 |
| 38,000 | 1500W | BHLL3/ BHLPL3 |

- Choice of optics for optimal light distribution in a variety of applications.
- Separate field wiring compartment with screw terminal block for easy and secure connection can accept 0.14 - 6 mm² (26 - 10 AWG) wire (Non Quick Mount version only).
- Wiring compartment has two 3/4" NPT entries in bottom and one 3/4" NPT entry on top. Optional M20 metric adapters available. (Three close-up plugs provided when quick mount pendant system is ordered).
- Unique quick mount pendant system allows for easy prewiring without supporting the High Bay in place. Quick mount adapter hood includes one 3/4" NPT entry.
- Alternate mounting system allows for "Y" cable mount and easy wiring via a separate field wiring compartment with a screw terminal block.
- Floodlight mounting achieved by using Areamaster Generation 2 LED yoke bracket.
- Choice of color temperature (CCT): 5000K (70 CRI) cool white, 4000K (80 CRI) neutral white, or 3000K (80 CRI) warm white.
- Reported L70 is > 60,000 hours @ +65°C (+149 °F).
- Rugged and compact housing with superior thermal design translates to long luminaire life.
- Heavy duty, high temperature silicone rubber gaskets.
- Thermal shock and impact resistant clear or frosted glass lens.
- Standard 6 kV/3 kA surge protection. Optional 10 kV/5 kA additional surge protection available.
- Captive fasteners secure one-piece lens.



**9K, 15K, 19K Lumens**

**24K, 30K, 38K Lumens**

- Field replaceable LED driver and lens cover.
- Photometric data and electronic drawings available upon request.
- 5 year standard warranty. 10 year limited warranty for select part number configurations.

## Options

- Improved safety cable design with multiple retention points, purchase separately.
- Guard and visor available, *purchase separately*.
- Y mount cable assembly, *purchase separately*.
- Drain assembly, *purchase separately*.
- 10 kV/5 kA Surge Protection

## Standard Materials

- Housing and lens cover: copperfree (4/10 of 1% max.) aluminum
- Gaskets: silicone rubber
- Bolts: stainless steel
- Close up plugs: (2) aluminum provided (Non Quick Mount version)
- Guard and safety cable: stainless steel

## Standard Finishes

- Housing, lens cover, quick mount body and hood; baked gray epoxy powder coat finish, electrostatically applied for complete uniform protection

## NEC/CEC Certifications and Compliances

- UL Standards: UL 844; UL1598; UL1598A; UL 8750
- CSA Standards: CSA C22.2 No. 250.0; CSA C22.2 No. 137
- cCSAus 164460 Certificate Number: BLL – 70073611, BHL – 70073613
- cETLus 104364566CHI
- Vibration Rating: 10G, 10 hours, 3 axis at first mode resonant frequency (BLLL and BHLL models only)

## ATEX/IECEx Certifications and Compliances

- Certification Type: Baymaster LED and High Lumen LED
  - — Gas: Zone 2
    - – Conforming to ATEX 2014/34/EU: Ex II 3G
    - – Type of Protection: Ex ec IIC Gc
    - – Temperature Class: AMLG – T5 to T3; AMLH – T4 to T3
  - — Dust: Zones 21 and 22
    - – Conforming to ATEX 2014/34/EU: Ex II 2D
    - – Type of Protection: Ex op is tb IIIC Db
    - – Surface Temperature: +85 °C to +100 °C (+185 °F to +212 °F)
  - — Dust: Zone 22
    - – Conforming to ATEX 2014/34/EU: Ex II 3D
    - – Type of Protection: Ex tc IIIC Dc
    - – Surface Temperature: +85 °C to +100 °C (+185 °F to +212 °F)
- Ambient Temperature: -40°C up to +65°C (-40°F up to +149 °F). -40°C to +55 °C (-40°F to +131°F) for high lumen BHLL3 output
- ATEX Certificate: ITS18ATEX104171, ITS18ATEX304055
- IECEx Certificate: IECEx ITS 18.0049
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK08
- Photobiological Safety, IEC 62778 and IEC 62471: Risk Group 1 (RG1)

*① Nominal lumen value for 5000K, Medium Beam, with clear glass. Detailed lumen information provided in tables.*

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

### CE and UKCA Marking

- ATEX: EN 60079-0 , EN 60079-7, EN 60079-31
- Safety: EN 60598-1, EN 60598-2-1, and EN 60598-2-5
- EMC: EN 61547, 61000-6-2, 61000-6-4, 61000-3-2; CISPR 15

### ABS Certifications

- BLL: 18-HS1714277-PDA
- BHL: 18-HS1714279-PDA

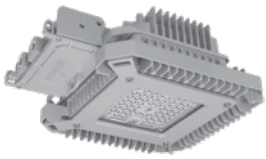
### DesignLights™ Consortium

- Check DLC QPL for current list of products.

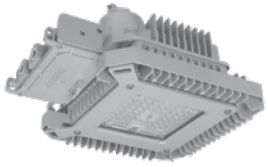
### Related Products

- Industrial Baymaster and High Lumen LED Series Luminaires

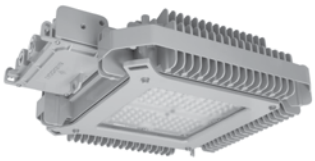
### Illustrated Features



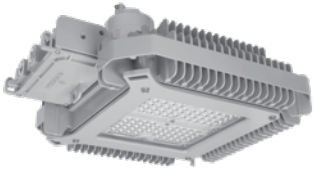
**BLL** with clear lens



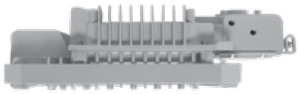
**BLLP** with frosted lens



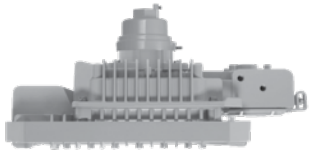
**BHL** with frosted lens



**BHLP** with clear lens

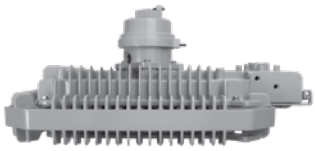


**BLL**
9K, 15K, 19K Lumens with standard mounting

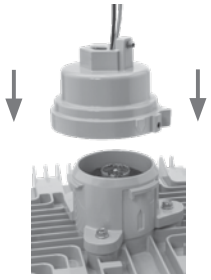


**BLLP**
9K, 15K, 19K Lumens with quick mount pendant option

**BHL**
24K, 30K, 38K Lumens with standard mounting



**BHLP**
24K, 30K, 38K Lumens with quick mount pendant option

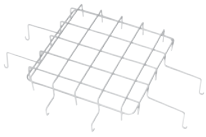


**Quick Mount Pendant System**
The Appleton patented quick mount pendant system allows for easy prewiring of a hood for quick, one person fixture installation. Simply align the arrows, push up, and rotate the luminaire a quarter turn until it locks into place. Specify quick mount pendent with a "P" in the fifth digit of the part number.

**Cable Mount Option**
The Baymaster High Bay can also be mounted with two Y style aircraft cables with spring clips, secured to eye bolts on the luminaire housing. Non quick mount models can be cable mounted and are wired through the 3/4" NPT entries in the wire box.

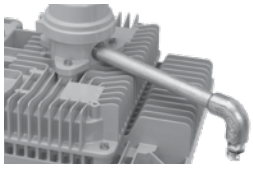
**Driver Assembly**
Replaceable drivers are waterproof (IP67) and offer standard 6 kV surge protection and over temperature protection.

**Optional Fusing ⌘**
Luminaire can be ordered with optional fusing. Fusing is not field installable.



**Optional Wire Guard**
Stainless steel wire guard can be used for additional protection.

**Replaceable Cover Assembly**
The replaceable cover assembly is available with clear or frosted glass.



**Optional Drain Assembly**
Includes 228.6 mm (9” long), 1/2" trade size conduit nipple, elbow and drain.

⌘ *Use of fuse voids marine rating.*

# Baymaster™ and High Lumen LED Series Luminaires

## High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

### Order Using Catalog Numbering Guide — Baymaster™ LED Series Luminaires — Low Lumen Model

| BLL | P | L7 | C | G | M | N | BU | S |
|---|---|---|---|---|---|---|---|---|
| Series Prefix:<br>BLL: Baymaster LED Series | Mounting:<br>Blank - No Quick Mount<br>P - Quick Mount Pendant ① | Lumen Level: ②<br>L6 - 9K<br>L7 - 15K<br>L8 - 19K | Color Temp CCT:<br>C - 5000K (70 CRI)<br>N - 4000K (80 CRI)<br>W - 3000K (80 CRI) | Diffusion:<br>G - Clear Glass<br>F - Frosted Glass<br>D - Diffused Polycarbonate ⑥ | Light Pattern:<br>A - Aisle<br>M - Medium (non-optic)<br>W - Wide | Dimming:<br>N - None | Voltage:<br>BU - 120-277 Vac, 50/60 Hz, 125-300 Vdc<br>BH - 347-480 Vac, 50/60 Hz ④ | Options:<br>F - Fusing ③<br>S - 10 kV Surge Protection ⑤<br>M - M20 Metric Cable Entry Adapters |

### Order Using Catalog Numbering Guide — Baymaster™ LED Series Luminaires — High Lumen Model

| BHL | P | L1 | C | G | M | N | BU | S |
|---|---|---|---|---|---|---|---|---|
| Series Prefix:<br>BHL: Baymaster HL LED Series | Mounting:<br>Blank - No Quick Mount<br>P - Quick Mount Pendant ① | Lumen Level: ②<br>L1 - 24K<br>L2 - 30K<br>L3 - 38K | Color Temp CCT:<br>C - 5000K (70 CRI)<br>N - 4000K (80 CRI)<br>W - 3000K (80 CRI) | Diffusion:<br>G - Clear Glass<br>F - Frosted Glass | Light Pattern:<br>V - Very Narrow<br>N - Narrow<br>M - Medium (non-optic)<br>W - Wide | Dimming:<br>N - None | Voltage:<br>BU - 120-277 Vac, 50/60 Hz, 125-300 Vdc<br>BH - 347-480 Vac, 50/60 Hz ④ | Options:<br>F - Fusing ③<br>S - 10 kV Surge Protection ⑤<br>M - M20 Metric Cable Entry Adapters |

*① Quick mount pendant includes pre-wired, factory installed, quick mount pendant body and hood. Models without the quick pendant mount are wired through the 3/4" NPT entries and a provided screw terminal block in the wiring compartment.*
*② All lumen values are typical (tolerance +/- 10%).*
*③ Use of fuse voids Marine rating. Fusing available for NEC/CEC only.*
*④ BH voltage available for NEC/CEC only.*
*⑤ 10 kV Surge Protection available for NEC/CEC only.*
*⑥ Diffused polycarbonate available for NEC/CEC only.*

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

**Lumen Output (Efficacy) — Low Lumen Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass** | | | | | | | | | | | | | | |
| | | Type I Aisle | 3000K | 80 | 7,250 | 104 | 4000K | 80 | 8,500 | 121 | 5000K | 70 | 9,350 | 134 |
| BLLL6 | 175-250W | Type V | 3000K | 80 | 7,650 | 109 | 4000K | 80 | 9,000 | 129 | 5000K | 70 | 9,900 | 141 |
| | | Type V Wide | 3000K | 80 | 6,700 | 96 | 4000K | 80 | 7,850 | 112 | 5000K | 70 | 8,650 | 124 |
| | | Type I Aisle | 3000K | 80 | 11,050 | 100 | 4000K | 80 | 12,900 | 116 | 5000K | 70 | 14,250 | 128 |
| BLLL7 | 250-400W | Type V | 3000K | 80 | 11,500 | 104 | 4000K | 80 | 13,650 | 123 | 5000K | 70 | 15,000 | 135 |
| | | Type V Wide | 3000K | 80 | 10,200 | 92 | 4000K | 80 | 11,900 | 107 | 5000K | 70 | 13,150 | 118 |
| | | Type I Aisle | 3000K | 80 | 14,250 | 94 | 4000K | 80 | 16,650 | 110 | 5000K | 70 | 18,350 | 121 |
| BLLL8 | 400-750W | Type V | 3000K | 80 | 15,000 | 99 | 4000K | 80 | 17,550 | 115 | 5000K | 70 | 19,500 | 128 |
| | | Type V Wide | 3000K | 80 | 13,150 | 87 | 4000K | 80 | 15,350 | 101 | 5000K | 70 | 16,900 | 111 |
| **Frosted Glass** | | | | | | | | | | | | | | |
| | | Type I Aisle | 3000K | 80 | 5,950 | 85 | 4000K | 80 | 6,950 | 99 | 5000K | 70 | 7,700 | 110 |
| BLLL6 | 175-250W | Type V | 3000K | 80 | 6,400 | 91 | 4000K | 80 | 7,500 | 107 | 5000K | 70 | 8,300 | 119 |
| | | Type V Wide | 3000K | 80 | 5,250 | 75 | 4000K | 80 | 6,150 | 88 | 5000K | 70 | 6,800 | 97 |
| | | Type I Aisle | 3000K | 80 | 9,100 | 82 | 4000K | 80 | 10,600 | 95 | 5000K | 70 | 11,700 | 105 |
| BLLL7 | 250-400W | Type V | 3000K | 80 | 9,700 | 87 | 4000K | 80 | 11,350 | 102 | 5000K | 70 | 12,500 | 113 |
| | | Type V Wide | 3000K | 80 | 8,000 | 72 | 4000K | 80 | 9,350 | 84 | 5000K | 70 | 10,350 | 93 |
| | | Type I Aisle | 3000K | 80 | 11,700 | 77 | 4000K | 80 | 13,650 | 90 | 5000K | 70 | 15,000 | 99 |
| BLLL8 | 400-750W | Type V | 3000K | 80 | 12,500 | 82 | 4000K | 80 | 14,500 | 95 | 5000K | 70 | 16,550 | 109 |
| | | Type V Wide | 3000K | 80 | 10,300 | 68 | 4000K | 80 | 12,000 | 79 | 5000K | 70 | 13,250 | 87 |
| **Diffused Polycarbonate** | | | | | | | | | | | | | | |
| | | Type I Aisle | 3000K | 80 | 5,750 | 82 | 4000K | 80 | 6,750 | 96 | 5000K | 70 | 7,450 | 106 |
| BLLL6 | 175-250W | Type V | 3000K | 80 | 6,250 | 89 | 4000K | 80 | 7,300 | 104 | 5000K | 70 | 8,050 | 115 |
| | | Type V Wide | 3000K | 80 | 5,150 | 74 | 4000K | 80 | 6,000 | 86 | 5000K | 70 | 6,650 | 95 |
| | | Type I Aisle | 3000K | 80 | 8,800 | 79 | 4000K | 80 | 10,250 | 92 | 5000K | 70 | 11,350 | 102 |
| BLLL7 | 250-400W | Type V | 3000K | 80 | 9,450 | 85 | 4000K | 80 | 11,000 | 99 | 5000K | 70 | 12,200 | 110 |
| | | Type V Wide | 3000K | 80 | 7,850 | 71 | 4000K | 80 | 9,160 | 83 | 5000K | 70 | 10,150 | 91 |
| | | Type I Aisle | 3000K | 80 | 11,350 | 75 | 4000K | 80 | 13,250 | 87 | 5000K | 70 | 14,650 | 96 |
| BLLL8 | 400-750W | Type V | 3000K | 80 | 12,100 | 80 | 4000K | 80 | 14,150 | 93 | 5000K | 70 | 15,650 | 103 |
| | | Type V Wide | 3000K | 80 | 10,100 | 66 | 4000K | 80 | 11,800 | 78 | 5000K | 70 | 13,000 | 86 |

*① All lumen values are typical (tolerance +/-10%).*

# Baymaster™ and High Lumen LED Series Luminaires

## High Bay

### Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

**Lumen Output (Efficacy) — High Lumen Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass** | | | | | | | | | | | | | | |
| BHLL1 | 1000W | Type V Very Narrow | 3000K | 80 | 19,350 | 109 | 4000K | 80 | 20,250 | 114 | 5000K | 70 | 22,750 | 128 |
| | | Type V Narrow | 3000K | 80 | 20,850 | 117 | 4000K | 80 | 21,900 | 123 | 5000K | 70 | 25,000 | 140 |
| | | Type V | 3000K | 80 | 20,100 | 113 | 4000K | 80 | 21,300 | 120 | 5000K | 70 | 24,250 | 136 |
| | | Type V Wide | 3000K | 80 | 17,900 | 101 | 4000K | 80 | 18,800 | 106 | 5000K | 70 | 21,000 | 118 |
| BHLL2 | 1000-1500W | Type V Very Narrow | 3000K | 80 | 23,450 | 106 | 4000K | 80 | 24,600 | 111 | 5000K | 70 | 27,500 | 124 |
| | | Type V Narrow | 3000K | 80 | 25,500 | 115 | 4000K | 80 | 26,700 | 120 | 5000K | 70 | 30,000 | 135 |
| | | Type V | 3000K | 80 | 24,650 | 111 | 4000K | 80 | 26,100 | 118 | 5000K | 70 | 29,750 | 134 |
| | | Type V Wide | 3000K | 80 | 21,800 | 98 | 4000K | 80 | 22,850 | 103 | 5000K | 70 | 25,650 | 116 |
| BHLL3 | 1500W | Type V Very Narrow | 3000K | 80 | 29,500 | 99 | 4000K | 80 | 30,950 | 104 | 5000K | 70 | 34,750 | 117 |
| | | Type V Narrow | 3000K | 80 | 32,000 | 107 | 4000K | 80 | 33,600 | 113 | 5000K | 70 | 37,500 | 126 |
| | | Type V | 3000K | 80 | 31,000 | 104 | 4000K | 80 | 32,800 | 110 | 5000K | 70 | 37,400 | 126 |
| | | Type V Wide | 3000K | 80 | 27,550 | 92 | 4000K | 80 | 28,850 | 97 | 5000K | 70 | 32,400 | 109 |
| **Frosted Glass** | | | | | | | | | | | | | | |
| BHLL1 | 1000W | Type V Very Narrow | 3000K | 80 | 17,200 | 97 | 4000K | 80 | 17,950 | 101 | 5000K | 70 | 20,000 | 112 |
| | | Type V Narrow | 3000K | 80 | 18,600 | 104 | 4000K | 80 | 19,350 | 109 | 5000K | 70 | 21,550 | 121 |
| | | Type V | 3000K | 80 | 16,850 | 95 | 4000K | 80 | 18,000 | 101 | 5000K | 70 | 20,500 | 115 |
| | | Type V Wide | 3000K | 80 | 14,250 | 80 | 4000K | 80 | 14,850 | 83 | 5000K | 70 | 16,700 | 94 |
| BHLL2 | 1000-1500W | Type V Very Narrow | 3000K | 80 | 21,000 | 95 | 4000K | 80 | 21,950 | 99 | 5000K | 70 | 24,750 | 111 |
| | | Type V Narrow | 3000K | 80 | 22,650 | 102 | 4000K | 80 | 23,600 | 106 | 5000K | 70 | 26,000 | 117 |
| | | Type V | 3000K | 80 | 20,550 | 93 | 4000K | 80 | 18,000 | 81 | 5000K | 70 | 25,000 | 113 |
| | | Type V Wide | 3000K | 80 | 17,350 | 78 | 4000K | 80 | 23,600 | 106 | 5000K | 70 | 20,350 | 92 |
| BHLL3 | 1500W | Type V Very Narrow | 3000K | 80 | 26,400 | 89 | 4000K | 80 | 27,500 | 92 | 5000K | 70 | 31,000 | 104 |
| | | Type V Narrow | 3000K | 80 | 28,600 | 96 | 4000K | 80 | 29,750 | 100 | 5000K | 70 | 33,500 | 112 |
| | | Type V | 3000K | 80 | 26,000 | 87 | 4000K | 80 | 27,700 | 93 | 5000K | 70 | 31,500 | 106 |
| | | Type V Wide | 3000K | 80 | 21,900 | 73 | 4000K | 80 | 22,800 | 77 | 5000K | 70 | 25,700 | 86 |

*① All lumen values are typical (tolerance +/-10%).*

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

**Electrical Specifications** ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Low Lumen Model** | | | | | |
| BLLL6<br>BLLPL6 | 120 Vac | 73 | 0.62 | >.9 | <20% |
| | 277 Vac | 71 | 0.27 | | |
| | 125 Vdc | 69 | 0.55 | N/A | N/A |
| | 300 Vdc | 68 | 0.23 | | |
| | 347 Vac | 71 | 0.21 | >.9 | <20% |
| | 480 Vac | 71 | 0.16 | | |
| BLLL7<br>BLLPL7 | 120 Vac | 111 | 0.94 | >.9 | <20% |
| | 277 Vac | 106 | 0.43 | | |
| | 125 Vdc | 113 | 0.90 | N/A | N/A |
| | 300 Vdc | 111 | 0.37 | | |
| | 347 Vac | 115 | 0.33 | >.9 | <20% |
| | 480 Vac | 115 | 0.25 | | |
| BLLL8<br>BLLPL8 | 120 Vac | 154 | 1.30 | >.9 | <20% |
| | 277 Vac | 146 | 0.56 | | |
| | 125 Vdc | 156 | 1.25 | N/A | N/A |
| | 300 Vdc | 152 | 0.51 | | |
| | 347 Vac | 150 | 0.43 | >.9 | <20% |
| | 480 Vac | 149 | 0.32 | | |
| **High Lumen Model** | | | | | |
| BHLL1<br>BHLPL1 | 120 Vac | 180 | 1.52 | >.9 | <20% |
| | 277 Vac | 176 | 0.67 | | |
| | 125 Vdc | 172 | 1.38 | N/A | N/A |
| | 300 Vdc | 170 | 0.57 | | |
| | 347 Vac | 179 | 0.52 | >.9 | <20% |
| | 480 Vac | 179 | 0.39 | | |
| BHLL2<br>BHLPL2 | 120 Vac | 231 | 1.94 | >.9 | <20% |
| | 277 Vac | 231 | 0.88 | | |
| | 125 Vdc | 220 | 1.76 | N/A | N/A |
| | 300 Vdc | 217 | 0.72 | | |
| | 347 Vac | 219 | 0.64 | >.9 | <20% |
| | 480 Vac | 219 | 0.47 | | |
| BHLL3<br>BHLPL3 | 120 Vac | 317 | 2.67 | >.9 | <20% |
| | 277 Vac | 303 | 1.15 | | |
| | 125 Vdc | 305 | 2.44 | N/A | N/A |
| | 300 Vdc | 298 | 0.99 | | |
| | 347 Vac | 299 | 0.87 | >.9 | <20% |
| | 480 Vac | 298 | 0.63 | | |

*Note: Surge Protection: Integral 6 kV surge protection. Option for up to 10 kV surge protection.*
*① All values are typical (tolerance +/-10%).*

# Baymaster™ and High Lumen LED Series Luminaires

## High Bay

### Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

**NEC/CEC Temperature Codes**

| Model | Max Driver Current (mA) | Max Ambient C° (F°) | Gas<br>Class I, Division 2 Groups A, B, C, D | Class I, Zone 2 Group IIC | Dust<br>Class II, Divison 1 Groups E, F, G | Zone 20 Group IIIC | Combined Class I, Division 2 and Class II, Division 1 | Gas Ex ec IIC, Class I, Zone 2, AEx ec IIC | Dust Ex tb IIIC, Zone 21, AEx tb IIIC |
|---|---|---|---|---|---|---|---|---|---|
| | | 40 (104) | T5 | T5 | T6 | T6 | T4A | T5 | T85 °C |
| BLLL6 | 410 | 55 (131) | T4A | T4 | T6 | T6 | T4A | T4 | T85 °C |
| | | 65 (149) | T4A | T4 | T6 | T6 | T4 | T4 | T85 °C |
| | | 40 (104) | T4 | T4 | T6 | T6 | T4 | T4 | T85 °C |
| BLLL7 | 680 | 55 (131) | T3C | T3 | T6 | T6 | T3C | T3 | T85 °C |
| | | 65 (149) | T3C ① | T3 ① | T5 ① | T5 ① | T3C ① | T3 ② | T100 °C ② |
| | | 40 (104) | T3C | T3 | T6 | T6 | T3C | T3 | T85 °C |
| BLLL8 | 930 | 55 (131) | T3B ① | T3 ① | T5 ① | T5 ① | T3A ① | T3 ① | T100 °C ② |
| | | 65 (149) | T3A ① | T3 ① | T5 ① | T5 ① | T3A ① | T3 ① | T100 °C ② |
| | | 40 (104) | T4A | T4 | T6/T5 ③ | T6/T5 ③ | T4A | T4 | T85°C/T100°C ③ |
| BHLL1 | 530 | 55 (131) | T4A | T4 | T6/T5 ③ | T6/T5 ③ | T4A | T4 | T85°C/T100°C ③ |
| | | 65 (149) | T4 | T4 | T5 ③ | T5 ③ | T4 | T4 | T100°C |
| | | 40 (104) | T4 | T4 | T6/T5 ③ | T6/T5 ③ | T4 | T4 | T85°C/T100°C ③ |
| BHLL2 | 680 | 55 (131) | T4 | T4 | T5 ③ | T5 ③ | T4 | T4 | T100°C |
| | | 65 (149) | T3C | T3 | T5 ③ | T5 ③ | T4 | T3 | T100°C |
| | | 40 (104) | T3C | T3 | T6/T5③ | T6/T5③ | T3C | T3 | T85°C/T100°C ③ |
| BHLL3 | 915 | 55 (131) | T3C | T3 | T5③ | T5③ | T3C | T3 | T100°C |
| | | 65 (149) | — | — | — | — | — | — | — |

**NEC/CEC — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature ④⑤**

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*Notes: Supply Wire Temperature for all: +90 °C (+194 °F).*
*For input voltages of 125-169 Vdc, an ambient temperature exceeding +55 °C (+131 °F) is not permitted.*
*① Diffused polycarbonate lens option is not certified for these ambient temperature and lumen output combinations. Diffused polycarbonate not available for BHL high lumen series.*
*② Diffused polycarboante lens is certified for NEC/CEC only. No face up orientation for installation.*
*③ T5 is maximum allowed temperature code, and T100°C is maximum allowed temperature, when model number includes 3x3 secondary optic.*
*④ T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*
*⑤ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and Class I, Zone 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.*

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High Bay

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**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

**ATEX/IECEx Temperature Codes**

| Model | Max Driver Current (mA) | Gas — T Rating | | | Dust — Surface Temperature | | |
|---|---|---|---|---|---|---|---|
| | | +40°C (+104°F) | +55 °C (+131°F) | +65°C (+149°F) | +40°C (+104°F) | +55 °C (+131°F) | +65°C (+149°F) |
| BLLL6 | 410 | T5 | T4 | T4 | T85°C | T85°C | T85°C |
| BLLL7 | 680 | T4 | T3 | T3 | T85°C | T85°C | T100°C |
| BLLL8 | 930 | T3 | T3 | T3 | T85°C | T100°C | T100°C |
| BHLL1 | 530 | T4 | T4 | T3 | T85°C ① | T85°C ① | T85°C ① |
| BHLL2 | 680 | T4 | T4 | T3 | T85°C ① | T100°C | T100°C |
| BHLL3 | 915 | T4 | T3 | — | T100°C | T100°C | — |

**ATEX/IECEx — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature**

| "T" # | T1 | T2 | T3 | T4 | T5 | T6 |
|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +301 to +450 (+547 to +842) | +201 to +300 (+394 to +572) | +136 to +200 (+277 to +392) | +101 to +135 (+214 to +275) | +86 to +100 (+187 to +212) | +85 (+185) |

*① Baymaster High Lumen with Very Narrow secondary optic surface temperature is T100°C for these ranges.*

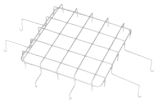
# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

**Accessories and Replacement Parts**

| | Description | Weight in kg (lb) | Catalog Number |
|---|---|---|---|
| **Quick-Connect Pendant Hood Replacement** | | | |
| | Baymaster Quick-Connect Pendant Hood Replacement | 0.4 (0.9) | **BMQCPH** |
| **Guard** | | | |
|  | Stainless steel | 0.2 (0.4) | **LGGUARD**<br>**LHGUARD** |
| **Safety Cable** | | | |
| | Stainless steel | 0.2 (0.4) | **LEDSC** |
| **Drain** | | | |
| | 228.6 mm (9” long), 1/2" trade size drain assembly for use with quick mount pendant hood | 0.5 (1.2) | **LEDDR9** |
| **Y Mounting Cable** | | | |
| | 1.5 m (5 ft.) cable mount — stainless steel<br>Includes two (5 ft.) Y cables with spring clips and four eye bolts | 0.5 (1.2) | **LEDC5** |
| **Safety Support Hooks** | | | |
| | 3/4 inch Male Hanger Loop<br>5/8 inch diameter wireway<br>75.4 kg (166 lbs.) weight rating | 0.2 (0.5) | **FHLM-75** |
| **Replacement Covers/Lenses** | | | |
| | Clear Glass — BLLL6/BLLPL6, BLLL7/BLLPL7, BLLL8/BLLPL8 | 2.2 (4.8) | **BLLCLEAR** |
| | Frosted Glass — BLLL6/BLLPL6, BLLL7/BLLPL7, BLLL8/BLLPL8 | 2.0 (4.5) | **BLLFROST** |
| | Diffused Polycarbonate — BLLL6/BLLPL6, BLLL7/BLLPL7, BLLL8/BLLPL8 | 1.6 (3.5) | **BLLDIFFP** |
| | Clear Glass — BHLL1/IBHLPL1, BHLL2/BHLPL2, BHLL3/BHLPL3 | 2.4 (5.3) | **BHLCLEAR** |
| | Frosted Glass — BHLL1/BHLPL1, BHLL2/BHLPL2, BHLL3/BHLPL3 | 2.4 (5.3) | **BHLFROST** |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

**Replacement Drivers**

| | Model | Voltage | Driver Wattage | Constant Current Setting | Catalog Number |
|---|---|---|---|---|---|
| **Low Lumen Model** | | | | | |
| | BLLL6C/ BLLPL6C, BLLL6N/ BLLPL6N, BLLL6W/ BLLPL6W | BU | 100 Watt | 410mA | **APMS100C105UD41** |
| | | BH | | | **APMS100C105HD41** |
| | BLLL7W/ BLLPL7W | BU | 150 Watt | 650mA | **APMS150C105UD65** |
| | | BH | | | **APMS150C105HD65** |
| | BLLL7C/ BLLPL7C, BLLL7N/ BLLPL7N | BU | 150 Watt | 680mA | **APMS150C105UD68** |
| | | BH | | | **APMS150C105HD68** |
| | BLLL8W/ BLLPL8W | BU | 150 Watt | 890mA | **APMS150C105UD89** |
| | | BH | | | **APMS150C105HD89** |
| | BLLL8C/ BLLPL8C, BLLL8N/ BLLPL8N | BU | 150 Watt | 930mA | **APMS150C105UD93** |
| | | BH | | | **APMS150C105HD93** |
| **High Lumen Model** | | | | | |
| | BHLL1C/ BHLPL1C, BHLL1N/ BHLPL1N, BHLL1W/ BHLPL1W | BU | 100 Watt | 530mA | **APMS100C105UD53** |
| | | BH | | | **APMS100C105HD53** |
| | BHLL2W/ BHLPL2W | BU | 150 Watt | 650mA | **APMS150C105UD65** |
| | | BH | | | **APMS150C105HD65** |
| | BHLL2C/ BHLPL2C, BHLL2N/ BHLPL2N | BU | 150 Watt | 680mA | **APMS150C105UD68** |
| | | BH | | | **APMS150C105HD68** |
| | BHLL3W/ BHLPL3W | BU | 150 Watt | 890mA | **APMS150C105UD89** |
| | | BH | | | **APMS150C105HD89** |
| | BHLL3C/ BHLPL3C, BHLL3N/ BHLPL3N | BU | 150 Watt | 915mA | **APMS150C105UD91** |
| | | BH | | | **APMS150C105HD91** |

**Luminaire Weights**

| Description | Weight in kg (lbs) |
|---|---|
| Low Lumen Model — BLLL6/BLLPL6, BLLL7/BLLPL7, BLLL8/BLLPL8 Luminaires | 9.8 (21.6) |
| High Lumen Model — BHLL1/BHLPL1, BHLL2/BHLPL2, BHLL3/BHLPL3 Luminaires | 16.1 (35.4) |

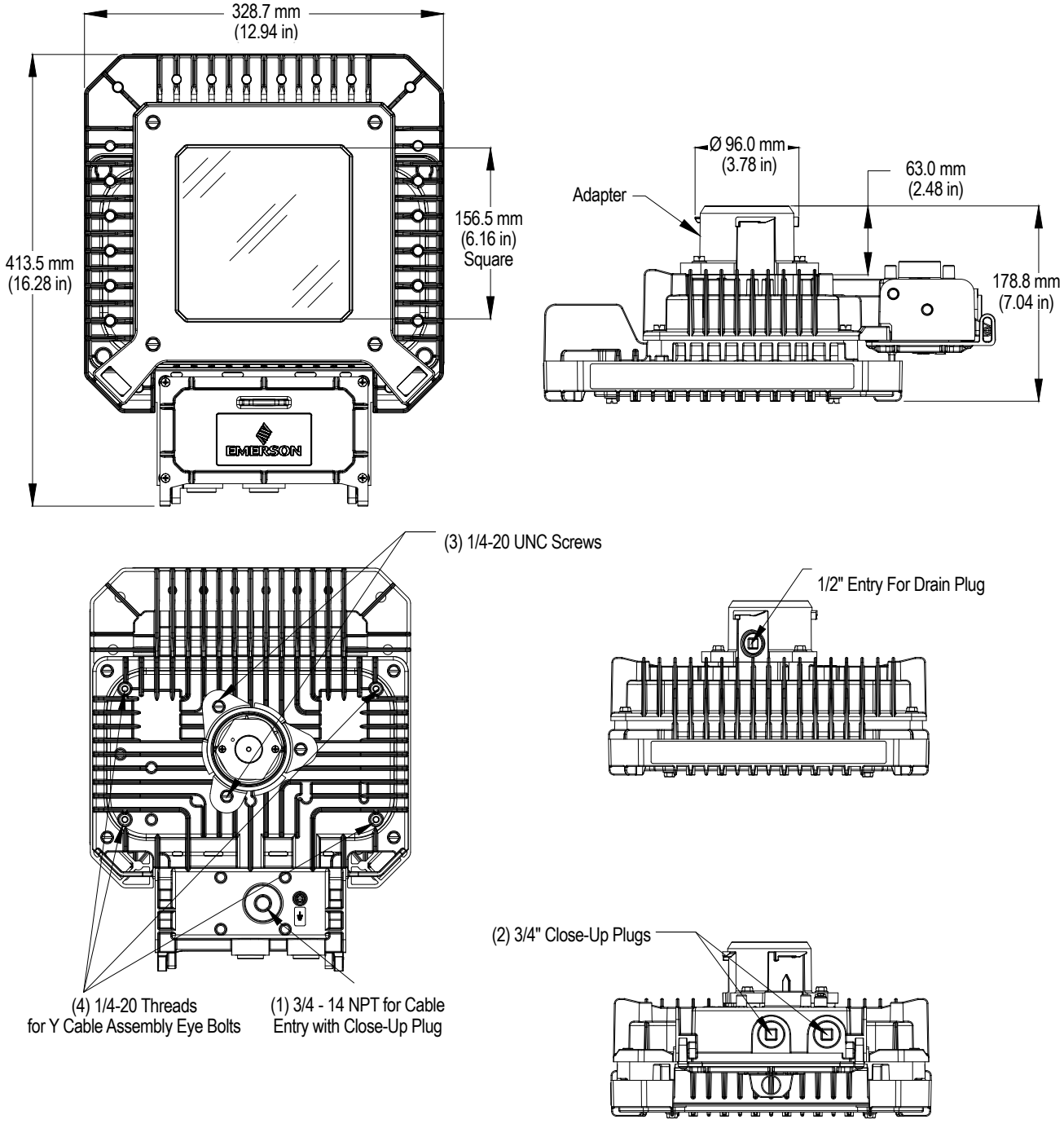
# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

**BLLP Dimensions in Millimeters (Inches) — High Bay — With Quick Mount Pendent System — Low Lumen Model**



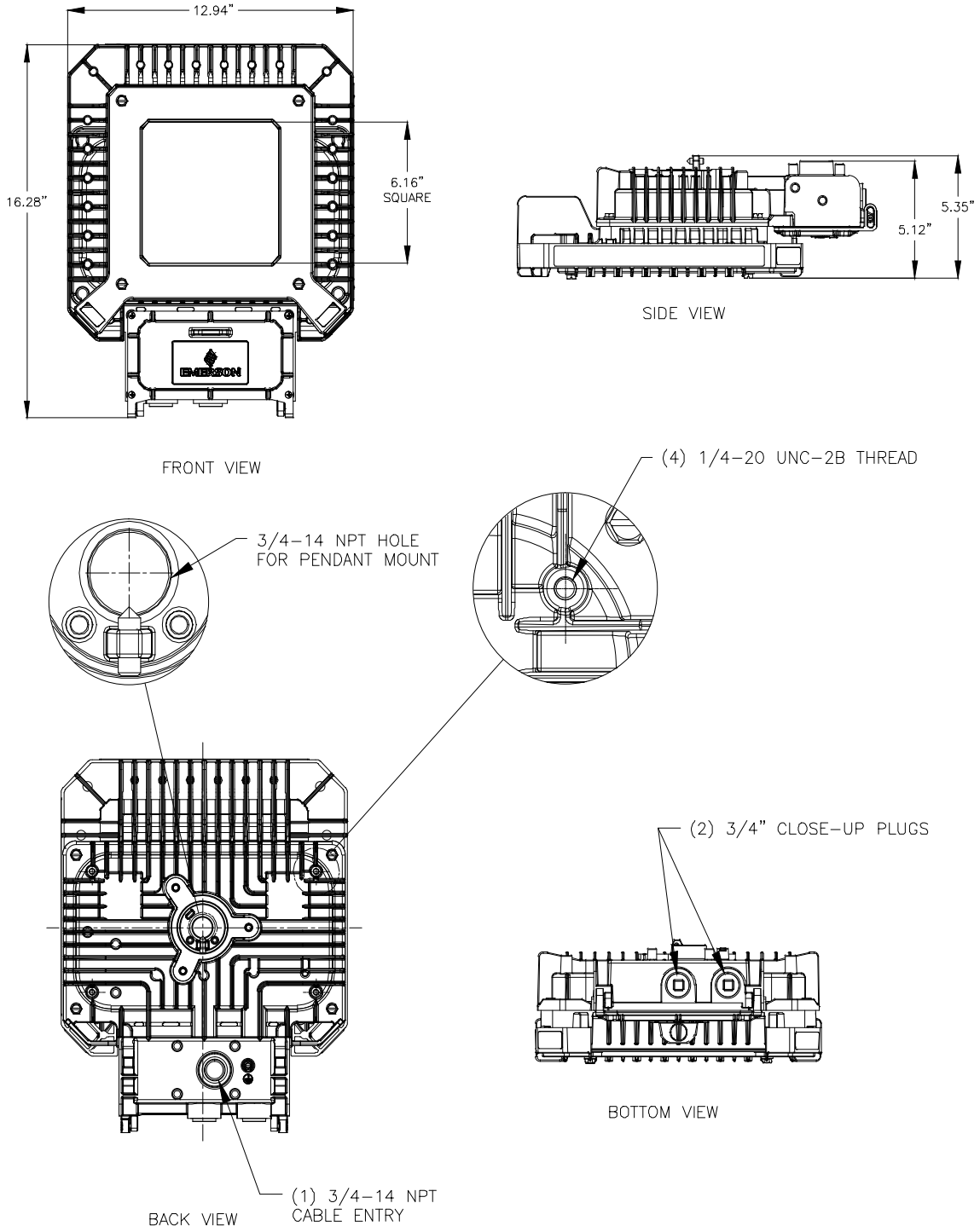
# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

**BLL Dimensions in Millimeters (Inches) — High Bay — No Mount — Low Lumen Model**



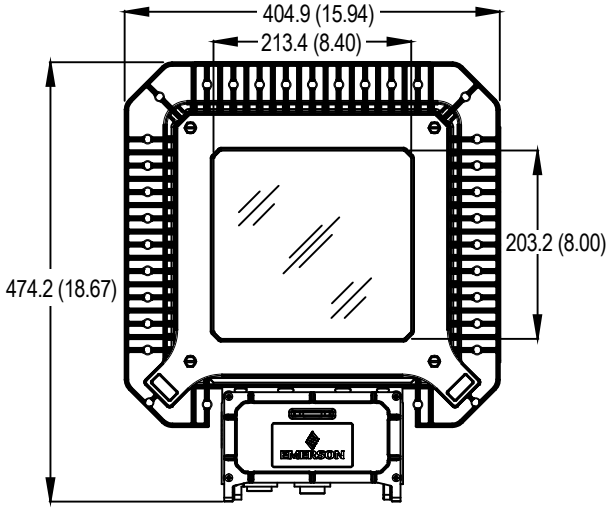
# Baymaster™ and High Lumen LED Series Luminaires

High Bay

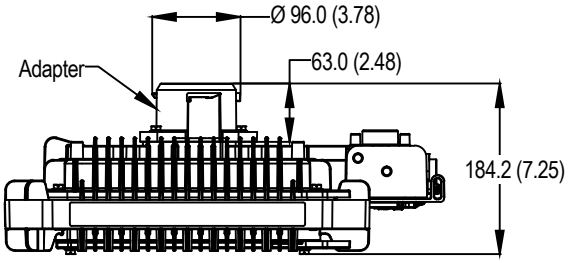
Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

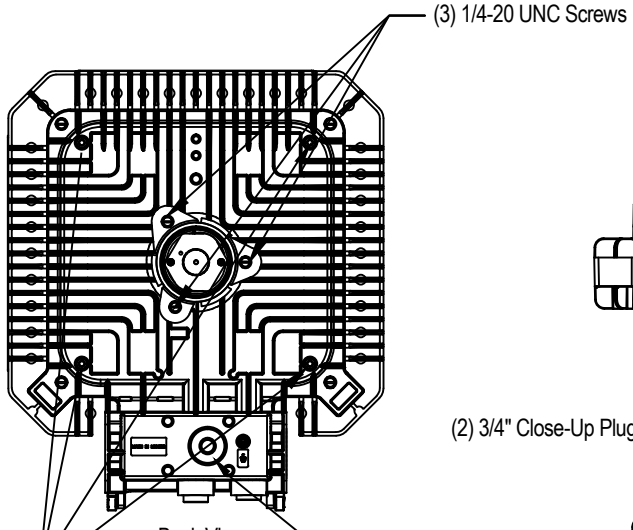
**BHLP Dimensions in Millimeters (Inches) — High Bay — With Quick Mount Pendant System — High Lumen Model**



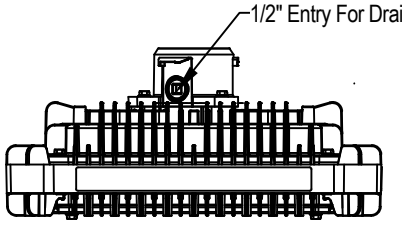

Front View



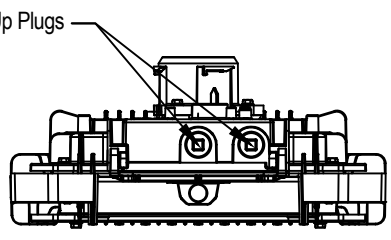

Side View




Back View




Top View




Bottom View

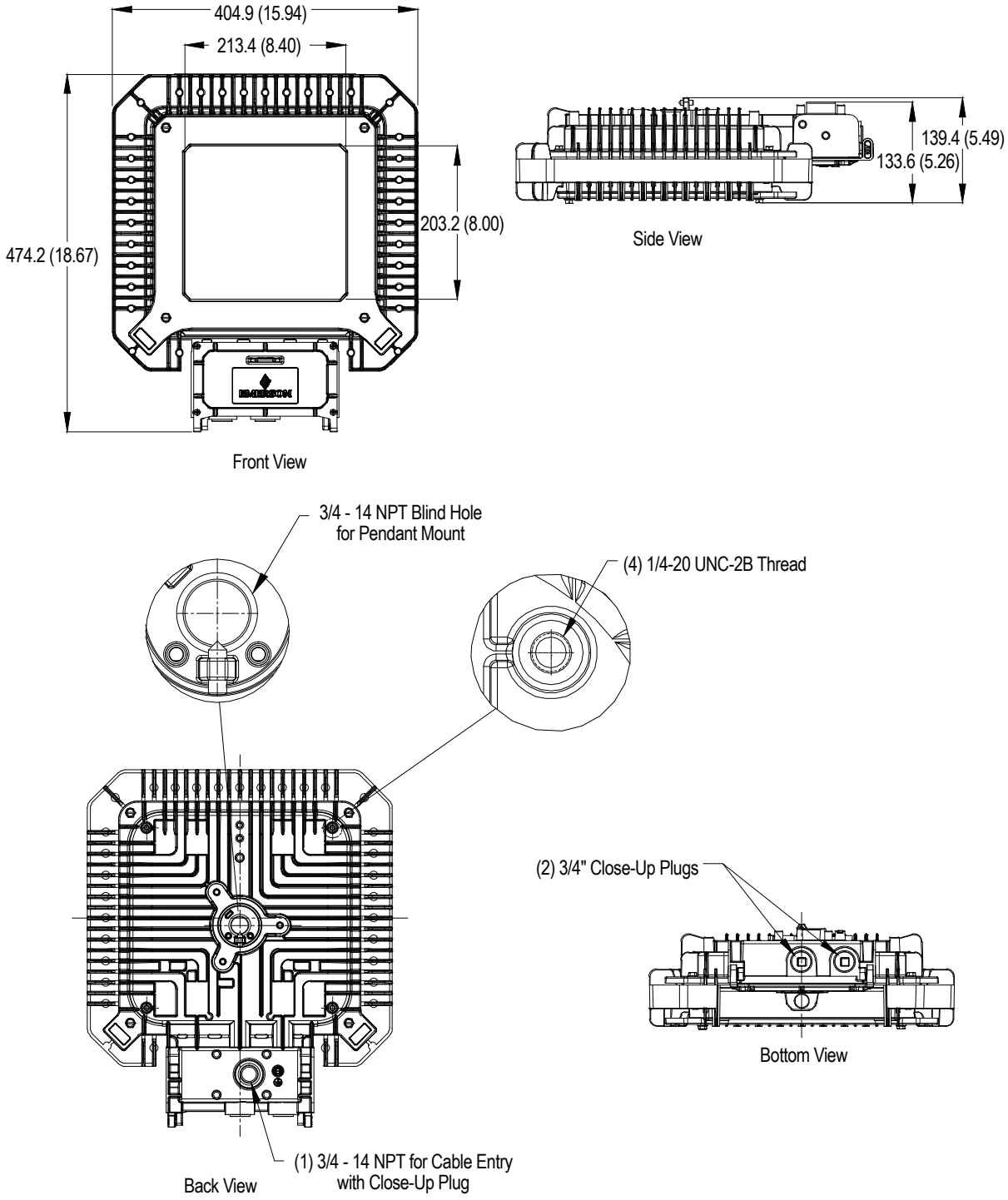
# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

**BHL Dimensions in Millimeters (Inches) — High Bay — No Mount — High Lumen Model**



# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

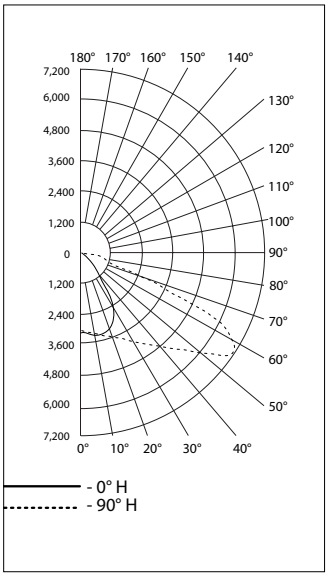
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Aisle, Clear Glass, 5000K CCT

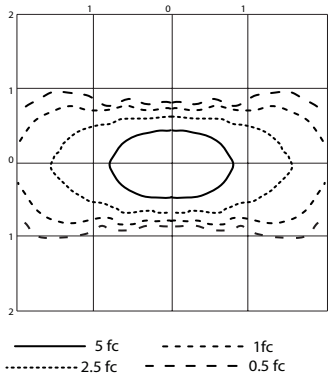
REPORT NUMBER: **BLLPL6CGANBU**

Luminaire Lumens 9,679

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,820.3 | 29.1% |
| 0-40 | 4,676.6 | 48.3% |
| 0-60 | 8,307.1 | 85.8% |
| 60-90 | 1,371.3 | 14.2% |
| 70-100 | 171.1 | 1.8% |
| 90-120 | 0 | 0% |
| 0-90 | 9,678.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 9,678.4 | 100% |

**LUMENS PER ZONE**

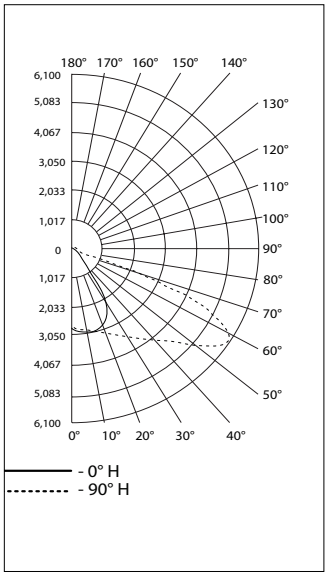
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 306.6 | 3.2% | 90 -100 |
| 10-20 | 952.6 | 9.8% | 100 -110 |
| 20-30 | 1,561.2 | 16.1% | 110 -120 |
| 30-40 | 1,856.2 | 19.2% | 120 -130 |
| 40-50 | 1,764.9 | 18.2% | 130 -140 |
| 50-60 | 1,865.7 | 19.3% | 140 -150 |
| 60-70 | 1,200.2 | 12.4% | 150 -160 |
| 70-80 | 159.2 | 1.6% | 160 -170 |
| 80-90 | 11.9 | 0.1% | 170 -180 |

### Aisle, Clear Glass, 3000K CCT

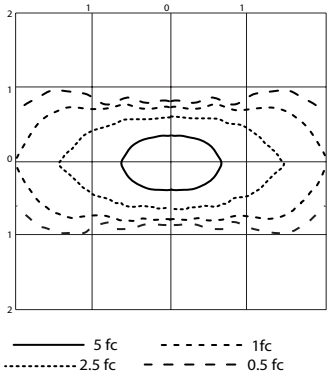
REPORT NUMBER: **BLLPL6WGANBU**

Luminaire Lumens 8,432

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,507.0 | 29.7% |
| 0-40 | 4,141.6 | 49.1% |
| 0-60 | 7,265.0 | 86.2% |
| 60-90 | 1,166.5 | 13.8% |
| 70-100 | 139.9 | 1.7% |
| 90-120 | 0 | 0% |
| 0-90 | 8,431.5 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 8,431.5 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 275.1 | 3.3% | 90-100 |
| 10-20 | 849.7 | 10.1% | 100-110 |
| 20-30 | 1,382.2 | 16.4% | 110-120 |
| 30-40 | 1,634.5 | 19.4% | 120-130 |
| 40-50 | 1,536.3 | 18.2% | 130-140 |
| 50-60 | 1,587.2 | 18.8% | 140-150 |
| 60-70 | 1,026.6 | 12.2% | 150-160 |
| 70-80 | 128.8 | 1.5% | 160-170 |
| 80-90 | 11.1 | 0.1% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

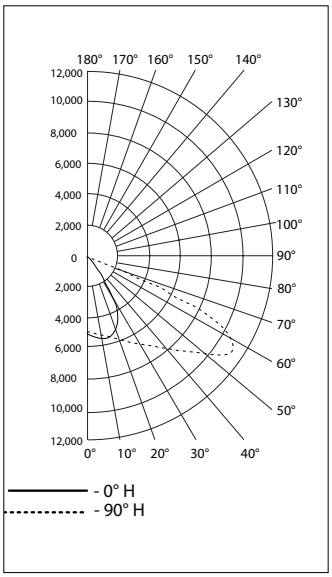
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Aisle, Clear Glass, 5000K CCT

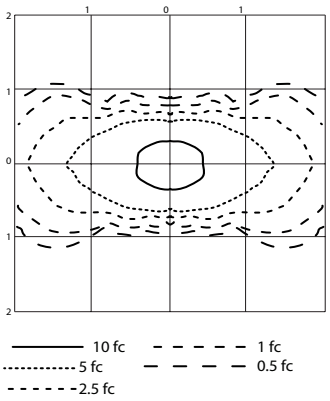
REPORT NUMBER: **BLLPL7CGANBU**

Luminaire Lumens 15,234

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,456.3 | 29.3% |
| 0-40 | 7,383.0 | 48.5% |
| 0-60 | 13,097.7 | 86% |
| 60-90 | 2,136.1 | 14% |
| 70-100 | 262.4 | 1.7% |
| 90-120 | 0 | 0% |
| 0-90 | 15,233.8 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 15,233.8 | 100% |

**LUMENS PER ZONE**

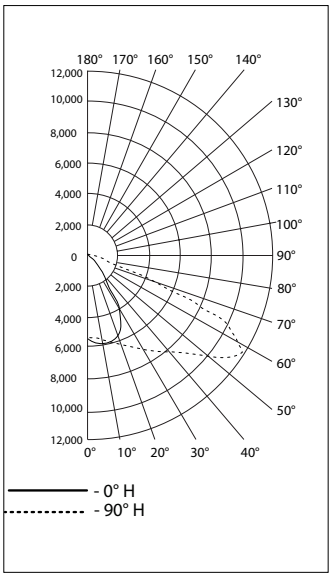
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 484.8 | 3.2% | 90-100 |
| 10-20 | 1,506.6 | 9.9% | 100-110 |
| 20-30 | 2,464.8 | 16.2% | 110-120 |
| 30-40 | 2,926.7 | 19.2% | 120-130 |
| 40-50 | 2,779.6 | 18.2% | 130-140 |
| 50-60 | 2,935.1 | 19.3% | 140-150 |
| 60-70 | 1,873.7 | 12.3% | 150-160 |
| 70-80 | 243.9 | 1.6% | 160-170 |
| 80-90 | 18.5 | 0.1% | 170-180 |

### Aisle, Clear Glass, 3000K CCT

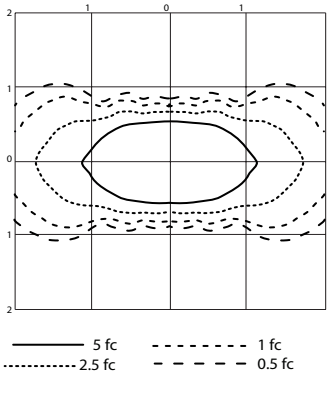
REPORT NUMBER: **BLLPL7WGANBU**

Luminaire Lumens 12,579

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,750.7 | 29.8% |
| 0-40 | 6,191.4 | 49.2% |
| 0-60 | 10,866.4 | 86.4% |
| 60-90 | 1,711.8 | 13.6% |
| 70-100 | 199.6 | 1.6% |
| 90-120 | 0 | 0% |
| 0-90 | 12,578.2 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 12,578.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 412.0 | 3.3% | 90-100 |
| 10-20 | 1,272.1 | 10.1% | 100-110 |
| 20-30 | 2,066.7 | 16.4% | 110-120 |
| 30-40 | 2,440.6 | 19.4% | 120-130 |
| 40-50 | 2,296.4 | 18.3% | 130-140 |
| 50-60 | 2,378.7 | 18.9% | 140-150 |
| 60-70 | 1,512.1 | 12.0% | 150-160 |
| 70-80 | 183.7 | 1.5% | 160-170 |
| 80-90 | 15.9 | 0.1% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

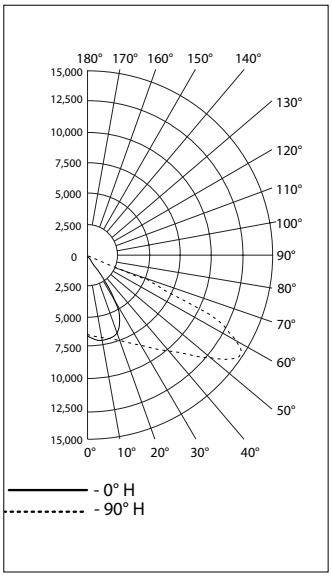
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Aisle, Clear Glass, 5000K CCT

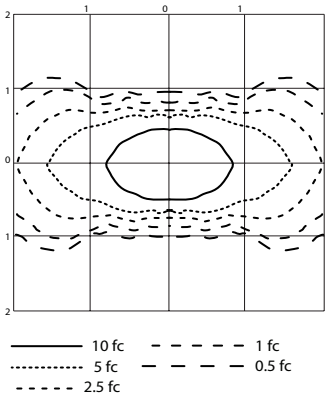
REPORT NUMBER: **BLLPL8CGANBU**

Luminaire Lumens 19,774

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 5,782.9 | 29.2% |
| 0-40 | 9,577.4 | 48.4% |
| 0-60 | 17,028.6 | 86.1% |
| 60-90 | 2,744.6 | 13.9% |
| 70-100 | 335.8 | 1.7% |
| 90-120 | 0 | 0% |
| 0-90 | 19,773.2 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 19,773.2 | 100% |

**LUMENS PER ZONE**

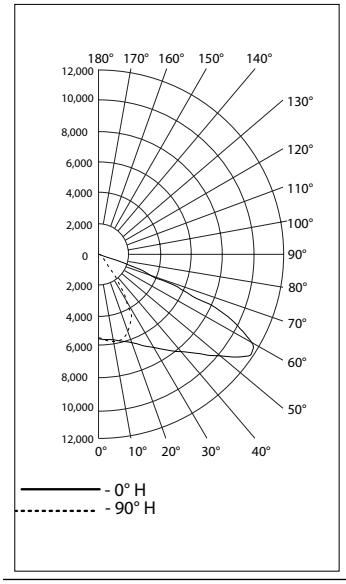
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 629.4 | 3.2% | 90-100 |
| 10-20 | 1,956.0 | 9.9% | 100-110 |
| 20-30 | 3,197.4 | 16.2% | 110-120 |
| 30-40 | 3,794.6 | 19.2% | 120-130 |
| 40-50 | 3,616.6 | 18.3% | 130-140 |
| 50-60 | 3,834.5 | 19.4% | 140-150 |
| 60-70 | 2,408.8 | 12.2% | 150-160 |
| 70-80 | 310.4 | 1.6% | 160-170 |
| 80-90 | 25.4 | 0.1% | 170-180 |

### Aisle, Clear Glass, 3000K CCT

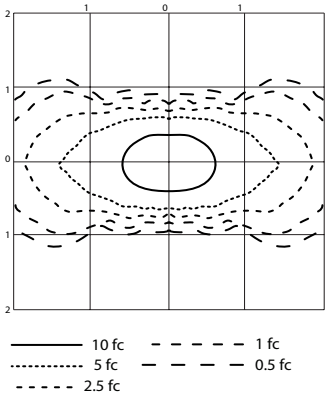
REPORT NUMBER: **BLLPL8WGANBU**

Luminaire Lumens 16,350

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,884.8 | 29.9% |
| 0-40 | 8,058.6 | 49.3% |
| 0-60 | 14,153.0 | 86.6% |
| 60-90 | 2,196.0 | 13.4% |
| 70-100 | 253.6 | 1.6% |
| 90-120 | 0 | 0% |
| 0-90 | 16,349.0 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 16,349.0 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 536.5 | 3.3% | 90-100 |
| 10-20 | 1,657.0 | 10.1% | 100-110 |
| 20-30 | 2,691.4 | 16.5% | 110-120 |
| 30-40 | 3,173.7 | 19.4% | 120-130 |
| 40-50 | 2,984.8 | 18.3% | 130-140 |
| 50-60 | 3,109.6 | 19.0% | 140-150 |
| 60-70 | 1,942.4 | 11.9% | 150-160 |
| 70-80 | 232.7 | 1.4% | 160-170 |
| 80-90 | 20.8 | 0.1% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

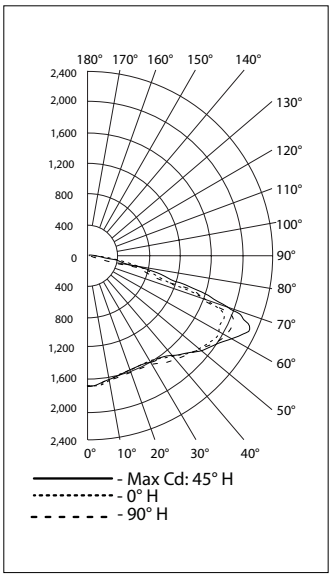
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Wide, Clear Glass, 5000K CCT

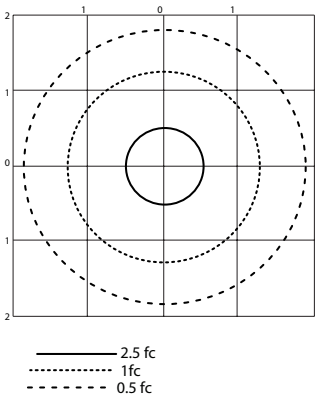
REPORT NUMBER: **BLLPL6CGWNBU**

Luminaire Lumens 8,682

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,348.9 | 15.5% |
| 0-40 | 2,382.8 | 27.4% |
| 0-60 | 5,543.9 | 63.9% |
| 60-90 | 3,138.6 | 36.1% |
| 70-100 | 1,078.8 | 12.4% |
| 90-120 | 0 | 0% |
| 0-90 | 8,682.5 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 8,682.5 | 100% |

**LUMENS PER ZONE**

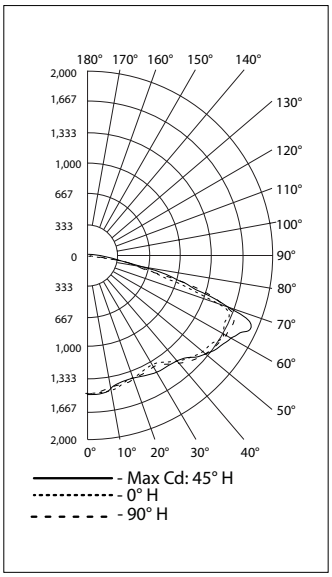
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 158.9 | 1.8% | 90-100 |
| 10-20 | 454.7 | 5.2% | 100-110 |
| 20-30 | 735.4 | 8.5% | 110-120 |
| 30-40 | 1,033.9 | 11.9% | 120-130 |
| 40-50 | 1,392.0 | 16.0% | 130-140 |
| 50-60 | 1,769.1 | 20.4% | 140-150 |
| 60-70 | 2,059.8 | 23.7% | 150-160 |
| 70-80 | 1,037.6 | 11.9% | 160-170 |
| 80-90 | 41.3 | 0.5% | 170-180 |

### Type V Wide, Clear Glass, 3000K CCT

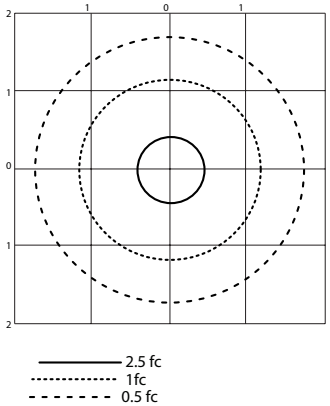
REPORT NUMBER: **BLLPI6WGWNBU**

Luminaire Lumens 7,506

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,211.6 | 16.1% |
| 0-40 | 2,131.1 | 28.4% |
| 0-60 | 4,876.2 | 65% |
| 60-90 | 2,629.4 | 35% |
| 70-100 | 905.2 | 12.1% |
| 90-120 | 0 | 0% |
| 0-90 | 7,505.6 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 7,505.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 143.6 | 1.9% | 90-100 |
| 10-20 | 409.1 | 5.5% | 100-110 |
| 20-30 | 658.9 | 8.8% | 110-120 |
| 30-40 | 919.5 | 12.3% | 120-130 |
| 40-50 | 1,224.7 | 16.3% | 130-140 |
| 50-60 | 1,520.4 | 20.3% | 140-150 |
| 60-70 | 1,724.2 | 23.0% | 150-160 |
| 70-80 | 870.4 | 11.6% | 160-170 |
| 80-90 | 34.8 | 0.5% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

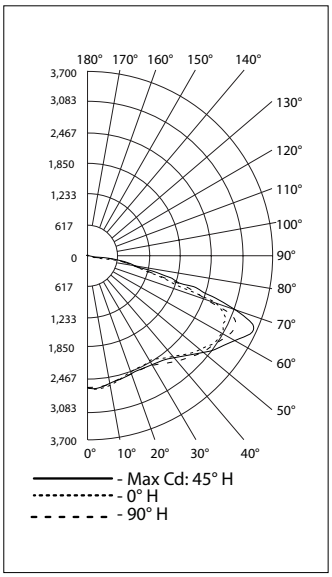
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Wide, Clear Glass, 5000K CCT

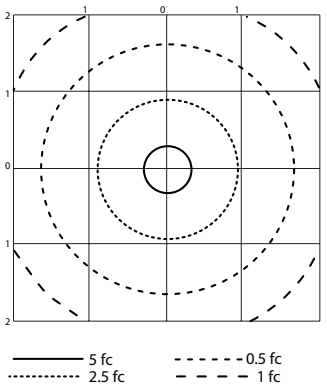
REPORT NUMBER: **BLLPL7CGWNBU**

Luminaire Lumens 13,608

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,119.5 | 15.6% |
| 0-40 | 3,743.3 | 27.5% |
| 0-60 | 8,711.1 | 64% |
| 60-90 | 4,897.4 | 36% |
| 70-100 | 1,668.8 | 12.3% |
| 90-120 | 0 | 0% |
| 0-90 | 13,608.5 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 13,608.5 | 100% |

**LUMENS PER ZONE**

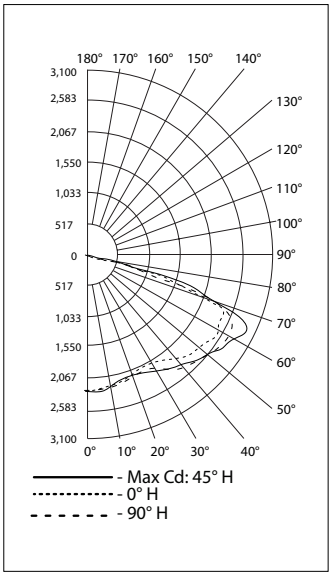
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 249.6 | 1.8% | 90-100 |
| 10-20 | 714.5 | 5.3% | 100-110 |
| 20-30 | 1,155.4 | 8.5% | 110-120 |
| 30-40 | 1,623.7 | 11.9% | 120-130 |
| 40-50 | 2,188.0 | 16.1% | 130-140 |
| 50-60 | 2,779.9 | 20.4% | 140-150 |
| 60-70 | 3,228.7 | 23.7% | 150-160 |
| 70-80 | 1,606.3 | 11.8% | 160-170 |
| 80-90 | 62.4 | 0.5% | 170-180 |

### Type V Wide, Clear Glass, 3000K CCT

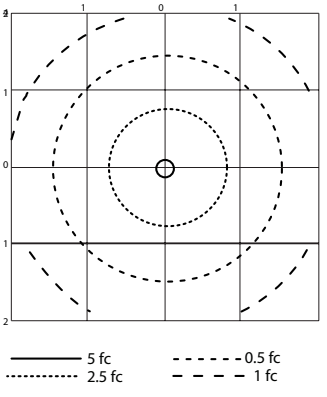
REPORT NUMBER: **BLLPI7WGWNBU**

Luminaire Lumens 11,351

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,832.3 | 16.1% |
| 0-40 | 3,226.8 | 28.4% |
| 0-60 | 7,385.1 | 65.1% |
| 60-90 | 3,965.6 | 34.9% |
| 70-100 | 1,355.2 | 11.9% |
| 90-120 | 0 | 0% |
| 0-90 | 11,350.7 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 11,350.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 216.7 | 1.9% | 90-100 |
| 10-20 | 618.0 | 5.4% | 100-110 |
| 20-30 | 997.6 | 8.8% | 110-120 |
| 30-40 | 1,394.6 | 12.3% | 120-130 |
| 40-50 | 1,855.9 | 16.4% | 130-140 |
| 50-60 | 2,302.3 | 20.3% | 140-150 |
| 60-70 | 2,610.5 | 23.0% | 150-160 |
| 70-80 | 1,305.4 | 11.5% | 160-170 |
| 80-90 | 49.8 | 0.4% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

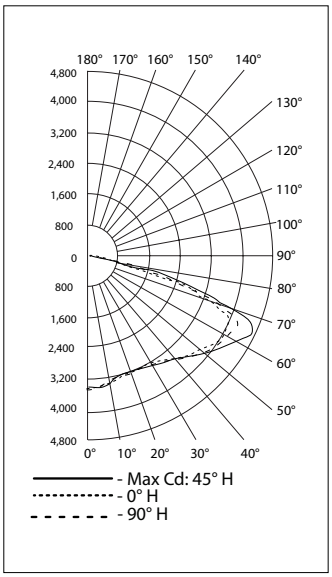
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Wide, Clear Glass, 5000K CCT

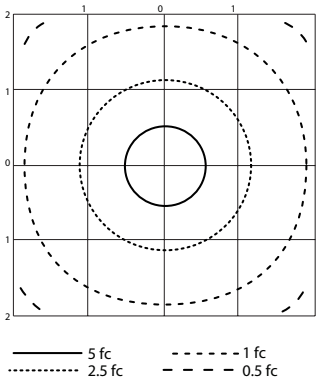
REPORT NUMBER: **BLLPL8CGWNBU**

Luminaire Lumens 17,710

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,747.6 | 15.5% |
| 0-40 | 4,856.1 | 27.4% |
| 0-60 | 11,344.9 | 64.1% |
| 60-90 | 6,365.5 | 35.9% |
| 70-100 | 2,134.3 | 12.1% |
| 90-120 | 0 | 0% |
| 0-90 | 17,710.3 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 17,710.3 | 100% |

**LUMENS PER ZONE**

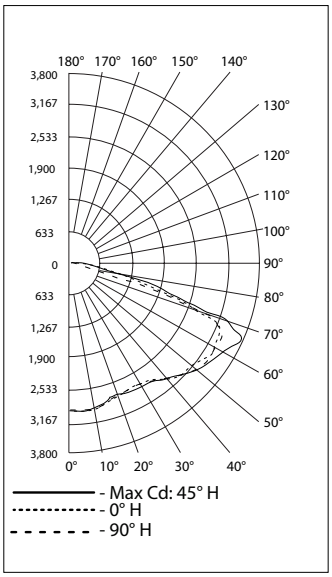
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 323.7 | 1.8% | 90-100 |
| 10-20 | 926.5 | 5.2% | 100-110 |
| 20-30 | 1,497.4 | 8.5% | 110-120 |
| 30-40 | 2,108.5 | 11.9% | 120-130 |
| 40-50 | 2,852.1 | 16.1% | 130-140 |
| 50-60 | 3,636.8 | 20.5% | 140-150 |
| 60-70 | 4,231.2 | 23.9% | 150-160 |
| 70-80 | 2,057.9 | 11.6% | 160-170 |
| 80-90 | 76.4 | 0.4% | 170-180 |

### Type V Wide, Clear Glass, 3000K CCT

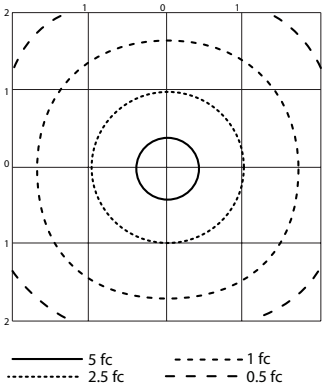
REPORT NUMBER: **BLLPL8WGWNBU**

Luminaire Lumens 14,676

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,363.9 | 16.1% |
| 0-40 | 4,165.7 | 28.4% |
| 0-60 | 9,561.5 | 65.1% |
| 60-90 | 5,114.9 | 34.9% |
| 70-100 | 1,722.7 | 11.7% |
| 90-120 | 0 | 0% |
| 0-90 | 14,676.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 14,676.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 279.6 | 1.9% | 90-100 |
| 10-20 | 797.4 | 5.4% | 100-110 |
| 20-30 | 1,287.0 | 8.8% | 110-120 |
| 30-40 | 1,801.8 | 12.3% | 120-130 |
| 40-50 | 2,405.1 | 16.4% | 130-140 |
| 50-60 | 2,990.7 | 20.4% | 140-150 |
| 60-70 | 3,392.2 | 23.1% | 150-160 |
| 70-80 | 1,661.4 | 11.3% | 160-170 |
| 80-90 | 61.3 | 0.4% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

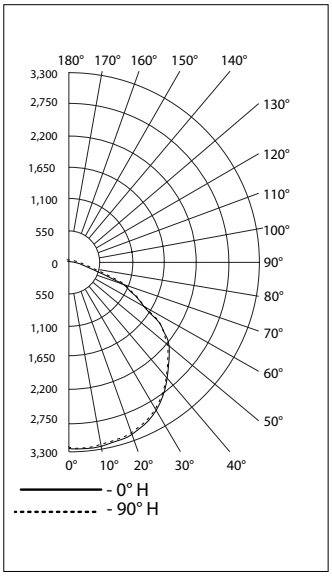
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 3000K CCT

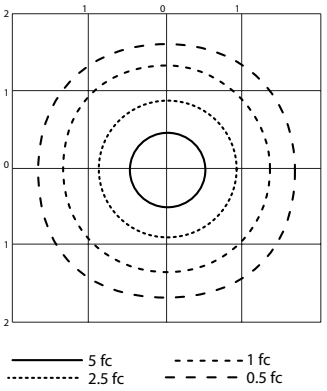
REPORT NUMBER: **BLLPL6CGMNBU**

Luminaire Lumens 9,758

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,652.8 | 27.2% |
| 0-40 | 4,452.5 | 45.6% |
| 0-60 | 8,136.0 | 83.4% |
| 60-90 | 1,621.4 | 16.6% |
| 70-100 | 448.1 | 4.6% |
| 90-120 | 0 | 0% |
| 0-90 | 9,757.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 9,757.4 | 100% |

**LUMENS PER ZONE**

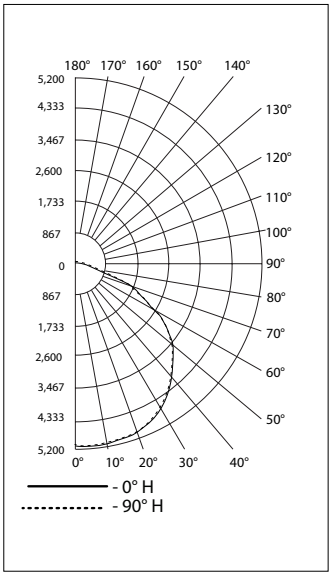
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 308.6 | 3.2% | 90-100 |
| 10-20 | 909.9 | 9.3% | 100-110 |
| 20-30 | 1,434.3 | 14.7% | 110-120 |
| 30-40 | 1,799.7 | 18.4% | 120-130 |
| 40-50 | 1,932.1 | 19.8% | 130-140 |
| 50-60 | 1,751.4 | 17.9% | 140-150 |
| 60-70 | 1,173.3 | 12.0% | 150-160 |
| 70-80 | 416.4 | 4.3% | 160-170 |
| 80-90 | 31.7 | 0.3% | 170-180 |

### Type V, Clear Glass, 5000K CCT

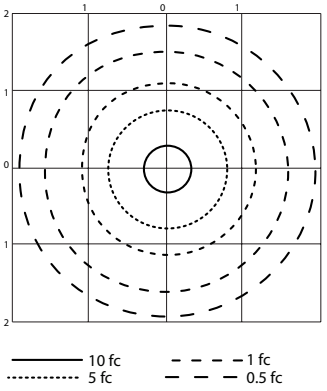
REPORT NUMBER: **BLLPL7CGMNBU**

Luminaire Lumens 15,392

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,187.7 | 27.2% |
| 0-40 | 7,034.1 | 45.7% |
| 0-60 | 12,847.0 | 83.5% |
| 60-90 | 2,544.4 | 16.5% |
| 70-100 | 704.8 | 4.6% |
| 90-120 | 0 | 0% |
| 0-90 | 15,391.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 15,391.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 486.6 | 3.2% | 90-100 |
| 10-20 | 1,435.2 | 9.3% | 100-110 |
| 20-30 | 2,265.9 | 14.7% | 110-120 |
| 30-40 | 2,846.4 | 18.5% | 120-130 |
| 40-50 | 3,051.4 | 19.8% | 130-140 |
| 50-60 | 2,761.4 | 17.9% | 140-150 |
| 60-70 | 1,839.6 | 12.0% | 150-160 |
| 70-80 | 655.0 | 4.3% | 160-170 |
| 80-90 | 49.8 | 0.3% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

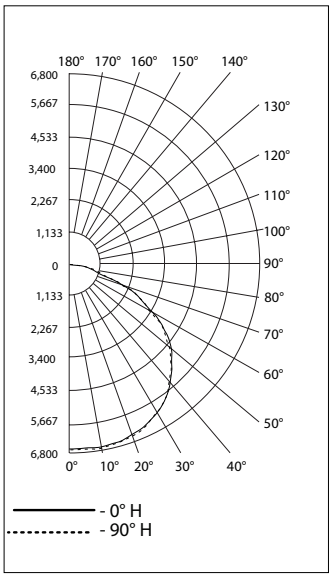
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 5000K CCT

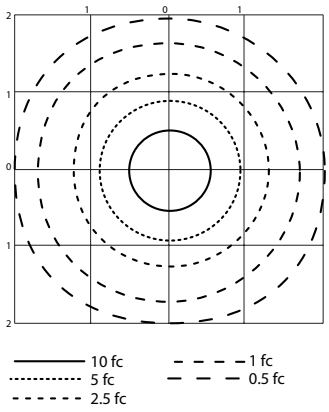
REPORT NUMBER: **BLLPL8CGMNBU**

Luminaire Lumens 20,097

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 5,491.5 | 27.3% |
| 0-40 | 9,219.3 | 45.9% |
| 0-60 | 16,805.9 | 83.6% |
| 60-90 | 3,290.0 | 16.4% |
| 70-100 | 901.9 | 4.5% |
| 90-120 | 0 | 0% |
| 0-90 | 20,095.9 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 20,095.9 | 100% |

**LUMENS PER ZONE**

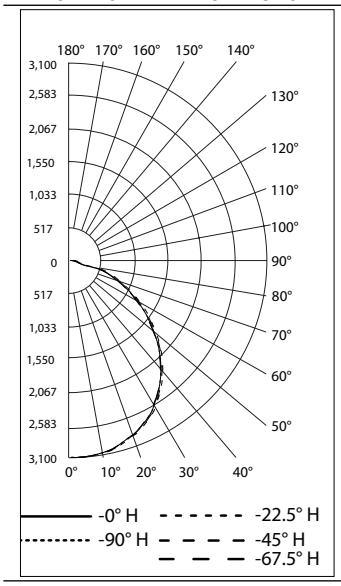
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 638.0 | 3.2% | 90-100 |
| 10-20 | 1,882.3 | 9.4% | 100-110 |
| 20-30 | 2,971.3 | 14.8% | 110-120 |
| 30-40 | 3,727.8 | 18.6% | 120-130 |
| 40-50 | 3,988.4 | 19.8% | 130-140 |
| 50-60 | 3,598.2 | 17.9% | 140-150 |
| 60-70 | 2,388.1 | 4.2% | 150-160 |
| 70-80 | 840.3 | 11.9% | 160-170 |
| 80-90 | 61.7 | 0.3% | 170-180 |

### Type V, Frosted Glass, 5000K CCT

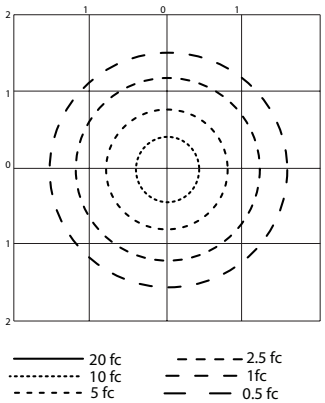
REPORT NUMBER: **BLLPL6CFMNBU**

Luminaire Lumens 8,209

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,400.5 | 29.2% |
| 0-40 | 3,913.4 | 47.7% |
| 0-60 | 6,732.3 | 82% |
| 60-90 | 1,475.5 | 18% |
| 70-100 | 553.0 | 6.7% |
| 90-120 | 0 | 0% |
| 0-90 | 8,207.9 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 8,207.9 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 291.7 | 3.6% | 90-100 |
| 10-20 | 838.5 | 10.2% | 100-110 |
| 20-30 | 1,270.3 | 15.5% | 110-120 |
| 30-40 | 1,512.9 | 18.4% | 120-130 |
| 40-50 | 1,517.4 | 18.5% | 130-140 |
| 50-60 | 1,301.5 | 15.9% | 140-150 |
| 60-70 | 922.5 | 11.2% | 150-160 |
| 70-80 | 468.5 | 5.7% | 160-170 |
| 80-90 | 84.5 | 1.0% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

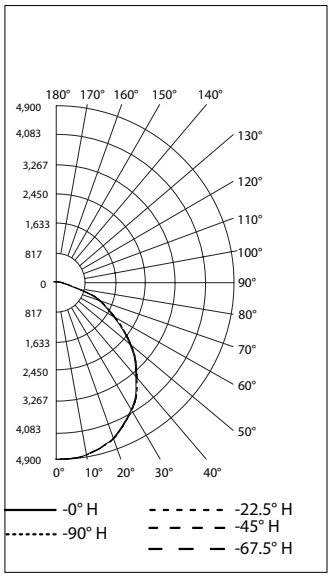
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Frosted Glass, 5000K CCT

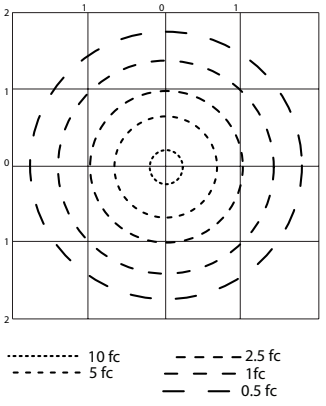
REPORT NUMBER: **BLLPL7CFMNBU**

Luminaire Lumens 12,955

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,794.5 | 29.3% |
| 0-40 | 6,181.5 | 47.7% |
| 0-60 | 10,623.4 | 82% |
| 60-90 | 2,330.5 | 18% |
| 70-100 | 875.2 | 6.8% |
| 90-120 | 0 | 0% |
| 0-90 | 12,953.9 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 12,953.9 | 100% |

**LUMENS PER ZONE**

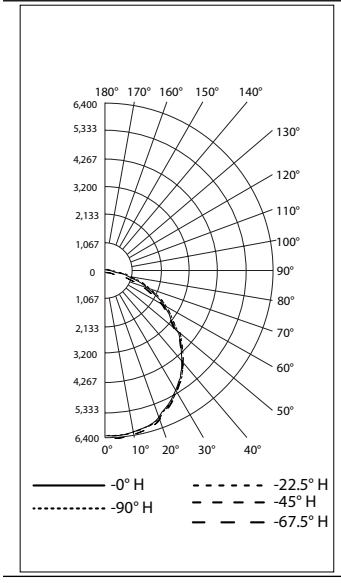
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 461.3 | 3.6% | 90-100 |
| 10-20 | 1,326.2 | 10.2% | 100-110 |
| 20-30 | 2,007.0 | 15.5% | 110-120 |
| 30-40 | 2,387.0 | 18.4% | 120-130 |
| 40-50 | 2,392.1 | 18.5% | 130-140 |
| 50-60 | 2,049.8 | 15.8% | 140-150 |
| 60-70 | 1,455.3 | 11.2% | 150-160 |
| 70-80 | 740.7 | 5.7% | 160-170 |
| 80-90 | 134.5 | 1.0% | 170-180 |

### Type V, Clear Glass, 5000K CCT

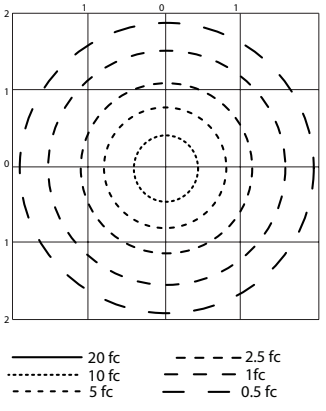
REPORT NUMBER: **BLLPL8CFMNBU**

Luminaire Lumens 16,711

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,907.8 | 29.4% |
| 0-40 | 7,989.9 | 47.8% |
| 0-60 | 13,718.2 | 82.1% |
| 60-90 | 2,991.4 | 17.9% |
| 70-100 | 1,120.8 | 6.7% |
| 90-120 | 0 | 0% |
| 0-90 | 16,709.6 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 16,709.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 597.1 | 3.6% | 90-100 |
| 10-20 | 1,715.9 | 10.3% | 100-110 |
| 20-30 | 2,594.8 | 15.5% | 110-120 |
| 30-40 | 3,082.1 | 18.4% | 120-130 |
| 40-50 | 3,086.8 | 18.5% | 130-140 |
| 50-60 | 2,641.5 | 15.8% | 140-150 |
| 60-70 | 1,870.6 | 11.2% | 150-160 |
| 70-80 | 949.8 | 5.7% | 160-170 |
| 80-90 | 171.0 | 1.0% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

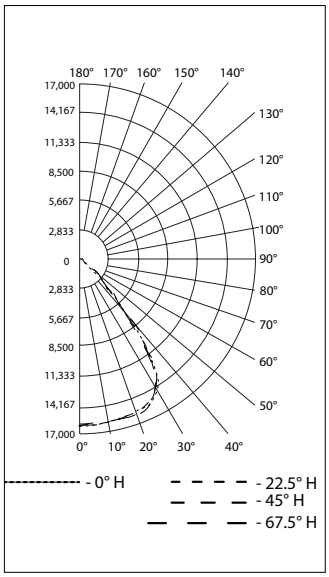
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Narrow, Clear Glass, 5000K CCT

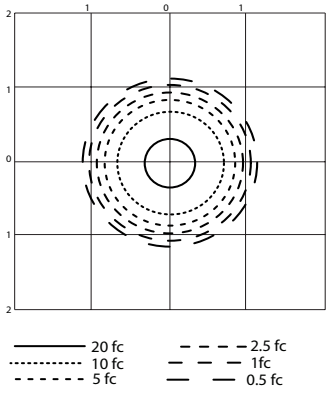
REPORT NUMBER: **BHLPL1CGNNBU**

Luminaire Lumens 24,459

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 13,267.9 | 54.3% |
| 0-40 | 20,732.9 | 84.8% |
| 0-60 | 23,891.8 | 97.7% |
| 60-90 | 561.6 | 2.3% |
| 70-100 | 242.1 | 1% |
| 90-120 | 0 | 0% |
| 0-90 | 24,453.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 24,453.4 | 100% |

**LUMENS PER ZONE**

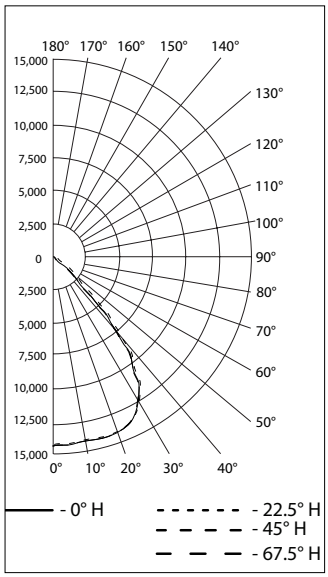
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,538.5 | 6.3% | 90 -100 |
| 10-20 | 4,553.8 | 18.6% | 100 -110 |
| 20-30 | 7,175.6 | 29.3% | 110 -120 |
| 30-40 | 7,465.0 | 30.5% | 120 -130 |
| 40-50 | 2,717.0 | 11.1% | 130 -140 |
| 50-60 | 441.9 | 1.8% | 140 -150 |
| 60-70 | 319.5 | 1.3% | 150 -160 |
| 70-80 | 215.3 | 0.9% | 160 -170 |
| 80-90 | 26.8 | 0.1% | 170 -180 |

### Type V Narrow, Clear Glass, 3000K CCT

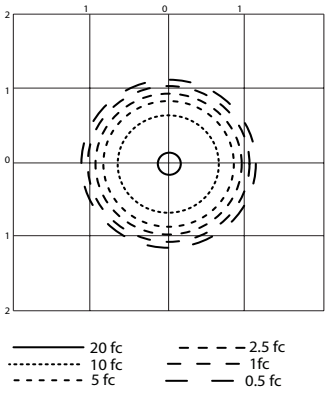
REPORT NUMBER: **BHLPL1WGNNBU**

Luminaire Lumens 21,648

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 11,658.8 | 53.9% |
| 0-40 | 18,259.6 | 84.4% |
| 0-60 | 21,173.3 | 97.8% |
| 60-90 | 469.0 | 2.2% |
| 70-100 | 195.8 | 0.9% |
| 90-120 | 0 | 0% |
| 0-90 | 21,642.2 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 21,642.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,538.5 | 6.3% | 90-100 |
| 10-20 | 4,553.8 | 18.6% | 100-110 |
| 20-30 | 7,175.6 | 29.3% | 110-120 |
| 30-40 | 7,465.0 | 30.5% | 120-130 |
| 40-50 | 2,717.0 | 11.1% | 130-140 |
| 50-60 | 441.9 | 1.8% | 140-150 |
| 60-70 | 319.5 | 1.3% | 150-160 |
| 70-80 | 215.3 | 0.9% | 160-170 |
| 80-90 | 26.8 | 0.1% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

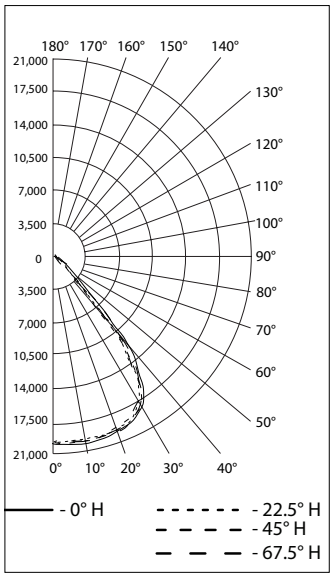
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Narrow, Clear Glass, 5000K CCT

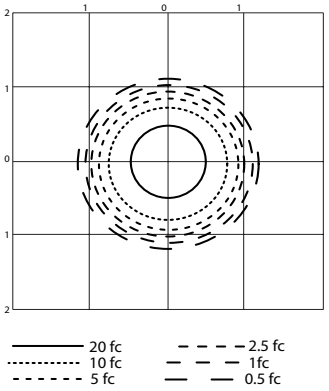
REPORT NUMBER: **BHLPL2CGNNBU**

Luminaire Lumens 30,396

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 16,453.1 | 54.1% |
| 0-40 | 25,742.1 | 84.7% |
| 0-60 | 29,699.7 | 97.7% |
| 60-90 | 688.8 | 2.3% |
| 70-100 | 296.7 | 1% |
| 90-120 | 0 | 0% |
| 0-90 | 30,388.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 30,388.4 | 100% |

**LUMENS PER ZONE**

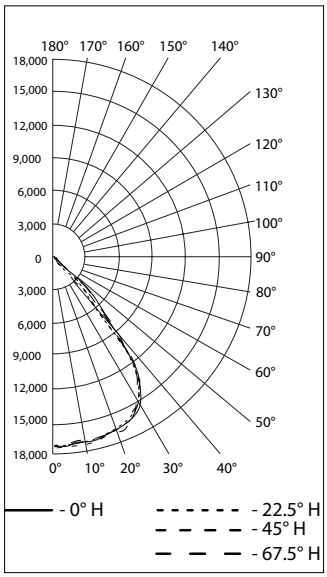
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,909.5 | 6.3% | 90-100 |
| 10-20 | 5,644.4 | 18.6% | 100-110 |
| 20-30 | 8,899.2 | 29.3% | 110-120 |
| 30-40 | 9,289.1 | 30.6% | 120-130 |
| 40-50 | 3,411.2 | 11.2% | 130-140 |
| 50-60 | 546.3 | 1.8% | 140-150 |
| 60-70 | 392.0 | 1.3% | 150-160 |
| 70-80 | 263.9 | 0.9% | 160-170 |
| 80-90 | 32.9 | 0.1% | 170-180 |

### Type V Narrow, Clear Glass, 3000K CCT

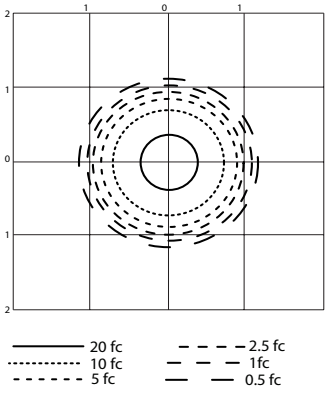
REPORT NUMBER: **BHLPL2WGNNBU**

Luminaire Lumens 25,785

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 13,938.3 | 54.1% |
| 0-40 | 21,797.3 | 84.6% |
| 0-60 | 25,219.8 | 97.8% |
| 60-90 | 559.0 | 2.2% |
| 70-100 | 234.4 | 0.9% |
| 90-120 | 0 | 0% |
| 0-90 | 25,778.8 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 25,778.8 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,633.4 | 6.3% | 90-100 |
| 10-20 | 4,795.3 | 18.6% | 100-110 |
| 20-30 | 7,509.5 | 29.1% | 110-120 |
| 30-40 | 7,859.0 | 30.5% | 120-130 |
| 40-50 | 2,974.1 | 11.5% | 130-140 |
| 50-60 | 448.4 | 1.7% | 140-150 |
| 60-70 | 324.5 | 1.3% | 150-160 |
| 70-80 | 208.1 | 0.8% | 160-170 |
| 80-90 | 26.3 | 0.1% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

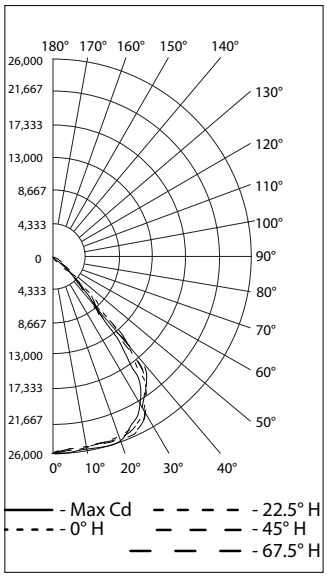
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Narrow, Clear Glass, 5000K CCT

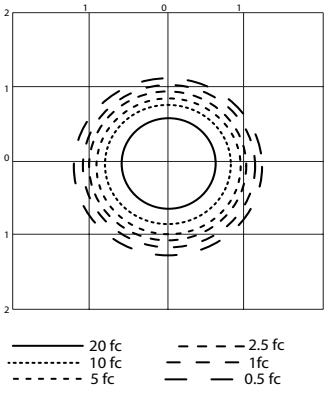
REPORT NUMBER: **BHLPL3CGNNBU**

Luminaire Lumens 39,041

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 21,202.1 | 54.3% |
| 0-40 | 33,033.7 | 84.6% |
| 0-60 | 38,116.4 | 97.7% |
| 60-90 | 915.1 | 2.3% |
| 70-100 | 393.2 | 1% |
| 90-120 | 0 | 0% |
| 0-90 | 39,031.5 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 39,031.5 | 100% |

**LUMENS PER ZONE**

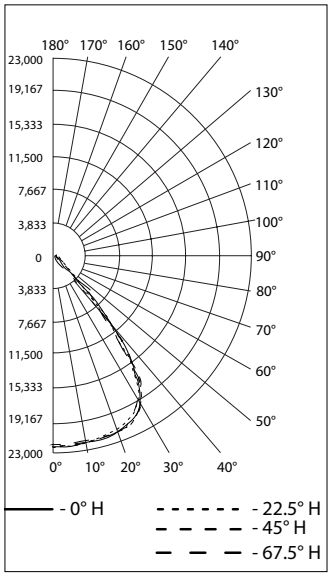
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 2,460.1 | 6.3% | 90-100 |
| 10-20 | 7,287.2 | 18.7% | 100-110 |
| 20-30 | 11,454.8 | 29.3% | 110-120 |
| 30-40 | 11,831.6 | 30.3% | 120-130 |
| 40-50 | 4,348.6 | 11.1% | 130-140 |
| 50-60 | 734.2 | 1.9% | 140-150 |
| 60-70 | 521.9 | 1.3% | 150-160 |
| 70-80 | 347.9 | 0.9% | 160-170 |
| 80-90 | 45.3 | 0.1% | 170-180 |

### Type V Narrow, Clear Glass, 3000K CCT

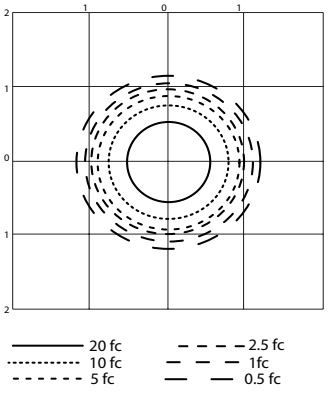
REPORT NUMBER: **BHLPL3WGNNBU**

Luminaire Lumens 33,341

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 18,117.0 | 54.4% |
| 0-40 | 28,265.5 | 84.8% |
| 0-60 | 32,605.1 | 97.8% |
| 60-90 | 727.8 | 2.2% |
| 70-100 | 306.3 | 0.9% |
| 90-120 | 0 | 0% |
| 0-90 | 33,332.9 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 33,332.9 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 2,123.9 | 6.4% | 90-100 |
| 10-20 | 6,237.4 | 18.7% | 100-110 |
| 20-30 | 9,755.7 | 29.3% | 110-120 |
| 30-40 | 10,148.5 | 30.4% | 120-130 |
| 40-50 | 3,760.3 | 11.3% | 130-140 |
| 50-60 | 579.3 | 1.7% | 140-150 |
| 60-70 | 421.5 | 1.3% | 150-160 |
| 70-80 | 272.0 | 0.8% | 160-170 |
| 80-90 | 34.3 | 0.1% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

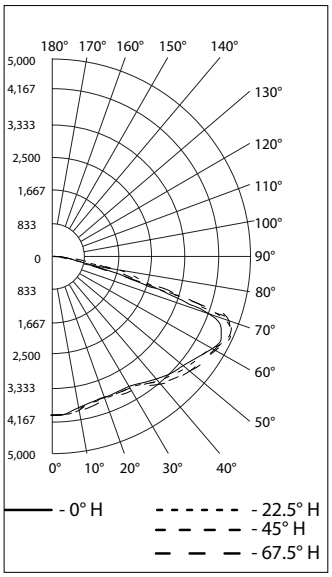
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Wide, Clear Glass, 5000K CCT

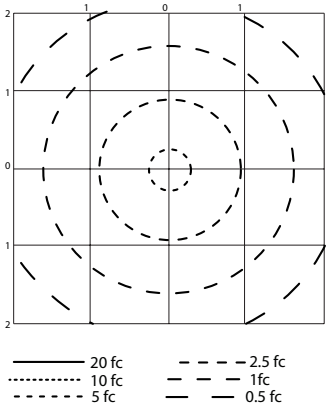
REPORT NUMBER: **BHLPL1CGWNBU**

Luminaire Lumens 20,665

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,267.5 | 15.8% |
| 0-40 | 5,791.9 | 28% |
| 0-60 | 13,265.1 | 64.2% |
| 60-90 | 7,399.9 | 35.8% |
| 70-100 | 2,655.4 | 12.8% |
| 90-120 | 0 | 0% |
| 0-90 | 20,665.1 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 20,665.1 | 100% |

**LUMENS PER ZONE**

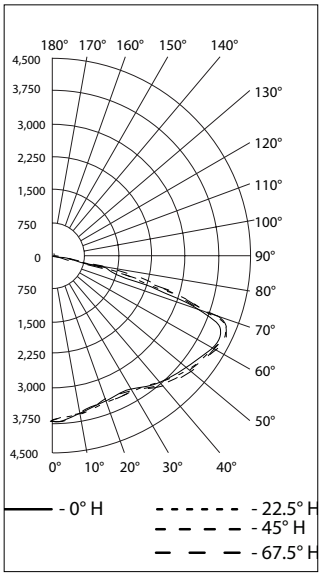
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 381.9 | 1.8% | 90-100 |
| 10-20 | 1,094.7 | 5.3% | 100-110 |
| 20-30 | 1,790.9 | 8.7% | 110-120 |
| 30-40 | 2,524.4 | 12.2% | 120-130 |
| 40-50 | 3,359.2 | 16.3% | 130-140 |
| 50-60 | 4,114.0 | 19.9% | 140-150 |
| 60-70 | 4,744.6 | 23.0% | 150-160 |
| 70-80 | 2,541.1 | 12.3% | 160-170 |
| 80-90 | 114.3 | 0.6% | 170-180 |

### Type V Wide, Clear Glass, 3000K CCT

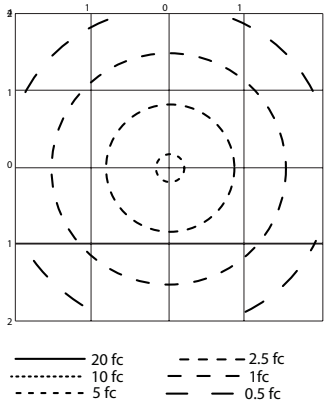
REPORT NUMBER: **BHLPL1WGWNBU**

Luminaire Lumens 18,689

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,003.0 | 16.1% |
| 0-40 | 5,307.9 | 28.4% |
| 0-60 | 12,100.9 | 64.7% |
| 60-90 | 6,587.8 | 35.3% |
| 70-100 | 2,340.7 | 12.5% |
| 90-120 | 0 | 0% |
| 0-90 | 18,688.8 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 18,688.8 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 352.0 | 1.9% | 90-100 |
| 10-20 | 1,008.1 | 5.4% | 100-110 |
| 20-30 | 1,642.9 | 8.8% | 110-120 |
| 30-40 | 2,305.0 | 12.3% | 120-130 |
| 40-50 | 3,058.7 | 16.4% | 130-140 |
| 50-60 | 3,734.3 | 20.0% | 140-150 |
| 60-70 | 4,247.1 | 22.7% | 150-160 |
| 70-80 | 2,247.7 | 12.0% | 160-170 |
| 80-90 | 93.1 | 0.5% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

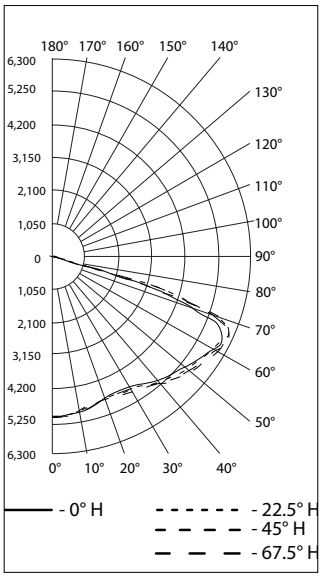
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Wide, Clear Glass, 5000K CCT

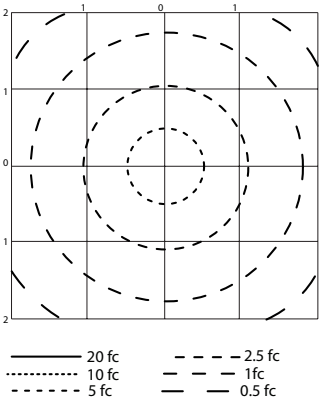
REPORT NUMBER: **BHLPL2CGWNBU**

Luminaire Lumens 25, 896

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,099.3 | 15.8% |
| 0-40 | 7,263.6 | 28% |
| 0-60 | 16,635.1 | 64.2% |
| 60-90 | 9,260.5 | 35.8% |
| 70-100 | 3,317.2 | 12.8% |
| 90-120 | 0 | 0% |
| 0-90 | 25,895.6 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 25,895.6 | 100% |

**LUMENS PER ZONE**

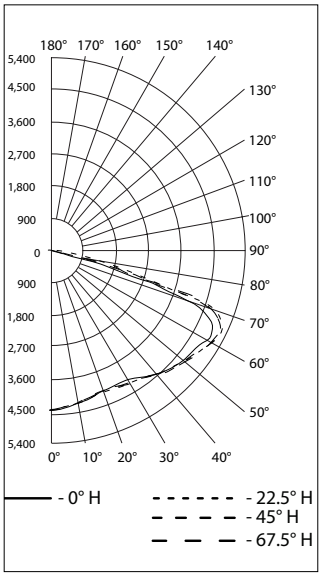
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 478.9 | 1.8% | 90-100 |
| 10-20 | 1,373.3 | 5.3% | 100-110 |
| 20-30 | 2,247.1 | 8.7% | 110-120 |
| 30-40 | 3,164.3 | 12.2% | 120-130 |
| 40-50 | 4,214.3 | 16.3% | 130-140 |
| 50-60 | 5,157.2 | 19.9% | 140-150 |
| 60-70 | 5,943.3 | 23.0% | 150-160 |
| 70-80 | 3,178.9 | 12.3% | 160-170 |
| 80-90 | 138.3 | 0.5% | 170-180 |

### Type V Wide, Clear Glass, 3000K CCT

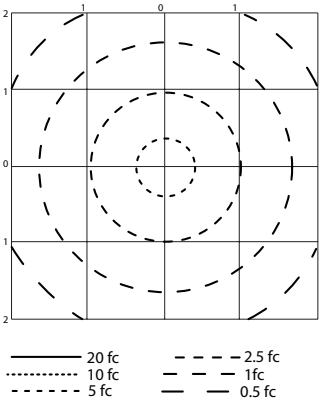
REPORT NUMBER: **BHLPL2WGWNBU**

Luminaire Lumens 22,278

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,582.7 | 16.1% |
| 0-40 | 6,332.7 | 28.4% |
| 0-60 | 14,434.3 | 64.8% |
| 60-90 | 7,843.9 | 35.2% |
| 70-100 | 2,774.1 | 12.5% |
| 90-120 | 0 | 0% |
| 0-90 | 22,278.2 | 100% |
| 90-180 | 0 | 0 |
| 0-180 | 22,278.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 420.0 | 1.9% | 90-100 |
| 10-20 | 1,202.3 | 5.4% | 100-110 |
| 20-30 | 1,960.4 | 8.8% | 110-120 |
| 30-40 | 2,749.9 | 12.3% | 120-130 |
| 40-50 | 3,650.1 | 16.4% | 130-140 |
| 50-60 | 4,451.5 | 20.0% | 140-150 |
| 60-70 | 5,069.8 | 22.8% | 150-160 |
| 70-80 | 2,669.2 | 12.0% | 160-170 |
| 80-90 | 104.9 | 0.5% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

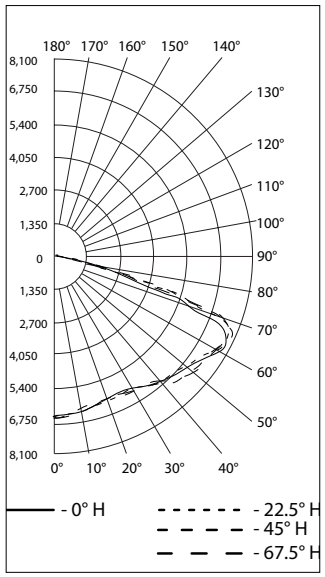
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Wide, Clear Glass, 5000K CCT

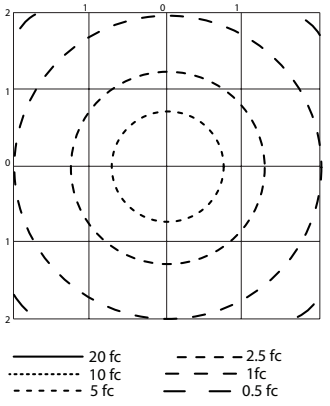
REPORT NUMBER: **BHLPL3CGWNBU**

Luminaire Lumens 33,374

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 5,286.5 | 15.8% |
| 0-40 | 9,369.3 | 28.1% |
| 0-60 | 21,475.2 | 64.3% |
| 60-90 | 11,898.9 | 35.7% |
| 70-100 | 4,224.4 | 12.7% |
| 90-120 | 0 | 0% |
| 0-90 | 33,374.1 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 33,374.1 | 100% |

**LUMENS PER ZONE**

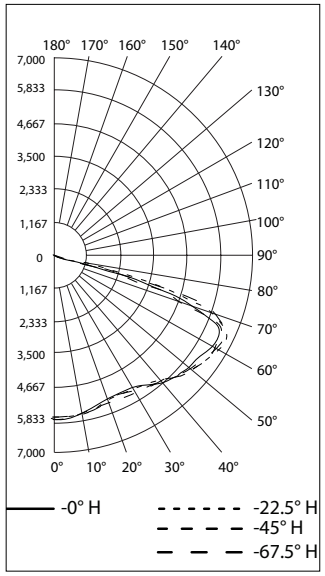
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 617.3 | 1.8% | 90-100 |
| 10-20 | 1,771.1 | 5.3% | 100-110 |
| 20-30 | 2,898.1 | 8.7% | 110-120 |
| 30-40 | 4,082.8 | 12.2% | 120-130 |
| 40-50 | 5,443.0 | 16.3% | 130-140 |
| 50-60 | 6,662.9 | 20.0% | 140-150 |
| 60-70 | 7,674.5 | 23.0% | 150-160 |
| 70-80 | 4,065.1 | 12.2% | 160-170 |
| 80-90 | 159.3 | 0.5% | 170-180 |

Type V Wide, Clear Glass, 3000K CCT

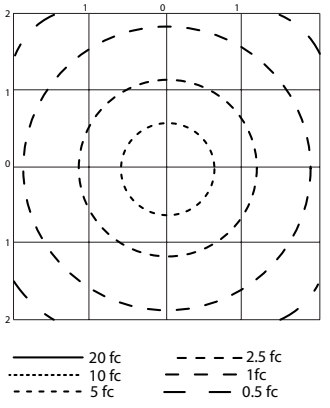
**REPORT NUMBER: BHLPL3WGWNBU**

Luminaire Lumens 28,864

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,643.3 | 16.1% |
| 0-40 | 8,209.1 | 28.4% |
| 0-60 | 18,724.5 | 64.9% |
| 60-90 | 10,139.9 | 35.1% |
| 70-100 | 3,562.1 | 12.3% |
| 90-120 | 0 | 0% |
| 0-90 | 28,864.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 28,864.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 544.2 | 1.9% | 90-100 |
| 10-20 | 1,558.1 | 5.4% | 100-110 |
| 20-30 | 2,541.0 | 8.8% | 110-120 |
| 30-40 | 3,565.8 | 12.4% | 120-130 |
| 40-50 | 4,737.0 | 16.4% | 130-140 |
| 50-60 | 5,778.4 | 20.0% | 140-150 |
| 60-70 | 6,577.8 | 22.8% | 150-160 |
| 70-80 | 3,431.3 | 11.9% | 160-170 |
| 80-90 | 130.9 | 0.5% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

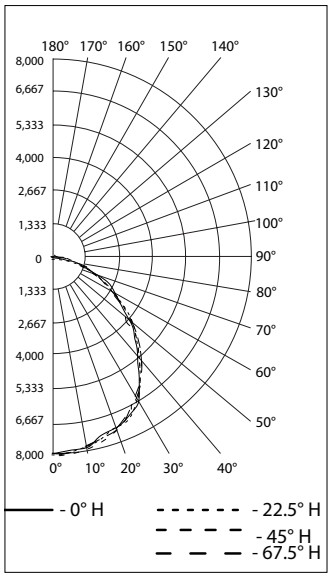
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Medium, Frosted Glass, 5000K CCT

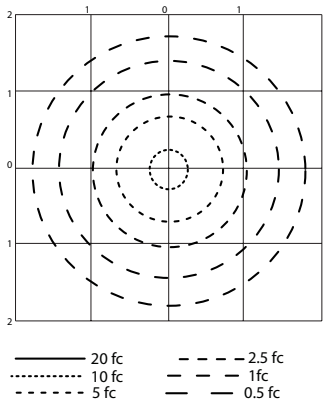
REPORT NUMBER: **BHLPL1CFMNBU**

Luminaire Lumens 20,801

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 6,121.0 | 29.4% |
| 0-40 | 9,932.9 | 47.8% |
| 0-60 | 17,003.6 | 81.8% |
| 60-90 | 3,795.4 | 18.2% |
| 70-100 | 1,458.3 | 7% |
| 90-120 | 0 | 0% |
| 0-90 | 20,799.0 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 20,799.0 | 100% |

**LUMENS PER ZONE**

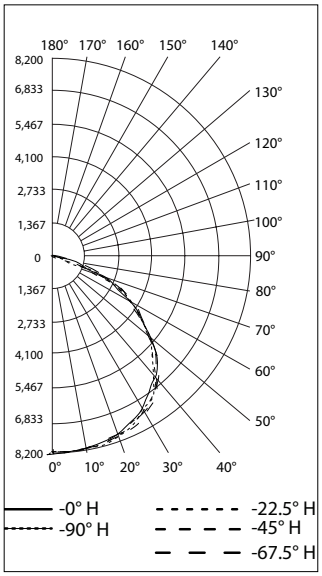
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 749.2 | 3.6% | 90-100 |
| 10-20 | 2,144.9 | 10.3% | 100-110 |
| 20-30 | 3,226.9 | 15.5% | 110-120 |
| 30-40 | 3,811.9 | 18.3% | 120-130 |
| 40-50 | 3,804.1 | 18.3% | 130-140 |
| 50-60 | 3,266.6 | 15.7% | 140-150 |
| 60-70 | 2,337.1 | 11.2% | 150-160 |
| 70-80 | 1,217.2 | 5.9% | 160-170 |
| 80-90 | 241.1 | 1.2% | 170-180 |

### Type V Medium, Clear Glass, 5000K CCT

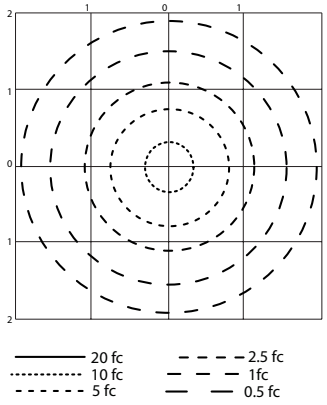
REPORT NUMBER: **BHLPL1CGMNBU**

Luminaire Lumens 24,352

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 6,658.2 | 27.3% |
| 0-40 | 11,178.5 | 45.9% |
| 0-60 | 20,239.3 | 83.1% |
| 60-90 | 4,111.0 | 16.9% |
| 70-100 | 1,207.1 | 5% |
| 90-120 | 0 | 0% |
| 0-90 | 24,350.2 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 24,350.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 773.6 | 3.2% | 90-100 |
| 10-20 | 2,280.5 | 9.4% | 100-110 |
| 20-30 | 3,604.1 | 14.8% | 110-120 |
| 30-40 | 4,520.2 | 18.6% | 120-130 |
| 40-50 | 4,785.8 | 19.7% | 130-140 |
| 50-60 | 4,275.0 | 17.6% | 140-150 |
| 60-70 | 2,903.9 | 11.9% | 150-160 |
| 70-80 | 1,100.3 | 4.5% | 160-170 |
| 80-90 | 106.7 | 0.4% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

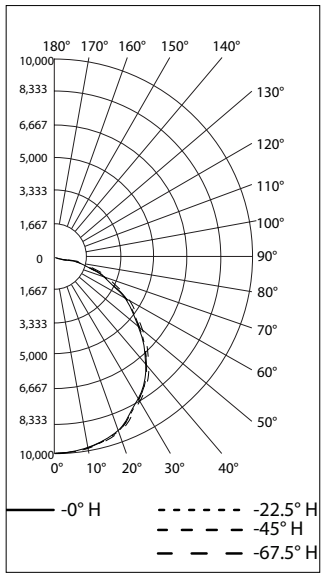
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Medium, Frosted Glass, 5000K CCT

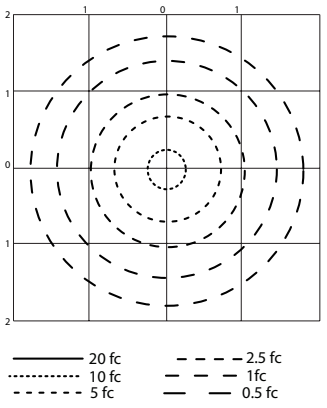
REPORT NUMBER: **BHLPL2CFMNBU**

Luminaire Lumens 25,979

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 7,656.5 | 29.5% |
| 0-40 | 12,418.0 | 47.8% |
| 0-60 | 21,243.5 | 81.8% |
| 60-90 | 4,733.5 | 18.2% |
| 70-100 | 1,818.2 | 7% |
| 90-120 | 0 | 0% |
| 0-90 | 25,977.0 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 25,977.0 | 100% |

**LUMENS PER ZONE**

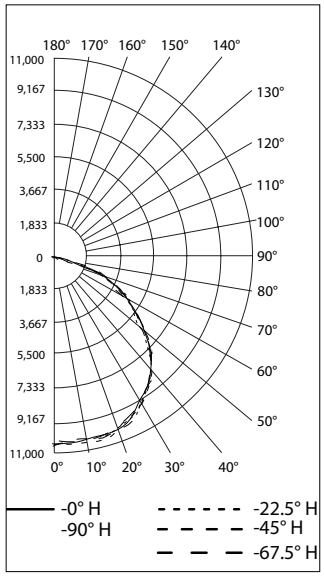
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 937.3 | 3.6% | 90-100 |
| 10-20 | 2,683.1 | 10.3% | 100-110 |
| 20-30 | 4,036.1 | 15.5% | 110-120 |
| 30-40 | 4,761.5 | 18.3% | 120-130 |
| 40-50 | 4,748.8 | 18.3% | 130-140 |
| 50-60 | 4,076.7 | 15.7% | 140-150 |
| 60-70 | 2,915.3 | 11.2% | 150-160 |
| 70-80 | 1,517.9 | 5.8% | 160-170 |
| 80-90 | 300.3 | 1.2% | 170-180 |

### Type V Medium, Clear Glass, 5000K CCT

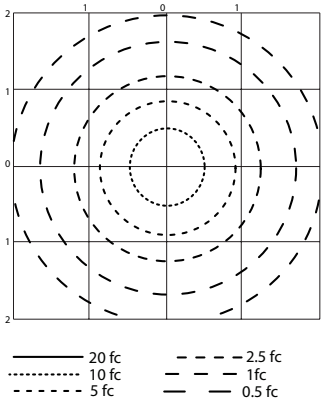
REPORT NUMBER: **BHLPL2CGMNBU**

Luminaire Lumens 30,375

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 8,323.9 | 27.4% |
| 0-40 | 13,968.9 | 46% |
| 0-60 | 25,264.2 | 83.2% |
| 60-90 | 5,108.3 | 16.8% |
| 70-100 | 1,499.7 | 4.9% |
| 90-120 | 0 | 0% |
| 0-90 | 30,372.5 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 30,372.5 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 967.1 | 3.2% | 90-100 |
| 10-20 | 2,851.3 | 9.4% | 100-110 |
| 20-30 | 4,505.5 | 14.8% | 110-120 |
| 30-40 | 5,645.0 | 18.6% | 120-130 |
| 40-50 | 5,970.4 | 19.7% | 130-140 |
| 50-60 | 5,324.8 | 17.5% | 140-150 |
| 60-70 | 3,608.7 | 11.9% | 150-160 |
| 70-80 | 1,366.3 | 4.5% | 160-170 |
| 80-90 | 133.3 | 0.4% | 170-180 |

# Baymaster™ and High Lumen LED Series Luminaires

High Bay

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (BLLL and BHLL models only)**

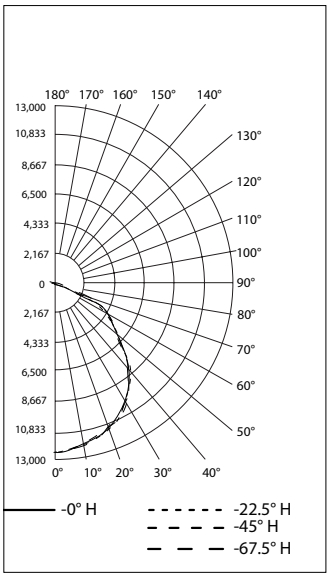
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Frosted Glass, 5000K CCT

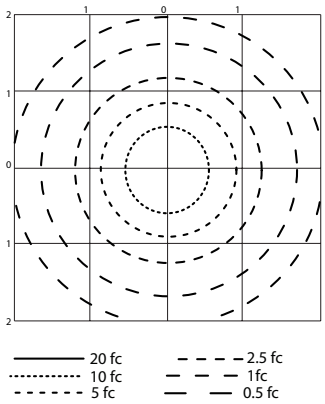
REPORT NUMBER: **BHLPL3CFMNBU**

Luminaire Lumens 32,107

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 9,470.7 | 29.5% |
| 0-40 | 15,360.8 | 47.8% |
| 0-60 | 26,252.9 | 81.8% |
| 60-90 | 5,851.6 | 18.2% |
| 70-100 | 2,251.6 | 7% |
| 90-120 | 0 | 0% |
| 0-90 | 32,104.5 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 32,104.5 | 100% |

**LUMENS PER ZONE**

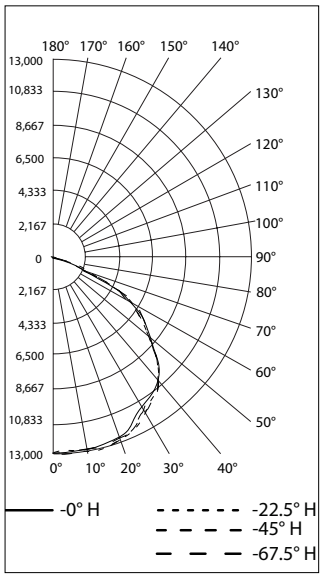
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,160.6 | 3.6% | 90-100 |
| 10-20 | 3,319.7 | 10.3% | 100-110 |
| 20-30 | 4,990.5 | 15.5% | 110-120 |
| 30-40 | 5,890.0 | 18.3% | 120-130 |
| 40-50 | 5,863.2 | 18.3% | 130-140 |
| 50-60 | 5,028.9 | 15.7% | 140-150 |
| 60-70 | 3,600.0 | 11.2% | 150-160 |
| 70-80 | 1,879.7 | 5.9% | 160-170 |
| 80-90 | 371.9 | 1.2% | 170-180 |

### Type V, Clear Glass, 5000K CCT

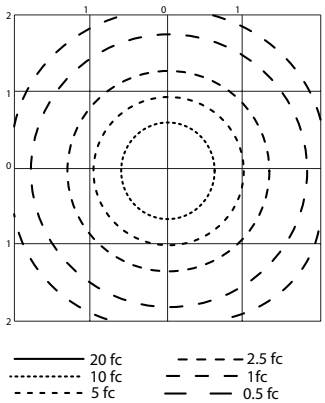
REPORT NUMBER: **BHLPL3CGMNBU**

Luminaire Lumens 37,574

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 10,427.6 | 27.8% |
| 0-40 | 17,424.5 | 46.4% |
| 0-60 | 31,266.2 | 83.2% |
| 60-90 | 6,304.9 | 16.8% |
| 70-100 | 1,911.4 | 5.1% |
| 90-120 | 0 | 0% |
| 0-90 | 37,571.2 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 37,571.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,219.3 | 3.2% | 90-100 |
| 10-20 | 3,578.9 | 9.5% | 100-110 |
| 20-30 | 5,629.5 | 15.0% | 110-120 |
| 30-40 | 6,996.9 | 18.6% | 120-130 |
| 40-50 | 7,346.6 | 19.6% | 130-140 |
| 50-60 | 6,495.1 | 17.3% | 140-150 |
| 60-70 | 4,393.6 | 11.7% | 150-160 |
| 70-80 | 1,713.0 | 4.6% | 160-170 |
| 80-90 | 198.3 | 0.5% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

## Applications

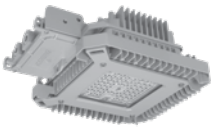
- Powerful, efficient weatherproof lighting for applications such as:
  - — Steel Production Plants
  - — Power Generation Facilities
  - — Foundries
  - — Cement, Stone and Sand Plants
  - — Pulp and Paper Mills
  - — Ship Building and Shipping Ports
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other areas where corrosive, wet, dirty and tough environments are a problem.
- IP66/IP67, Type 4X, marine and wet locations.
- Locations requiring dependable, consistent lighting in extreme hot/cold temperature environments. -40 °C to +65 °C (-40 °F to +149 °F) ambient temperature range. -40 °C to +55 °C (-40 °F to +131 °F) for high lumen IBHLL3 output.

## Features

- Six lumen outputs provide up to 38,000 lumens.

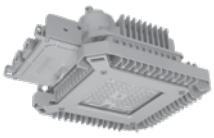
| Nominal Lumens ① | HID Equivalent | Model Number |
|---|---|---|
| 9,500 | 175-250W | IBLLL6/ IBLLPL6 |
| 15,000 | 250-400W | IBLLL7/ IBLLPL7 |
| 19,500 | 400-750W | IBLLL8/ IBLLPL8 |
| 24,000 | 1000W | IBHLL1/ IBHLPL1 |
| 30,000 | 1000-1500W | IBHLL2/ IBHLPL2 |
| 38,000 | 1500W | IBHLL3/ IBHLPL3 |

- Choice of optics for optimal light distribution in a variety of applications.
- Separate field wiring compartment with screw terminal block for easy and secure connection can accept 0.14 - 6 mm² (26 - 10 AWG) wire (non Quick Mount version only).
- Wiring compartment has two 3/4" NPT entries in bottom and one 3/4" NPT entry on top. Optional M20 metric adapters available. (Three close-up plugs provided when quick mount pendant system is ordered).
- Unique quick mount pendant system allows for easy prewiring without supporting the High Bay in place. Quick mount adapter hood includes one 3/4" NPT entry.
- Alternate mounting system allows for "Y" cable mount and easy wiring via a separate field wiring compartment with a screw terminal block.
- Floodlight mounting achieved by using Areamaster Generation 2 LED yoke bracket.
- Choice of color temperature (CCT): 5000K (70 CRI) cool white, 4000K (80 CRI) neutral white, or 3000K (80 CRI) warm white.
- Reported L70 is > 60,000 hours @ +65°C (+149 °F).
- Rugged and compact housing with superior thermal design translates to long luminaire life.
- Heavy duty, high temperature silicone rubber gaskets.
- Thermal shock and impact resistant clear or frosted glass lens.
- Standard 6 kV/3 kA surge protection. Optional 10 kV/5 kA additional surge protection available.
- Captive fasteners secure one-piece lens.
- Field replaceable LED driver and lens cover.
- Photometric data and electronic drawings available upon request.
- 5 year standard warranty. 10 year limited warranty for select part number configurations.



**IBLL — Clear Lens**

**IBHL — Frosted Lens**



**IBLLP — Frosted Lens**

**IBHLP — Clear Lens**

## Options

- Improved safety cable design with multiple retention points, purchase separately.
- Guard and visor available, *purchase separately*.
- Y mount cable assembly, *purchase separately*.
- Drain assembly, *purchase separately*.
- 10 kV/5 kA Surge Protection.

## Standard Materials

- Housing and lens cover: copperfree (4/10 of 1% max.) aluminum
- Gaskets: silicone rubber
- Bolts: stainless steel
- Close up plugs: (2) aluminum provided (Non Quick Mount version)
- Guard and safety cable: stainless steel

## Standard Finishes

- Housing, lens cover, quick mount body and hood; baked gray epoxy powder coat finish, electrostatically applied for complete uniform protection

## NEC/CEC Certifications and Compliances

- UL Standards: UL1598; UL1598A; UL 8750
- CSA Standards: CSA C22.2 No. 250.0
- cCSAus 164460 Certificate Number: IBLL – 70073607, IBHL – 70073608
- cETLus 104364566CHI
- Vibration Rating: 10G, 10 hours, 3 axis at first mode resonant frequency (IBLLL and IBHLL models only)

## NOM: Norma Oficial Mexicana

- NOM-003-SCFI-2014 (NMX-J-307-ANCE-2017)
- NOM Certificate: ULM-NOM-09900

## IECEE CB Certificates and Compliances

- IEC 60598-1, IEC 60598-2-1
- IECEE CB Certificates: CB 164460-80075818
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK08
- Photobiological Safety, IEC 62778 and IEC 62471: Risk Group 1 (RG1)

## CE and UKCA Marking

- Safety: EN 60598-1, EN 60598-2-1, and EN 60598-2-5
- EMC: EN 61547, 61000-6-2, 61000-6-4, 61000-3-2; CISPR 15

*① Nominal lumen value for 5000K, Medium Beam, with clear glass. Detailed lumen information provided in tables.*

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

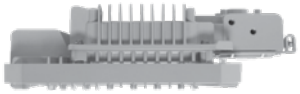
**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

**ABS Certifications**
- IBLL: 18-HS1714277-PDA
- IBHL: 18-HS1714279-PDA

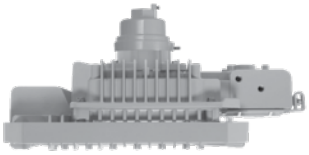
**DesignLights™ Consortium**
- Check DLC QPL for current list of products.

**Related Products**
- Baymaster and High Lumen LED Luminaires

## Illustrated Features

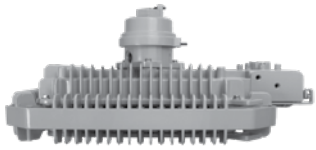


**IBLL**
9K, 15K, 19K Lumens with standard mounting

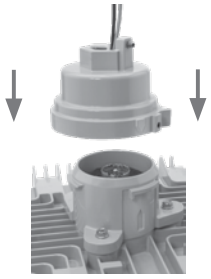


**IBLLP**
9K, 15K, 19K Lumens with quick mount pendant option

**IBHL**
24K, 30K, 38K Lumens with standard mounting

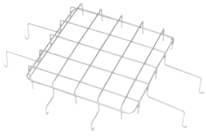


**IBHLP**
24K, 30K, 38K Lumens with quick mount pendant option

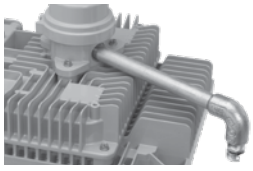


**Quick Mount Pendant System**
The Appleton patented quick mount pendant system allows for easy prewiring of a hood for quick, one person fixture installation. Simply align the arrows, push up, and rotate the luminaire a quarter turn until it locks into place. Specify quick mount pendent with a "P" in the fifth digit of the part number.

**Driver Assembly**
Replaceable drivers are waterproof (IP67) and offer standard 6 kV surge protection and over temperature protection.



**Optional Wire Guard**
Stainless steel wire guard can be used for additional protection.



**Optional Drain Assembly**
Includes 228.6 mm (9” long), 1/2" trade size conduit nipple, elbow and drain.

**Cable Mount Option**
The Baymaster High Bay can also be mounted with two Y style aircraft cables with spring clips, secured to eye bolts on the luminaire housing. Non quick mount models can be cable mounted and are wired through the 3/4" NPT entries in the wire box.

**Optional Fusing ∗**
Luminaire can be ordered with optional fusing. Fusing is not field installable.

**Replaceable Cover Assembly**
The replaceable cover assembly is available with clear or frosted glass.

∗ *Use of fuse voids marine rating.*

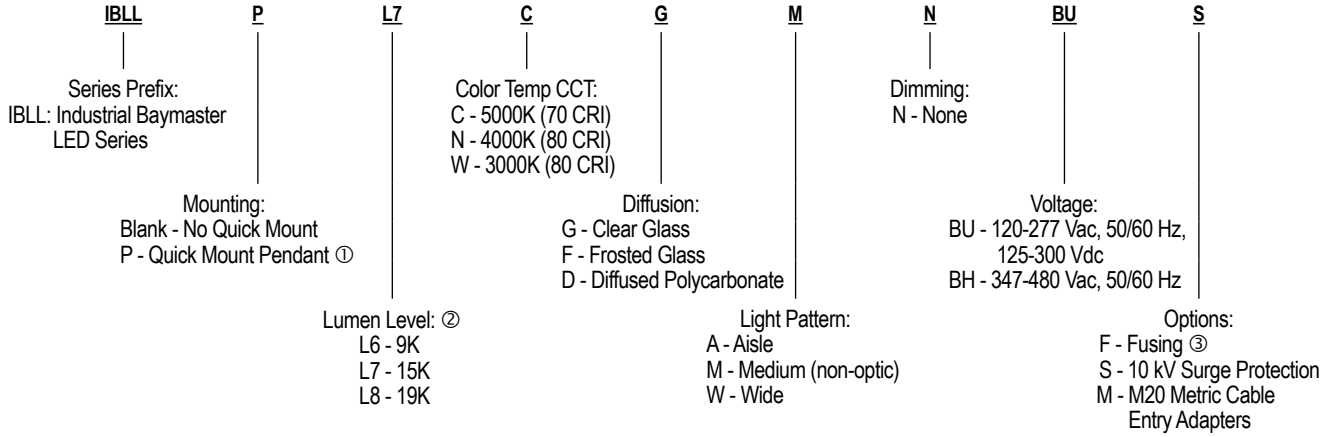
# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

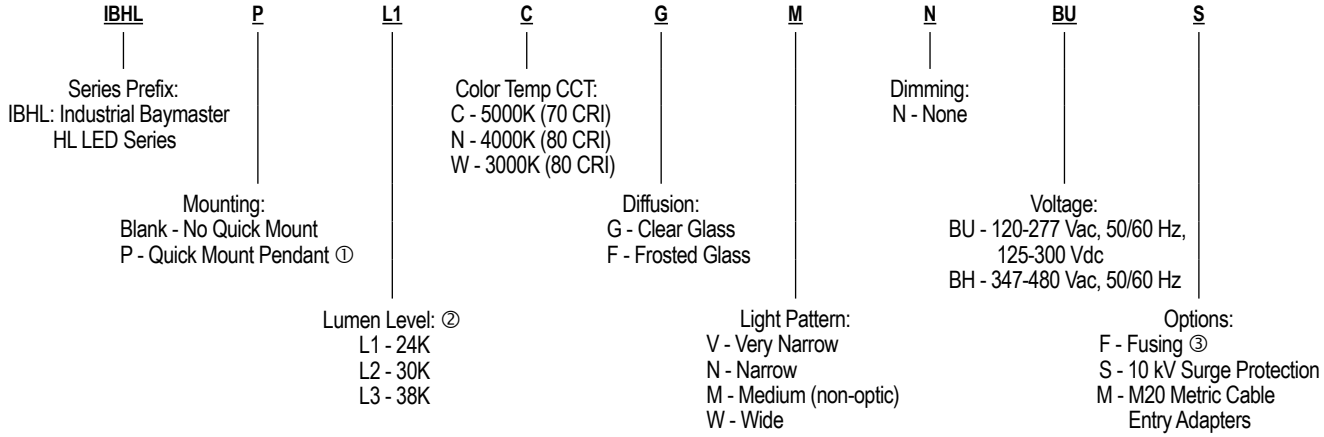
Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

**Order Using Catalog Numbering Guide — Industrial Baymaster™ LED Series Luminaires — Low Lumen Model**




**Order Using Catalog Numbering Guide — Industrial Baymaster™ LED Series Luminaires — High Lumen Model**




*① Quick mount pendant includes pre-wired, factory installed, quick mount pendant body and hood. Models without the quick pendant mount are wired through the 3/4" NPT entries and a provided screw terminal block in the wiring compartment.*
*② All lumen values are typical (tolerance +/- 10%).*
*③ Use of fuse voids Marine rating.*

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

**Lumen Output (Efficacy) — Low Lumen Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass** | | | | | | | | | | | | | | |
| | | Type I Aisle | 3000K | 80 | 7,250 | 104 | 4000K | 80 | 8,500 | 121 | 5000K | 70 | 9,350 | 134 |
| IBLLL6 | 175-250W | Type V | 3000K | 80 | 7,650 | 109 | 4000K | 80 | 9,000 | 129 | 5000K | 70 | 9,900 | 141 |
| | | Type V Wide | 3000K | 80 | 6,700 | 96 | 4000K | 80 | 7,850 | 112 | 5000K | 70 | 8,650 | 124 |
| | | Type I Aisle | 3000K | 80 | 11,050 | 100 | 4000K | 80 | 12,900 | 116 | 5000K | 70 | 14,250 | 128 |
| IBLLL7 | 250-400W | Type V | 3000K | 80 | 11,500 | 104 | 4000K | 80 | 13,650 | 123 | 5000K | 70 | 15,000 | 135 |
| | | Type V Wide | 3000K | 80 | 10,200 | 92 | 4000K | 80 | 11,900 | 107 | 5000K | 70 | 13,150 | 118 |
| | | Type I Aisle | 3000K | 80 | 14,250 | 94 | 4000K | 80 | 16,650 | 110 | 5000K | 70 | 18,350 | 121 |
| IBLLL8 | 400-750W | Type V | 3000K | 80 | 15,000 | 99 | 4000K | 80 | 17,550 | 115 | 5000K | 70 | 19,500 | 128 |
| | | Type V Wide | 3000K | 80 | 13,150 | 87 | 4000K | 80 | 15,350 | 101 | 5000K | 70 | 16,900 | 111 |
| **Frosted Glass** | | | | | | | | | | | | | | |
| | | Type I Aisle | 3000K | 80 | 5,950 | 85 | 4000K | 80 | 6,950 | 99 | 5000K | 70 | 7,700 | 110 |
| IBLLL6 | 175-250W | Type V | 3000K | 80 | 6,400 | 91 | 4000K | 80 | 7,500 | 107 | 5000K | 70 | 8,300 | 119 |
| | | Type V Wide | 3000K | 80 | 5,250 | 75 | 4000K | 80 | 6,150 | 88 | 5000K | 70 | 6,800 | 97 |
| | | Type I Aisle | 3000K | 80 | 9,100 | 82 | 4000K | 80 | 10,600 | 95 | 5000K | 70 | 11,700 | 105 |
| IBLLL7 | 250-400W | Type V | 3000K | 80 | 9,700 | 87 | 4000K | 80 | 11,350 | 102 | 5000K | 70 | 12,500 | 113 |
| | | Type V Wide | 3000K | 80 | 8,000 | 72 | 4000K | 80 | 9,350 | 84 | 5000K | 70 | 10,350 | 93 |
| | | Type I Aisle | 3000K | 80 | 11,700 | 77 | 4000K | 80 | 13,650 | 90 | 5000K | 70 | 15,000 | 99 |
| IBLLL8 | 400-750W | Type V | 3000K | 80 | 12,500 | 82 | 4000K | 80 | 14,500 | 95 | 5000K | 70 | 16,550 | 109 |
| | | Type V Wide | 3000K | 80 | 10,300 | 68 | 4000K | 80 | 12,000 | 79 | 5000K | 70 | 13,250 | 87 |
| **Diffused Polycarbonate** | | | | | | | | | | | | | | |
| | | Type I Aisle | 3000K | 80 | 5,750 | 82 | 4000K | 80 | 6,750 | 96 | 5000K | 70 | 7,450 | 106 |
| IBLLL6 | 175-250W | Type V | 3000K | 80 | 6,250 | 89 | 4000K | 80 | 7,300 | 104 | 5000K | 70 | 8,050 | 115 |
| | | Type V Wide | 3000K | 80 | 5,150 | 74 | 4000K | 80 | 6,000 | 86 | 5000K | 70 | 6,650 | 95 |
| | | Type I Aisle | 3000K | 80 | 8,800 | 79 | 4000K | 80 | 10,250 | 92 | 5000K | 70 | 11,350 | 102 |
| IBLLL7 | 250-400W | Type V | 3000K | 80 | 9,450 | 85 | 4000K | 80 | 11,000 | 99 | 5000K | 70 | 12,200 | 110 |
| | | Type V Wide | 3000K | 80 | 7,850 | 71 | 4000K | 80 | 9,160 | 83 | 5000K | 70 | 10,150 | 91 |
| | | Type I Aisle | 3000K | 80 | 11,350 | 75 | 4000K | 80 | 13,250 | 87 | 5000K | 70 | 14,650 | 96 |
| IBLLL8 | 400-750W | Type V | 3000K | 80 | 12,100 | 80 | 4000K | 80 | 14,150 | 93 | 5000K | 70 | 15,650 | 103 |
| | | Type V Wide | 3000K | 80 | 10,100 | 66 | 4000K | 80 | 11,800 | 78 | 5000K | 70 | 13,000 | 86 |

*① All lumen values are typical (tolerance +/-10%).*

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

**Lumen Output (Efficacy) — High Lumen Model** ①

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass** | | | | | | | | | | | | | | |
| IBHLL1 | 1000W | Type V Very Narrow | 3000K | 80 | 19,350 | 109 | 4000K | 80 | 20,250 | 114 | 5000K | 70 | 22,750 | 128 |
| | | Type V Narrow | 3000K | 80 | 20,850 | 117 | 4000K | 80 | 21,900 | 123 | 5000K | 70 | 25,000 | 140 |
| | | Type V | 3000K | 80 | 20,100 | 113 | 4000K | 80 | 21,300 | 120 | 5000K | 70 | 24,250 | 136 |
| | | Type V Wide | 3000K | 80 | 17,900 | 101 | 4000K | 80 | 18,800 | 106 | 5000K | 70 | 21,000 | 118 |
| IBHLL2 | 1000-1500W | Type V Very Narrow | 3000K | 80 | 23,450 | 106 | 4000K | 80 | 24,600 | 111 | 5000K | 70 | 27,500 | 124 |
| | | Type V Narrow | 3000K | 80 | 25,500 | 115 | 4000K | 80 | 26,700 | 120 | 5000K | 70 | 30,000 | 135 |
| | | Type V | 3000K | 80 | 24,650 | 111 | 4000K | 80 | 26,100 | 118 | 5000K | 70 | 29,750 | 134 |
| | | Type V Wide | 3000K | 80 | 21,800 | 98 | 4000K | 80 | 22,850 | 103 | 5000K | 70 | 25,650 | 116 |
| IBHLL3 | 1500W | Type V Very Narrow | 3000K | 80 | 29,500 | 99 | 4000K | 80 | 30,950 | 104 | 5000K | 70 | 34,750 | 117 |
| | | Type V Narrow | 3000K | 80 | 32,000 | 107 | 4000K | 80 | 33,600 | 113 | 5000K | 70 | 37,500 | 126 |
| | | Type V | 3000K | 80 | 31,000 | 104 | 4000K | 80 | 32,800 | 110 | 5000K | 70 | 37,400 | 126 |
| | | Type V Wide | 3000K | 80 | 27,550 | 92 | 4000K | 80 | 28,850 | 97 | 5000K | 70 | 32,400 | 109 |
| **Frosted Glass** | | | | | | | | | | | | | | |
| IBHLL1 | 1000W | Type V Very Narrow | 3000K | 80 | 17,200 | 97 | 4000K | 80 | 17,950 | 101 | 5000K | 70 | 20,000 | 112 |
| | | Type V Narrow | 3000K | 80 | 18,600 | 104 | 4000K | 80 | 19,350 | 109 | 5000K | 70 | 21,550 | 121 |
| | | Type V | 3000K | 80 | 16,850 | 95 | 4000K | 80 | 18,000 | 101 | 5000K | 70 | 20,500 | 115 |
| | | Type V Wide | 3000K | 80 | 14,250 | 80 | 4000K | 80 | 14,850 | 83 | 5000K | 70 | 16,700 | 94 |
| IBHLL2 | 1000-1500W | Type V Very Narrow | 3000K | 80 | 21,000 | 95 | 4000K | 80 | 21,950 | 99 | 5000K | 70 | 24,750 | 111 |
| | | Type V Narrow | 3000K | 80 | 22,650 | 102 | 4000K | 80 | 23,600 | 106 | 5000K | 70 | 26,000 | 117 |
| | | Type V | 3000K | 80 | 20,550 | 93 | 4000K | 80 | 18,000 | 81 | 5000K | 70 | 25,000 | 113 |
| | | Type V Wide | 3000K | 80 | 17,350 | 78 | 4000K | 80 | 23,600 | 106 | 5000K | 70 | 20,350 | 92 |
| IBHLL3 | 1500W | Type V Very Narrow | 3000K | 80 | 26,400 | 89 | 4000K | 80 | 27,500 | 92 | 5000K | 70 | 31,000 | 104 |
| | | Type V Narrow | 3000K | 80 | 28,600 | 96 | 4000K | 80 | 29,750 | 100 | 5000K | 70 | 33,500 | 112 |
| | | Type V | 3000K | 80 | 26,000 | 87 | 4000K | 80 | 27,700 | 93 | 5000K | 70 | 31,500 | 106 |
| | | Type V Wide | 3000K | 80 | 21,900 | 73 | 4000K | 80 | 22,800 | 77 | 5000K | 70 | 25,700 | 86 |

*① All lumen values are typical (tolerance +/-10%).*

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

**Electrical Specifications** ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Low Lumen Model** | | | | | |
| IBLLL6<br>IBLLPL6 | 120 Vac | 73 | 0.62 | >.9 | <20% |
| | 277 Vac | 71 | 0.27 | | |
| | 125 Vdc | 69 | 0.55 | N/A | N/A |
| | 300 Vdc | 68 | 0.23 | | |
| | 347 Vac | 71 | 0.21 | >.9 | <20% |
| | 480 Vac | 71 | 0.16 | | |
| IBLLL7<br>IBLLPL7 | 120 Vac | 111 | 0.94 | >.9 | <20% |
| | 277 Vac | 106 | 0.43 | | |
| | 125 Vdc | 113 | 0.90 | N/A | N/A |
| | 300 Vdc | 111 | 0.37 | | |
| | 347 Vac | 115 | 0.33 | >.9 | <20% |
| | 480 Vac | 115 | 0.25 | | |
| IBLLL8<br>IBLLPL8 | 120 Vac | 154 | 1.30 | >.9 | <20% |
| | 277 Vac | 146 | 0.56 | | |
| | 125 Vdc | 156 | 1.25 | N/A | N/A |
| | 300 Vdc | 152 | 0.51 | | |
| | 347 Vac | 150 | 0.43 | >.9 | <20% |
| | 480 Vac | 149 | 0.32 | | |
| **High Lumen Model** | | | | | |
| IBHLL1<br>IBHLPL1 | 120 Vac | 180 | 1.52 | >.9 | <20% |
| | 277 Vac | 176 | 0.67 | | |
| | 125 Vdc | 172 | 1.38 | N/A | N/A |
| | 300 Vdc | 170 | 0.57 | | |
| | 347 Vac | 179 | 0.52 | >.9 | <20% |
| | 480 Vac | 179 | 0.39 | | |
| IBHLL2<br>IBHLPL2 | 120 Vac | 231 | 1.94 | >.9 | <20% |
| | 277 Vac | 231 | 0.88 | | |
| | 125 Vdc | 220 | 1.76 | N/A | N/A |
| | 300 Vdc | 217 | 0.72 | | |
| | 347 Vac | 219 | 0.64 | >.9 | <20% |
| | 480 Vac | 219 | 0.47 | | |
| IBHLL3<br>IBHLPL3 | 120 Vac | 317 | 2.67 | >.9 | <20% |
| | 277 Vac | 303 | 1.15 | | |
| | 125 Vdc | 305 | 2.44 | N/A | N/A |
| | 300 Vdc | 298 | 0.99 | | |
| | 347 Vac | 299 | 0.87 | >.9 | <20% |
| | 480 Vac | 298 | 0.63 | | |

*Note: Surge Protection: Integral 6 kV surge protection. Option for up to 10 kV surge protection.*
*① All values are typical (tolerance +/-10%).*

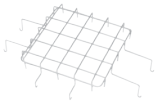
# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

**Accessories and Replacement Parts**

| | Description | Weight in kg (lb) | Catalog Number |
|---|---|---|---|
| **Quick-Connect Pendant Hood Replacement** | | | |
| | Baymaster Quick-Connect Pendant Hood Replacement | 0.4 (0.9) | **BMQCPH** |
| **Guard** | | | |
|  | Stainless steel | 0.2 (0.4) | **LGGUARD**<br>**LHGUARD** |
| **Safety Cable** | | | |
| | Stainless steel | 0.2 (0.4) | **LEDSC** |
| **Drain** | | | |
| | 228.6 mm (9” long), 1/2" trade size drain assembly for use with quick mount pendant hood | 0.5 (1.2) | **LEDDR9** |
| **Y Mounting Cable** | | | |
| | 1.5 m (5 ft.) cable mount — stainless steel<br>Includes two (5 ft.) Y cables with spring clips and four eye bolts | 0.5 (1.2) | **LEDC5** |
| **Safety Support Hooks** | | | |
| | 3/4 inch Male Hanger Loop<br>5/8 inch diameter wireway<br>75.4 kg (166 lbs.) weight rating | 0.2 (0.5) | **FHLM-75** |
| **Replacement Covers/Lenses** | | | |
| | Clear Glass — IBLLL6/IBLLPL6, IBLLL7/IBLLPL7, IBLLL8/IBLLPL8 | 2.2 (4.8) | **BLLCLEAR** |
| | Frosted Glass — IBLLL6/IBLLPL6, IBLLL7/IBLLPL7, IBLLL8/IBLLPL8 | 2.0 (4.5) | **BLLFROST** |
| | Diffused Polycarbonate — IBLLL6/IBLLPL6, IBLLL7/IBLLPL7, IBLLL8/ IBLLPL8 | 1.6 (3.5) | **BLLDIFFP** |
| | Clear Glass — IBHLL1/IBHLPL1, IBHLL2/IBHLPL2, IBHLL3/IBHLPL3 | 2.4 (5.3) | **BHLCLEAR** |
| | Frosted Glass — IBHLL1/IBHLPL1, IBHLL2/IBHLPL2, IBHLL3/IBHLPL3 | 2.4 (5.3) | **BHLFROST** |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

**Replacement Drivers**

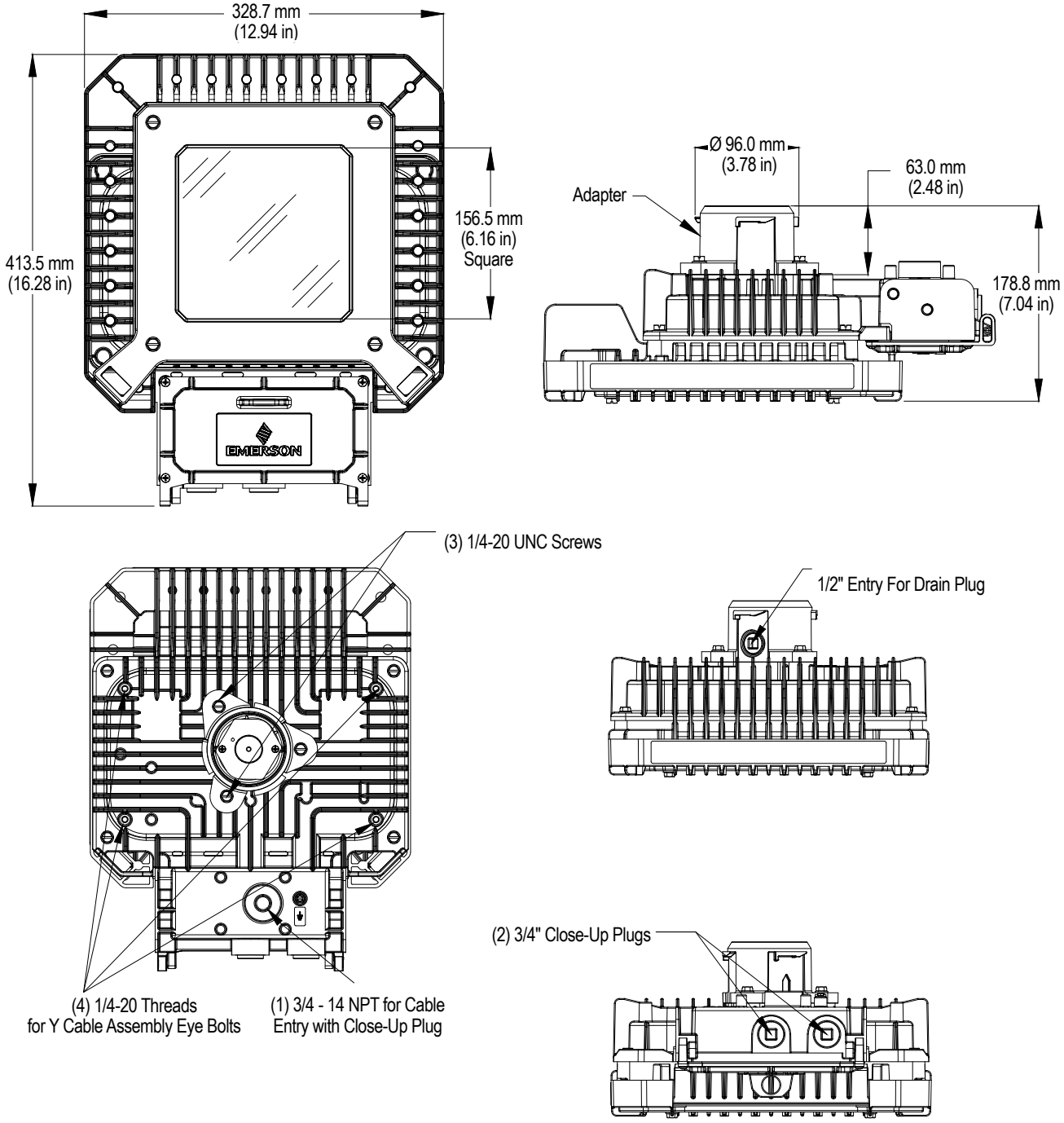
| | Model | Voltage | Driver Wattage | Constant Current Setting | Catalog Number |
|---|---|---|---|---|---|
| **Low Lumen Model** | | | | | |
| | IBLLL6C/ IBLLPL6C, IBLLL6N/ IBLLPL6N, IBLLL6W/ IBLLPL6W | BU | 100 Watt | 410mA | **APMS100C105UD41** |
| | | BH | | | **APMS100C105HD41** |
| | IBLLL7W/ IBLLPL7W | BU | 150 Watt | 650mA | **APMS150C105UD65** |
| | | BH | | | **APMS150C105HD65** |
| | IBLLL7C/ IBLLPL7C, IBLLL7N/ IBLLPL7N | BU | 150 Watt | 680mA | **APMS150C105UD68** |
| | | BH | | | **APMS150C105HD68** |
| | IBLLL8W/ IBLLPL8W | BU | 150 Watt | 890mA | **APMS150C105UD89** |
| | | BH | | | **APMS150C105HD89** |
| | IBLLL8C/ IBLLPL8C, IBLLL8N/ IBLLPL8N | BU | 150 Watt | 930mA | **APMS150C105UD93** |
| | | BH | | | **APMS150C105HD93** |
| **High Lumen Model** | | | | | |
| | IBHLL1C/ IBHLPL1C, IBHLL1N/ IBHLPL1N, IBHLL1W/ IBHLPL1W | BU | 100 Watt | 530mA | **APMS100C105UD53** |
| | | BH | | | **APMS100C105HD53** |
| | IBHLL2W/ IBHLPL2W | BU | 150 Watt | 650mA | **APMS150C105UD65** |
| | | BH | | | **APMS150C105HD65** |
| | IBHLL2C/ IBHLPL2C, IBHLL2N/ IBHLPL2N | BU | 150 Watt | 680mA | **APMS150C105UD68** |
| | | BH | | | **APMS150C105HD68** |
| | IBHLL3W/ IBHLPL3W | BU | 150 Watt | 890mA | **APMS150C105UD89** |
| | | BH | | | **APMS150C105HD89** |
| | IBHLL3C/ IBHLPL3C, IBHLL3N/ IBHLPL3N | BU | 150 Watt | 915mA | **APMS150C105UD91** |
| | | BH | | | **APMS150C105HD91** |

**Luminaire Weights**

| Description | Weight in kg (lbs) |
|---|---|
| Low Lumen Model — IBLLL6/IBLLPL6, IBLLL7/IBLLPL7, IBLLL8/IBLLPL8 Luminaires | 9.8 (21.6) |
| High Lumen Model — IBHLL1/IBHLPL1, IBHLL2/IBHLPL2, IBHLL3/IBHLPL3 Luminaires | 16.1 (35.4) |

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

**IBLLP Dimensions in Millimeters (Inches) — High Bay — With Quick Mount Pendent System — Low Lumen Model**



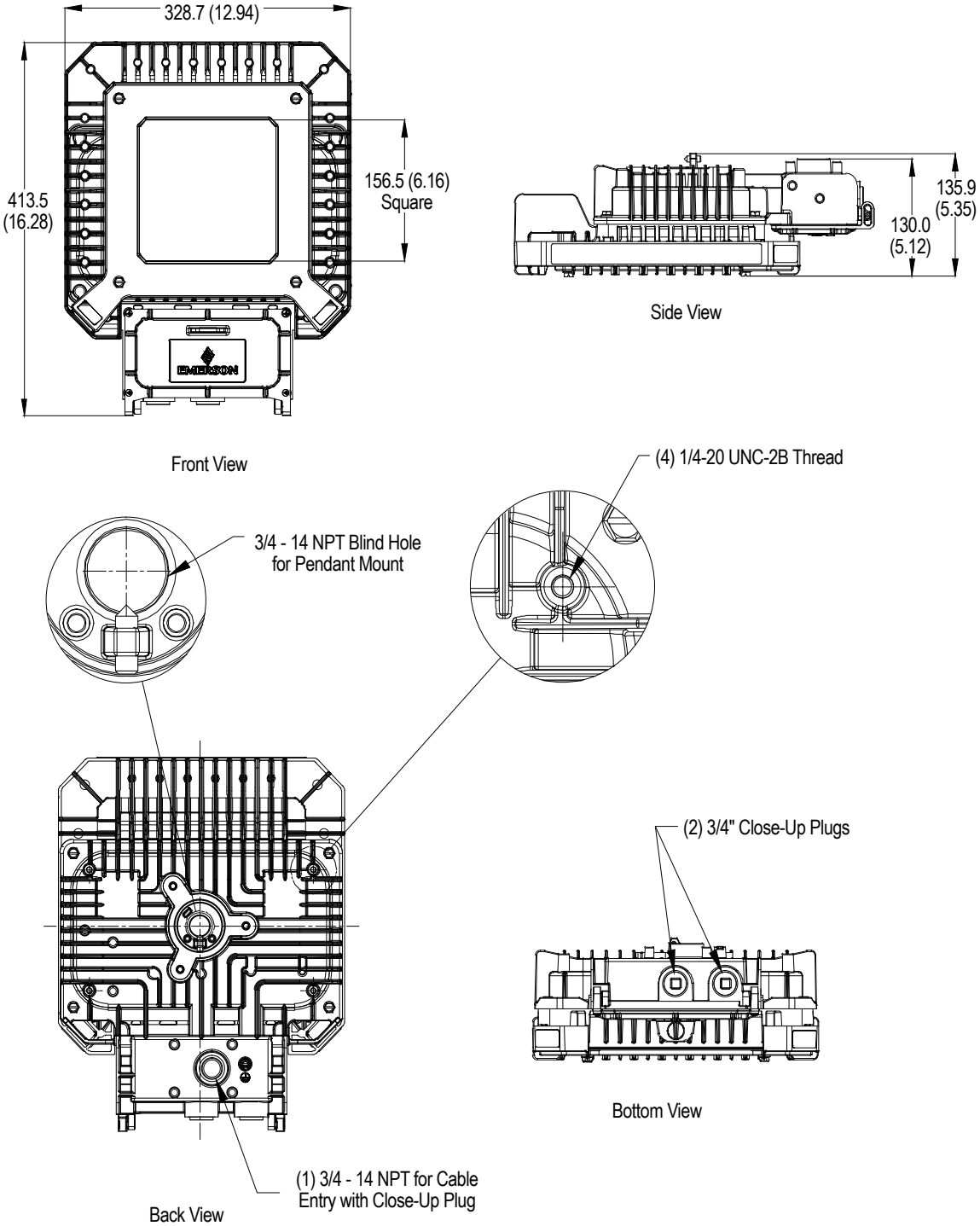
# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

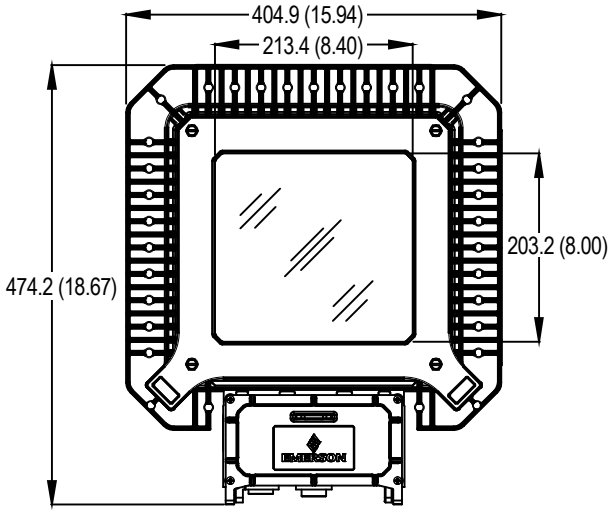
**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

**IBLL Dimensions in Millimeters (Inches) — High Bay — No Mount — Low Lumen Model**

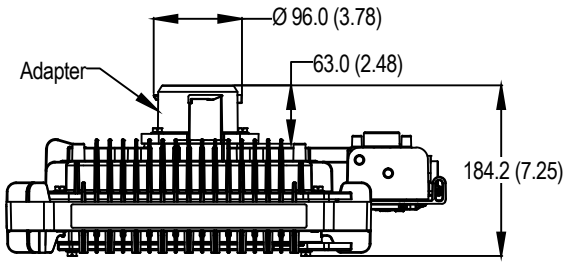


**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

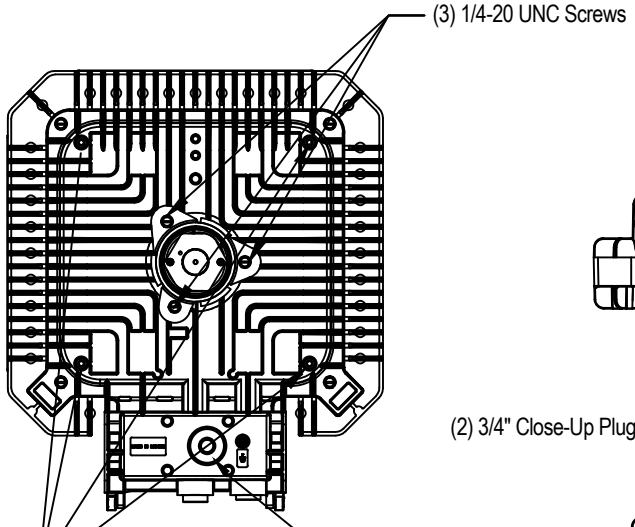
**IBHLP Dimensions in Millimeters (Inches) — High Bay — With Quick Mount Pendant System — High Lumen Model**



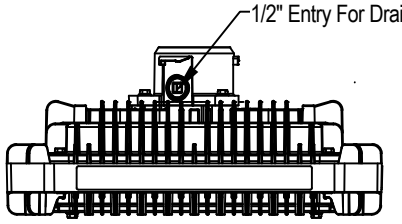
Front View



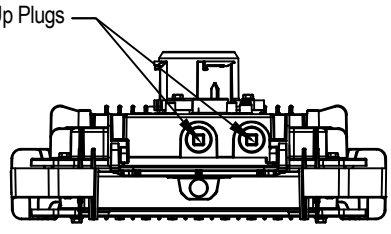
Side View



Back View



Top View



Bottom View

*(1) 3/4 - 14 NPT*
*FOR CABLE ENTRY WITH*
*CLOSE-UP PLUG*

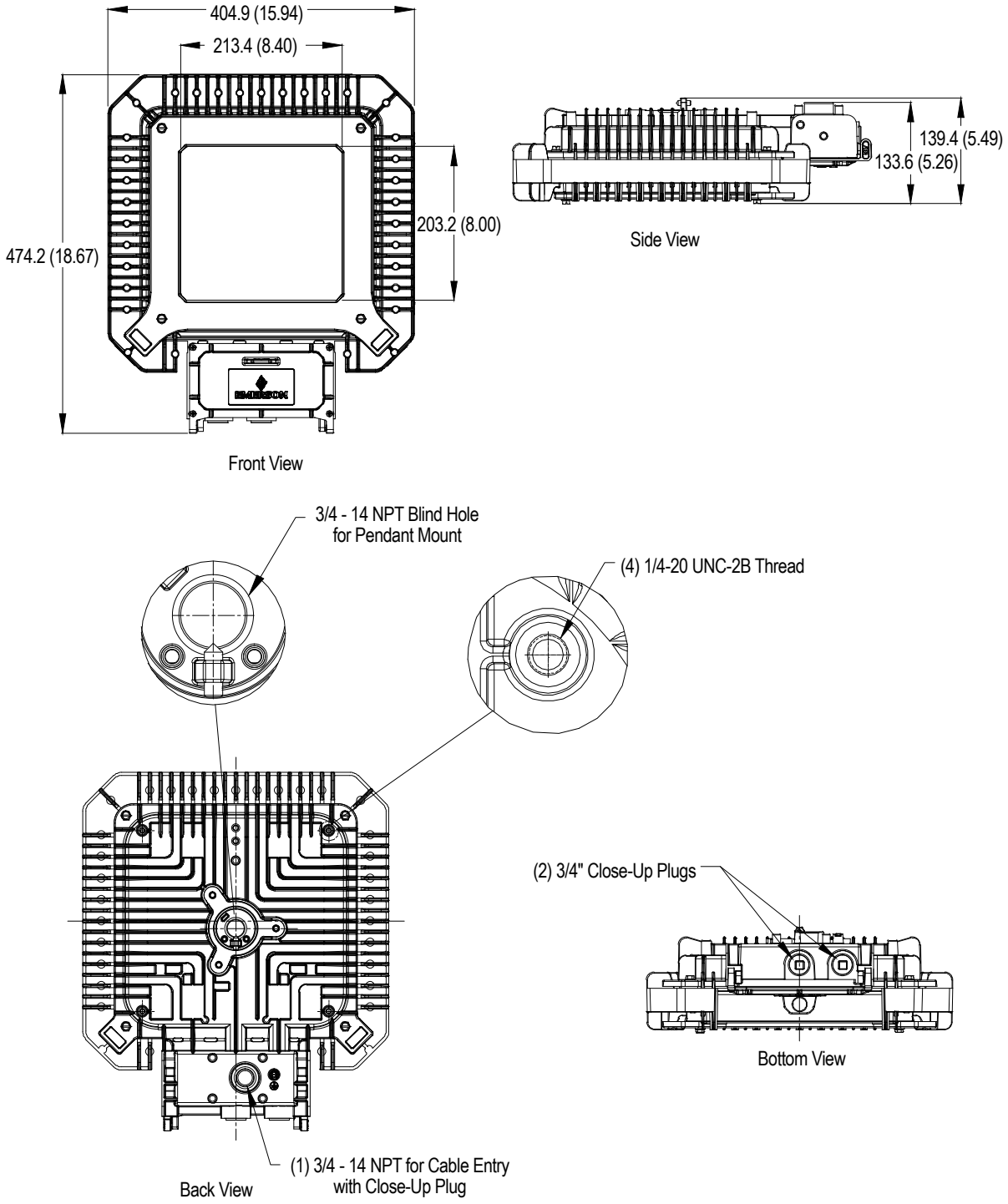
# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

**IBHL Dimensions in Millimeters (Inches) — High Bay — No Mount — High Lumen Model**



# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

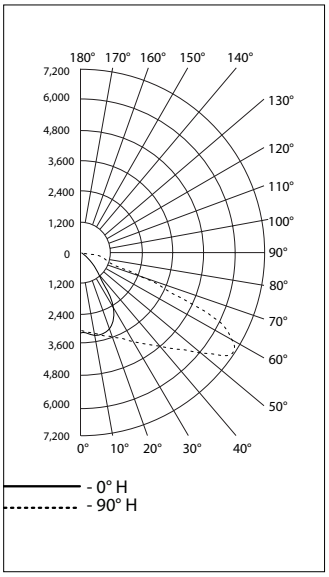
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Aisle, Clear Glass, 5000K CCT

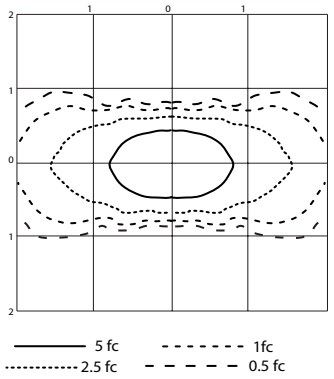
REPORT NUMBER: **BLLPL6CGANBU**

Luminaire Lumens 9,679

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,820.3 | 29.1% |
| 0-40 | 4,676.6 | 48.3% |
| 0-60 | 8,307.1 | 85.8% |
| 60-90 | 1,371.3 | 14.2% |
| 70-100 | 171.1 | 1.8% |
| 90-120 | 0 | 0% |
| 0-90 | 9,678.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 9,678.4 | 100% |

**LUMENS PER ZONE**

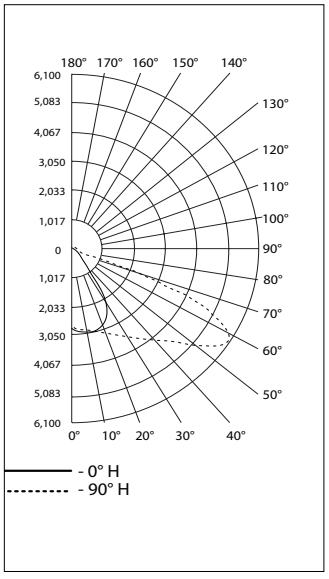
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 306.6 | 3.2% | 90 -100 |
| 10-20 | 952.6 | 9.8% | 100 -110 |
| 20-30 | 1,561.2 | 16.1% | 110 -120 |
| 30-40 | 1,856.2 | 19.2% | 120 -130 |
| 40-50 | 1,764.9 | 18.2% | 130 -140 |
| 50-60 | 1,865.7 | 19.3% | 140 -150 |
| 60-70 | 1,200.2 | 12.4% | 150 -160 |
| 70-80 | 159.2 | 1.6% | 160 -170 |
| 80-90 | 11.9 | 0.1% | 170 -180 |

### Aisle, Clear Glass, 3000K CCT

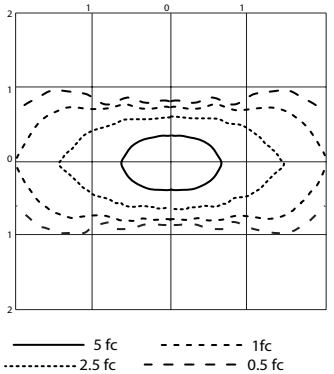
REPORT NUMBER: **BLLPL6WGANBU**

Luminaire Lumens 8,432

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,507.0 | 29.7% |
| 0-40 | 4,141.6 | 49.1% |
| 0-60 | 7,265.0 | 86.2% |
| 60-90 | 1,166.5 | 13.8% |
| 70-100 | 139.9 | 1.7% |
| 90-120 | 0 | 0% |
| 0-90 | 8,431.5 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 8,431.5 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 275.1 | 3.3% | 90-100 |
| 10-20 | 849.7 | 10.1% | 100-110 |
| 20-30 | 1,382.2 | 16.4% | 110-120 |
| 30-40 | 1,634.5 | 19.4% | 120-130 |
| 40-50 | 1,536.3 | 18.2% | 130-140 |
| 50-60 | 1,587.2 | 18.8% | 140-150 |
| 60-70 | 1,026.6 | 12.2% | 150-160 |
| 70-80 | 128.8 | 1.5% | 160-170 |
| 80-90 | 11.1 | 0.1% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

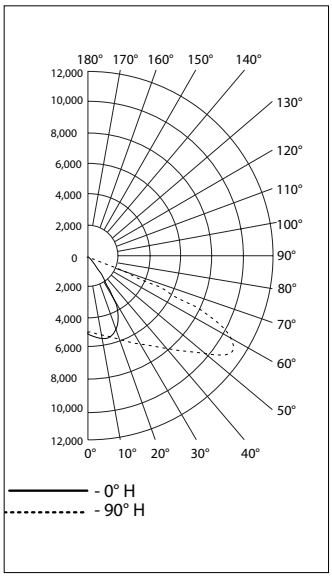
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Aisle, Clear Glass, 5000K CCT

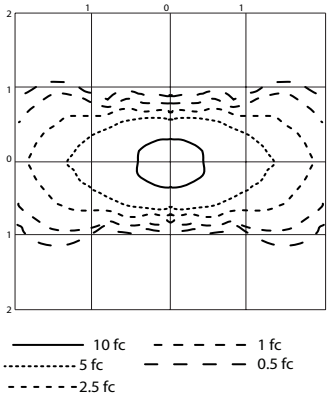
REPORT NUMBER: **BLLPL7CGANBU**

Luminaire Lumens 15,234

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,456.3 | 29.3% |
| 0-40 | 7,383.0 | 48.5% |
| 0-60 | 13,097.7 | 86% |
| 60-90 | 2,136.1 | 14% |
| 70-100 | 262.4 | 1.7% |
| 90-120 | 0 | 0% |
| 0-90 | 15,233.8 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 15,233.8 | 100% |

**LUMENS PER ZONE**

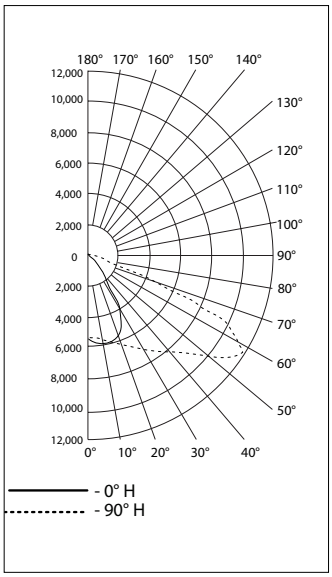
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 484.8 | 3.2% | 90-100 |
| 10-20 | 1,506.6 | 9.9% | 100-110 |
| 20-30 | 2,464.8 | 16.2% | 110-120 |
| 30-40 | 2,926.7 | 19.2% | 120-130 |
| 40-50 | 2,779.6 | 18.2% | 130-140 |
| 50-60 | 2,935.1 | 19.3% | 140-150 |
| 60-70 | 1,873.7 | 12.3% | 150-160 |
| 70-80 | 243.9 | 1.6% | 160-170 |
| 80-90 | 18.5 | 0.1% | 170-180 |

### Aisle, Clear Glass, 3000K CCT

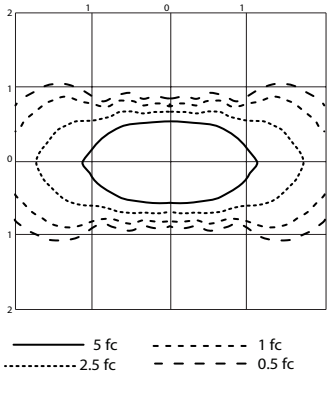
REPORT NUMBER: **BLLPL7WGANBU**

Luminaire Lumens 12,579

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,750.7 | 29.8% |
| 0-40 | 6,191.4 | 49.2% |
| 0-60 | 10,866.4 | 86.4% |
| 60-90 | 1,711.8 | 13.6% |
| 70-100 | 199.6 | 1.6% |
| 90-120 | 0 | 0% |
| 0-90 | 12,578.2 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 12,578.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 412.0 | 3.3% | 90-100 |
| 10-20 | 1,272.1 | 10.1% | 100-110 |
| 20-30 | 2,066.7 | 16.4% | 110-120 |
| 30-40 | 2,440.6 | 19.4% | 120-130 |
| 40-50 | 2,296.4 | 18.3% | 130-140 |
| 50-60 | 2,378.7 | 18.9% | 140-150 |
| 60-70 | 1,512.1 | 12.0% | 150-160 |
| 70-80 | 183.7 | 1.5% | 160-170 |
| 80-90 | 15.9 | 0.1% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

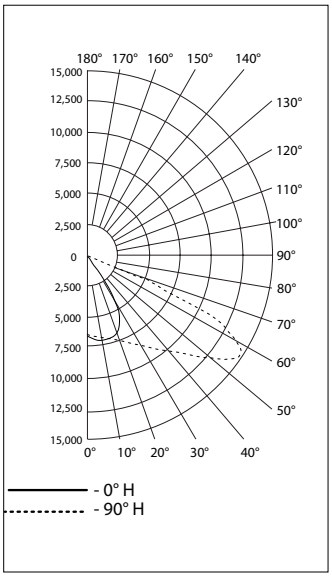
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Aisle, Clear Glass, 5000K CCT

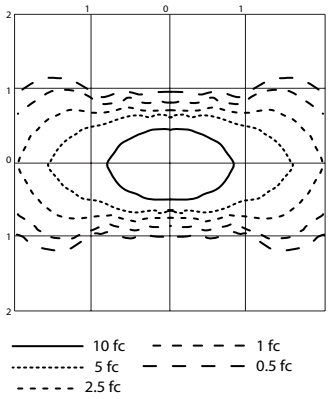
REPORT NUMBER: **BLLPL8CGANBU**

Luminaire Lumens 19,774

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 5,782.9 | 29.2% |
| 0-40 | 9,577.4 | 48.4% |
| 0-60 | 17,028.6 | 86.1% |
| 60-90 | 2,744.6 | 13.9% |
| 70-100 | 335.8 | 1.7% |
| 90-120 | 0 | 0% |
| 0-90 | 19,773.2 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 19,773.2 | 100% |

**LUMENS PER ZONE**

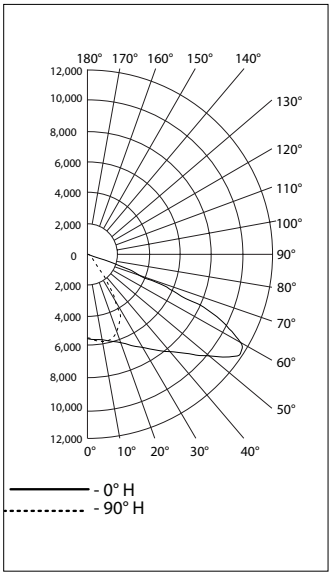
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 629.4 | 3.2% | 90-100 |
| 10-20 | 1,956.0 | 9.9% | 100-110 |
| 20-30 | 3,197.4 | 16.2% | 110-120 |
| 30-40 | 3,794.6 | 19.2% | 120-130 |
| 40-50 | 3,616.6 | 18.3% | 130-140 |
| 50-60 | 3,834.5 | 19.4% | 140-150 |
| 60-70 | 2,408.8 | 12.2% | 150-160 |
| 70-80 | 310.4 | 1.6% | 160-170 |
| 80-90 | 25.4 | 0.1% | 170-180 |

### Aisle, Clear Glass, 3000K CCT

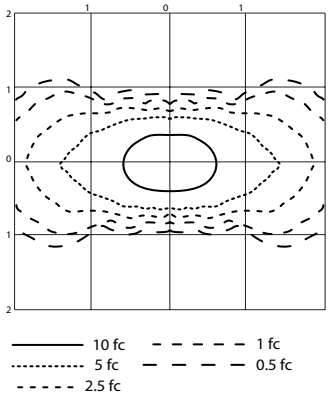
REPORT NUMBER: **BLLPL8WGANBU**

Luminaire Lumens 16,350

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,884.8 | 29.9% |
| 0-40 | 8,058.6 | 49.3% |
| 0-60 | 14,153.0 | 86.6% |
| 60-90 | 2,196.0 | 13.4% |
| 70-100 | 253.6 | 1.6% |
| 90-120 | 0 | 0% |
| 0-90 | 16,349.0 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 16,349.0 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 536.5 | 3.3% | 90-100 |
| 10-20 | 1,657.0 | 10.1% | 100-110 |
| 20-30 | 2,691.4 | 16.5% | 110-120 |
| 30-40 | 3,173.7 | 19.4% | 120-130 |
| 40-50 | 2,984.8 | 18.3% | 130-140 |
| 50-60 | 3,109.6 | 19.0% | 140-150 |
| 60-70 | 1,942.4 | 11.9% | 150-160 |
| 70-80 | 232.7 | 1.4% | 160-170 |
| 80-90 | 20.8 | 0.1% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

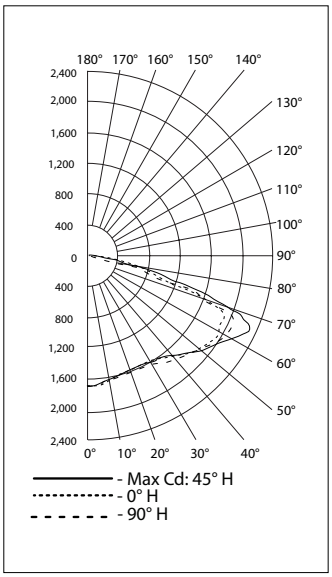
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Wide, Clear Glass, 5000K CCT

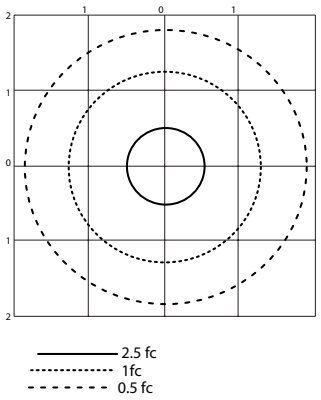
REPORT NUMBER: **BLLPL6CGWNBU**

Luminaire Lumens 8,682

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,348.9 | 15.5% |
| 0-40 | 2,382.8 | 27.4% |
| 0-60 | 5,543.9 | 63.9% |
| 60-90 | 3,138.6 | 36.1% |
| 70-100 | 1,078.8 | 12.4% |
| 90-120 | 0 | 0% |
| 0-90 | 8,682.5 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 8,682.5 | 100% |

**LUMENS PER ZONE**

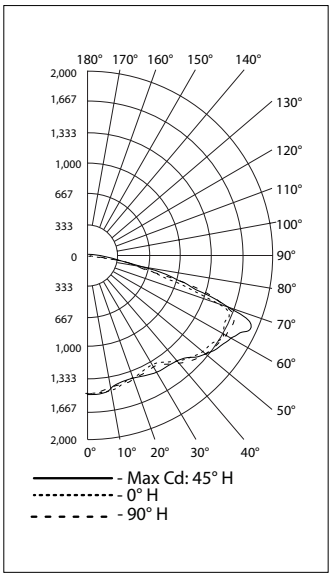
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 158.9 | 1.8% | 90-100 |
| 10-20 | 454.7 | 5.2% | 100-110 |
| 20-30 | 735.4 | 8.5% | 110-120 |
| 30-40 | 1,033.9 | 11.9% | 120-130 |
| 40-50 | 1,392.0 | 16.0% | 130-140 |
| 50-60 | 1,769.1 | 20.4% | 140-150 |
| 60-70 | 2,059.8 | 23.7% | 150-160 |
| 70-80 | 1,037.6 | 11.9% | 160-170 |
| 80-90 | 41.3 | 0.5% | 170-180 |

### Type V Wide, Clear Glass, 3000K CCT

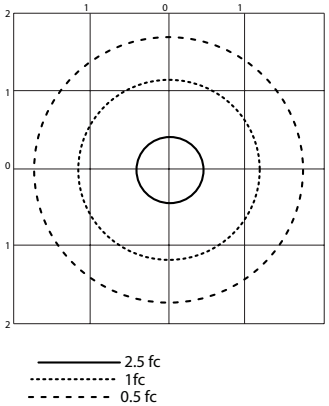
REPORT NUMBER: **BLLPI6WGWNBU**

Luminaire Lumens 7,506

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,211.6 | 16.1% |
| 0-40 | 2,131.1 | 28.4% |
| 0-60 | 4,876.2 | 65% |
| 60-90 | 2,629.4 | 35% |
| 70-100 | 905.2 | 12.1% |
| 90-120 | 0 | 0% |
| 0-90 | 7,505.6 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 7,505.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 143.6 | 1.9% | 90-100 |
| 10-20 | 409.1 | 5.5% | 100-110 |
| 20-30 | 658.9 | 8.8% | 110-120 |
| 30-40 | 919.5 | 12.3% | 120-130 |
| 40-50 | 1,224.7 | 16.3% | 130-140 |
| 50-60 | 1,520.4 | 20.3% | 140-150 |
| 60-70 | 1,724.2 | 23.0% | 150-160 |
| 70-80 | 870.4 | 11.6% | 160-170 |
| 80-90 | 34.8 | 0.5% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

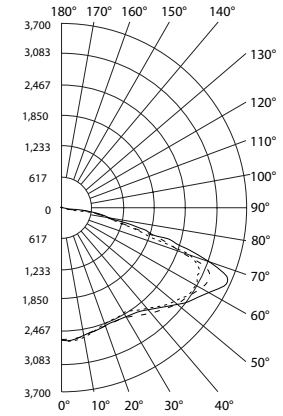
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Wide, Clear Glass, 5000K CCT

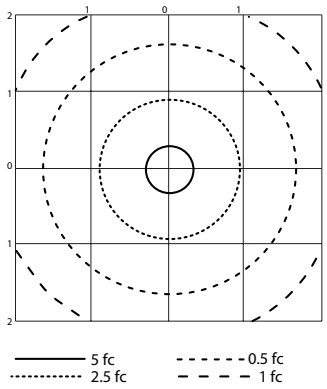
REPORT NUMBER: **BLLPL7CGWNBU**

Luminaire Lumens 13,608

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,119.5 | 15.6% |
| 0-40 | 3,743.3 | 27.5% |
| 0-60 | 8,711.1 | 64% |
| 60-90 | 4,897.4 | 36% |
| 70-100 | 1,668.8 | 12.3% |
| 90-120 | 0 | 0% |
| 0-90 | 13,608.5 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 13,608.5 | 100% |

**LUMENS PER ZONE**

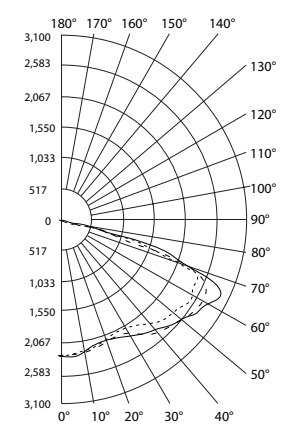
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 249.6 | 1.8% | 90-100 |
| 10-20 | 714.5 | 5.3% | 100-110 |
| 20-30 | 1,155.4 | 8.5% | 110-120 |
| 30-40 | 1,623.7 | 11.9% | 120-130 |
| 40-50 | 2,188.0 | 16.1% | 130-140 |
| 50-60 | 2,779.9 | 20.4% | 140-150 |
| 60-70 | 3,228.7 | 23.7% | 150-160 |
| 70-80 | 1,606.3 | 11.8% | 160-170 |
| 80-90 | 62.4 | 0.5% | 170-180 |

### Type V Wide, Clear Glass, 3000K CCT

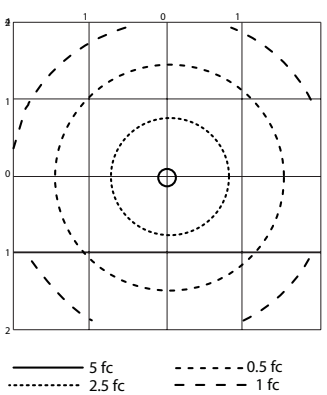
REPORT NUMBER: **BLLPI7WGWNBU**

Luminaire Lumens 11,351

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 1,832.3 | 16.1% |
| 0-40 | 3,226.8 | 28.4% |
| 0-60 | 7,385.1 | 65.1% |
| 60-90 | 3,965.6 | 34.9% |
| 70-100 | 1,355.2 | 11.9% |
| 90-120 | 0 | 0% |
| 0-90 | 11,350.7 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 11,350.7 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 216.7 | 1.9% | 90-100 |
| 10-20 | 618.0 | 5.4% | 100-110 |
| 20-30 | 997.6 | 8.8% | 110-120 |
| 30-40 | 1,394.6 | 12.3% | 120-130 |
| 40-50 | 1,855.9 | 16.4% | 130-140 |
| 50-60 | 2,302.3 | 20.3% | 140-150 |
| 60-70 | 2,610.5 | 23.0% | 150-160 |
| 70-80 | 1,305.4 | 11.5% | 160-170 |
| 80-90 | 49.8 | 0.4% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

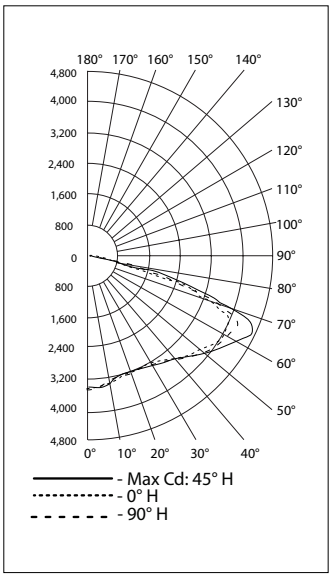
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Wide, Clear Glass, 5000K CCT

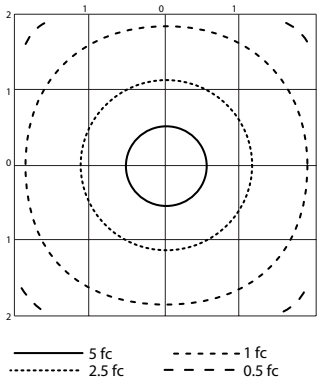
REPORT NUMBER: **BLLPL8CGWNBU**

Luminaire Lumens 17,710

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,747.6 | 15.5% |
| 0-40 | 4,856.1 | 27.4% |
| 0-60 | 11,344.9 | 64.1% |
| 60-90 | 6,365.5 | 35.9% |
| 70-100 | 2,134.3 | 12.1% |
| 90-120 | 0 | 0% |
| 0-90 | 17,710.3 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 17,710.3 | 100% |

**LUMENS PER ZONE**

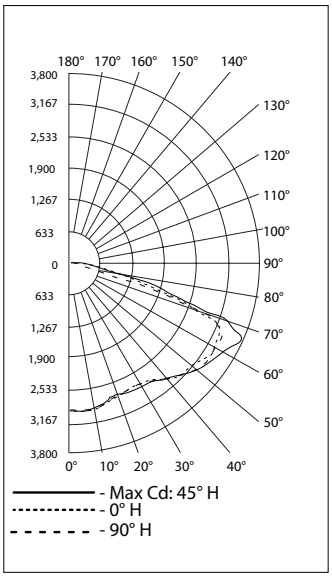
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 323.7 | 1.8% | 90-100 |
| 10-20 | 926.5 | 5.2% | 100-110 |
| 20-30 | 1,497.4 | 8.5% | 110-120 |
| 30-40 | 2,108.5 | 11.9% | 120-130 |
| 40-50 | 2,852.1 | 16.1% | 130-140 |
| 50-60 | 3,636.8 | 20.5% | 140-150 |
| 60-70 | 4,231.2 | 23.9% | 150-160 |
| 70-80 | 2,057.9 | 11.6% | 160-170 |
| 80-90 | 76.4 | 0.4% | 170-180 |

### Type V Wide, Clear Glass, 3000K CCT

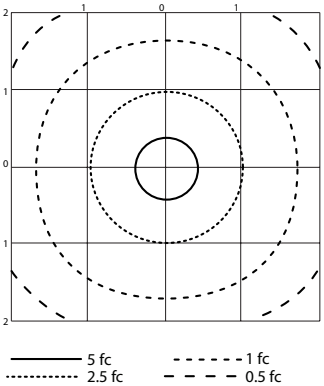
REPORT NUMBER: **BLLPL8WGWNBU**

Luminaire Lumens 14,676

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,363.9 | 16.1% |
| 0-40 | 4,165.7 | 28.4% |
| 0-60 | 9,561.5 | 65.1% |
| 60-90 | 5,114.9 | 34.9% |
| 70-100 | 1,722.7 | 11.7% |
| 90-120 | 0 | 0% |
| 0-90 | 14,676.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 14,676.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 279.6 | 1.9% | 90-100 |
| 10-20 | 797.4 | 5.4% | 100-110 |
| 20-30 | 1,287.0 | 8.8% | 110-120 |
| 30-40 | 1,801.8 | 12.3% | 120-130 |
| 40-50 | 2,405.1 | 16.4% | 130-140 |
| 50-60 | 2,990.7 | 20.4% | 140-150 |
| 60-70 | 3,392.2 | 23.1% | 150-160 |
| 70-80 | 1,661.4 | 11.3% | 160-170 |
| 80-90 | 61.3 | 0.4% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

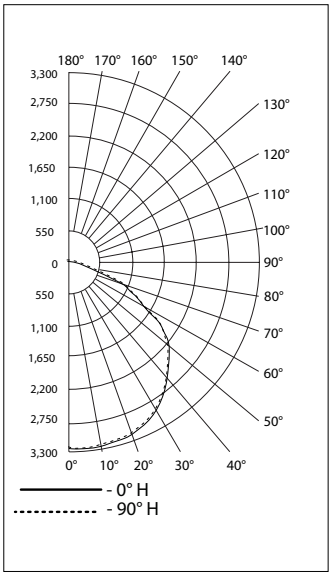
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 3000K CCT

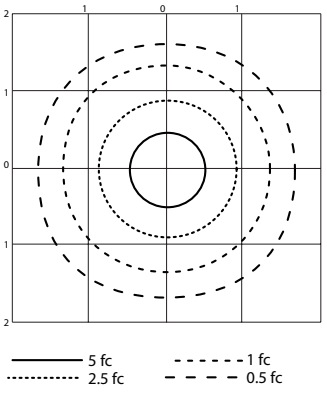
REPORT NUMBER: **BLLPL6CGMNBU**

Luminaire Lumens 9,758

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,652.8 | 27.2% |
| 0-40 | 4,452.5 | 45.6% |
| 0-60 | 8,136.0 | 83.4% |
| 60-90 | 1,621.4 | 16.6% |
| 70-100 | 448.1 | 4.6% |
| 90-120 | 0 | 0% |
| 0-90 | 9,757.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 9,757.4 | 100% |

**LUMENS PER ZONE**

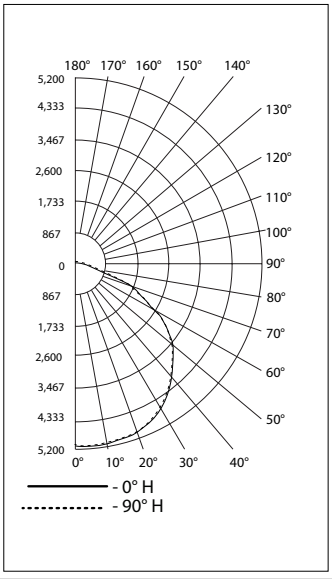
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 308.6 | 3.2% | 90-100 |
| 10-20 | 909.9 | 9.3% | 100-110 |
| 20-30 | 1,434.3 | 14.7% | 110-120 |
| 30-40 | 1,799.7 | 18.4% | 120-130 |
| 40-50 | 1,932.1 | 19.8% | 130-140 |
| 50-60 | 1,751.4 | 17.9% | 140-150 |
| 60-70 | 1,173.3 | 12.0% | 150-160 |
| 70-80 | 416.4 | 4.3% | 160-170 |
| 80-90 | 31.7 | 0.3% | 170-180 |

### Type V, Clear Glass, 5000K CCT

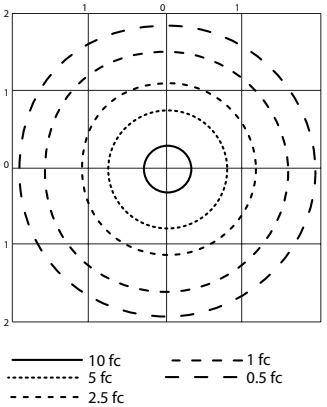
REPORT NUMBER: **BLLPL7CGMNBU**

Luminaire Lumens 15,392

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,187.7 | 27.2% |
| 0-40 | 7,034.1 | 45.7% |
| 0-60 | 12,847.0 | 83.5% |
| 60-90 | 2,544.4 | 16.5% |
| 70-100 | 704.8 | 4.6% |
| 90-120 | 0 | 0% |
| 0-90 | 15,391.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 15,391.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 486.6 | 3.2% | 90-100 |
| 10-20 | 1,435.2 | 9.3% | 100-110 |
| 20-30 | 2,265.9 | 14.7% | 110-120 |
| 30-40 | 2,846.4 | 18.5% | 120-130 |
| 40-50 | 3,051.4 | 19.8% | 130-140 |
| 50-60 | 2,761.4 | 17.9% | 140-150 |
| 60-70 | 1,839.6 | 12.0% | 150-160 |
| 70-80 | 655.0 | 4.3% | 160-170 |
| 80-90 | 49.8 | 0.3% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

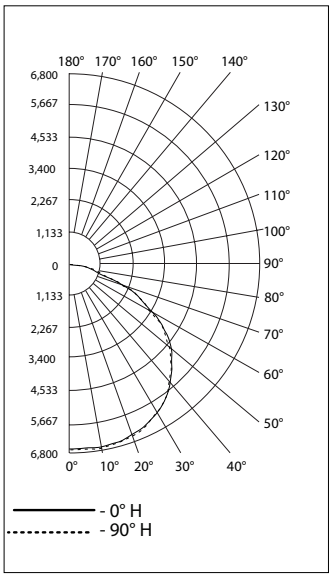
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Clear Glass, 5000K CCT

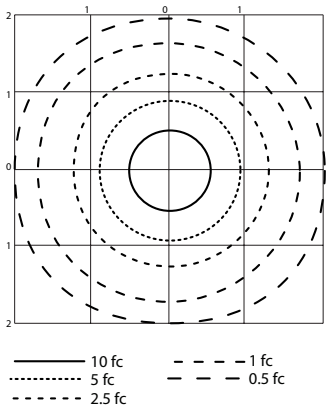
REPORT NUMBER: **BLLPL8CGMNBU**

Luminaire Lumens 20,097

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 5,491.5 | 27.3% |
| 0-40 | 9,219.3 | 45.9% |
| 0-60 | 16,805.9 | 83.6% |
| 60-90 | 3,290.0 | 16.4% |
| 70-100 | 901.9 | 4.5% |
| 90-120 | 0 | 0% |
| 0-90 | 20,095.9 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 20,095.9 | 100% |

**LUMENS PER ZONE**

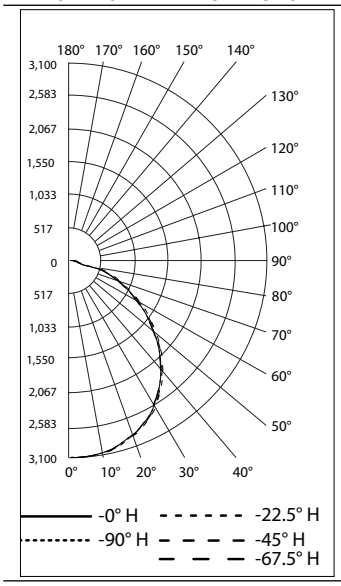
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 638.0 | 3.2% | 90-100 |
| 10-20 | 1,882.3 | 9.4% | 100-110 |
| 20-30 | 2,971.3 | 14.8% | 110-120 |
| 30-40 | 3,727.8 | 18.6% | 120-130 |
| 40-50 | 3,988.4 | 19.8% | 130-140 |
| 50-60 | 3,598.2 | 17.9% | 140-150 |
| 60-70 | 2,388.1 | 4.2% | 150-160 |
| 70-80 | 840.3 | 11.9% | 160-170 |
| 80-90 | 61.7 | 0.3% | 170-180 |

### Type V, Frosted Glass, 5000K CCT

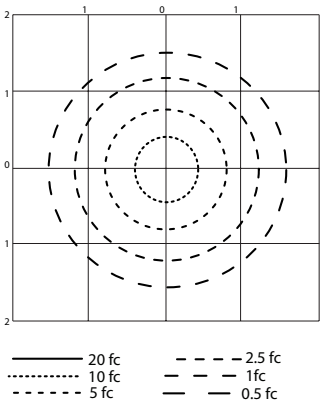
REPORT NUMBER: **BLLPL6CFMNBU**

Luminaire Lumens 8,209

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 2,400.5 | 29.2% |
| 0-40 | 3,913.4 | 47.7% |
| 0-60 | 6,732.3 | 82% |
| 60-90 | 1,475.5 | 18% |
| 70-100 | 553.0 | 6.7% |
| 90-120 | 0 | 0% |
| 0-90 | 8,207.9 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 8,207.9 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 291.7 | 3.6% | 90-100 |
| 10-20 | 838.5 | 10.2% | 100-110 |
| 20-30 | 1,270.3 | 15.5% | 110-120 |
| 30-40 | 1,512.9 | 18.4% | 120-130 |
| 40-50 | 1,517.4 | 18.5% | 130-140 |
| 50-60 | 1,301.5 | 15.9% | 140-150 |
| 60-70 | 922.5 | 11.2% | 150-160 |
| 70-80 | 468.5 | 5.7% | 160-170 |
| 80-90 | 84.5 | 1.0% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

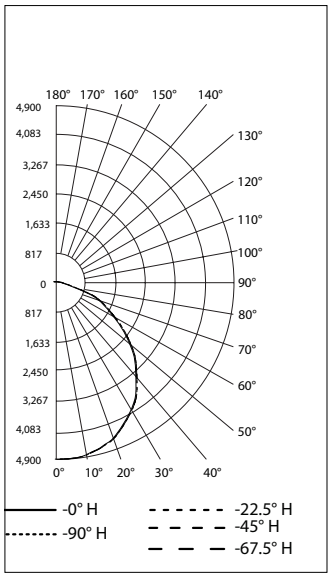
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Frosted Glass, 5000K CCT

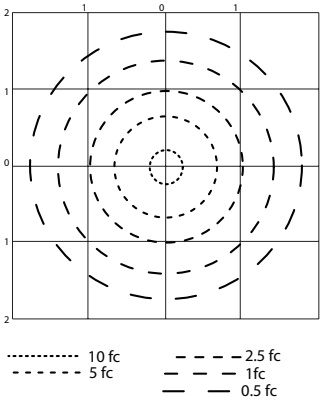
REPORT NUMBER: **BLLPL7CFMNBU**

Luminaire Lumens 12,955

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,794.5 | 29.3% |
| 0-40 | 6,181.5 | 47.7% |
| 0-60 | 10,623.4 | 82% |
| 60-90 | 2,330.5 | 18% |
| 70-100 | 875.2 | 6.8% |
| 90-120 | 0 | 0% |
| 0-90 | 12,953.9 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 12,953.9 | 100% |

**LUMENS PER ZONE**

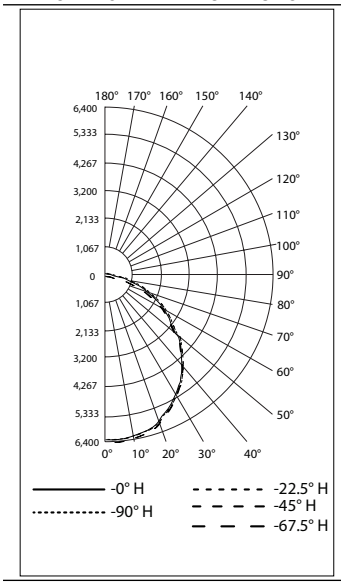
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 461.3 | 3.6% | 90-100 |
| 10-20 | 1,326.2 | 10.2% | 100-110 |
| 20-30 | 2,007.0 | 15.5% | 110-120 |
| 30-40 | 2,387.0 | 18.4% | 120-130 |
| 40-50 | 2,392.1 | 18.5% | 130-140 |
| 50-60 | 2,049.8 | 15.8% | 140-150 |
| 60-70 | 1,455.3 | 11.2% | 150-160 |
| 70-80 | 740.7 | 5.7% | 160-170 |
| 80-90 | 134.5 | 1.0% | 170-180 |

### Type V, Clear Glass, 5000K CCT

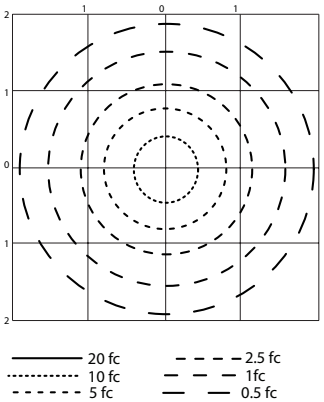
REPORT NUMBER: **BLLPL8CFMNBU**

Luminaire Lumens 16,711

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,907.8 | 29.4% |
| 0-40 | 7,989.9 | 47.8% |
| 0-60 | 13,718.2 | 82.1% |
| 60-90 | 2,991.4 | 17.9% |
| 70-100 | 1,120.8 | 6.7% |
| 90-120 | 0 | 0% |
| 0-90 | 16,709.6 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 16,709.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 597.1 | 3.6% | 90-100 |
| 10-20 | 1,715.9 | 10.3% | 100-110 |
| 20-30 | 2,594.8 | 15.5% | 110-120 |
| 30-40 | 3,082.1 | 18.4% | 120-130 |
| 40-50 | 3,086.8 | 18.5% | 130-140 |
| 50-60 | 2,641.5 | 15.8% | 140-150 |
| 60-70 | 1,870.6 | 11.2% | 150-160 |
| 70-80 | 949.8 | 5.7% | 160-170 |
| 80-90 | 171.0 | 1.0% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

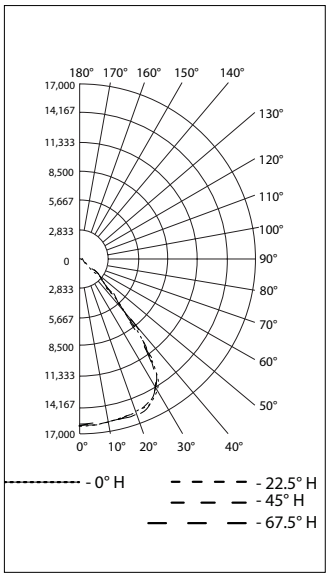
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Narrow, Clear Glass, 5000K CCT

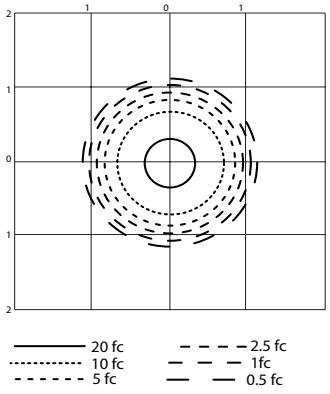
REPORT NUMBER: **BHLPL1CGNNBU**

Luminaire Lumens 24,459

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 13,267.9 | 54.3% |
| 0-40 | 20,732.9 | 84.8% |
| 0-60 | 23,891.8 | 97.7% |
| 60-90 | 561.6 | 2.3% |
| 70-100 | 242.1 | 1% |
| 90-120 | 0 | 0% |
| 0-90 | 24,453.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 24,453.4 | 100% |

**LUMENS PER ZONE**

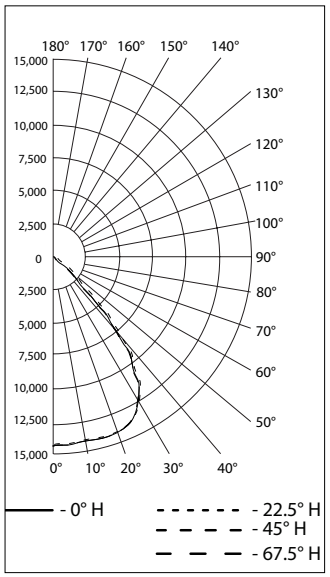
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,538.5 | 6.3% | 90 -100 |
| 10-20 | 4,553.8 | 18.6% | 100 -110 |
| 20-30 | 7,175.6 | 29.3% | 110 -120 |
| 30-40 | 7,465.0 | 30.5% | 120 -130 |
| 40-50 | 2,717.0 | 11.1% | 130 -140 |
| 50-60 | 441.9 | 1.8% | 140 -150 |
| 60-70 | 319.5 | 1.3% | 150 -160 |
| 70-80 | 215.3 | 0.9% | 160 -170 |
| 80-90 | 26.8 | 0.1% | 170 -180 |

### Type V Narrow, Clear Glass, 3000K CCT

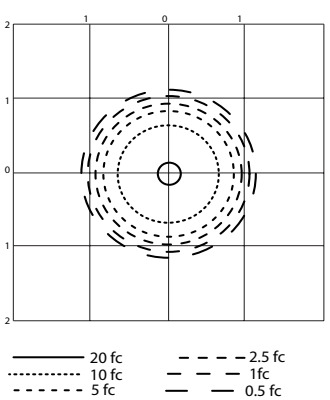
REPORT NUMBER: **BHLPL1WGNNBU**

Luminaire Lumens 21,648

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 11,658.8 | 53.9% |
| 0-40 | 18,259.6 | 84.4% |
| 0-60 | 21,173.3 | 97.8% |
| 60-90 | 469.0 | 2.2% |
| 70-100 | 195.8 | 0.9% |
| 90-120 | 0 | 0% |
| 0-90 | 21,642.2 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 21,642.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,538.5 | 6.3% | 90-100 |
| 10-20 | 4,553.8 | 18.6% | 100-110 |
| 20-30 | 7,175.6 | 29.3% | 110-120 |
| 30-40 | 7,465.0 | 30.5% | 120-130 |
| 40-50 | 2,717.0 | 11.1% | 130-140 |
| 50-60 | 441.9 | 1.8% | 140-150 |
| 60-70 | 319.5 | 1.3% | 150-160 |
| 70-80 | 215.3 | 0.9% | 160-170 |
| 80-90 | 26.8 | 0.1% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

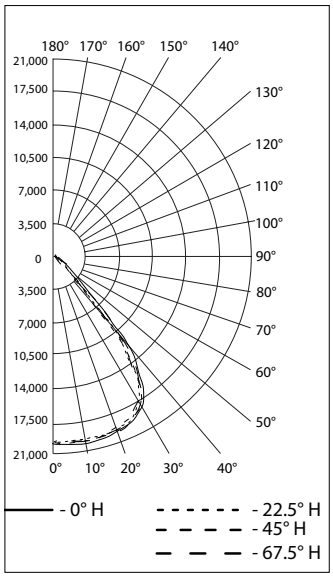
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Narrow, Clear Glass, 5000K CCT

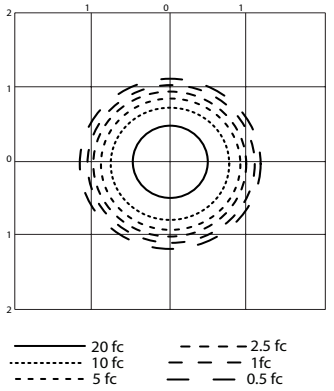
REPORT NUMBER: **BHLPL2CGNNBU**

Luminaire Lumens 30,396

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 16,453.1 | 54.1% |
| 0-40 | 25,742.1 | 84.7% |
| 0-60 | 29,699.7 | 97.7% |
| 60-90 | 688.8 | 2.3% |
| 70-100 | 296.7 | 1% |
| 90-120 | 0 | 0% |
| 0-90 | 30,388.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 30,388.4 | 100% |

**LUMENS PER ZONE**

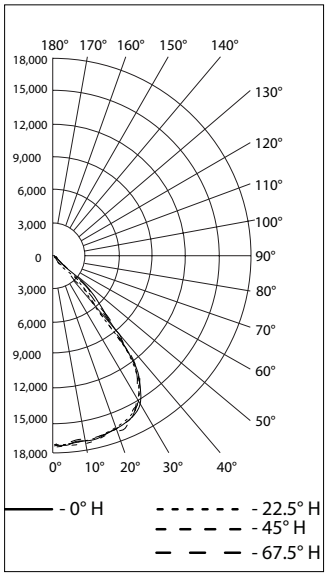
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,909.5 | 6.3% | 90-100 |
| 10-20 | 5,644.4 | 18.6% | 100-110 |
| 20-30 | 8,899.2 | 29.3% | 110-120 |
| 30-40 | 9,289.1 | 30.6% | 120-130 |
| 40-50 | 3,411.2 | 11.2% | 130-140 |
| 50-60 | 546.3 | 1.8% | 140-150 |
| 60-70 | 392.0 | 1.3% | 150-160 |
| 70-80 | 263.9 | 0.9% | 160-170 |
| 80-90 | 32.9 | 0.1% | 170-180 |

### Type V Narrow, Clear Glass, 3000K CCT

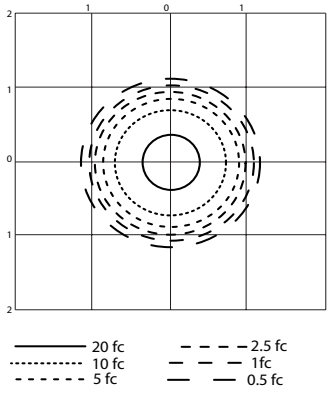
REPORT NUMBER: **BHLPL2WGNNBU**

Luminaire Lumens 25,785

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 13,938.3 | 54.1% |
| 0-40 | 21,797.3 | 84.6% |
| 0-60 | 25,219.8 | 97.8% |
| 60-90 | 559.0 | 2.2% |
| 70-100 | 234.4 | 0.9% |
| 90-120 | 0 | 0% |
| 0-90 | 25,778.8 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 25,778.8 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,633.4 | 6.3% | 90-100 |
| 10-20 | 4,795.3 | 18.6% | 100-110 |
| 20-30 | 7,509.5 | 29.1% | 110-120 |
| 30-40 | 7,859.0 | 30.5% | 120-130 |
| 40-50 | 2,974.1 | 11.5% | 130-140 |
| 50-60 | 448.4 | 1.7% | 140-150 |
| 60-70 | 324.5 | 1.3% | 150-160 |
| 70-80 | 208.1 | 0.8% | 160-170 |
| 80-90 | 26.3 | 0.1% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

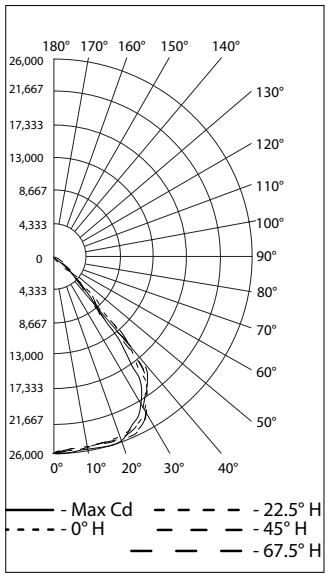
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Narrow, Clear Glass, 5000K CCT

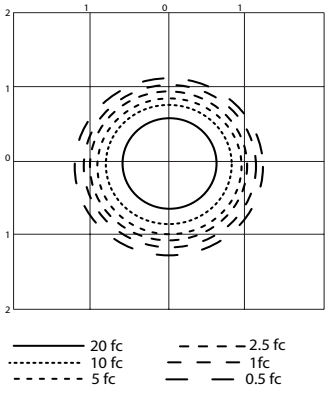
REPORT NUMBER: **BHLPL3CGNNBU**

Luminaire Lumens 39,041

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 21,202.1 | 54.3% |
| 0-40 | 33,033.7 | 84.6% |
| 0-60 | 38,116.4 | 97.7% |
| 60-90 | 915.1 | 2.3% |
| 70-100 | 393.2 | 1% |
| 90-120 | 0 | 0% |
| 0-90 | 39,031.5 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 39,031.5 | 100% |

**LUMENS PER ZONE**

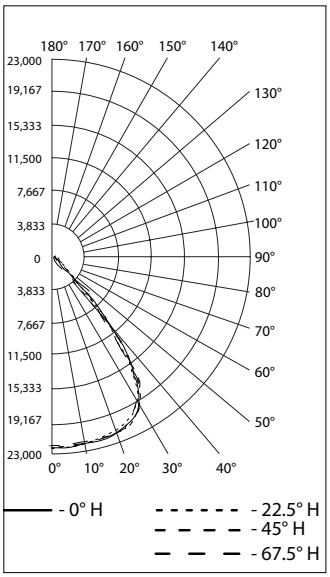
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 2,460.1 | 6.3% | 90-100 |
| 10-20 | 7,287.2 | 18.7% | 100-110 |
| 20-30 | 11,454.8 | 29.3% | 110-120 |
| 30-40 | 11,831.6 | 30.3% | 120-130 |
| 40-50 | 4,348.6 | 11.1% | 130-140 |
| 50-60 | 734.2 | 1.9% | 140-150 |
| 60-70 | 521.9 | 1.3% | 150-160 |
| 70-80 | 347.9 | 0.9% | 160-170 |
| 80-90 | 45.3 | 0.1% | 170-180 |

### Type V Narrow, Clear Glass, 3000K CCT

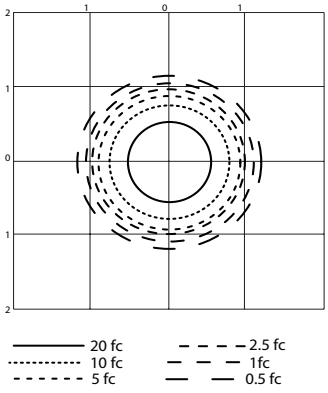
REPORT NUMBER: **BHLPL3WGNNBU**

Luminaire Lumens 33,341

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 18,117.0 | 54.4% |
| 0-40 | 28,265.5 | 84.8% |
| 0-60 | 32,605.1 | 97.8% |
| 60-90 | 727.8 | 2.2% |
| 70-100 | 306.3 | 0.9% |
| 90-120 | 0 | 0% |
| 0-90 | 33,332.9 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 33,332.9 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 2,123.9 | 6.4% | 90-100 |
| 10-20 | 6,237.4 | 18.7% | 100-110 |
| 20-30 | 9,755.7 | 29.3% | 110-120 |
| 30-40 | 10,148.5 | 30.4% | 120-130 |
| 40-50 | 3,760.3 | 11.3% | 130-140 |
| 50-60 | 579.3 | 1.7% | 140-150 |
| 60-70 | 421.5 | 1.3% | 150-160 |
| 70-80 | 272.0 | 0.8% | 160-170 |
| 80-90 | 34.3 | 0.1% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

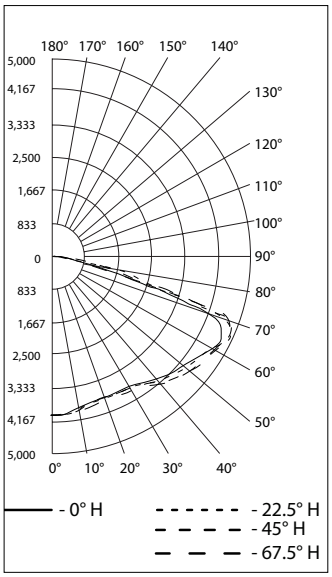
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Wide, Clear Glass, 5000K CCT

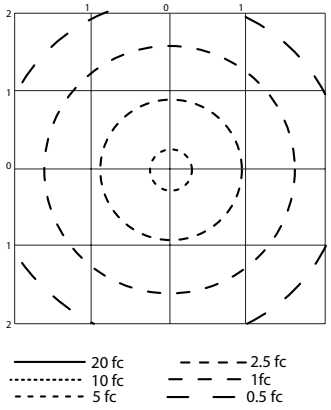
REPORT NUMBER: **BHLPL1CGWNBU**

Luminaire Lumens 20,665

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,267.5 | 15.8% |
| 0-40 | 5,791.9 | 28% |
| 0-60 | 13,265.1 | 64.2% |
| 60-90 | 7,399.9 | 35.8% |
| 70-100 | 2,655.4 | 12.8% |
| 90-120 | 0 | 0% |
| 0-90 | 20,665.1 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 20,665.1 | 100% |

**LUMENS PER ZONE**

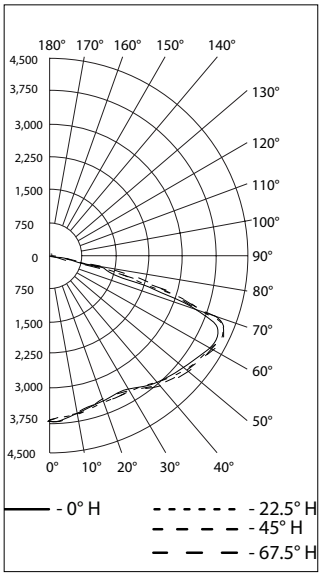
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 381.9 | 1.8% | 90-100 |
| 10-20 | 1,094.7 | 5.3% | 100-110 |
| 20-30 | 1,790.9 | 8.7% | 110-120 |
| 30-40 | 2,524.4 | 12.2% | 120-130 |
| 40-50 | 3,359.2 | 16.3% | 130-140 |
| 50-60 | 4,114.0 | 19.9% | 140-150 |
| 60-70 | 4,744.6 | 23.0% | 150-160 |
| 70-80 | 2,541.1 | 12.3% | 160-170 |
| 80-90 | 114.3 | 0.6% | 170-180 |

### Type V Wide, Clear Glass, 3000K CCT

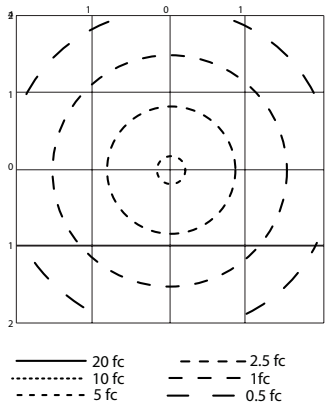
REPORT NUMBER: **BHLPL1WGWNBU**

Luminaire Lumens 18,689

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,003.0 | 16.1% |
| 0-40 | 5,307.9 | 28.4% |
| 0-60 | 12,100.9 | 64.7% |
| 60-90 | 6,587.8 | 35.3% |
| 70-100 | 2,340.7 | 12.5% |
| 90-120 | 0 | 0% |
| 0-90 | 18,688.8 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 18,688.8 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 352.0 | 1.9% | 90-100 |
| 10-20 | 1,008.1 | 5.4% | 100-110 |
| 20-30 | 1,642.9 | 8.8% | 110-120 |
| 30-40 | 2,305.0 | 12.3% | 120-130 |
| 40-50 | 3,058.7 | 16.4% | 130-140 |
| 50-60 | 3,734.3 | 20.0% | 140-150 |
| 60-70 | 4,247.1 | 22.7% | 150-160 |
| 70-80 | 2,247.7 | 12.0% | 160-170 |
| 80-90 | 93.1 | 0.5% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

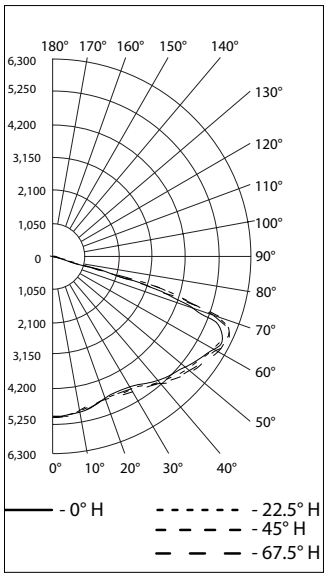
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Wide, Clear Glass, 5000K CCT

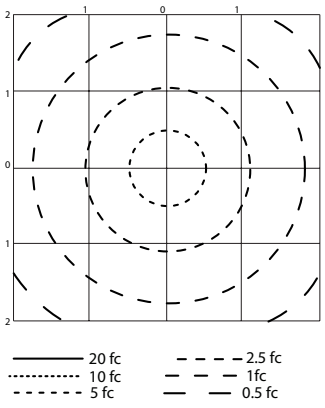
REPORT NUMBER: **BHLPL2CGWNBU**

Luminaire Lumens 25, 896

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,099.3 | 15.8% |
| 0-40 | 7,263.6 | 28% |
| 0-60 | 16,635.1 | 64.2% |
| 60-90 | 9,260.5 | 35.8% |
| 70-100 | 3,317.2 | 12.8% |
| 90-120 | 0 | 0% |
| 0-90 | 25,895.6 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 25,895.6 | 100% |

**LUMENS PER ZONE**

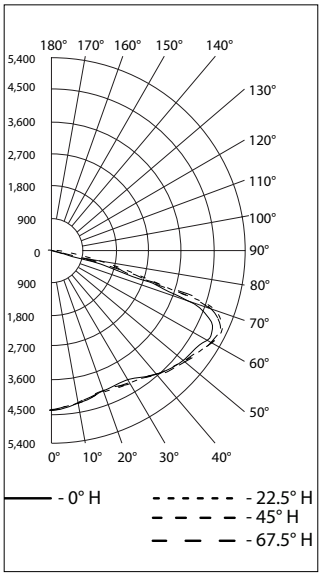
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 478.9 | 1.8% | 90-100 |
| 10-20 | 1,373.3 | 5.3% | 100-110 |
| 20-30 | 2,247.1 | 8.7% | 110-120 |
| 30-40 | 3,164.3 | 12.2% | 120-130 |
| 40-50 | 4,214.3 | 16.3% | 130-140 |
| 50-60 | 5,157.2 | 19.9% | 140-150 |
| 60-70 | 5,943.3 | 23.0% | 150-160 |
| 70-80 | 3,178.9 | 12.3% | 160-170 |
| 80-90 | 138.3 | 0.5% | 170-180 |

### Type V Wide, Clear Glass, 3000K CCT

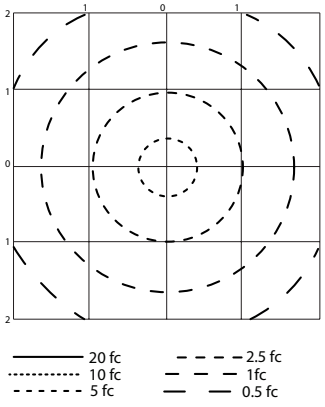
REPORT NUMBER: **BHLPL2WGWNBU**

Luminaire Lumens 22,278

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 3,582.7 | 16.1% |
| 0-40 | 6,332.7 | 28.4% |
| 0-60 | 14,434.3 | 64.8% |
| 60-90 | 7,843.9 | 35.2% |
| 70-100 | 2,774.1 | 12.5% |
| 90-120 | 0 | 0% |
| 0-90 | 22,278.2 | 100% |
| 90-180 | 0 | 0 |
| 0-180 | 22,278.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 420.0 | 1.9% | 90-100 |
| 10-20 | 1,202.3 | 5.4% | 100-110 |
| 20-30 | 1,960.4 | 8.8% | 110-120 |
| 30-40 | 2,749.9 | 12.3% | 120-130 |
| 40-50 | 3,650.1 | 16.4% | 130-140 |
| 50-60 | 4,451.5 | 20.0% | 140-150 |
| 60-70 | 5,069.8 | 22.8% | 150-160 |
| 70-80 | 2,669.2 | 12.0% | 160-170 |
| 80-90 | 104.9 | 0.5% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

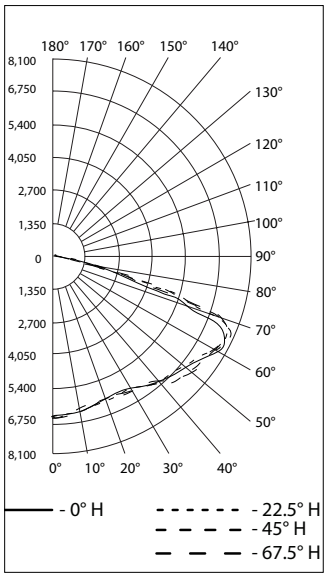
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Wide, Clear Glass, 5000K CCT

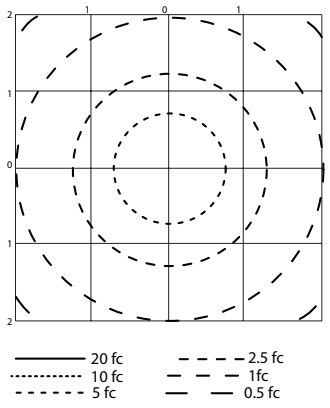
REPORT NUMBER: **BHLPL3CGWNBU**

Luminaire Lumens 33,374

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 5,286.5 | 15.8% |
| 0-40 | 9,369.3 | 28.1% |
| 0-60 | 21,475.2 | 64.3% |
| 60-90 | 11,898.9 | 35.7% |
| 70-100 | 4,224.4 | 12.7% |
| 90-120 | 0 | 0% |
| 0-90 | 33,374.1 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 33,374.1 | 100% |

**LUMENS PER ZONE**

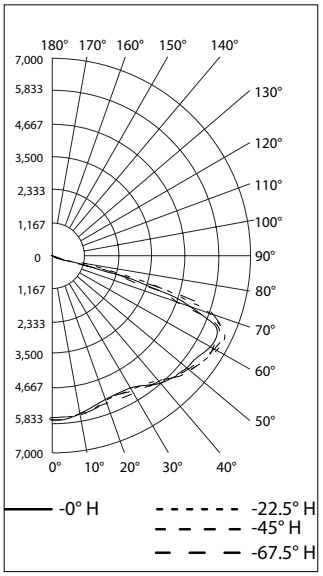
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 617.3 | 1.8% | 90-100 |
| 10-20 | 1,771.1 | 5.3% | 100-110 |
| 20-30 | 2,898.1 | 8.7% | 110-120 |
| 30-40 | 4,082.8 | 12.2% | 120-130 |
| 40-50 | 5,443.0 | 16.3% | 130-140 |
| 50-60 | 6,662.9 | 20.0% | 140-150 |
| 60-70 | 7,674.5 | 23.0% | 150-160 |
| 70-80 | 4,065.1 | 12.2% | 160-170 |
| 80-90 | 159.3 | 0.5% | 170-180 |

### Type V Wide, Clear Glass, 3000K CCT

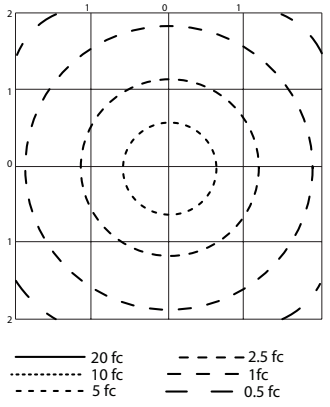
**REPORT NUMBER: BHLPL3WGWNBU**

Luminaire Lumens 28,864

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 4,643.3 | 16.1% |
| 0-40 | 8,209.1 | 28.4% |
| 0-60 | 18,724.5 | 64.9% |
| 60-90 | 10,139.9 | 35.1% |
| 70-100 | 3,562.1 | 12.3% |
| 90-120 | 0 | 0% |
| 0-90 | 28,864.4 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 28,864.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 544.2 | 1.9% | 90-100 |
| 10-20 | 1,558.1 | 5.4% | 100-110 |
| 20-30 | 2,541.0 | 8.8% | 110-120 |
| 30-40 | 3,565.8 | 12.4% | 120-130 |
| 40-50 | 4,737.0 | 16.4% | 130-140 |
| 50-60 | 5,778.4 | 20.0% | 140-150 |
| 60-70 | 6,577.8 | 22.8% | 150-160 |
| 70-80 | 3,431.3 | 11.9% | 160-170 |
| 80-90 | 130.9 | 0.5% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

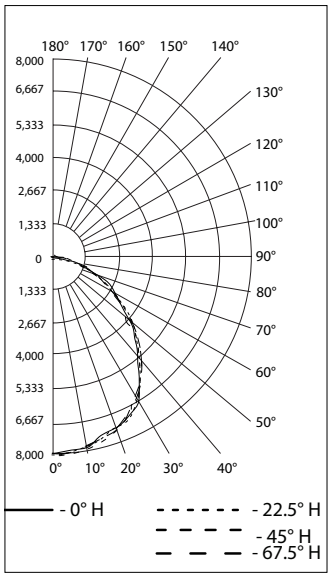
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Medium, Frosted Glass, 5000K CCT

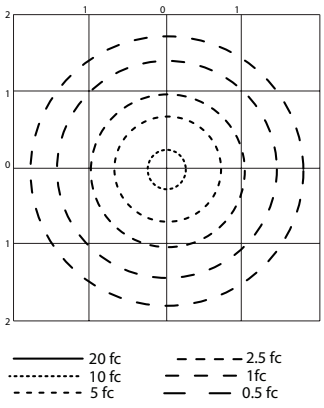
REPORT NUMBER: **BHLPL1CFMNBU**

Luminaire Lumens 20,801

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 6,121.0 | 29.4% |
| 0-40 | 9,932.9 | 47.8% |
| 0-60 | 17,003.6 | 81.8% |
| 60-90 | 3,795.4 | 18.2% |
| 70-100 | 1,458.3 | 7% |
| 90-120 | 0 | 0% |
| 0-90 | 20,799.0 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 20,799.0 | 100% |

**LUMENS PER ZONE**

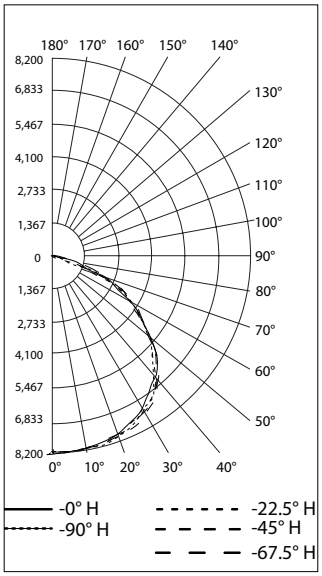
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 749.2 | 3.6% | 90-100 |
| 10-20 | 2,144.9 | 10.3% | 100-110 |
| 20-30 | 3,226.9 | 15.5% | 110-120 |
| 30-40 | 3,811.9 | 18.3% | 120-130 |
| 40-50 | 3,804.1 | 18.3% | 130-140 |
| 50-60 | 3,266.6 | 15.7% | 140-150 |
| 60-70 | 2,337.1 | 11.2% | 150-160 |
| 70-80 | 1,217.2 | 5.9% | 160-170 |
| 80-90 | 241.1 | 1.2% | 170-180 |

### Type V Medium, Clear Glass, 5000K CCT

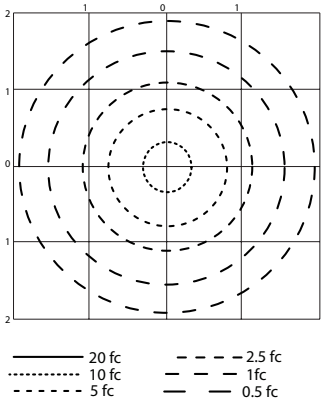
REPORT NUMBER: **BHLPL1CGMNBU**

Luminaire Lumens 24,352

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 6,658.2 | 27.3% |
| 0-40 | 11,178.5 | 45.9% |
| 0-60 | 20,239.3 | 83.1% |
| 60-90 | 4,111.0 | 16.9% |
| 70-100 | 1,207.1 | 5% |
| 90-120 | 0 | 0% |
| 0-90 | 24,350.2 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 24,350.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 773.6 | 3.2% | 90-100 |
| 10-20 | 2,280.5 | 9.4% | 100-110 |
| 20-30 | 3,604.1 | 14.8% | 110-120 |
| 30-40 | 4,520.2 | 18.6% | 120-130 |
| 40-50 | 4,785.8 | 19.7% | 130-140 |
| 50-60 | 4,275.0 | 17.6% | 140-150 |
| 60-70 | 2,903.9 | 11.9% | 150-160 |
| 70-80 | 1,100.3 | 4.5% | 160-170 |
| 80-90 | 106.7 | 0.4% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

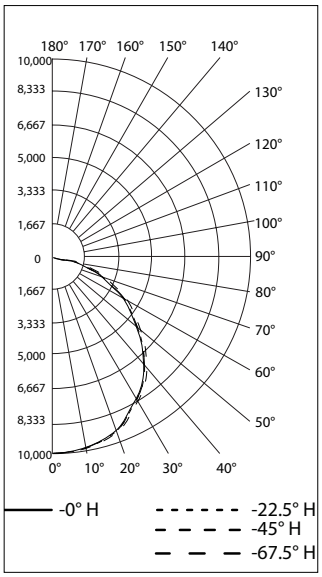
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V Medium, Frosted Glass, 5000K CCT

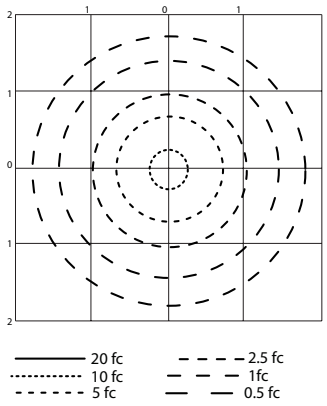
REPORT NUMBER: **BHLPL2CFMNBU**

Luminaire Lumens 25,979

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 7,656.5 | 29.5% |
| 0-40 | 12,418.0 | 47.8% |
| 0-60 | 21,243.5 | 81.8% |
| 60-90 | 4,733.5 | 18.2% |
| 70-100 | 1,818.2 | 7% |
| 90-120 | 0 | 0% |
| 0-90 | 25,977.0 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 25,977.0 | 100% |

**LUMENS PER ZONE**

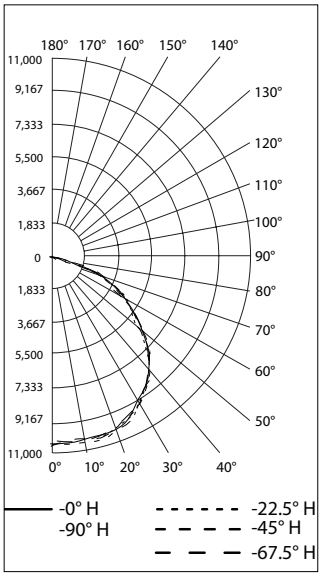
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 937.3 | 3.6% | 90-100 |
| 10-20 | 2,683.1 | 10.3% | 100-110 |
| 20-30 | 4,036.1 | 15.5% | 110-120 |
| 30-40 | 4,761.5 | 18.3% | 120-130 |
| 40-50 | 4,748.8 | 18.3% | 130-140 |
| 50-60 | 4,076.7 | 15.7% | 140-150 |
| 60-70 | 2,915.3 | 11.2% | 150-160 |
| 70-80 | 1,517.9 | 5.8% | 160-170 |
| 80-90 | 300.3 | 1.2% | 170-180 |

### Type V Medium, Clear Glass, 5000K CCT

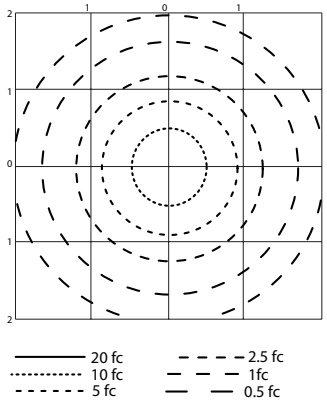
REPORT NUMBER: **BHLPL2CGMNBU**

Luminaire Lumens 30,375

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 8,323.9 | 27.4% |
| 0-40 | 13,968.9 | 46% |
| 0-60 | 25,264.2 | 83.2% |
| 60-90 | 5,108.3 | 16.8% |
| 70-100 | 1,499.7 | 4.9% |
| 90-120 | 0 | 0% |
| 0-90 | 30,372.5 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 30,372.5 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 967.1 | 3.2% | 90-100 |
| 10-20 | 2,851.3 | 9.4% | 100-110 |
| 20-30 | 4,505.5 | 14.8% | 110-120 |
| 30-40 | 5,645.0 | 18.6% | 120-130 |
| 40-50 | 5,970.4 | 19.7% | 130-140 |
| 50-60 | 5,324.8 | 17.5% | 140-150 |
| 60-70 | 3,608.7 | 11.9% | 150-160 |
| 70-80 | 1,366.3 | 4.5% | 160-170 |
| 80-90 | 133.3 | 0.4% | 170-180 |

# Industrial Baymaster™ and High Lumen LED Series Luminaires

High Bay

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration (IBLLL and IBHLL models only)**

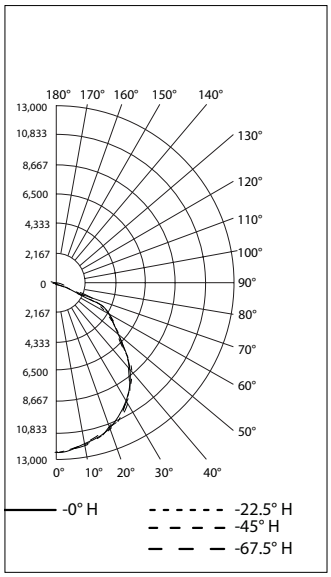
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Type V, Frosted Glass, 5000K CCT

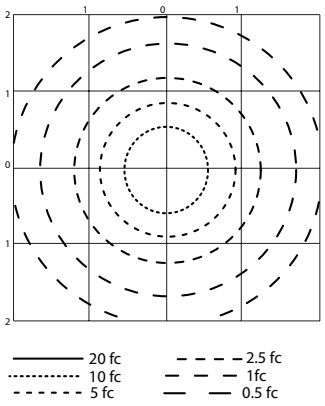
REPORT NUMBER: **BHLPL3CFMNBU**

Luminaire Lumens 32,107

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 9,470.7 | 29.5% |
| 0-40 | 15,360.8 | 47.8% |
| 0-60 | 26,252.9 | 81.8% |
| 60-90 | 5,851.6 | 18.2% |
| 70-100 | 2,251.6 | 7% |
| 90-120 | 0 | 0% |
| 0-90 | 32,104.5 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 32,104.5 | 100% |

**LUMENS PER ZONE**

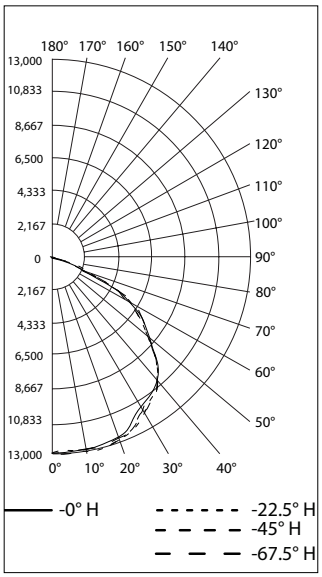
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,160.6 | 3.6% | 90-100 |
| 10-20 | 3,319.7 | 10.3% | 100-110 |
| 20-30 | 4,990.5 | 15.5% | 110-120 |
| 30-40 | 5,890.0 | 18.3% | 120-130 |
| 40-50 | 5,863.2 | 18.3% | 130-140 |
| 50-60 | 5,028.9 | 15.7% | 140-150 |
| 60-70 | 3,600.0 | 11.2% | 150-160 |
| 70-80 | 1,879.7 | 5.9% | 160-170 |
| 80-90 | 371.9 | 1.2% | 170-180 |

### Type V, Clear Glass, 5000K CCT

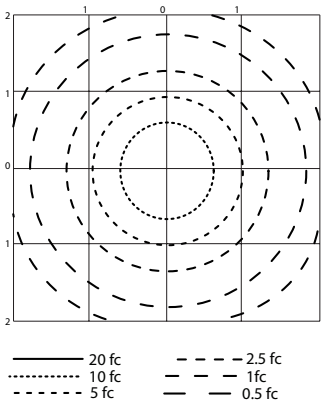
REPORT NUMBER: **BHLPL3CGMNBU**

Luminaire Lumens 37,574

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 10,427.6 | 27.8% |
| 0-40 | 17,424.5 | 46.4% |
| 0-60 | 31,266.2 | 83.2% |
| 60-90 | 6,304.9 | 16.8% |
| 70-100 | 1,911.4 | 5.1% |
| 90-120 | 0 | 0% |
| 0-90 | 37,571.2 | 100% |
| 90-180 | 0 | 0% |
| 0-180 | 37,571.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,219.3 | 3.2% | 90-100 |
| 10-20 | 3,578.9 | 9.5% | 100-110 |
| 20-30 | 5,629.5 | 15.0% | 110-120 |
| 30-40 | 6,996.9 | 18.6% | 120-130 |
| 40-50 | 7,346.6 | 19.6% | 130-140 |
| 50-60 | 6,495.1 | 17.3% | 140-150 |
| 60-70 | 4,393.6 | 11.7% | 150-160 |
| 70-80 | 1,713.0 | 4.6% | 160-170 |
| 80-90 | 198.3 | 0.5% | 170-180 |

# IHC LED Series Luminaires

## High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

### Applications

- Powerful, efficient weatherproof lighting for applications such as:
  - — Steel Production Plants
  - — Power Generation Facilities
  - — Foundries
  - — Cement, Stone and Sand Plants
  - — Pulp and Paper Mills
  - — Ship Building and Shipping Ports
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other areas where corrosive, wet, dirty and tough environments are a problem
- High ceilings of 15 meters (50 feet) to greater than 30 meters (100 feet).
- IP66, Type 4X, marine and wet locations.
- Locations requiring dependable, consistent lighting in extreme hot/cold temperature environments.
- -40 °C to +75 °C (-40 °F to +167 °F) ambient temperature range
- Globally rated luminaires with all applicable certification labels for NEC,CEC, IECEE CB, CE and UKCA environments. See Certifications and Compliances for details.

### Features

- Four lumen outputs provide up to 90,000 lumens.

| Nominal Lumens ① | Model |
|---|---|
| 50,000 | IHC*5 |
| 60,000 | IHC*6 |
| 75,000 | IHC*7 |
| 90,000 | IHC*9 |

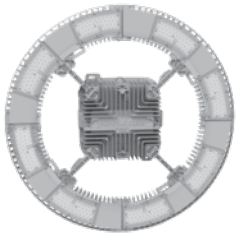
- Choice of four optics (Very Narrow, Narrow, Medium and Very Wide) for optimal light distribution in a variety of applications.
- Luminaire can be ordered with Cable or Bracket mounting accessories.
- Separate field wiring compartment with screw terminal block for easy and secure connection (can accept 0.14 - 6 mm² (26 - 10 AWG) wire).
- Four 3/4 in. NPT side entries provided with three close-up plugs. Optional M20 metric adapters available.
- Choice of color temperature (CCT): 5000K cool white, 4000K neutral white, or 3000K warm white.
- Reported L70 is > 60,000 hours @ +65°C (+149 °F).
- Rugged housing with superior thermal design translates to long luminaire life.
- Heavy duty, high temperature silicone rubber gaskets.
- Thermal shock and impact resistant clear polycarbonate lens.
- Standard 8 kV/4 kA surge protection. Optional 10 kV/5 kA and 20 kV/10 kA additional surge protection available.
- Captive fasteners secure driver compartment cover.
- 0-10 Vdc Dimming capable.
- Field replaceable LED drivers.
- Photometric data and electronic drawings available upon request.
- 10 year standard warranty.

### Options

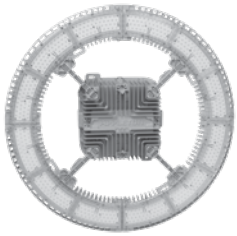
- Pre-wired version with 3 meter (10 foot) cord available.
- 10 kV/5 kA and 20 kV/10 kA Surge Protection.
- Photocontrol socket available for outdoor installations.
- 2.4 meter (8 foot) safety cable, purchase separately.

### Standard Materials

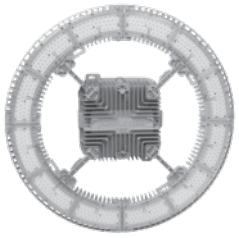
- Housing, LED heatsink, and driver compartment cover: copperfree (4/10 of 1% max.) aluminum



**IHC*5 - 50,000 Lumens**



**IHC*6 - 60,000 Lumens**



**IHC*7 - 75,000 Lumens**

**IHC*9 - 90,000 Lumens**

- Bracket: zinc plated steel
- Gaskets: silicone rubber
- Exterior hardware: stainless steel
- Close up plugs: aluminum
- Cable mount components: stainless steel
- Safety cable: stainless steel

### Standard Finishes

- Housing, LED heatsink, driver compartment cover and bracket: baked gray epoxy powder coat finish, electrostatically applied for complete uniform protection

### NEC/CEC Certifications and Compliances

- UL Standards: UL1598; UL1598A; UL 8750; UL 50; UL 50E
- CSA Standards: CSA C22.2 No. 250.0; CSA C22.2 No. 250.13; CSA C22.2 No. 94.1; CSA C22.2 No. 94.2
- cULus Certificate: E479986
- Vibration Rating: 3G, 2 hours, 3 axis at first mode resonant frequency

### IECEE CB Certificates and Compliances

- IEC 60529, IEC 60598-1, IEC 60598-2-1, and IEC 60598-2-5
- IECEE CB Certificates: JPTUV-129388, JPTUV-129481, JPTUV-131820, JPTUV-131824
- Photobiological Safety, IEC 62778 and IEC 62471: RG01 for all models when positioned at a distance of more than 6.67 m (21.88 ft) so that prolonged staring into the luminaire is not expected

### CE and UKCA Marking

- Safety: EN 60598-1, EN 60598-2-1, and EN 60598-2-5
- EMC: EN 61547, 61000-6-2, 61000-6-4, 61000-3-2; CISPR 15

### ABS Certifications:

- IHC: 21-2175976-PDA

### DesignLights™ Consortium

- Check DLC QPL for current list of products.

*① Nominal lumen value for 5000K, Medium Beam, with clear polycarbonate lens. Refer to Lumen Output Table for details.*

# IHC LED Series Luminaires

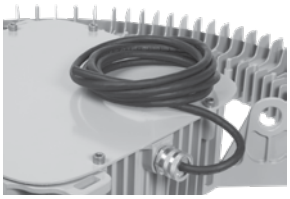
High Lumen Output High Bay and Floodlight

Ordinary Locations

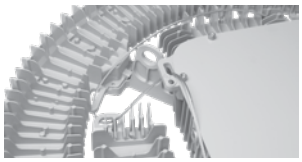
**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

**Illustrated Features**

**Cable Mounting**
Labor saving mounting means allows for safe and secure attachment to ceiling structure for typical high bay installations. Simply clip stainless steel locking carabiner and cable assembly to four fixture connection points. Then combine four opposite looped ends of stainless steel cable within additional corrosion resistant locking carabiner to create a single attachment point above fixture.

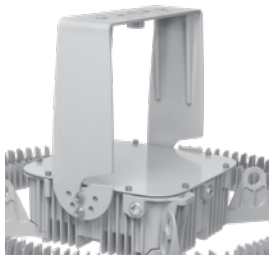


**Pre-Wired Option**
10-foot-long, 600V rated, Type SOOW listed cord and weather resistant cord grip allow for quick electrical connections. There is no need to open the wiring compartment in the field. Terminate cable into electrical box and hardwire fixture or field install a plug end. Standard 3-conductor version available for power connections. 5-conductor version available for power plus dimming wiring.

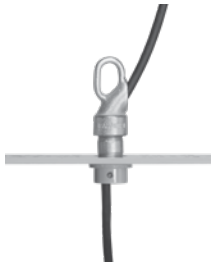


**Safety Cable**
2.44 meter (8 foot) stainless steel safety cable is threaded through the cast secondary retention points in the housing and LED heatsinks for additional safety.

**Driver Assembly**
Replaceable drivers are suitable for use in wet locations and offer standard 8 kV surge and over temperature protection.

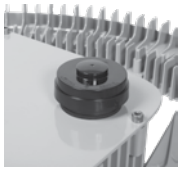


**Bracket Mounting**
Sturdy bracket mounting is the best option for flush mounting the fixture to a ceiling or underneath a crane. The bracket can also be mounted to a wall, column or floor for floodlighting applications. Fixture can be adjusted to 0°, 15°, 30° and 45° set points and secured in place with bolt and lock washer combination. The bracket and fixture stand up to heavy vibrations with a 3G rating. The top of the bracket has multiple hole patterns to retrofit to competitor's mounting hardware. Bracket cannot be attached to a poletop slip-fitter.

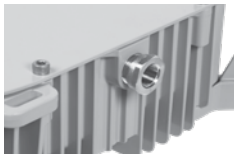


**3/4 Inch NPT Hub with Set-screw**
Easily attach an Appleton FHLM-75 Hanger Loop or rigid conduit pendant stem and secure in place with set-screw.

**U-bolt Attachment to 2" Rigid Conduit**
Secure bracket to conduit with properly sized u-bolts, purchased separately.



**5 Pin NEMA Socket**
Receptacle allows for easy attachment of photocontrol (purchase separately) or other smart lighting device. Dimming capable at 120-480 Vac. Ships with shorting cap.



**M20 Metric Adapter**
Optional adapter may be ordered. Ships with one adapter. Three remaining 3/4" NPT entries have aluminum close up plugs installed.

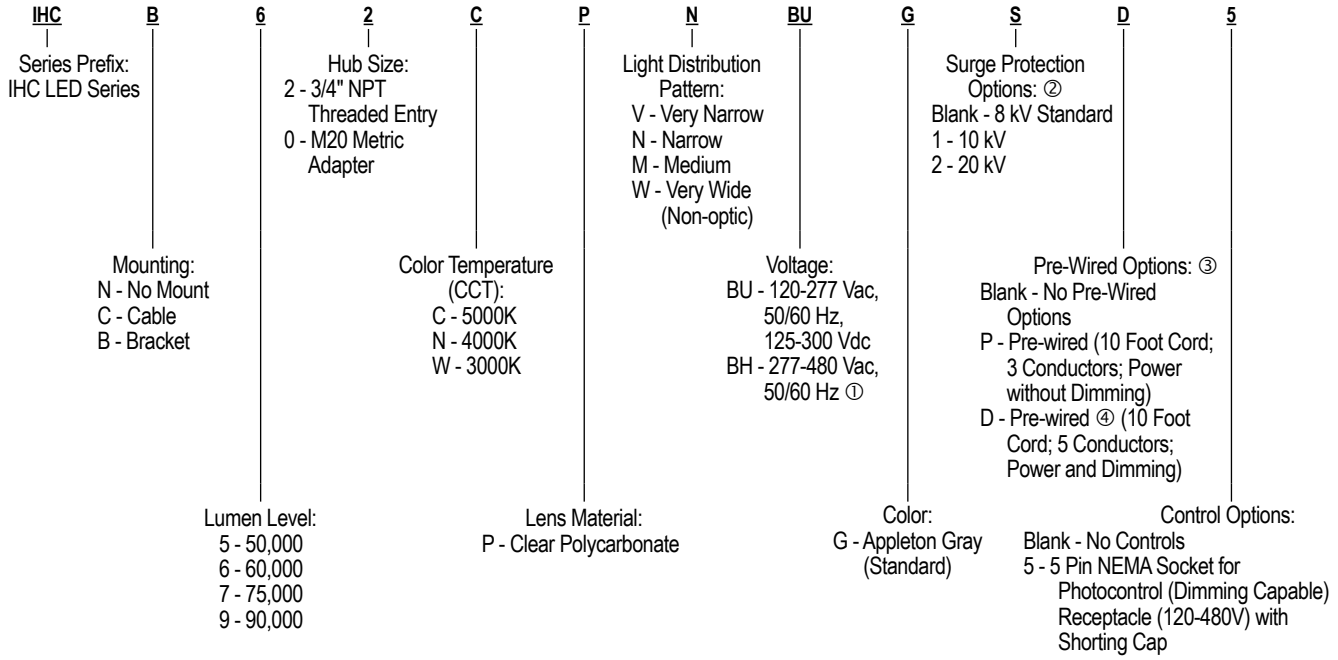
# IHC LED Series Luminaires

## High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

### Order Using Catalog Numbering Guide — Industrial IHC LED Series Luminaires




**Lumen Output (Efficacy)** ⑤

| Model | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Polycarbonate** | | | | | | | | | | | | | |
| IHC*5 | Very Narrow | 3000K | 80 | 47,100 | 129 | 4000K | 80 | 48,300 | 133 | 5000K | 70 | 50,900 | 140 |
| | Narrow | | | 46,900 | 129 | | | 48,100 | 132 | | | 50,800 | 140 |
| | Medium | | | 47,100 | 129 | | | 48,300 | 133 | | | 50,900 | 140 |
| | Very Wide (Non-optic) | | | 43,700 | 120 | | | 44,700 | 123 | | | 45,900 | 126 |
| IHC*6 | Very Narrow | 3000K | 80 | 56,500 | 135 | 4000K | 80 | 57,900 | 139 | 5000K | 70 | 61,000 | 146 |
| | Narrow | | | 56,200 | 135 | | | 57,600 | 138 | | | 60,800 | 146 |
| | Medium | | | 56,500 | 135 | | | 57,900 | 139 | | | 61,000 | 146 |
| | Very Wide (Non-optic) | | | 52,600 | 126 | | | 54,000 | 129 | | | 55,400 | 133 |
| IHC*7 | Very Narrow | 3000K | 80 | 70,000 | 128 | 4000K | 80 | 71,800 | 132 | 5000K | 70 | 75,700 | 139 |
| | Narrow | | | 69,800 | 128 | | | 71,500 | 131 | | | 75,500 | 139 |
| | Medium | | | 70,000 | 128 | | | 71,800 | 132 | | | 75,500 | 139 |
| | Very Wide (Non-optic) | | | 65,500 | 120 | | | 67,100 | 123 | | | 68,800 | 126 |
| IHC*9 | Very Narrow | 3000K | 80 | 84,000 | 133 | 4000K | 80 | 86,100 | 136 | 5000K | 70 | 91,100 | 144 |
| | Narrow | | | 83,700 | 133 | | | 85,800 | 136 | | | 91,000 | 144 |
| | Medium | | | 84,000 | 133 | | | 86,100 | 136 | | | 90,800 | 144 |
| | Very Wide (Non-optic) | | | 78,900 | 125 | | | 81,000 | 128 | | | 82,900 | 131 |

*① Select BH for 277 Vac installations in facilities with power quality concerns. BH option designed with high ground fault protection and protects against dropped neutral occurrences.*
*② Additional Surge Protection Certifications:*
*10kV BU: NEC, CEC, CE/UKCA*
*10kV BH: NEC, CEC*
*20kV BU: NEC, CEC, CE/UKCA*
*20kV BH: NEC, CEC*
*③ Pre-Wired Options only available per cULus Certification. Options not available per IECEE Certification.*
*④ Pre-Wired Option "D" cannot be selected with Control Option "5".*
*⑤ All lumen values are typical (tolerance +/-10%).*

# IHC LED Series Luminaires

## High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

### Electrical Specifications ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| IHC*5 | 120 Vac | 360 | 3.00 | > 0.9 | < 20% |
| | 277 Vac | 350 | 1.36 | | |
| | 125 Vdc | 360 | 2.86 | N/A | N/A |
| | 300 Vdc | 350 | 1.16 | | |
| | 277 Vac | 360 | 1.32 | | |
| | 347 Vac | 360 | 1.06 | > 0.9 | < 20% |
| | 480 Vac | 360 | 0.82 | | |
| IHC*6 | 120 Vac | 420 | 3.61 | > 0.9 | < 20% |
| | 277 Vac | 400 | 1.54 | | |
| | 125 Vdc | 420 | 3.32 | N/A | N/A |
| | 300 Vdc | 400 | 1.34 | | |
| | 277 Vac | 410 | 1.50 | | |
| | 347 Vac | 410 | 1.20 | > 0.9 | < 20% |
| | 480 Vac | 410 | 0.91 | | |
| IHC*7 | 120 Vac | 550 | 4.71 | > 0.9 | < 20% |
| | 277 Vac | 530 | 2.03 | | |
| | 125 Vdc | 540 | 4.29 | N/A | N/A |
| | 300 Vdc | 520 | 1.74 | | |
| | 277 Vac | 540 | 1.98 | | |
| | 347 Vac | 540 | 1.35 | > 0.9 | < 20% |
| | 480 Vac | 530 | 1.22 | | |
| IHC*9 | 120 Vac | 640 | 5.36 | > 0.9 | < 20% |
| | 277 Vac | 620 | 2.23 | | |
| | 125 Vdc | 640 | 5.11 | N/A | N/A |
| | 300 Vdc | 620 | 2.07 | | |
| | 277 Vac | 630 | 2.30 | | |
| | 347 Vac | 620 | 0.98 | > 0.9 | < 20% |
| | 480 Vac | 620 | 1.36 | | |

### Maximum Ambient Temperature Rating per Driver and Voltage Range

| Model | Lumen Level | BU Driver 120 to 208 Vac — 125 to 300 Vdc | BU Driver 220 to 277 Vac | BH Driver 277 to 480 Vac |
|---|---|---|---|---|
| IHC*5 | 50,000 | 75 °C (167 °F) | 75 °C (167 °F) | 75 °C (167 °F) |
| IHC*6 | 60,000 | 70 °C (158 °F) | 75 °C (167 °F) | 70 °C (158 °F) |
| IHC*7 | 75,000 | 70 °C (158 °F) | 75 °C (167 °F) | 70 °C (158 °F) |
| IHC*9 | 90,000 | 65 °C (149 °F) | 70 °C (158 °F) | 65 °C (149 °F) |

*Note: Surge Protection:Integral 8 kV surge protection. Option for up to 10 kV and 20 kV surge protection. See Catalog Numbering Guide for certification restrictions.*
*① All values are typical (tolerance +/-10%).*

# IHC LED Series Luminaires

## High Lumen Output High Bay and Floodlight

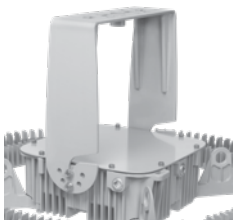
Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

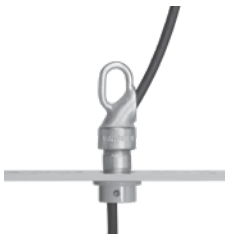
### Mounting Options

Cable — Length: 550 mm (21.65 in.)

Bracket — Length: 335 mm (13.2 in.)



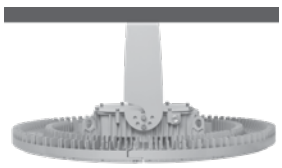
Threaded hook (3/4 in.) and cord



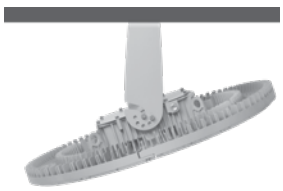
Pipe (2 in. Rigid Metal Conduit)

### Bracket Mounting Angles — Ceiling Mounted

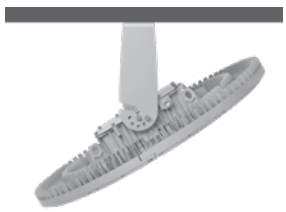
0°



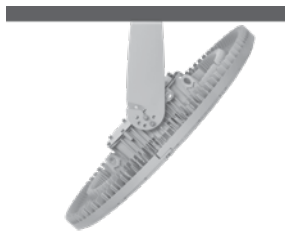
15°



30°

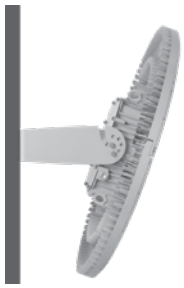


45°

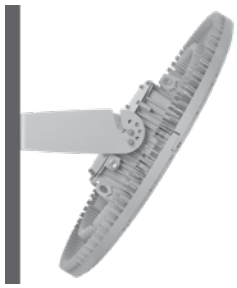


### Bracket Mounting Angles — Wall Mounted

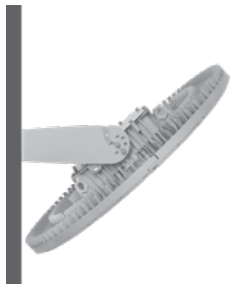
15°



30°



45°

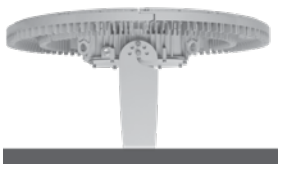


Luminaire may be positioned facing down or up.

Bracket cannot be installed on poletop slip-fitters.

### Bracket Mounting Angles — Floor Mounted

0°



15°

30°

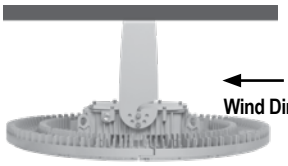
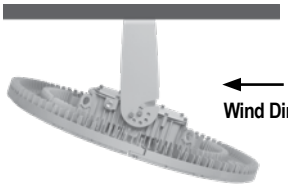
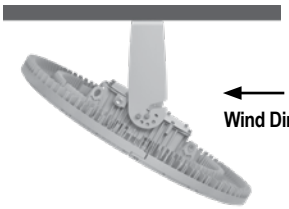
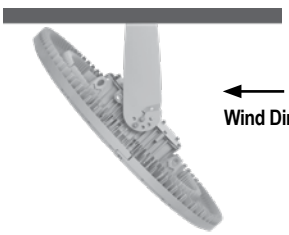
45°

# IHC LED Series Luminaires

## High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

| Luminaire Angle | | Frontal Projected Area (FPA) $ft^2$ | Drag Coefficient (DC) | Effective Projected Area (EPA) = FPA*DC $ft^2$ |
|---|---|---|---|---|
| 0° |   | 1.73 | 1.2 | 2.08 |
| 15° |   | 2.67 | 1.2 | 3.21 |
| 30° |   | 4.57 | 1.2 | 5.48 |
| 45° |   | 5.40 | 1.2 | 6.48 |

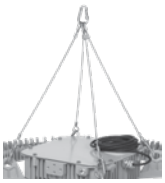
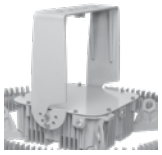
# IHC LED Series Luminaires

High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

## Accessories and Replacement Parts

| | Description | Weight in kg (lb) | Catalog Number |
|---|---|---|---|
| **IHC LED Cable Mounting Assembly** | | | |
|  | Assembly consists of:<br>- (4) 550 mm (21.65 in.) stainless steel cable and locking carabiner combinations<br>- (1) stainless steel locking carabiner<br>Cable and carabiner combo secure to four luminaire attachment points.<br>Opposite crimped looped ends of cables combine within remaining carabiner for attachment to ceiling structure | 0.5 (1.1) | **IHCCABLE** |
| **IHC LED Bracket Mounting Kit (Hardware Included)** | | | |
|  | Kit includes:<br>- (1) 335 mm (13.2 in.) long bracket<br>- (4) 3/8-16 X 7/8 hex head stainless steel bolt and lock washer combos | 7.0 (15.6) | **IHCBRKTL** |
| **Safety Cable** | | | |
| | Stainless steel - 1.22 m (4 ft) | 0.2 (0.4) | **LEDSC** |
| | Stainless steel - 2.44 m (8 ft) | 0.4 (0.8) | **LEDSC8** |
| **Safety Support Hooks** | | | |
| | 3/4 inch Male Hanger Loop<br>5/8 inch diameter wireway<br>75.4 kg (166 lbs.) weight rating | 0.2 (0.5) | **FHLM-75** |

## Replacement Drivers

| | Model | Voltage | Driver Wattage | Constant Current Setting | Number of Drivers per Luminaire | Catalog Number |
|---|---|---|---|---|---|---|
| | IHC*5 | BU | 240 Watt | 976mA | 2 | **APMS240UD976** |
| | IHC*5 | BH | 240 Watt | 976mA | 2 | **APMS240HD976** |
| | IHC*6 | BU | 240 Watt | 1152mA | 2 | **APMS240UD1152** |
| | IHC*6 | BH | 240 Watt | 1152mA | 2 | **APMS240HD1152** |
| | IHC*7 | BU | 240 Watt | 976mA | 3 | **APMS240UD976** |
| | IHC*7 | BH | 240 Watt | 976mA | 3 | **APMS240HD976** |
| | IHC*9 | BU | 240 Watt | 1152mA | 3 | **APMS240UD1152** |
| | IHC*9 | BH | 240 Watt | 1152mA | 3 | **APMS240HD1152** |

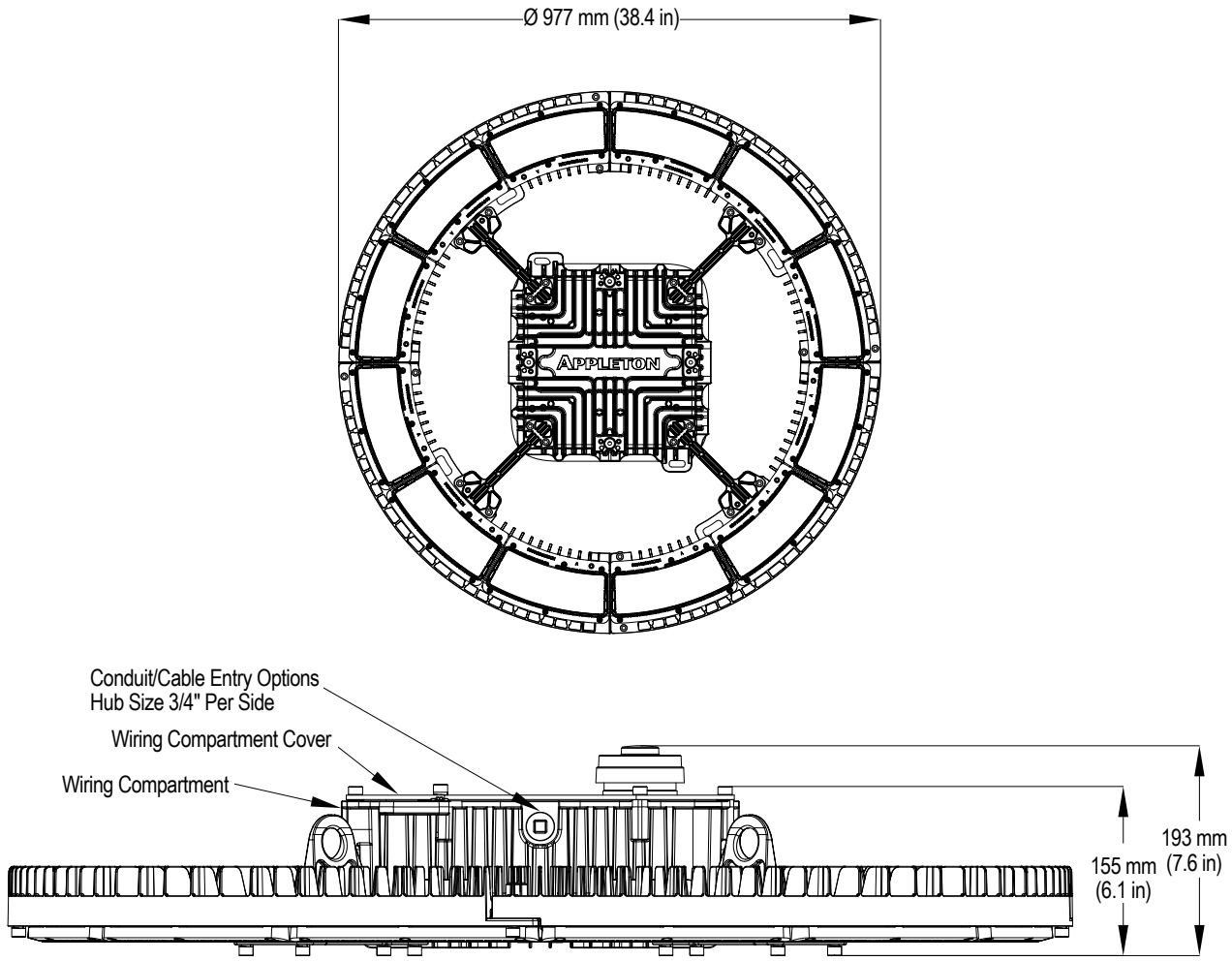
# IHC LED Series Luminaires

High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

**Dimensions in Millimeters (Inches)**




**Luminaire Specifications** ①

| Model | LED Arrays | Drivers | Dimensions Without Bracket or NEMA Socket | Weight Without Bracket ① |
|---|---|---|---|---|
| IHC*5 | 8 | 2 | 977 x 155 mm (38.4 in. x 6.1 in.) | 26.0 kg (57.4 lbs) |
| IHC*6 | 12 | 2 | 977 x 155 mm (38.4 in. x 6.1 in.) | 26.9 kg (59.3 lbs) |
| IHC*7 | 12 | 3 | 977 x 155 mm (38.4 in. x 6.1 in.) | 28.2 kg (62.2 lbs) |
| IHC*9 | 16 | 3 | 977 x 155 mm (38.4 in. x 6.1 in.) | 32.7 kg (72 lbs) |

*① Fixture weight is for No Mount option, Very Wide (Non-optic) light distribution, BU driver, and no pre-wired, surge and NEMA socket options.*

# IHC LED Series Luminaires

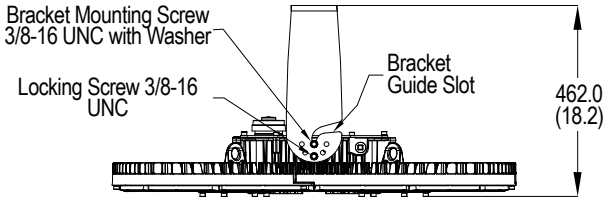
High Lumen Output High Bay and Floodlight

Ordinary Locations

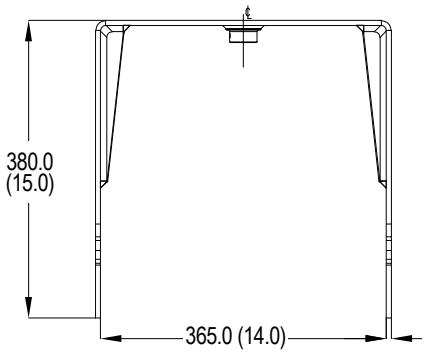
**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

**Mounting Bracket — Dimensions in Millimeters (Inches)**

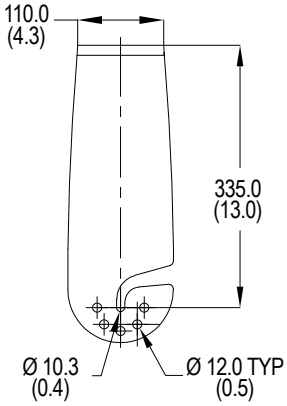
**Bracket for 0°, 15°, 30°, and 45° Orientation with Respect to Bracket Mounting Screw**



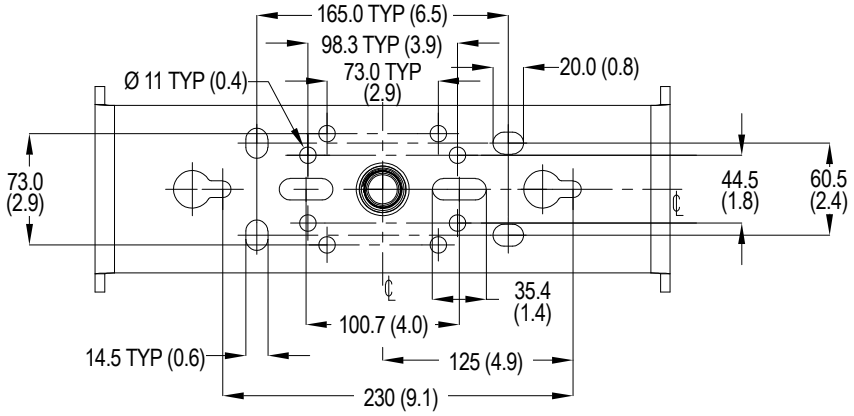

**Bracket Front**




Bracket Side




**Bracket Top**



# IHC LED Series Luminaires

High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

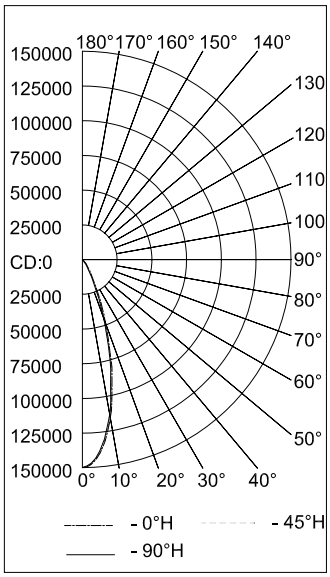
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Very Narrow Distribution, Clear Polycarbonate, 5000K CCT

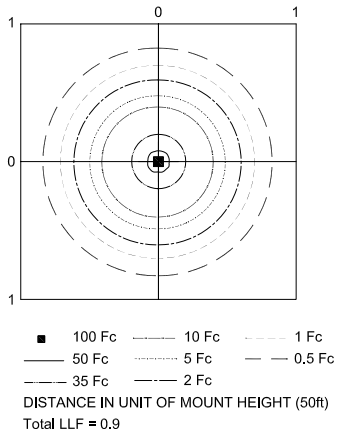
REPORT NUMBER: **IHC5CPVBH**

Luminaire Lumens 50,852

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 43,530.0 | 85.6% |
| 0-40 | 46,916.9 | 92.3% |
| 0-60 | 49,482.5 | 97.3% |
| 60-90 | 1,265.6 | 2.5% |
| 70-100 | 617.2 | 1.2% |
| 90-120 | 36.6 | 0.1% |
| 0-90 | 50,748.1 | 99.8% |
| 90-180 | 104.3 | 0.2% |
| 0-180 | 50,852.4 | 100% |

**LUMENS PER ZONE**

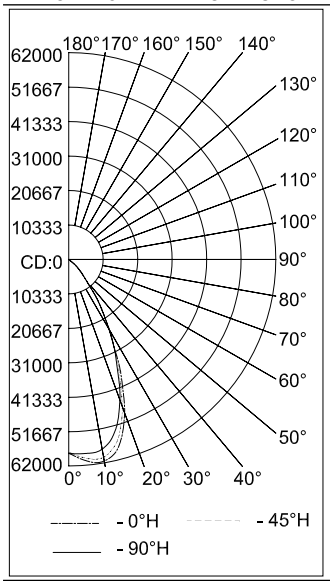
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 12,376.3 | 24.3% | 90-100 |
| 10-20 | 20,660.9 | 40.6% | 100-110 |
| 20-30 | 10,492.9 | 20.6% | 110-120 |
| 30-40 | 3,386.9 | 6.7% | 120-130 |
| 40-50 | 1,565.3 | 3.1% | 130-140 |
| 50-60 | 1,000.3 | 2.0% | 140-150 |
| 60-70 | 672.7 | 1.3% | 150-160 |
| 70-80 | 453.4 | 0.9% | 160-170 |
| 80-90 | 139.5 | 0.3% | 170-180 |

### Narrow Distribution, Clear Polycarbonate, 5000K CCT

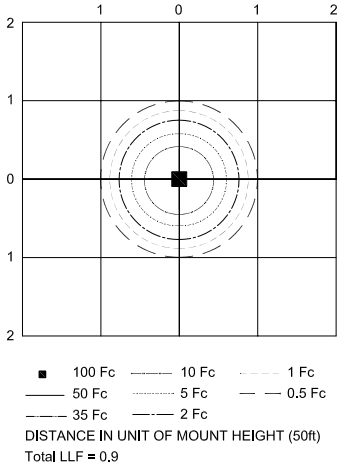
REPORT NUMBER: **IHC5CPNBH**

Luminaire Lumens 50,748

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 35,444.9 | 69.8% |
| 0-40 | 44,517.2 | 87.7% |
| 0-60 | 48,927.1 | 96.4% |
| 60-90 | 1,704.1 | 3.4% |
| 70-100 | 896.8 | 1.8% |
| 90-120 | 52.5 | 0.1% |
| 0-90 | 50,631.2 | 99.8% |
| 90-180 | 117.3 | 0.2% |
| 0-180 | 50,748.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 5,548.7 | 10.9% | 90-100 |
| 10-20 | 14,600.8 | 28.8% | 100-110 |
| 20-30 | 15,295.3 | 30.1% | 110-120 |
| 30-40 | 9,072.3 | 17.9% | 120-130 |
| 40-50 | 3,176.8 | 6.3% | 130-140 |
| 50-60 | 1,233.1 | 2.4% | 140-150 |
| 60-70 | 844.2 | 1.7% | 150-160 |
| 70-80 | 611.0 | 1.2% | 160-170 |
| 80-90 | 248.9 | .5% | 170-180 |

# IHC LED Series Luminaires

## High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

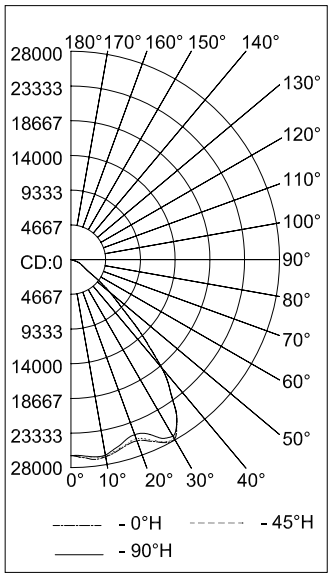
### Photometric Data — DATA SHOWN IS ABSOLUTE

**Medium Distribution, Clear Polycarbonate, 5000K CCT**

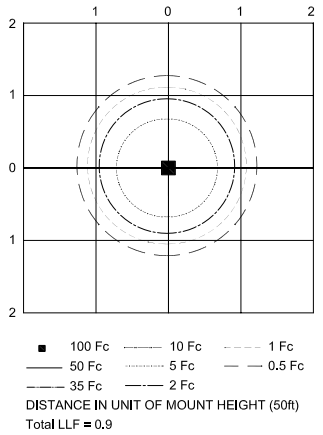
REPORT NUMBER: **IHC5CPMBH**

Luminaire Lumens 50,905

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 21,829.9 | 42.9% |
| 0-40 | 36,543.5 | 71.8% |
| 0-60 | 48,854.0 | 96% |
| 60-90 | 1,956.0 | 3.8% |
| 70-100 | 838.5 | 1.6% |
| 90-120 | 41.6 | 0.1% |
| 0-90 | 50,810.0 | 99.8% |
| 90-180 | 95.2 | 0.2% |
| 0-180 | 50,905.2 | 100% |

**LUMENS PER ZONE**

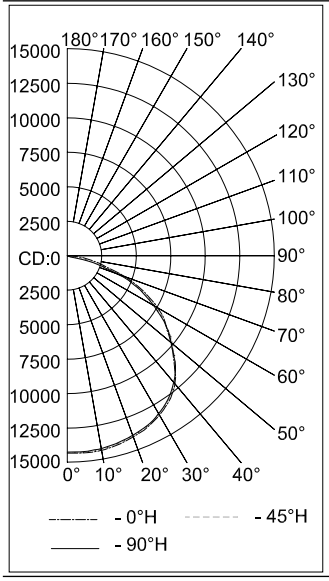
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 2,551.1 | 5.0% | 90-100 |
| 10-20 | 7,285.2 | 14.3% | 100-110 |
| 20-30 | 11,993.5 | 23.6% | 110-120 |
| 30-40 | 14,713.6 | 28.9% | 120-130 |
| 40-50 | 9132.1 | 17.9% | 130-140 |
| 50-60 | 3,178.4 | 6.2% | 140-150 |
| 60-70 | 1,145.2 | 2.2% | 150-160 |
| 70-80 | 625.2 | 1.2% | 160-170 |
| 80-90 | 185.6 | 0.4% | 170-180 |

**Very Wide (Non-Optic) Distribution, Clear Polycarbonate, 5000K CCT**

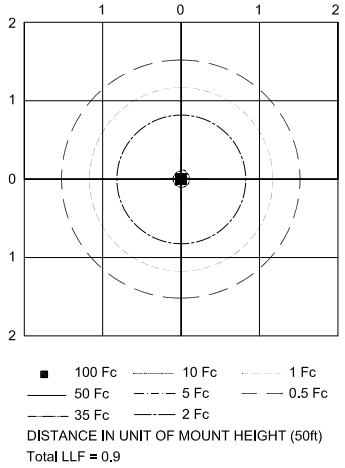
REPORT NUMBER: **IHC5CPWBH**

Luminaire Lumens 45,853

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 11,540.5 | 25.2% |
| 0-40 | 19,472.3 | 42.5% |
| 0-60 | 35,819.9 | 78.1% |
| 60-90 | 9,596.2 | 20.9% |
| 70-100 | 3,885.9 | 8.5% |
| 90-120 | 291.7 | 0.6% |
| 0-90 | 45,416.1 | 99.1% |
| 90-180 | 435.6 | 0.9% |
| 0-180 | 45,851.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,346.9 | 2.9% | 90-100 |
| 10-20 | 3,949.9 | 8.6% | 100-110 |
| 20-30 | 6,243.6 | 13.6% | 110-120 |
| 30-40 | 7,931.9 | 17.3% | 120-130 |
| 40-50 | 8,497.3 | 18.5% | 130-140 |
| 50-60 | 7,850.2 | 17.1% | 140-150 |
| 60-70 | 5,901.9 | 12.9% | 150-160 |
| 70-80 | 2,888.7 | 6.3% | 160-170 |
| 80-90 | 805.5 | 1.8% | 170-180 |

# IHC LED Series Luminaires

## High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

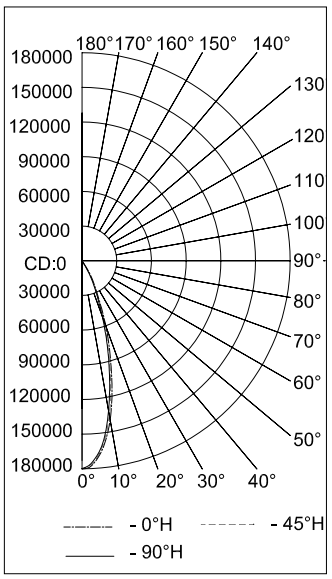
### Photometric Data — DATA SHOWN IS ABSOLUTE

**Very Narrow Distribution, Clear Polycarbonate, 5000K CCT**

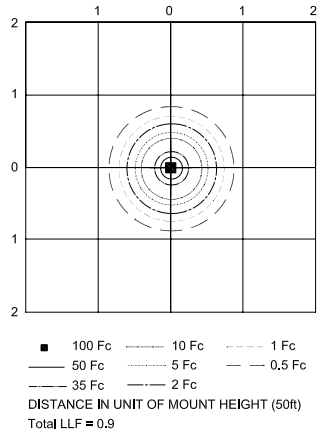
REPORT NUMBER: **IHC6CPVBH**

Luminaire Lumens 60,937

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 52,162.7 | 85.6% |
| 0-40 | 56,221.2 | 92.3% |
| 0-60 | 59,295.7 | 97.3% |
| 60-90 | 1,516.6 | 2.5% |
| 70-100 | 739.6 | 1.2% |
| 90-120 | 43.9 | 0.1% |
| 0-90 | 60,812.2 | 99.8% |
| 90-180 | 125.0 | 0.2% |
| 0-180 | 60,937.2 | 100% |

**LUMENS PER ZONE**

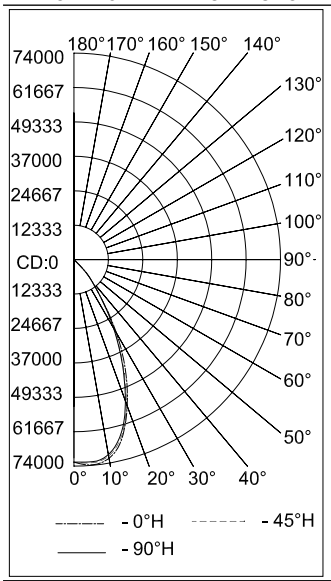
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 14,830.7 | 24.3% | 90-100 |
| 10-20 | 24,758.2 | 40.6% | 100-110 |
| 20-30 | 12,573.8 | 20.6% | 110-120 |
| 30-40 | 4,058.5 | 6.7% | 120-130 |
| 40-50 | 1,875.7 | 3.1% | 130-140 |
| 50-60 | 1,198.7 | 2.0% | 140-150 |
| 60-70 | 806.1 | 1.3% | 150-160 |
| 70-80 | 543.3 | 0.9% | 160-170 |
| 80-90 | 167.2 | 0.3% | 170-180 |

**Narrow Distribution, Clear Polycarbonate, 5000K CCT**

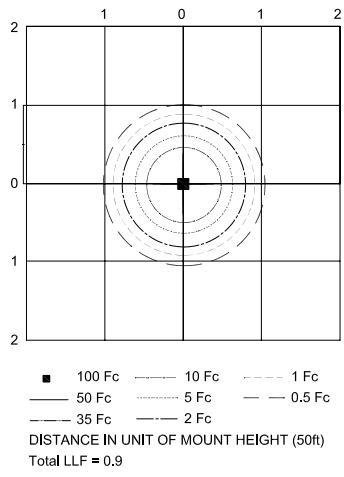
REPORT NUMBER: **IHC6CPNBH**

Luminaire Lumens 60,812

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 42,588.5 | 70% |
| 0-40 | 53,317.0 | 87.7% |
| 0-60 | 58,669.6 | 96.5% |
| 60-90 | 1,997.5 | 3.3% |
| 70-100 | 989.7 | 1.6% |
| 90-120 | 66.6 | 0.1% |
| 0-90 | 60,667.1 | 99.8% |
| 90-180 | 145.5 | 0.2% |
| 0-180 | 60,812.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 6,838.4 | 11.2% | 90-100 |
| 10-20 | 17,580.4 | 28.9% | 100-110 |
| 20-30 | 18,169.7 | 29.9% | 110-120 |
| 30-40 | 10,728.6 | 17.6% | 120-130 |
| 40-50 | 3,818.9 | 6.3% | 130-140 |
| 50-60 | 1,533.7 | 2.5% | 140-150 |
| 60-70 | 1,052.7 | 1.7% | 150-160 |
| 70-80 | 712.0 | 1.2% | 160-170 |
| 80-90 | 232.9 | 0.4% | 170-180 |

# IHC LED Series Luminaires

## High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

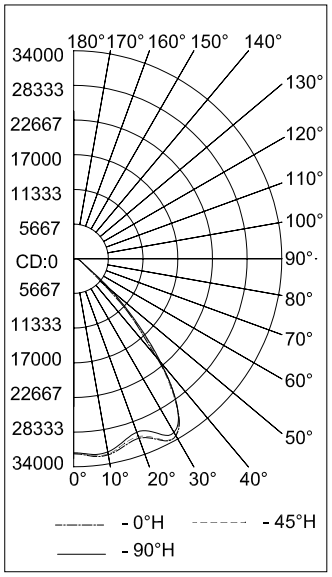
### Photometric Data — DATA SHOWN IS ABSOLUTE

**Medium Distribution, Clear Polycarbonate, 5000K CCT**

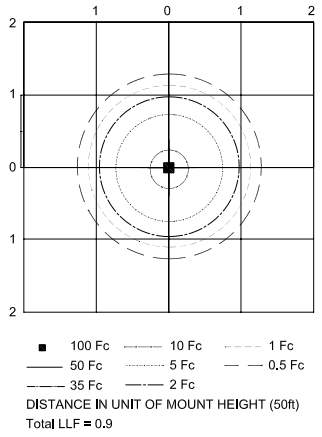
REPORT NUMBER: **IHC6CPMBH**

Luminaire Lumens 61,001

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 26,159.5 | 42.9% |
| 0-40 | 43,791.3 | 71.8% |
| 0-60 | 58,543.4 | 96% |
| 60-90 | 2,343.9 | 3.8% |
| 70-100 | 1,004.8 | 1.6% |
| 90-120 | 49.8 | 0.1% |
| 0-90 | 60,887.4 | 99.8% |
| 90-180 | 114.1 | 0.2% |
| 0-180 | 61,001.5 | 100% |

**LUMENS PER ZONE**

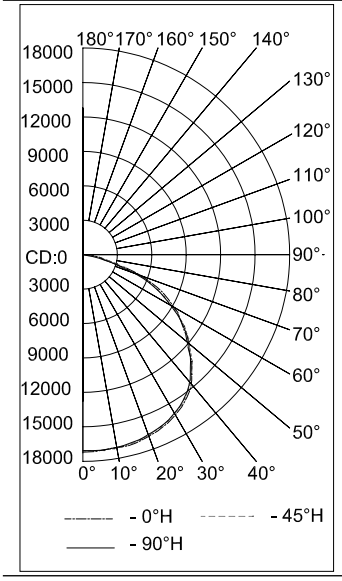
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 3,057.1 | 5.0% | 90-100 |
| 10-20 | 8,730.2 | 14.3% | 100-110 |
| 20-30 | 14,372.2 | 23.6% | 110-120 |
| 30-40 | 17,631.8 | 28.9% | 120-130 |
| 40-50 | 10,943.3 | 17.9% | 130-140 |
| 50-60 | 3,808.8 | 6.2% | 140-150 |
| 60-70 | 1,372.3 | 2.2% | 150-160 |
| 70-80 | 749.2 | 1.2% | 160-170 |
| 80-90 | 222.4 | .4% | 170-180 |

**Very Wide (Non-Optic) Distribution, Clear Polycarbonate, 5000K CCT**

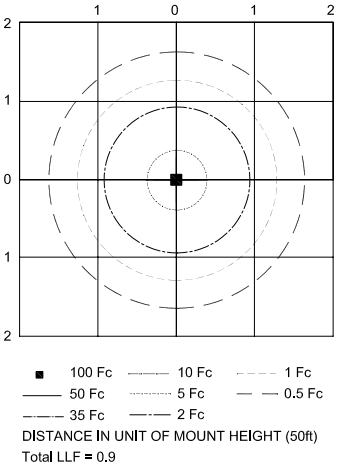
REPORT NUMBER: **IHC6CPWBH**

Luminaire Lumens 55,373

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 13,936.4 | 25.2% |
| 0-40 | 23,515.0 | 42.5% |
| 0-60 | 43,256.4 | 78.1% |
| 60-90 | 11,588.5 | 20.9% |
| 70-100 | 4,692.7 | 8.5% |
| 90-120 | 352.2 | 0.6% |
| 0-90 | 54,844.9 | 99.1% |
| 90-180 | 526.0 | 0.9% |
| 0-180 | 55,370.9 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 1,626.5 | 2.9% | 90-100 |
| 10-20 | 4,770.0 | 8.6% | 100-110 |
| 20-30 | 7,539.9 | 13.6% | 110-120 |
| 30-40 | 9,578.6 | 17.3% | 120-130 |
| 40-50 | 10,261.5 | 18.5% | 130-140 |
| 50-60 | 9,480.0 | 17.1% | 140-150 |
| 60-70 | 7,127.2 | 12.9% | 150-160 |
| 70-80 | 3,488.5 | 6.3% | 160-170 |
| 80-90 | 972.7 | 1.8% | 170-180 |

# IHC LED Series Luminaires

High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

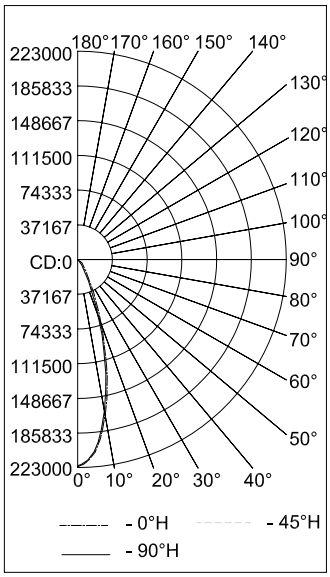
## Photometric Data — DATA SHOWN IS ABSOLUTE

### Very Narrow Distribution, Clear Polycarbonate, 5000K CCT

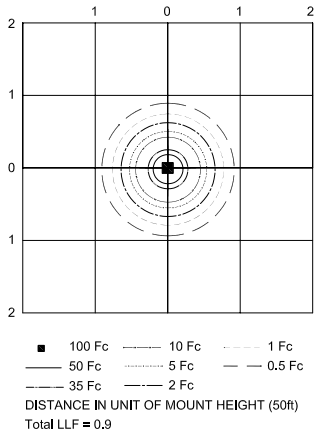
REPORT NUMBER: **IHC7CPVBH**

Luminaire Lumens 75,593

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 64,708.1 | 85.6% |
| 0-40 | 69,742.8 | 92.3% |
| 0-60 | 73,556.6 | 97.3% |
| 60-90 | 1,881.3 | 2.5% |
| 70-100 | 917.4 | 1.2% |
| 90-120 | 54.4 | 0.1% |
| 0-90 | 75,437.9 | 99.8% |
| 90-180 | 155.0 | 0.2% |
| 0-180 | 75,593.0 | 100% |

**LUMENS PER ZONE**

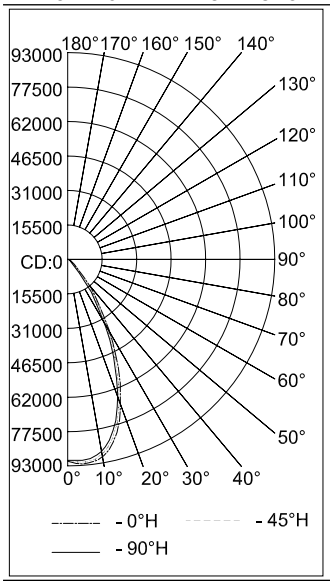
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 18,397.6 | 24.3% | 90-100 |
| 10-20 | 30,712.7 | 40.6% | 100-110 |
| 20-30 | 15,597.9 | 20.6% | 110-120 |
| 30-40 | 5,034.6 | 6.7% | 120-130 |
| 40-50 | 2,326.9 | 3.1% | 130-140 |
| 50-60 | 1,487.0 | 2.0% | 140-150 |
| 60-70 | 999.9 | 1.3% | 150-160 |
| 70-80 | 674.0 | 0.9% | 160-170 |
| 80-90 | 207.4 | 0.3% | 170-180 |

### Narrow Distribution, Clear Polycarbonate, 5000K CCT

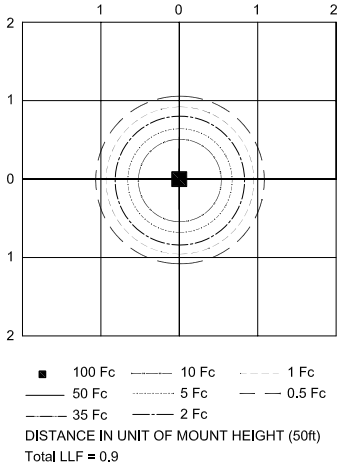
REPORT NUMBER: **IHC7CPNBH**

Luminaire Lumens 75,436

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 52,909.9 | 70.1% |
| 0-40 | 66,150.7 | 87.7% |
| 0-60 | 72,763.2 | 96.5% |
| 60-90 | 2,487.7 | 3.3% |
| 70-100 | 1,234.1 | 1.6% |
| 90-120 | 85.5 | 0.1% |
| 0-90 | 75,251.0 | 99.8% |
| 90-180 | 185.6 | 0.2% |
| 0-180 | 75,436.6 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 8,549.2 | 11.3% | 90-100 |
| 10-20 | 21,856.2 | 29.0% | 100-110 |
| 20-30 | 22,504.5 | 29.8% | 110-120 |
| 30-40 | 13,240.8 | 17.6% | 120-130 |
| 40-50 | 4,711.7 | 6.2% | 130-140 |
| 50-60 | 1,900.9 | 2.5% | 140-150 |
| 60-70 | 1,310.3 | 1.7% | 150-160 |
| 70-80 | 887.3 | 1.2% | 160-170 |
| 80-90 | 290.1 | 0.4% | 170-180 |

# IHC LED Series Luminaires

## High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

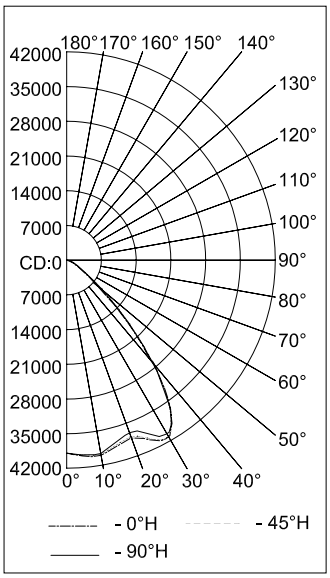
### Photometric Data — DATA SHOWN IS ABSOLUTE

**Medium Distribution, Clear Polycarbonate, 5000K CCT**

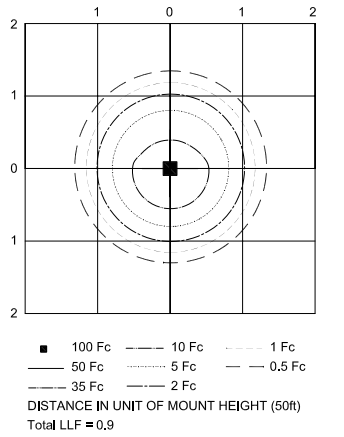
REPORT NUMBER: **IHC7CPMBH**

Luminaire Lumens 75,469

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 32,364.0 | 42.9% |
| 0-40 | 54,177.7 | 71.8% |
| 0-60 | 72,428.7 | 96% |
| 60-90 | 2,899.9 | 3.8% |
| 70-100 | 1,243.1 | 1.6% |
| 90-120 | 61.7 | 0.1% |
| 0-90 | 75,328.6 | 99.8% |
| 90-180 | 141.1 | 0.2% |
| 0-180 | 75,469.7 | 100% |

**LUMENS PER ZONE**

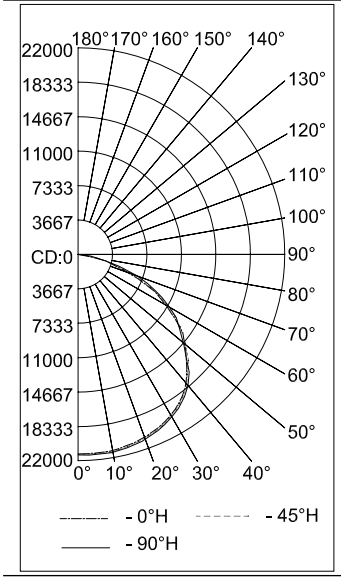
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 3,782.2 | 5.0% | 90-100 |
| 10-20 | 10,800.8 | 14.3% | 100-110 |
| 20-30 | 17,781.0 | 23.6% | 110-120 |
| 30-40 | 21,813.7 | 28.9% | 120-130 |
| 40-50 | 13,538.8 | 17.9% | 130-140 |
| 50-60 | 4,712.2 | 6.2% | 140-150 |
| 60-70 | 1,697.8 | 2.2% | 150-160 |
| 70-80 | 926.9 | 1.2% | 160-170 |
| 80-90 | 275.2 | .4% | 170-180 |

**Very Wide (Non-Optic) Distribution, Clear Polycarbonate, 5000K CCT**

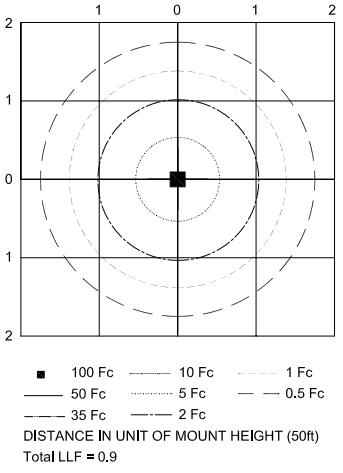
REPORT NUMBER: **IHC7CPWBH**

Luminaire Lumens 68,781

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 17,311.0 | 25.2% |
| 0-40 | 29,208.9 | 42.5% |
| 0-60 | 53,730.6 | 78.1% |
| 60-90 | 14,394.5 | 20.9% |
| 70-100 | 5,829.0 | 8.5% |
| 90-120 | 437.5 | 0.6% |
| 0-90 | 68,125.1 | 99.1% |
| 90-180 | 653.4 | 0.9% |
| 0-180 | 68,778.4 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 2,020.4 | 2.9% | 90-100 |
| 10-20 | 5,925.0 | 8.6% | 100-110 |
| 20-30 | 9,365.6 | 13.6% | 110-120 |
| 30-40 | 11,898.0 | 17.3% | 120-130 |
| 40-50 | 12,746.2 | 18.5% | 130-140 |
| 50-60 | 11,775.5 | 17.1% | 140-150 |
| 60-70 | 8,853.0 | 12.9% | 150-160 |
| 70-80 | 4,333.2 | 6.3% | 160-170 |
| 80-90 | 1,208.3 | 1.8% | 170-180 |

# IHC LED Series Luminaires

## High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

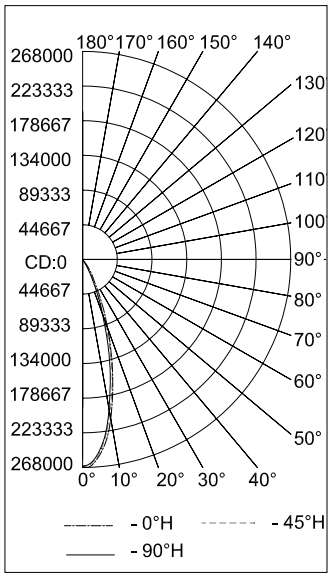
### Photometric Data — DATA SHOWN IS ABSOLUTE

**Very Narrow Distribution, Clear Polycarbonate, 5000K CCT**

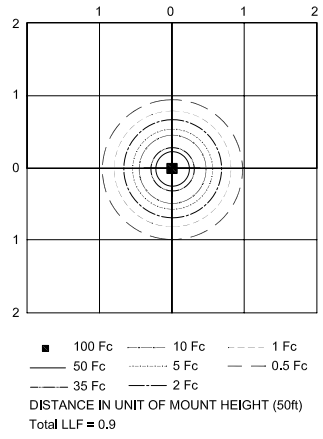
REPORT NUMBER: **IHC9CPVBH**

Luminaire Lumens 90,939

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 77,845.2 | 85.6% |
| 0-40 | 83,901.9 | 92.3% |
| 0-60 | 88,490.1 | 97.3% |
| 60-90 | 2,263.3 | 2.5% |
| 70-100 | 1,103.8 | 1.2% |
| 90-120 | 65.2 | 0.1% |
| 0-90 | 90,753.4 | 99.8% |
| 90-180 | 186.1 | 0.2% |
| 0-180 | 90,939.5 | 100% |

**LUMENS PER ZONE**

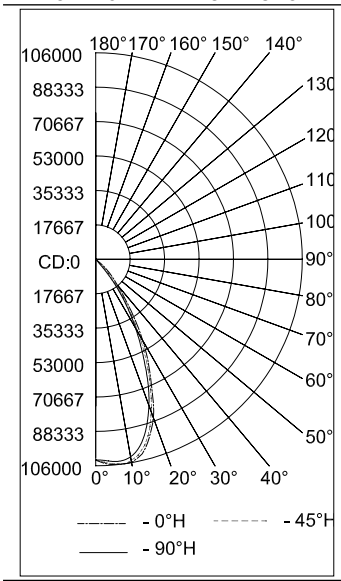
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 22,132.6 | 24.3% | 90-100 |
| 10-20 | 36,948.0 | 40.6% | 100-110 |
| 20-30 | 18,764.5 | 20.6% | 110-120 |
| 30-40 | 6,056.8 | 6.7% | 120-130 |
| 40-50 | 2,799.3 | 3.1% | 130-140 |
| 50-60 | 1,788.9 | 2.0% | 140-150 |
| 60-70 | 1,202.9 | 1.3% | 150-160 |
| 70-80 | 810.9 | 0.9% | 160-170 |
| 80-90 | 249.5 | 0.3% | 170-180 |

**Narrow Distribution, Clear Polycarbonate, 5000K CCT**

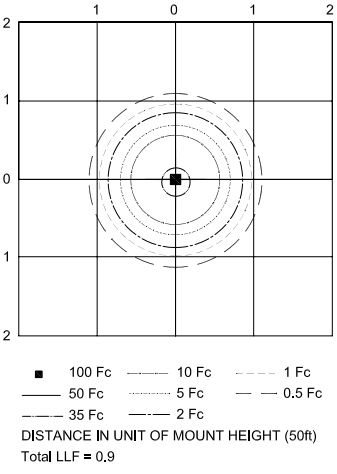
REPORT NUMBER: **IHC9CPNBH**

Luminaire Lumens 90,510

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 63,265.6 | 69.9% |
| 0-40 | 79,565.4 | 87.9% |
| 0-60 | 87,465.3 | 96.6% |
| 60-90 | 2,845.5 | 3.1% |
| 70-100 | 1,394.3 | 1.5% |
| 90-120 | 76.6 | 0.1% |
| 0-90 | 90,310.9 | 99.8% |
| 90-180 | 199.3 | 0.2% |
| 0-180 | 90,510.2 | 100% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 9,800.9 | 10.8% | 90-100 |
| 10-20 | 25,979.1 | 28.7% | 100-110 |
| 20-30 | 27,485.6 | 30.4% | 110-120 |
| 30-40 | 16,299.8 | 18.0% | 120-130 |
| 40-50 | 5,692.9 | 6.3% | 130-140 |
| 50-60 | 2,207.0 | 2.4% | 140-150 |
| 60-70 | 1,499.2 | 1.7% | 150-160 |
| 70-80 | 1,027.2 | 1.1% | 160-170 |
| 80-90 | 319.1 | 0.4% | 170-180 |

# IHC LED Series Luminaires

## High Lumen Output High Bay and Floodlight

Ordinary Locations

**NEC/CEC: Type 3R, 4, 4X | IP66 | Marine Outside Type (Salt Water) for USA ONLY | Wet Locations**
**IECEE CB: IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 3G Vibration**

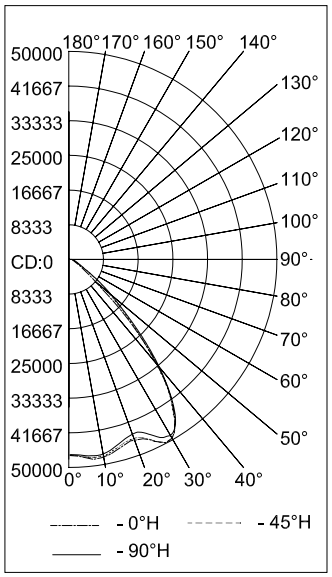
### Photometric Data — DATA SHOWN IS ABSOLUTE

**Medium Distribution, Clear Polycarbonate, 5000K CCT**

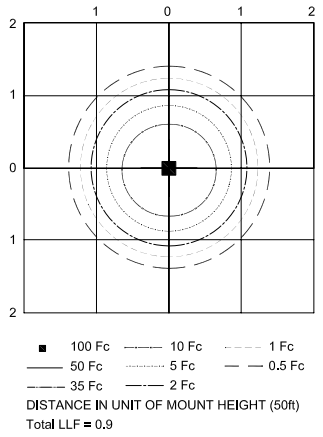
REPORT NUMBER: **IHC9CPMBH**

Luminaire Lumens 90,817

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 38,945.7 | 42.9% |
| 0-40 | 65,195.5 | 71.8% |
| 0-60 | 87,158.1 | 96% |
| 60-90 | 3,489.6 | 3.8% |
| 70-100 | 1,496.0 | 1.6% |
| 90-120 | 74.1 | 0.1% |
| 0-90 | 90,647.7 | 99.8% |
| 90-180 | 169.7 | 0.2% |
| 0-180 | 90,817.4 | 100% |

**LUMENS PER ZONE**

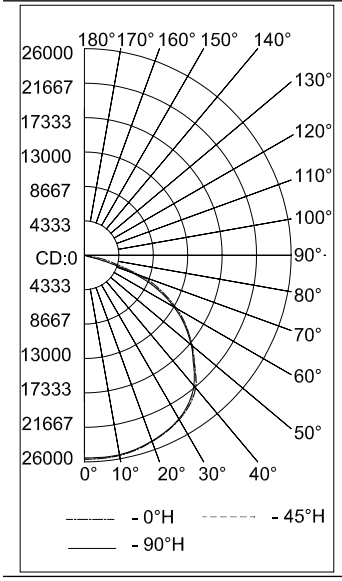
| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 4,551.4 | 5.0% | 90-100 |
| 10-20 | 12,997.3 | 14.3% | 100-110 |
| 20-30 | 21,397.1 | 23.6% | 110-120 |
| 30-40 | 26,249.8 | 28.9% | 120-130 |
| 40-50 | 16,292.1 | 17.9% | 130-140 |
| 50-60 | 5,670.5 | 6.2% | 140-150 |
| 60-70 | 2,043.1 | 2.2% | 150-160 |
| 70-80 | 1,115.4 | 1.2% | 160-170 |
| 80-90 | 331.1 | .4% | 170-180 |

**Very Wide (Non-Optic) Distribution, Clear Polycarbonate, 5000K CCT**

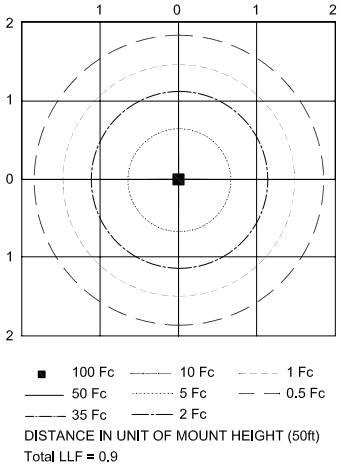
REPORT NUMBER: **IHC9CPWBH**

Luminaire Lumens 82,853

**POLAR CANDELA DISTRIBUTION**




**ISOFOOT CANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 20,852.3 | 25.1% |
| 0-40 | 35,184.3 | 42.4% |
| 0-60 | 64,722.5 | 78.0% |
| 60-90 | 17,339.3 | 20.9% |
| 70-100 | 7,021.8 | 8.5% |
| 90-120 | 527.4 | 0.6% |
| 0-90 | 82,061.7 | 99.0% |
| 90-180 | 787.6 | 0.9% |
| 0-180 | 82,849.3 | 99.9% |

**LUMENS PER ZONE**

| Zone | Lumens | % Total | Zone |
|---|---|---|---|
| 0-10 | 2,433.7 | 2.9% | 90-100 |
| 10-20 | 7,137.1 | 8.6% | 100-110 |
| 20-30 | 11,281.5 | 13.6% | 110-120 |
| 30-40 | 14,332.0 | 17.3% | 120-130 |
| 40-50 | 15,353.6 | 18.5% | 130-140 |
| 50-60 | 14,184.5 | 17.1% | 140-150 |
| 60-70 | 10,664.0 | 12.9% | 150-160 |
| 70-80 | 5,219.7 | 6.3% | 160-170 |
| 80-90 | 1,455.5 | 1.8% | 170-180 |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

## Applications

- Enclosed and gasketed fixtures suitable for use in a wide range of industrial, chemical processing and other areas where flammable gases and vapors are present, for example:
  - — Oil and Gas Refineries
  - — Petrochemical Plants
  - — Foundries
  - — Drilling Rigs
  - — Pulp and Paper Mills
  - — Food and Beverage Processing Facilities
  - — Loading Docks
  - — Power Plants
  - — Water and Wastewater Treatment Facilities
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other areas where corrosive, wet, dirty and tough environments are a problem
- IP66/IP67, Type 4X, marine and wet locations. IP66 for IECEx/ATEX.
- Locations requiring dependable, consistent lighting in extreme hot/cold temperature environments.
  - — -40 °C to +65 °C (-40 °F to +149 °F) ambient temperature range.
  - — -40 °C to +55 °C (-40 °F to +131 °F) for high lumen AMLHL3 output.
- Globally rated luminaires with all applicable certification labels for NEC/CEC and ATEX/IECEx environments. See Certifications and Compliances for details.

## Features

- Six lumen outputs provide up to 38,000 lumens.

| Nominal Lumens ① | HID Equivalent | Model Number |
|---|---|---|
| 9,500 | 175W-250W | AMLGL6 |
| 15,000 | 250W-400W | AMLGL7 |
| 19,500 | 400W-750W | AMLGL8 |
| 24,000 | 1000W | AMLHL1 |
| 30,000 | 1000-1500W | AMLHL2 |
| 38,000 | 1500W | AMLHL3 |

*① Nominal lumen value for 5000K, NEMA 7x7, with clear glass. Detailed lumen information provided in tables.*

- Choice of optics for optimal light distribution in a variety of applications.
- Separate field wiring compartment with screw terminal block for easy and secure connection can accept 0.14 - 6 mm² (26 - 10 AWG) wire.
- Wiring compartment has two 3/4" NPT entries in bottom and one 3/4" NPT entry on top. Optional M20 metric adapters available.
- High Bay mounting achieved by using ¾" NPT threaded non-penetrating blind hold centered in top of luminaire with integral set screw. Wire via wiring compartment.
- Yoke bracket is designed to accommodate traditional Areamaster brackets and slipfitters for easy retrofit. Optional stainless steel yoke bracket is available.
- Choice of color temperature (CCT): 5000K (70 CRI) cool white, 4000K (80 CRI) neutral white, or 3000K (80 CRI) warm white.
- Reported L70 is > 60,000 hours @ +65°C (+149 °F).
- Rugged and compact housing with superior thermal design translates to long luminaire life.
- Heavy duty, high temperature silicone rubber gaskets.
- Thermal shock and impact resistant clear or frosted glass lens.
- Standard 6 kV/3 kA surge protection. Optional 10 kV/5 kA additional surge protection available.

**AMLG**

**AMLH**

- Captive fasteners secure one piece lens.
- Field replaceable LED driver and lens cover.
- Photometric data and electronic drawings available upon request.
- 5 year standard warranty. 10 year limited warranty for select part number configurations.

## Options

- Improved safety cable design with multiple retention points, *purchase separately*.
- Guard and visor available, *purchase separately*.
- Slip-fitters and mounting brackets available for easy pole or wall mounting.
- Stainless steel yoke bracket.
- 10 kV/5 kA Surge Protection, for NEC/CEC only.

## Standard Materials

- Housing and lens cover: copperfree (4/10 of 1% max.) aluminum
- Gaskets: silicone rubber
- Yoke: zinc plated steel
- Bolts: stainless steel
- Close up plugs: (2) aluminum provided
- Guard and safety cable: stainless steel
- Visor: Aluminum

## Standard Finishes

- Housing, lens cover, visor and yoke mount: architectural bronze polyester

## NEC/CEC Certifications and Compliances

- UL Standards: UL 844; UL1598; UL1598A; UL 8750
- CSA Standards: CSA C22.2 No. 250.0; CSA C22.2 No. 137
- cCSAus 164460 Certificate Number: AMLG – 70073611, AMLH – 70073613
- cETLus: 104364566CHI
- Vibration Rating: 10G, 10 hours, 3 axis at first mode resonant frequency

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

## ATEX/IECEx Certifications and Compliances

- Certification Type: Areamaster Generation 2 and High Lumen LED
  - — Gas: Zone 2
    - – Conforming to ATEX 2014/34/EU: Ex II 3G
    - – Type of Protection: Ex ec IIC Gc
    - – Temperature Class: AMLG – T5 to T3; AMLH – T4 to T3
  - — Dust: Zones 21 and 22
    - – Conforming to ATEX 2014/34/EU: Ex II 2D
    - – Type of Protection: Ex op is tb IIIC Db
    - – Surface Temperature: +85 °C to +100 °C (+185 °F to +212 °F)
  - — Dust: Zone 22
    - – Conforming to ATEX 2014/34/EU: Ex II 3D
    - – Type of Protection: Ex tc IIIC Dc
    - – Surface Temperature: +85 °C to +100 °C (+185 °F to +212 °F)
- Ambient Temperature: -40 °C up to +65 °C (-40 °F up to +149 °F). -40 °C to +55 °C (-40 °F to +131 °F) for high lumen AMLHL3 output.
- ATEX Certificates: ITS18ATEX104171, ITS18ATEX304055
- IECEx Certificate: IECEx ITS 18.0049
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK08
- Photobiological Safety, IEC 62778 and IEC 62471: Risk Group 1 (RG1)

## CE and UKCA Marking

- ATEX: EN 60079-0 , EN 60079-7, EN 60079-31
- Safety: EN 60598-1, EN 60598-2-1, and EN 60598-2-5
- EMC: EN 61547, 61000-6-2, 61000-6-4, 61000-3-2; CISPR 15

## ABS Certifications

- AMLG: 18-HS1714271-PDA
- AMLH: 18-HS1714275-PDA

## DesignLights™ Consortium

- Check DLC QPL for current list of products.

## Related Products

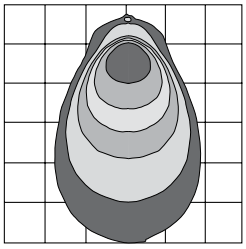
- Industrial Areamaster Generation 2 and High Lumen LED Series Luminaires
- Round Tapered Steel Poles
- Hinged Steel Poles
- Square Tapered Steel Poles
- Square Steel Poles
- Floodlight Mounting Brackets

## Illustrated Features

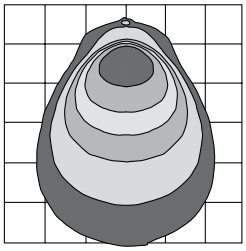
### Light Where You Need It

Choose from **3 color temperatures** and a **variety of secondary optics** to put light where your application needs it most. Unsure of which optic is best for your job? Contact your sales representative to get a free 3D Dialux simulation.

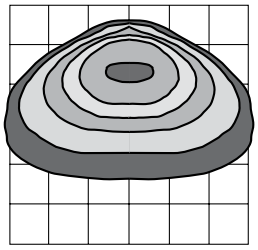
### The Right Beam Pattern for Your Application



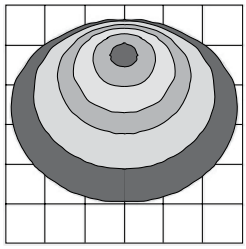
**NEMA 3x3** – Very Narrow, spot type forward intensity focus. Enables highest mounting heights (30 m / 100 ft +) while maintaining delivered light on surface (footcandles/lux).



**NEMA 5x5** – Narrow, spot type forward intensity focus. Enables higher mounting heights (15 m / 50 ft +) while maintaining delivered light on surface (footcandles/lux).



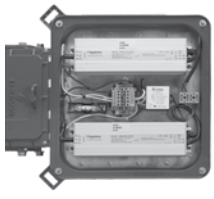
**NEMA 7x6** – Mimics traditional HID light distribution. Light intensity is directed forward and side-to-side to maximize spacing between luminaires.



**NEMA 7x7** – Uniform light spread, perfect for most typical flood lighting applications.

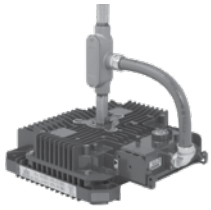
### Robust Design

**Front-Facing Wiring Compartment:** Gasketed front wiring compartment with screw terminal block, and captive screws offers unmatchable installation ease and convenience.



**Replaceable Drivers:** Easy to access, field replaceable drivers extend the useful life of your luminaire up to 200,000 hours or more.

**Visor and Guard:** Comply with light pollution regulations or control light spread with a visor. Protect the lens with a guard.



**High Bay Mount:** Use 3/4" NPT threaded non-penetrating blind hold centered in top of luminaire with integral set screw. Wire via wiring compartment.

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**Order Using Catalog Numbering Guide — Areamaster™ Generation 2 Series Luminaires — Low Lumen Model**

| AMLG | L7 | C | G | 7 | BU | S |
|---|---|---|---|---|---|---|
| Series Prefix:<br>AMLG: Areamaster Generation 2 LED | Lumen Level: ①<br>L6 - 9K<br>L7 - 15K<br>L8 - 19K | Color Temp CCT:<br>C - 5000K (70 CRI)<br>N - 4000K (80 CRI)<br>W - 3000K (80 CRI) | Diffusion:<br>G - Clear Glass<br>F - Frosted Glass<br>D - Diffused Polycarbonate ⑤ | Beam Spread:<br>6 - NEMA 7x7 (non-optic)<br>7 - NEMA 7x6 | Voltage:<br>BU - 120-277 Vac, 50/60 Hz, 125-300 Vdc<br>BH - 347-480 Vac, 50/60 Hz ③ | Options:<br>F - Fusing ②<br>S - 10 kV Surge Protection ④<br>M - M20 Metric Cable Entry Adapters |

**Order Using Catalog Numbering Guide — Areamaster™ Generation 2 Series Luminaires — High Lumen Model**

| AMLH | L1 | C | G | 7 | BU | S |
|---|---|---|---|---|---|---|
| Series Prefix:<br>AMLH: Areamaster Generation 2 HL LED | Lumen Level: ①<br>L1 - 24K<br>L2 - 30K<br>L3 - 38K | Color Temp CCT:<br>C - 5000K (70 CRI)<br>N - 4000K (80 CRI)<br>W - 3000K (80 CRI) | Diffusion:<br>G - Clear Glass<br>F - Frosted Glass | Beam Spread:<br>3 - NEMA 3x3<br>5 - NEMA 5x5<br>6 - NEMA 7x7 (non-optic)<br>7 - NEMA 7x6 | Voltage:<br>BU - 120-277 Vac, 50/60 Hz,125-300 Vdc<br>BH - 347-480 Vac, 50/60 Hz ③ | Options:<br>F - Fusing ②<br>S - 10 kV Surge Protection ④<br>M - M20 Metric Cable Entry Adapters |

*① All lumen values are typical (tolerance +/- 10%)*
*② Use of fuse voids Marine rating. Fusing available for NEC/CEC only.*
*③ BH voltage available for NEC/CEC only.*
*④ 10kV Surge Protection available for NEC/CEC only.*
*⑤ Diffused polycarbonate available for NEC/CEC only..*

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

## Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**Lumen Output (Efficacy) — Low Lumen Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass** | | | | | | | | | | | | | | |
| AMLGL6 | 175-250W | NEMA 7x6 | 3000K | 80 | 7,350 | 105 | 4000K | 80 | 8,500 | 121 | 5000K | 70 | 9,500 | 136 |
| | | NEMA 7x7 | 3000K | 80 | 7,650 | 109 | 4000K | 80 | 9,000 | 129 | 5000K | 70 | 9,900 | 141 |
| AMLGL7 | 250-400W | NEMA 7x6 | 3000K | 80 | 11,000 | 99 | 4000K | 80 | 12,950 | 117 | 5000K | 70 | 14,500 | 131 |
| | | NEMA 7x7 | 3000K | 80 | 11,500 | 104 | 4000K | 80 | 13,650 | 123 | 5000K | 70 | 15,000 | 135 |
| AMLGL8 | 400-750W | NEMA 7x6 | 3000K | 80 | 14,500 | 95 | 4000K | 80 | 16,550 | 109 | 5000K | 70 | 18,500 | 122 |
| | | NEMA 7x7 | 3000K | 80 | 15,000 | 99 | 4000K | 80 | 17,550 | 115 | 5000K | 70 | 19,500 | 128 |
| **Frosted Glass** | | | | | | | | | | | | | | |
| AMLGL6 | 175-250W | NEMA 7x6 | 3000K | 80 | 6,200 | 89 | 4000K | 80 | 7,200 | 103 | 5000K | 70 | 7,900 | 113 |
| | | NEMA 7x7 | 3000K | 80 | 6,400 | 91 | 4000K | 80 | 7,500 | 107 | 5000K | 70 | 8,300 | 119 |
| AMLGL7 | 250-400W | NEMA 7x6 | 3000K | 80 | 9,400 | 85 | 4000K | 80 | 10,950 | 99 | 5000K | 70 | 12,000 | 108 |
| | | NEMA 7x7 | 3000K | 80 | 9,700 | 87 | 4000K | 80 | 11,350 | 102 | 5000K | 70 | 12,500 | 113 |
| AMLGL8 | 400-750W | NEMA 7x6 | 3000K | 80 | 12,000 | 79 | 4000K | 80 | 14,000 | 92 | 5000K | 70 | 15,550 | 102 |
| | | NEMA 7x7 | 3000K | 80 | 12,500 | 82 | 4000K | 80 | 14,500 | 95 | 5000K | 70 | 16,550 | 109 |
| **Diffused Polycarbonate** | | | | | | | | | | | | | | |
| AMLGL6 | 175-250W | NEMA 7x6 | 3000K | 80 | 5,950 | 85 | 4000K | 80 | 6,950 | 99 | 5000K | 70 | 7,700 | 110 |
| | | NEMA 7x7 | 3000K | 80 | 6,250 | 89 | 4000K | 80 | 7,300 | 104 | 5000K | 70 | 8,050 | 115 |
| AMLGL7 | 250-400W | NEMA 7x6 | 3000K | 80 | 9,000 | 81 | 4000K | 80 | 10,550 | 95 | 5000K | 70 | 11,700 | 105 |
| | | NEMA 7x7 | 3000K | 80 | 9,450 | 85 | 4000K | 80 | 11,000 | 99 | 5000K | 70 | 12,200 | 110 |
| AMLGL8 | 400-750W | NEMA 7x6 | 3000K | 80 | 11,500 | 76 | 4000K | 80 | 13,500 | 89 | 5000K | 70 | 15,000 | 99 |
| | | NEMA 7x7 | 3000K | 80 | 12,100 | 80 | 4000K | 80 | 14,150 | 93 | 5000K | 70 | 15,650 | 103 |

*① All lumen values are typical (tolerance +/-10%).*

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**Lumen Output (Efficacy) — High Lumen Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass** | | | | | | | | | | | | | | |
| AMLHL1 | 1000W | NEMA 3x3 | 3000K | 80 | 19,350 | 109 | 4000K | 80 | 20,250 | 114 | 5000K | 70 | 22,750 | 128 |
| | | NEMA 5x5 | 3000K | 80 | 20,850 | 117 | 4000K | 80 | 21,900 | 123 | 5000K | 70 | 25,000 | 140 |
| | | NEMA 7x6 | 3000K | 80 | 19,000 | 107 | 4000K | 80 | 20,500 | 115 | 5000K | 70 | 23,000 | 129 |
| | | NEMA 7x7 | 3000K | 80 | 20,100 | 113 | 4000K | 80 | 21,300 | 120 | 5000K | 70 | 24,250 | 136 |
| AMLHL2 | 1000-1500W | NEMA 3x3 | 3000K | 80 | 23,450 | 106 | 4000K | 80 | 24,600 | 111 | 5000K | 70 | 27,500 | 124 |
| | | NEMA 5x5 | 3000K | 80 | 25,500 | 115 | 4000K | 80 | 26,700 | 120 | 5000K | 70 | 30,000 | 135 |
| | | NEMA 7x6 | 3000K | 80 | 23,200 | 105 | 4000K | 80 | 25,000 | 113 | 5000K | 70 | 27,950 | 126 |
| | | NEMA 7x7 | 3000K | 80 | 24,650 | 111 | 4000K | 80 | 26,100 | 118 | 5000K | 70 | 29,750 | 134 |
| AMLHL3 | 1500W | NEMA 3x3 | 3000K | 80 | 29,500 | 99 | 4000K | 80 | 30,950 | 104 | 5000K | 70 | 34,750 | 117 |
| | | NEMA 5x5 | 3000K | 80 | 32,000 | 107 | 4000K | 80 | 33,600 | 113 | 5000K | 70 | 37,500 | 126 |
| | | NEMA 7x6 | 3000K | 80 | 29,300 | 98 | 4000K | 80 | 31,500 | 106 | 5000K | 70 | 35,350 | 119 |
| | | NEMA 7x7 | 3000K | 80 | 31,000 | 104 | 4000K | 80 | 32,800 | 110 | 5000K | 70 | 37,400 | 126 |
| **Frosted Glass** | | | | | | | | | | | | | | |
| AMLHL1 | 1000W | NEMA 3x3 | 3000K | 80 | 17,200 | 97 | 4000K | 80 | 17,950 | 101 | 5000K | 70 | 20,000 | 112 |
| | | NEMA 5x5 | 3000K | 80 | 18,600 | 104 | 4000K | 80 | 19,350 | 109 | 5000K | 70 | 21,550 | 121 |
| | | NEMA 7x6 | 3000K | 80 | 16,150 | 91 | 4000K | 80 | 17,300 | 97 | 5000K | 70 | 19,500 | 110 |
| | | NEMA 7x7 | 3000K | 80 | 16,850 | 95 | 4000K | 80 | 18,000 | 101 | 5000K | 70 | 20,500 | 115 |
| AMLHL2 | 1000-1500W | NEMA 3x3 | 3000K | 80 | 21,000 | 95 | 4000K | 80 | 21,950 | 99 | 5000K | 70 | 24,750 | 111 |
| | | NEMA 5x5 | 3000K | 80 | 22,650 | 102 | 4000K | 80 | 23,600 | 106 | 5000K | 70 | 26,000 | 117 |
| | | NEMA 7x6 | 3000K | 80 | 19,600 | 88 | 4000K | 80 | 21,000 | 95 | 5000K | 70 | 23,700 | 107 |
| | | NEMA 7x7 | 3000K | 80 | 20,550 | 93 | 4000K | 80 | 21,950 | 99 | 5000K | 70 | 25,000 | 113 |
| AMLHL3 | 1500W | NEMA 3x3 | 3000K | 80 | 26,400 | 89 | 4000K | 80 | 27,500 | 92 | 5000K | 70 | 31,000 | 104 |
| | | NEMA 5x5 | 3000K | 80 | 28,600 | 96 | 4000K | 80 | 29,750 | 100 | 5000K | 70 | 33,500 | 112 |
| | | NEMA 7x6 | 3000K | 80 | 24,750 | 83 | 4000K | 80 | 26,550 | 89 | 5000K | 70 | 29,950 | 101 |
| | | NEMA 7x7 | 3000K | 80 | 26,000 | 87 | 4000K | 80 | 27,700 | 93 | 5000K | 70 | 31,500 | 106 |

*① All lumen values are typical (tolerance +/-10%).*

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**Electrical Specifications** ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Low Lumen Model** | | | | | |
| AMLGL6 | 120 Vac | 73 | 0.62 | >.9 | <20% |
| | 277 Vac | 71 | 0.27 | | |
| | 125 Vdc | 69 | 0.55 | N/A | N/A |
| | 300 Vdc | 68 | 0.23 | | |
| | 347 Vac | 71 | 0.21 | >.9 | <20% |
| | 480 Vac | 71 | 0.16 | | |
| AMLGL7 | 120 Vac | 111 | 0.94 | >.9 | <20% |
| | 277 Vac | 106 | 0.43 | | |
| | 125 Vdc | 113 | 0.90 | N/A | N/A |
| | 300 Vdc | 111 | 0.37 | | |
| | 347 Vac | 115 | 0.33 | >.9 | <20% |
| | 480 Vac | 115 | 0.25 | | |
| AMLGL8 | 120 Vac | 154 | 1.30 | >.9 | <20% |
| | 277 Vac | 146 | 0.56 | | |
| | 125 Vdc | 156 | 1.25 | N/A | N/A |
| | 300 Vdc | 152 | 0.51 | | |
| | 347 Vac | 150 | 0.43 | >.9 | <20% |
| | 480 Vac | 149 | 0.32 | | |
| **High Lumen Model** | | | | | |
| AMLHL1 | 120 Vac | 180 | 1.52 | >.9 | <20% |
| | 277 Vac | 176 | 0.67 | | |
| | 125 Vdc | 172 | 1.38 | N/A | N/A |
| | 300 Vdc | 170 | 0.57 | | |
| | 347 Vac | 179 | 0.52 | >.9 | <20% |
| | 480 Vac | 179 | 0.39 | | |
| AMLHL2 | 120 Vac | 231 | 1.94 | >.9 | <20% |
| | 277 Vac | 231 | 0.88 | | |
| | 125 Vdc | 220 | 1.76 | N/A | N/A |
| | 300 Vdc | 217 | 0.72 | | |
| | 347 Vac | 219 | 0.64 | >.9 | <20% |
| | 480 Vac | 219 | 0.47 | | |
| AMLHL3 | 120 Vac | 317 | 2.67 | >.9 | <20% |
| | 277 Vac | 303 | 1.15 | | |
| | 125 Vdc | 305 | 2.44 | N/A | N/A |
| | 300 Vdc | 298 | 0.99 | | |
| | 347 Vac | 299 | 0.87 | >.9 | <20% |
| | 480 Vac | 298 | 0.63 | | |

*Note: Surge Protection: Integral 6 kV surge protection. Option for up to 10 kV surge protection.*
*① All values are typical (tolerance +/-10%).*

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**NEC/CEC Temperature Codes**

| Model | Max Driver Current (mA) | Max Ambient C° (F°) | Gas: Class I, Division 2 Groups A, B, C, D | Gas: Class I, Zone 2 Group IIC | Dust: Class II, Divison 1 Groups E, F, G | Dust: Zone 20 Group IIIC | Combined Class I, Division 2 and Class II, Division 1 | Gas Ex ec IIC, Class I, Zone 2, AEx ec IIC | Dust Ex tb IIIC, Zone 21, AEx tb IIIC |
|---|---|---|---|---|---|---|---|---|---|
| | | 40 (104) | T5 | T5 | T6 | T6 | T4A | T5 | T85 °C |
| AMLGL6 | 410 | 55 (131) | T4A | T4 | T6 | T6 | T4A | T4 | T85 °C |
| | | 65 (149) | T4A | T4 | T6 | T6 | T4 | T4 | T85 °C |
| | | 40 (104) | T4 | T4 | T6 | T6 | T4 | T4 | T85 °C |
| AMLGL7 | 680 | 55 (131) | T3C | T3 | T6 | T6 | T3C | T3 | T85 °C |
| | | 65 (149) | T3C ① | T3 ① | T5 ① | T5 ① | T3C ① | T3 ② | T100 °C ② |
| | | 40 (104) | T3C | T3 | T6 | T6 | T3C | T3 | T85 °C |
| AMLGL8 | 930 | 55 (131) | T3B ① | T3 ① | T5 ① | T5 ① | T3A ① | T3 ① | T100 °C ② |
| | | 65 (149) | T3A ① | T3 ① | T5 ① | T5 ① | T3A ① | T3 ① | T100 °C ② |
| | | 40 (104) | T4A | T4 | T6/T5 ③ | T6/T5 ③ | T4A | T4 | T85°C/T100°C ③ |
| AMLHL1 | 530 | 55 (131) | T4A | T4 | T6/T5 ③ | T6/T5 ③ | T4A | T4 | T85°C/T100°C ③ |
| | | 65 (149) | T4 | T4 | T5 ③ | T5 ③ | T4 | T4 | T100°C |
| | | 40 (104) | T4 | T4 | T6/T5 ③ | T6/T5 ③ | T4 | T4 | T85°C/T100°C ③ |
| AMLHL2 | 680 | 55 (131) | T4 | T4 | T5 ③ | T5 ③ | T4 | T4 | T100°C |
| | | 65 (149) | T3C | T3 | T5 ③ | T5 ③ | T4 | T3 | T100°C |
| | | 40 (104) | T3C | T3 | T6/T5③ | T6/T5③ | T3C | T3 | T85°C/T100°C ③ |
| AMLHL3 | 915 | 55 (131) | T3C | T3 | T5③ | T5③ | T3C | T3 | T100°C |
| | | 65 (149) | — | — | — | — | — | — | — |

**NEC/CEC — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature ④⑤**

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*Notes: Supply Wire Temperature for all: +90 °C (+194 °F).*
*For input voltages of 125-169 Vdc, an ambient temperature exceeding +55 °C (+131 °F) is not permitted.*
*① Diffused polycarbonate lens option is not certified for these ambient temperature and lumen output combinations. Diffused polycarbonate not available for AMLH high lumen series*
*② Diffused polycarboante lens is certified for NEC/CEC only. No face up orientation for installation.*
*③ T5 is maximum allowed temperature code, and T100°C is maximum allowed temperature, when model number includes 3x3 secondary optic.*
*④ T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.*
*⑤ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and Class I, Zone 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.*

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

## Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

### ATEX/IECEx Temperature Codes

| Model | Max Driver Current (mA) | Gas — T Rating | | | Dust — Surface Temperature | | |
|---|---|---|---|---|---|---|---|
| | | +40°C (+104°F) | +55 °C (+131°F) | +65°C (+149°F) | +40°C (+104°F) | +55 °C (+131°F) | +65°C (+149°F) |
| AMLGL6 | 410 | T5 | T4 | T4 | T85°C | T85°C | T85°C |
| AMLGL7 | 680 | T4 | T3 | T3 | T85°C | T85°C | T100°C |
| AMLGL8 | 930 | T3 | T3 | T3 | T85°C | T100°C | T100°C |
| AMLHL1 | 530 | T4 | T4 | T3 | T85°C ① | T85°C ① | T85°C ① |
| AMLHL2 | 680 | T4 | T4 | T3 | T85°C ① | T100°C | T100°C |
| AMLHL3 | 915 | T4 | T3 | — | T100°C | T100°C | — |

### ATEX/IECEx — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature

| "T" # | T1 | T2 | T3 | T4 | T5 | T6 |
|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +301 to +450 (+547 to +842) | +201 to +300 (+394 to +572) | +136 to +200 (+277 to +392) | +101 to +135 (+214 to +275) | +86 to +100 (+187 to +212) | +85 (+185) |

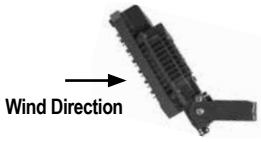
① *Areamaster High Lumen with 3x3 secondary optic surface temperature is T100°C for these ranges.*

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

| Luminaire Category | | Frontal Projected Area (FPA) ft² | Drag Coefficient (DC) | Effective Projected Area (EPA) = FPA*DC ft² |
|---|---|---|---|---|
| **Low Lumen Model — AMLG** | | | | |
| 90° to Ground-Worst Case Mounting | | 1.52 | 1.20 | 1.82 |
| 45° to Ground-Standard Mounting |   | 1.07 | 1.2 | 1.28 |
| **High Lumen Model — AMLH** | | | | |
| 90° to Ground-Worst Case Mounting | | 2.04 | 1.20 | 2.45 |
| 45° to Ground-Standard Mounting | | 1.44 | 1.20 | 1.73 |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



## Accessories and Replacement Parts

| | Description | Weight in kg (lbs) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|
| **Crossarm Mounting Bracket** | | | | |
| | Has 180° horizontal adjustment — degree marked. Facilitates mounting floodlight to crossarm or other flat surface, or to GAM8WB. Includes floodlight yoke bolts. Malleable iron, zinc plated, chromate sealed, architectural bronze polyester finish. | | 1.4 (3.1) | **GAM8CA** |
| **Pipe or Wall Mount Bracket** | | | | |
| | Used with GAM8CA. Clamps to 1" to 2-1/2" pipe, vertical or horizontal, or mounts on flat surfaces. Includes U-bolt and crossarm bracket bolts. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish. | | 2.9 (6.4) | **GAM8WB** |
| *Crossarm Mounting Bracket (**GAM8CA**) used with Pipe or Wall Mount Bracket (**GAM8WB**).* | | | | |
| **Poletop Slip-Fitter** | | | | |
| | Slip-fits 1" or 1-1/2" pipe size poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Body is malleable iron-zinc plated, chromate sealed, with cast aluminum cap. Assembly has architectural bronze polyester finish. | | 2.4 (5.3) | **AMLEDSF1** |
| **Poletop Slip-Fitter** | | | | |
| | Slip-fits 2" or 2-1/2" poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish. | | 2.8 (6.2) | **GAM8SF** |

**Photocontrol Kit — Separate FS Cast Hub Device Box (Step 1) and Photocontrol in FS Cover (Step 2)**

| | Voltage Range | Max VA | Max VA | Max Current Amps | Photocell Catalog Number | Device Box Catalog Number Iron | Device Box Catalog Number Aluminum |
|---|---|---|---|---|---|---|---|
| **Step 1: FS Cast Hub Device Box — single gang 2.00 in. deep FS Box, with one 3/4 in. bottom hub entry — Order separately** — Connect FS Box to luminaire wiring compartment with 3/4 in. close conduit nipple or 3/4 in. 90° elbow. Purchased separately from other supplier. | | | | | | | |
| | N/A | N/A | N/A | N/A | — | **APP-FS-1-75** | **APP-FS-1-75-A** |
| **Step 2: Photocontrol in FS Cover for installation in FS Cast Hub Device Box — Order separately** — Supplied with two stainless screws and neoprene gasket, catalog number: FS-GKR-1N | | | | | | | |
| | 120 V, 50/60 Hz | 1000 | 1000 | 8.3 Amp | **FSKA-PC120D2** | — | — |
| | 208 V, 50/60 Hz | 1000 | 1000 | 4.8 Amp | | | |
| | 240 V, 50/60 Hz | 1000 | 1000 | 4.2 Amp | **FSKA-PC247D2** | — | — |
| | 277 V, 50/60 Hz | 1000 | 1000 | 3.6 Amp | | | |

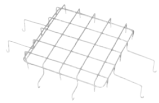
# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**Accessories and Replacement Parts**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Wall Mount Bracket** | | | |
| | Used with GAM8SF to provide a wall mounting option. Galvanized Steel. | 4.8 (10.5) | **GPSWB6GAL** |
| **Wire Guard** | | | |
|  | Stainless steel. | 0.2 (0.4) | **LGGUARD**<br>**LHGUARD** |
| **Safety Cable** | | | |
| | Stainless steel. | 0.2 (0.4) | **LEDSC** |
| **Visor** | | | |
| | Steel with architectural bronze polyester finish.<br>For Dark Sky Friendly design. | 0.2 (0.4) | **AMLGV**<br>**AMLHV** |
| **Portable Floodlight Base** | | | |
| | Portable floodlight base for temporary lighting applications. To be used with wire guard. Malleable iron with architectural bronze polyester finish. | 2.4 (5.2) | **GAMPFB** |
| **Replacement Covers/Lenses** | | | |
| | Clear Glass — AMLGL6, AMLGL7, AMLGL8 | 2.2 (4.8) | **AMLGCLEAR** |
| | Frosted Glass — AMLGL6, AMLGL7, AMLGL8 | 2.0 (4.5) | **AMLGFROST** |
| | Diffused Polycarbonate — AMLGL6, AMLGL7, AMLGL8 | 1.6 (3.5) | **AMLGDIFFP** |
| | Clear Glass — AMLHL1, AMLHL2, AMLHL3 | 2.4 (5.3) | **AMLHCLEAR** |
| | Frosted Glass — AMLHL1, AMLHL2, AMLHL3 | 2.4 (5.3) | **AMLHFROST** |
| **Yoke Mount Bracket** | | | |
| | Stainless Steel Yoke Mount Bracket. For installations requiring a higher degree of corrosion protection. Made with all stainless steel components, no painted finish. | 1.8 (4.0) | **AMLYMSS** |
| | Architectural Bronze Replacement Yoke Bracket | 1.41 (3.1) | **AMLYMAB** |
| | Architectural Bronze Replacement Yoke Bracket - Matches mounting hole pattern of Crouse-Hinds™ ✣ Champ FMVA and Champ Pro PFMA LED series floodlights | 1.41 (3.1) | **AMLYMCH** |

✣ *Crouse-Hinds and Champ are registered trademarks of Eaton.*

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



**Replacement Drivers**

| | Model | Voltage | Driver Wattage | Constant Current Setting | Catalog Number |
|---|---|---|---|---|---|
| **Low Lumen Model** | | | | | |
| | AMLGL6C, AMLGL6N, AMLGL6W | BU | 100 Watt | 410mA | **APMS100C105UD41** |
| | | BH | | | **APMS100C105HD41** |
| | AMLGL7W | BU | 150 Watt | 650mA | **APMS150C105UD65** |
| | | BH | | | **APMS150C105HD65** |
| | AMLGL7C, AMLGL7N | BU | 150 Watt | 680mA | **APMS150C105UD68** |
| | | BH | | | **APMS150C105HD68** |
| | AMLGL8W | BU | 150 Watt | 890mA | **APMS150C105UD89** |
| | | BH | | | **APMS150C105HD89** |
| | AMLGL8C, AMLGL8N | BU | 150 Watt | 930mA | **APMS150C105UD93** |
| | | BH | | | **APMS150C105HD93** |
| **High Lumen Model** | | | | | |
| | AMLHL1C, AMLHL1N, AMLHL1W | BU | 100 Watt | 530mA | **APMS100C105UD53** |
| | | BH | | | **APMS100C105HD53** |
| | AMLHL2W | BU | 150 Watt | 650mA | **APMS150C105UD65** |
| | | BH | | | **APMS150C105HD65** |
| | AMLHL2C, AMLHL2N | BU | 150 Watt | 680mA | **APMS150C105UD68** |
| | | BH | | | **APMS150C105HD68** |
| | AMLHL3W | BU | 150 Watt | 890mA | **APMS150C105UD89** |
| | | BH | | | **APMS150C105HD89** |
| | AMLHL3C, AMLHL3N | BU | 150 Watt | 915mA | **APMS150C105UD91** |
| | | BH | | | **APMS150C105HD91** |

**Luminaire Weights**

| Description | Weight in kg (lbs) |
|---|---|
| Low Lumen Model — AMLGL6, AMLGL7, AMLGL8 Luminaires | 9.8 (21.6) |
| High Lumen Model — AMLHL1, AMLHL2, AMLHL3 Luminaires | 16.1 (35.4) |

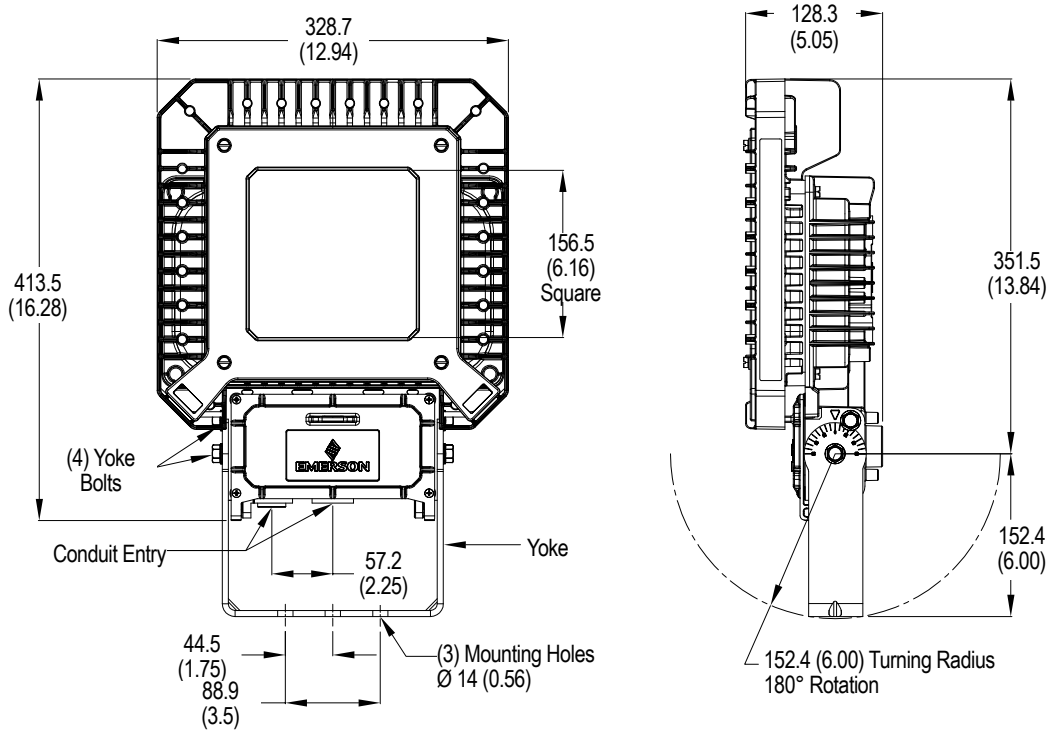
# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

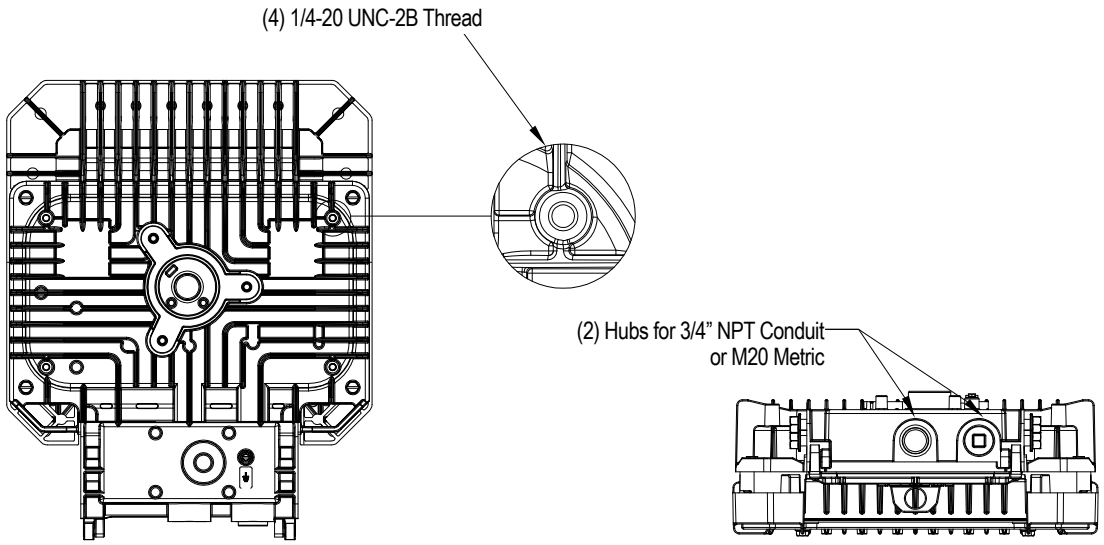
Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**AMLG Dimensions in Millimeters (Inches) — Floodlight — Low Lumen Model**



# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

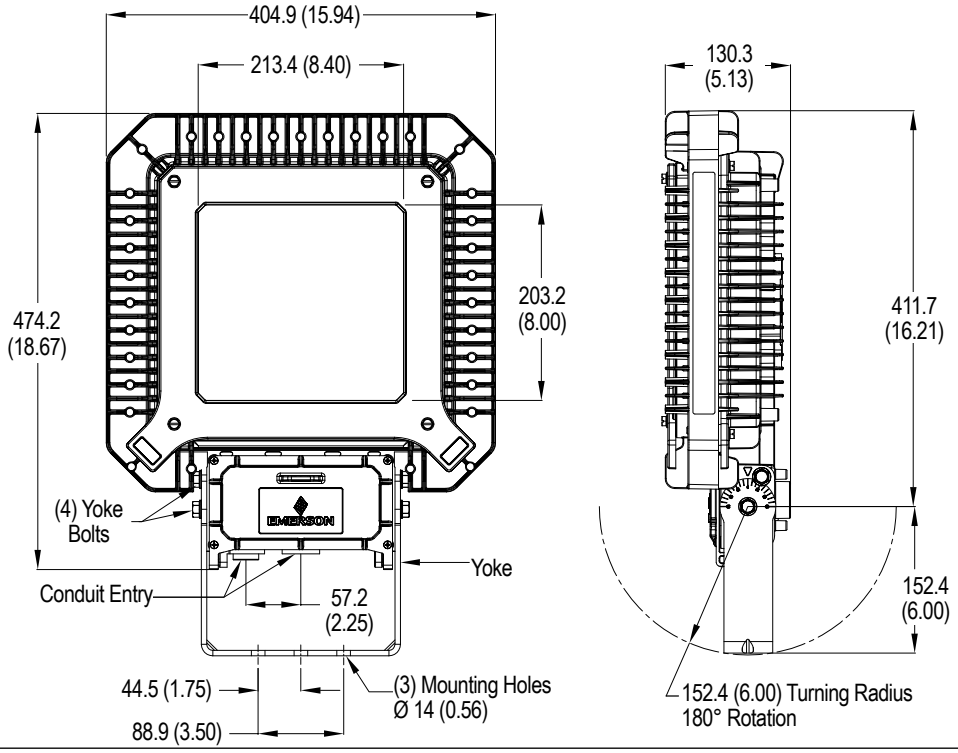
Floodlight

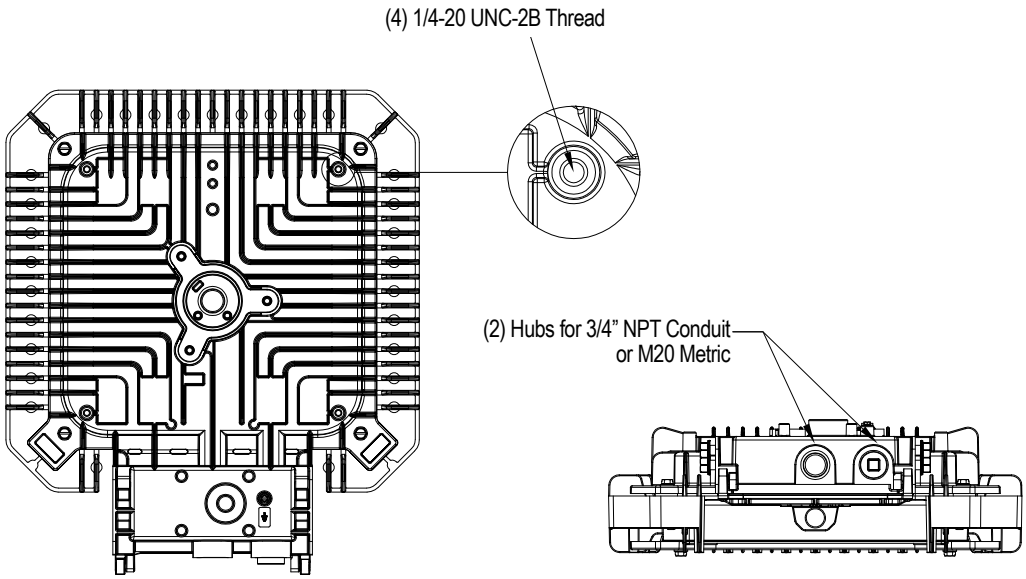
Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



**AMLH Dimensions in Millimeters (Inches) — Floodlight — High Lumen Model**



# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

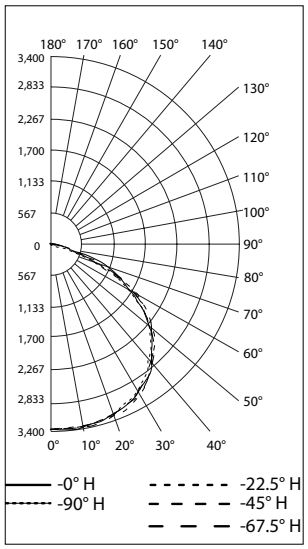
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x7, Clear Glass, 5000K CCT

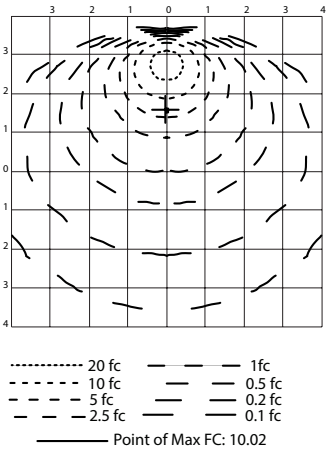
REPORT NUMBER: **AMLGL6CG6BU**

Luminaire Lumens 9,964

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.5% | 9,817.4 | 150 | 148 |
| Beam (50%) | 82.2% | 8,196.6 | 117.3 | 116.2 |
| Total | 100% | 9,964.0 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 1.51 | 14 (45) | 11 (35) | 7 (24) | 3 (11) |
| 9 (30) | 0.68 | 14 (47) | 11 (36) | 6 (21) | — |
| 12 (40) | 0.38 | 15 (50) | 11 (35) | — | — |

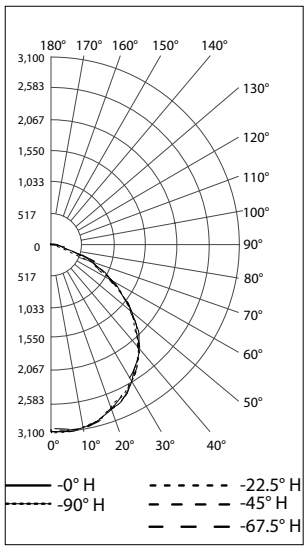
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 20 (66) | 15 (50) | 12 (38) | 5 (16) |
| 9 (30) | 24 (78) | 15 (50) | 9 (28) | — |
| 12 (40) | 21 (70) | 12 (40) | — | — |

### NEMA 7x7, Frosted Glass, 5000K CCT

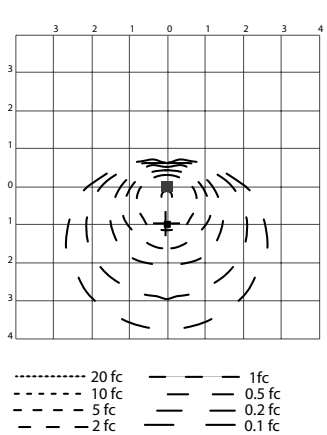
REPORT NUMBER: **AMLGL6CF6BU**

Luminaire Lumens 8,115

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.1% | 7,961.7 | 155.3 | 151.5 |
| Beam (50%) | 71.5% | 5,804.1 | 105.8 | 105.5 |
| Total | 100% | 8,112.2 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 2.49 | 13 (42) | 10 (33) | 7 (24) | 2 (8) |
| 9 (30) | 1.1 | 14 (45) | 10 (32) | 5 (15) | — |
| 12 (40) | 0.62 | 15 (48) | 8 (25) | — | — |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 18 (60) | 13 (44) | 9 (30) | 1 (4) |
| 9 (30) | 20 (64) | 10 (34) | 6 (20) | — |
| 12 (40) | 17 (56) | 9 (30) | — | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

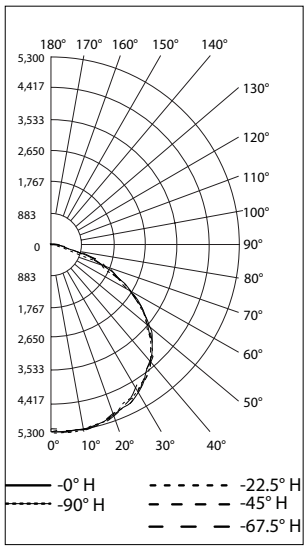
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x7, Clear Glass, 5000K CCT

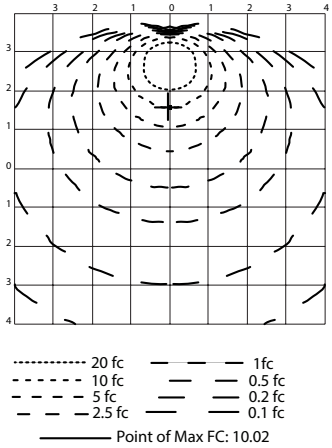
REPORT NUMBER: **AMLGL7CG6BU**

Luminaire Lumens 15,320

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.5% | 15,102.6 | 151.2 | 147 |
| Beam (50%) | 81.9% | 12,555.7 | 117 | 115.4 |
| Total | 100% | 15,320.4 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 4.42 | 15 (50) | 12 (39) | 9 (29) | 5 (16) |
| 9 (30) | 1.97 | 17 (55) | 13 (43) | 8 (25) | — |
| 12 (40) | 1.11 | 17 (57) | 12 (40) | 6 (19) | — |

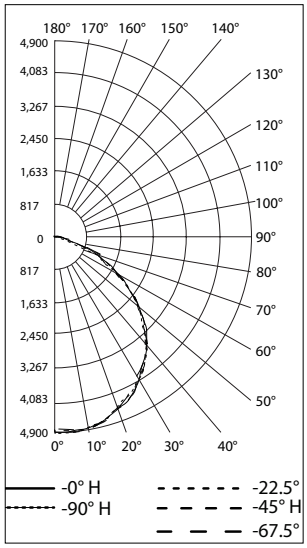
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 21 (70) | 56 (17) | 12 (40) | 6 (20) |
| 9 (30) | 24 (80) | 58 (18) | 12 (38) | — |
| 12 (40) | 24 (80) | 50 (15) | 5 (16) | — |

### NEMA 7x7, Frosted Glass, 5000K CCT

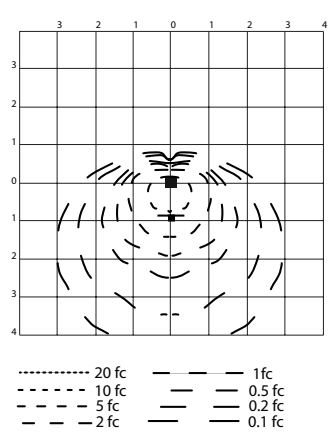
REPORT NUMBER: **AMLGL7CF6BU**

Luminaire Lumens 12,782

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.1% | 12,536.1 | 155.4 | 150.7 |
| Beam (50%) | 71.3% | 9,112.8 | 105.4 | 105.6 |
| Total | 100% | 12,777.9 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 2.91 | 18 (59) | 14 (45) | 11 (35) | 7 (22) |
| 9 (30) | 1.29 | 19 (63) | 16 (51) | 10 (33) | 4 (12) |
| 12 (40) | 0.73 | 21 (70) | 15 (50) | 9 (30) | — |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 26 (84) | 21 (70) | 16 (52) | 10 (32) |
| 9 (30) | 29 (96) | 22 (72) | 16 (54) | 5 (15) |
| 12 (40) | 32 (104) | 22 (72) | 15 (48) | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

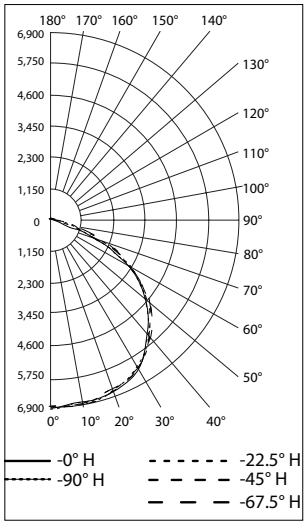
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x7, Clear Glass, 5000K CCT

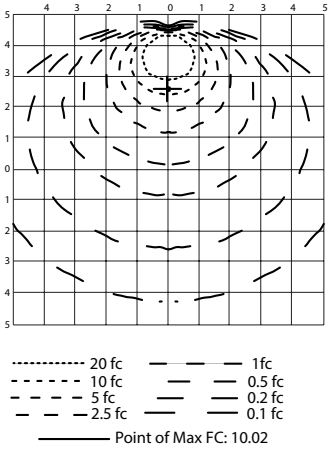
REPORT NUMBER: **AMLGL8CG6BU**

Luminaire Lumens 19,895

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.6% | 19,614.8 | 151 | 146.8 |
| Beam (50%) | 81.7% | 16,267.6 | 116.7 | 115.2 |
| Total | 100% | 19,895.4 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 3.18 | 13 (44) | 11 (36) | 9 (30) | 5 (16) |
| 9 (30) | 1.41 | 16 (53) | 13 (42) | 8 (27) | — |
| 12 (40) | 0.81 | 17 (56) | 12 (40) | — | — |

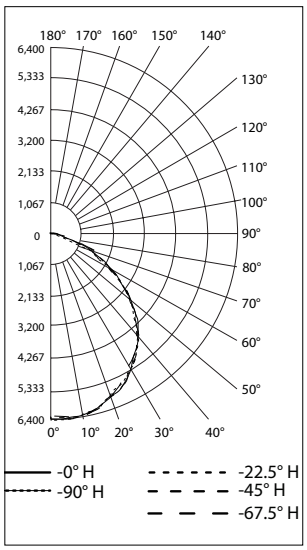
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 26 (84) | 20 (64) | 13 (44) | 5 (16) |
| 9 (30) | 27 (90) | 20 (66) | 11 (36) | — |
| 12 (40) | 29 (96) | 17 (56) | — | — |

### NEMA 7x7, Frosted Glass, 5000K CCT

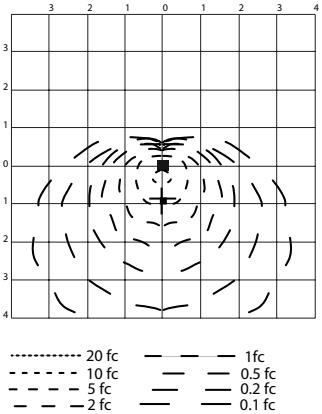
REPORT NUMBER: **AMLGL8CF6BU**

Luminaire Lumens 16,503

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.1% | 16,189.8 | 155.3 | 150.7 |
| Beam (50%) | 71.3% | 11,766.7 | 105.2 | 105.5 |
| Total | 100% | 16,498.6 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 5.76 | 17 (55) | 11 (36) | 10 (32) | 6 (20) |
| 9 (30) | 2.56 | 16 (53) | 9 (31) | 9 (31) | — |
| 12 (40) | 1.43 | 17 (56) | 19 (62) | 9 (29) | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 24 (78) | 18 (60) | 13 (44) | 7 (22) |
| 9 (30) | 27 (88) | 19 (62) | 10 (34) | — |
| 12 (40) | 30 (98) | 18 (58) | 12 (38) | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

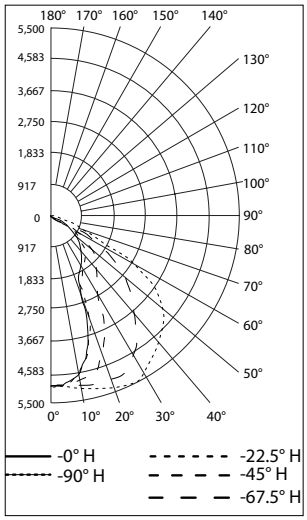
## Photometric Data — DATA SHOWN IS ABSOLUTE

**NEMA 7x6, Clear Glass, 5000K CCT**

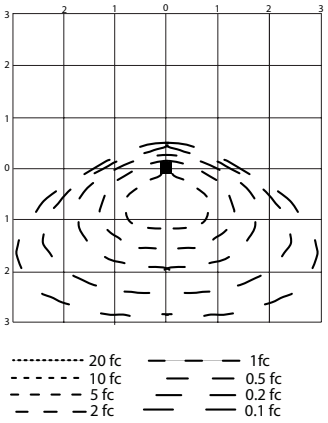
REPORT NUMBER: **AMLGL6CG7BU**

Luminaire Lumens 9,086

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 96.2% | 8,738.1 | 134.9 | 112.1 |
| Beam (50%) | 62% | 5,631.5 | 120.5 | 45.2 |
| Total | 100% | 9,086.2 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 2.92 | 13 (42) | 11 (36) | 9 (28) | 5 (15) |
| 9 (30) | 1.3 | 16 (53) | 13 (42) | 7 (24) | — |
| 12 (40) | 0.73 | 17 (56) | 11 (36) | — | — |

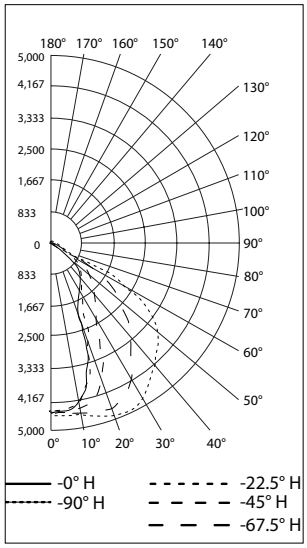
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 24 (80) | 20 (64) | 13 (44) | 5 (16) |
| 9 (30) | 26 (84) | 18 (60) | 11 (36) | — |
| 12 (40) | 27 (88) | 15 (48) | — | — |

**NEMA 7x6, Clear Glass, 3000K CCT**

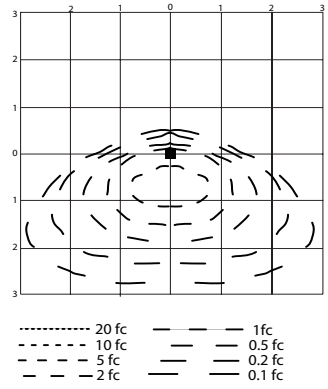
REPORT NUMBER: **AMLGL6WG7BU**

Luminaire Lumens 8,111

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 96.1% | 7,798.3 | 135.3 | 112 |
| Beam (50%) | 61.5% | 4,987.0 | 119.9 | 45 |
| Total | 100% | 8,111.0 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 2.92 | 13 (42) | 11 (36) | 9 (28) | 5 (15) |
| 9 (30) | 1.30 | 16 (53) | 13 (42) | 7 (24) | — |
| 12 (40) | 0.73 | 17 (56) | 11 (36) | — | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 24 (80) | 20 (64) | 13 (44) | 5 (16) |
| 9 (30) | 26 (84) | 18 (60) | 11 (36) | — |
| 12 (40) | 27 (88) | 15 (48) | — | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

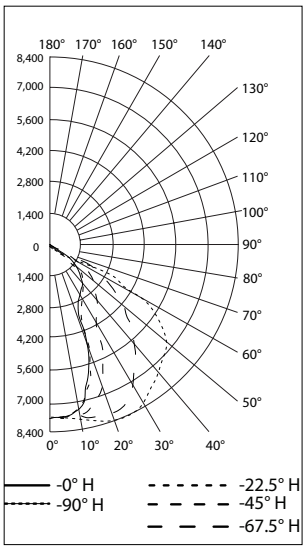
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x6, Clear Glass, 5000K CCT

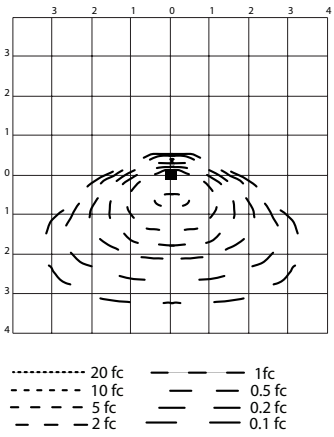
REPORT NUMBER: **AMLGL7CG7BU**

Luminaire Lumens 14,205

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 96.3% | 13,678.5 | 135.3 | 112.5 |
| Beam (50%) | 62.6% | 8,887.6 | 120.7 | 45.7 |
| Total | 100% | 14,205.3 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 4.91 | 15 (48) | 12 (40) | 11 (35) | 7 (25) |
| 9 (30) | 2.22 | 18 (60) | 14 (45) | 12 (38) | — |
| 12 (40) | 1.25 | 20 (64) | 16 (52) | — | — |

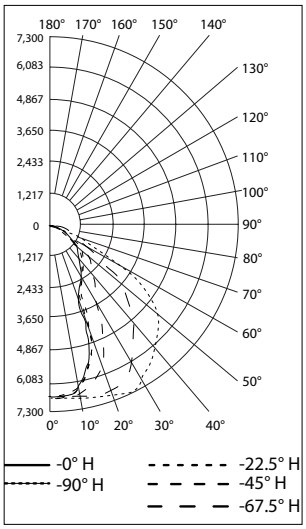
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 29 (96) | 24 (80) | 18 (60) | 11 (36) |
| 9 (30) | 33 (108) | 27 (90) | 16 (54) | — |
| 12 (40) | 37 (120) | 24 (80) | — | — |

### NEMA 7x6, Clear Glass, 3000K CCT

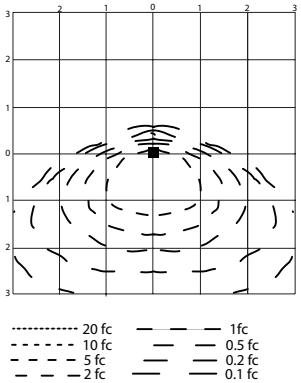
REPORT NUMBER: **AMLGL7WG7BU**

Luminaire Lumens 11,971

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 96.1% | 11,503.9 | 135.2 | 112 |
| Beam (50%) | 62% | 7,424.4 | 119.8 | 45.2 |
| Total | 100% | 11,971.9 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 4.30 | 14 (46) | 12 (40) | 10 (32) | 6 (20) |
| 9 (30) | 1.91 | 17 (54) | 14 (45) | 33 (10) | — |
| 12 (40) | 1.07 | 20 (64) | 15 (50) | — | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 27 (90) | 22 (72) | 16 (52) | 9 (30) |
| 9 (30) | 33 (108) | 24 (78) | 15 (48) | — |
| 12 (40) | 34 (112) | 22 (72) | — | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



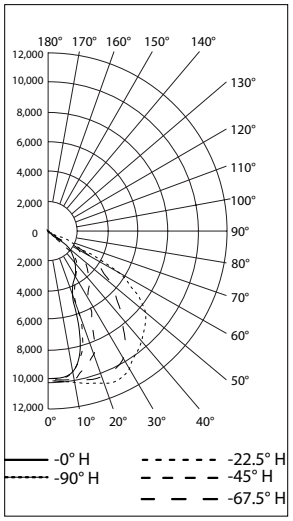
## Photometric Data — DATA SHOWN IS ABSOLUTE

**NEMA 7x6, Clear Glass, 5000K CCT**

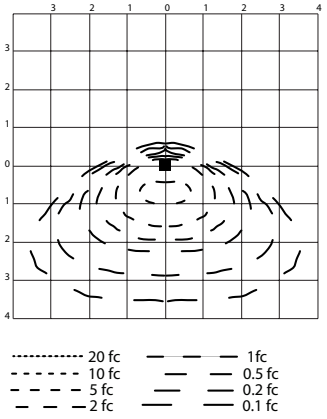
REPORT NUMBER: **AMLGL8CG7BU**

Luminaire Lumens 18,467

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 96.2% | 17,761.1 | 135.1 | 112.2 |
| Beam (50%) | 62.5% | 11,537.1 | 120.5 | 45.3 |
| Total | 100% | 18,467.4 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 6.44 | 16 (52) | 13 (44) | 11 (36) | 8 (26) |
| 9 (30) | 2.86 | 19 (63) | 16 (54) | 12 (39) | 6 (21) |
| 12 (40) | 1.63 | 22 (72) | 18 (60) | 12 (40) | — |

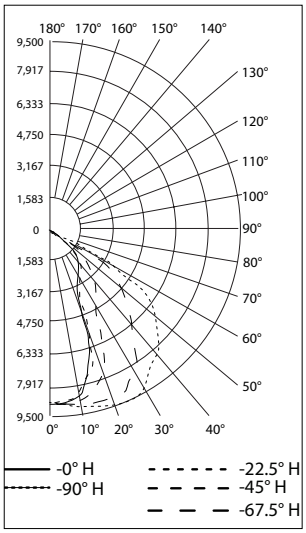
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 32 (104) | 26 (84) | 21 (68) | 12 (40) |
| 9 (30) | 37 (120) | 31 (102) | 20 (66) | 4 (12) |
| 12 (40) | 39 (128) | 29 (96) | 15 (48) | — |

**NEMA 7x6, Clear Glass, 3000K CCT**

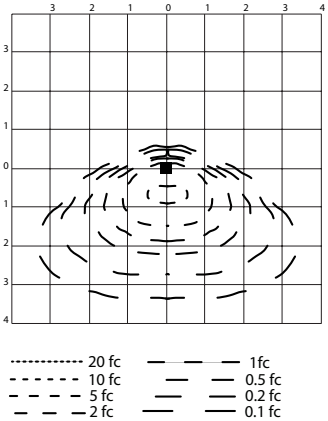
REPORT NUMBER: **AMLGL8WG7BU**

Luminaire Lumens 15,556

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 96.1% | 14,945.7 | 135 | 111.8 |
| Beam (50%) | 62% | 9,641.5 | 119.5 | 45 |
| Total | 100% | 15,555.8 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 5.61 | 15 (50) | 13 (42) | 11 (36) | 8 (26) |
| 9 (30) | 2.50 | 18 (60) | 16 (53) | 12 (38) | — |
| 12 (40) | 1.40 | 21 (70) | 17 (56) | 11 (36) | — |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 30 (100) | 24 (80) | 20 (64) | 11 (36) |
| 9 (30) | 36 (117) | 27 (90) | 18 (60) | — |
| 12 (40) | 37 (120) | 24 (80) | 12 (40) | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

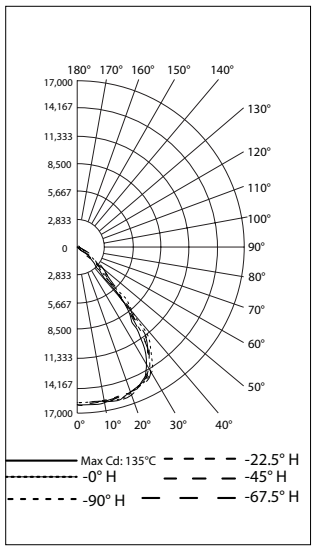
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 5x5, Clear Glass, 5000K CCT

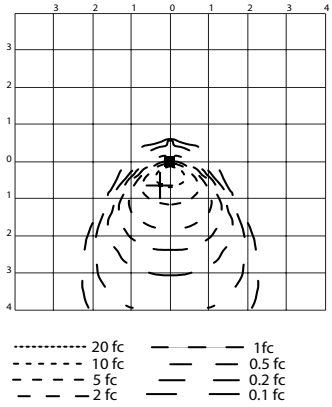
REPORT NUMBER: **AMLHL1CG5BU**

Luminaire Lumens 24,140

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 94.8% | 22,874.5 | 91.7 | 91.3 |
| Beam (50%) | 84% | 20,284.1 | 75.4 | 75.9 |
| Total | 100% | 24,137.4 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 8.96 | 27 (90) | 21 (68) | 16 (54) | 10 (33) |
| 12 (40) | 5.04 | 29 (96) | 22 (72) | 16 (52) | 9 (28) |
| 15 (50) | 3.19 | 30 (100) | 23 (75) | 15 (50) | — |
| 18 (60) | 2.22 | 32 (105) | 24 (78) | 14 (45) | — |

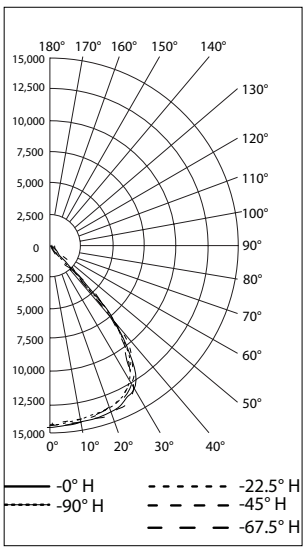
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 29 (96) | 24 (78) | 19 (63) | 14 (45) |
| 12 (40) | 32 (104) | 27 (88) | 20 (64) | 10 (32) |
| 15 (50) | 37 (120) | 29 (95) | 18 (60) | — |
| 18 (60) | 40 (132) | 29 (96) | 15 (48) | — |

### NEMA 5x5, Clear Glass, 3000K CCT

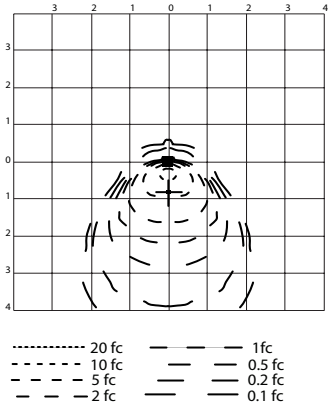
REPORT NUMBER: **AMLHL1WG5BU**

Luminaire Lumens 21,416

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95% | 20,343.5 | 95.6 | 94.3 |
| Beam (50%) | 84% | 17,982.6 | 79.7 | 80.3 |
| Total | 100% | 21,416.2 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 8.96 | 29 (96) | 23 (75) | 17 (57) | 36 (11) |
| 12 (40) | 5.04 | 32 (104) | 24 (80) | 18 (60) | 10 (32) |
| 15 (50) | 3.19 | 34 (110) | 26 (85) | 18 (60) | 8 (25) |
| 18 (60) | 2.22 | 36 (117) | 27 (90) | 16 (54) | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 27 (90) | 22 (72) | 18 (60) | 13 (42) |
| 12 (40) | 30 (100) | 24 (80) | 20 (64) | 7 (24) |
| 15 (50) | 37 (120) | 27 (90) | 18 (60) | — |
| 18 (60) | 37 (120) | 27 (90) | 15 (48) | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



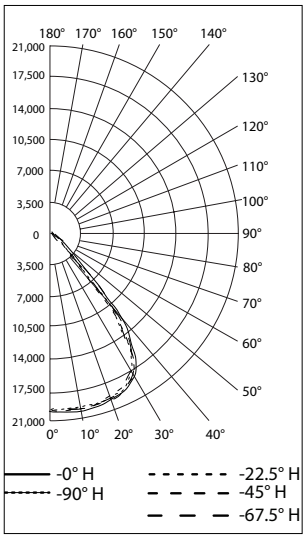
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 5x5, Clear Glass, 5000K CCT

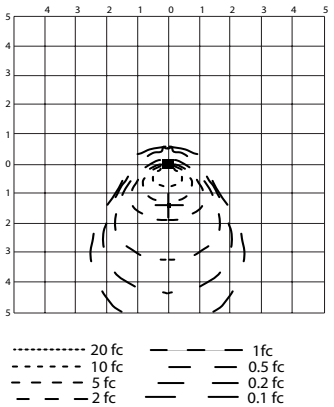
REPORT NUMBER: **AMLHL2CG5BU**

Luminaire Lumens 30,068

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 94.6% | 28,436.7 | 95.8 | 93.5 |
| Beam (50%) | 83.6% | 25,124.4 | 78.8 | 79.8 |
| Total | 100% | 30,069.5 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 3.84 | 29 (96) | 23 (75) | 17 (57) | 36 (11) |
| 12 (40) | 2.15 | 32 (104) | 24 (80) | 18 (60) | 10 (32) |
| 15 (50) | 1.38 | 34 (110) | 26 (85) | 18 (60) | 8 (25) |
| 18 (60) | 0.97 | 36 (117) | 27 (90) | 16 (54) | — |

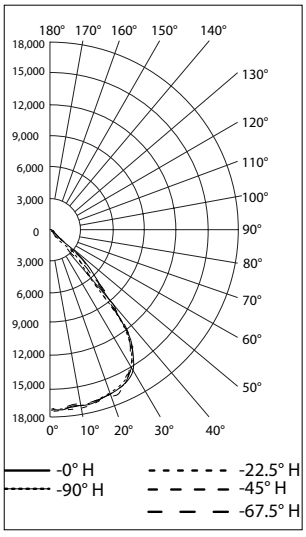
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 31 (102) | 26 (84) | 19 (61) | 15 (48) |
| 12 (40) | 34 (112) | 29 (96) | 22 (72) | 12 (40) |
| 15 (50) | 40 (130) | 30 (100) | 24 (80) | 9 (30) |
| 18 (60) | 44 (144) | 33 (108) | 22 (72) | — |

### NEMA 5x5, Clear Glass, 3000K CCT

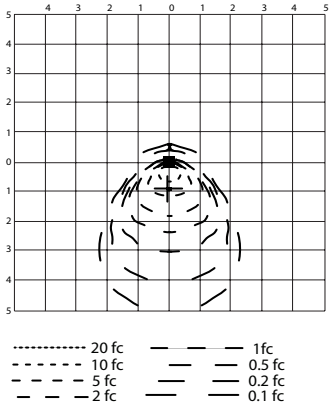
REPORT NUMBER: **AMLHL2WG5BU**

Luminaire Lumens 25,490

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 94.9% | 24,197.1 | 95.5 | 93.5 |
| Beam (50%) | 84.5% | 21,539.9 | 80 | 79.7 |
| Total | 100% | 25,489.8 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 6.94 | 28 (93) | 21 (69) | 16 (54) | 10 (33) |
| 12 (40) | 3.85 | 30 (100) | 23 (76) | 17 (56) | 9 (28) |
| 15 (50) | 2.46 | 31 (103) | 23 (75) | 15 (50) | — |
| 18 (60) | 1.71 | 33 (108) | 24 (78) | 15 (48) | — |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 27 (90) | 22 (72) | 18 (60) | 13 (42) |
| 12 (40) | 30 (100) | 24 (80) | 20 (64) | 7 (24) |
| 15 (50) | 37 (120) | 27 (90) | 18 (60) | — |
| 18 (60) | 37 (120) | 27 (90) | 15 (48) | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

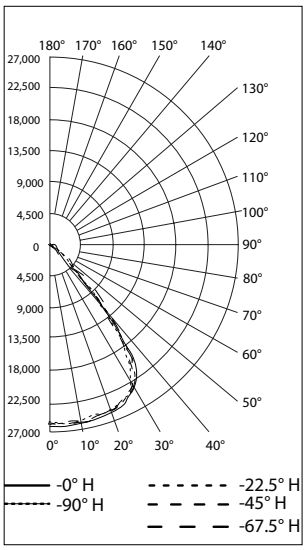
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 5x5, Clear Glass, 5000K CCT

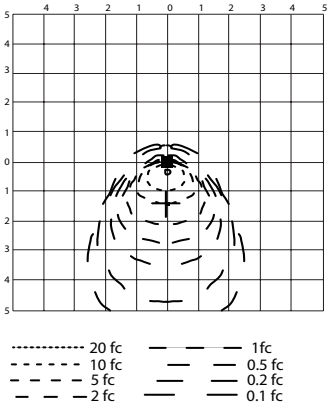
REPORT NUMBER: **AMLHL3CG5BU**

Luminaire Lumens 38,350

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95.3% | 36,528.8 | 89.8 | 92.9 |
| Beam (50%) | 84.4% | 32,367.7 | 73.5 | 79.7 |
| Total | 100% | 38,348.7 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 4.96 | 32 (105) | 26 (84) | 19 (63) | 13 (42) |
| 12 (40) | 2.78 | 35 (116) | 27 (88) | 21 (68) | 12 (40) |
| 15 (50) | 1.78 | 34 (110) | 26 (85) | 18 (60) | 8 (25) |
| 18 (60) | 1.23 | 38 (126) | 29 (96) | 20 (66) | 5 (18) |

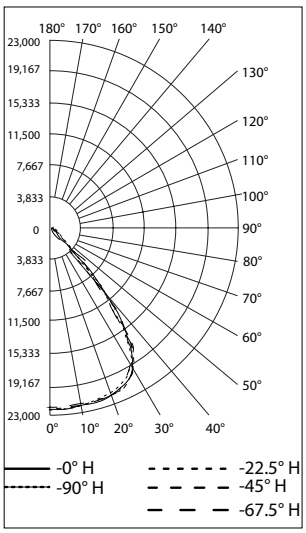
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 33 (108) | 27 (90) | 22 (72) | 16 (54) |
| 12 (40) | 37 (120) | 30 (100) | 24 (80) | 15 (48) |
| 15 (50) | 40 (130) | 30 (100) | 24 (80) | 9 (30) |
| 18 (60) | 44 (144) | 37 (120) | 26 (84) | 4 (12) |

### NEMA 5x5, Clear Glass, 3000K CCT

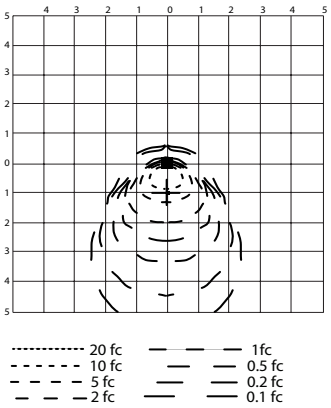
REPORT NUMBER: **AMLHL3WG5BU**

Luminaire Lumens 32,835

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95% | 31,186.0 | 96.1 | 93.5 |
| Beam (50%) | 84% | 27,593.2 | 80.4 | 79.8 |
| Total | 100% | 32,832.0 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 7.95 | 30 (99) | 25 (81) | 18 (60) | 12 (39) |
| 12 (40) | 4.40 | 34 (112) | 26 (84) | 18 (60) | 11 (36) |
| 15 (50) | 2.82 | 34 (110) | 27 (90) | 18 (60) | 8 (25) |
| 18 (60) | 1.96 | 37 (120) | 27 (90) | 18 (60) | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 33 (108) | 26 (84) | 20 (66) | 16 (54) |
| 12 (40) | 37 (120) | 29 (96) | 24 (80) | 12 (48) |
| 15 (50) | 40 (130) | 30 (100) | 24 (80) | 9 (30) |
| 18 (60) | 40 (132) | 35 (114) | 22 (72) | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



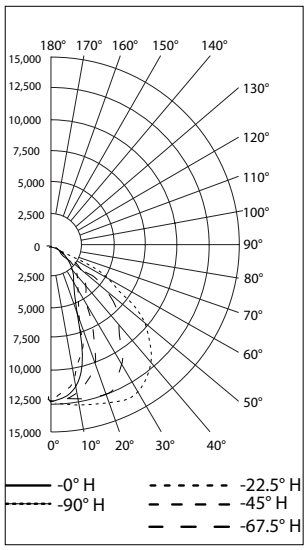
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x6 Clear Glass, 5000K CCT

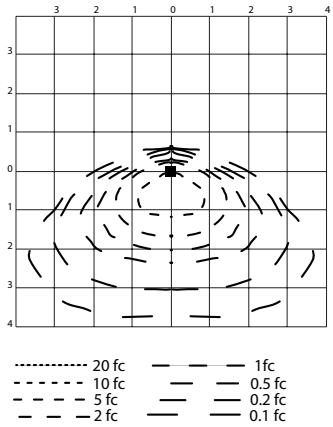
REPORT NUMBER: **AMLHL1CG7BU**

Luminaire Lumens 22,661

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95.8% | 21,708.2 | 134.1 | 111.1 |
| Beam (50%) | 61.4% | 13,911.6 | 118.5 | 44.9 |
| Total | 100% | 22,657.0 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 3.64 | 19 (63) | 17 (57) | 14 (54) | 9 (29) |
| 12 (40) | 2.08 | 23 (76) | 20 (64) | 15 (48) | — |
| 15 (50) | 1.33 | 26 (85) | 20 (65) | 12 (40) | — |
| 18 (60) | 0.93 | 27 (90) | 20 (66) | — | — |

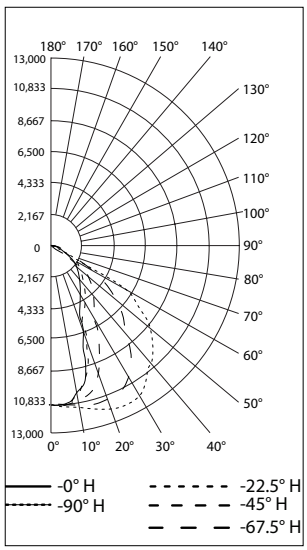
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 38 (126) | 33 (108) | 23 (75) | 13 (42) |
| 12 (40) | 44 (144) | 32 (104) | 22 (72) | — |
| 15 (50) | 46 (150) | 30 (100) | 15 (50) | — |
| 18 (60) | 46 (150) | 29 (96) | — | — |

### NEMA 7x6 Clear Glass, 3000K CCT

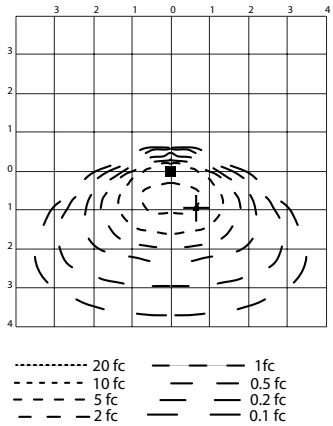
REPORT NUMBER: **AMLHL1WG7BU**

Luminaire Lumens 19,753

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95.8% | 18,919.3 | 134.7 | 111.5 |
| Beam (50%) | 61.1% | 12,060.3 | 117.9 | 45.1 |
| Total | 100% | 19,750.3 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 3.26 | 19 (63) | 16 (54) | 14 (45) | 8 (27) |
| 12 (40) | 1.78 | 22 (72) | 19 (62) | 13 (42) | — |
| 15 (50) | 1.16 | 24 (80) | 19 (62) | 11 (35) | — |
| 18 (60) | 0.81 | 27 (90) | 18 (60) | — | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 37 (120) | 27 (90) | 21 (70) | 8 (25) |
| 12 (40) | 40 (130) | 30 (100) | 18 (60) | — |
| 15 (50) | 43 (140) | 27 (90) | 6 (20) | — |
| 18 (60) | 43 (140) | 24 (80) | — | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

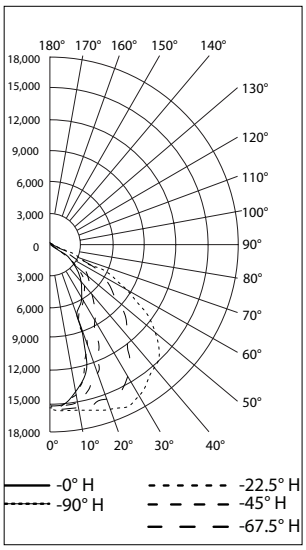
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x6 Clear Glass, 5000K CCT

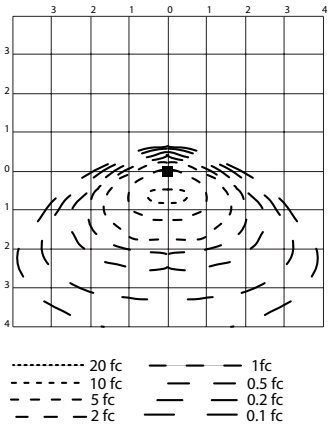
REPORT NUMBER: **AMLHL2CG7BU**

Luminaire Lumens 28,063

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95.8% | 26,888.8 | 134.1 | 111.1 |
| Beam (50%) | 61.5% | 17,260.6 | 118.6 | 45 |
| Total | 100% | 28,058.5 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 4.49 | 21 (68) | 18 (60) | 15 (48) | 10 (32) |
| 12 (40) | 2.57 | 24 (80) | 22 (72) | 16 (52) | — |
| 15 (50) | 1.64 | 27 (90) | 23 (75) | 15 (50) | — |
| 18 (60) | 1.14 | 29 (96) | 23 (75) | 13 (42) | — |

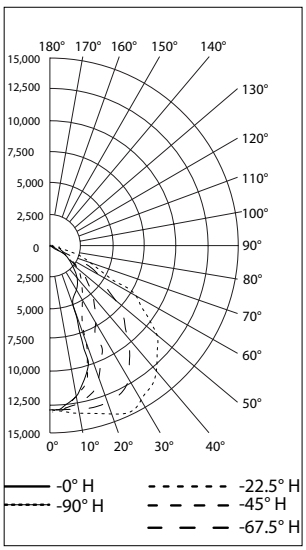
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 41 (135) | 35 (114) | 24 (78) | 15 (48) |
| 12 (40) | 46 (152) | 37 (120) | 24 (80) | — |
| 15 (50) | 49 (160) | 37 (120) | 23 (75) | — |
| 18 (60) | 48 (156) | 33 (108) | 9 (30) | — |

### NEMA 7x6 Clear Glass, 3000K CCT

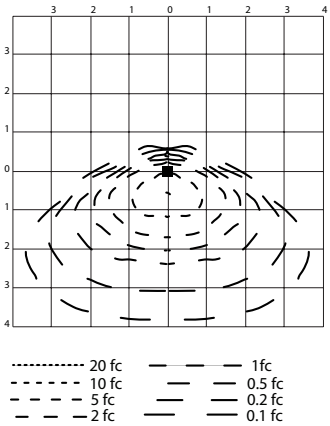
REPORT NUMBER: **AMLHL2WG7BU**

Luminaire Lumens 23,532

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95.7% | 22,530.7 | 134.6 | 111 |
| Beam (50%) | 60.9% | 14,337.3 | 117.9 | 44.7 |
| Total | 100% | 23,528.4 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 3.80 | 20 (66) | 17 (57) | 14 (45) | 10 (32) |
| 12 (40) | 2.17 | 23 (76) | 18 (60) | 15 (48) | — |
| 15 (50) | 1.39 | 26 (85) | 21 (70) | 14 (45) | — |
| 18 (60) | 0.97 | 27 (90) | 20 (66) | — | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 38 (126) | 33 (108) | 22 (72) | 13 (42) |
| 12 (40) | 44 (144) | 34 (112) | 22 (72) | — |
| 15 (50) | 46 (150) | 30 (100) | 18 (60) | — |
| 18 (60) | 48 (156) | 29 (96) | — | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

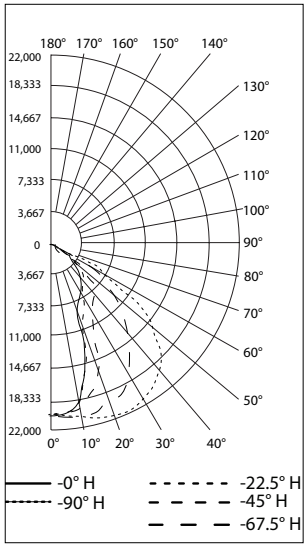
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x6 Clear Glass, 5000K CCT

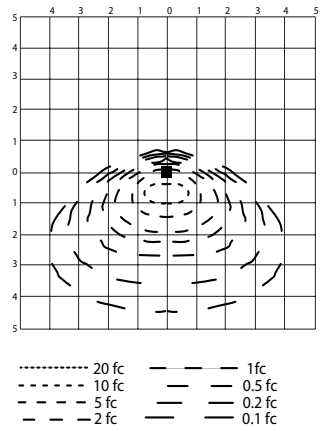
REPORT NUMBER: **AMLHL3CG7BU**

Luminaire Lumens 35,430

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95.7% | 33,908.8 | 139 | 111.1 |
| Beam (50%) | 60.9% | 21,578.5 | 115.4 | 45.6 |
| Total | 100% | 35,424.1 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 5.69 | 22 (72) | 19 (62) | 16 (54) | 11 (36) |
| 12 (40) | 3.20 | 26 (84) | 22 (72) | 17 (56) | 10 (32) |
| 15 (50) | 2.05 | 29 (95) | 24 (80) | 18 (60) | — |
| 18 (60) | 1.42 | 32 (105) | 24 (78) | 16 (54) | — |

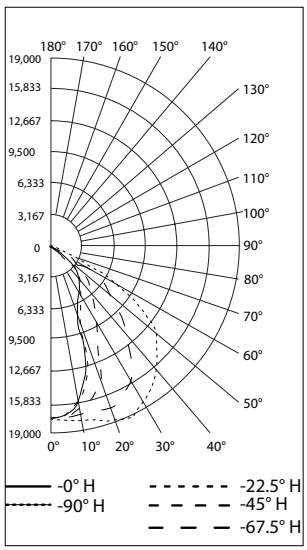
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 42 (138) | 37 (120) | 27 (90) | 18 (60) |
| 12 (40) | 49 (160) | 37 (120) | 27 (88) | 12 (40) |
| 15 (50) | 55 (180) | 40 (130) | 27 (90) | — |
| 18 (60) | 55 (180) | 40 (132) | 22 (72) | — |

### NEMA 7x6 Clear Glass, 3000K CCT

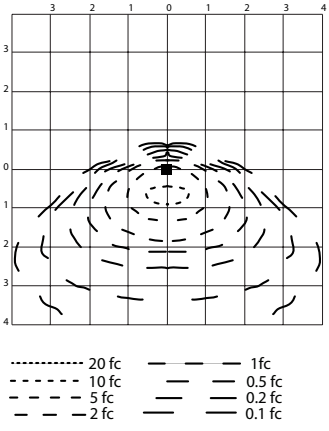
REPORT NUMBER: **AMLHL3WG7BU**

Luminaire Lumens 30,346

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95% | 31,186.0 | 96.1 | 93.5 |
| Beam (50%) | 84% | 27,593.2 | 80.4 | 79.8 |
| Total | 100% | 32,832.0 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 4.99 | 21 (69) | 18 (60) | 16 (54) | 10 (33) |
| 12 (40) | 2.81 | 25 (82) | 22 (72) | 16 (52) | 9 (28) |
| 15 (50) | 1.79 | 27 (90) | 23 (75) | 17 (55) | — |
| 18 (60) | 1.25 | 29 (96) | 23 (75) | 15 (48) | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 41 (135) | 35 (114) | 26 (84) | 16 (54) |
| 12 (40) | 49 (160) | 37 (120) | 24 (80) | 2 (8) |
| 15 (50) | 49 (160) | 37 (120) | 23 (75) | — |
| 18 (60) | 51 (168) | 37 (120) | 18 (60) | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

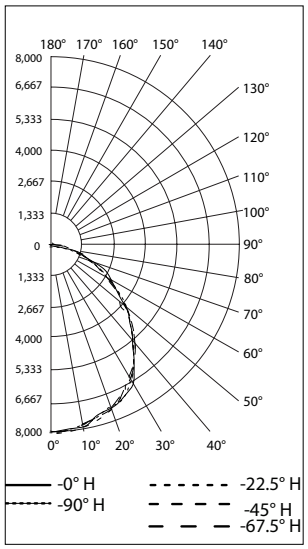
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x7 Diffused Glass, 5000K CCT

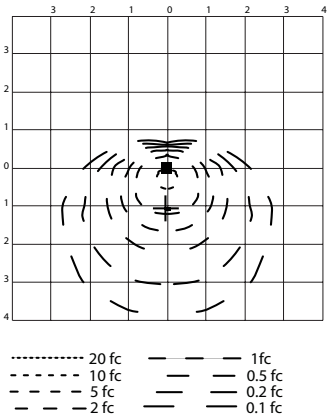
REPORT NUMBER: **AMLHL1CF6BU**

Luminaire Lumens 20,578

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98% | 20,176.5 | 155.7 | 154.5 |
| Beam (50%) | 70.2% | 14,453.8 | 104.6 | 103.6 |
| Total | 100% | 20,571.8 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 2.47 | 20 (66) | 16 (54) | 11 (36) | 4 (12) |
| 12 (40) | 1.40 | 22 (72) | 16 (52) | 10 (32) | — |
| 15 (50) | 0.89 | 21 (70) | 15 (50) | 6 (20) | — |
| 18 (60) | 0.62 | 22 (72) | 13 (42) | — | — |

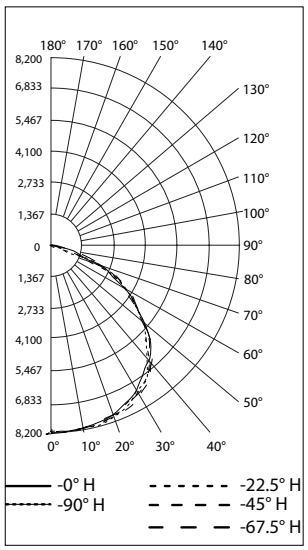
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 31 (102) | 22 (72) | 16 (54) | 4 (12) |
| 12 (40) | 32 (104) | 22 (72) | 12 (40) | — |
| 15 (50) | 30 (100) | 21 (70) | 5 (15) | — |
| 18 (60) | 33 (108) | 15 (48) | — | — |

### NEMA 7x7 Clear Glass, 5000K CCT

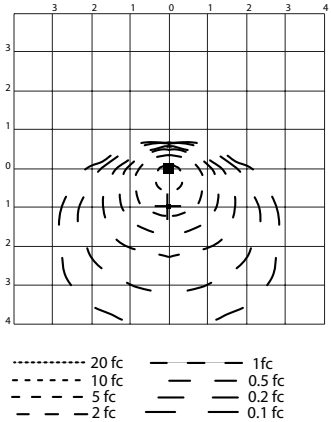
REPORT NUMBER: **AMLHL1CG6BU**

Luminaire Lumens 23,457

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.4% | 23,090.9 | 151.1 | 151.2 |
| Beam (50%) | 80.3% | 18,837.0 | 115.2 | 116.4 |
| Total | 100% | 23,448.8 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 2.84 | 20 (66) | 16 (54) | 11 (36) | 5 (15) |
| 12 (40) | 1.60 | 22 (72) | 17 (56) | 10 (32) | — |
| 15 (50) | 1.03 | 23 (75) | 15 (50) | 6 (20) | — |
| 18 (60) | 0.71 | 23 (75) | 14 (45) | — | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 33 (108) | 24 (78) | 18 (60) | 7 (24) |
| 12 (40) | 34 (112) | 24 (80) | 15 (48) | — |
| 15 (50) | 37 (120) | 24 (80) | 12 (40) | — |
| 18 (60) | 35 (114) | 18 (60) | — | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ex II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

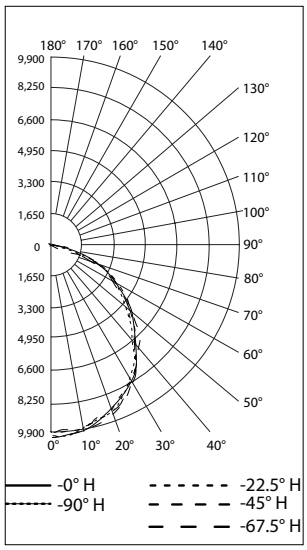
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x7 Diffused Glass, 5000K CCT

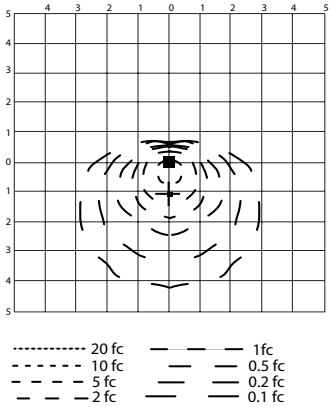
REPORT NUMBER: **AMLHL2CF6BU**

Luminaire Lumens 25,616

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.1% | 25,135.5 | 155.9 | 154.5 |
| Beam (50%) | 69.9% | 17,911.8 | 104.6 | 103.7 |
| Total | 100% | 25,609.0 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 3.07 | 22 (72) | 17 (57) | 12 (39) | 6 (21) |
| 12 (40) | 1.70 | 24 (80) | 17 (56) | 12 (40) | — |
| 15 (50) | 1.09 | 24 (80) | 18 (60) | 9 (30) | — |
| 18 (60) | 0.76 | 24 (78) | 16 (54) | — | — |

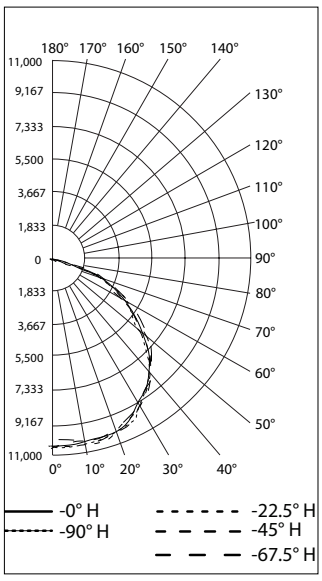
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 33 (108) | 24 (78) | 18 (60) | 7 (24) |
| 12 (40) | 34 (112) | 24 (80) | 17 (56) | — |
| 15 (50) | 37 (120) | 24 (80) | 15 (50) | — |
| 18 (60) | 37 (120) | 18 (60) | — | — |

### NEMA 7x7 Clear Glass, 5000K CCT

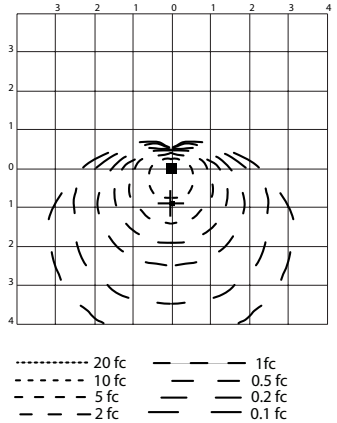
REPORT NUMBER: **AMLHL2CG6BU**

Luminaire Lumens 30,157

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.2% | 29,616.7 | 151.4 | 145.9 |
| Beam (50%) | 81.2% | 24,501.2 | 116.8 | 117.7 |
| Total | 100% | 30,147.4 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 4.17 | 23 (75) | 17 (57) | 13 (42) | 7 (24) |
| 12 (40) | 2.35 | 24 (80) | 18 (60) | 12 (40) | — |
| 15 (50) | 1.49 | 24 (80) | 18 (60) | 9 (30) | — |
| 18 (60) | 1.04 | 26 (84) | 16 (54) | 7 (24) | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 35 (114) | 26 (84) | 19 (63) | 9 (30) |
| 12 (40) | 37 (120) | 27 (88) | 20 (64) | — |
| 15 (50) | 37 (120) | 24 (80) | 15 (50) | — |
| 18 (60) | 37 (120) | 22 (72) | 9 (30) | — |

# Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class II, Division 1, Groups E, F, G | Class II, Division 2, Groups F, G | Class III | Zone 20, 21 and 22 | Class I, Zone 2 AEx/Ex ec IIC Gc | Zone 21, AEx/Ex tb IIIC Db | Type 3R, 4 and 4X | IP66/67 | Simultaneous Exposure | Marine Outside Type (Salt Water) for USA Only | Wet Locations**
**ATEX/IECEx: Zone 2, 21, 22 | Ⓔx II 2D 3G 3D | IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

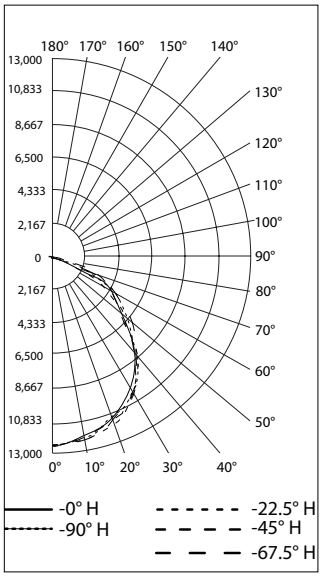
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x7 Diffused Glass, 5000K CCT

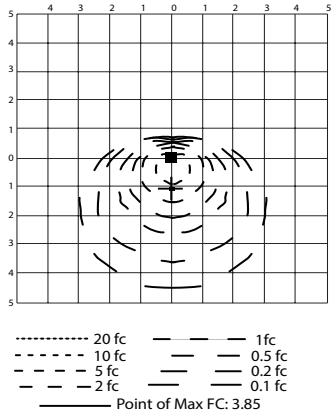
REPORT NUMBER: **AMLHL3CF6BU**

Luminaire Lumens 31,600

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 97.9% | 30,947.7 | 156 | 154.1 |
| Beam (50%) | 69.5% | 21,961.6 | 104 | 102.9 |
| Total | 100% | 31,591.2 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 3.82 | 24 (78) | 18 (60) | 13 (42) | 8 (27) |
| 12 (40) | 2.15 | 26 (84) | 18 (60) | 13 (44) | — |
| 15 (50) | 1.38 | 27 (88) | 20 (65) | 12 (40) | — |
| 18 (60) | 0.96 | 27 (90) | 20 (66) | 7 (24) | — |

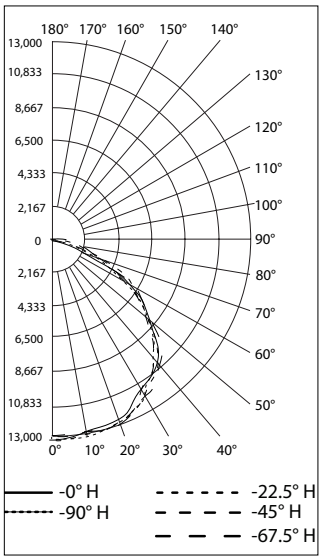
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 35 (114) | 26 (84) | 18 (60) | 9 (30) |
| 12 (40) | 37 (120) | 27 (88) | 20 (56) | — |
| 15 (50) | 38 (125) | 27 (90) | 15 (50) | — |
| 18 (60) | 40 (132) | 22 (72) | — | — |

### NEMA 7x7 Clear Glass, 5000K CCT

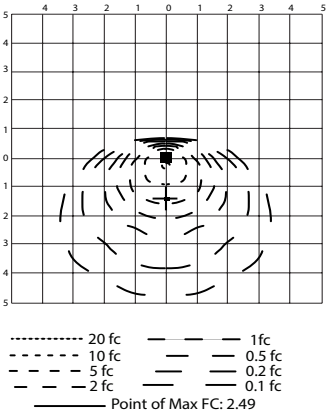
REPORT NUMBER: **AMLHL3CG6BU**

Luminaire Lumens 37,039

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.3% | 36,391.3 | 152.3 | 150.9 |
| Beam (50%) | 79.5% | 29,452.1 | 114.2 | 115.8 |
| Total | 100% | 37,028.2 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 2.44 | 26 (84) | 19 (63) | 14 (45) | 8 (27) |
| 12 (40) | 1.37 | 27 (88) | 21 (68) | 15 (48) | 5 (16) |
| 15 (50) | 0.88 | 27 (90) | 20 (65) | 12 (40) | — |
| 18 (60) | 0.60 | 27 (90) | 20 (66) | 9 (30) | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 37 (120) | 27 (90) | 22 (72) | 13 (42) |
| 12 (40) | 41 (136) | 30 (100) | 22 (72) | 6 (20) |
| 15 (50) | 40 (130) | 30 (100) | 18 (60) | — |
| 18 (60) | 44 (144) | 29 (96) | 15 (48) | — |

# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**



## Applications

- For use in locations where:
  - — Hazardous areas designated as: Zone 1, 2, 21 and 22
  - — A high degree of corrosion resistance is required
  - — Protection against gas, dust, water and moisture is necessary
- Typical applications include:
  - —A wide range of harsh and hazardous areas where flammable gases and vapors are present, for example:
    - – Oil and Gas Refineries
    - – Petrochemical Plants
    - – Foundries
    - – Drilling Rigs
    - – Pulp and Paper Mills
    - – Food and Beverage Processing Facilities
    - – Loading Docks
    - – Power Plants
    - – Water and Wastewater Treatment Facilities
    - – Hydrogen and Biofuels plants
    - – LNG (Liquid Natural Gas) plants
    - – Other areas where corrosive, wet, dirty and tough environments are a problem
    - – IP66/67; marine and wet locations
    - – Extreme hot/cold temperature environments: -40 °C to +55/65 °C (-40 °F to +131/149 °F)

## Features

- Six lumen outputs provide up to 38,000 lumens.

| Nominal Lumens ① | HID Equivalent | Model Number |
|---|---|---|
| 9,500 | 175W-250W | AMLZL6 |
| 15,000 | 250W-400W | AMLZL7 |
| 19,500 | 400W-750W | AMLZL8 |
| 24,000 | 1000W | AMHZL1 |
| 30,000 | 1000-1500W | AMHZL2 |
| 38,000 | 1500W | AMHZL3 |

*① Nominal lumen value for 5000K, NEMA 7x7, with clear glass. Detailed lumen information provided in tables.*

- Separate field wiring compartment with screw terminal block for easy and secure connection (can accept UL/CSA 26-10 AWG, 4 to 6 $mm^2$).
- Choice of optics for optimal light distribution in a variety of applications.
- Two 3/4" NPT entries provided. Metric M20 adapters available.
- Yoke bracket is designed to accommodate traditional Areamaster brackets and slipfitters for easy retrofit.
- Choice of color temperature (CCT): 5000K (70 CRI) cool white, 4000K (80 CRI) neutral white, or 3000K (80 CRI) warm white.
- Rugged and compact housing with superior thermal design translates to long luminaire life.
- Heavy duty, high temperature silicone rubber gaskets.
- Thermal shock and impact resistant clear or frosted glass lens.
- Standard 6 kV surge protection.
- Captive fasteners secure on piece lens.
- Field replaceable LED driver and lens cover.
- Photobiological safety rating: Risk Group Zero (RG0) with frosted glass; Risk Group One (RG1) with clear glass.
- — 5 year standard warranty. 10 year limited warranty for select part number configurations

## Options

- Improved safety cable design with multiple retention points, *purchase separately*.

**AMLZ**

**AMHZ**

- Guard and visor available, *purchase separately*.
- Slip-fitters and mounting brackets available for easy pole or wall mounting.

## Standard Materials

- Housing and lens door: copperfree aluminum (4/10 of 1% maximum)
- Gaskets: silicone rubber
- Yoke: zinc plated HR steel
- Bolts: stainless steel
- Close up plugs: (1) aluminum provided
- Guard and safety cable: stainless steel
- Visor: aluminum

## Standard Finishes

- Housing, lens cover, visor and yoke mount: architectural bronze polyester.

## NEC/CEC Certifications and Compliances

- UL Standards: UL1598; UL 60079-0; UL 60079-7; UL 60079-18; UL 60079-31
- CSA Standards: CSA C22.2 No. 250.0; CAN/CSA C22.2 No. 60079-0; CAN/CSA C22.2 No. 60079-7; CAN/CSA C22.2 No. 60079-18; CAN/CSA C22.2 No. 60079-31
- ETL Report Number: 103761505DAL-001

## ATEX/IECEx Certifications and Compliances

- Certification Type: Areamaster Gen 2
  - — Gas: Zone 1 and 2
    - – Conforming to ATEX 2014/34/EU: Ⓔx II 2G
    - – Type of Protection: Ex eb mb op is IIC Gb
    - – Temperature Class: T6 to T4
  - — Dust: Zones 21 and 22
    - – Conforming to ATEX 2014/34/EU: Ⓔx II 2 D
    - – Type of Protection: Ex op is tb IIIC Db
    - – Surface Temperature: +85 °C to +100 °C (-185 °F to +212 °F)
- Ambient Temperature: -40 °C to +65 °C (-40 °F to +149 °F)
- ATEX Certificate: ITS18ATEX303521
- IECEx Certificate: IECEx ITS 18.0031
- Index of Protection according to EN/IEC 60529: IP66/67
- Impact Resistance (shock): IK08
- Photobiological Safety, IEC 62778 and IEC 62471: RG0 with frosted glass, RG1 with clear glass

# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

## Illustrated Features

### Light Where You Need It

Choose from **3 color temperatures** and a **variety of secondary optics** to put light where your application needs it most. Unsure of which optic is best for your job? Contact your sales representative to get a free 3D Dialux simulation.

### Robust Design

**Front-Facing Wiring Compartment:**
The Areamaster gasketed front wiring compartment with screw terminal block, and captive screws offers unmatchable installation ease and convenience.

**Replaceable Drivers:**
Easy to access, field replaceable drivers extend the useful life of your luminaire up to 200,000 hours or more. Shown above, the Areamaster High Lumen which demands two LED drivers for the very bright outputs up to 38,000 lumens.

**Visor and Guard:**
Whether using to comply with light pollution regulations, or simply controlling your light more and protection your lens, our optional visor and guards are readily available for your applications.

# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔ II 2 GD | IP66/67 | IK08**



**Order Using Catalog Numbering Guide — Areamaster™ Generation 2 Series Luminaires — Low Lumen Model**

| AMLZ | L1 | C | G | 6 | BU | M |
|---|---|---|---|---|---|---|
| Series Prefix:<br>AMLZ: Areamaster Generation 2 Low Lumen Zone 1 LED | Lumen Level: ①<br>L6 - 9K<br>L7 - 14K<br>L8 - 18.5K | Color Temp CCT:<br>C - 5000K<br>N - 4000K<br>W - 3000K | Diffusion:<br>G - Clear Glass<br>F - Frosted Glass | Beam Spread:<br>6 - 7x7 | Voltage:<br>BU - 120-277 Vac, 50/60 Hz, 170-300 Vdc | Options:<br>M - M20 Metric<br>Blank - 3/4" NPT |

**Order Using Catalog Numbering Guide — Areamaster™ Generation 2 HL Series Luminaires — High Lumen Model**

| AMHZ | L1 | C | G | 6 | BU | M |
|---|---|---|---|---|---|---|
| Series Prefix:<br>AMHZ: Areamaster Generation 2 High Lumen Zone 1 LED | Lumen Level: ①<br>L1 - 23K<br>L2 - 28.5K<br>L3 - 36K | Color Temp CCT:<br>C - 5000K<br>N - 4000K<br>W - 3000K | Diffusion:<br>G - Clear Glass<br>F - Frosted Glass | Beam Spread:<br>6 - 7x7 | Voltage:<br>BU - 120-277 Vac, 50/60 Hz, 170-300 Vdc | Options:<br>M - M20 Metric<br>Blank- 3/4" NPT |

*① All lumen values are typical (tolerance +/-10%).*

# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔ II 2 GD | IP66/67 | IK08**

**Lumen Output (Efficacy) — Low Lumen Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass** | | | | | | | | | | | | | | |
| AMLZL6 | 175-250W | 7x7 | 3000K | 80 | 8,159 | 125 | 4000K | 80 | 8,097 | 124 | 5000K | 70 | 9,027 | 139 |
| AMLZL7 | 250-400W | 7x7 | 3000K | 80 | 12,681 | 120 | 4000K | 80 | 12,569 | 120 | 5000K | 70 | 14,029 | 134 |
| AMLZL8 | 400-750W | 7x7 | 3000K | 80 | 16,364 | 114 | 4000K | 80 | 16,221 | 113 | 5000K | 70 | 18,104 | 126 |
| **Frosted Glass** | | | | | | | | | | | | | | |
| AMLZL6 | 175-250W | 7x7 | 3000K | 80 | 6,737 | 104 | 4000K | 80 | 6,691 | 102 | 5000K | 70 | 7,454 | 115 |
| AMLZL7 | 250-400W | 7x7 | 3000K | 80 | 10,451 | 100 | 4000K | 80 | 10,387 | 99 | 5000K | 70 | 11,563 | 110 |
| AMLZL8 | 400-750W | 7x7 | 3000K | 80 | 13,553 | 94 | 4000K | 80 | 13,465 | 94 | 5000K | 70 | 14,993 | 104 |

**Lumen Output (Efficacy) — High Lumen Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass** | | | | | | | | | | | | | | |
| AMHZL1 | 1000W | 7x7 | 3000K | 80 | 20,670 | 125 | 4000K | 80 | 20,205 | 122 | 5000K | 70 | 22,556 | 136 |
| AMHZL2 | 1000-1500W | 7x7 | 3000K | 80 | 25,281 | 123 | 4000K | 80 | 24,708 | 120 | 5000K | 70 | 27,588 | 134 |
| AMHZL3 | 1500W | 7x7 | 3000K | 80 | 32,231 | 116 | 4000K | 80 | 31,488 | 113 | 5000K | 70 | 35,171 | 127 |
| **Frosted Glass** | | | | | | | | | | | | | | |
| AMHZL1 | 1000W | 7x7 | 3000K | 80 | 17,179 | 104 | 4000K | 80 | 16,838 | 102 | 5000K | 70 | 18,746 | 113 |
| AMHZL2 | 1000-1500W | 7x7 | 3000K | 80 | 20,948 | 102 | 4000K | 80 | 20,531 | 100 | 5000K | 70 | 22,859 | 111 |
| AMHZL3 | 1500W | 7x7 | 3000K | 80 | 26,733 | 96 | 4000K | 80 | 26,203 | 94.43 | 5000K | 70 | 29,171 | 105 |

*① All lumen values are typical (tolerance +/-10%).*

# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**



**Electrical Specifications** ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Low Lumen Model** | | | | | |
| AMLZL6 | 120 Vac | 65 | 0.6 | 0.99 | < 20% |
| | 277 Vac | 63 | 0.3 | 0.93 | < 20% |
| | 170 Vdc | 63 | 0.5 | N/A | N/A |
| | 300 Vdc | 63 | 0.3 | N/A | N/A |
| AMLZL7 | 120 Vac | 105 | 0.9 | 0.99 | < 20% |
| | 277 Vac | 103 | 0.4 | 0.94 | < 20% |
| | 170 Vdc | 103 | 0.7 | N/A | N/A |
| | 300 Vdc | 103 | 0.4 | N/A | N/A |
| AMLZL8 | 120 Vac | 140 | 1.2 | 0.99 | < 20% |
| | 277 Vac | 135 | 0.5 | 0.93 | < 20% |
| | 170 Vdc | 138 | 0.8 | N/A | N/A |
| | 300 Vdc | 136 | 0.5 | N/A | N/A |
| **High Lumen Model** | | | | | |
| AMHZL1 | 120 Vac | 165 | 1.4 | 0.99 | < 20% |
| | 277 Vac | 161 | 0.6 | 0.93 | < 20% |
| | 170 Vdc | 162 | 1 | N/A | N/A |
| | 300 Vdc | 162 | 0.6 | N/A | N/A |
| AMHZL2 | 120 Vac | 205 | 1.7 | 0.99 | < 20% |
| | 277 Vac | 195 | 0.8 | 0.94 | < 20% |
| | 170 Vdc | 202 | 1.2 | N/A | N/A |
| | 300 Vdc | 202 | 0.7 | N/A | N/A |
| AMHZL3 | 120 Vac | 275 | 2.4 | 0.99 | < 20% |
| | 277 Vac | 265 | 1 | 0.94 | < 20% |
| | 170 Vdc | 270 | 1.7 | N/A | N/A |
| | 300 Vdc | 265 | 0.9 | N/A | N/A |

*Note: Surge Protection: Integral 6 kV surge protection. Option for up to 10 kV surge protection.*
*① All values are typical (tolerance +/-10%).*

# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

**Temperature Codes ①**

| | Gas — T Rating | | | Dust — Surface T° | | |
|---|---|---|---|---|---|---|
| **Model Number** | **Ta= +40 °C (+104 °F)** | **Ta= +55 °C (+131 °F)** | **Ta= +65 °C (+149 °F)** | **Ta= +40 °C (+104 °F)** | **Ta= +55 °C (+131 °F)** | **Ta= +65 °C (+149 °F)** |
| **NEC/CEC (AEx/Ex) — Low Lumen Model** | | | | | | |
| AMLZL6 | T6 | T5 | T5 | T6 | T6 | T6 |
| AMLZL7 | T4 | T4 | T4 | T6 | T5 | T5 |
| AMLZL8 | T4 | T4 | T4 | T6 | T5 | T5 |
| **ATEX/IECEx — Low Lumen Model** | | | | | | |
| AMLZL6 | T6 | T5 | T5 | +85 °C (+185) | +85 °C (+185) | +85 °C (+185) |
| AMLZL7 | T4 | T4 | T4 | +85 °C (+185) | +100 °C (+ 212 °F) | +100 °C (+ 212 °F) |
| AMLZL8 | T4 | T4 | T4 | +85 °C (+185) | +100 °C (+ 212 °F) | +100 °C (+ 212 °F) |
| **NEC/CEC (AEx/Ex) — High Lumen Model** | | | | | | |
| AMHZL1 | T5 | T4 | T4 | T6 | T5 | T5 |
| AMHZL2 | T4 | T4 | T4 | T6 | T5 | T5 |
| AMHZL3 | T4 | T4 | -- | T5 | T5 | -- |
| **ATEX/IECEx — High Lumen Model** | | | | | | |
| AMHZL1 | T5 | T4 | T4 | +85 °C (+185) | +100 °C (+ 212 °F) | +100 °C (+ 212 °F) |
| AMHZL2 | T4 | T4 | T4 | +85 °C (+185) | +100 °C (+ 212 °F) | +100 °C (+ 212 °F) |
| AMHZL3 | T4 | T4 | -- | +100 °C (+ 212 °F) | +100 °C (+ 212 °F) | -- |

**"T" Numbers Represent the Maximum Internal Temperature ② or Maximum Surface Temperature ③**

| **"T" #** | **T1** | **T2** | **T3** | **T4** | **T5** | **T6** |
|---|---|---|---|---|---|---|
| **Temp. Range °C (°F)** | +301 to +450 (+547 to +842) | +201 to +300 (+394 to +572) | +136 to +200 (+277 to +392) | +101 to +135 (+214 to +275) | +86 to +100 (+187 to +212) | +85 (+185) |

*① Ambient Temperature Range: -40 °C to +65 °C (-40 °F to +149 °F).*
*② T numbers represent the maximum internal temperature for Class I, Zone 1 locations designated by the NEC, and Zone 1 (Gas) locations as designated by the IEC.*
*③ T numbers and surface temperatures represent the maximum surface temperature under a dust blanket for Class I, Zone 21 as designated by the NEC, and Zone 21 (Dust) locations as designated by the IEC.*

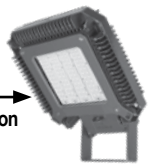
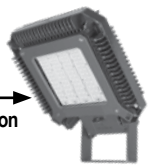
# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**



| Luminaire Category | Image | Frontal Projected Area (FPA) mm (ft²) | Drag Coefficient (DC) | Effective Projected Area (EPA) = FPA*DC ft² mm (ft²) |
|---|---|---|---|---|
| **Low Lumen Model** | | | | |
| 90° to Ground-Worst Case Mounting |   | 0.5 (1.52) | 1.20 | 0.6 (1.82) |
| 45° to Ground-Standard Mounting | | 0.3 (1.07) | 1.20 | 0.4 (1.28) |
| **High Lumen Model** | | | | |
| 90° to Ground-Worst Case Mounting |   | 0.6 (2.04) | 1.20 | 0.75 (2.45) |
| 45° to Ground-Standard Mounting | | 0.4 (1.44) | 1.20 | 0.5 (1.73) |

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**



**Accessories and Replacement Parts**

| Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|
| **Crossarm Mounting Bracket** | | |
| Has 180° horizontal adjustment — degree marked. Facilitates mounting floodlight to crossarm or other flat surface, or to GAM8WB. Includes floodlight yoke bolts. Malleable iron, zinc plated, chromate sealed, architectural bronze polyester finish. | 1.4 (3.1) | **GAM8CA** |
| **Pipe or Wall Mount Bracket** | | |
| Used with GAM8CA. Clamps to 1" to 2-1/2" pipe, vertical or horizontal, or mounts on flat surfaces. Includes U-bolt and crossarm bracket bolts. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish. | 2.9 (6.4) | **GAM8WB** |
| *Crossarm Mounting Bracket (**GAM8CA**) used with Pipe or Wall Mount Bracket (**GAM8WB**).* | | |
| **Poletop Slip-Fitter** | | |
| Slip-fits 1" or 1-1/2" pipe size poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Body is malleable iron-zinc plated, chromate sealed, with cast aluminum cap. Assembly has architectural bronze polyester finish. | 2.4 (5.3) | **AMLEDSF1** |
| **Poletop Slip-Fitter** | | |
| Slip-fits 2" or 2-1/2" poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish. | 2.8 (6.2) | **GAM8SF** |

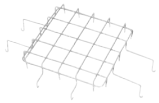
# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

**Accessories and Replacement Parts**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Wall Mount Bracket** | | | |
| | Used with GAM8SF to provide a wall mounting option. Galvanized Steel. | 4.8 (10.5) | **GPSWB6GAL** |
| **Wire Guard** | | | |
|  | Stainless steel. | 0.2 (0.4) | **LGGUARD**<br>**LHGUARD** |
| **Safety Cable** | | | |
| | Stainless steel. | 0.2 (0.4) | **LEDSC** |
| **Visor** | | | |
| | Steel with architectural bronze polyester finish.<br>For Dark Sky Friendly design. | 0.2 (0.4) | **AMLGV**<br>**AMLHV** |
| **Portable Floodlight Base** | | | |
| | Portable floodlight base for temporary lighting applications. To be used with wire guard. Malleable iron with architectural bronze polyester finish. | 2.4 (5.2) | **GAMPFB** |
| **Replacement Covers** | | | |
| | Clear Glass — AMLZ | N/A | **AMLZCLEAR** |
| | Frosted Glass — AMLZ | 1.8 (4.0) | **AMLZFROST** |
| | Clear Glass — AMHZ | N/A | **AMHZCLEAR** |
| | Frosted Glass — AMHZ | N/A | **AMHZFROST** |
| **Yoke Mount Bracket** | | | |
| | Stainless Steel Yoke Mount Bracket. For installations requiring a higher degree of corrosion protection. Made with all stainless steel components, no painted finish. | 1.8 (4.0) | **AMLYMSS** |
| | Architectural Bronze Replacement Yoke Bracket | 1.41 (3.1) | **AMLYMAB** |

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ex II 2 GD | IP66/67 | IK08**

**Replacement Drivers**

| | Luminaire Model | Voltage | Driver Wattage | Constant Current Setting | Catalog Number |
|---|---|---|---|---|---|
| **Low Lumen Model** | | | | | |
| | AMLZ6 | BU | 100 Watt | 410mA | **APMZ100C090UD41** |
| | AMLZL7 | BU | 150 Watt | 680mA | **APMZ150C135UD68** |
| | AMLZL8 | BU | 150 Watt | 930mA | **APMZ150C135UD93** |
| **High Lumen Model** | | | | | |
| | AMHZL1 | BU | 100 Watt | 530mA | **APMZ100C090UD53** |
| | AMHZL2 | BU | 150 Watt | 680mA | **APMZ150C135UD68** |
| | AMHZL3 | BU | 150 Watt | 915mA | **APMZ150C135UD93** |

**Luminaire Weight**

| Description | Weight in kg (lbs) |
|---|---|
| Low Lumen Model — AMLZ Luminaires | 9.8 (21.6) |
| High Lumen Model — AMHZ Luminaires | 16.5 (36.5) |

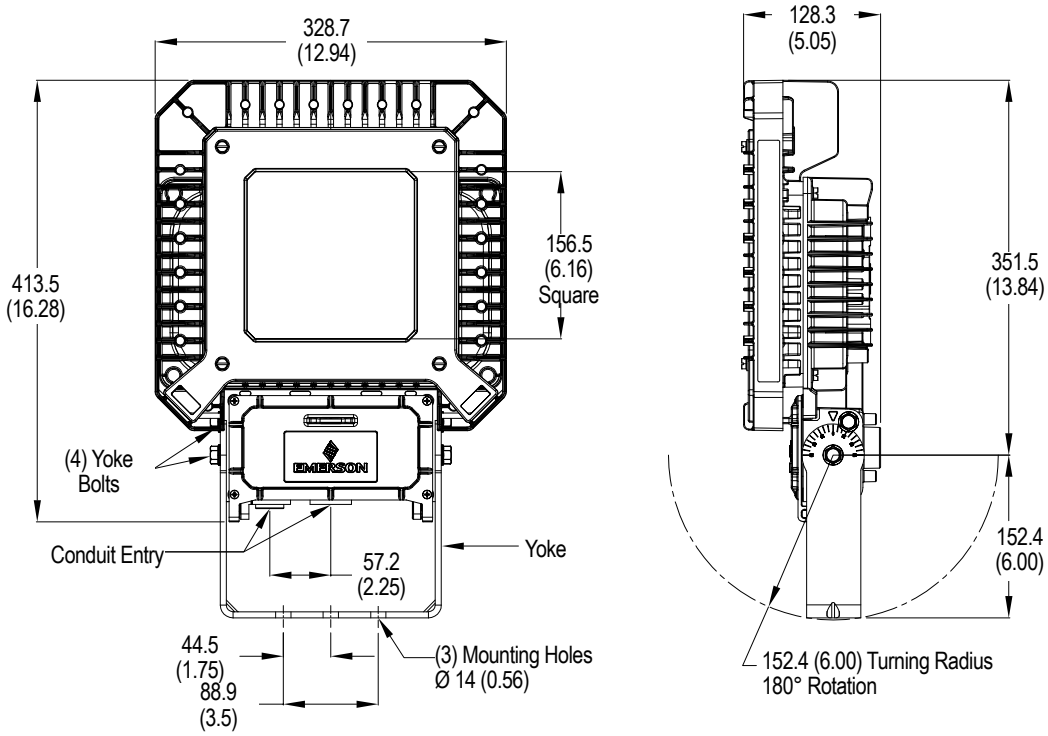
# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

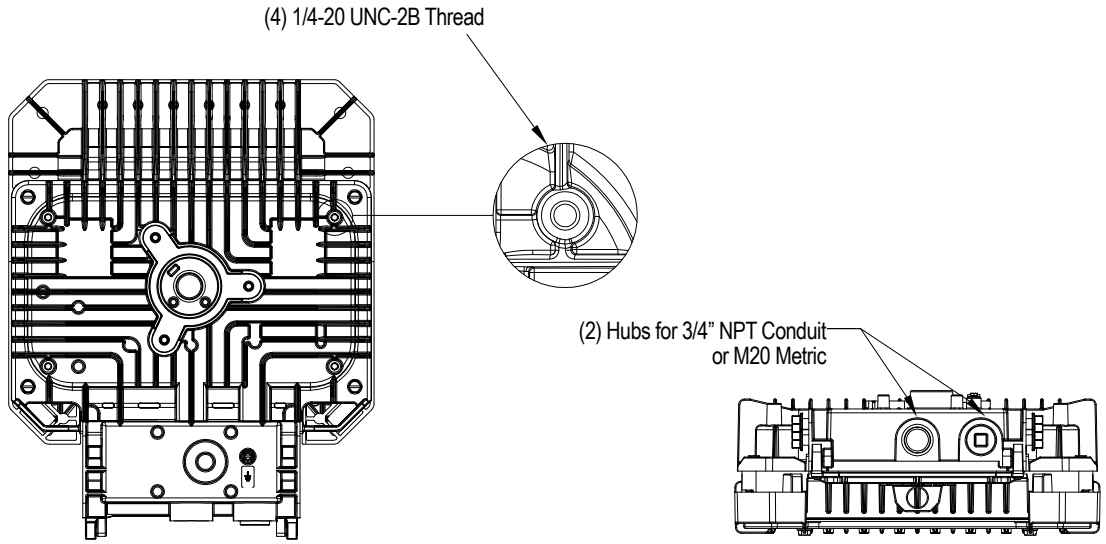
Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

**AMLZ Dimensions in Millimeters (Inches) — Floodlight — Low Lumen Model**



# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

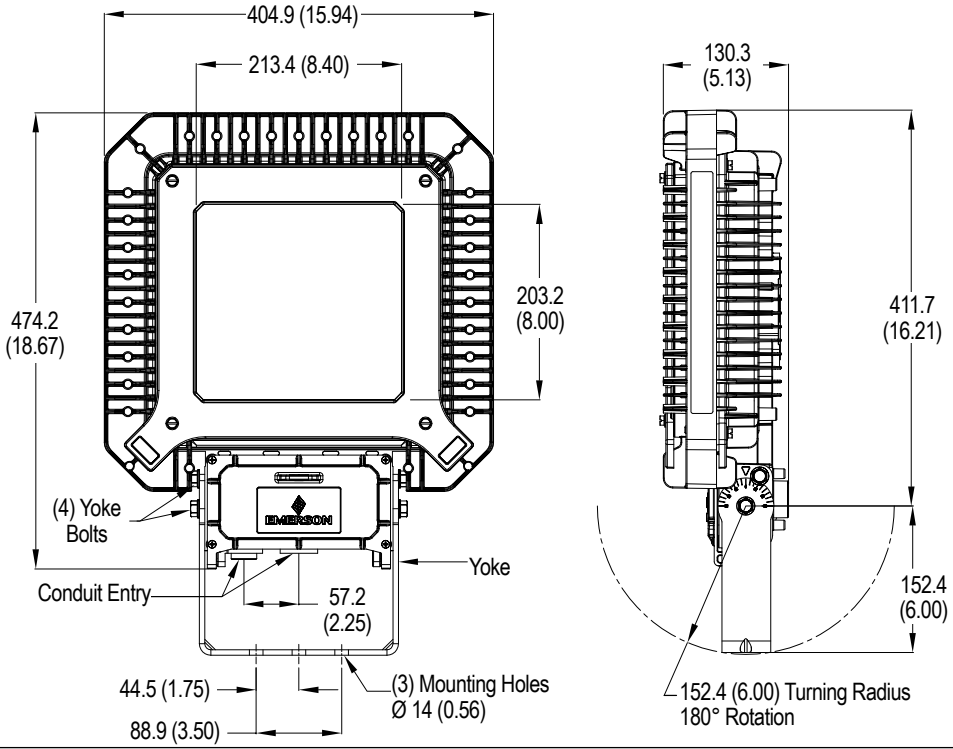
Hazardous Locations

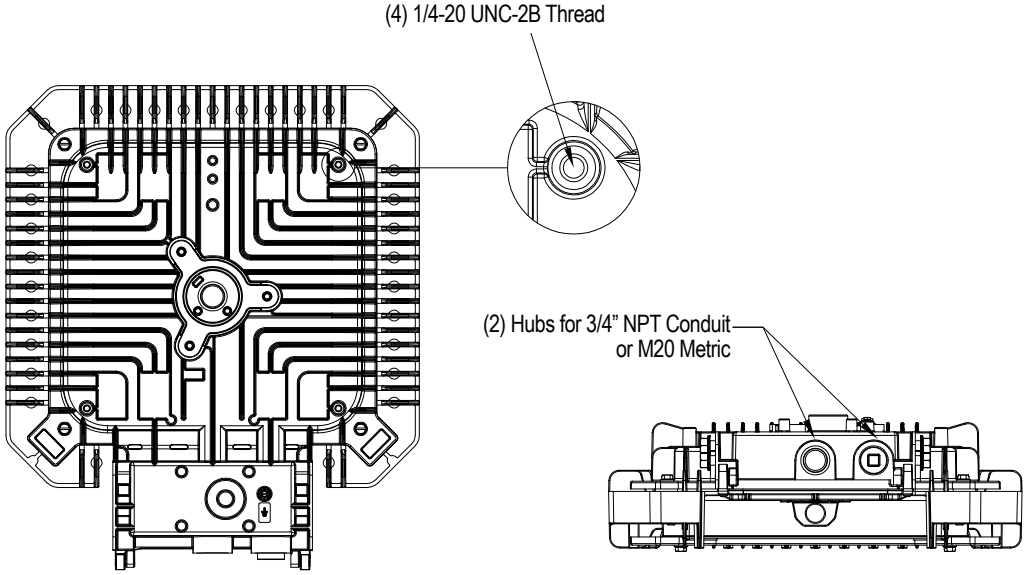
**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**



**AMHZ Dimensions in Millimeters (Inches)**

**Floodlight — High Lumen Model**



# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**



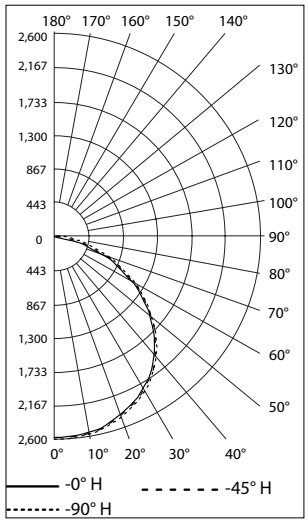
## Photometric Data — DATA SHOWN IS ABSOLUTE

**7x7, Frosted Glass, 5000K CCT**

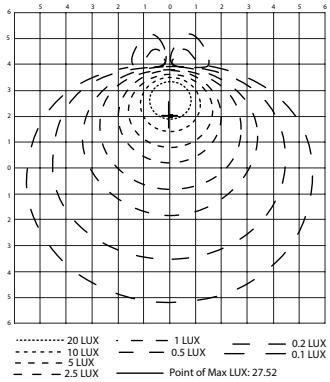
REPORT NUMBER: **AMLZL6CF6BUM**

Luminaire Lumens 7,454

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 97.5% | 7,280 | 159° | 157° |
| Beam (50%) | 75.5% | 5,640 | 113° | 114° |
| Total | 100% | 7,454 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 12 (40) | 9 (30) | 6 (20) | 0 |
| 15 (50) | 13 (42) | 9 (29) | 2 (8) | 0 |
| 18 (60) | 12 (40) | 5 (16) | 0 | 0 |

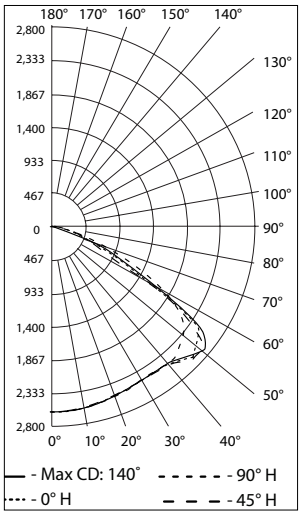
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 18 (60) | 13 (44) | 9 (30) | 0 |
| 15 (50) | 18 (60) | 11 (36) | 0 | 0 |
| 18 (60) | 18 (60) | 7 (24) | 0 | 0 |

**7x7, Clear Glass, 5000K**

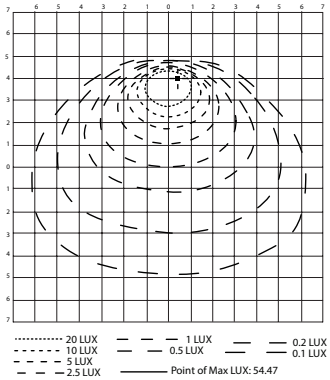
REPORT NUMBER: **AMLZL6CG6BUM**

Luminaire Lumens 9,027

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.3% | 8,897 | 134° | 144° |
| Beam (50%) | 90.1% | 8,153 | 95° | 120° |
| Total | 100% | 9,027 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 12 (40) | 9 (30) | 6 (20) | 2 (5) |
| 15 (50) | 14 (45) | 18 (60 | 5 (15) | 0 |
| 18 (60) | 12 (40) | 6 (20) | 0 | 0 |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 22 (72) | 15 (50) | 12 (40) | 3 (10) |
| 15 (50) | 22 (72) | 16 (54) | 9 (30) | 0 |
| 18 (60) | 24 (80) | 12 (40) | 0 | 0 |

# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔ II 2 GD | IP66/67 | IK08**



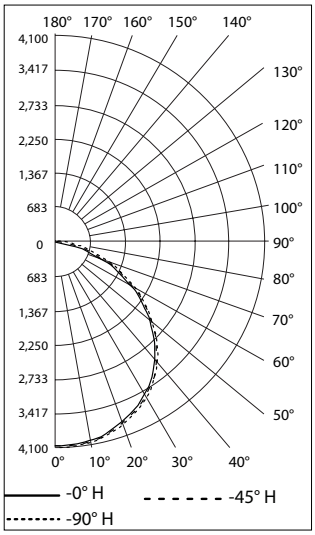
## Photometric Data — DATA SHOWN IS ABSOLUTE

**7x7, Frosted Glass, 5000K CCT**

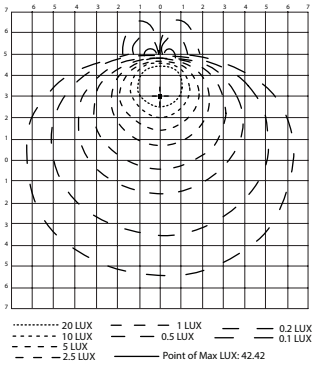
REPORT NUMBER: **AMLZL7CF6BUM**

Luminaire Lumens 11,563

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 97.5% | 11,295 | 159° | 156° |
| Beam (50%) | 75.3% | 8,725 | 112° | 114° |
| Total | 100% | 11,563 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 15 (48) | 11 (36) | 8 (26) | 3 (10) |
| 15 (50) | 16 (51) | 9 (30) | 5 (15) | 0 |
| 18 (60) | 15 (50) | 10 (32) | 0 | 0 |

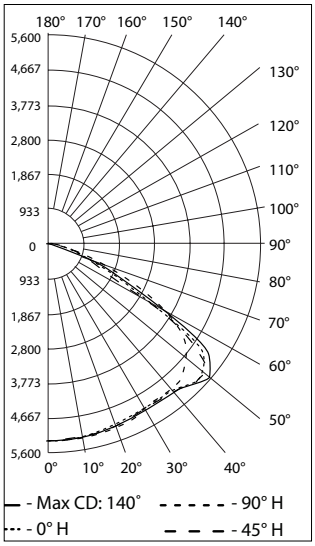
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 22 (72) | 15 (50) | 12 (40) | 5 (16) |
| 15 (50) | 22 (72) | 16 (54) | 9 (30) | 0 |
| 18 (60) | 24 (80) | 17 (56) | 0 | 0 |

**7x7, Clear Glass, 5000K**

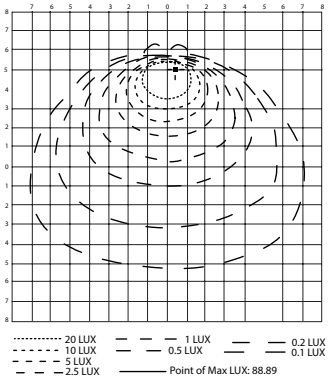
REPORT NUMBER: **AMLZL7CG6BUM**

Luminaire Lumens 14,029

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.4% | 13,830 | 133° | 145° |
| Beam (50%) | 90.1% | 12,669 | 94° | 121° |
| Total | 100% | 14,029 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 14 (46) | 11 (36) | 8 (25) | 4 (12) |
| 15 (50) | 16 (53) | 11 (36) | 7 (23) | 0 |
| 18 (60) | 16 (52) | 10 (34) | 2 (8) | 0 |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 24 (80) | 18 (60) | 13 (44) | 9 (28) |
| 15 (50) | 27 (90) | 20 (66) | 15 (48) | 0 |
| 18 (60) | 28 (92) | 21 (68) | 0 | 0 |

# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

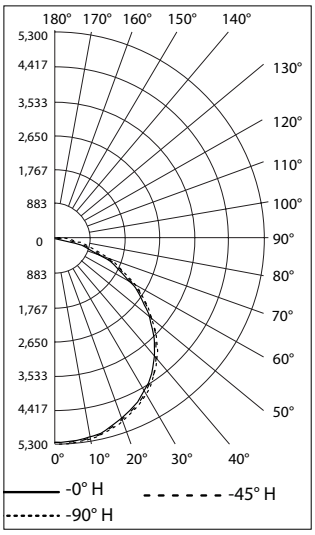
## Photometric Data — DATA SHOWN IS ABSOLUTE

### 7x7, Frosted Glass, 5000K

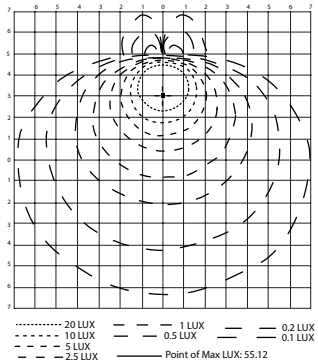
REPORT NUMBER: **AMLZL8CF6BUM**

Luminaire Lumens 14,993

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 97.5% | 14,648 | 159° | 156° |
| Beam (50%) | 75.4% | 11,323 | 112° | 114° |
| Total | 100% | 14,993 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 16 (52) | 12 (40) | 9 (30) | 6 (20) |
| 9 (30) | 18 (59) | 14 (54) | 9 (30) | 0 |
| 12 (40) | 17 (56) | 12 (40) | 0 | 0 |

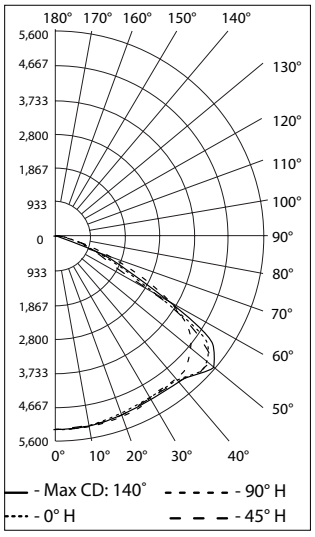
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 23 (76) | 18 (60) | 13 (44) | 6 (20) |
| 9 (30) | 26 (84) | 18 (60) | 14 (45) | 0 |
| 12 (40) | 27 (88) | 20 (64) | 7 (24) | 0 |

### 7x7, Clear Glass, 5000K CCT

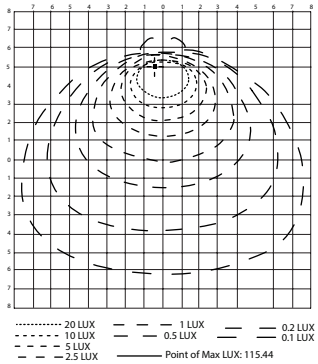
REPORT NUMBER: **AMLZL8CG6BUM**

Luminaire Lumens 18,104

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.3% | 17,835 | 132° | 145° |
| Beam (50%) | 90% | 16,330 | 93° | 121° |
| Total | 100% | 18,104 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 16 (52) | 12 (40) | 9 (30) | 5 (18) |
| 9 (30) | 9 (30) | 13 (42) | 9 (30) | 0 |
| 12 (40) | 18 (60) | 12 (40) | 0 | 0 |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 27 (88) | 22 (72) | 15 (50) | 10 (32) |
| 9 (30) | 31 (102) | 22 (72) | 16 (54) | 2 (6) |
| 12 (40) | 32 (104) | 24 (80) | 12 (40) | 0 |

# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | II 2 GD | IP66/67 | IK08**



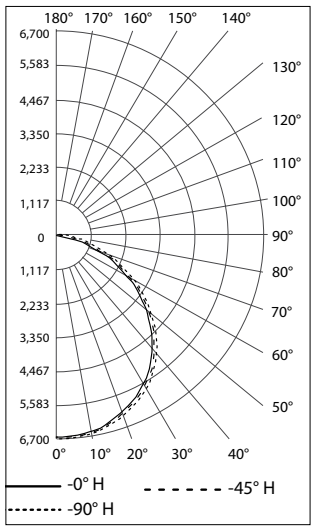
## Photometric Data — DATA SHOWN IS ABSOLUTE

**7x7, Frosted Glass, 5000K CCT**

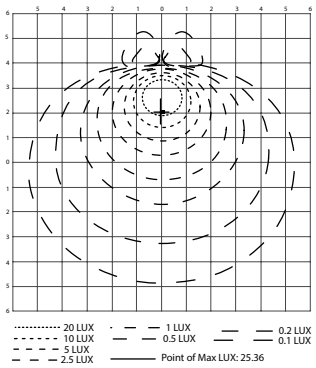
REPORT NUMBER: **AMHZL1CF6BUM**

Luminaire Lumens 18,746

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 97.3% | 18,288 | 159° | 159° |
| Beam (50%) | 74.4% | 13,978 | 112° | 112° |
| Total | 100% | 18,746 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 20 (64) | 15 (48) | 20 (66) | 0 |
| 15 (50) | 18 (60) | 14 (45) | 0 | 0 |
| 18 (60) | 20 (66) | 10 (33) | 0 | 0 |

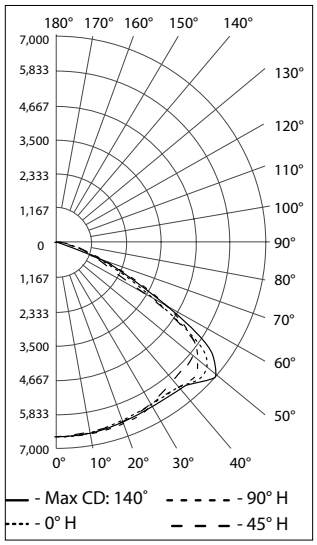
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 29 (96) | 22 (72) | 12 (40) | 0 |
| 15 (50) | 30 (100) | 18 (60) | 0 | 0 |
| 18 (60) | 29 (96) | 15 (48) | 0 | 0 |

**7x7, Clear Glass, 5000K**

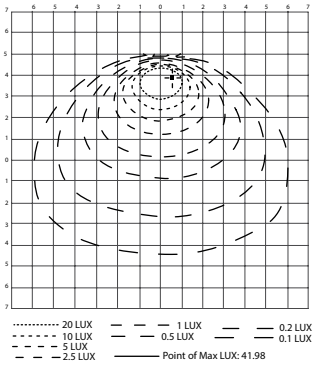
REPORT NUMBER: **AMHZL1CG6BUM**

Luminaire Lumens 22,556

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.2% | 22,194 | 137° | 142° |
| Beam (50%) | 89.3% | 20,186 | 102° | 116° |
| Total | 100% | 22,556 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 24 (80) | 18 (60) | 13 (44) | 0 |
| 15 (50) | 24 (80) | 18 (60) | 11 (35) | 0 |
| 18 (60) | 27 (90) | 18 (60) | 0 | 0 |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 37 (120) | 27 (88) | 20 (64) | 0 |
| 15 (50) | 35 (115) | 26 (85) | 12 (40) | 0 |
| 18 (60) | 37 (120) | 26 (84) | 0 | 0 |

# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

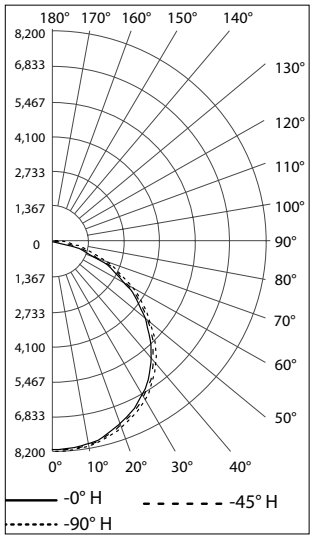
Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔx II 2 GD | IP66/67 | IK08**

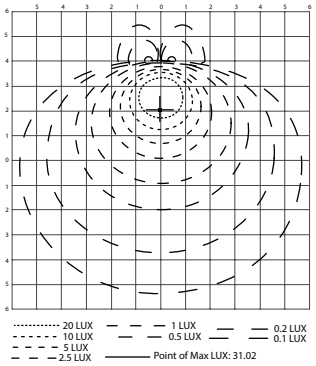


**Photometric Data — DATA SHOWN IS ABSOLUTE**
**7x7, Frosted Glass, 5000K CCT**
REPORT NUMBER: **AMHZL2CF6BUM**
Luminaire Lumens 22,859

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 97.3% | 22,299 | 159° | 157° |
| Beam (50%) | 74.5% | 17,064 | 112° | 111° |
| Total | 100% | 22,859 | | |

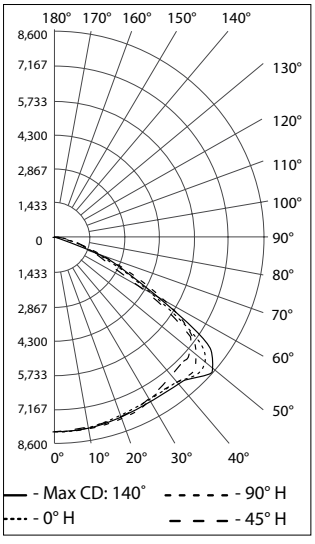
**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 22 (72) | 15 (50) | 10 (32) | 0 |
| 15 (50) | 21 (70) | 15 (50) | 6 (20) | 0 |
| 18 (60) | 22 (72) | 15 (48) | 0 | 0 |

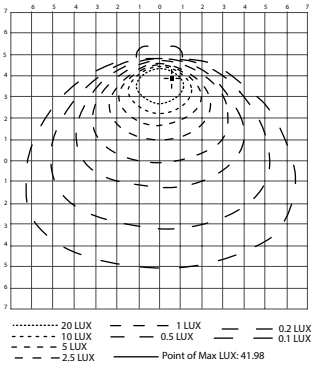
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 29 (96) | 24 (80) | 12 (40) | 0 |
| 15 (50) | 34 (110) | 23 (75) | 9 (30) | 0 |
| 18 (60) | 33 (108) | 18 (60) | 0 | 0 |

**7x7, Clear Glass, 5000K**
REPORT NUMBER: **AMHZL2CG6BUM**
Luminaire Lumens 27,588

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.2% | 27,144 | 137° | 142° |
| Beam (50%) | 89.3% | 24,676 | 102° | 116° |
| Total | 100% | 27,588 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 22 (72) | 15 (48) | 10 (32) | 0 |
| 15 (50) | 23 (75) | 15 (50) | 8 (25) | 0 |
| 18 (60) | 22 (72) | 15 (48) | 0 | 0 |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 37 (120) | 29 (96) | 20 (64) | 0 |
| 15 (50) | 37 (120) | 30 (100) | 15 (50) | 0 |
| 18 (60) | 40 (132) | 29 (96) | 0 | 0 |

# Areamaster™ Generation 2 and High Lumen LED Zone 1 Series Luminaires

Floodlight

Hazardous Locations

**NEC/CEC: Class I, Zone 1 AEx/Ex eb mb Group IIC Gb | Class I, Zone 21 AEx/Ex tb Group IIC Db**
**ATEX/IECEx: Zone 1, 2, 21, 22 | Ex eb mb op is IIC | Ⓔ II 2 GD | IP66/67 | IK08**



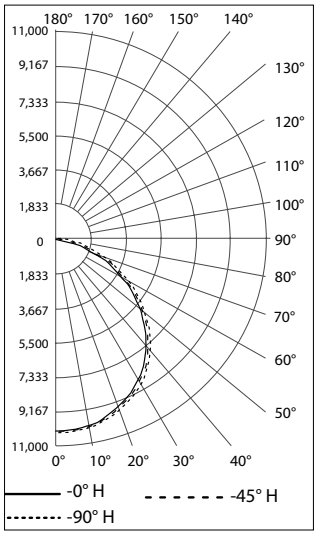
## Photometric Data — DATA SHOWN IS ABSOLUTE

**7x7, Frosted Glass, 5000K CCT**

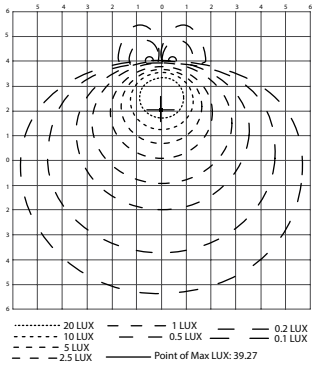
REPORT NUMBER: **AMHZL3CF6BUM**

Luminaire Lumens 29,171

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 97.4% | 28,461 | 159° | 157° |
| Beam (50%) | 74.6% | 21,798 | 112° | 111° |
| Total | 100% | 29,171 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 24 (80) | 18 (60) | 12 (40) | 0 |
| 15 (50) | 24 (80) | 18 (60) | 9 (30) | 0 |
| 18 (60) | 26 (84) | 18 (60) | 4 (12) | 0 |

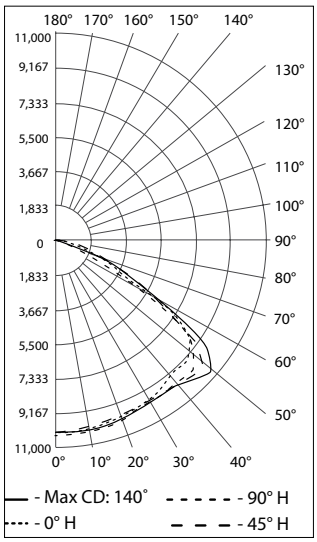
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 37 (120) | 24 (80) | 20 (64) | 0 |
| 15 (50) | 37 (120) | 24 (80) | 15 (50) | 0 |
| 18 (60) | 37 (120) | 22 (72) | 4 (12) | 0 |

**7x7, Clear Glass, 5000K**

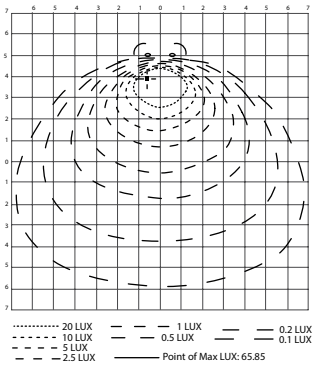
REPORT NUMBER: **AMHZL3CG6BUM**

Luminaire Lumens 35,171

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.2% | 34,615 | 137° | 141° |
| Beam (50%) | 88.5% | 31,180 | 101° | 115° |
| Total | 100% | 35,171 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 24 (80) | 18 (60) | 12 (40) | 2 (8) |
| 15 (50) | 23 (75) | 18 (60) | 9 (30) | 0 |
| 18 (60) | 24 (78) | 18 (60) | 7 (24) | 0 |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 12 (40) | 44 (144) | 32 (104) | 24 (80) | 0 |
| 15 (50) | 46 (150) | 34 (110) | 24 (80) | 0 |
| 18 (60) | 46 (150) | 33 (108) | 16 (54) | 0 |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



## Applications

- Powerful, efficient, weatherproof lighting fixtures suitable for use in a wide range of industrial areas, for example:
  - — Steel Production Plants
  - — Power Generation Facilities
  - — Foundries
  - — Cement, Stone and Sand Plants
  - — Pulp and Paper Mills
  - — Ship Building and Shipping Ports
  - — Storage Areas
  - — Security Lighting
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other areas where corrosive, wet, dirty and tough environments are a problem
- IP66/IP67, Type 4X, marine and wet locations.
- Locations requiring dependable, consistent lighting in extreme hot/cold temperature environments:
  - — Ambient temperature range: -40 °C to +65 °C (-40 °F to +149 °F).
  - — For high lumen IAMLHL3 output: -40 °C to +55 °C (-40 °F to +131 °F).

## Features

- Six lumen outputs provide up to 38,000 lumens.

| Nominal Lumens ① | HID Equivalent | Model Number |
|---|---|---|
| 9,500 | 175W-250W | IAMLGL6 |
| 15,000 | 250W-400W | IAMLGL7 |
| 19,500 | 400W-750W | IAMLGL8 |
| 24,000 | 1000W | IAMLHL1 |
| 30,000 | 1000-1500W | IAMLHL2 |
| 38,000 | 1500W | IAMLHL3 |

- Choice of optics for optimal light distribution in a variety of applications.
- Separate field wiring compartment with screw terminal block for easy and secure connection can accept 0.14 - 6 mm² (26 - 10 AWG) wire.
- Wiring compartment has two 3/4" NPT entries in bottom and one 3/4" NPT entry on top. Optional M20 metric adapters available.
- High Bay mounting achieved by using 3/4" NPT threaded non-penetrating blind hold centered in top of luminaire with integral set screw. Wire via wiring compartment.
- Yoke bracket is designed to accommodate traditional Areamaster brackets and slipfitters for easy retrofit. Optional stainless steel yoke bracket is available.
- Choice of color temperature (CCT): 5000K (70 CRI) cool white, 4000K (80 CRI) neutral white, or 3000K (80 CRI) warm white.
- Reported L70 is > 60,000 hours @ +65°C (+149 °F).
- Rugged and compact housing with superior thermal design translates to long luminaire life.
- Heavy duty, high temperature silicone rubber gaskets.
- Thermal shock and impact resistant clear or frosted glass lens.
- Standard 6 kV/3 kA surge protection. Optional 10 kV/5 kA additional surge protection available.
- Captive fasteners secure one piece lens.
- Field replaceable LED driver and lens cover.
- Photometric data and electronic drawings available upon request.
- 5 year standard warranty. 10 year limited warranty for select part number configurations.

## Options

- Improved safety cable design with multiple retention points, *purchase separately*.

**IAMLG** **IAMLH**

- Guard and visor available, *purchase separately*.
- Slip-fitters and mounting brackets available for easy pole or wall mounting.
- Stainless steel yoke bracket.
- 10 kV/5 kA Surge Protection.

## Standard Materials

- Housing and lens cover: copperfree (4/10 of 1% max.) aluminum
- Gaskets: silicone rubber
- Yoke: zinc plated steel
- Bolts: stainless steel
- Close up plugs: (2) aluminum provided
- Guard and safety cable: stainless steel
- Visor: Aluminum

## Standard Finishes

- Housing, lens cover, visor and yoke mount: architectural bronze polyester

## NEC/CEC Certifications and Compliances

- UL Standards: UL1598; UL1598A; UL 8750
- CSA Standards: CSA C22.2 No. 250.0
- cCSAus 164460 Certificate Number: IAMLG – 70073607, IAMLH – 70073608
- cETLus 104364566CHI
- Vibration Rating: 10G, 10 hours, 3 axis at first mode resonant frequency

## NOM: Norma Oficial Mexicana

- NOM-003-SCFI-2014 (NMX-J-307-ANCE-2017)
- NOM Certificate: ULM-NOM-09900

## IECEE CB Certificates and Compliances

- IEC 60598-1, IEC 60598-2-1, and IEC 60598-2-5
- IECEE CB Certificates: CB 164460-80075815 and CB 164460-80075818
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK08
- Photobiological Safety, IEC 62778 and IEC 62471: Risk Group 1 (RG1)

## CE and UKCA Marking

- Safety: EN 60598-1, EN 60598-2-1, and EN 60598-2-5
- EMC: EN 61547, 61000-6-2, 61000-6-4, 61000-3-2; CISPR 15

## ABS Certifications

- IAMLG: 18-HS1714271-PDA
- IAMLH: 18-HS1714275-PDA

## DesignLights™ Consortium

- Check DLC QPL for current list of products.

## Related Products

- Areamaster Generation 2 and High Lumen LED Luminaires
- Round Tapered Steel Poles
- Hinged Steel Poles
- Square Tapered Steel Poles
- Square Steel Poles
- Floodlight Mounting Brackets

*① Nominal lumen value for 5000K, NEMA 7x7, with clear glass. Detailed lumen information provided in tables.*

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

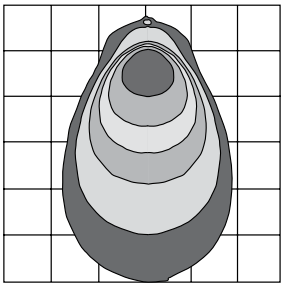
**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

## Illustrated Features

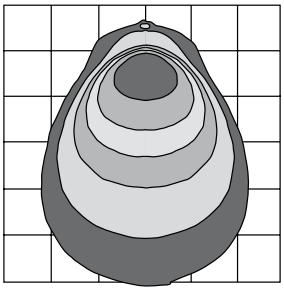
### Light Where You Need It

Choose from **3 color temperatures** and a **variety of secondary optics** to put light where your application needs it most. Unsure of which optic is best for your job? Contact your sales representative to get a free 3D Dialux simulation.

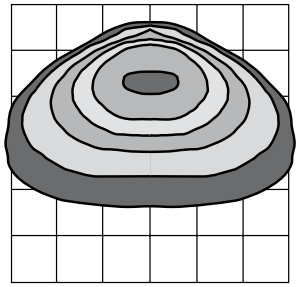
### The Right Beam Pattern for Your Application



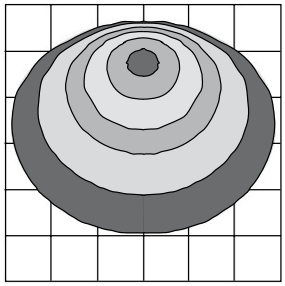
**NEMA 3x3** – Very Narrow, spot type forward intensity focus. Enables highest mounting heights (30 m / 100 ft +) while maintaining delivered light on surface (footcandles/lux).



**NEMA 5x5** – Narrow, spot type forward intensity focus. Enables higher mounting heights (15 m / 50 ft +) while maintaining delivered light on surface (footcandles/lux).

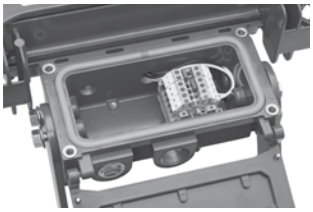


**NEMA 7x6** – Mimics traditional HID light distribution. Light intensity is directed forward and side-to-side to maximize spacing between luminaires.

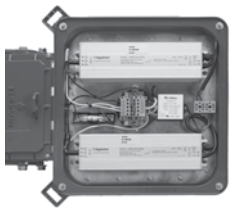


**NEMA 7x7** – Uniform light spread, perfect for most typical flood lighting applications.

### Robust Design

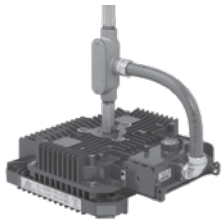


**Front-Facing Wiring Compartment:**
Gasketed front wiring compartment with screw terminal block, and captive screws offers unmatchable installation ease and convenience.



**Replaceable Drivers:**
Easy to access, field replaceable drivers extend the useful life of your luminaire up to 200,000 hours or more.

**Visor and Guard:**
Comply with light pollution regulations or control light spread with a visor. Protect the lens with a guard.



**High Bay Mount:**
Use 3/4" NPT threaded non-penetrating blind hold centered in top of luminaire with integral set screw. Wire via wiring compartment.

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**Order Using Catalog Numbering Guide — Industrial Areamaster™ Generation 2 Series Luminaires — Low Lumen Model**

| IAMLG | L7 | C | G | 7 | BU | S |
|---|---|---|---|---|---|---|
| Series Prefix:<br>IAMLG: Industrial Areamaster Generation 2 LED | Lumen Level: ①<br>L6 - 9K<br>L7 - 15K<br>L8 - 19K | Color Temp CCT:<br>C - 5000K (70 CRI)<br>N - 4000K (80 CRI)<br>W - 3000K (80 CRI) | Diffusion:<br>G - Clear Glass<br>F - Frosted Glass<br>D - Diffused Polycarbonate | Beam Spread:<br>6 - NEMA 7x7 (non-optic)<br>7 - NEMA 7x6 | Voltage:<br>BU - 120-277 Vac, 50/60 Hz,125-300 Vdc<br>BH - 347-480 Vac, 50/60 Hz | Options:<br>F - Fusing ②<br>S - 10 kV Surge Protection<br>M - M20 Metric Cable Entry Adapters |

**Order Using Catalog Numbering Guide — Industrial Areamaster™ Generation 2 Series Luminaires — High Lumen Model**

| IAMLH | L1 | C | G | 7 | BU | S |
|---|---|---|---|---|---|---|
| Series Prefix:<br>IAMLH: Industrial Areamaster Generation 2 HL LED | Lumen Level: ①<br>L1 - 24K<br>L2 - 30K<br>L3 - 38K | Color Temp CCT:<br>C - 5000K (70 CRI)<br>N - 4000K (80 CRI)<br>W - 3000K (80 CRI) | Diffusion:<br>G - Clear Glass<br>F - Frosted Glass | Beam Spread:<br>3 - NEMA 3x3<br>5 - NEMA 5x5<br>6 - NEMA 7x7 (non-optic)<br>7 - NEMA 7x6 | Voltage:<br>BU - 120-277 Vac, 50/60 Hz,125-300 Vdc<br>BH - 347-480 Vac, 50/60 Hz | Options:<br>F - Fusing ②<br>S - 10 kV Surge Protection<br>M - M20 Metric Cable Entry Adapters |

*① All lumen values are typical (tolerance +/- 10%)*
*② Use of fuse voids Marine rating.*

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**Lumen Output (Efficacy) — Low Lumen Model ①**

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass** | | | | | | | | | | | | | | |
| IAMLGL6 | 175-250W | NEMA 7x6 | 3000K | 80 | 7,350 | 105 | 4000K | 80 | 8,500 | 121 | 5000K | 70 | 9,500 | 136 |
| | | NEMA 7x7 | 3000K | 80 | 7,650 | 109 | 4000K | 80 | 9,000 | 129 | 5000K | 70 | 9,900 | 141 |
| IAMLGL7 | 250-400W | NEMA 7x6 | 3000K | 80 | 11,000 | 99 | 4000K | 80 | 12,950 | 117 | 5000K | 70 | 14,500 | 131 |
| | | NEMA 7x7 | 3000K | 80 | 11,500 | 104 | 4000K | 80 | 13,650 | 123 | 5000K | 70 | 15,000 | 135 |
| IAMLGL8 | 400-750W | NEMA 7x6 | 3000K | 80 | 14,500 | 95 | 4000K | 80 | 16,550 | 109 | 5000K | 70 | 18,500 | 122 |
| | | NEMA 7x7 | 3000K | 80 | 15,000 | 99 | 4000K | 80 | 17,550 | 115 | 5000K | 70 | 19,500 | 128 |
| **Frosted Glass** | | | | | | | | | | | | | | |
| IAMLGL6 | 175-250W | NEMA 7x6 | 3000K | 80 | 6,200 | 89 | 4000K | 80 | 7,200 | 103 | 5000K | 70 | 7,900 | 113 |
| | | NEMA 7x7 | 3000K | 80 | 6,400 | 91 | 4000K | 80 | 7,500 | 107 | 5000K | 70 | 8,300 | 119 |
| IAMLGL7 | 250-400W | NEMA 7x6 | 3000K | 80 | 9,400 | 85 | 4000K | 80 | 10,950 | 99 | 5000K | 70 | 12,000 | 108 |
| | | NEMA 7x7 | 3000K | 80 | 9,700 | 87 | 4000K | 80 | 11,350 | 102 | 5000K | 70 | 12,500 | 113 |
| IAMLGL8 | 400-750W | NEMA 7x6 | 3000K | 80 | 12,000 | 79 | 4000K | 80 | 14,000 | 92 | 5000K | 70 | 15,550 | 102 |
| | | NEMA 7x7 | 3000K | 80 | 12,500 | 82 | 4000K | 80 | 14,500 | 95 | 5000K | 70 | 16,550 | 109 |
| **Diffused Polycarbonate** | | | | | | | | | | | | | | |
| IAMLGL6 | 175-250W | NEMA 7x6 | 3000K | 80 | 5,950 | 85 | 4000K | 80 | 6,950 | 99 | 5000K | 70 | 7,700 | 110 |
| | | NEMA 7x7 | 3000K | 80 | 6,250 | 89 | 4000K | 80 | 7,300 | 104 | 5000K | 70 | 8,050 | 115 |
| IAMLGL7 | 250-400W | NEMA 7x6 | 3000K | 80 | 9,000 | 81 | 4000K | 80 | 10,550 | 95 | 5000K | 70 | 11,700 | 105 |
| | | NEMA 7x7 | 3000K | 80 | 9,450 | 85 | 4000K | 80 | 11,000 | 99 | 5000K | 70 | 12,200 | 110 |
| IAMLGL8 | 400-750W | NEMA 7x6 | 3000K | 80 | 11,500 | 76 | 4000K | 80 | 13,500 | 89 | 5000K | 70 | 15,000 | 99 |
| | | NEMA 7x7 | 3000K | 80 | 12,100 | 80 | 4000K | 80 | 14,150 | 93 | 5000K | 70 | 15,650 | 103 |

*① All lumen values are typical (tolerance +/-10%).*

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**Lumen Output (Efficacy) — High Lumen Model** ①

| Model | HID Equivalency | Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) | CCT | CRI | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clear Glass** | | | | | | | | | | | | | | |
| IAMLHL1 | 1000W | NEMA 3x3 | 3000K | 80 | 19,350 | 109 | 4000K | 80 | 20,250 | 114 | 5000K | 70 | 22,750 | 128 |
| | | NEMA 5x5 | 3000K | 80 | 20,850 | 117 | 4000K | 80 | 21,900 | 123 | 5000K | 70 | 25,000 | 140 |
| | | NEMA 7x6 | 3000K | 80 | 19,000 | 107 | 4000K | 80 | 20,500 | 115 | 5000K | 70 | 23,000 | 129 |
| | | NEMA 7x7 | 3000K | 80 | 20,100 | 113 | 4000K | 80 | 21,300 | 120 | 5000K | 70 | 24,250 | 136 |
| IAMLHL2 | 1000-1500W | NEMA 3x3 | 3000K | 80 | 23,450 | 106 | 4000K | 80 | 24,600 | 111 | 5000K | 70 | 27,500 | 124 |
| | | NEMA 5x5 | 3000K | 80 | 25,500 | 115 | 4000K | 80 | 26,700 | 120 | 5000K | 70 | 30,000 | 135 |
| | | NEMA 7x6 | 3000K | 80 | 23,200 | 105 | 4000K | 80 | 25,000 | 113 | 5000K | 70 | 27,950 | 126 |
| | | NEMA 7x7 | 3000K | 80 | 24,650 | 111 | 4000K | 80 | 26,100 | 118 | 5000K | 70 | 29,750 | 134 |
| IAMLHL3 | 1500W | NEMA 3x3 | 3000K | 80 | 29,500 | 99 | 4000K | 80 | 30,950 | 104 | 5000K | 70 | 34,750 | 117 |
| | | NEMA 5x5 | 3000K | 80 | 32,000 | 107 | 4000K | 80 | 33,600 | 113 | 5000K | 70 | 37,500 | 126 |
| | | NEMA 7x6 | 3000K | 80 | 29,300 | 98 | 4000K | 80 | 31,500 | 106 | 5000K | 70 | 35,350 | 119 |
| | | NEMA 7x7 | 3000K | 80 | 31,000 | 104 | 4000K | 80 | 32,800 | 110 | 5000K | 70 | 37,400 | 126 |
| **Frosted Glass** | | | | | | | | | | | | | | |
| IAMLHL1 | 1000W | NEMA 3x3 | 3000K | 80 | 17,200 | 97 | 4000K | 80 | 17,950 | 101 | 5000K | 70 | 20,000 | 112 |
| | | NEMA 5x5 | 3000K | 80 | 18,600 | 104 | 4000K | 80 | 19,350 | 109 | 5000K | 70 | 21,550 | 121 |
| | | NEMA 7x6 | 3000K | 80 | 16,150 | 91 | 4000K | 80 | 17,300 | 97 | 5000K | 70 | 19,500 | 110 |
| | | NEMA 7x7 | 3000K | 80 | 16,850 | 95 | 4000K | 80 | 18,000 | 101 | 5000K | 70 | 20,500 | 115 |
| IAMLHL2 | 1000-1500W | NEMA 3x3 | 3000K | 80 | 21,000 | 95 | 4000K | 80 | 21,950 | 99 | 5000K | 70 | 24,750 | 111 |
| | | NEMA 5x5 | 3000K | 80 | 22,650 | 102 | 4000K | 80 | 23,600 | 106 | 5000K | 70 | 26,000 | 117 |
| | | NEMA 7x6 | 3000K | 80 | 19,600 | 88 | 4000K | 80 | 21,000 | 95 | 5000K | 70 | 23,700 | 107 |
| | | NEMA 7x7 | 3000K | 80 | 20,550 | 93 | 4000K | 80 | 21,950 | 99 | 5000K | 70 | 25,000 | 113 |
| IAMLHL3 | 1500W | NEMA 3x3 | 3000K | 80 | 26,400 | 89 | 4000K | 80 | 27,500 | 92 | 5000K | 70 | 31,000 | 104 |
| | | NEMA 5x5 | 3000K | 80 | 28,600 | 96 | 4000K | 80 | 29,750 | 100 | 5000K | 70 | 33,500 | 112 |
| | | NEMA 7x6 | 3000K | 80 | 24,750 | 83 | 4000K | 80 | 26,550 | 89 | 5000K | 70 | 29,950 | 101 |
| | | NEMA 7x7 | 3000K | 80 | 26,000 | 87 | 4000K | 80 | 27,700 | 93 | 5000K | 70 | 31,500 | 106 |

*① All lumen values are typical (tolerance +/-10%).*

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**Electrical Specifications** ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Low Lumen Model** | | | | | |
| IAMLGL6 | 120 Vac | 73 | 0.62 | >.9 | <20% |
| | 277 Vac | 71 | 0.27 | | |
| | 125 Vdc | 69 | 0.55 | N/A | N/A |
| | 300 Vdc | 68 | 0.23 | | |
| | 347 Vac | 71 | 0.21 | >.9 | <20% |
| | 480 Vac | 71 | 0.16 | | |
| IAMLGL7 | 120 Vac | 111 | 0.94 | >.9 | <20% |
| | 277 Vac | 106 | 0.43 | | |
| | 125 Vdc | 113 | 0.90 | N/A | N/A |
| | 300 Vdc | 111 | 0.37 | | |
| | 347 Vac | 115 | 0.33 | >.9 | <20% |
| | 480 Vac | 115 | 0.25 | | |
| IAMLGL8 | 120 Vac | 154 | 1.30 | >.9 | <20% |
| | 277 Vac | 146 | 0.56 | | |
| | 125 Vdc | 156 | 1.25 | N/A | N/A |
| | 300 Vdc | 152 | 0.51 | | |
| | 347 Vac | 150 | 0.43 | >.9 | <20% |
| | 480 Vac | 149 | 0.32 | | |
| **High Lumen Model** | | | | | |
| IAMLHL1 | 120 Vac | 180 | 1.52 | >.9 | <20% |
| | 277 Vac | 176 | 0.67 | | |
| | 125 Vdc | 172 | 1.38 | N/A | N/A |
| | 300 Vdc | 170 | 0.57 | | |
| | 347 Vac | 179 | 0.52 | >.9 | <20% |
| | 480 Vac | 179 | 0.39 | | |
| IAMLHL2 | 120 Vac | 231 | 1.94 | >.9 | <20% |
| | 277 Vac | 231 | 0.88 | | |
| | 125 Vdc | 220 | 1.76 | N/A | N/A |
| | 300 Vdc | 217 | 0.72 | | |
| | 347 Vac | 219 | 0.64 | >.9 | <20% |
| | 480 Vac | 219 | 0.47 | | |
| IAMLHL3 | 120 Vac | 317 | 2.67 | >.9 | <20% |
| | 277 Vac | 303 | 1.15 | | |
| | 125 Vdc | 305 | 2.44 | N/A | N/A |
| | 300 Vdc | 298 | 0.99 | | |
| | 347 Vac | 299 | 0.87 | >.9 | <20% |
| | 480 Vac | 298 | 0.63 | | |

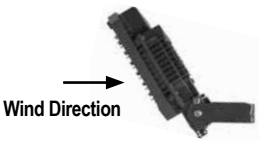
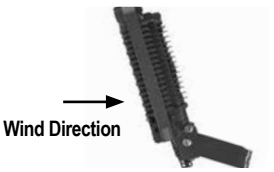
*Note: Surge Protection: Integral 6 kV surge protection. Option for up to 10 kV surge protection.*
*① All values are typical (tolerance +/-10%).*

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

| Luminaire Category | | Frontal Projected Area (FPA) ft² | Drag Coefficient (DC) | Effective Projected Area (EPA) = FPA*DC ft² |
|---|---|---|---|---|
| **Low Lumen Model — IAMLG** | | | | |
| 90° to Ground-Worst Case Mounting | | 1.52 | 1.20 | 1.82 |
| 45° to Ground-Standard Mounting |   | 1.07 | 1.2 | 1.28 |
| **High Lumen Model — IAMLH** | | | | |
| 90° to Ground-Worst Case Mounting | | 2.04 | 1.20 | 2.45 |
| 45° to Ground-Standard Mounting |   | 1.44 | 1.20 | 1.73 |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

## Accessories and Replacement Parts

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Crossarm Mounting Bracket** | | | |
| | Has 180° horizontal adjustment — degree marked. Facilitates mounting floodlight to crossarm or other flat surface, or to GAM8WB. Includes floodlight yoke bolts. Malleable iron, zinc plated, chromate sealed, architectural bronze polyester finish. | 1.4 (3.1) | **GAM8CA** |
| **Pipe or Wall Mount Bracket** | | | |
| | Used with GAM8CA. Clamps to 1" to 2-1/2" pipe, vertical or horizontal, or mounts on flat surfaces. Includes U-bolt and crossarm bracket bolts. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish. | 2.9 (6.4) | **GAM8WB** |
| | *Crossarm Mounting Bracket (**GAM8CA**) used with Pipe or Wall Mount Bracket (**GAM8WB**).* | | |
| **Poletop Slip-Fitter** | | | |
| | Slip-fits 1" or 1-1/2" pipe size poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Body is malleable iron-zinc plated, chromate sealed, with cast aluminum cap. Assembly has architectural bronze polyester finish. | 2.4 (5.3) | **AMLEDSF1** |
| **Poletop Slip-Fitter** | | | |
| | Slip-fits 2" or 2-1/2" poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish. | 2.8 (6.2) | **GAM8SF** |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

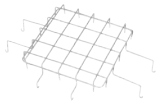
Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



**Accessories and Replacement Parts**

| | Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **Wall Mount Bracket** | | | |
| | Used with GAM8SF to provide a wall mounting option. Galvanized Steel. | 4.8 (10.5) | **GPSWB6GAL** |
| **Wire Guard** | | | |
|  | Stainless steel. | 0.2 (0.4) | **LGGUARD**<br>**LHGUARD** |
| **Safety Cable** | | | |
| | Stainless steel. | 0.2 (0.4) | **LEDSC** |
| **Visor** | | | |
| | Steel with architectural bronze polyester finish.<br>For Dark Sky Friendly design. | 0.2 (0.4) | **AMLGV**<br>**AMLHV** |
| **Portable Floodlight Base** | | | |
| | Portable floodlight base for temporary lighting applications. To be used with wire guard. Malleable iron with architectural bronze polyester finish. | 2.4 (5.2) | **GAMPFB** |
| **Replacement Covers/Lenses** | | | |
| | Clear Glass — IAMLGL6, IAMLGL7, IAMLGL8 | 2.2 (4.8) | **AMLGCLEAR** |
| | Frosted Glass — IAMLGL6, IAMLGL7, IAMLGL8 | 2.0 (4.5) | **AMLGFROST** |
| | Diffused Polycarbonate — IAMLGL6, IAMLGL7, IAMLGL8 | 1.6 (3.5) | **AMLGDIFFP** |
| | Clear Glass — IAMLHL1, IAMLHL2, IAMLHL3 | 2.4 (5.3) | **AMLHCLEAR** |
| | Frosted Glass — IAMLHL1, IAMLHL2, IAMLHL3 | 2.4 (5.3) | **AMLHFROST** |
| **Yoke Mount Bracket** | | | |
| | Stainless Steel Yoke Mount Bracket. For installations requiring a higher degree of corrosion protection. Made with all stainless steel components, no painted finish. | 1.8 (4.0) | **AMLYMSS** |
| | Architectural Bronze Replacement Yoke Bracket | 1.41 (3.1) | **AMLYMAB** |
| | Architectural Bronze Replacement Yoke Bracket - Matches mounting hole pattern of Crouse-Hinds™ ✣ Champ FMVA and Champ Pro PFMA LED series floodlights | 1.41 (3.1) | **AMLYMCH** |

✣ *Crouse-Hinds and Champ are registered trademarks of Eaton.*

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**Replacement Drivers**

| | Model | Voltage | Driver Wattage | Constant Current Setting | Catalog Number |
|---|---|---|---|---|---|
| **Low Lumen Model** | | | | | |
| | IAMLGL6C, IAMLGL6N, IAMLGL6W | BU | 100 Watt | 410mA | **APMS100C105UD41** |
| | | BH | | | **APMS100C105HD41** |
| | IAMLGL7W | BU | 150 Watt | 650mA | **APMS150C105UD65** |
| | | BH | | | **APMS150C105HD65** |
| | IAMLGL7C, IAMLGL7N | BU | 150 Watt | 680mA | **APMS150C105UD68** |
| | | BH | | | **APMS150C105HD68** |
| | IAMLGL8W | BU | 150 Watt | 890mA | **APMS150C105UD89** |
| | | BH | | | **APMS150C105HD89** |
| | IAMLGL8C, IAMLGL8N | BU | 150 Watt | 930mA | **APMS150C105UD93** |
| | | BH | | | **APMS150C105HD93** |
| **High Lumen Model** | | | | | |
| | IAMLHL1C, IAMLHL1N, IAMLHL1W | BU | 100 Watt | 530mA | **APMS100C105UD53** |
| | | BH | | | **APMS100C105HD53** |
| | IAMLHL2W | BU | 150 Watt | 650mA | **APMS150C105UD65** |
| | | BH | | | **APMS150C105HD65** |
| | IAMLHL2C, IAMLHL2N | BU | 150 Watt | 680mA | **APMS150C105UD68** |
| | | BH | | | **APMS150C105HD68** |
| | IAMLHL3W | BU | 150 Watt | 890mA | **APMS150C105UD89** |
| | | BH | | | **APMS150C105HD89** |
| | IAMLHL3C, IAMLHL3N | BU | 150 Watt | 915mA | **APMS150C105UD91** |
| | | BH | | | **APMS150C105HD91** |

**Luminaire Weights**

| Description | Weight in kg (lbs) |
|---|---|
| Low Lumen Model — IAMLGL6, IAMLGL7, IAMLGL8 Luminaires | 9.8 (21.6) |
| High Lumen Model — IAMLHL1, IAMLHL2, IAMLHL3 Luminaires | 16.1 (35.4) |

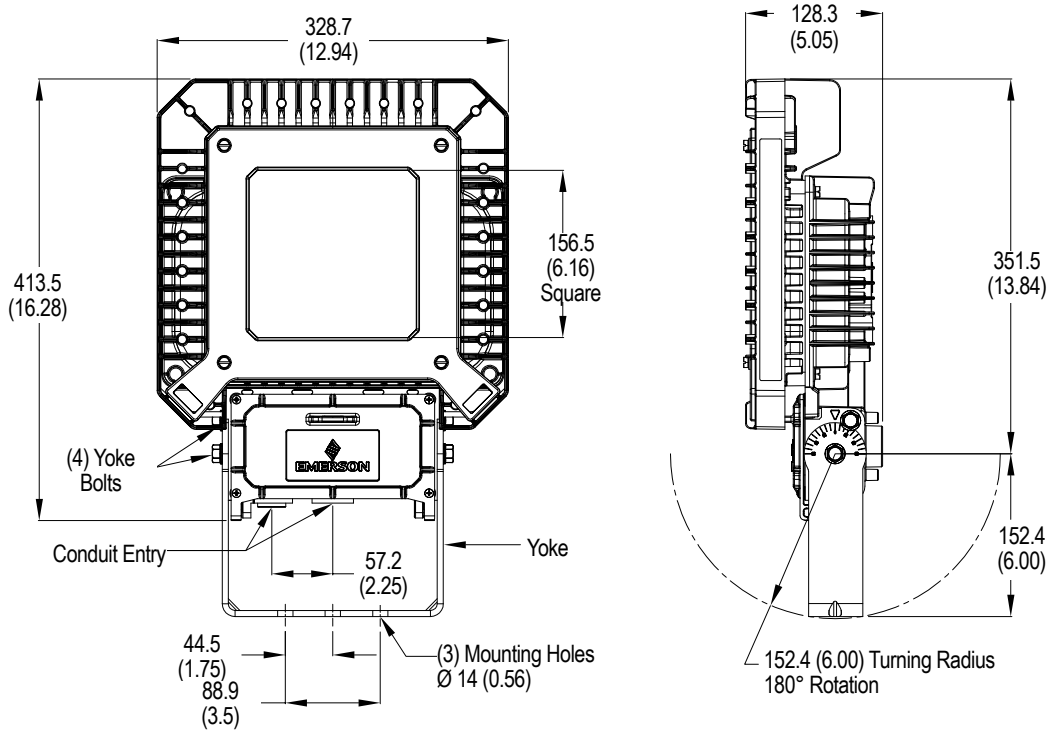
# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

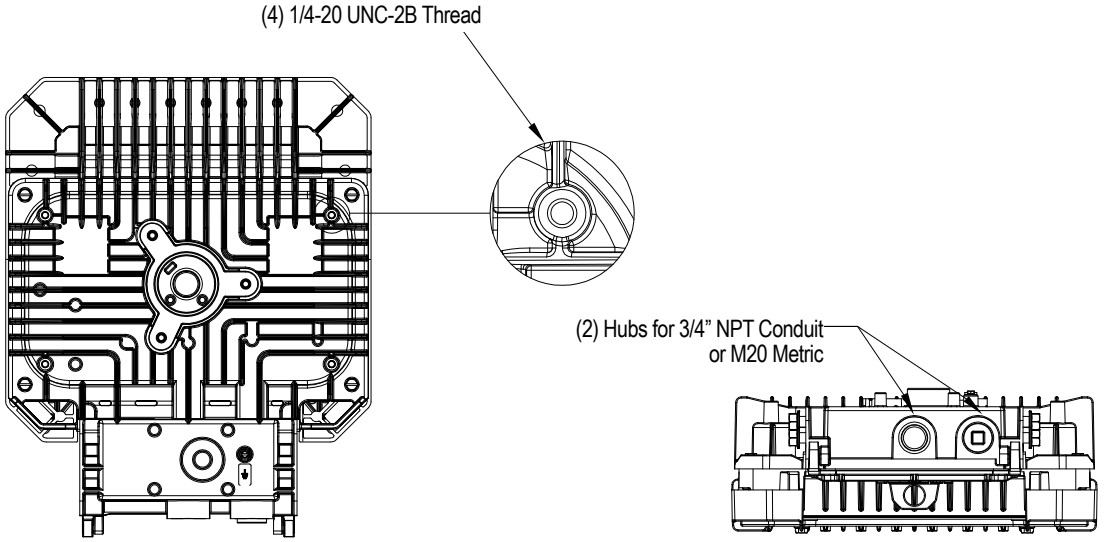
Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**IAMLG Dimensions in Millimeters (Inches) — Floodlight — Low Lumen Model**



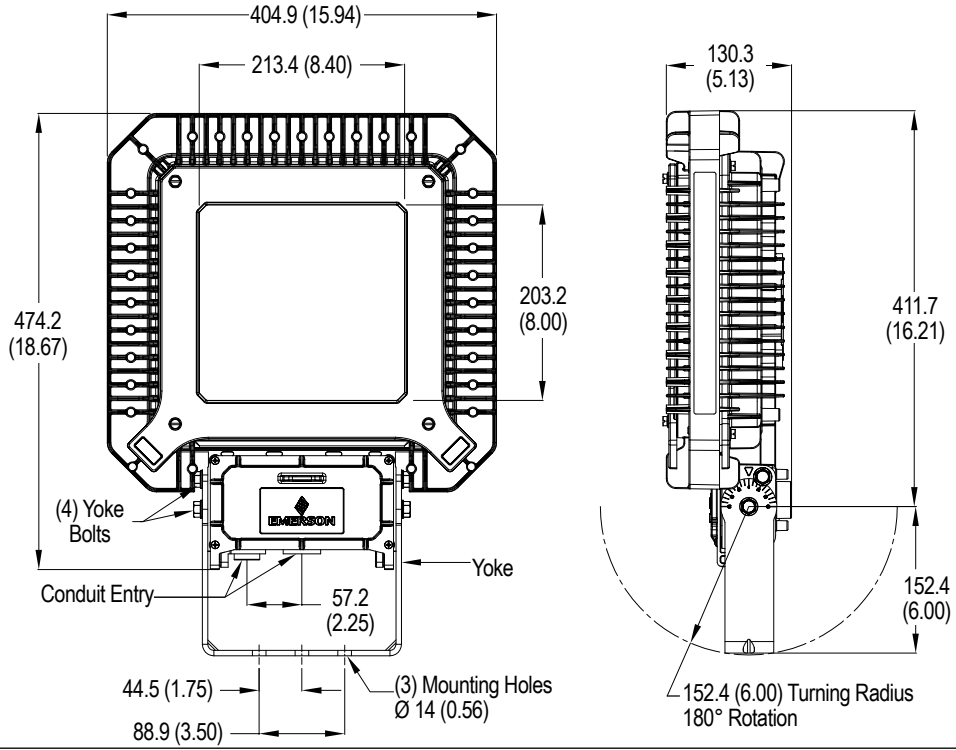
# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

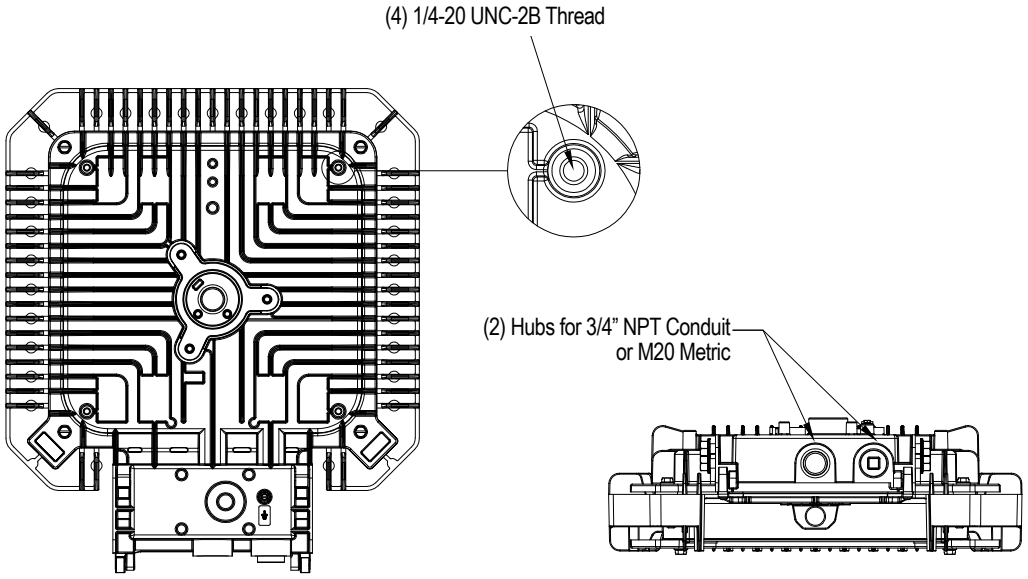
Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

**IAMLH Dimensions in Millimeters (Inches) — Floodlight — High Lumen Model**



# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



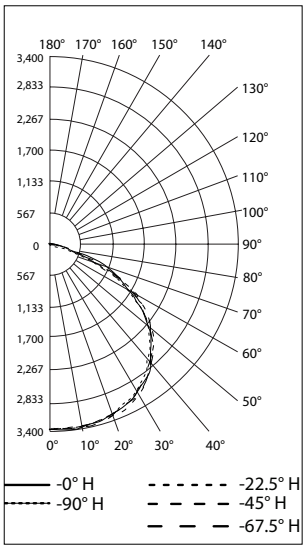
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x7, Clear Glass, 5000K CCT

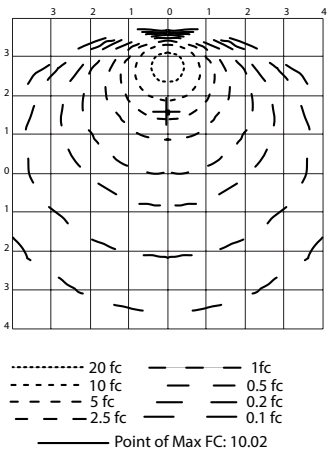
REPORT NUMBER: **AMLGL6CG6BU**

Luminaire Lumens 9,964

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.5% | 9,817.4 | 150 | 148 |
| Beam (50%) | 82.2% | 8,196.6 | 117.3 | 116.2 |
| Total | 100% | 9,964.0 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 1.51 | 14 (45) | 11 (35) | 7 (24) | 3 (11) |
| 9 (30) | 0.68 | 14 (47) | 11 (36) | 6 (21) | — |
| 12 (40) | 0.38 | 15 (50) | 11 (35) | — | — |

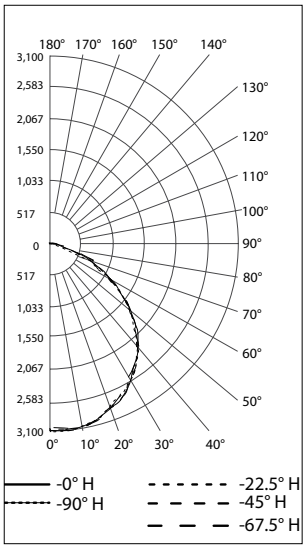
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 20 (66) | 15 (50) | 12 (38) | 5 (16) |
| 9 (30) | 24 (78) | 15 (50) | 9 (28) | — |
| 12 (40) | 21 (70) | 12 (40) | — | — |

### NEMA 7x7, Frosted Glass, 5000K CCT

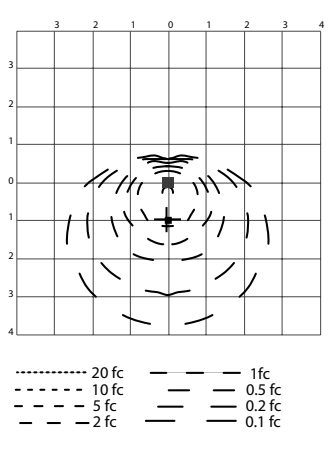
REPORT NUMBER: **AMLGL6CF6BU**

Luminaire Lumens 8,115

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.1% | 7,961.7 | 155.3 | 151.5 |
| Beam (50%) | 71.5% | 5,804.1 | 105.8 | 105.5 |
| Total | 100% | 8,112.2 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 2.49 | 13 (42) | 10 (33) | 7 (24) | 2 (8) |
| 9 (30) | 1.1 | 14 (45) | 10 (32) | 5 (15) | — |
| 12 (40) | 0.62 | 15 (48) | 8 (25) | — | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 18 (60) | 13 (44) | 9 (30) | 1 (4) |
| 9 (30) | 20 (64) | 10 (34) | 6 (20) | — |
| 12 (40) | 17 (56) | 9 (30) | — | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

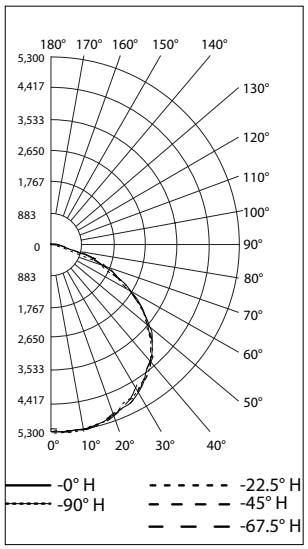
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x7, Clear Glass, 5000K CCT

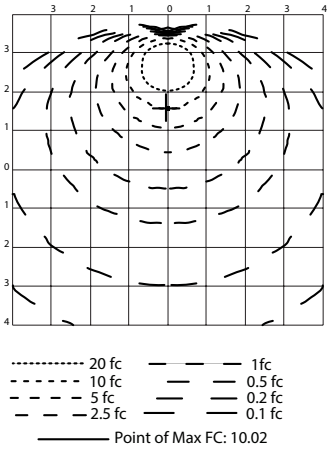
REPORT NUMBER: **AMLGL7CG6BU**

Luminaire Lumens 15,320

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.5% | 15,102.6 | 151.2 | 147 |
| Beam (50%) | 81.9% | 12,555.7 | 117 | 115.4 |
| Total | 100% | 15,320.4 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 4.42 | 15 (50) | 12 (39) | 9 (29) | 5 (16) |
| 9 (30) | 1.97 | 17 (55) | 13 (43) | 8 (25) | — |
| 12 (40) | 1.11 | 17 (57) | 12 (40) | 6 (19) | — |

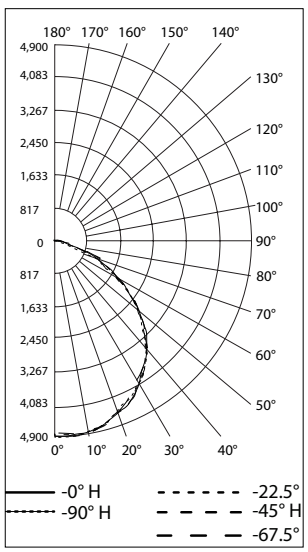
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 21 (70) | 56 (17) | 12 (40) | 6 (20) |
| 9 (30) | 24 (80) | 58 (18) | 12 (38) | — |
| 12 (40) | 24 (80) | 50 (15) | 5 (16) | — |

### NEMA 7x7, Frosted Glass, 5000K CCT

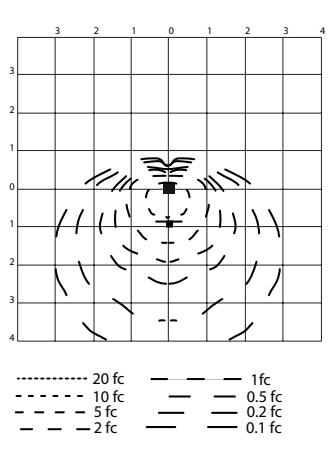
REPORT NUMBER: **AMLGL7CF6BU**

Luminaire Lumens 12,782

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.1% | 12,536.1 | 155.4 | 150.7 |
| Beam (50%) | 71.3% | 9,112.8 | 105.4 | 105.6 |
| Total | 100% | 12,777.9 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 2.91 | 18 (59) | 14 (45) | 11 (35) | 7 (22) |
| 9 (30) | 1.29 | 19 (63) | 16 (51) | 10 (33) | 4 (12) |
| 12 (40) | 0.73 | 21 (70) | 15 (50) | 9 (30) | — |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 26 (84) | 21 (70) | 16 (52) | 10 (32) |
| 9 (30) | 29 (96) | 22 (72) | 16 (54) | 5 (15) |
| 12 (40) | 32 (104) | 22 (72) | 15 (48) | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



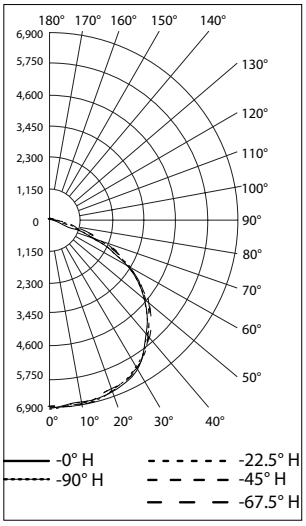
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x7, Clear Glass, 5000K CCT

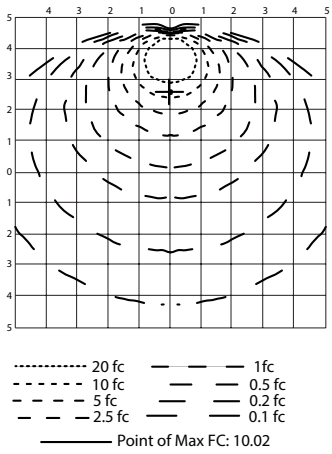
REPORT NUMBER: **AMLGL8CG6BU**

Luminaire Lumens 19,895

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.6% | 19,614.8 | 151 | 146.8 |
| Beam (50%) | 81.7% | 16,267.6 | 116.7 | 115.2 |
| Total | 100% | 19,895.4 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 3.18 | 13 (44) | 11 (36) | 9 (30) | 5 (16) |
| 9 (30) | 1.41 | 16 (53) | 13 (42) | 8 (27) | — |
| 12 (40) | 0.81 | 17 (56) | 12 (40) | — | — |

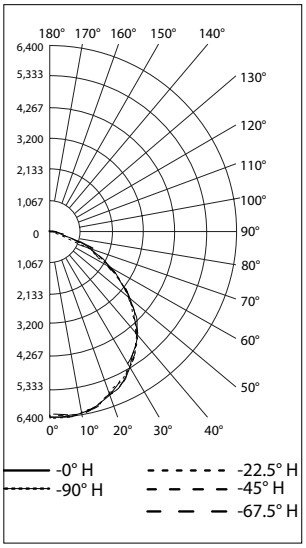
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 26 (84) | 20 (64) | 13 (44) | 5 (16) |
| 9 (30) | 27 (90) | 20 (66) | 11 (36) | — |
| 12 (40) | 29 (96) | 17 (56) | — | — |

### NEMA 7x7, Frosted Glass, 5000K CCT

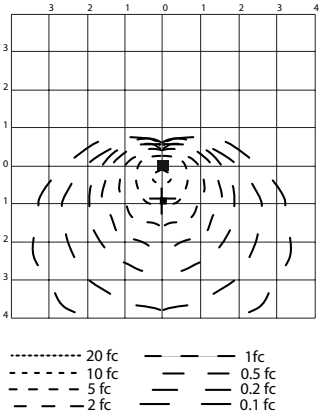
REPORT NUMBER: **AMLGL8CF6BU**

Luminaire Lumens 16,503

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.1% | 16,189.8 | 155.3 | 150.7 |
| Beam (50%) | 71.3% | 11,766.7 | 105.2 | 105.5 |
| Total | 100% | 16,498.6 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 5.76 | 17 (55) | 11 (36) | 10 (32) | 6 (20) |
| 9 (30) | 2.56 | 16 (53) | 9 (31) | 9 (31) | — |
| 12 (40) | 1.43 | 17 (56) | 19 (62) | 9 (29) | — |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 24 (78) | 18 (60) | 13 (44) | 7 (22) |
| 9 (30) | 27 (88) | 19 (62) | 10 (34) | — |
| 12 (40) | 30 (98) | 18 (58) | 12 (38) | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

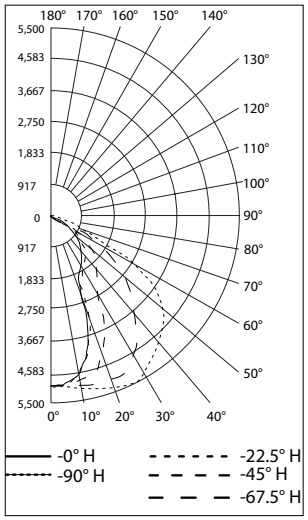
## Photometric Data — DATA SHOWN IS ABSOLUTE

**NEMA 7x6, Clear Glass, 5000K CCT**

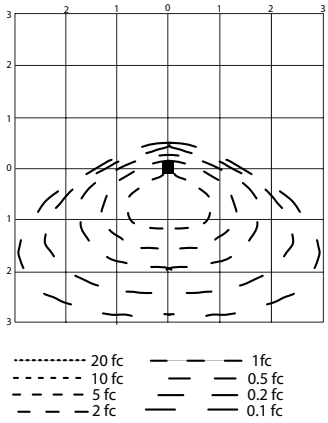
REPORT NUMBER: **AMLGL6CG7BU**

Luminaire Lumens 9,086

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 96.2% | 8,738.1 | 134.9 | 112.1 |
| Beam (50%) | 62% | 5,631.5 | 120.5 | 45.2 |
| Total | 100% | 9,086.2 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 2.92 | 13 (42) | 11 (36) | 9 (28) | 5 (15) |
| 9 (30) | 1.3 | 16 (53) | 13 (42) | 7 (24) | — |
| 12 (40) | 0.73 | 17 (56) | 11 (36) | — | — |

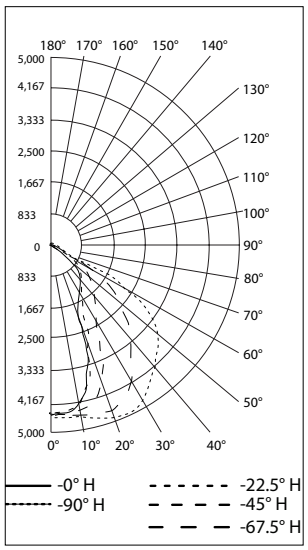
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 24 (80) | 20 (64) | 13 (44) | 5 (16) |
| 9 (30) | 26 (84) | 18 (60) | 11 (36) | — |
| 12 (40) | 27 (88) | 15 (48) | — | — |

**NEMA 7x6, Clear Glass, 3000K CCT**

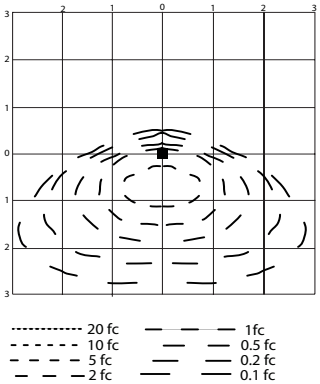
REPORT NUMBER: **AMLGL6WG7BU**

Luminaire Lumens 8,111

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 96.1% | 7,798.3 | 135.3 | 112 |
| Beam (50%) | 61.5% | 4,987.0 | 119.9 | 45 |
| Total | 100% | 8,111.0 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 2.92 | 13 (42) | 11 (36) | 9 (28) | 5 (15) |
| 9 (30) | 1.30 | 16 (53) | 13 (42) | 7 (24) | — |
| 12 (40) | 0.73 | 17 (56) | 11 (36) | — | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 24 (80) | 20 (64) | 13 (44) | 5 (16) |
| 9 (30) | 26 (84) | 18 (60) | 11 (36) | — |
| 12 (40) | 27 (88) | 15 (48) | — | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



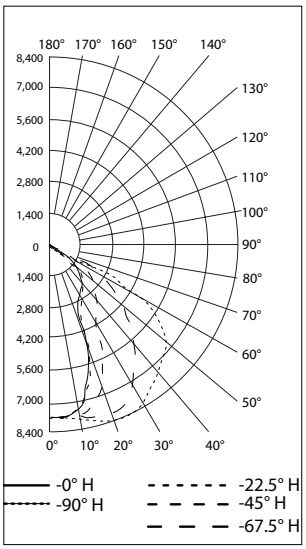
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x6, Clear Glass, 5000K CCT

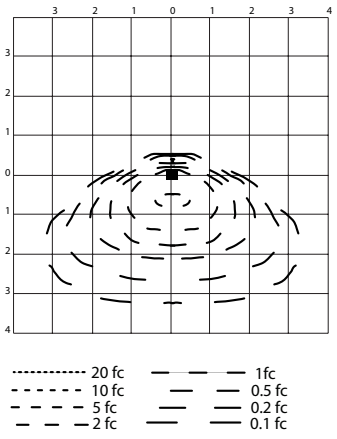
REPORT NUMBER: **AMLGL7CG7BU**

Luminaire Lumens 14,205

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 96.3% | 13,678.5 | 135.3 | 112.5 |
| Beam (50%) | 62.6% | 8,887.6 | 120.7 | 45.7 |
| Total | 100% | 14,205.3 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 4.91 | 15 (48) | 12 (40) | 11 (35) | 7 (25) |
| 9 (30) | 2.22 | 18 (60) | 14 (45) | 12 (38) | — |
| 12 (40) | 1.25 | 20 (64) | 16 (52) | — | — |

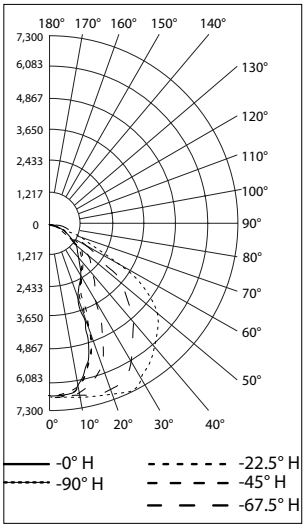
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 29 (96) | 24 (80) | 18 (60) | 11 (36) |
| 9 (30) | 33 (108) | 27 (90) | 16 (54) | — |
| 12 (40) | 37 (120) | 24 (80) | — | — |

### NEMA 7x6, Clear Glass, 3000K CCT

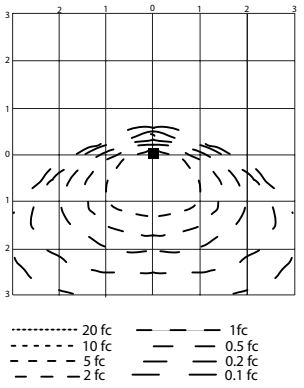
REPORT NUMBER: **AMLGL7WG7BU**

Luminaire Lumens 11,971

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 96.1% | 11,503.9 | 135.2 | 112 |
| Beam (50%) | 62% | 7,424.4 | 119.8 | 45.2 |
| Total | 100% | 11,971.9 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 4.30 | 14 (46) | 12 (40) | 10 (32) | 6 (20) |
| 9 (30) | 1.91 | 17 (54) | 14 (45) | 33 (10) | — |
| 12 (40) | 1.07 | 20 (64) | 15 (50) | — | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 27 (90) | 22 (72) | 16 (52) | 9 (30) |
| 9 (30) | 33 (108) | 24 (78) | 15 (48) | — |
| 12 (40) | 34 (112) | 22 (72) | — | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

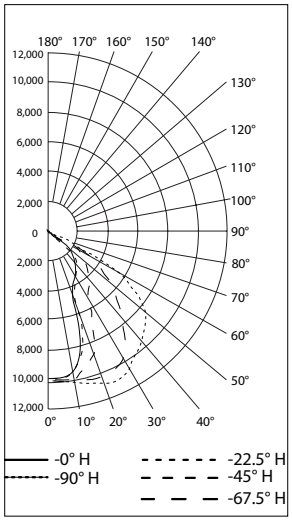
## Photometric Data — DATA SHOWN IS ABSOLUTE

**NEMA 7x6, Clear Glass, 5000K CCT**

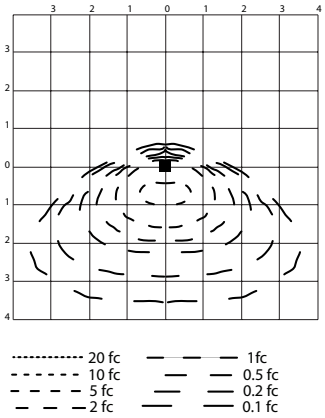
REPORT NUMBER: **AMLGL8CG7BU**

Luminaire Lumens 18,467

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 96.2% | 17,761.1 | 135.1 | 112.2 |
| Beam (50%) | 62.5% | 11,537.1 | 120.5 | 45.3 |
| Total | 100% | 18,467.4 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 6.44 | 16 (52) | 13 (44) | 11 (36) | 8 (26) |
| 9 (30) | 2.86 | 19 (63) | 16 (54) | 12 (39) | 6 (21) |
| 12 (40) | 1.63 | 22 (72) | 18 (60) | 12 (40) | — |

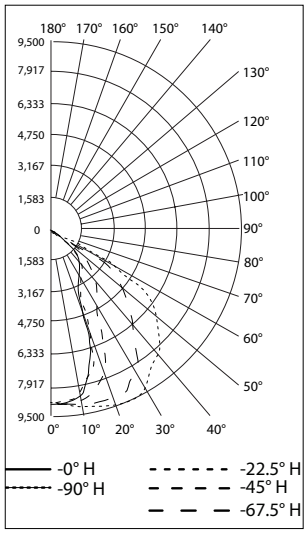
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 32 (104) | 26 (84) | 21 (68) | 12 (40) |
| 9 (30) | 37 (120) | 31 (102) | 20 (66) | 4 (12) |
| 12 (40) | 39 (128) | 29 (96) | 15 (48) | — |

**NEMA 7x6, Clear Glass, 3000K CCT**

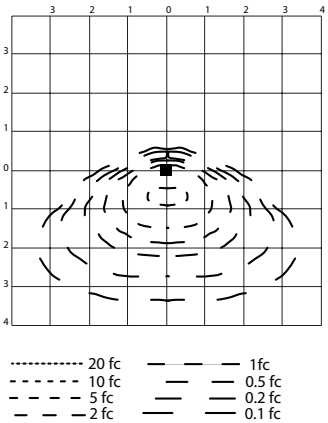
REPORT NUMBER: **AMLGL8WG7BU**

Luminaire Lumens 15,556

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 96.1% | 14,945.7 | 135 | 111.8 |
| Beam (50%) | 62% | 9,641.5 | 119.5 | 45 |
| Total | 100% | 15,555.8 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 6 (20) | 5.61 | 15 (50) | 13 (42) | 11 (36) | 8 (26) |
| 9 (30) | 2.50 | 18 (60) | 16 (53) | 12 (38) | — |
| 12 (40) | 1.40 | 21 (70) | 17 (56) | 11 (36) | — |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 6 (20) | 30 (100) | 24 (80) | 20 (64) | 11 (36) |
| 9 (30) | 36 (117) | 27 (90) | 18 (60) | — |
| 12 (40) | 37 (120) | 24 (80) | 12 (40) | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



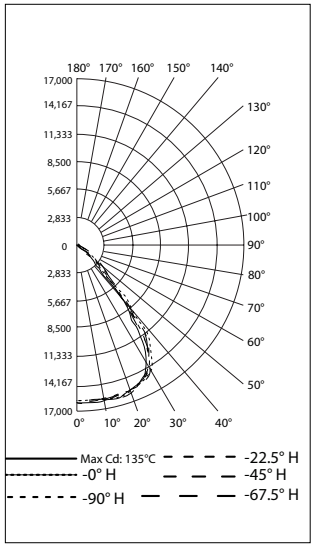
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 5x5, Clear Glass, 5000K CCT

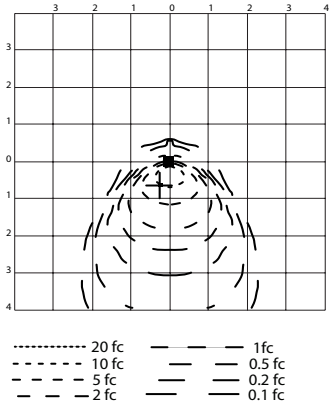
REPORT NUMBER: **AMLHL1CG5BU**

Luminaire Lumens 24,140

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 94.8% | 22,874.5 | 91.7 | 91.3 |
| Beam (50%) | 84% | 20,284.1 | 75.4 | 75.9 |
| Total | 100% | 24,137.4 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 8.96 | 27 (90) | 21 (68) | 16 (54) | 10 (33) |
| 12 (40) | 5.04 | 29 (96) | 22 (72) | 16 (52) | 9 (28) |
| 15 (50) | 3.19 | 30 (100) | 23 (75) | 15 (50) | — |
| 18 (60) | 2.22 | 32 (105) | 24 (78) | 14 (45) | — |

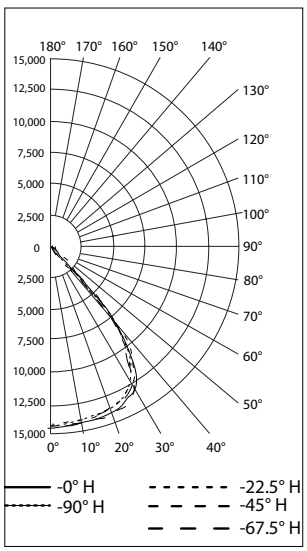
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 29 (96) | 24 (78) | 19 (63) | 14 (45) |
| 12 (40) | 32 (104) | 27 (88) | 20 (64) | 10 (32) |
| 15 (50) | 37 (120) | 29 (95) | 18 (60) | — |
| 18 (60) | 40 (132) | 29 (96) | 15 (48) | — |

### NEMA 5x5, Clear Glass, 3000K CCT

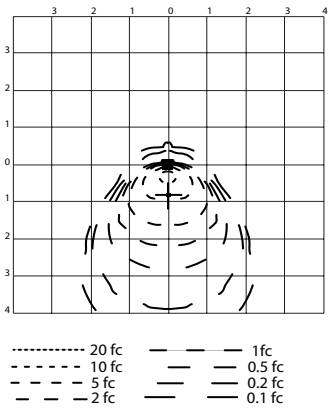
REPORT NUMBER: **AMLHL1WG5BU**

Luminaire Lumens 21,416

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95% | 20,343.5 | 95.6 | 94.3 |
| Beam (50%) | 84% | 17,982.6 | 79.7 | 80.3 |
| Total | 100% | 21,416.2 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 8.96 | 29 (96) | 23 (75) | 17 (57) | 36 (11) |
| 12 (40) | 5.04 | 32 (104) | 24 (80) | 18 (60) | 10 (32) |
| 15 (50) | 3.19 | 34 (110) | 26 (85) | 18 (60) | 8 (25) |
| 18 (60) | 2.22 | 36 (117) | 27 (90) | 16 (54) | — |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 27 (90) | 22 (72) | 18 (60) | 13 (42) |
| 12 (40) | 30 (100) | 24 (80) | 20 (64) | 7 (24) |
| 15 (50) | 37 (120) | 27 (90) | 18 (60) | — |
| 18 (60) | 37 (120) | 27 (90) | 15 (48) | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

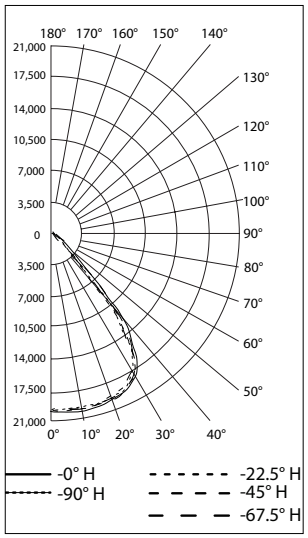
## Photometric Data — DATA SHOWN IS ABSOLUTE

**NEMA 5x5, Clear Glass, 5000K CCT**

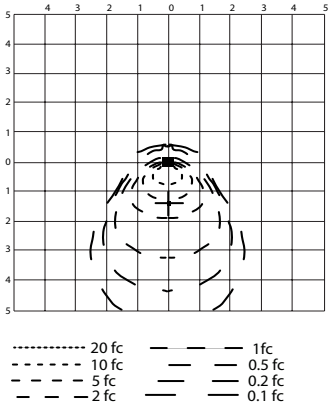
REPORT NUMBER: **AMLHL2CG5BU**

Luminaire Lumens 30,068

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 94.6% | 28,436.7 | 95.8 | 93.5 |
| Beam (50%) | 83.6% | 25,124.4 | 78.8 | 79.8 |
| Total | 100% | 30,069.5 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 3.84 | 29 (96) | 23 (75) | 17 (57) | 36 (11) |
| 12 (40) | 2.15 | 32 (104) | 24 (80) | 18 (60) | 10 (32) |
| 15 (50) | 1.38 | 34 (110) | 26 (85) | 18 (60) | 8 (25) |
| 18 (60) | 0.97 | 36 (117) | 27 (90) | 16 (54) | — |

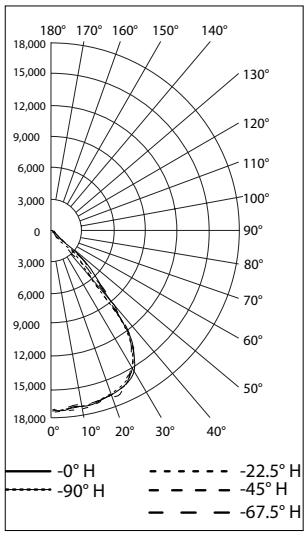
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 31 (102) | 26 (84) | 19 (61) | 15 (48) |
| 12 (40) | 34 (112) | 29 (96) | 22 (72) | 12 (40) |
| 15 (50) | 40 (130) | 30 (100) | 24 (80) | 9 (30) |
| 18 (60) | 44 (144) | 33 (108) | 22 (72) | — |

**NEMA 5x5, Clear Glass, 3000K CCT**

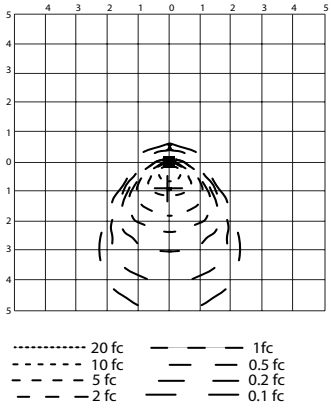
REPORT NUMBER: **AMLHL2WG5BU**

Luminaire Lumens 25,490

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 94.9% | 24,197.1 | 95.5 | 93.5 |
| Beam (50%) | 84.5% | 21,539.9 | 80 | 79.7 |
| Total | 100% | 25,489.8 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 6.94 | 28 (93) | 21 (69) | 16 (54) | 10 (33) |
| 12 (40) | 3.85 | 30 (100) | 23 (76) | 17 (56) | 9 (28) |
| 15 (50) | 2.46 | 31 (103) | 23 (75) | 15 (50) | — |
| 18 (60) | 1.71 | 33 (108) | 24 (78) | 15 (48) | — |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 27 (90) | 22 (72) | 18 (60) | 13 (42) |
| 12 (40) | 30 (100) | 24 (80) | 20 (64) | 7 (24) |
| 15 (50) | 37 (120) | 27 (90) | 18 (60) | — |
| 18 (60) | 37 (120) | 27 (90) | 15 (48) | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



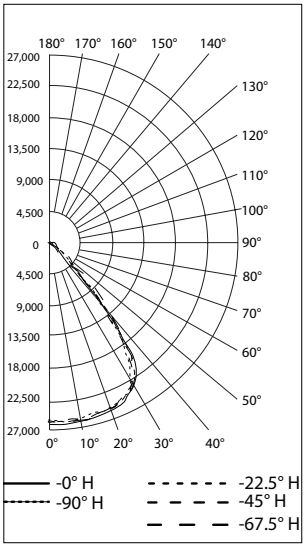
## Photometric Data — DATA SHOWN IS ABSOLUTE

**NEMA 5x5, Clear Glass, 5000K CCT**

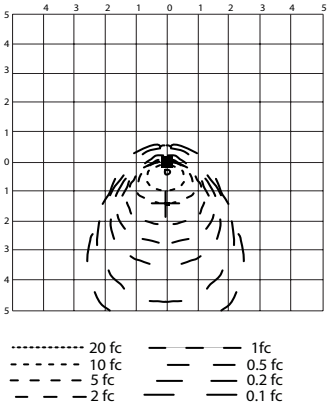
REPORT NUMBER: **AMLHL3CG5BU**

Luminaire Lumens 38,350

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95.3% | 36,528.8 | 89.8 | 92.9 |
| Beam (50%) | 84.4% | 32,367.7 | 73.5 | 79.7 |
| Total | 100% | 38,348.7 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 4.96 | 32 (105) | 26 (84) | 19 (63) | 13 (42) |
| 12 (40) | 2.78 | 35 (116) | 27 (88) | 21 (68) | 12 (40) |
| 15 (50) | 1.78 | 34 (110) | 26 (85) | 18 (60) | 8 (25) |
| 18 (60) | 1.23 | 38 (126) | 29 (96) | 20 (66) | 5 (18) |

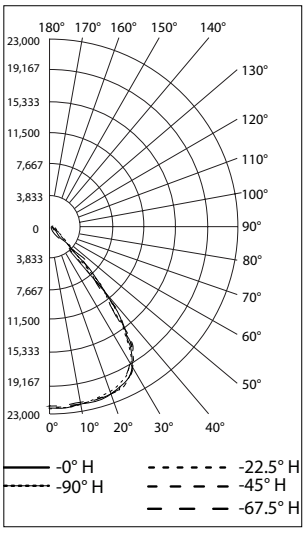
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 33 (108) | 27 (90) | 22 (72) | 16 (54) |
| 12 (40) | 37 (120) | 30 (100) | 24 (80) | 15 (48) |
| 15 (50) | 40 (130) | 30 (100) | 24 (80) | 9 (30) |
| 18 (60) | 44 (144) | 37 (120) | 26 (84) | 4 (12) |

**NEMA 5x5, Clear Glass, 3000K CCT**

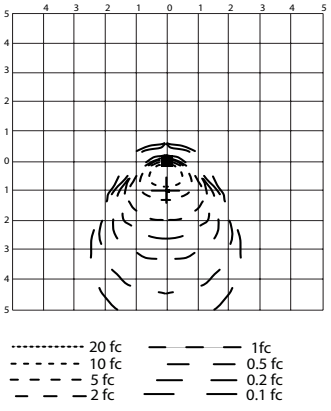
REPORT NUMBER: **AMLHL3WG5BU**

Luminaire Lumens 32,835

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95% | 31,186.0 | 96.1 | 93.5 |
| Beam (50%) | 84% | 27,593.2 | 80.4 | 79.8 |
| Total | 100% | 32,832.0 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 7.95 | 30 (99) | 25 (81) | 18 (60) | 12 (39) |
| 12 (40) | 4.40 | 34 (112) | 26 (84) | 18 (60) | 11 (36) |
| 15 (50) | 2.82 | 34 (110) | 27 (90) | 18 (60) | 8 (25) |
| 18 (60) | 1.96 | 37 (120) | 27 (90) | 18 (60) | — |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 33 (108) | 26 (84) | 20 (66) | 16 (54) |
| 12 (40) | 37 (120) | 29 (96) | 24 (80) | 12 (48) |
| 15 (50) | 40 (130) | 30 (100) | 24 (80) | 9 (30) |
| 18 (60) | 40 (132) | 35 (114) | 22 (72) | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

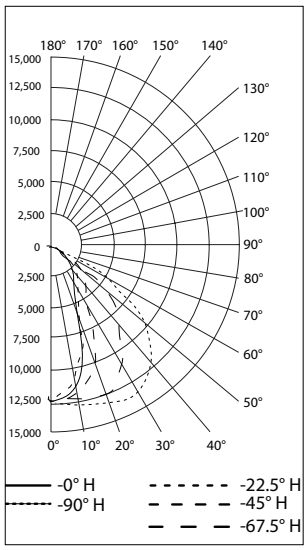
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x6 Clear Glass, 5000K CCT

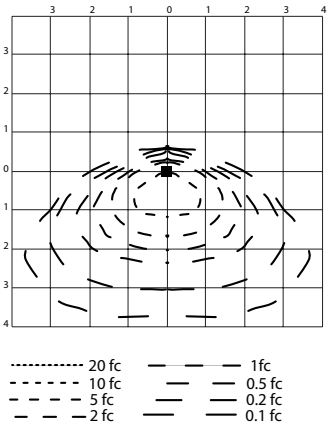
REPORT NUMBER: **AMLHL1CG7BU**

Luminaire Lumens 22,661

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95.8% | 21,708.2 | 134.1 | 111.1 |
| Beam (50%) | 61.4% | 13,911.6 | 118.5 | 44.9 |
| Total | 100% | 22,657.0 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 3.64 | 19 (63) | 17 (57) | 14 (54) | 9 (29) |
| 12 (40) | 2.08 | 23 (76) | 20 (64) | 15 (48) | — |
| 15 (50) | 1.33 | 26 (85) | 20 (65) | 12 (40) | — |
| 18 (60) | 0.93 | 27 (90) | 20 (66) | — | — |

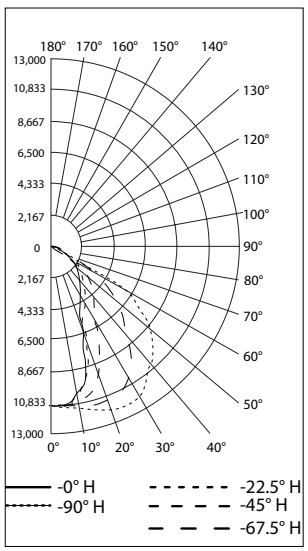
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 38 (126) | 33 (108) | 23 (75) | 13 (42) |
| 12 (40) | 44 (144) | 32 (104) | 22 (72) | — |
| 15 (50) | 46 (150) | 30 (100) | 15 (50) | — |
| 18 (60) | 46 (150) | 29 (96) | — | — |

### NEMA 7x6 Clear Glass, 3000K CCT

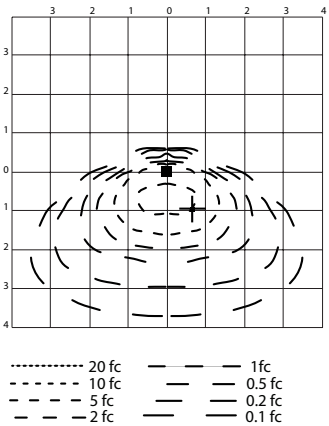
REPORT NUMBER: **AMLHL1WG7BU**

Luminaire Lumens 19,753

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95.8% | 18,919.3 | 134.7 | 111.5 |
| Beam (50%) | 61.1% | 12,060.3 | 117.9 | 45.1 |
| Total | 100% | 19,750.3 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 3.26 | 19 (63) | 16 (54) | 14 (45) | 8 (27) |
| 12 (40) | 1.78 | 22 (72) | 19 (62) | 13 (42) | — |
| 15 (50) | 1.16 | 24 (80) | 19 (62) | 11 (35) | — |
| 18 (60) | 0.81 | 27 (90) | 18 (60) | — | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 37 (120) | 27 (90) | 21 (70) | 8 (25) |
| 12 (40) | 40 (130) | 30 (100) | 18 (60) | — |
| 15 (50) | 43 (140) | 27 (90) | 6 (20) | — |
| 18 (60) | 43 (140) | 24 (80) | — | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



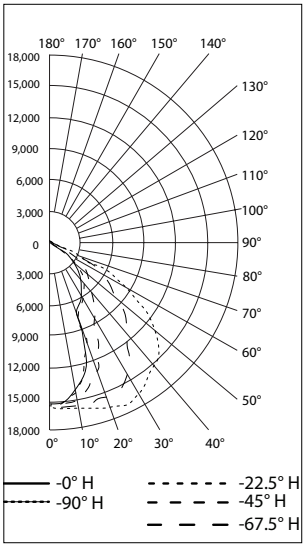
## Photometric Data — DATA SHOWN IS ABSOLUTE

**NEMA 7x6 Clear Glass, 5000K CCT**

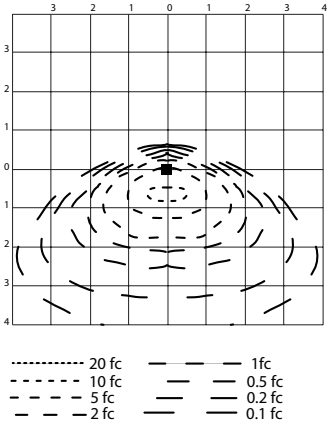
REPORT NUMBER: **AMLHL2CG7BU**

Luminaire Lumens 28,063

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95.8% | 26,888.8 | 134.1 | 111.1 |
| Beam (50%) | 61.5% | 17,260.6 | 118.6 | 45 |
| Total | 100% | 28,058.5 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 4.49 | 21 (68) | 18 (60) | 15 (48) | 10 (32) |
| 12 (40) | 2.57 | 24 (80) | 22 (72) | 16 (52) | — |
| 15 (50) | 1.64 | 27 (90) | 23 (75) | 15 (50) | — |
| 18 (60) | 1.14 | 29 (96) | 23 (75) | 13 (42) | — |

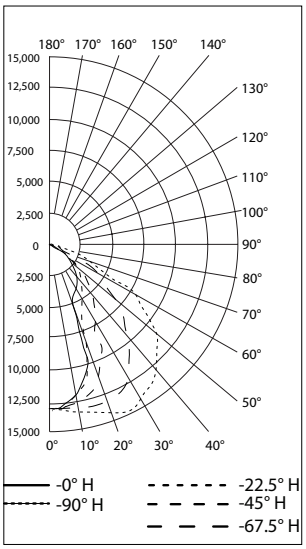
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 41 (135) | 35 (114) | 24 (78) | 15 (48) |
| 12 (40) | 46 (152) | 37 (120) | 24 (80) | — |
| 15 (50) | 49 (160) | 37 (120) | 23 (75) | — |
| 18 (60) | 48 (156) | 33 (108) | 9 (30) | — |

**NEMA 7x6 Clear Glass, 3000K CCT**

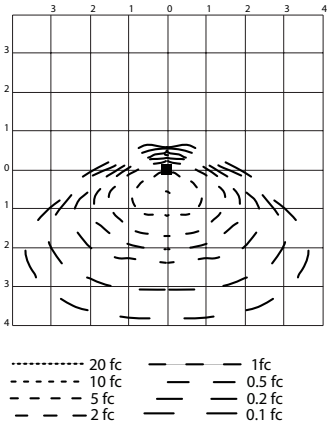
REPORT NUMBER: **AMLHL2WG7BU**

Luminaire Lumens 23,532

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95.7% | 22,530.7 | 134.6 | 111 |
| Beam (50%) | 60.9% | 14,337.3 | 117.9 | 44.7 |
| Total | 100% | 23,528.4 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 3.80 | 20 (66) | 17 (57) | 14 (45) | 10 (32) |
| 12 (40) | 2.17 | 23 (76) | 18 (60) | 15 (48) | — |
| 15 (50) | 1.39 | 26 (85) | 21 (70) | 14 (45) | — |
| 18 (60) | 0.97 | 27 (90) | 20 (66) | — | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 38 (126) | 33 (108) | 22 (72) | 13 (42) |
| 12 (40) | 44 (144) | 34 (112) | 22 (72) | — |
| 15 (50) | 46 (150) | 30 (100) | 18 (60) | — |
| 18 (60) | 48 (156) | 29 (96) | — | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

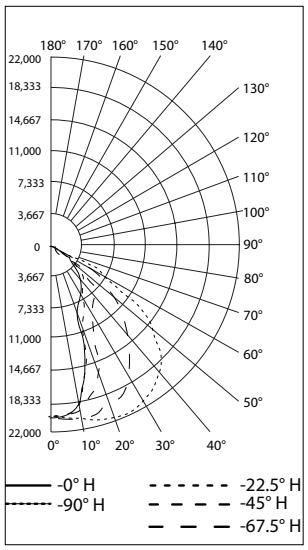
## Photometric Data — DATA SHOWN IS ABSOLUTE

**NEMA 7x6 Clear Glass, 5000K CCT**

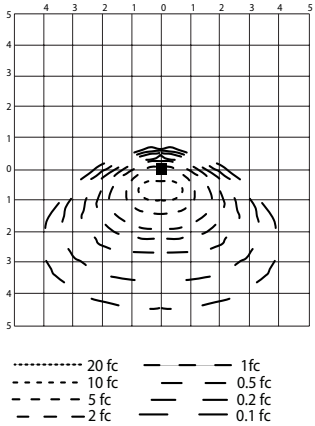
REPORT NUMBER: **AMLHL3CG7BU**

Luminaire Lumens 35,430

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95.7% | 33,908.8 | 139 | 111.1 |
| Beam (50%) | 60.9% | 21,578.5 | 115.4 | 45.6 |
| Total | 100% | 35,424.1 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 5.69 | 22 (72) | 19 (62) | 16 (54) | 11 (36) |
| 12 (40) | 3.20 | 26 (84) | 22 (72) | 17 (56) | 10 (32) |
| 15 (50) | 2.05 | 29 (95) | 24 (80) | 18 (60) | — |
| 18 (60) | 1.42 | 32 (105) | 24 (78) | 16 (54) | — |

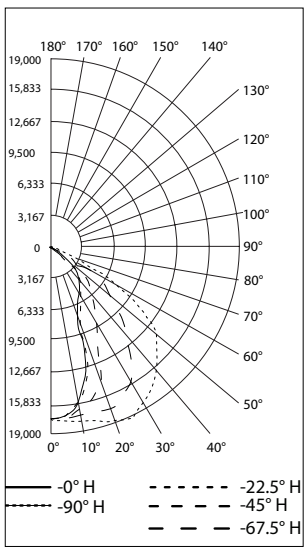
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 42 (138) | 37 (120) | 27 (90) | 18 (60) |
| 12 (40) | 49 (160) | 37 (120) | 27 (88) | 12 (40) |
| 15 (50) | 55 (180) | 40 (130) | 27 (90) | — |
| 18 (60) | 55 (180) | 40 (132) | 22 (72) | — |

**NEMA 7x6 Clear Glass, 3000K CCT**

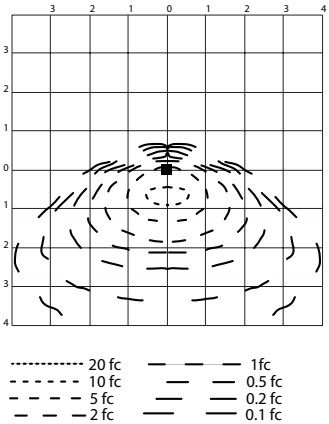
REPORT NUMBER: **AMLHL3WG7BU**

Luminaire Lumens 30,346

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 95% | 31,186.0 | 96.1 | 93.5 |
| Beam (50%) | 84% | 27,593.2 | 80.4 | 79.8 |
| Total | 100% | 32,832.0 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 4.99 | 21 (69) | 18 (60) | 16 (54) | 10 (33) |
| 12 (40) | 2.81 | 25 (82) | 22 (72) | 16 (52) | 9 (28) |
| 15 (50) | 1.79 | 27 (90) | 23 (75) | 17 (55) | — |
| 18 (60) | 1.25 | 29 (96) | 23 (75) | 15 (48) | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 41 (135) | 35 (114) | 26 (84) | 16 (54) |
| 12 (40) | 49 (160) | 37 (120) | 24 (80) | 2 (8) |
| 15 (50) | 49 (160) | 37 (120) | 23 (75) | — |
| 18 (60) | 51 (168) | 37 (120) | 18 (60) | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



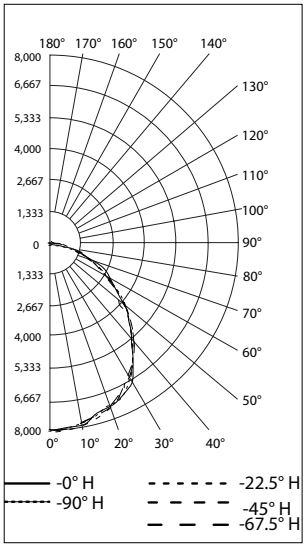
## Photometric Data — DATA SHOWN IS ABSOLUTE

**NEMA 7x7 Diffused Glass, 5000K CCT**

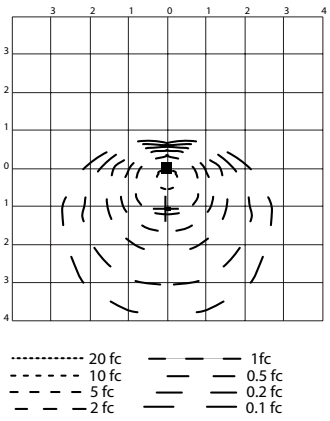
REPORT NUMBER: **AMLHL1CF6BU**

Luminaire Lumens 20,578

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98% | 20,176.5 | 155.7 | 154.5 |
| Beam (50%) | 70.2% | 14,453.8 | 104.6 | 103.6 |
| Total | 100% | 20,571.8 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 2.47 | 20 (66) | 16 (54) | 11 (36) | 4 (12) |
| 12 (40) | 1.40 | 22 (72) | 16 (52) | 10 (32) | — |
| 15 (50) | 0.89 | 21 (70) | 15 (50) | 6 (20) | — |
| 18 (60) | 0.62 | 22 (72) | 13 (42) | — | — |

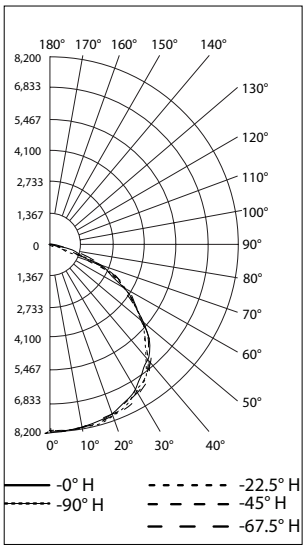
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 31 (102) | 22 (72) | 16 (54) | 4 (12) |
| 12 (40) | 32 (104) | 22 (72) | 12 (40) | — |
| 15 (50) | 30 (100) | 21 (70) | 5 (15) | — |
| 18 (60) | 33 (108) | 15 (48) | — | — |

**NEMA 7x7 Clear Glass, 5000K CCT**

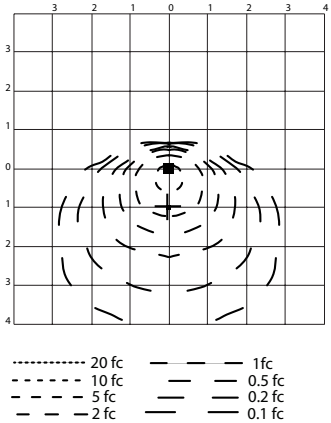
REPORT NUMBER: **AMLHL1CG6BU**

Luminaire Lumens 23,457

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.4% | 23,090.9 | 151.1 | 151.2 |
| Beam (50%) | 80.3% | 18,837.0 | 115.2 | 116.4 |
| Total | 100% | 23,448.8 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 2.84 | 20 (66) | 16 (54) | 11 (36) | 5 (15) |
| 12 (40) | 1.60 | 22 (72) | 17 (56) | 10 (32) | — |
| 15 (50) | 1.03 | 23 (75) | 15 (50) | 6 (20) | — |
| 18 (60) | 0.71 | 23 (75) | 14 (45) | — | — |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 33 (108) | 24 (78) | 18 (60) | 7 (24) |
| 12 (40) | 34 (112) | 24 (80) | 15 (48) | — |
| 15 (50) | 37 (120) | 24 (80) | 12 (40) | — |
| 18 (60) | 35 (114) | 18 (60) | — | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**

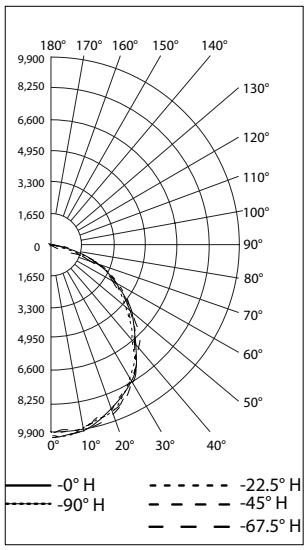
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x7 Diffused Glass, 5000K CCT

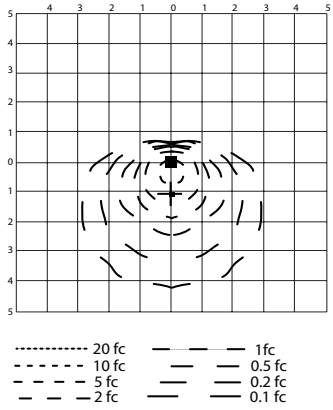
REPORT NUMBER: **AMLHL2CF6BU**

Luminaire Lumens 25,616

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.1% | 25,135.5 | 155.9 | 154.5 |
| Beam (50%) | 69.9% | 17,911.8 | 104.6 | 103.7 |
| Total | 100% | 25,609.0 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 3.07 | 22 (72) | 17 (57) | 12 (39) | 6 (21) |
| 12 (40) | 1.70 | 24 (80) | 17 (56) | 12 (40) | — |
| 15 (50) | 1.09 | 24 (80) | 18 (60) | 9 (30) | — |
| 18 (60) | 0.76 | 24 (78) | 16 (54) | — | — |

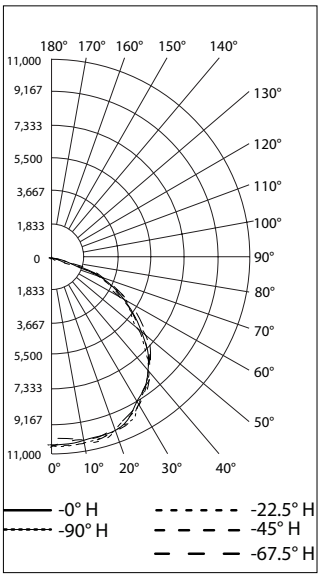
| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 33 (108) | 24 (78) | 18 (60) | 7 (24) |
| 12 (40) | 34 (112) | 24 (80) | 17 (56) | — |
| 15 (50) | 37 (120) | 24 (80) | 15 (50) | — |
| 18 (60) | 37 (120) | 18 (60) | — | — |

### NEMA 7x7 Clear Glass, 5000K CCT

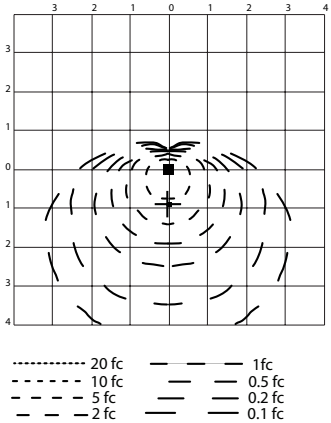
REPORT NUMBER: **AMLHL2CG6BU**

Luminaire Lumens 30,157

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.2% | 29,616.7 | 151.4 | 145.9 |
| Beam (50%) | 81.2% | 24,501.2 | 116.8 | 117.7 |
| Total | 100% | 30,147.4 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ↓ 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 4.17 | 23 (75) | 17 (57) | 13 (42) | 7 (24) |
| 12 (40) | 2.35 | 24 (80) | 18 (60) | 12 (40) | — |
| 15 (50) | 1.49 | 24 (80) | 18 (60) | 9 (30) | — |
| 18 (60) | 1.04 | 26 (84) | 16 (54) | 7 (24) | — |

| Mounting Height m (ft) | Side-to-Side Distance 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | ← → 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 35 (114) | 26 (84) | 19 (63) | 9 (30) |
| 12 (40) | 37 (120) | 27 (88) | 20 (64) | — |
| 15 (50) | 37 (120) | 24 (80) | 15 (50) | — |
| 18 (60) | 37 (120) | 22 (72) | 9 (30) | — |

# Industrial Areamaster™ Generation 2 and High Lumen LED Series Luminaires

Floodlight

Ordinary Locations

**NEC/CEC/NOM: Type 3R, 4, 4X | IP66/67 | Marine outside type (salt water) for USA Only | Wet locations**
**IECEE CB: IK08 | IP66**
**Markings: CE | UKCA**
**Notable: American Bureau of Shipping (ABS) Certified | 10G Vibration**



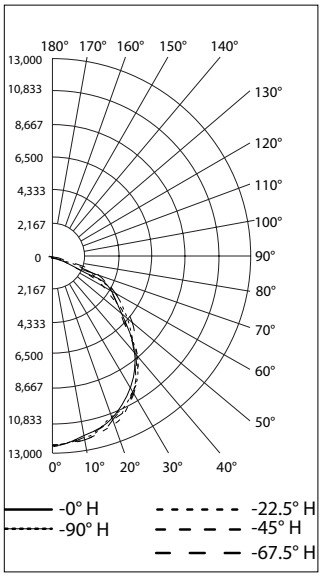
## Photometric Data — DATA SHOWN IS ABSOLUTE

### NEMA 7x7 Diffused Glass, 5000K CCT

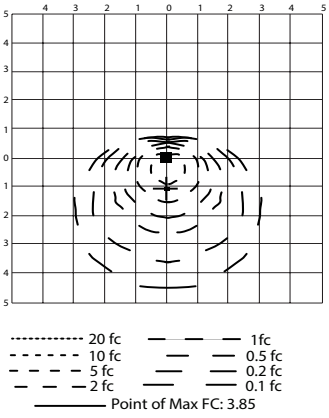
REPORT NUMBER: **AMLHL3CF6BU**

Luminaire Lumens 31,600

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 97.9% | 30,947.7 | 156 | 154.1 |
| Beam (50%) | 69.5% | 21,961.6 | 104 | 102.9 |
| Total | 100% | 31,591.2 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 3.82 | 24 (78) | 18 (60) | 13 (42) | 8 (27) |
| 12 (40) | 2.15 | 26 (84) | 18 (60) | 13 (44) | — |
| 15 (50) | 1.38 | 27 (88) | 20 (65) | 12 (40) | — |
| 18 (60) | 0.96 | 27 (90) | 20 (66) | 7 (24) | — |

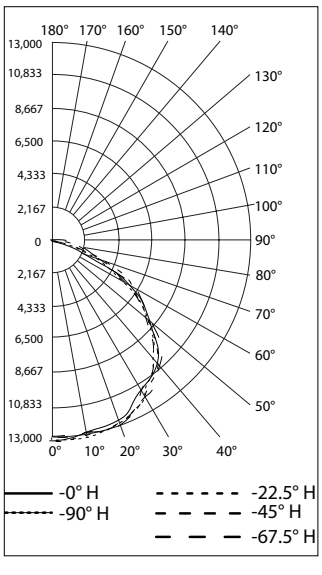
| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 35 (114) | 26 (84) | 18 (60) | 9 (30) |
| 12 (40) | 37 (120) | 27 (88) | 20 (56) | — |
| 15 (50) | 38 (125) | 27 (90) | 15 (50) | — |
| 18 (60) | 40 (132) | 22 (72) | — | — |

### NEMA 7x7 Clear Glass, 5000K CCT

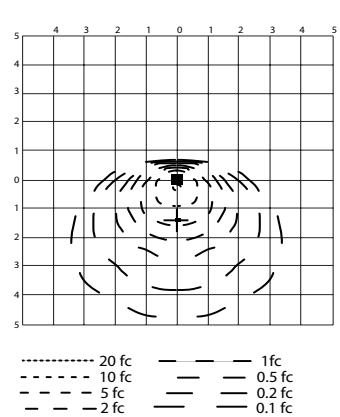
REPORT NUMBER: **AMLHL3CG6BU**

Luminaire Lumens 37,039

**POLAR CANDELA DISTRIBUTION**




**ISOLUX PLOT AT 45°**




**FLOOD SUMMARY**

| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|---|---|---|---|---|
| Field (10%) | 98.3% | 36,391.3 | 152.3 | 150.9 |
| Beam (50%) | 79.5% | 29,452.1 | 114.2 | 115.8 |
| Total | 100% | 37,028.2 | | |

**Tilt Angle- 45 Degree LLF-0.9**

| Mounting Height m (ft) | Maximum Point (fc) | Forward Throw Distance ↓ 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|---|
| 9 (30) | 2.44 | 26 (84) | 19 (63) | 14 (45) | 8 (27) |
| 12 (40) | 1.37 | 27 (88) | 21 (68) | 15 (48) | 5 (16) |
| 15 (50) | 0.88 | 27 (90) | 20 (65) | 12 (40) | — |
| 18 (60) | 0.60 | 27 (90) | 20 (66) | 9 (30) | — |

| Mounting Height m (ft) | Side-to-Side Distance ← → 0.5fc/5lx m (ft) | 1fc/11lx m (ft) | 2fc/22lx m (ft) | 5fc/54lx m (ft) |
|---|---|---|---|---|
| 9 (30) | 37 (120) | 27 (90) | 22 (72) | 13 (42) |
| 12 (40) | 41 (136) | 30 (100) | 22 (72) | 6 (20) |
| 15 (50) | 40 (130) | 30 (100) | 18 (60) | — |
| 18 (60) | 44 (144) | 29 (96) | 15 (48) | — |

# HEX Series LED Exit Sign

Hazardous Locations

**NEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Groups IIA, IIB, IIC | IP66 | Suitable for Use in Wet Locations**

## Applications

- For use in locations where:
  - — An exit route or path of egress needs to be emphasized
  - — Flammable gases and vapors may be present
  - — A high degree of corrosion resistance is required
  - — Protection against dirt, water and moisture is necessary
- Typical applications include:
  - — Oil refineries
  - — Petrochemical facilities
  - — Waste and sewer treatment
  - — Underground tunnels
  - — Analyzer houses
  - — Processing areas
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

## Features

- Dual voltage fixture can run at 120 or 277 Vac, 60 Hz.
- 6 kV surge protection.
- Emergency models are equipped with a 4.8 V rechargeable nickel cadmium (NiCd) battery that lasts a minimum of ninety minutes.
- Self diagnostic feature performs monthly, biannual, and annual tests ensure reliable operation.
- Magnet flash can prompt diagnostic test to run on demand (test magnet included with unit).
- Bright and long lasting Red or Green LEDs.
- LED indicator visually communicates fixture operational status.
- Directional arrows can be snapped out at time of installation.
- 1/2" NPT conveniently located on top of enclosure to support wiring and pendant mounting.
- Mounting brackets and hardware included for wall mounting (applicable to single sided units).
- Ambient temperature: -20 °C to +50 °C (-4 °F to +122 °F).
- 5 year standard warranty on fixture, 3 year warranty on battery.

## Options

- Single sided or double sided.
- Red or green text to suit end user preferences and local code regulations.
- AC powered or 90 minute battery backup.
- 120 or 277 Vac operation.
- Tamper proof screws available upon request.

## Standard Materials

- Battery: nickel cadmium
- Housing: fiberglass reinforced polycarbonate
- Lens: UV stabilized polycarbonate
- Screws: stainless steel
- Mounting bracket: die-cast aluminum

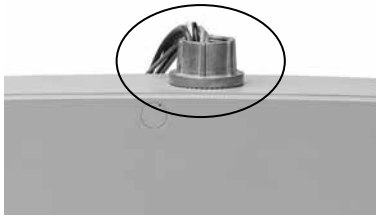
## NEC Certifications and Compliances

- UL Standard: UL 844; UL 924
- UL listed for wet locations
- UL Listed: E175025
- NFPA 101 Life Safety Code
- Meets requirements listed in OSHA 1910.37

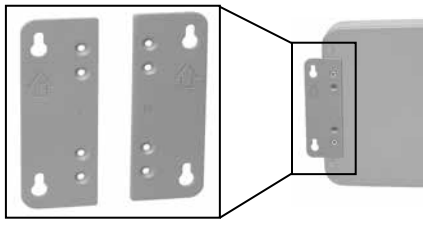


## Illustrated Features

Directional arrows can easily be snapped out at time of installation.



All units can be pendant mounted using the 1/2" NPT hub.



All single sided units come with mounting brackets and hardware for easy wall mounting.

# HEX Series LED Exit Sign

Hazardous Locations

**NEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Groups IIA, IIB, IIC | IP66 | Suitable for Use in Wet Locations**

### Order Using Catalog Numbering Guide — HEX Series LED Exit Sign

**HEX** — Series Prefix:
HEX - Hazardous CID2 LED Exit Sign

**3** — Wattage:
3 - 3 W Standard

**1** — Number of Faces:
1 - Single-sided
2 - Double-sided ①

**R** — Chevron and Lettering:
R - Red
G - Green

**12** — Voltage: ②
12 - Pre-wired for 120 Vac, 60 Hz
27 - Pre-wired for 277 Vac, 60 Hz

**_** — Housing Color:
Blank - Gray as standard

**H** — Power Source:
Blank - AC only
H - 90 minute battery backup

### Electrical Specifications

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| HEX | 120 Vac | 3.0 | 0.03 | > .09 | < 20% |
| | 277 Vac | 3.0 | 0.02 | > .09 | < 20% |

### Accessories and Replacement Parts

| Description | Weight in kg (lbs) | Catalog Number |
|---|---|---|
| Replacement Battery Pack (NICAD) | 0.11 (.244) | **HEXBATTERY** |
| Replacement Face Plate | 0.73 (1.60) | **HEXFACEPLT** |
| Replacement Back Plate | 0.75 (1.66) | **HEXBACKPLT** |
| Replacement Lens | 0.48 (1.05) | **HEXLENS** |
| Tamper Proof Screws | 0.004 (0.008) | **HEXTPSCREW** |
| Replacement Magnet used for testing | 0.03 (0.07) | **HEXMAGNET** |
| Replacement Surge Protection component | 0.08 (0.17) | **HEXSURGE** |

*① Cannot be wall mounted.*
*② Pre-wired units for 120 Vac can be switched to 277 Vac in field and vice versa. Refer to installation instructions for more details.*

# HEX Series LED Exit Sign

Hazardous Locations

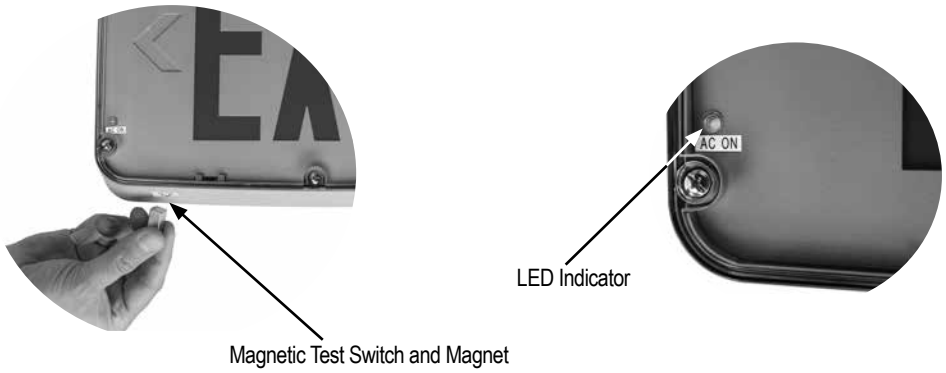
**NEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Groups IIA, IIB, IIC | IP66 | Suitable for Use in Wet Locations**

### Emergency Battery Backup Self Diagnostic Testing System

After the exit sign unit has been supplied AC power it must be charged for a minimum of 24 hours to allow the battery to be fully charged. Upon being energized, the exit light testing system automatically runs a self diagnostic cycle to check for battery and load connections. Thereafter diagnostic tests are run regularly at preprogrammed intervals described below and can be initiated manually by activating a magnetic test switch (magnet is provided with fixture).

**Emergency Battery Backup Functionality - Automatic Diagnostic Testing System**

| Functional | Full Duration |
|---|---|
| 30 second discharge test occurs every 30 days. | Discharge test occurs every 365 days.<br>Test lasts for full duration of the rated emergency period (90 minutes). |
| 30 minute discharge test occurs every 180 days. | |




**LED Signals**

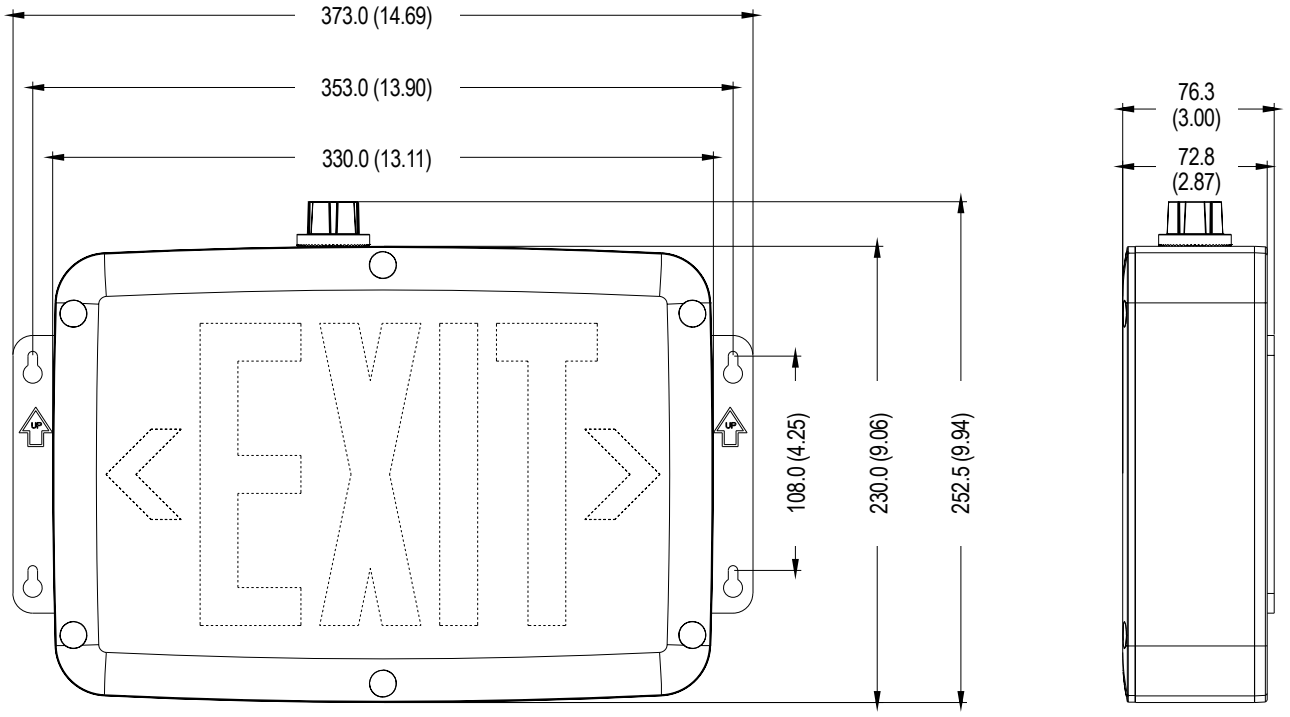
| Indicator Color | Timing | Description |
|---|---|---|
| Green | Steady On | Battery fully charged |
| Green | Flashing On/Off | Unit in test mode |
| Red and Green | Flashing alternatively | Battery recharging |
| Red | Steady On | Battery disconnected |
| Red | Flashing On/Off | Battery Failure |
| None | None/Off | Emergency mode On |

# HEX Series LED Exit Sign

Hazardous Locations

**NEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Groups IIA, IIB, IIC | IP66 | Suitable for Use in Wet Locations**

**Dimensions in Millimeters (Inches)**



# N2LED Series Emergency Luminaires

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps

Hazardous Locations

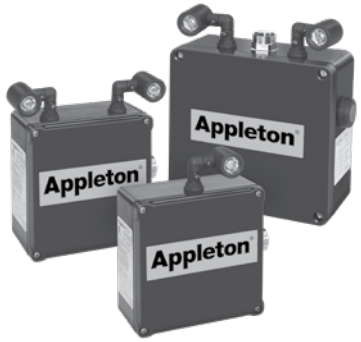
**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | NEMA Type 4X | IP66 | Marine Outside Type (Salt Water)**

## Applications

- Enclosed and gasketed, non-metallic emergency lighting system suitable for use in areas where flammable gases or vapors may become present due to abnormal, unusual or accidental conditions defined by NEC as Class I, Division 2, Groups A, B, C, D and Class I, Zone 2, Group IIC.
- Typical applications include:
  - — Manufacturing plants
  - — Refineries
  - — Petrochemical and chemical plants
  - — Waste and sewerage treatment facilities
  - — Food processing facilities
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants
  - — Other industrial manufacturing or process facilities subject to wet or corrosive conditions
  - — Non-hazardous areas where dirt, dust or corrosion would reduce life of ordinary emergency lighting systems

## Features

- Enclosures are raintight and suited for operation in highly corrosive and wet locations.
- The electronics consist of a solid-state charger, transfer circuit and low voltage battery disconnect circuit.
- The integrated, illuminated push to test button is mounted on the system housing using a neoprene O-ring gasket to seal out moisture and liquids.
- Capacity is sufficient for the connection of 6 output watts (maximum).
- System supports 4 light heads (at 1.5 Watts each) in any main/remote combination utilizing up to 6 Watts of output power.
  - — This allows for a main unit without any light heads to drive up to 4 remote units or any other combination of 4 lights.
- Provides 100% lumen output for 90 minutes of operation with four light heads or 180 minutes of operation with two light heads.
- The solid-state charger maintains battery at full charge
- Upon power failure or utility voltage (AC) below 50 V, the DC emergency lighting load is connected to the battery.
- During emergency operation, the battery is automatically protected from deep discharge damage by a low-voltage battery disconnect (LVD) circuit.
- Upon restoration of normal power, the charger brings the battery to full capacity within acceptable UL time standards (typically within 24 hours).
- Integrated, illuminated push to test button:
  - — Indicates presence of AC line voltage and system error codes.
  - — Activates push to test function.
- A universal input circuit allows operation from 120-277 Vac, 50/60 Hz lines.
- Maintenance-free NiCd battery is suited for harsh temperature environments of 0 °C to +55 °C (+32 °F to +131 °F).
- Remote lamp head assemblies (one or two) are available for mounting of lamp heads away from main power supply system.
- An automatic test feature provides periodic self-test of the system functions every 30 days.
- Status indicator light allows easy monitoring of system status and failure modes.
- 5 year standard warranty.




## Standard Materials

- Lighting system:
  - — Body: fiberglass reinforced polyester
  - — Cover gasket: continuous silicone
  - — Push to test switch: fiberglass reinforced polyester (FRP), neoprene gaskets
  - — Hub: nickel plated brass
  - — Cover screws: stainless steel
  - — Lampheads: aluminum
- Remote unit:
  - — Body: fiberglass reinforced polyester (FRP); specially formulated with low resistivity, will not hold static charge
  - — Cover screws: stainless steel
  - — Gasket: neoprene gasket

## NEC/CEC Certifications and Compliances

- UL Standards: UL 1598A; UL 924; UL 844
- CSA Standards: C22.2 No. 141-M1985; C22.2 No. 137-M1981
- cCSAus Certified: 2715744
- Life Safety Code NFPA101® – Section 5-9 (Emergency Lighting)
- Marine wet locations suitability, Type 4X

# N2LED Series Emergency Luminaires

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | NEMA Type 4X | IP66 | Marine Outside Type (Salt Water)**

**Order Using Catalog Numbering Guide — N2LED Series Emergency Luminaires**

**Master Unit — With or Without Direct Mounted Lamps**

| N2LED | 0 | T | 1 |
|---|---|---|---|
| Series Prefix:<br>N2LED - Emergency Lighting System | Number of Direct Mounted Lamps:<br>0 - None<br>2 - Two | Entry Location:<br>T - Top Entry | Entry Size:<br>1 - 3/4" NPT |

**Remote Unit — With One or Two Direct Mounted Lamps**

| N2LEDR | 1 | R | 1 |
|---|---|---|---|
| Series Prefix:<br>N2LEDR - Remote Emergency Lighting System | Number of Direct Mounted Lamps:<br>1 - One<br>2 - Two | Hub Position/Entry Location:<br>R - Right | Entry Size:<br>1 - 3/4" NPT |

# N2LED Series Emergency Luminaires

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | NEMA Type 4X | IP66 | Marine Outside Type (Salt Water)**

**Lumen Output (Efficacy)** ①②

| Model | Halogen Equivalency | Number of LED Lamps | Base Orientation | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) | Absolute Luminous Flux (Lumens) |
|---|---|---|---|---|---|---|---|---|
| N2LEDR | 8 or 12W | 1 | Up | 5000K | 70 | 131.0 | 104.3 | 131.0 |
| N2LED(R) | 8 or 12W | 2 | Up | 5000K | 70 | 257.8 | 102.6 | 257.8 |

**Electrical Specifications** ①③

| Model | Number of LED Lamps | Voltage (V) | Input Voltage Vdc | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) |
|---|---|---|---|---|---|---|
| N2LEDR | 1 | 120 to 277 Vac | 2.9 | 1.256 | 437.0 | 1.000 |
| N2LED(R) | 2 | 120 to 277 Vac | 2.9 | 2.513 | 874.0 | 1.000 |

**Temperature Codes**

| Model | Ambient Temperature °C (°F) | Supply Wire °C (°F) | Class I, Division 2 and Class I, Zone 2 |
|---|---|---|---|
| N2LEDR<br>N2LED(R) | 0 °C to +55 °C (+32 °F to +131 °F). | +60 °C (+140 °F) | T6 |

**NEC/CEC — "T" Numbers Represent the Maximum Internal Temperature or Maximum Surface Temperature** ④⑤

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*① Measurements at Ambient Temperature (+25 °C +/- +1 °C)*
*② All lumen values are typical (tolerance +/- 10%).*
*③ All values are typical (tolerance +/-10%).*
*④ T numbers represent the maximum internal temperature for Class I, Division 1 and Class II, Division 1 locations designated by the NEC.*
*⑤ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 2 as designated by the NEC.*

**Wire Sizing For Remote Installations**
For copper wire, maximum distance (feet) between power supply and remote unit to limit voltage drop to 5%.

| Wire Gage | Maximum Wire Length in Meters (Feet) |
|---|---|
| 18 AWG | 23.8 (78) |
| 16 AWG | 38.1 (125) |
| 14 AWG | 60.4 (198) |
| 12 AWG | 96.0 (315) |
| 10 AWG | 152.4 (500) |

**Status Indicator Codes for Push-to-Test Switch — When AC is Present**
* Equals status LED ON
– Equals status LED OFF

| Status Indication | Status Description | Status Definition |
|---|---|---|
| | No light | AC power removed from circuit |
| * | Continuous red steady light | Battery fully charged |
| *–*– | Red light blinks once every second | Battery charging |
| **–**– | Red light blinks twice repeatedly | Battery failure |
| ***–***– | Red light blinks three times repeatedly | LED lamp head failure |
| ****–****– | Red light blinks four times repeatedly | Emergency circuit charger board failure |

# N2LED Series Emergency Luminaires

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | NEMA Type 4X | IP66 | Marine Outside Type (Salt Water)**

| | Number of LED Lamps | Total Watts of LED Lamps | Hub Size | Input Voltage | Frequency | Weight kg (lb) | Catalog Number |
|---|---|---|---|---|---|---|---|
| **Master Unit With Two Direct Mount Lamps** | | | | | | | |
| | 2 | 3 | 3/4" NPT | 120-277 | 50/60 Hz | 3.27 (7.2) | **N2LED2T1** |
| **Master Unit Without Direct Mount Lamps** | | | | | | | |
| | — | — | 3/4" NPT | 120-277 | 50/60 Hz | 3.04 (6.7) | **N2LED0T1** |

| | Number of LED Lamps | Total Watts of LED Lamps | Hub Size | Hub Position | Weight kg (lb) | Catalog Number |
|---|---|---|---|---|---|---|
| **Remote Unit With One Lamp** | | | | | | |
| | 1 | 1.5 | 3/4" NPT | Dead End Hub on Right | 1.45 (3.2) | **N2LEDR1R1** |
| **Remote Unit With Two Lamps** | | | | | | |
| | 2 | 3 | 3/4" NPT | Dead End Hub on Right | 1.59 (3.5) | **N2LEDR2R1** |

**Replacement Parts**

| | Description | Catalog Number |
|---|---|---|
| | Emergency Lamp Kit | **N2LEDLH** |
| | Emergency Battery Pack Kit | **N2LEDBP** |
| | Emergency Circuit Charger Board Kit | **N2LEDCB** |
| | Nickel Plated Brass M25 Male, 3/4" NPT Female Hub | **737DM3T25** |

# N2LED Series Emergency Luminaires

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps

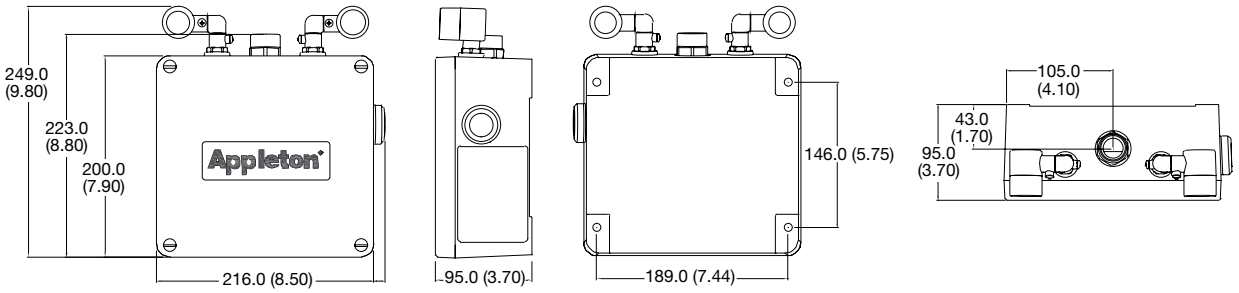
Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | NEMA Type 4X | IP66 | Marine Outside Type (Salt Water)**

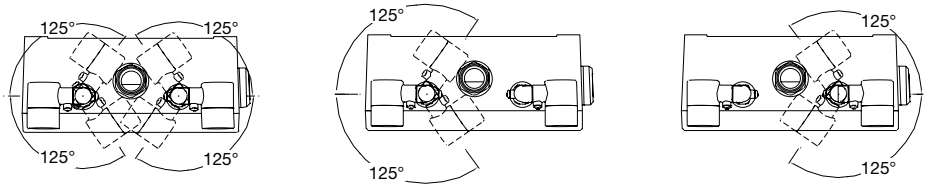


**Emergency Lighting System — Dimensions in Millimeters (Inches)**

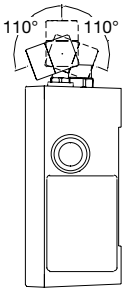
**Master Unit — With Two Direct Mount Lamps**



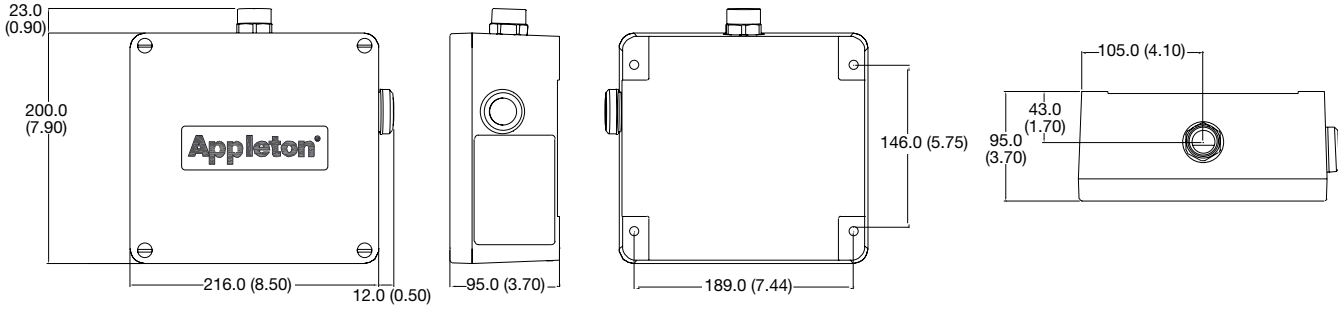

**Adjustment Angle — Top View**




**Side View**




**Master Unit — Without Direct Mount Lamps**



# N2LED Series Emergency Luminaires

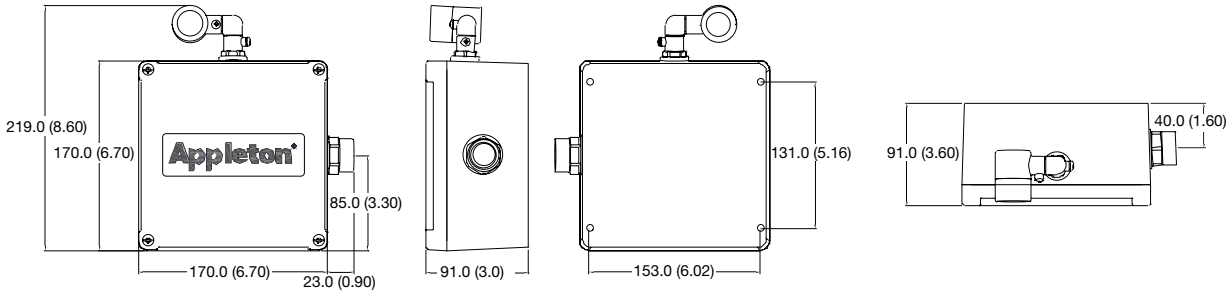
Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps

Hazardous Locations

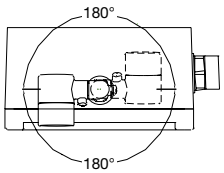
**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | NEMA Type 4X | IP66 | Marine Outside Type (Salt Water)**

**Emergency Lighting System — Dimensions in Millimeters (Inches)**

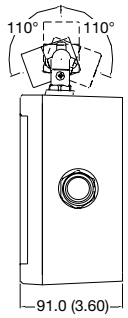
**Remote Unit — With One Lamp**




**Adjustment Angle — Top View**




**Side View**



# N2LED Series Emergency Luminaires

Non-Metallic Emergency Egress Lighting Systems with Remote or Direct Mounted Lamps

Hazardous Locations

**NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, Group IIC | NEMA Type 4X | IP66 | Marine Outside Type (Salt Water)**

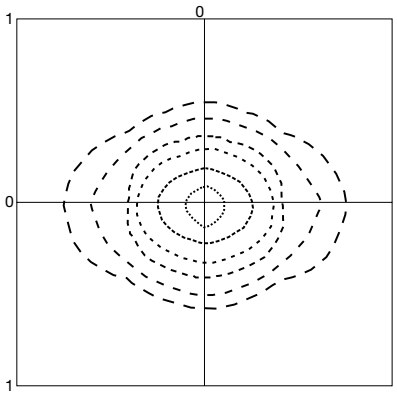


## Photometric Data — DATA SHOWN IS ABSOLUTE

### Wall Mount LED Emergency Luminaire, Single Lamp

Luminaire Lumens 131.0

**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 117.9 | 90.0 |
| 0-40 | 125.5 | 95.8 |
| 0-60 | 130.2 | 99.4 |
| 60-90 | 0.8 | 0.6 |
| 0-90 | 131.0 | 100.0 |
| 90-180 | 0.0 | 0.0 |
| 0-180 | 131.0 | 100.0 |

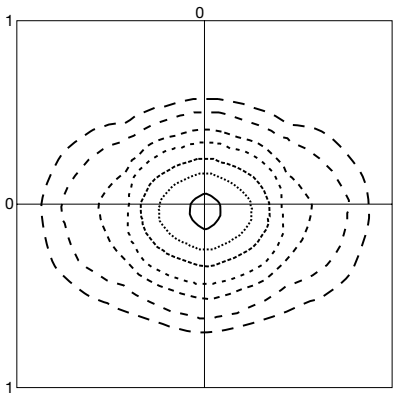
**CANDELA DISTRIBUTION**

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|---|---|---|---|---|---|
| 0 | 663 | 663 | 663 | 663 | 663 |
| 5 | 603 | 569 | 547 | 540 | 527 |
| 10 | 377 | 350 | 370 | 394 | 391 |
| 15 | 188 | 172 | 202 | 249 | 255 |
| 20 | 86 | 80 | 97 | 123 | 119 |
| 25 | 36 | 34 | 42 | 41 | 46 |
| 30 | 15 | 14 | 16 | 30 | 36 |
| 35 | 6 | 6 | 9 | 20 | 25 |
| 40 | 3 | 3 | 6 | 11 | 14 |
| 45 | 2 | 2 | 4 | 5 | 3 |
| 50 | 2 | 2 | 3 | 2 | 2 |
| 55 | 2 | 2 | 2 | 2 | 2 |
| 60 | 1 | 1 | 1 | 1 | 1 |
| 65 | 0 | 0 | 1 | 1 | 1 |
| 70 | 0 | 0 | 0 | 0 | 0 |
| 75 | 0 | 0 | 0 | 0 | 0 |
| 80 | 0 | 0 | 0 | 0 | 0 |
| 85 | 0 | 0 | 0 | 0 | 0 |
| 90 | 0 | 0 | 0 | 0 | 0 |

### Wall Mount LED Emergency Luminaire, Two Lamp

Luminaire Lumens 257.8

**ISOFOOTCANDLE PLOT**




**ZONAL LUMEN SUMMARY**

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 230.9 | 89.6 |
| 0-40 | 246.7 | 95.7 |
| 0-60 | 255.9 | 99.3 |
| 60-90 | 1.8 | 0.7 |
| 0-90 | 257.8 | 100.0 |
| 90-180 | 0.0 | 0.0 |
| 0-180 | 257.8 | 100.0 |

**CANDELA DISTRIBUTION**

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|---|---|---|---|---|---|
| 0 | 1241 | 1241 | 1241 | 1241 | 1241 |
| 5 | 1196 | 1110 | 1049 | 1011 | 989 |
| 10 | 844 | 764 | 761 | 763 | 737 |
| 15 | 469 | 426 | 461 | 506 | 486 |
| 20 | 225 | 206 | 239 | 264 | 234 |
| 25 | 93 | 87 | 107 | 91 | 97 |
| 30 | 40 | 37 | 40 | 66 | 74 |
| 35 | 17 | 16 | 23 | 44 | 51 |
| 40 | 7 | 7 | 14 | 26 | 28 |
| 45 | 4 | 5 | 8 | 11 | 6 |
| 50 | 4 | 4 | 6 | 5 | 4 |
| 55 | 4 | 4 | 5 | 4 | 3 |
| 60 | 2 | 2 | 3 | 3 | 2 |
| 65 | 1 | 1 | 2 | 2 | 1 |
| 70 | 0 | 1 | 1 | 1 | 1 |
| 75 | 0 | 0 | 0 | 1 | 0 |
| 80 | 0 | 0 | 0 | 0 | 0 |
| 85 | 0 | 0 | 0 | 0 | 0 |
| 90 | 0 | 0 | 0 | 0 | 0 |

# ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units

Flameproof

**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ex II 2 GD | IP66/68 | IK08**

## Applications

- Provides adequate lighting and/or visual indication of access on exit routes during an evacuation in a hazardous environment.
- Can be installed in hazardous areas designated as Zone 1 and 2 – 21 and 22.
- Typical applications include:
  - — Oil refineries
  - — Petrochemical plants
  - — Pulp and paper mills
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

**FDBAESLEDEM**

## Features

- All versions:
  - — Power supply 230 Vac, 50/60 Hz.
  - — 1 hour duration (emergency).
  - — Threaded access cover with O-ring seal.
  - — Can be maintained in hazardous areas as an internal switch cuts off battery supply automatically once the cover is unscrewed and opened.
  - — Battery pack.
  - — Escape route lighting: 2.4 V - 1.5 Ah (2 cells - Nicd) Space lighting: 7.2 V - 2.2 Ah (6 cells - NiMh) - Flameproof.
  - — Padlockable switch is available on switched models which individually cuts off power supply and remote control.
  - — Charge indicator by 1 green LED (life time over 10 years).
  - — Operates in any position.
  - — Connection to plug-in terminal block via 2 x 5 x 2.5 $mm^2$ (0.003 x 0.008 x 0.004 $in^2$) terminals.
  - — Supplied with two fixing lugs.
  - — Reported L70 is >330 000 hours at +25 °C.
  - — Automatic built-in self-test system (SATI) with memorization of tests indicated by LEDs.
  - — Using a microprocessor and an internal clock, the unit will carry out automatic tests.
  - — Weekly test: Lamp check during 6 seconds.
  - — Quarterly test: Emergency operation and lamp check for 1 hour.
  - — Can be remotely controlled and checked without switching the mains off with remote control unit from Legrand (Catalog Number 03901) or URA (Catalog Number 095448 and 095450) manufacturers.
  - — The remote control unit installed in a safe area or inside a flameproof box allows manual ignition of all the units (maximum 300 units) for visual inspection of their operation.
  - — Escape route lighting: 55 lumens, 0.50 wattage. Space lighting: 540 lumens, 0.95 wattage.
  - — Correlated Color Temperature: 5700K.
  - — 5 year standard warranty.
- Addressable versions:
  - — Operates without additional control lines. Communication between units and the control system is realized via mains borne signals that utilize the existing electrical wiring.
  - — Standard control system capacity: one control system for up to 200 emergency lighting units.
  - — Optional increased control system capacity: booster (repeater unit) is used to increase the length of the network allowing up to 1000 emergency lighting units to be on one control system. This allows for the use of a single computer to centralize the management of the facilities emergency lighting system. *For more information, contact your local sales representative*.

## Options

- Addressable monitoring software, *contact your local sales representative*.
- Low temperature application, *contact your local sales representative*.

## Standard Materials

- End caps and cover: aluminum
- O-ring seal: nitrile
- Lens: tempered borosilicate glass
- Fixing brackets: zinc plated steel or 316 stainless steel
- Accessories: white painted galvanized steel
- Guard: zinc plated steel

## ATEX/IECEx Certifications and Compliances

- Certification Type: FLd
  - — Gas: Zone 1 - 2
    - – Conforming to ATEX 2014/34/UE: Ex II 2 G
    - – Type of Protection: Ex db IIC Gb
    - – Temperature class: T6
  - — Dust: Zone 21 - 22
    - – Conforming to ATEX 2014/34/UE: Ex II 2 D
    - – Type of Protection: Ex tb IIIC Db
    - – Surface Temperature: T80 °C (T176 °F)
- Ambient Temperature: - 20 °C to +40 °C ( -4 °F C to +104 °F) ①
- ATEX Certificate: INERIS 15ATEX0056X
- UKEX: CML 21UKEX1155X
- IECEx Certificate: IECEx INE 15.0052X
- Index of Protection according EN/IEC 60529: IP66/68
- Impact Resistance (shock): IK08
- Internal Volume: > 2 $dm^3$ (122 $in^3$) - 2 liters
- Conforming to NF AEAS

## Other Certifications

- INMETRO Certificate: BVC 17.5709-X ②

*① Optimum operating temperature for battery is -5 °C to +30 °C (+23 °F to +86 °F).*
*② Inmetro certification available on special request only. Contact your local sales representative for more information.*

# ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units

Flameproof

**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ex II 2 GD | IP66/68 | IK08**

**Order Using Catalog Numbering Guide — FDBAES LED Series Luminaires**

**FDBAES**
Series Prefix:
FDBAES - FDBAES Series Zone 1 and 2 – 21 and 22 ATEX/IECEx Certified

**LED**
Lamp Type:
LED

**SL**
Type:
SL - Space Lighting
E - Escape Route Lighting

**N**
Cable Entry:
N - 3/4" NPT
M - Metric M20

**A**
Options:
A - Addressable
W - With Switch (main supply and remote)

**Lumen Output (Efficacy)** ①

| Model | Equivalency | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|
| **Space Lighting** | | | | | |
| FDBAESLEDSL* | 1 X 8W Fluorescent | 5650K | >80 | 540 ③ | 107 |
| **Escape Route Lighting** | | | | | |
| FDBAESLEDE* | 2 X 3W Incandescent | 5650K | >80 | 55 ④ | 107 |

**Electrical Specifications** ②

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| **Space Lighting** | | | | | |
| FDBAESLEDSL* | 230 Vac, 50/60 Hz | 2.6 | 0.02 | >0.5 | <20% |
| **Escape Route Lighting** | | | | | |
| FDBAESLEDE* | 230 Vac, 50/60 Hz | 1.1 | 0.01 | >0.45 | <20% |

**Temperature Codes**

| | Gas IIC — T Rating | | | Dust — Surface T° | | |
|---|---|---|---|---|---|---|
| Model Type | Ta = +40 °C (+104 °F) | Ta = +50 °C (+122 °F) | Ta = +55 °C (+131 °F) | Ta = +40 °C (+104 °F) | Ta = +50 °C (+122 °F) | Ta = +55 °C (+131 °F) |
| **Standard Models** | | | | | | |
| FDBAESLEDSL* | T6 | T6 | T6 | +80 °C (+176 °F) | +80 °C (+176 °F) | +80 °C (+176 °F) |
| **Emergency Models** | | | | | | |
| FDBAESLEDE* | T6 | T6 | T6 | +80 °C (+176 °F) | +80 °C (+176 °F) | +80 °C (+176 °F) |

**"T" Numbers Represent the Maximum Temperature**

| "T" # | T1 | T2 | T3 | T4 | T5 | T6 |
|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +301 to +450 (+547 to +842) | +201 to +300 (+394 to +572) | +136 to +200 (+277 to +392) | +101 to +135 (+214 to +275) | +86 to +100 (+187 to +212) | +85 (+185) |

*① All lumen values are typical (tolerance +/- 10%).*
*② All values are typical (tolerance +/-10%). Same electrical ratings apply to each luminaire with different LED position, mounting versions and cable entries.*
*③ Value measured after 1 hour duration - required value by standard is 400 lm.*
*④ Value measured after 1 hour duration - required value by standard is 45 lm.*

# ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units

Flameproof

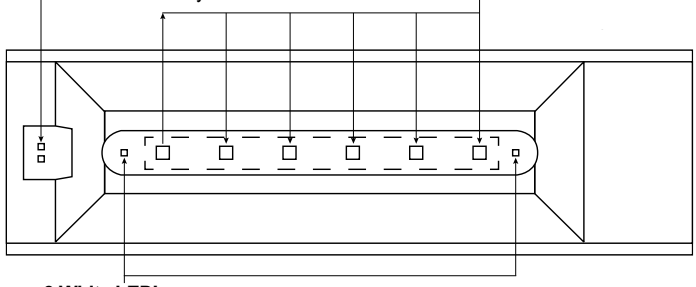
**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ⓔx II 2 GD | IP66/68 | IK08**

**LED Indicator**

**Space Lighting — Replaces Fluorescent Version**

**1 Green LED + 1 Amber LED indicating the charge battery status**
– Green: Flashing → battery is charging
Fixed → battery is fully charged
– Amber: Flashing → battery is not connected or faulty

**6 White LED's: Lighting LED's**
– OFF when main power is ON
– ON when main power is OFF

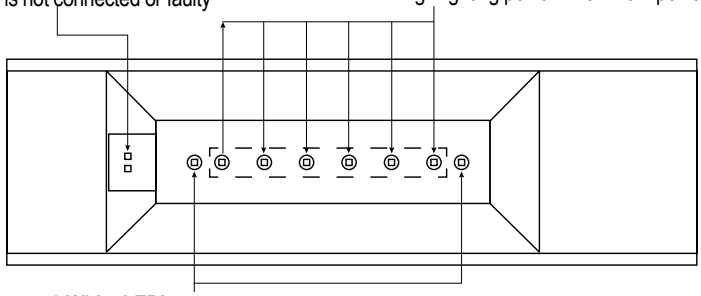


**2 White LED's:**
– ON when main power is OFF
– OFF when main power is ON
– Flashing when battery is not connected or faulty (only with SATI version)

**Escape Lighting — Replaces Incandescent Version**

**1 Green LED + 1 Amber LED indicating the charge battery status**
– Green: Flashing → battery is charging
Fixed → battery is fully charged
– Amber: Flashing → battery is not connected or faulty

**6 White LED's: Lighting LED's**
– Low lighting power when main power is ON
– High lighting power when main power is OFF



**2 White LED's:**
– Flashing when battery is not connected or faulty (only with SATI version)

| Main Status | Non Maintained<br>Space Lighting | Escape Route Lighting |
|---|---|---|
| Switched On | ☼ ● ● ● ● ● ● ☼ | ● ¤ ¤ ¤ ¤ ¤ ¤ ¤ ● |
| Switched Off | ● ☼ ☼ ☼ ☼ ☼ ☼ ● | ● ☼ ☼ ☼ ☼ ☼ ☼ ● |

● OFF
☼ ON (high lighting power)
¤ ON (low lighting power)

| Battery Not Connected or Faulty | Main Power ON<br>Space or Escape Route Lighting |
|---|---|
| SATI | ⁂ ⁂ ● ● ● ● ● ● ⁂ |
| Addressable | ⁂ ● ● ● ● ● ● ● ● |

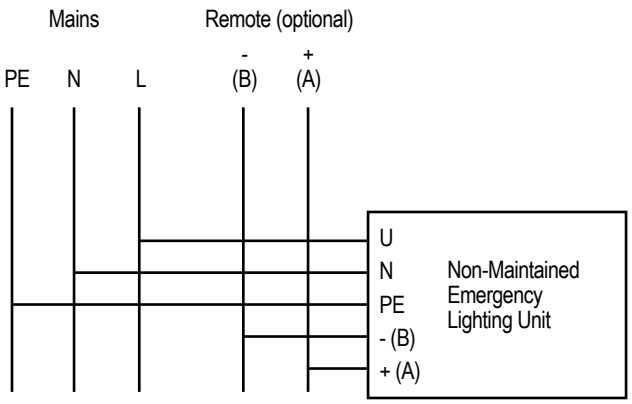
● OFF
⁂ ON — Flashing — White LED
⁂ ON — Flashing — Amber LED

# ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units

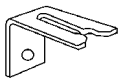
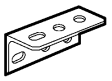
Flameproof

**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ⓔx II 2 GD | IP66/68 | IK08**

**Electrical Wiring Diagram**




**Accessories and Replacement Parts**

| | Description | Weight in kg (lb) | Catalog Number |
|---|---|---|---|
| **Reflector** | | | |
| | White painted galvanized steel | 1.02 (2.25) | **FDER5G** |
| **Protective Guard** | | | |
| | Zinc Plated Steel | 0.42 (0.92) | **FDPG5Z** |
| **Fixing Brackets for Ease of Surface Installation — Set of Two** | | | |
|  | Zinc plated steel | 0.2 (0.44) | **FDFBZ** |
| | 316 stainless steel | 0.27(0.60) | **FDFBS** |
| **Surface Mounting Brackets — Set of Two** | | | |
|  | Zinc plated steel | 0.54 (1.20) | **FDSBZ** |
| | 316 stainless steel | 0.45 (1.00) | **FDSBS** |
| **Half Clamp Brackets for Pole Mounting — Set of Two** | | | |
| | Diameter for 1-1/4" to 1-1/2" pole: 42 mm to 49 mm (1.65" to 1.93") | | |
| | • Zinc plated steel | 0.55 (1.21) | **FDHC49Z** |
| | • 316 stainless steel | 0.51 (1.12) | **FDHC49S** |
| | Diameter for 2" pole: 60 mm (2.3") | | |
| | • Zinc plated steel | 0.55 (1.21) | **FDHC60Z** |
| | • 316 stainless steel | 0.51 (1.12) | **FDHC60S** |
| **Fall Prevention Kit** | | | |
| | 1.20 meter (3.93 feet) stainless steel chain | 0.15 (0.33) | **FDSCS** |

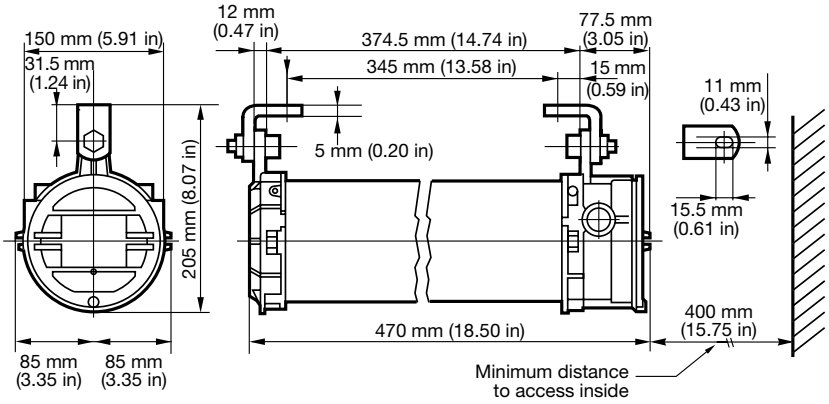
# ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units

Flameproof

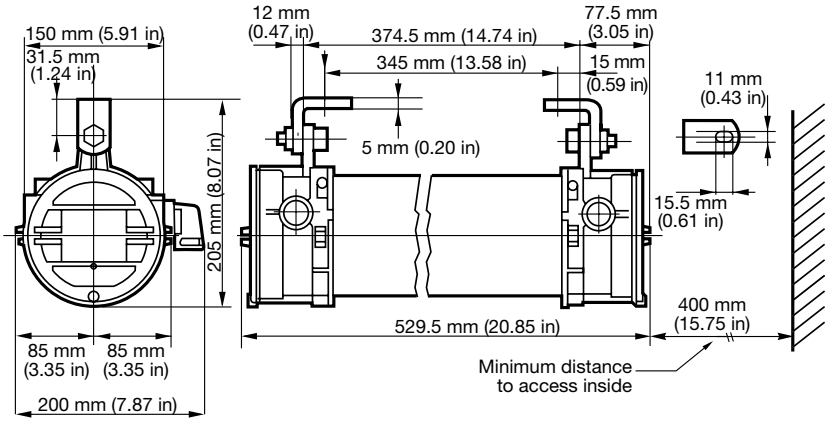
**ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ⓔ II 2 GD | IP66/68 | IK08**

## Dimensions in Millimeters (Inches)

**Unswitched Versions**




**Switched Versions**




## Luminaire Specifications

| Model | Weight in kg (lb) | Volume in $dm^3$ ($in^3$) |
|---|---|---|
| **Addressable and Unswitched Versions — 1 hour duration — Non-maintained — Two threaded cable entries with one blanking plug** | | |
| FDBAESLED*A<br>FDBAESLED*W | 8.1 (17.9) | 37.1 (2264.0) |
| **Addressable and Switched Versions — 1 hour duration — Non-maintained — One threaded cable entry** | | |
| FDBAESLED*A<br>FDBAESLED*W | 10.0 (22.0) | 40.4 (2465.4) |
| **Unswitched Version — 1 hour duration — Non-maintained — Two threaded cable entries with one blanking plug** | | |
| FDBAESLED*A | 8.1 (17.9) | 37.1 (2264.0) |
| **Switched Version — 1 hour duration — Non-maintained — One threaded cable entry** | | |
| FDBAESLED*W | 10.0 (22.0) | 40.4 (2465.4) |

# Signaling Labels

For Use with ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units

### Standard Materials

- Plastic coating
- White inscriptions
- Green background

### Compliances

- These signaling labels are compliant with:
  - — ERP security regulations (Article C0 42: clearing markings)
  - — The order of November 4, 1993 (Signage of workplace safety)
  - — Standard NF X 08-003: July 2006 (Colors and safety signs)
  - — EN 1838 European Standard, visible labels at a distance of 20 m
  - — EN ISO 7010 (2013)

**BAESLABEL200**

**BAESLABEL201**

| | Description | | Size in Millimeters (Inches) | Catalog Number |
|---|---|---|---|---|
| | Warning label, straight arrow | Adhesive and divisible | 327 x 109 (12.87 x 4.29) | **BAESLABEL200** |
| | Warning label, inclined arrow | Adhesive and divisible | 327 x 109 (12.87 x 4.29) | **BAESLABEL201** |

# EHLED Factory Sealed Handlamp

Explosionproof

Hazardous Locations

**NEC/CEC: Class I, Division 1 and 2, Groups C, D | NEMA 4X**

## Applications

- Very light weight explosionproof portable handlamp is perfect for tight spaces.
- It is suitable for use in a wide range of hazardous areas where ignitable vapors, dust, moisture and corrosive elements are present.
- Typical applications include:
  - — Tank inspection
  - — Hazardous maintenance areas
  - — Waste and sewage treatment facilities
  - — Fuel storage areas
  - — Paint manufacturing and storage areas
  - — Grain processing facilities
  - — Mining sites
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

## Features:

- Two versions available:
  - — Handlamp equipped with connection block, 12.8 mm (.503 in) cable clamp diameter for 14/3 AWG power cord
  - — Handlamp with a 50 ft SOOW 14/3 power cord and Appleton ECP Plug
- 9 Watt LED bulb, rated for enclosed spaces, provides 800 lumens of light output:

| Nominal Lumens | Incandescent Equivalent | Replacement Lamp Type | Model |
|---|---|---|---|
| 800 | 60W | A19 | EHLED |

- Heat- and impact-resistant glass globe.
- Features a phenolic handle, non-sparking guard and a swivel hook. The hook can be attached to a pipe up to 19 mm (3/4 in) in diameter for hands free operation.
- EHLED100N weighs only 1.8 kg (4.0 lbs) making it ideal for persons requiring task specific portable lighting.

**EHLED100N50P**

- Less than 127 mm (5 in) in diameter for ease of movement.
- Easy relamping with use of the tool kit (catalog number EHLEDTK).
- Safety grounding – remove cable and clamp and make connections to terminal (including one ground terminal) then tighten clamp.
- Ambient Temperature rating -20 °C to +40 °C (-4 °F to +104 °F).
- 1 year standard warranty.

## Standard Materials

- Globe: heat-and impact-resistant glass
- Fixture body and handle: laminated phenolic
- Handle: laminated phenolic
- Hook: brass
- Guard: copperfree aluminum
- Cable clamp: laminated phenolic

## Standard Finishes

- Guard: natural finish
- Hook: zinc electroplate and clear chromate

## NEC/CEC Certifications and Compliances

- UL Standard: UL 1598; UL 844; UL 153
- CSA Standard: CSA C22.2 No. 137; CSA C22.2 No 12
- cULus Listed: E59147

**Lumen Output (Efficacy)**

| Model | Incandescent Equivalency | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Output | Efficacy (lm/W) |
|---|---|---|---|---|---|
| EHLED | 60W | 5000K | 80 | 800 | 89 |

**Electrical Specifications** ①

| Model | Voltage | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|---|---|---|---|---|---|
| EHLED | 120 Vac | 9 | 0.1 | > .9 | < 38% |

**NEC/CEC Temperature Codes — Ambient Temperature Range: -20 °C to +40 °C (-4 °F to +104 °F)**

| Model | Ambient Temperature °C (°F) | Class I, Division 1, Groups C and D |
|---|---|---|
| EHLED | +40 (+104) | T3A |

**"T" Numbers Represent the Maximum Internal Temperature ② or Maximum Surface Temperature**

| "T" # | T1 | 350 | 325 | T2 | T2A | T2B | T2C | T2D | T3 | T3A | T3B | T3C | T4 | T4A | T5 | T6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp. Range °C (°F) | +351 to +450 (+664 to +842) | +326 to +350 (+619 to +662) | +301 to +325 (+574 to +617) | +281 to +300 (+538 to +572) | +261 to +280 (+502 to +536) | +231 to +260 (+448 to +500) | +216 to +230 (+421 to +446) | +201 to +215 (+394 to +419) | +181 to +200 (+358 to +392) | +166 to +180 (+331 to +356) | +161 to +165 (+322 to +329) | +136 to +160 (+277 to +320) | +121 to +135 (+250 to +275) | +101 to +120 (+214 to +248) | +86 to +100 (+187 to +212) | +85 (+185) |

*① All values are typical (tolerance +/-10%).*

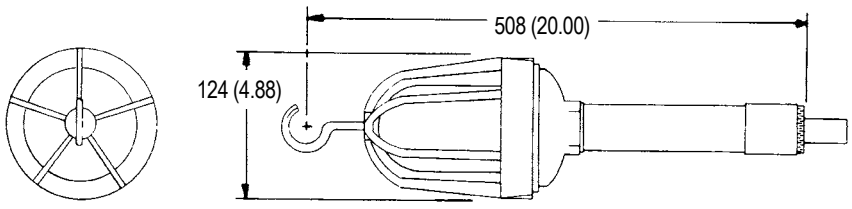
*② T numbers represent the maximum internal temperature for Class I, Division 1 and Class II, Division 1 locations designated by the NEC.*

# EHLED Factory Sealed Handlamp
Explosionproof

**NEC/CEC: Class I, Division 1 and 2, Groups C, D | NEMA 4X**

| | Description | Weight in kg (lb) | Catalog Number |
|---|---|---|---|
| **Explosionproof Portable Handlamp** | | | |
| | LED Handlamp with Laminated Phenolic Handle.<br>Wiring Connection Block takes #14 AWG Cable. | 2.03 (4.47) | **EHLED100N** |
| | LED Handlamp with Laminated Phenolic Handle.<br>50 foot SOOW 14/3 power cord with Appleton ECP Plug. | 5.67 (12.5) | **EHLED100N50P** |
| **Replacement Options** | | | |
| | Heat-resistant Glass Globe and Guard Assembly and Tool Kit | 1.79 (3.94) | **EHLEDTKG** |
| | EHLED Replacement LED Bulb and Tool Kit | 0.88 (1.94) | **EHLEDTKB** |
| | Tool Kit | 0.82 (1.8) | **EHLEDTK** |

**Dimensions in Millimeters (Inches)**
*EHLED100N use with 14/3 power cable; max diameter of 12.8 mm (0.50 in).*



# Temporary LED Worksite Lighting

Designed and Packaged for Quick Installation

Ordinary Locations

**NEC/CEC: Listed for Ordinary (Unclassified) Locations**

## Applications

- Suitable for use in a wide range of commercial and industrial areas where condensation and humidity may be present.
- Typical applications include:
  - — Commercial construction and renovation
  - — Industrial construction
  - — Maintenance rooms
  - — Storage spaces in commercial and institutional facilities
  - — Damp location rated
  - — Hydrogen and Biofuels plants
  - — LNG (Liquid Natural Gas) plants

## Features

- 110 lumens/watt.
- Cool, 5000K CCT (Correlated Color Temperature).
- 80 CRI (Color Rendering Index).
- Reported LED L70 of 54,000 hours at +25 °C (+77 °F).
- Operating Voltage: 120 Vac, 50/60 Hz.
- Maximum wattage of connected luminaires: 600 W (lighting loads only).
- Surge protection: 6 kV.
- Operating temperature: -30 °C (-22 °F) to +60 °C (+140 °F).
- Clear lens.
- Safety cable: 21.5 inches (546 mm).
- 6 foot cord (18 AWG SJT) with NEMA 5-15 plug.
- NEMA 5-15R Receptacle located in upper body allows for option to link lights together.
- No moving parts (no fan design).
- Heat dissipated through aluminum heat sinks, along with openings on bottom and top of unit.
- Compact size for easy handling.
- Lightweight and impact resistant design.
- Low profile fixture design keeps unit up and out of the way of activity below.
- Single durable package design makes it easier for distributors to stock and more organized for contractors on the job site.
- No lamps or drivers to replace. No replaceable components.

**100 Watt Clear Lens with Cord**

- No assembly required.
- 5 year standard warranty.

## Standard Materials

- Top and bottom of orange body made of high strength polycarbonate
- Aluminum heat sinks
- Painted white steel guard for impact protection

## OSHA Compliance

- Meets 5 Footcandle minimum illumination intensity for General Construction Area Lighting listed in Standard Number 1926.56
- Lighting simulation example: 100 foot by 100 foot room
  - — 30 foot mounting height: 12 – 100 W fixtures required with 25 foot by 30 foot fixture spacing
  - — 15 foot mounting height: 9 – 100 W fixtures required with 30 foot by 30 foot fixture spacing

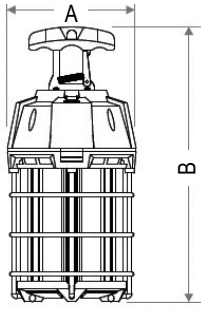
## NEC/CEC Certifications and Compliances

- UL Standard: UL 153
- CSA Standard: CSA-C.22.2 No. 250.4
- cULus Listed: E516961
- Suitable for damp locations

| HID Equivalency | Nominal Lumens | Wattage | Maximum Number of Connected Luminaires | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| 200 W | 7,200 | 60 W | 10 | 1.5 (3.2) | **TL60C** |
| 400 W | 12,000 | 100 W | 6 | 1.8 (4.0) | **TL100C** |
| 600 W | 18,000 | 150 W | 4 | 2.2 (4.9) | **TL150C** |

**Dimensions in Millimeters (Inches)**

| Catalog Number | A – Width | B – Height |
|---|---|---|
| TL60C | | 233 (9.17) |
| TL100C | 130 (5.12) | 278 (10.94) |
| TL150C | | 308 (12.13) |



# BKX Rigid Fixture Hangers

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**CEC: Class II, Division 1 and 2, Groups E, F, G | Class III, Enclosure 4**

## Applications

- Designed for suspension of lighting fixtures.

## Features

- Available in three depths.
- Accepts JB covers for ordinary location and AHG hangers for Class II hazardous locations.
- Maximum load: 23 kg (50 lbs).

## Standard Materials

- Gray iron and copperfree aluminum

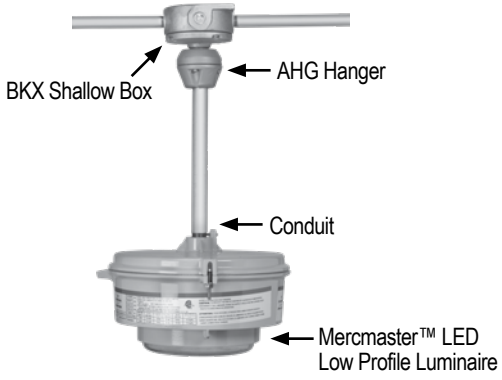
## CEC Certifications and Compliances

- CSA Standard: C22.2 No 18.1
- CSA Certified: 013017

**BKX Shallow Box**

**BKX Deep Box**

## Illustrated Features



# BKX Rigid Fixture Hangers

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**CEC: Class II, Division 1 and 2, Groups E, F, G | Class III, Enclosure 4**



**Ferrous Alloy Enclosure or Ferrous Alloy Enclosure Furnished with Gasketed Gray Iron Cover — Four Threaded Conduit Entries and 2 Close-Up Plugs**

| | Fixture Stem Size (Inches) | Hub Size (Inches) | Weight in kg (lbs) | Catalog Number Ferrous Alloy Enclosure | Weight in kg (lbs) | Catalog Number Ferrous Alloy Enclosure With Gray Iron Cover |
|---|---|---|---|---|---|---|
| **Shallow Box — 2-1/16" — 18.3 cubic inch (300 cc) capacity** | | | | | | |
| | 1/2 | 1/2 | 1.46 (3.22) | **BKXS-1** | 1.65 (3.63) | **BKXS-11** |
| | 1/2 | 3/4 | 1.46 (3.22) | **BKXS-2** | 1.65 (3.63) | **BKXS-21** |
| | 3/4 | 3/4 | 1.46 (3.22) | **BKXS-2** | 1.65 (3.63) | **BKXS-22** |
| **Medium Box — 2-11/16" — 26.2 cubic inch (430 cc) capacity** | | | | | | |
| | 1/2 | 1/2 | 1.77 (3.90) | **BKXM-1** | 1.96 (4.31) | **BKXM-11** |
| | 1/2 | 3/4 | 1.52 (3.35) | **BKXM-2** | 1.96 (4.31) | **BKXM-21** |
| | 1/2 | 1 | 1.59 (3.50) | **BKXM-3** | 1.96 (4.31) | **BKXM-31** |
| | 3/4 | 3/4 | 1.52 (3.35) | **BKXM-2** | 1.96 (4.31) | **BKXM-22** |
| | 3/4 | 1 | 1.59 (3.50) | **BKXM-3** | 1.96 (4.31) | **BKXM-32** |
| **Deep Box — 3-9/16" — 33.5 cubic inch (550 cc) capacity** | | | | | | |
| | 1/2 | 1/2 | 2.11 (4.65) | **BKXD-1** | 2.30 (5.06) | **BKXD-11** |
| | 1/2 | 3/4 | 2.11 (4.65) | **BKXD-2** | 2.30 (5.06) | **BKXD-21** |
| | 1/2 | 1 | 2.11 (4.65) | **BKXD-3** | 2.30 (5.06) | **BKXD-31** |
| | 3/4 | 3/4 | 2.11 (4.65) | **BKXD-2** | 2.30 (5.06) | **BKXD-22** |
| | 3/4 | 1 | 2.11 (4.65) | **BKXD-3** | 2.30 (5.06) | **BKXD-32** |
| **Covers with Gasket Attached** | | | | | | |
| | 1/2 | — | — | — | 0.43 (0.95) | **CBK-1G** |
| | 3/4 | — | — | — | 0.43 (0.95) | **CBK-2G** |

# BKX Rigid Fixture Hangers

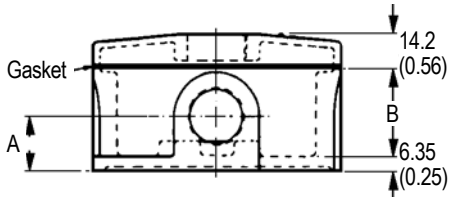
UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

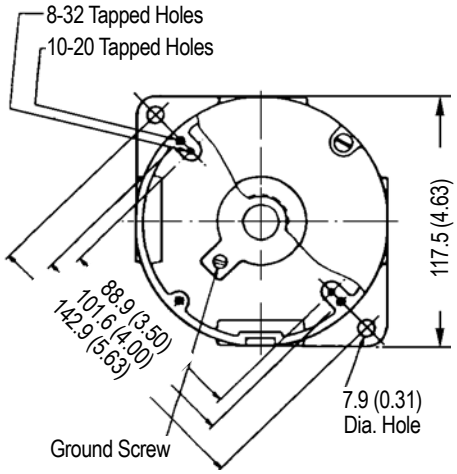
**CEC: Class II, Division 1 and 2, Groups E, F, G | Class III, Enclosure 4**

**Aluminium Enclosure or Aluminium Enclosure Furnished with Gasketed Aluminium Cover — Four Threaded Conduit Entries and 2 Close-Up Plugs**

| | Fixture Stem Size (Inches) | Hub Size (Inches) | Weight in kg (lbs) | Catalog Number Aluminium Enclosure | Weight in kg (lbs) | Catalog Number Aluminium Enclosure With Cover Aluminium |
|---|---|---|---|---|---|---|
| **Shallow Box — 2-1/16" — 18.3 cubic inch (300 cc) capacity** | | | | | | |
| | 1/2 | 1/2 | 0.46 (1.03) | **BKXS-1A** | 0.58 (1.3) | **BKXS-11A** |
| | 1/2 | 3/4 | 0.46 (1.03) | **BKXS-2A** | 0.58 (1.3) | **BKXS-21A** |
| | 3/4 | 3/4 | 0.46 (1.03) | **BKXS-2A** | 0.58 (1.3) | **BKXS-22A** |
| **Medium Box — 2-11/16" — 26.2 cubic inch (430 cc) capacity** | | | | | | |
| | 1/2 | 1/2 | 0.62 (1.36) | **BKXM-1A** | 0.74 (1.63) | **BKXM-11A** |
| | 1/2 | 3/4 | 0.62 (1.36) | **BKXM-2A** | 0.74 (1.63) | **BKXM-21A** |
| | 1/2 | 1 | 0.62 (1.36) | **BKXM-3A** | 0.74 (1.63) | **BKXM-31A** |
| | 3/4 | 3/4 | 0.62 (1.36) | **BKXM-2A** | 0.74 (1.63) | **BKXM-22A** |
| | 3/4 | 1 | 0.59 (1.29) | **BKXM-3A** | 0.74 (1.63) | **BKXM-32A** |
| **Deep Box — 3-9/16" — 33.5 cubic inch (550 cc) capacity** | | | | | | |
| | 1/2 | 1/2 | 0.84 (1.85) | **BKXD-1A** | 1.02 (2.25) | **BKXD-11A** |
| | 1/2 | 3/4 | 0.83 (1.83) | **BKXD-2A** | 1.02 (2.25) | **BKXD-21A** |
| | 1/2 | 1 | 0.83 (1.83) | **BKXD-3A** | 1.02 (2.25) | **BKXD-31A** |
| | 3/4 | 3/4 | 0.83 (1.83) | **BKXD-2A** | 1.02 (2.25) | **BKXD-22A** |
| | 3/4 | 1 | 0.83 (1.83) | **BKXD-3A** | 1.02 (2.25) | **BKXD-32A** |
| **Covers with Gasket Attached** | | | | | | |
| | 1/2 | — | — | — | 0.19 (0.42) | **CBK-1GA** |
| | 3/4 | — | — | — | 0.19 (0.42) | **CBK-2GA** |

**Dimensions in Millimeters (Inches) — BKX Enclosures**




| Catalog Number | A | B |
|---|---|---|
| BKXS | 23.0 (0.91) | 38.1 (1.50) |
| BKXM | 32.5 (1.28) | 57.2 (2.25) |
| BKXD | 32.5 (1.28) | 76.2 (3.00) |

# Fixture Hanger Bracket and Accessories

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**NEC/CEC: Rated for Ordinary (Unclassified) Locations**



## Applications

- Designed for suspension of lighting fixtures.

## Features

- Fixture hanger brackets are suitable for use with fixtures with 3/4-14 NPT conduit openings or hubs. Mounts directly to ceiling or wall separately from conduit system. Catalog number includes two brackets and two hexhead bolts.
- Safety support hooks and rigid support for dummy side of lighting fixtures comes as a complete assembly; includes two hooks and one rigid support. Each hook is supplied with a screw for closing 3/8" jaw opening. Rigid support straddles maximum 1-1/4" conduit. (Chain shown in installation view not furnished.)
- SLC steel locking couplings are designed for use on 3/4" fixture stems. They feature a setscrew with an Allen head that fastens on the outside of the hub and fixture stem. It is used to prevent a fixture stem from turning in a hub that is not normally supplied with setscrews. For use in Class I, Division 1 installations when combined with conduit bodies (without set screws in hubs) to meet requirements of NEC Article 501.130(A)(3).

## Standard Materials and Finishes

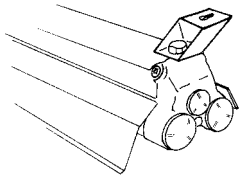
- Fixture hanger brackets iron with gray epoxy finish
- Safety support hook/rigid support: zinc electroplated malleable iron
- SLC steel locking couplings: steel with natural finish

**FHS1**

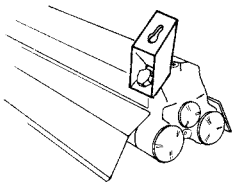
**AC-KT**

**SLC75**

## Illustrated Features



Ceiling mounted FHS1 fixture hanger bracket projects light downward (90°). Shown mounted to Appleton AH260-118 explosionproof fluorescent lighting fixture.



Wall mounted FHS1 fixture hanger bracket projects light at 45° angle. Shown mounted to Appleton AH260-118 explosionproof fluorescent lighting fixture.

AC-KT hook and rigid support Installation View
*(Chain shown in installation view not furnished)*

SLC locking coupling installation view.

# Fixture Hanger Bracket and Accessories

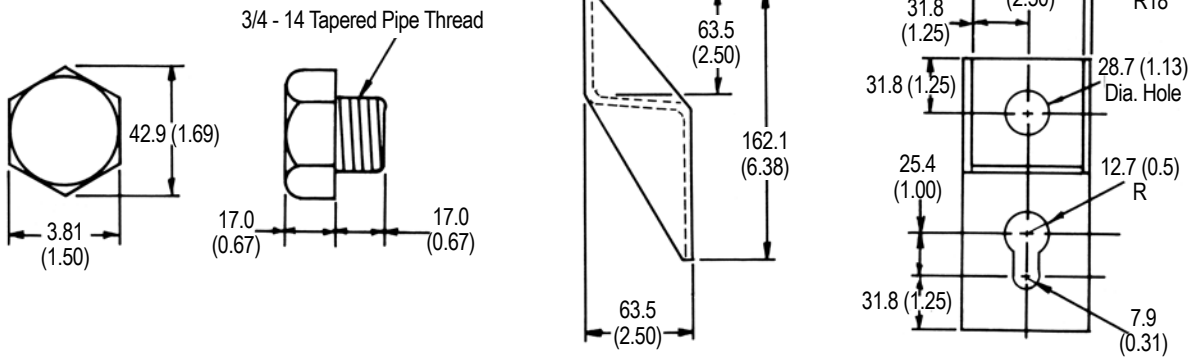
UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**NEC/CEC: Rated for Ordinary (Unclassified) Locations**

**Fixture Hanger Accessories**

| | Description | Support Weight in kg (lbs) | NPT Size (Inches) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| **Fixture Hanger Brackets** | | | | | |
| | Includes two brackets and two hexhead bolts | 90.0 (200) | 3/4 | 2.93 (6.45) | **FHS1** |
| **Safety Support Hooks and Rigid Support for Dummy Side of Lighting Fixtures** | | | | | |
| | Includes two hooks and one rigid support. | 40.0 (90.0) | 3/4 | 0.68 (1.50) | **AC-KT** |
| **SLC Steel Locking Couplings** | | | | | |
| | Includes two locking setscrews with Allen heads | — | 3/4 | 0.14 (0.30) | **SLC75** |
| | | — | 1 | 0.07 (0.16) | **SLC1075** |

**Dimensions in Millimeters (Inches) — FHS1 Fixture Hanger Bracket**



# GRTS Conduit Outlet Boxes for Stanchion Mounting Lighting

Explosionproof, Dust-Ignitionproof

UNILETS™ for use with Threaded Metal Conduit. Furnished with Internal Ground Screw and O-ring.

**NEC/CEC: Class I, Division 1 and 2, Groups B ◆, C, D | Class II, Division 1 and 2, Groups E, F, G | Class III | Class 1, Zone 1 and 2, IIA, IIB, IIB + H2 ◆ | NEMA 3, 4, 4X ① | IP66 (without drain)**



## Applications

- Ideally suited for stanchion mounted lighting.
- Can be used with conduit or cable infrastructures.

## Features

- T-configurations with large center 1-1/2" hub for direct stanchion pole mounting.
- Side hub entry options: 1-1/2" to cover most needs or 3/4" for most common conduit attachment.
- Unique mounting feet to provide extra support or when used with cable.
- Captive cover with aviation cable eliminates drop hazard.
- Standard O-rings provide raintight fit. NEMA 3, 4.
- Ambient temperature range:
  - — Without drain -40 °C to +60 °C (-40 °F to +170 °F).
  - — With drain -25 °C to +40 °C (-13 °F to 104 °F).

## Standard Materials

- Body: ductile iron or copperfree (4/10 of 1% max.) aluminum
- Cover: copperfree (4/10 of 1% max.) aluminum

## Standard Finishes

- Ductile iron bodies: triple coat — (1) zinc electroplate, (2) chromate, and (3) epoxy powder coat
- Aluminum bodies and covers: epoxy powder coat

**GRTS150**

**GRTS15075**

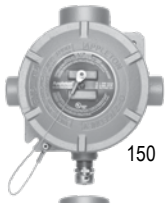
## Options

- Drain, see *Catalog Numbering Guide* for suffixes
- DIN Rail mounted terminal blocks, see *Catalog Numbering Guide* for suffixes

## NEC/CEC Certifications and Compliances

- UL Standard: UL 1203
- CSA Standard: C22.2 No. 25, C22.2 No. 30
- cULus Listed: E85310

## Illustrated Features



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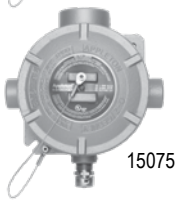


15075

**Unique hub designs** provide most common center hub 1-1/2" stanchion mount attachment with side hub variations for either: ultimate incoming trade size flexibility using adapters or most common 3/4" need, eliminating the need for adapters.

**Unique mounting feet design** for cable-fed infrastructures enables easier, more convenient assembly to Unistrut® or other surface mount locations.

**Drain option mount** eliminates costly fourth hub and reducers. Factory installed drain when specified. Mount location undrilled if no drain specified.

**DIN rail mounted terminal blocks** ② with 10 AWG capacity up to 12 pos., provide flexibility for most power, termination and splice needs. Covers lighting, and extras such as photocells, or continuing wire runs

**Cabled cover** prevents drop hazard when removing cover for maintenance.

### Catalog Numbering Guide — GRTS Options

*(Example Item: GRTS15075ADT12)*

| GRTS | 15075 | A | D | A |
|---|---|---|---|---|
| Series Prefix:<br>GRTS - T Style Stanchion Mount | Hub Configuration:<br>150 - 1-1/2" (Left, Center, Right)<br>15075 - 3/4" (Left), 1-1/2" (Center), 3/4" (Right) | Material:<br>Blank - Iron<br>A - Aluminum | Drain:<br>Blank - No drain<br>D - Drain | Terminal Block:<br>Blank - No terminal block<br>T6 - 6 Position<br>T12 - 12 Position |

◆ *In Class I, Division 1, Group B atmospheres, all conduit runs must have a sealing fitting (not supplied) field-installed adjacent to the enclosure.*

① *Aluminum body and cover only.*

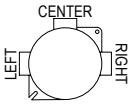
② *Terminal block is UL listed and CSA certified for 600 Volt, 30 Amp.*

# GRTS Conduit Outlet Boxes for Stanchion Mounting Lighting

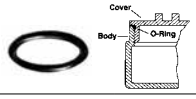
Explosionproof, Dust-Ignitionproof

UNILETS™ for use with Threaded Metal Conduit. Furnished with Internal Ground Screw and O-ring.

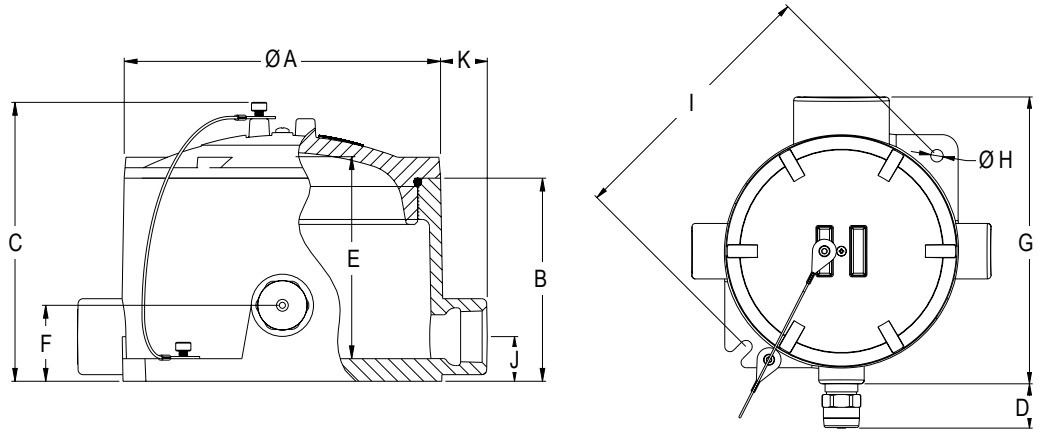
**NEC/CEC: Class I, Division 1 and 2, Groups B ◆, C, D | Class II, Division 1 and 2, Groups E, F, G | Class III | Class 1, Zone 1 and 2, IIA, IIB, IIB + H2 ◆ | NEMA 3, 4, 4X ① | IP66 (without drain)**

| | LEFT Hub Size in Inches | CENTER Hub Size in Inches | RIGHT Hub Size Inches | Cover Opening in mm (in) | Volume Capacity in $dm^3$ ($in^3$) | Weight in kg (lbs) | Catalog Number Ductile Iron Body with Aluminum Cover | Weight in kg (lbs) | Catalog Number Aluminum Body with Aluminum Cover |
|---|---|---|---|---|---|---|---|---|---|
|  | 1-1/2 | 1-1/2 | 1-1/2 | 123.95 (4.88) | 1.18 (72.0) | 4.51 (9.94) | **GRTS150** | 2.24 (4.94) | **GRTS150-A** |
| | 3/4 | 1-1/2 | 3/4 | 123.95 (4.88) | 1.18 (72.0) | 4.34 (9.56) | **GRTS15075** | 2.12 (4.68) | **GRTS15075-A** |

**Replacement Parts**

| | | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
|  | **O-ring—Buna-N**<br>Provides raintight fit | 0.045 (0.1) | **GRG-3** |
| | **Drain**<br>1/2" trade size | 0.079 (0.18) | **ECD50B4X** |
| | **Terminal Block—DIN Rail Mounted** ②<br>For use in GRTS boxes. Wire range of #26-#10 AWG. Mounts on two pre-drilled/tapped holes. | | |
| | • 6 Position | 0.09 (0.21) | **TBDIN06** |
| | • 12 Position | 0.20 (0.45) | **TBDIN12** |

**Dimensions in Millimeters (Inches)**




| Catalog Number | A | B | C | D | E | F | G | H | I | J 1-1/2" | J 3/4" | K 1-1/2" | K 3/4" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRTS150 / GRTS150-A | 146.1 (5.75) | 93.7 (3.69) | 128.7 (5.07) | 28.0 (1.10) | 93.2 (3.67) | 35.1 (1.38) | 181.5 (7.14) | 7.9 (0.31) | 170.6 (6.72) | 35.1 (1.38) | – | 24.2 (0.95) | – |
| GRTS15075 / GRTS15075-A | 146.1 (5.75) | 93.7 (3.69) | 128.7 (5.07) | 28.0 (1.10) | 93.2 (3.67) | 35.1 (1.38) | 181.5 (7.14) | 7.9 (0.31) | 170.6 (6.72) | 35.1 (1.38) | 20.6 (0.81) | 24.2 (0.95) | 21.6 (0.85) |

◆ *In Class I, Division 1, Group B atmospheres, all conduit runs must have a sealing fitting (not supplied) field-installed adjacent to the enclosure.*

① *Aluminum body and cover only.*

② *Terminal block is UL listed and CSA certified for 600 Volt, 30 Amp.*

# CPU and EFHU Fixture Hangers

Explosionproof, Dust-Ignitionproof

UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC: Class I, Division 1 and 2,Groups C, D | Class II, Division 1 and 2, Groups E, F, G | Class III**



## Applications

- For suspension of lighting fixtures in Class I, Class II, and Class III classified locations.
- Suitable for use in areas where moisture, dust and corrosive atmospheres are present.
- CPU and EFHU hangers have a smooth, rounded integral bushing in each hub to protect conductor insulation.

## Features

- Boxes have cast mounting lugs. Box and hub cover provide a complete assembly for suspending lighting fixtures in classified locations.
- CPU20 Hangers are used where fixture stem is less than 304.8 mm (12 in) long or with EXJF, ESD, or ESS where fixture stem is more than 304.8 mm (12 in) long.
- EFHU Flexible Hangers meet NEC Sec. 501 requirement for flexible suspension where fixture stem is more than 304.8 mm (12 in) long.
- Cushion design protects against vibration, and swivel action (any direction up to 15° from vertical) protects fixture if accidentally struck.
- EFHU Flexible Cushion Hangers available in two spring ranges to support fixture weights of 5.4 kg to 21.8 kg (12 to 48 lbs) and 21.8 kg to 54.4 kg (48 to 120 lbs).
- CB205 Connection Block available for connecting all wires without splices.
- Ground-joint mating surfaces assure flame-tight fit.
- Hanger has setscrew in stem hub to prevent fixture stem from turning.
- CPU and EFHU back box has 24 cubic inch capacity.

## Standard Materials

- CPU and EFHU: malleable iron
- EFHU flexible hanger: brass fixture stem hub assembly

## Standard Finishes

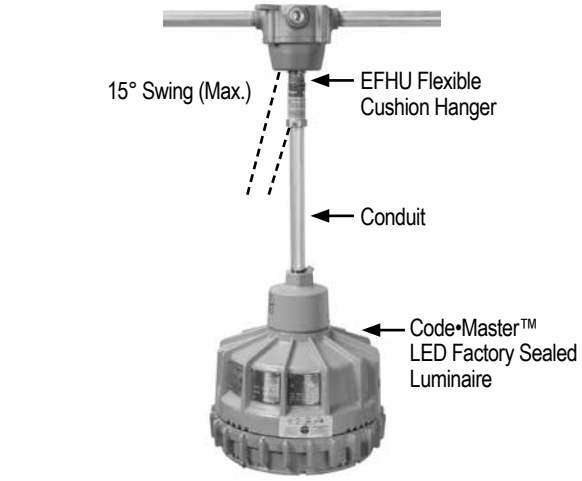
- CPU20 rigid fixture hangers body: triple coat – (1) zinc electroplate, (2) chromate, and (3) epoxy powder coat
- CPU20 rigid fixture hangers cover: zinc electroplate and clear chromate
- Separate CPU20 covers: zinc electroplate and clear chromate.
- EFHU flexible cushion fixture hangers: triple coat – (1) zinc electroplate, (2) chromate, and (3) epoxy powder coat

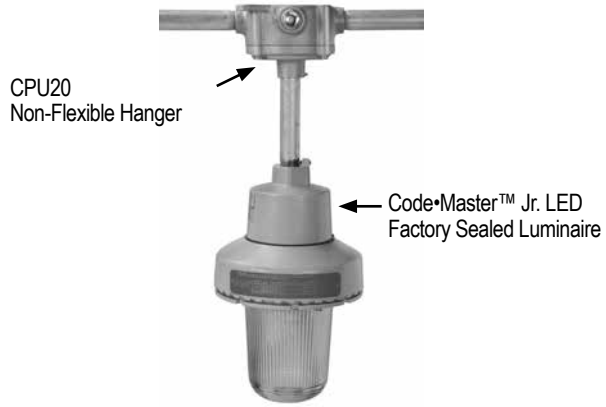
## NEC/CEC Certifications and Compliances

- UL Listed: E10444
- UL Standard: 1203
- CSA Certified EFHU: 025428
- CSA Certified CPU: 013107

**CPU** **EFHU**

## Illustrated Features



# CPU and EFHU Fixture Hangers

Explosionproof, Dust-Ignitionproof

UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC: Class I, Division 1 and 2,Groups C, D | Class II, Division 1 and 2, Groups E, F, G | Class III**

| | Support Weight in kg (lbs) | Conduit Size (Inches) | Fixture Stem Size (Inches) | Weight in kg (lbs) | NEC Catalog Number Malleable Iron | CEC Catalog Number Malleable Iron |
|---|---|---|---|---|---|---|
| **CPU Fixture Hangers — Non-Flexible Type — Form 20** | | | | | | |
| | Furnished with cast mounting lugs, four threaded universal 3/4" hubs, four 3/4" to 1/2" reducers, and three 1/2" close-up plugs. | | | | | |
| | 112.5 (250) | 1/2 or 3/4 | 1/2 | 2.72 (6.00) | **CPU20-50** | **CPU20-50CN** |
| | 112.5 (250) | 1/2 or 3/4 | 3/4 | 2.62 (5.78) | **CPU20-75** | **CPU20-75CN** |
| **EFHU Fixture Hangers — Flexible Cushion Type — Form 20** | | | | | | |
| | Furnished with cast mounting lugs, four threaded universal 3/4" hubs, four 3/4" to 1/2" reducers, and three 1/2" close-up plugs. | | | | | |
| | 5.4 to 21.6 (12 to 48) | 1/2 or 3/4 | 3/4 | 1.81 (4.00) | **EFHU75-48** | **EFHU75-48CN** |
| | 21.8 to 54.0 (48 to 120) | 1/2 or 3/4 | 3/4 | 3.67 (8.09) | **EFHU75-120** | **EFHU75-120CN** |
| **CPU Fixture Hanger Covers — Non-Flexible Type — Form 20** | | | | | | |
| | Furnished with screws. | | | | | |
| | 112.5 (250) | — | 1/2 | 0.91 (2.00) | **CPSK20-50** | **CPSK20-50CN** |
| | 112.5 (250) | — | 3/4 | 0.87 (1.92) | **CPSK20-75** | **CPSK20-75CN** |
| **EFHU Fixture Hanger Covers — Flexible Cushion Type — Form 20** | | | | | | |
| | Furnished with screws. 3/4" to 1/2" reducer supplied for 1/2" fixture stem. | | | | | |
| | 5.4 to 21.6 (12 to 48) | — | 3/4 | 2.72 (6.00) | **EFH75-48** | **EFH75-48CN** |
| | 21.8 to 54.0 (48 to 120) | — | 3/4 | 1.83 (4.03) | **EFH75-120** | **EFH75-120CN** |
| **CPU and EFHU Connection Block Accessory** | | | | | | |
| **CB205** **CB205CN** | Mounts directly to drilled and tapped pads in CPU and EFHU hangers. Phenolic, with fastening strap and mounting screws. | | | | | |
| | 5-Wire. 20-Amp, 300 V Max. | | | 0.08 (0.11) | **CB205** | **CB205CN** |

# CPU and EFHU Fixture Hangers

Explosionproof, Dust-Ignitionproof

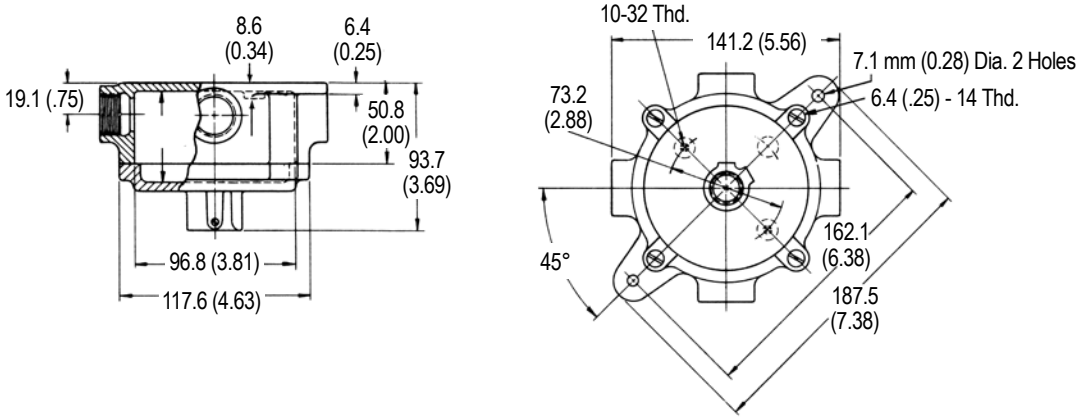
UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC: Class I, Division 1 and 2,Groups C, D | Class II, Division 1 and 2, Groups E, F, G | Class III**

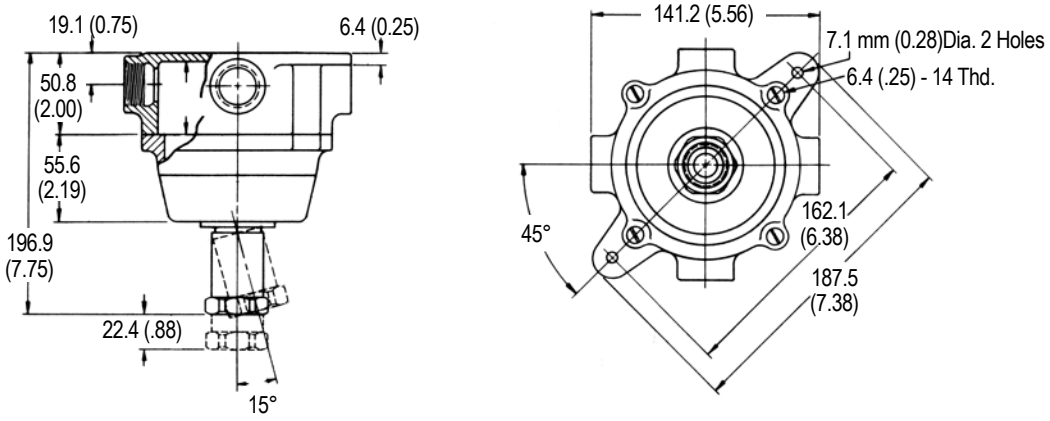


**Dimensions in Millimeters (Inches)**

**CPU50 and CPU75 Rigid Fixture Hanger**




**EFHU Flexible Cushion Fixture Hanger**



# Flexible Fixture Hangers, EXJF Couplings, ESD and ESS Swivels

Explosionproof, Dust-Ignitionproof

UNILETS™ for use with Threaded Metal Conduit. For Use with Rigid Fixture Hangers Where Fixture Stem is More Than 304.8 mm (12") Long.

**NEC/CEC: Class I, Division 1 and 2, Groups A, B, C, D | Class II, Division 1 and 2, Groups E, F, G | Class III**

## Applications

- For suspension of lighting fixtures in Class I, Class II, and Class III classified locations.
- Suitable for use in areas where moisture, dust and corrosive atmospheres are present.

## Features

- EXJF Hanger Coupling
  - — Meets NEC Sec. 501 requirement for flexible suspension where fixture stem is more than 304.8 mm (12 in) long.
  - — Watertight construction.
  - — Convenient method for attaching explosionproof lighting fixtures to non-flexible hangers.
  - — Allows free swing of lighting fixture in any direction. Absorbs shock, prevents damage to conduit and connections.
  - — Assures plumb hanging of fixture.
  - — Both end fittings are female with removable male close nipples. To make union end-coupling, remove nipple from either end and thread in a 1/2" or 3/4" UNY Union.
  - — Female end fittings have setscrews with screwdriver slot to allow locking of conduit. Prevents turning of fixture stem and nipple.
- ESS and ESD swivels for use with rigid fixture hangers where fixture stem is more than 304.8 mm (12 in) long.

## Standard Materials

- EXJF flexible hanger couplings: outer bronze braid, inner brass core with insulating liner and brass end fittings
- ESD and ESS swivels: malleable iron

## Standard Finishes

- EXJF flexible couplings: natural finish
- ESD and ESS swivels: triple coat – (1) zinc electroplate, (2) chromate, and (3) epoxy powder coat

## Options

- EXJF available in stainless steel, add -SS to catalog number.
- 1/2" thru 3/4" stainless steel nipple, add suffix -**NS** to catalog number.

## NEC/CEC Certifications and Compliances

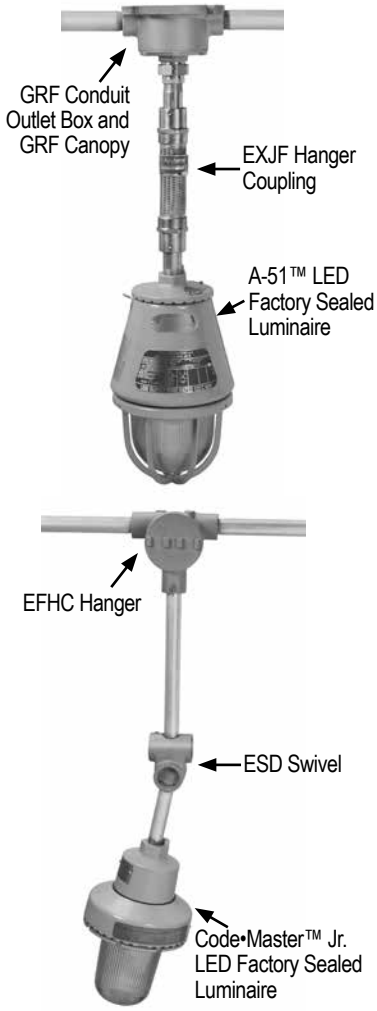
- UL Listed: E10444
- UL Standard: 1203
- CSA Certified: 065182

**EXJF**

**ESD**

**ESS**

## Illustrated Features



# Flexible Fixture Hangers, EXJF Couplings, ESD and ESS Swivels

Explosionproof, Dust-Ignitionproof

UNILETS™ for use with Threaded Metal Conduit. For Use with Rigid Fixture Hangers Where Fixture Stem is More Than 304.8 mm (12") Long.

**NEC/CEC: Class I, Division 1 and 2, Groups A, B, C, D | Class II, Division 1 and 2, Groups E, F, G | Class III**



**EXJF Flexible Fixture Hanger** ①

| Conduit Size (Inches) | Flexible Length in mm (in) | Overall Length in mm (in)) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|
| Raintight construction. Supplied with two female hubs, each with a removable close nipple. Can be used to make male to male, female to male or female to female. Setscrew with screwdriver slot allows locking of conduit—prevents fixture stem from turning. Maximum load 120 pounds. | | | | |
| 1/2 | 102 (4.00) | 276 (10.88) | 0.64 (1.40) | **EXJF14** |
| 3/4 | 102 (4.00) | 278 (10.94) | 0.88 (1.94) | **EXJF24** |
| 1/2 | 152 (6.00) | 327 (12.88) | 0.71 (1.56) | **EXJF16** |
| 3/4 | 152 (6.00) | 329 (12.94) | 0.98 (2.15) | **EXJF26** |
| 1/2 | 203 (8.00) | 329 (14.88) | 0.77 (1.69) | **EXJF18** |
| 3/4 | 203 (8.00) | 379 (14.94) | 1.10 (2.42) | **EXJF28** |
| 1/2 | 254 (10.00) | 429 (16.88) | 0.91 (2.00) | **EXJF110** |
| 3/4 | 254 (10.00) | 430 (16.94) | 1.12 (2.48) | **EXJF210** |
| 1/2 | 305 (12.00) | 480 (18.88) | 0.91 (2.00) | **EXJF112** |
| 3/4 | 305 (12.00) | 481 (18.94) | 1.23 (2.71) | **EXJF212** |
| 1/2 | 381 (15.00) | 556 (21.88) | 1.06 (2.34) | **EXJF115** |
| 3/4 | 381 (15.00) | 557 (21.94) | 1.45 (3.20) | **EXJF215** |
| 1/2 | 457 (18.00) | 632 (24.88) | 1.03 (2.27) | **EXJF118** |
| 3/4 | 457 (18.00) | 633 (24.94) | 1.94 (4.28) | **EXJF218** |

**Swivel Hangers — Setscrew with screwdriver slot allows locking of conduit — Prevents fixture stem from turning**

| Description | Size (Inches) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| **ESD Swivel** | | | |
| 15° swivel from center and full 360° free swing. | 1/2 | 1.63 (3.60) | **ESD50** ② |
| | 3/4 | 1.50 (3.30) | **ESD75** ② |
| **ESS Swivel** | | | |
| 15° swivel from center. | 1/2 | 0.91 (2.00) | **ESS50** ② |
| | 3/4 | 0.95 (2.10) | **ESS75** ② |

*① Available in stainless steel. Add suffix -SS to catalog number. Consult your local sales representative.*

*② Not CSA Certified.*

*♦ Shaded area indicates items suitable for Class I, Groups A and B in addition to Class I, Groups C and D; Class II, Groups E, F and G; and Class III.*

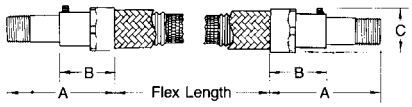
# Flexible Fixture Hangers, EXJF Couplings, ESD and ESS Swivels

## Explosionproof, Dust-Ignitionproof

UNILETS™ for use with Threaded Metal Conduit. For Use with Rigid Fixture Hangers Where Fixture Stem is More Than 304.8 mm (12") Long.

**NEC/CEC: Class I, Division 1 and 2, Groups A, B, C, D | Class II, Division 1 and 2, Groups E, F, G | Class III**

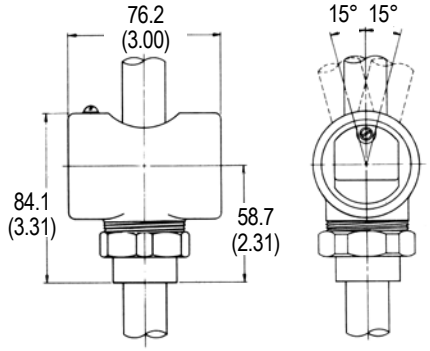
### Dimensions in Millimeters (Inches) — EXJF Flexible Fixture Hanger



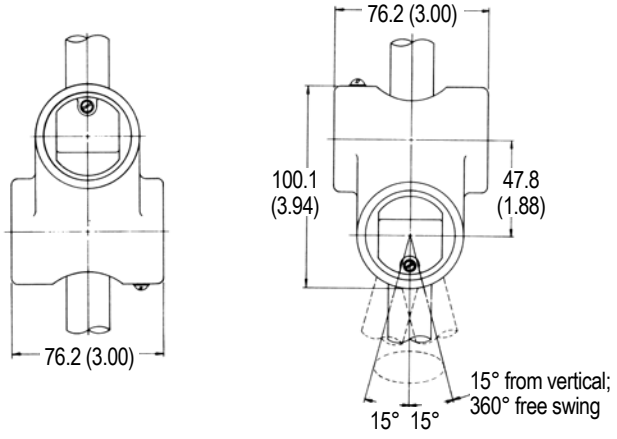

| Conduit Size (Inches) | A | B | C |
|---|---|---|---|
| 1/2 | 85.9 (3.38) | 47.8 (1.88) | 36.6 (1.44) |
| 3/4 | 85.9 (3.38) | 47.8 (1.88) | 44.5 (1.75) |

### Dimensions in Millimeters (Inches) — Swivel Hangers

**ESS Swivel**




**ESD Swivel**



# EFHC and EFHCA Fixture Hangers and Accessories

Explosionproof, Dust-Ignitionproof

UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC: Class I, Division 1 and 2, Groups A ①, B, C, D | Class II, Division 1 and 2, Groups E, F, G | Class III**



## Applications

- For suspension of lighting fixtures in Class I, Class II, and Class III classified locations.
- Suitable for use in areas where moisture, dust and corrosive atmospheres are present.
- EFHC and EFHCA hangers have a smooth, rounded integral bushing in each hub to protect conductor insulation.

## Features

- EFHC and EFHCA Fixture Hangers are used where fixture stem is less than 304.8 mm (12 in) long or with EXJF, ESD, or ESS where fixture stem is more than 304.8 mm (12 in) long.
- Raintight when used with O-Ring.
- Provided with threaded removable cover for convenience in pulling or splicing conductors.
- Mounting strap available for fastening EFHC or EFHCA to a mounting surface.
- EFHC and EFHCA come with O-ring.
- Replacement O-ring (EFHC and EFHCA): GRG-1.
- Replacement Cover (EFHC): GRK-1.

## Standard Materials

- EFHC and EFHCA fixture hanger body: malleable iron
- EFHC and EFHCA fixture cover: copperfree (4/10 of 1% max.) aluminum
- EFHC and EFHCA mounting strap: steel

## Standard Finishes

- EFHC and EFHCA fixture hanger body: triple coat – (1) zinc electroplate, (2) chromate, and (3) epoxy powder coat
- EFHC and EFHCA fixture hanger cover: epoxy powder coat
- EFHC/EFHCA mounting strap and LC locking coupling: zinc electroplate

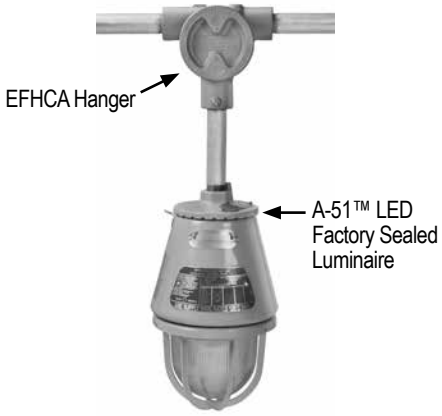
## NEC/CEC Certifications and Compliances

- UL Listed: E10444
- UL Standard: 1203
- CSA Certified EFHC: 025875
- CSA Certified EFHCA: 025428

**EFHC**

**EFHCA**

## Illustrated Features




① *Suitable for Class I, Groups A, B, C, D.*

# EFHC and EFHCA Fixture Hangers and Accessories

Explosionproof, Dust-Ignitionproof

UNILETS™ for use with Threaded Metal Conduit.

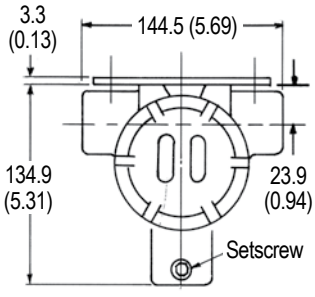
**NEC/CEC: Class I, Division 1 and 2, Groups A ①, B, C, D | Class II, Division 1 and 2, Groups E, F, G | Class III**

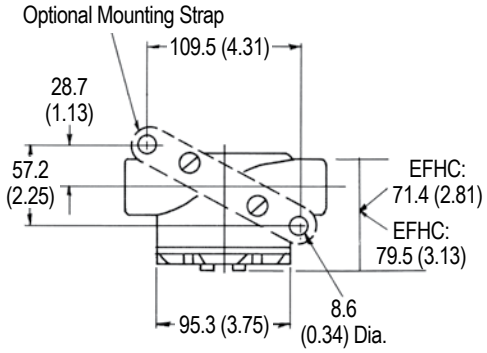
## Fixture Hangers

| | Certification | Conduit Size (Inches) | Fixture Stem Size (Inches) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| **EFHC — 18 cubic inch capacity** | | | | | |
| | Class I, Groups B ◆, C, D<br>Class II, Groups E, F, G<br>Class III | 3/4 | 1/2 | 1.77 (3.90) | **EFHC7550 ♦** |
| | | 3/4 | 3/4 | 1.72 (3.79) | **EFHC7575 ♦** |
| | | 1 | 3/4 | 1.66 (3.65) | **EFHC1075 ♦** |
| **EFHCA — 13.8 cubic inch capacity** | | | | | |
| | Class I, Groups A ①, B, C, D<br>Class II, Groups E, F, G<br>Class III | 3/4 | 1/2 | 1.75 (3.85) | **EFHCA7550** ① |
| | | 3/4 | 3/4 | 1.71 (3.77) | **EFHCA7575** ① |
| | | 1 | 3/4 | 1.70 (3.75) | **EFHCA1075** ① |
| **Steel Mounting Strap — For Fastening EFHC or EFHCA Fixture Hangers to a Mounting Surface** | | | | | |
| | | | | — | Add suffix -**S** |

## Dimensions in Millimeters (Inches)

### EFHCA and EFHC Fixture Hangers




① *Suitable for Class I, Groups A, B, C and D.*

◆ *Shaded area indicates items suitable for Class I, Groups B, C and D; Class II, Groups E, F and G; and Class III. Sealing fitting must be installed adjacent to enclosure for all conduits for Group B location (EFHC Series).*

# GRF Conduit Outlet Boxes and Fixture Hanger Covers and Canopies

Explosionproof, Dust-Ignitionproof

UNILETS™ for use with Threaded Metal Conduit.

**NEC/CEC: Class I, Division 1 and 2, Groups C, D | Class II, Division 1 and 2, Groups E, F, G | Class III**

## Applications

- For suspension of lighting fixtures in Class I, Class II, and Class III classified locations.
- Suitable for use in areas where moisture, dust and corrosive atmospheres are present.
- GRF conduit outlet boxes have a smooth, rounded integral bushing in each hub to protect conductor insulation.

## Features

- GRF conduit outlet box with fixture hanger canopy or cover is used where fixture stem is less than 304.8 mm (12 in) long or with EXJF, ESD, or ESS where fixture stem is more than 304.8 mm (12 in) long.
- Raintight when used with O-Ring; order GRG-1.
- For use with hub cover or canopy. Canopy has threaded cover opening for convenience in splicing conductors.
- Cover and canopy hubs have set-screws with screwdriver slots to allow locking of conduit. Prevents fixture stem from turning.
- Maximum load: 22.7 kg (50 lbs).

## Standard Materials

- Malleable iron or copperfree (4/10 of 1% max.) aluminum

## Standard Finishes

- Bodies: triple coat – (1) zinc electroplate; (2) chromate, and (3) epoxy powder coat
- Covers and canopies: zinc electroplate and clear chromate

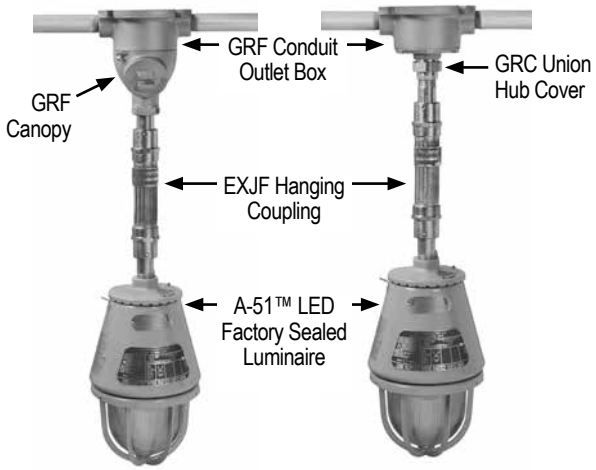
## NEC/CEC Certifications and Compliances

- UL Standard: 1203
- CSA Certified: 025875
- UL Listed: E85310, E10444

**GRFC**

**GRF Canopy**

**Illustrated Features**




**GRF Flanged Conduit Outlet Boxes — 18 cubic inch capacity — Form 1, Less Cover — For Use with GRF Canopies and Covers Below**

Nominal diameter of cover opening is 3-3/8" — Furnished with threaded hubs and ground screw — Flange has four 3/8" mounting slots

| | Conduit Size (Inches) | Weight in kg (lbs) | NEC Catalog Number Malleable Iron | CEC Catalog Number Malleable Iron | Weight in kg (lbs) | CEC Catalog Number Aluminum |
|---|---|---|---|---|---|---|
| | 1/2 | 1.81 (4.00) | **GRFC-50LC** | **GRFC-50LCCN** | — | — |
| | 3/4 | 1.48 (3.27) | **GRFC-75LC** | **GRFC-75LCCN** | — | — |
| | 1 | 1.59 (3.50) | **GRFC-100LC** | **GRFC-100LCCN** | — | — |
| | 1/2 | 1.70 (3.75) | **GRFL-50LC** | **GRFL-50LCCN** | — | — |
| | 3/4 | 1.59 (3.50) | **GRFL-75LC** | **GRFL-75LCCN** | — | — |
| | 1 | 1.56 (3.45) | **GRFL-100LC** | **GRFL-100LCCN** | — | — |
| | 1/2 | 1.81 (4.00) | **GRFT-50LC** | **GRFT-50LCCN** | — | — |
| | 3/4 | 1.61 (3.55) | **GRFT-75LC** | **GRFT-75LCCN** | — | — |
| | 1 | 1.59 (3.50) | **GRFT-100LC** | **GRFT-100LCCN** | — | — |
| | 1/2 | 1.95 (4.30) | **GRFX-50LC** | **GRFX-50LCCN** | 1.95 (4.30) | **GRFX-50ALCCN** |
| | 3/4 | 1.63 (3.60) | **GRFX-75LC** | **GRFX-75LCCN** | 1.63 (3.60) | **GRFX-75ALCCN** |
| | 1 | 1.52 (3.35) | **GRFX-100LC** | **GRFX-100LCN** | — | — |

# GRF Conduit Outlet Boxes and Fixture Hanger Covers and Canopies

Explosionproof, Dust-Ignitionproof

UNILETS™ for use with Threaded Metal Conduit.

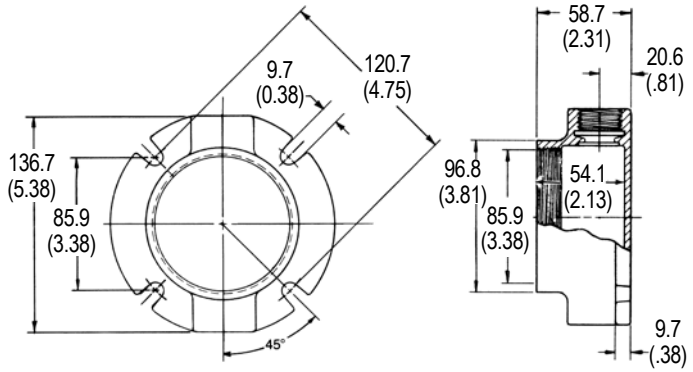
**NEC/CEC: Class I, Division 1 and 2, Groups C, D | Class II, Division 1 and 2, Groups E, F, G | Class III**

**Accessories**

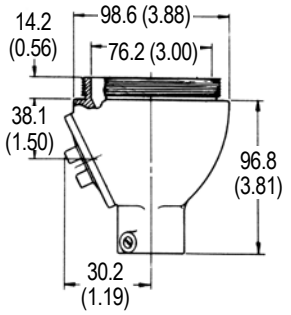
| | Description | Fixture Stem Size (Inches) | Weight in kg (lbs) | NEC Catalog Number Malleable Iron | CEC Catalog Number Malleable Iron | Weight in kg (lbs) | CEC Catalog Number Aluminum |
|---|---|---|---|---|---|---|---|
| **GRF Fixture Covers – Form 1** Furnished with external threads for attachment to GRF mounting box above | | | | | | | |
| | Threaded Hub Cover | 1/2 | 0.91 (2.00) | **GRK-50** | **GRK-50CN** | 0.91 (2.00) | **GRK-50A** |
| | | 3/4 | 0.57 (1.25) | **APPGRK-75** | **GRK-75CN** | 0.57 (1.25) | **GRK-75A** |
| | Union Hub Cover | 3/4 | 0.62 (1.37) | **GRK-75U** | **GRK-75UCN** | 0.62 (1.37) | **GRK-75UA** |
| **GRF Fixture Canopies – Canopy Length 4-1/2" — 16 Cubic Inches — Form 1** Furnished with external threads for attachment to GRF mounting box above — Threaded cover opening on side for convenience in splicing | | | | | | | |
| | Class I, Group D | 1/2 | 1.16 (2.56) | **GRK-50C** | **GRK-50CCN** | 1.16 (2.56) | — |
| | | 3/4 | 1.08 (2.38) | **GRK-75C** | **GRK-75CCN** | 1.08 (2.38) | — |
| | | 1 | 1.18 (2.60) | **GRK-100C** | **GRK-100CCN** | 1.18 (2.60) | — |
| **GRTB Terminal Strip** | | | | | | | |
| | For use in standard GR series boxes Weidmuller Type MK terminal block with wire range of #22-#12 AWG. Mounts on 2 pre-drilled and tapped standard holes (furnished in internal GR boxes). Terminal block is UL listed for 300 Volt, 25 Amp. CSA certified for 300 Volt, 13 Amp. | | | | | | |
| | 6 position terminal block kit | | 0.06 (0.14) | **GRTB6-12** | — | — | — |

**Dimensions in Millimeters (Inches)**

**GRF Conduit Outlet Box**




**GRF Canopy**



# AHG and UNJ Flexible Fixture Hangers

Ball Type.:15° Swing. Cushion Type: 8° Swing

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**CEC - AHG: Class II, Division 1 and 2, Groups E, F, G | Class III**
**CEC – UNJ: CSA Certified for Ordinary Locations**
**NEC – AHG: Suitable for use in Ordinary Locations**



## Applications

- Designed for suspension of lighting fixtures.

## Features

- All hangers
  - — All fixture hangers protect fixture against wind and vibration damage.
  - — Cushion type for added protection where lighting fixtures are subjected to vibration.
- AHG hangers
  - — Enclosed and gasketed; ideal where dust and dampness are present.
  - — Neoprene diaphragm keeps moisture and dirt out of system.
  - — Cushion type permits 8° swing from vertical.
  - — CSA Certified for Class II locations.
- UNJ hangers
  - — Economical general purpose hanger.
  - — Permits 15° swing.

## Standard Materials

- AHG fixture hangers: malleable iron
- UNJ fixture hangers: malleable iron and steel

## Standard Finishes

- AHG: triple coat — (1) zinc electroplate, (2) chromate, and (3) epoxy powder coat
- UNJ: malleable iron and steel parts, zinc electroplate and clear chromate

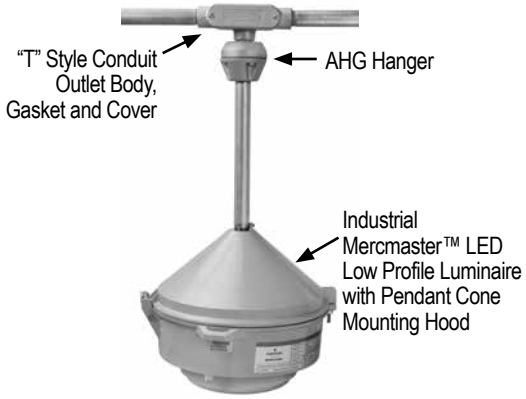
## NEC/CEC Certifications and Compliances

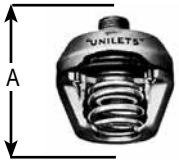
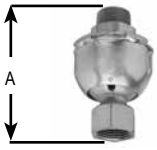
- CSA Certified: 065180 (UNJ), 025428 (AHG)
- UL Listed: E109438 (AHG)

**AHG7575**

**UNJ-75**

## Illustrated Features




| | Support Weight in kg (lbs) | Fixture Stem Size (Inches) | Male Nipple Size (Inches) | Length A in mm (in) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|---|
| **AHG Fixture Hangers — Cushion Type — Enclosed and Gasketed** | | | | | | |
|  | 18 (40) | 1/2 | 1/2 | 81.0 (3.19) | 0.91 (2.00) | **AHG5050** |
| | | 1/2 | 3/4 | 81.0 (3.19) | 0.82 (1.80) | **AHG7550** |
| | | 3/4 | 3/4 | 81.0 (3.19) | 0.73 (1.61) | **AHG7575** |
| **UNJ Fixture Hangers — Ball Type — Malleable Iron and Steel** | | | | | | |
|  | 54 (120) | 1/2 | 1/2 | 101.6 (4.00) | 0.36 (0.80) | **UNJ-50** |
| | | 3/4 | 3/4 | 101.6 (4.00) | 0.37 (0.87) | **UNJ-75** |

# AL Ball and Cushion Flexible Fixture Hangers

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC. Ball Joint Permits 20° Swing.

**NEC: Listed for Ordinary (Unclassified) Locations**



## Applications

- Designed for suspension of lighting fixtures.
- Functions as combination conduit outlet box and hanger.

## Features

- Protects fixture against wind and vibration damage.
- Cushion type for added protection where lighting fixtures are subjected to vibration.
- Dual function—conduit outlet box and fixture hanger.
- Choice of ball or cushion type.
- Swivel joint construction—allows 20° swing from vertical.
- Cushion style, with conical spring, supports up to 54 kg (120 lbs).
- Cushion type has setscrew for locking fixture stem.
- Fixture and hanger stem can be wired at work bench.

## Standard Materials

- Malleable iron with steel cover

## Standard Finishes

- Malleable iron parts: triple coat — (1) zinc electroplate, (2) chromate, and (3) epoxy powder coat
- Steel parts: zinc electroplate

## NEC Certifications and Compliances

- UL Listed: E109438

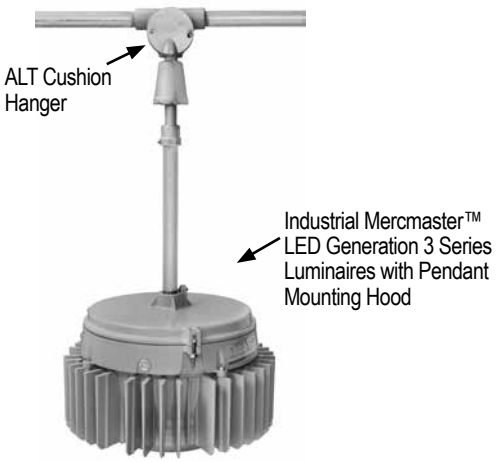
**ALA — Ball Hanger**

**ALC — Ball Hanger**

**ALL — Cushion Hanger**

**ALT — Cushion Hanger**

## Illustrated Features



# AL Ball and Cushion Flexible Fixture Hangers

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC. Ball Joint Permits 20° Swing.

**NEC: Listed for Ordinary (Unclassified) Locations**



| | Support Weight in kg (lbs) | Conduit Size (Inches) | Fixture Stem Size (Inches) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| **ALA — Ball Hanger — Single side entry** | | | | | |
| | 112.5 (250) | 1/2 | 1/2 | 0.63 (1.39) | **ALA50-B** |
| | | 3/4 | 1/2 | 0.72 (1.59) | **ALA7550-B** |
| | 112.5 (250) | 3/4 | 3/4 | 0.70 (1.54) | **ALA75-B** |
| **ALA — Cushion Hanger — Furnished with a 3/4" to 1/2" reducer for 1/2" stems — Single side entry** | | | | | |
| | 1.4 to 5.4 (3 to 12) | 1/2 | 3/4 or 1/2 | 1.07 (2.36) | **ALA50-12** |
| | | 3/4 | 3/4 or 1/2 | 1.16 (2.56) | **ALA7575-12** |
| | 5.4 to 21.6 (12 to 48) | 1/2 | 3/4 or 1/2 | 1.14 (2.52) | **ALA50-48** |
| | | 3/4 | 3/4 or 1/2 | 1.23 (2.72) | **ALA7575-48** |
| | 21.6 to 54.0 (48 to 120) | 1/2 | 3/4 or 1/2 | 1.26 (2.78) | **ALA50-120** |
| | | 3/4 | 3/4 or 1/2 | 1.35 (2.98) | **ALA7575-120** |
| **ALC — Ball Hanger — Feed-thru — Two side entries** | | | | | |
| | 112.5 (250) | 1/2 | 1/2 | 0.68 (1.50) | **ALC50-B** |
| | | 3/4 | 1/2 | 0.68 (1.50) | **ALC7550-B** |
| | | 1 | 1/2 | 0.80 (1.76) | **ALC1050-B** |
| | 112.5 (250) | 3/4 | 3/4 | 0.66 (1.45) | **ALC75-B** |
| | | 1 | 3/4 | 0.78 (1.71) | **ALC1075-B** |
| **ALC — Cushion Hanger — Furnished with a 3/4" to 1/2" reducer for 1/2" stems — Feed-thru — Two side entries** | | | | | |
| | 1.4 to 5.4 (3 to 12) | 1/2 | 3/4 or 1/2 | 1.12 (2.47) | **ALC50-12** |
| | | 3/4 | 3/4 or 1/2 | 1.12 (2.47) | **ALC7575-12** |
| | | 1 | 3/4 or 1/2 | 1.24 (2.73) | **ALC1075-12** |
| | 5.4 to 21.6 (12 to 48) | 1/2 | 3/4 or 1/2 | 1.19 (2.63) | **ALC50-48** |
| | | 3/4 | 3/4 or 1/2 | 1.19 (2.63) | **ALC7575-48** |
| | | 1 | 3/4 or 1/2 | 1.31 (2.89) | **ALC1075-48** |
| | 21.6 to 54.0 (48 to 120) | 1/2 | 3/4 or 1/2 | 1.31 (2.89) | **ALC50-120** |
| | | 3/4 | 3/4 or 1/2 | 1.31 (2.89) | **ALC7575-120** |
| | | 1 | 3/4 or 1/2 | 1.43 (3.15) | **ALC1075-120** |

# AL Ball and Cushion Flexible Fixture Hangers

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC. Ball Joint Permits 20° Swing.

**NEC: Listed for Ordinary (Unclassified) Locations**



| | Support Weight in kg (lbs) | Conduit Size (Inches) | Fixture Stem Size (Inches) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| **ALL — Ball Hanger — One side entry and one rear entry** | | | | | |
| | 112.5 (250) | 1/2 | 1/2 | 0.63 (1.39) | **ALL50-B** |
| | | 3/4 | 1/2 | 0.68 (1.51) | **ALL7550-B** |
| | 112.5 (250) | 3/4 | 3/4 | 0.66 (1.46) | **ALL75-B** |
| **ALL — Cushion Hanger — Furnished with a 3/4" to 1/2" reducer for 1/2" stems — One side entry and one rear entry** | | | | | |
| | 1.4 to 5.4 (3 to 12) | 1/2 | 3/4 or 1/2 | 1.07 (2.36) | **ALL50-12** |
| | | 3/4 | 3/4 or 1/2 | 1.12 (2.48) | **ALL7575-12** |
| | 5.4 to 21.6 (12 to 48) | 1/2 | 3/4 or 1/2 | 1.14 (2.52) | **ALL50-48** |
| | | 3/4 | 3/4 or 1/2 | 1.20 (2.64) | **ALL7575-48** |
| | 21.6 to 54 (48 to 120) | 1/2 | 3/4 or 1/2 | 1.26 (2.78) | **ALL50-120** |
| | | 3/4 | 3/4 or 1/2 | 1.32 (2.90) | **ALL7575-120** |
| **ALT — Ball Hanger — Two side entries and one rear entry** | | | | | |
| | 112.5 (250) | 1/2 | 1/2 | 0.70 (1.55) | **ALT50-B** |
| | | 3/4 | 1/2 | 0.77 (1.69) | **ALT7550-B** |
| | | 1 | 1/2 | 0.91 (2.01) | **ALT1050-B** |
| | 112.5 (250) | 3/4 | 3/4 | 0.74 (1.64) | **ALT75-B** |
| | | 1 | 3/4 | 0.88 (1.96) | **ALT1075-B** |
| **ALT — Cushion Hanger — Furnished with a 3/4" to 1/2" reducer for 1/2" stems — Two side entries and one rear entry** | | | | | |
| | 1.4 to 5.4 (3 to 12) | 1/2 | 3/4 or 1/2 | 1.14 (2.52) | **ALT50-12** |
| | | 3/4 | 3/4 or 1/2 | 1.21 (2.66) | **ALT7575-12** |
| | | 1 | 3/4 or 1/2 | 1.35 (2.98) | **ALT1075-12** |
| | 5.4 to 21.6 (12 to 48) | 1/2 | 3/4 or 1/2 | 1.22 (2.68) | **ALT50-48** |
| | | 3/4 | 3/4 or 1/2 | 1.28 (2.82) | **ALT7575-48** |
| | | 1 | 3/4 or 1/2 | 1.42 (3.14) | **ALT1075-48** |
| | 21.6 to 54 (48 to 120) | 1/2 | 3/4 or 1/2 | 1.33 (2.94) | **ALT50-120** |
| | | 3/4 | 3/4 or 1/2 | 1.40 (3.08) | **ALT7575-120** |
| | | 1 | 3/4 or 1/2 | 1.54 (3.40) | **ALT1075-120** |

# AL Ball and Cushion Flexible Fixture Hangers

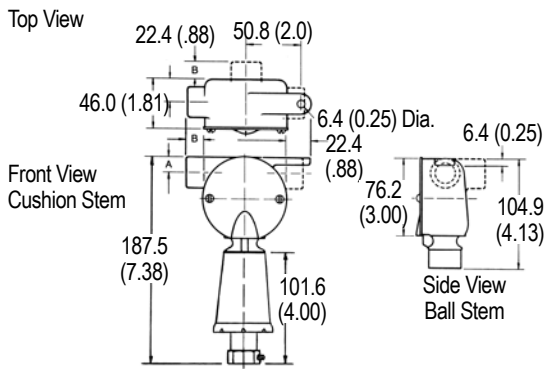
UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC. Ball Joint Permits 20° Swing.

**NEC: Listed for Ordinary (Unclassified) Locations**



| | Support Weight in kg (lbs) | Conduit Size (Inches) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|
| **ALA — Hanger Bodies** | | | | |
| | (Refer to Cushion and Ball Fixture Stems Below) | 1/2 | 0.49 (1.08) | **ALA50** |
| | | 3/4 | 0.58 (1.28) | **ALA75** |
| **ALC — Hanger Bodies** | | | | |
| | (Refer to Cushion and Ball Fixture Stems Below) | 1/2 | 0.54 (1.19) | **ALC50** |
| | | 3/4 | 0.54 (1.19) | **ALC75** |
| | | 1 | 0.66 (1.45) | **ALC100** |
| **ALL — Hanger Bodies** | | | | |
| | (Refer to Cushion and Ball Fixture Stems Below) | 1/2 | 0.49 (1.08) | **ALL50** |
| | | 3/4 | 0.54 (1.20) | **ALL75** |
| **ALT — Hanger Bodies** | | | | |
| | (Refer to Cushion and Ball Fixture Stems Below) | 1/2 | 0.56 (1.24) | **ALT50** |
| | | 3/4 | 0.63 (1.38) | **ALT75** |
| | | 1 | 0.77 (1.70) | **ALT100** |
| **AL — Ball Fixture Stem** | | | | |
| | 112.5 (250) | 1/2 | 0.14 (0.31) | **BJ50** |
| | | 3/4 | 0.12 (0.26) | **BJ75** |
| **AL — Cushion Fixture Stems**<br>Fixture stem tapped for 3/4"; 3/4" to 1/2" reducer furnished for 1/2" stems. With setscrew for locking fixture stem. | | | | |
| | 1.4-5.4 (3-12) | 3/4 or 1/2 | 0.58 (1.28) | **CJC75-12** |
| | 5.4-21.6 (12-48) | 3/4 or 1/2 | 0.65 (1.44) | **CJC75-48** |
| | 21.6-54.0 (48-120) | 3/4 or 1/2 | 0.77 (1.70) | **CJC75-120** |

**AL Fixture Hanger Dimensions — Millimeters (Inches)**




| Conduit Size (Inches) | Dimensions in Millimeters (Inches) A | B |
|---|---|---|
| 1/2" | 4.2 (0.56) | 17.5 (0.69) |
| 3/4" | 17.5 (0.69) | 17.5 (0.69) |
| 1" | 22.4 (0.88) | 20.6 (0.81) |

# JB and GS Flexible Fixture Hangers

Ball Type, 15° Swing; Cushion Type, 8° Swing

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**NEC/CEC: Listed for Ordinary (Unclassified) Locations**



## Applications

- Designed for suspension of lighting fixtures
- JB and GS cushion hangers are enclosed and gasketed—ideal where dust and dampness are present.
- JB and GS hangers designed for use with JB and GS boxes.

## Features

- All hangers
  - — All fixture hangers protect fixture against wind and vibration damage.
  - — Cushion type for added protection where lighting fixtures are subjected to vibration.
- JB and GS hangers
  - — Mount directly to JB and GS cast conduit outlet boxes.
  - — Choice of ball or cushion type.
  - — Ball type permits 15° swing, cushion type 8° swing from vertical
  - — Cushion type is enclosed and gasketed.

## Standard Materials

- Malleable iron

## Standard Finishes

- GS: triple coat — (1) zinc electroplate, (2) chromate, and (3) epoxy powder coat
- JB series support: zinc electroplate and clear chromate

## NEC/CEC Certifications and Compliances

- JB and GS cushion type hangers suitable for classified location use in Class I, Division 2 areas, if installed in compliance with NEC 501.130(B)
- CSA Certified JBK: 065180
- UL Listed: E109438

## Related Products

- JB Conduit Outlet Boxes, Covers and Hangers
- GS Conduit Outlet Boxes, Covers and Hangers

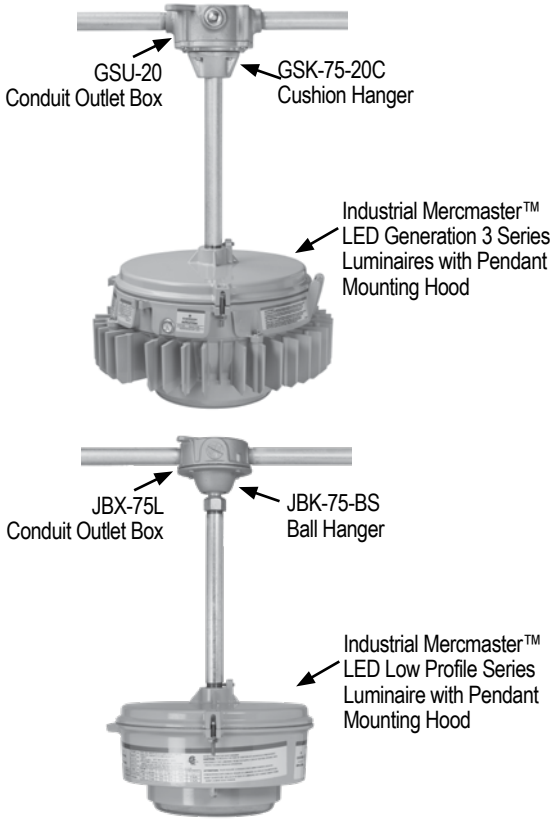
**JBK-75-BS**

**JBK-75-CS**

**GSK-75-20B**

**GSK-75-20C**

## Illustrated Features



# JB and GS Flexible Fixture Hangers

Ball Type, 15° Swing; Cushion Type, 8° Swing

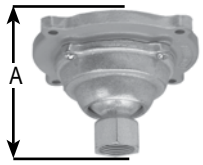
UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**NEC/CEC: Listed for Ordinary (Unclassified) Locations**



| | | Support Weight in kg (lbs) | Fixture Stem Size (Inches) | Length A mm (in) | Weight in kg (lbs) | Catalog Number Malleable Iron |
|---|---|---|---|---|---|---|
| **JB—Fixture Hanger Covers — For use with JBX, JBDX and JBLX bodies — Furnished with gasket and screws** | | | | | | |
| | **Ball Type** | 113 (250) | 1/2 | 65.0 (2.56) | 0.62 (1.37) | **JBK-50-BS** |
| | | | 3/4 | 65.0 (2.56) | 0.55 (1.22) | **JBK-75-BS** |
| | **Cushion Type — Enclosed and gasketed. Cushions 18.0 kg. (40 lbs.)** | 18 (40) | 1/2 | 41.4 (1.63) | 0.77 (1.70) | **JBK-50-CS** |
| | | | 3/4 | 41.4 (1.63) | 0.67 (1.47) | **JBK-75-CS** |

| | Conduit Size (Inches) | Depth in Millimeters (Inches) (A) | Weight in kg (lbs) | Catalog Number Malleable Iron | Weight in kg (lbs) | Catalog Number Aluminum |
|---|---|---|---|---|---|---|
| **Cast Covers — Furnished with screws — When used with gasket provides raintight fit, supports 113.4 kg (250 lb)** | | | | | | |
| | 1/2 | 20.0 (0.75) | 0.44 (0.97) | **JBK-50** | 0.16 (0.36) | **JBK-50-A** |
| | 3/4 | 23.9 (0.94) | 0.49 (1.09) | **JBK-75** | 0.18 (0.40) | **JBK-75-A** |
| **Gasket — Neoprene** | | | | | | |
| | — | — | 0.01 (0.20) | **JB-GK-N** | 0.01 (0.20) | **JB-GK-N** |

| | | Support Weight in kg (lbs) | Fixture Stem Size (Inches) | Length A mm (in) | Weight in kg (lbs) | Catalog Number Malleable Iron |
|---|---|---|---|---|---|---|
| **GS—Fixture Hanger Covers (Form 20) — For use with GS and GSU bodies — Furnished with gasket and screws** | | | | | | |
|  | **Ball Type** | 113.0 (250.00) | 1/2 | 76.2 (3.00) | 0.89 (1.97) | **GSK-50-20B** |
| | | | 3/4 | 82.6 (3.25) | 0.89 (1.96) | **GSK-75-20B** |
| | **Cushion Type — Enclosed and gasketed** | 18.0 (40.00) | 1/2 | 50.8 (2.00) | 0.99 (2.18) | **GSK-50-20C** |
| | | | 3/4 | 50.8 (2.00) | 0.89 (1.96) | **GSK-75-20C** |
| **GS — Cast Covers — Furnished with gasket and screws. Enclosed and gasketed for raintight fit** | | | | | | |
| | **Hub Cover** | 113.4 (250.00) | 1/2 | 44.5 (1.75) | 1.60 (1.60) | **GSK-50-20** |
| | | | 3/4 | 44.5 (1.75) | 1.60 (1.60) | **GSK-75-20** |

| | Weight in kg (lbs) | Catalog Number |
|---|---|---|
| **GS — Gasket, Neoprene** | | |
| | 0.27 (0.06) | GS-GK20-R |

# SSH Flexible Fixture Hangers

Heavy Duty Outlet Box Swivel. Ball Joint Swivel Permits 20° Swing

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**NEC/CEC: Listed for Ordinary (Unclassified) Locations**



## Applications

- Designed for suspension of lighting fixtures.
- SSH heavy duty swivel hangers for mounting to outlet and concrete boxes.

## Features

- Protect fixture against wind and vibration damage.
- Heavy duty—support fixtures up to 22.7 kg (50 lbs).
- Steel plate serves as cover for outlet or concrete box.
- Ball type swivel joint permits 20°swing from vertical.

## Standard Materials

- Malleable iron and steel

## Standard Finishes

- Malleable iron and steel parts: zinc electroplate and clear chromate

## NEC/CEC Certifications and Compliances

- CSA Certified: 065180
- UL Listed: E2527
- UL Standard: 514A

**11360**

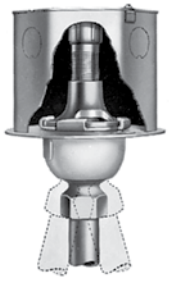
**APP11362**

**11355**

## Illustrated Features

Industrial lighting installations often employ the use of extra heavy fixtures requiring a properly anchored swivel attachment, assuring positive safety to carry the necessary weight. In the Type “SSH” Safety Swivel Hanger, the weight of the entire suspended unit is borne by a fixture stud instead of relying upon the screws and screw ears of the box or ring for support. The “SSH” hanger is furnished with a steel plate to serve as a cover for the 4” Concrete, Octagonal, and 4-11/16” Square boxes.

Cat. No. 11360 Safety Swivel Hanger installed in OCR3-1/2 Concrete Box with OCP3/8 Plate.



Cat. No. 11362 Safety Swivel Hanger installed in a 4-11/16” Square Box shown with NBFS-38 (not included).

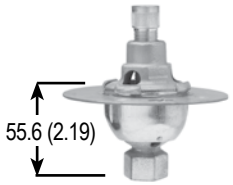
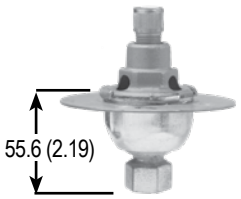
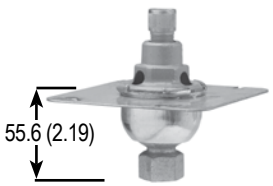
# SSH Flexible Fixture Hangers

Heavy Duty Outlet Box Swivel. Ball Joint Swivel Permits 20° Swing

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**NEC/CEC: Listed for Ordinary (Unclassified) Locations**



| | Support Weight in kg (lbs) | Fixture Stem Size (Inches) | Fixture Stud Size (Inches) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| **Concrete Box — Safety Swivel Hanger — For Concrete Box 2-1/2" to 4" Deep** | | | | | |
|   | 22.5 (50) | 1/2 | 3/8 | 0.59 (1.30) | **11360** ① |
| **Octagonal Box — Safety Swivel Hanger — For 4" Octagonal Box 1-1/2" or 2-1/8" Deep** | | | | | |
|   | 22.5 (50) | 1/2 | 3/8 | 0.38 (0.83) | **11355** |
| **Square Box — Safety Swivel Hanger — For 4-11/16" Square Box 1-1/2" or 2-1/8" Deep** | | | | | |
|   | 22.5 (50) | 1/2 | 3/8 | 0.59 (1.30) | **APP11362** |

① *Not CSA Certified.*

# SHC Flexible Fixture Hangers

## Outlet Box Mounted Series

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**NEC/CEC: Listed for Ordinary (Unclassified) Locations**

### Applications

- Designed for suspension of lighting fixtures.
- SHC fixture hanger covers for mounting to 3-1/4" and 4" octagonal boxes and 4" square boxes.

### Features

- Protect fixture against wind and vibration damage.
- Ball type swivel joint permits 20° swing from vertical.
- Support fixtures with a maximum weight of 22.7 kg (50 lbs).
- Not fan rated.

### Standard Materials

- Steel and malleable iron

### Standard Finishes

- Malleable iron and steel parts: zinc electroplate and clear chromate

### NEC/CEC Certifications and Compliances

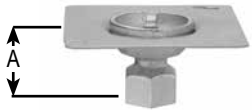
- CSA Certified: 065180
- UL Listed: E2527
- UL Standard: 514A

**8436R**

**8456R**

### Illustrated Features

Ball Type Swivel Fixture Hanger Covers shown with octagonal and with square stamped steel outlet boxes.

| | Support Weight in kg (lbs) | Fixture Stem Size (Inches) | Length A mm (in) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| **SHC Ball Type Swivel Hanger Covers — Permit 20° swing from vertical** | | | | | |
| | For 3-1/4" and 4" Octagonal Boxes | | | | |
| A | 22.5 (50) | 1/2 | 44.5 (1.75) | 0.24 (0.53) | **8438R** |
| | 22.5 (50) | 3/4 | 50.8 (2.00) | 0.22 (0.49) | **8436R** |
|  | For 4" Square Boxes | | | | |
| A | 22.5 (50) | 1/2 | 44.5 (1.75) | 0.27 (0.60) | **8458R** |
| | 22.5 (50) | 3/4 | 50.8 (2.00) | 0.26 (0.57) | **8456R** |

# EF and FHS Series Flexible Fixture Hangers

Hook and Loop

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**CEC: Listed for Ordinary (Unclassified) Locations**



## Applications

- Designed for suspension of lighting fixtures.

## Features

- Protect fixture against wind and vibration damage.
- EF hook and loop hangers
  - — Malleable iron for strength and safety.
  - — Hook and loop combination permits quick disconnect and removal of fixture for maintenance.
  - — Offer inexpensive means of pendant flexible suspension of lighting fixtures.
  - — Permit free swing in any direction.
  - — EF jaw openings can be completely closed for added safety.
- FHS support hangers
  - — Provide up to 75.3 kg (166 lbs) support for fixtures on the non-electrical side of mounting.
  - — Straddle a maximum of 1-1/4" conduit and accepts 1/2" or 3/4" fixture hook or conduit.

## Standard Materials

- Malleable iron

**EFHM**

**EFHF**

**FHS**

## Standard Finishes

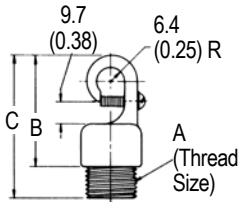
- Zinc electroplate and clear chromate

## CEC Certifications and Compliances

- CSA Certified: 065180

| | Support Weight in kg (lbs) | Size (Inches) | Length A mm (in) | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| **EF — Safety Support Hooks — With 3/8" jaw opening** | | | | | |
| **EFHM** **EFHF** | **EFHM—Male** | | | | |
| | 40.9 (90) | 1/2 | 66.8 (2.63) | 0.08 (0.19) | **EFHM-50** |
| | | 3/4 | 74.7 (2.94) | 0.07 (0.32) | **EFHM-75** |
| | **EFHF—Female** | | | | |
| | 40.9 (90) | 1/2 | 50.8 (2.00) | 0.07 (0.16) | **EFHF-50** |
| | | 3/4 | 52.1 (2.05) | 0.08 (0.19) | **EFHF-75** |
| **FHS — Support for Fixtures, Dummy Side — Straddles up to 1-1/4 trade size conduit — 11/32" diameter mounting holes, spaced 3-1/4" apart** | | | | | |
| | 75.3 (166) | 1/2 or 3/4 | 87.1 (3.31) | 0.39 (0.85) | **FHS5075** |

**Dimensions in Millimeters (Inches)**




| Catalog Number | A | B | C |
|---|---|---|---|
| EFHM-50 | 1/2-14 NPT | 50.8 (2.00) | 66.8 (2.63) |
| EFHM-75 | 3/4-14 NPT | 54.1 (2.13) | 73.2 (2.88) |
| EFHF-50 | 1/2-14 NPT | 50.8 (2.00) | — |
| EFHF-75 | 3/4-14 NPT | 54.1 (2.13) | — |

# FH and FHSN Series Flexible Fixture Hangers

Hook and Loop

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**CEC: Listed for Ordinary (Unclassified) Locations**



## Applications

- Designed for suspension of lighting fixtures.

## Features

- Protect fixture against wind and vibration damage.
- Malleable iron for strength and safety.
- Hook and loop combination permits quick disconnect and removal of fixture for maintenance.
- Offer inexpensive means of pendant flexible suspension of lighting fixtures.
- Permit free swing in any direction.
- FHSN jaw openings can be completely closed for added safety.

## Standard Materials

- Malleable iron

## Standard Finishes

- Zinc electroplate and clear chromate

## CEC Certifications and Compliances

- CSA Certified: 065180

**FHLM**

**FHHM**

**FHHCG**

**FHSN**

**FHHM with Set Screw**

## Illustrated Features

GHBPH power hook comes with supplied receptacle, twistlock plug, cabtire and FHLM fixture loop.

FHLM fixture loop installed in pendant hood and used with GHBPH series powerhook.

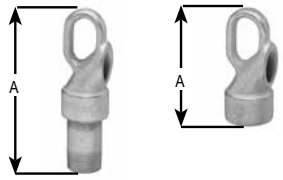
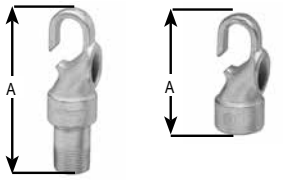
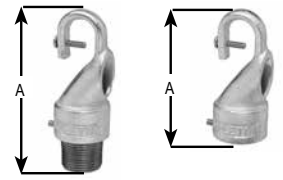
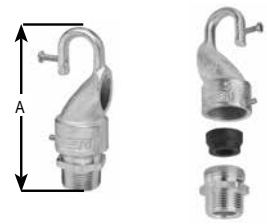
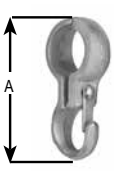
# FH and FHSN Series Flexible Fixture Hangers

Hook and Loop

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**CEC: Listed for Ordinary (Unclassified) Locations**



| | Support Weight in kg (lbs) | Size (Inches) | Length A (mm) in | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|
| **FH — Hanger Loops — With 5/8" diameter wireway** | | | | | |
|  **FHLM** **FHLF** | **FHLM — Male** | | | | |
| | 75.4 (166) | 1/2 | 98.6 (3.88) | 0.23 (0.50) | **FHLM-50** |
| | | 3/4 | 104.9 (4.13) | 0.22 (0.49) | **FHLM-75** |
| | **FHLF — Female** | | | | |
| | 75.4 (166) | 1/2 | 82.6 (3.25) | 0.18 (0.41) | **FHLF-50** |
| | | 3/4 | 82.6 (3.25) | 0.17 (0.37) | **FHLF-75** |
| **FH — Hanger Hooks — With 5/8" diameter wireway, 3/8" jaw opening** | | | | | |
|  **FHHM** **FHHF** | **FHHM — Male** | | | | |
| | 34.0 (75) | 1/2 | 98.6 (3.88) | 0.23 (0.50) | **FHHM-50** |
| | | 3/4 | 104.9 (4.13) | 0.22 (0.49) | **FHHM-75** |
| | **FHHF — Female** | | | | |
| | 34.0 (75) | 1/2 | 82.6 (3.25) | 0.19 (0.43) | **FHHF-50** |
| | | 3/4 | 82.6 (3.25) | 0.16 (0.36) | **FHHF-75** |
| **FH — Hanger Hooks — With 5/8" diameter wireway, 3/8" jaw opening, safety screw** | | | | | |
|  **FHHM** **FHHF** | **FHHM — Male** | | | | |
| | 34.0 (75) | 1/2 | 98.6 (3.88) | 0.15 (0.33) | **FHHM-50-SS** |
| | | 3/4 | 104.9 (4.13) | 0.20 (0.44) | **FHHM-75-SS** |
| | **FHHF — Female** | | | | |
| | 34.0 (75) | 1/2 | 82.6 (3.25) | 0.18 (0.39) | **FHHF-50-SS** |
| | | 3/4 | 82.6 (3.25) | 0.15 (0.34) | **FHHF-75-SS** |
| **FHHCG — Gasketed Fixture Hanger Hook — With 5/8" wire opening, 3/8" jaw opening, safety screw**<br>As FHHM's above, with internal grommet (.375 to .500 inch cable OD) to prevent moisture and dirt entry | | | | | |
|  | **FHHCG — Male** | | | | |
| | 34.0 (75) | 1/2 | 108.0 (4.25) | 0.18 (0.40) | **FHHCG-3750-SS** |
| | | 3/4 | 108.0 (4.25) | 0.19 (0.42) | **FHHCG-3775-SS** |
| **FHSN — Conduit Suspension Hanger — With safety strap—clamps around rigid conduit or IMC —Has 3/8" jaw opening** | | | | | |
|  | 67.5 (150) | 1/2 | 79.5 (3.13) | 0.12 (0.26) | **FHSN-50** |
| | | 3/4 | 82.6 (3.25) | 0.12 (0.26) | **FHSN-75** |
| | | 1 | 85.9 (3.38) | 0.12 (0.26) | **FHSN-100** |

# Power Hook for Industrial High Bay Luminaires

Receptacle and Hook and Loop

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**NEC/CEC: Suitable for use in Ordinary (Unclassified) Locations**



## Applications

- Designed for suspension of lighting fixtures.

## Features

- Permit quick disconnect and removal of fixture for maintenance.
- Available in pendant or feed-thru.
- Available with matching cord set.

## Standard Materials

- Malleable iron with steel cover
- Screws: stainless steel

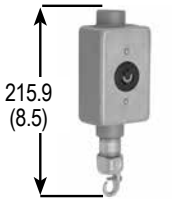
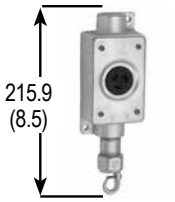
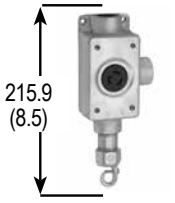
## Standard Finishes

- Malleable iron parts: triple coat — (1) zinc electroplate, (2) chromate, and (3) epoxy powder coat
- Steel parts: zinc electroplate

## NEC/CEC Certifications and Compliances

- UL Standard: UL 57
- CSA Standard: C22.2 No. 9, C22.2 No. 250

**Receptacle Hangers**

| | Support Weight in kg (lbs) | Conduit Hub Size (Inches) | Voltage | Plug | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|---|---|
| **GHPHP — Pendant — Furnished with assembled FS box, EFHM safety hook, receptacle, and steel cover** | | | | | | |
|  215.9 (8.5) | 40 kg (90 lbs) | 3/4 | 120 | L5-15P | 1.19 (2.51) | **GHPHP12** |
| | | 3/4 | 208, 240 | L6-15P | 0.95 (2.10) | **GHPHP24** |
| | | 3/4 | 277 | L7-15P | 2.08 (4.58) | **GHPHP27** |
| | | 3/4 | 347 | L37-20P | 1.27 (2.80) | **GHPHP34** |
| | | 3/4 | 480 | L8-20P | 1.27 (2.80) | **GHPHP48** |
| | | 3/4 | 600 | L9-20P | 1.27 (2.80) | **GHPHP60** |
| **GHPHT — Feed-Thru — Furnished with assembled FS box, EFHM safety hook, receptacle, and steel cover** | | | | | | |
| 153.9 (6.06) | 40 kg (90 lbs) | 3/4 | 120 | L5-15P | 1.22 (2.69) | **GHPHT12** |
| | | 3/4 | 208, 240 | L6-15P | 1.39 (3.08) | **GHPHT24** |
| | | 3/4 | 277 | L7-15P | 1.47 (3.23) | **GHPHT27** |
| | | 3/4 | 347 | L37-20P | 1.36 (3.00) | **GHPHT34** |
| | | 3/4 | 480 | L8-20P | 1.36 (3.00) | **GHPHT48** |
| | | 3/4 | 600 | L9-20P | 1.36 (3.00) | **GHPHT60** |
| **FHC — Pendant — Furnished with assembled FS box, EFHM safety hook, receptacle, and steel cover** | | | | | | |
|  215.9 (8.5) | 40 kg (90 lbs) | 3/4 | 120 | 15 | 1.42 (3.13) | **FHC75-1512C** |
| | | 3/4 | 208 | 15 | 1.42 (3.13) | **FHC75-1528C** |
| | | 3/4 | 240 | 15 | 1.42 (3.13) | **FHC75-1525C** |
| | | 3/4 | 277 | 15 | 1.42 (3.13) | **FHC75-1527C** |
| | | 3/4 | 347 | 20 | 1.42 (3.13) | **FHC75-2034C** |
| | | 3/4 | 480 | 20 | 1.42 (3.13) | **FHC75-2048C** |
| | | 3/4 | 600 | 20 | 1.42 (3.13) | **FHC75-2060C** |
| **FHCT — Feed-Thru —Furnished with assembled FS box, EFHM safety hook, receptacle, and steel cover** | | | | | | |
|  215.9 (8.5) | 40 kg (90 lbs) | 3/4 | 120 | 15 | 1.62 (3.56) | **FHCT75-1512C** |
| | | 3/4 | 208 | 15 | 1.62 (3.56) | **FHCT75-1528C** |
| | | 3/4 | 240 | 15 | 1.62 (3.56) | **FHCT75-1525C** |
| | | 3/4 | 277 | 15 | 1.62 (3.56) | **FHCT75-1527C** |
| | | 3/4 | 347 | 20 | 1.62 (3.56) | **FHCT75-2034C** |
| | | 3/4 | 480 | 20 | 1.62 (3.56) | **FHCT75-2048C** |
| | | 3/4 | 600 | 20 | 1.62 (3.56) | **FHCT75-2060C** |

# Power Hook for Industrial High Bay Luminaires

Receptacle and Hook and Loop

UNILETS™ for Use with Threaded Rigid Metal Conduit and IMC.

**NEC/CEC: Suitable for use in Ordinary (Unclassified) Locations**



**Cord Sets — With Loop — 1.21 m (4 ft) Cord**

Supplied with 600 V, +90°C (+194 °F) 3 conductor No. 16 SOOW cable, locking plug and 3/4" FHLM loop

| Voltage | Amperes | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|
| 120 | 15 | 0.48 (1.06) | **G-HCPL-4-12** |
| 208, 240 | 15 | 0.59 (1.30) | **G-HCPL-4-24** |
| 277 | 15 | 0.46 (1.02) | **G-HCPL-4-27** |
| 347 | 20 | 0.46 (1.02) | **G-HCPL-4-34** |
| 480 | 20 | 0.46 (1.02) | **G-HCPL-4-48** |
| 600 | 20 | 0.46 (1.02) | **G-HCPL-4-60** |

**Fuse and Cartridge**

Cartridges are furnished complete with two 254 mm (10") long high temperature wire leads and 600 Volt fuse

| Amperes | Weight in kg (lbs) | Catalog Number |
|---|---|---|
| 6 | 0.07 (0.15) | **G-F6** |
| 30 | 0.11 (0.25) | **G-F30** |

# GHBPH Power Hook for Industrial High Bay Luminaires

Furnished with Receptacle, Plug, 18" 16-3 SO Cord and Loop Fixture Hanger

**CEC: Listed for Ordinary (Unclassified) Locations**



## Applications

- Designed for suspension of lighting fixtures.

## Features

- Power hook for industrial luminaires
  - — Loop that suspends fixture cannot be removed until plug is disconnected from power receptacle.
  - — 20 Amp plug, receptacle and cable are provided in all voltages.
  - — Rotating plug after insertion locks plug in receptacle, eliminating plug fall-out.
  - — Loop and hook provide flexible mounting, ideal in areas where vibration is encountered.
- Three 3/4” openings - one on top and one on each side.
- Furnished with two close up plugs.

## Standard Materials

- Copperfree (4/10 of 1% max.) cast aluminum

## Standard Finishes

- Epoxy powder coat

## CEC Certifications and Compliances

- CSA Standard: C22.2 No. 9, C22.2 No. 250
- CSA Certified: 009349

| | Size (Inches) | Voltage | Weight in kg (lbs) | Catalog Number |
|---|---|---|---|---|
| | 3/4 | 120 | 1.43 (3.15) | **G-HBPH-120** |
| | 3/4 | 208 | 1.43 (3.15) | **G-HBPH-208** |
| | 3/4 | 240 | 1.50 (3.30) | **G-HBPH-240** |
| | 3/4 | 277 | 1.50 (3.30) | **G-HBPH-277** |
| | 3/4 | 347 | 1.50 (3.30) | **G-HBPH-347** |
| | 3/4 | 480 | 1.50 (3.30) | **G-HBPH-480** |
| | 3/4 | 600 | 1.50 (3.30) | **G-HBPH-600** |

# Round Tapered Steel Poles

For United States Destinations Only

**NEC/CEC: Rated for Ordinary (Unclassified) Locations**



## Applications

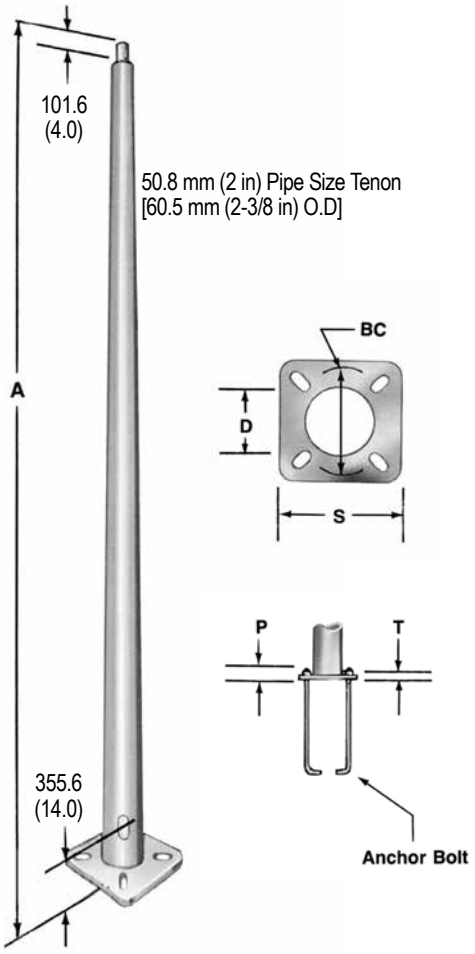
- To mount single or multiple luminaires to heights from 6.1 to 11.9 m (20 to 39 ft).

## Features

- 50.8 mm (2 in) pipe size tenon accepts a single luminaire, or 2, 3, or 4 luminaires with appropriate pole-top mounting bracket.
- Shafts are tapered, one-section design of 11 gauge commercial quality steel with a minimum yield strength of 55,000 psi after fabrication.
- Base plates are of structural quality hot-rolled steel with guaranteed minimum yield strength of 36,000 psi.
- A 76.2 x 127.0 mm (3 in x 5 in) or 101.6 x 152.4 mm (4 in x 6 in) reinforced handhole with cover and grounding lug 55.6 mm (14 in) above the pole base is standard.
- Anchor bolts are furnished complete with nuts and washers, and are of 55,000 psi steel.

## Standard Materials/Finishes

- Lighting poles are steel with bronze powder coat finish (to match Appleton fixtures) or galvanized finish




| Mounting Height m (ft) A | Average Pole Weight kg (lb) | Pole Shaft Size mm (in) Bottom S | Top | Base Plate mm (in) Base Size (Square) | Bolt Circle | Base Thickness | Anchorage: Anchor Bolt Dia. X Length mm (in) | Catalog Number ①② Bronze | Galvanized |
|---|---|---|---|---|---|---|---|---|---|
| 6.1 (20) | 73 (160) | 165.1 (6.5) | 94.0 (3.7) | 279.4 (11) | 254.0 (10.0) | 25.4 (1.0) | 25x1016 (1x40) | **G-PRTH-20** | **G-PRTH-20-GAL** |
| 7.6 (25) | 95 (210) | 177.8 (7.0) | 88.9 (3.5) | 279.4 (11) | 254.0 (10.0) | 25.4 (1.0) | 25x1016 (1x40) | **G-PRTH-25** | **G-PRTH-25-GAL** |
| 9.1 (30) | 118 (260) | 203.2 (8.0) | 96.5 (3.8) | 304.8 (12) | 279.4 (11.0) | 25.4 (1.0) | 25x1016 (1x40) | **G-PRTH-30** | **G-PRTH-30-GAL** |
| 10.7 (35) | 143 (315) | 215.9 (8.5) | 96.5 (3.8) | 304.8 (12) | 292.1 (11.5) | 25.4 (1.0) | 25x1016 (1x40) | **G-PRTH-35** | **G-PRTH-35-GAL** |
| 11.9 (39) | 168 (370) | 228.6 (9.0) | 88.9 (3.5) | 330.2 (13) | 317.5 (12.5) | 25.4 (1.0) | 25x1016 (1x40) | **G-PRTH-39** | **G-PRTH-39-GAL** |

① *Dimensions may vary — Consult your local sales representative for specifications.*
② *Anchor bolts and templates are preshipped ahead of lighting poles.*

# Hinged Steel Poles

For United States Destinations Only

**NEC/CEC: Rated for Ordinary (Unclassified) Locations**



## Applications

- To mount single or multiple luminaires to heights from 6.1 to 9.1 m (20 to 35 ft). Hinged design allows easy servicing of luminaires at shoulder height.

## Features

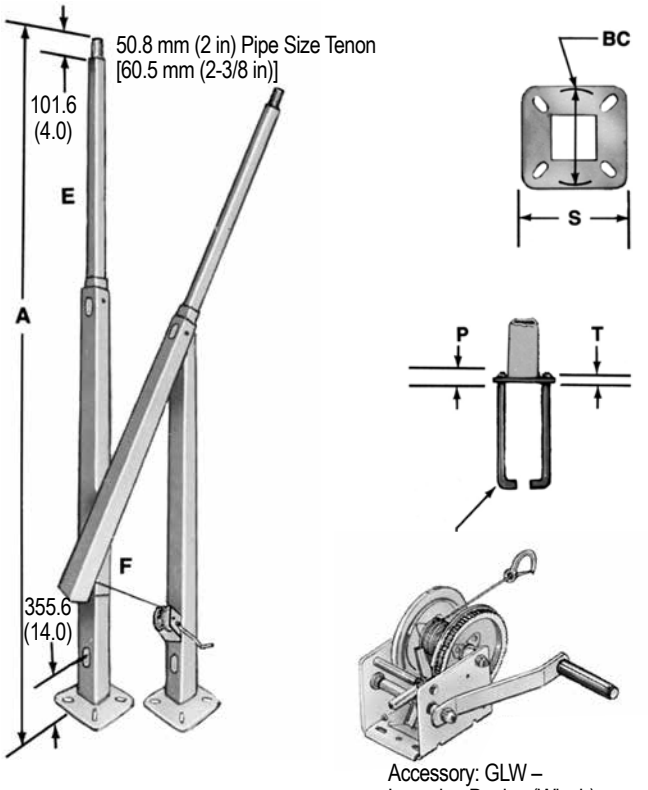
- Shafts are structural steel with a minimum yield strength of 46,000 psi.
- Heavy duty hinge assembly secures upper section to lower section with high strength 19.05 mm (3/4 in) Dia. bolt. A flexible protective channel is provided to protect wires when pole is lowered.
- Pole counter-balance is designed to offset weight of luminaires and is made from steel with minimum yield strength of 36,000 psi.
- Base plates are of structural quality hot-rolled steel with minimum yield strength of 36,000 psi.
- A 76.2 x 127 mm (3 in x 5 in) reinforced handhole with cover and grounding lug 355.6 mm (14 in)above the pole base is standard.
- Anchor bolts are furnished complete with nuts and washers, and are of 50,000 psi steel.

## Standard Materials/Finishes

- Lighting poles are steel with bronze powder coat finish (to match Appleton fixtures) or galvanized finish

## Options

- An optional lowering winch is available and recommended for easy one-man operation of hinged poles. (Only one lowering winch per installation is required because winch assembly mounts from pole to pole and dismounts for easy storage.) Lowering winch is furnished with mounting hardware, 7.62 m (25 ft) of 4.8 mm (3/16 in) galvanized wire rope and safety snap hook.




Accessory: GLW –
Lowering Device (Winch)

*GLW must be ordered separately at an additional cost.*

| Mounting Height m (ft) A | Average Pole Weight kg (lb) | Pole Shaft Size mm (in) Bottom S | Top | Base Plate mm (in) Base Size (Square) | Bolt Circle | Base Thickness | Anchorage: Anchor Bolt Dia. X Length mm (in) | Catalog Number ①② Bronze | Galvanized | Winch Catalog Number |
|---|---|---|---|---|---|---|---|---|---|---|
| 6.1 (20) | 136 (300) | 127.0 (5) | 127.0 (5) | 279.4 (11) | 279.4 (11.0) | 25.4 (1.0) | 25x1016 (1x40) | **G-PHSH-20** | **G-PHSH-20-GAL** | **GLW20** |
| 7.32 (24) | 204 (450) | 152.4 (6) | 152.4 (6) | 304.8 (12) | 292.1 (11.5) | 25.4 (1.0) | 25x1016 (1x40) | **G-PHSH-24** | **G-PHSH-24-GAL** | **GLW24** |
| 9.14 (30) | 281 (620) | 152.4 (6) | 152.4 (6) | 304.8 (12) | 292.1 (11.5) | 25.4 (1.0) | 25x1016 (1x40) | **G-PHSH-30** | **G-PHSH-30-GAL** | **GLW30** |
| 10.67 (35) | 356 (785) | 152.4 (6) | 152.4 (6) | 304.8 (12) | 292.1 (11.5) | 25.4 (1.0) | 25x1016 (1x40) | **G-PHSH-35** | **G-PHSH-35-GAL** | **GLW35** |

*① Dimensions may vary — Consult your local sales representative for specifications.*
*② Anchor bolts and templates are preshipped ahead of lighting poles.*

# Square Tapered Steel Poles

For United States Destinations Only

**NEC/CEC: Rated for Ordinary (Unclassified) Locations**



## Applications

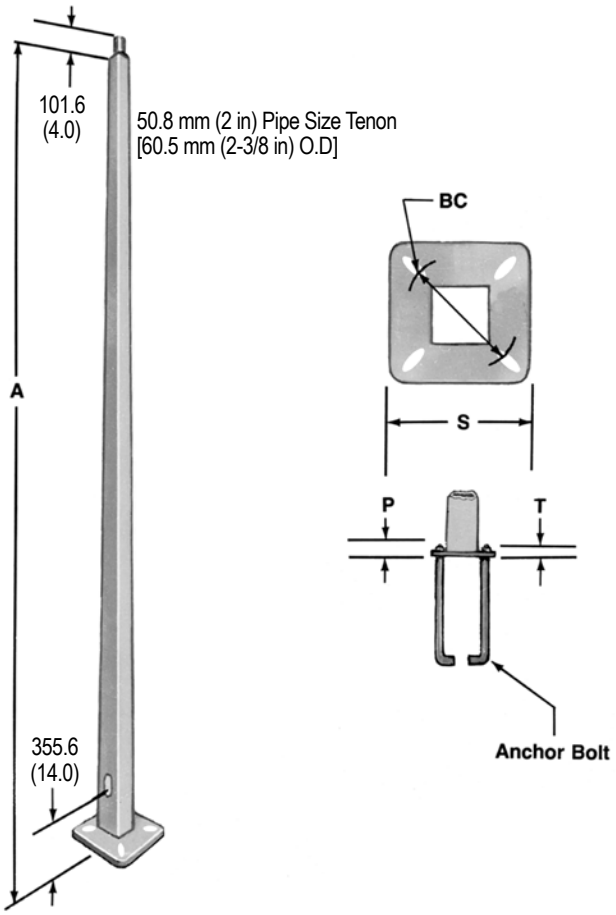
- To mount single or multiple luminaires to heights from 6.1 to 11.9 m (20 to 39 ft).

## Features

- 0.61 mm (2 in) pipe size tenon accepts a single luminaire or 2, 3, or 4 luminaires with appropriate pole-top mounting bracket.
- High strength shafts have a uniform taper and are made from 11 gauge commercial quality hot rolled steel.
- Base plates are of structural quality hot rolled steel with minimum yield strength of 36,000 psi.
- A 6.2 x 127.0 mm (3 in x 5 in) or 101.6 x 152.4 mm (4 in x 6 in) reinforced handhole with cover and grounding lug 355.6 mm (14 in) above the pole base is standard.
- Anchor bolts are furnished complete with nuts and washers, and are of 55,000 psi steel.

## Standard Materials/Finishes

- Lighting poles are steel with bronze powder coat finish (to match Appleton fixtures) or galvanized finish




| Mounting Height m (ft) A | Average Pole Weight kg (lb) | Pole Shaft Size mm (in) Bottom S | Top | Base Plate mm (in) Base Size (Square) | Bolt Circle | Base Thickness | Anchorage: Anchor Bolt Dia. X Length mm (in) | Catalog Number ①② Bronze | Galvanized |
|---|---|---|---|---|---|---|---|---|---|
| 6.1 (20) | 70 (155) | 133 (5.25) | 83 (3.25) | 279.4 (11) | 254.0 (10) | 25.4 (1.0) | 25x1016 (1x40) | **G-PSTH-20** | **G-PSTH-20-GAL** |
| 7.6 (25) | 93 (205) | 159 (6.25) | 95 (3.75) | 304.8 (12) | 317.5 (12.5) | 25.4 (1.0) | 25x1016 (1x40) | **G-PSTH-25** | **G-PSTH-25-GAL** |
| 9.1 (30) | 118 (260) | 159 (6.25) | 83 (3.25) | 304.8 (12) | 317.5 (12.5) | 25.4 (1.0) | 25x1016 (1x40) | **G-PSTH-30** | **G-PSTH-30-GAL** |
| 10.7 (35) | 138 (305) | 169 (6.65) | 83 (3.25) | 330.2 (13) | 317.5 (12.5) | 25.4 (1.0) | 25x1016 (1x40) | **G-PSTH-35** | **G-PSTH-35-GAL** |
| 11.9 (39) | 156 (345) | 182 (7.15) | 57 (2.25) | 330.2 (13) | 317.5 (12.5) | 25.4 (1.0) | 25x1016 (1x40) | **G-PSTH-39** | **G-PSTH-39-GAL** |

*① Dimensions may vary — Consult your local sales representative for specifications.*
*② Anchor bolts and templates are preshipped ahead of lighting poles.*

# Square Steel Poles

For United States Destinations Only

**NEC/CEC: Rated for Ordinary (Unclassified) Locations**



## Applications

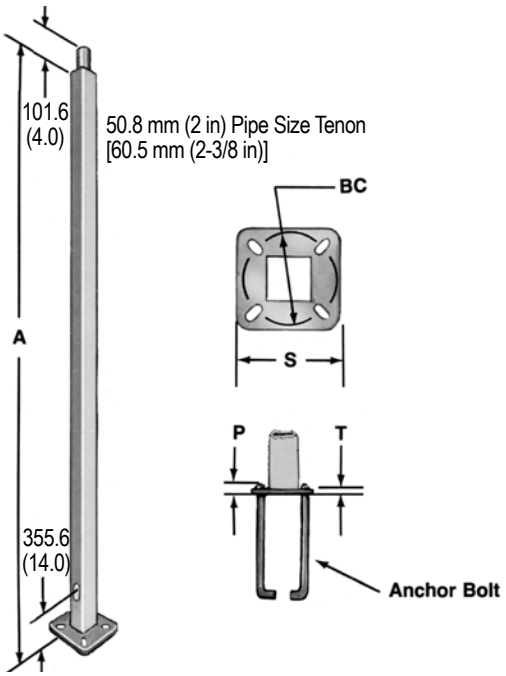
- To mount single or multiple luminaires to heights from 4.3 to 9.1 m (14 to 30 ft).

## Features

- 50.8 mm (2 in) pipe size tenon accepts a single luminaire, or 2, 3, or 4 luminaires with appropriate pole-top mounting bracket.
- High strength shafts are made from square steel structural tube with minimum yield strength of 46,000 psi.
- Base plates are of structural quality hot-rolled steel with minimum yield strength of 36,000 psi.
- A 76.2 x 127 mm (3 in x 5 in) reinforced handhole with cover and grounding lug 355.6 mm (14 in) above the pole base is standard.
- Anchor bolts are furnished complete with nuts and washers, and are of 55,000 psi steel.

## Standard Materials/Finishes

- Lighting poles are steel with bronze powder coat finish (to match Appleton fixtures) or galvanized finish




| Mounting Height m (ft) A | Average Pole Weight kg (lb) | Pole Shaft Size mm (in) Bottom S | Top | Base Plate mm (in) Base Size (Square) | Bolt Circle | Base Thickness | Anchorage: Anchor Bolt Dia. X Length mm (in) | Catalog Number ①② Bronze | Galvanized |
|---|---|---|---|---|---|---|---|---|---|
| 4.3 (14) | 79 (175) | 101.6 (4) | 101.6 (4) | 203.2 (8) | 215.9 (8.5) | 19.1 (0.75) | 19x 508 (0.75x20) | **G-PSSH-14** | **G-PSSH-14-GAL** |
| 5.2 (17) | 90 (200) | 101.6 (4) | 101.6 (4) | 203.2 (8) | 215.9 (8.5) | 19.1 (0.75) | 19x 508 (0.75x20) | **G-PSSH-17** | **G-PSSH-17-GAL** |
| 6.1 (20) | 98 (215) | 127.0 (5) | 127.0 (5) | 279.4 (11) | 279.4 (11.0) | 25.4 (1.0) | 25x1016 (1x40) | **G-PSSH-20** | **G-PSSH-20-GAL** |
| 7.6 (25) | 111 (245) | 152.4 (6) | 152.4 (6) | 304.8 (12) | 292.1 (11.5) | 25.4 (1.0) | 25x1016 (1x40) | **G-PSSH-25** | **G-PSSH-25-GAL** |
| 9.1 (30) | 136 (300) | 152.4 (6) | 152.4 (6) | 304.8 (12) | 292.1 (11.5) | 25.4 (1.0) | 25x1016 (1x40) | **G-PSSH-30** | **G-PSSH-30-GAL** |

*① Dimensions may vary — Consult your local sales representative for specifications.*
*② Anchor bolts and templates are preshipped ahead of lighting poles.*

# Floodlight Mounting Brackets

Single or Multiple Installation on Wall, Wood or Metal Poles

For United States Destinations Only

**NEC/CEC: Rated for Ordinary (Unclassified) Locations**



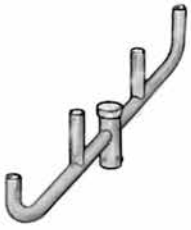
## Metal Pole Brackets

G-PB-2

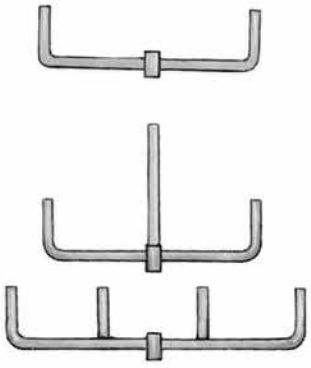
G-PB-3

G-PB-3-120

G-PB-4



G-PB-14



G-PR Series

Steel rigid or hinged pole showing 2-unit, 3-unit, and 4-unit bracket arrangement.

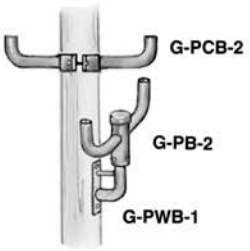
## Wood Pole Brackets

G-PCB-1

G-PCB-2

G-PCB-3

G-PCB-4




For 2-luminaire arrangement

G-PWB-1

# Floodlight Mounting Brackets

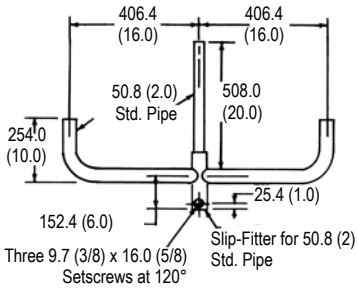
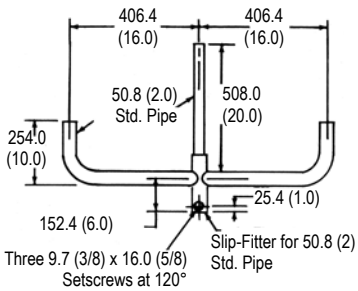
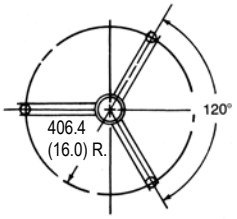
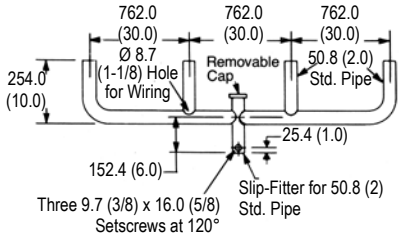
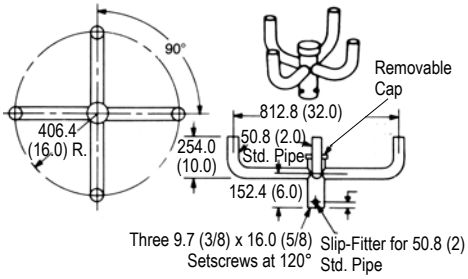
## Single or Multiple Installation on Wall, Wood or Metal Poles

For United States Destinations Only

**NEC/CEC: Rated for Ordinary (Unclassified) Locations**

**Poletop Brackets for Metal Poles — Dimensions may vary. Consult your local sales representative for specifications**

Floodlight mounting brackets for installation of 2 to 4 floodlights atop metal poles are manufactured from high-strength steel tube, and slip-fit onto 50.8 mm (2 in) pipe size poletop tenons. Furnished with 3 locking setscrews and red oxide prime coat finish. Bracket tenon is 50.8 mm (2 in) pipe size; 60.5 mm (2-3/8 in) O.D.

| Dimensions in mm (in) ① | Description | Catalog Number |
|---|---|---|
|  | Poletop Bracket for Two Luminaires | **G-PB-2** |
|  | Poletop Bracket for Three Luminaires | **G-PB-3** |
|  | Poletop Bracket for Three Luminaires (120° apart) | **G-PB-3-120** |
|  | Poletop Bracket for Four Luminaires (in line) | **G-PB-14** |
|  | Poletop Bracket for Four Luminaires | **G-PB-4** |

*① Dimensions may vary — Consult your local sales representative for specifications.*

# Floodlight Mounting Brackets

Single or Multiple Installation on Wall, Wood or Metal Poles

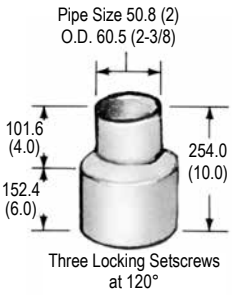
For United States Destinations Only

**NEC/CEC: Rated for Ordinary (Unclassified) Locations**

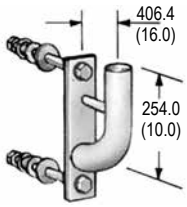
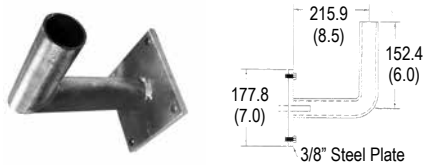


### Round Poletop Reducers

Made from high strength steel tubing, complete with 3 locking setscrews and finished to match pole (bronze, galanized).

| Dimensions in mm (in) ① | Poletop Pipe Size Reduction in mm (in) | Catalog Number |
|---|---|---|
|  | 63.5 to 50.8 (2-1/2 to 2) | **G-PR-2-12** |
| | 76.2 to 50.8 (3 to 2) | **G-PR-3** |
| | 88.9 to 50.8 (3-1/2 to 2) | **G-PR-3-12** |
| | 101.6 to 50.8 (4 to 2) | **G-PR-4** |
| | 127 to 50.8 (5 to 2) | **G-PR-5** |

### Wall Mounting Brackets

| Dimensions in mm (in) ① | Description | Catalog Number |
|---|---|---|
|  | For Floodlights with 50.8 mm (2 in) Slip-Fitter, or will mount G-PB Series brackets with floodlights.<br>• Complete with two 330.2 mm (13 in) -long bolts, washers, and nuts.<br>• Bronze coat finish. | **G-PWB-1** |
|  | Used with G-AM-8-SF and GSF-20 to provide a wall mounting option.<br>• Galvanized Steel. | **GPSWB6GAL** |

① *Dimensions may vary — Consult your local sales representative for specifications.*

# Floodlight Mounting Brackets

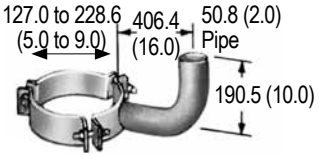
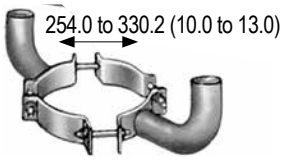
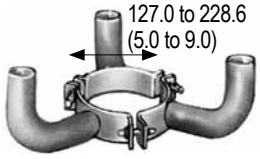
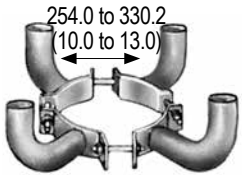
Single or Multiple Installation on Wall, Wood or Metal Poles

For United States Destinations Only

**NEC/CEC: Rated for Ordinary (Unclassified) Locations**



**Wood Pole Clamp Brackets**

| Dimensions in mm (in) ① | Description | Catalog Number |
|---|---|---|
| | • Pole clamping floodlight mounting brackets constructed of 50.8 mm (2 in) steel pipe.<br>• Furnished complete with clamping bolts and nuts.<br>• Has red oxide primer coat finish.<br>• For 1 and 3 floodlights—Fits 127.0 to 228.6 mm (5 to 9 in) poles.<br>• For 2 and 4 floodlights—Fits 254.0 to 330.2 mm (10 to 13 in) poles. | |
|  | 1 Arm | **G-PCB-1** |
|  | 2 Arm | **G-PCB-2** |
|  | 3 Arm | **G-PCB-3** |
|  | 4 Arm | **G-PCB-4** |

① *Dimensions may vary — Consult your local sales representative for specifications.*

## Notes...

## Notes...

## Notes...

## Notes...

## Notes...

## Notes...

# LED luminaires designed to make usable light the foundation for safer, more productive environments.

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