

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 | II 3 GD | II 2 D | IP66 | IK08
IECEX: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIC | Ex ia tc IIC | 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 ① | 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 mm² (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

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.

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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



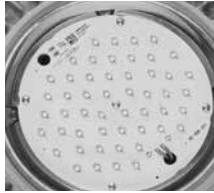
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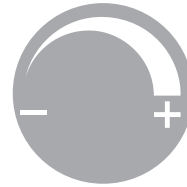
Illustrated Features

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



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



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.

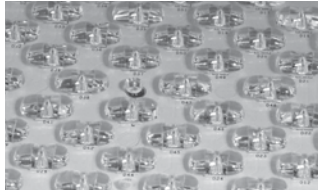
⚠ HART and WirelessHART are registered trademarks of the FieldComm Group.

Mercmaster™ Connect LED Luminaires

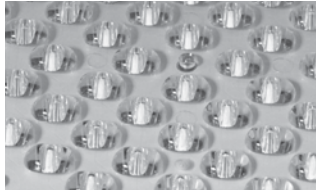
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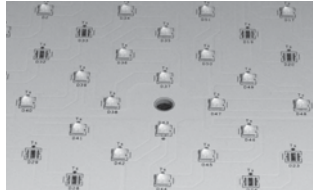
Illustrated Features



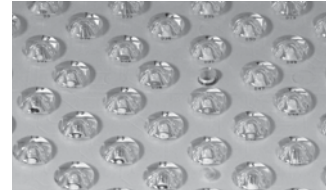
Type I - Long and narrow distribution pattern designed with walkways in mind.



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.

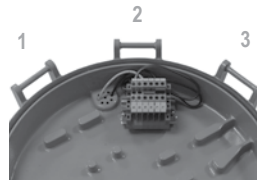
Safety Features



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.

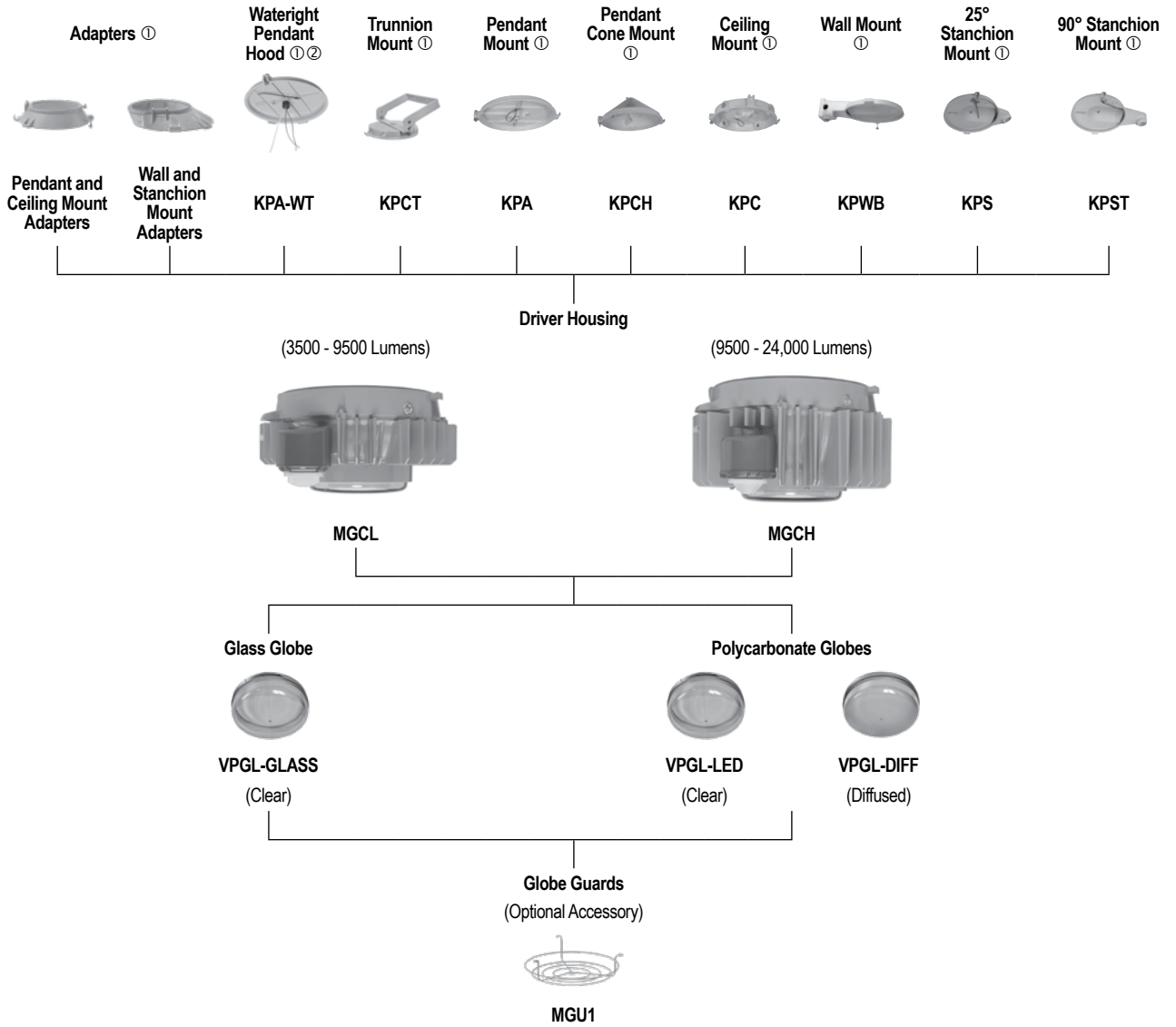
‡ Other CCT options available upon request. Contact your local sales representative for more information.

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Family Tree — Mercmaster™ Connect LED Luminaires



① See Mounting Hood Adapters table for part numbers.

② Certified for cCSAus only.

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LED Luminaires | Area / Task | Hazardous Location | NEC / CEC / ATEX / IECEx

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

| | | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <p>MGC</p> <p>Series Prefix: MGC - Mercmaster Connect LED Class 1, Division 2 and Zone 2</p> | <p>A</p> <p>Mounting:</p> <p>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</p> | <p>L5</p> <p>Lumen (nominal): L5 - Up to 5,500 L9 - Up to 9,500 H6 - Up to 17,500</p> | <p>2</p> <p>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</p> | <p>N</p> <p>Color Temperature: ‡ C - Cool, 5000K N - Neutral, 4000K M - Mid Neutral, 4500K W - Warm, 3000K R - Mid-Warm, 3500K (retail)</p> | <p>D</p> <p>Globe Material: P - Clear Polycarbonate Globe D - Diffused Polycarbonate Globe G - Clear Glass Globe</p> | <p>5</p> <p>Light Distribution Pattern: 1 - Type I 3 - Type III 5 - Type V W - Type V Wide</p> | <p>BU</p> <p>Voltage: BU - 120-277 Vac, 50/60 Hz; 125-300 Vdc</p> | <p>E</p> <p>Options: ☒ F - Fusing Blank - No fusing</p> | <p>Z</p> <p>Control Options: 7 - Motion and Illuminance Sensor, WirelessHart™ †† Interface</p> | <p>N</p> <p>PIR Fresnel Lens: N - Between 20 to 40 ft mounting height P - Below 20 ft mounting height</p> |
|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|

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.

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

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Lumen Output (Efficacy) ①②

| Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Efficacy Output (lm/W) | | Lumen Efficacy CCT | | Lumen Efficacy CRI | | Lumen Efficacy CCT | | Lumen Efficacy CRI | | Lumen Efficacy CCT | | Lumen Efficacy CRI | | | | | |
|------------------------------------------------------------------------------|------------------------------------|-----------------------------|------------------------------|-----|--------------------|---------------|--------------------|-----|--------------------|-----|--------------------|---------------|--------------------|-----|--------------------|-----|-------|----|-------|-----|
| | | | Output (lm/W) | CCT | CRI | Output (lm/W) | CCT | CRI | Output (lm/W) | CCT | CRI | Output (lm/W) | CCT | CRI | Output (lm/W) | CCT | CRI | | | |
| 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.

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Lumen Output (Efficacy) ①②

| Light Distribution Pattern | CCT (Correlated Color Temperature) | CRI (Color Rendering Index) | Lumen Efficacy Output (lm/W) | | Lumen Efficacy CCT | | Lumen Efficacy CRI | | Lumen Efficacy CCT | | Lumen Efficacy CRI | | Lumen Efficacy CCT | | Lumen Efficacy CRI | | | | | |
|-------------------------------------------------------------------|------------------------------------|-----------------------------|------------------------------|-----|--------------------|-----|--------------------|-----|--------------------|-----|--------------------|-----|--------------------|-----|--------------------|-----|---------------|----|-------|-----|
| | | | Output (lm/W) | CCT | Output (lm/W) | CCT | Output (lm/W) | CCT | Output (lm/W) | CCT | Output (lm/W) | CCT | Output (lm/W) | CCT | Output (lm/W) | CCT | Output (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 | II 3 GD | II 2 D | IP66 | IK08
IECEX: Zone 2 and 21/22 | Ex ec ia mb IIC | Ex ia tb IIC | 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

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LED Luminaires | Area / Task | Hazardous Location | NEC / CEC / ATEX / IECEX

Mounting Hoods







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




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 III C | Ex ia tc III C | 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 Ceiling: CM2/3 Flexible Pendant: HPM2 | 0.9 (2.00) | MMADCHVS |
| | Appleton™ Mercmaster™ II | Pendant: LPA75/100 Ceiling: LPC75/100 | 0.9 (2.00) | MMADIIS |
|  | Crouse-Hinds™ Champ® + | Wall: TWM2/3 25° Angle Stanchion: JM5 90° Straight Stanchion: PM5 | 0.9 (2.00) | MMADCHVA |
| | Appleton™ Mercmaster™ II | Wall: LPWB75, LPWB100 25° Angle Stanchion: LPS125, LPS150 | 0.9 (2.00) | MMADIIA |
|  | Killark™ ✧ | Ceiling: VMX2B, VMX3B, VMX6B, VMX7B, VMX9B Pendant: VMA2B, VMA3B Stanchion: VMD4B, VMD5B, VMS4B, VMS5B Wall: VMB2B, VMB3B 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 cCSAs 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

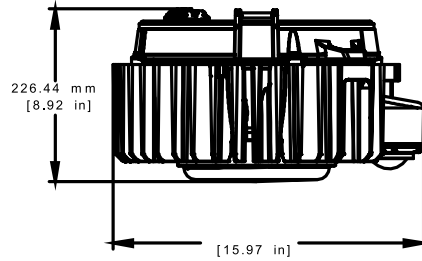
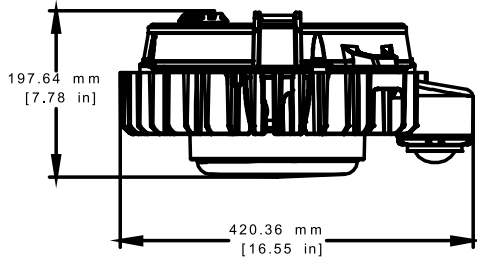
Plantweb™ Insight Connected Lighting Application
 Enclosed and Gasketed Fixtures — Hazardous Locations

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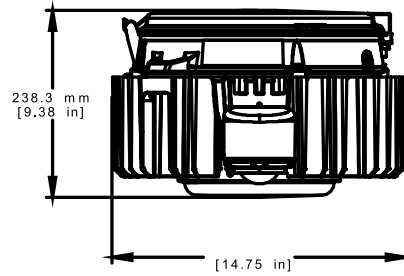
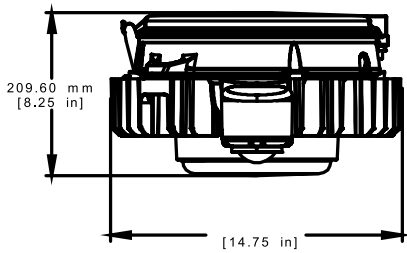
Dimensional Drawings — Driver Housing with Globe

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

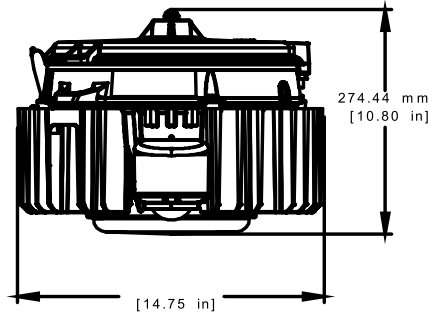
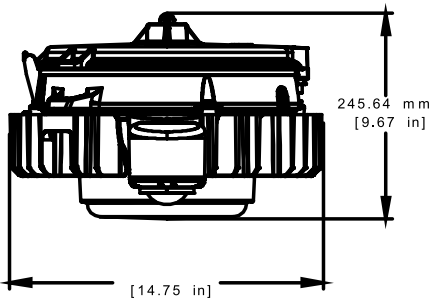
Driver Housing



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

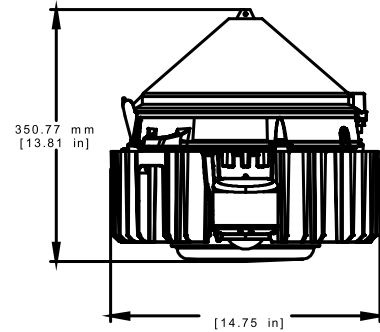
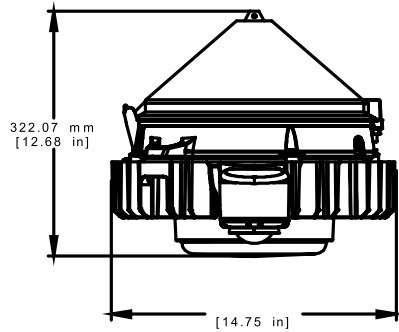
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Dimensional Drawings — Driver Housing with Globe

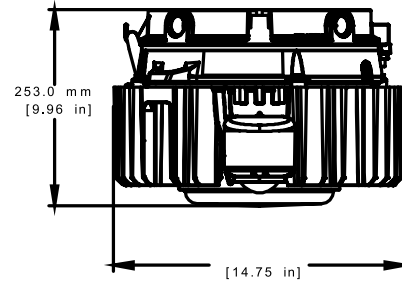
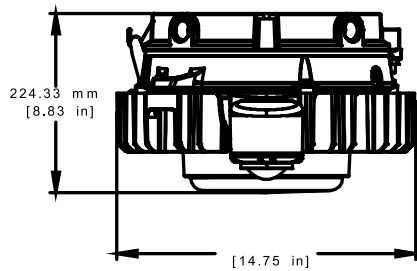
MGCL

MGCH

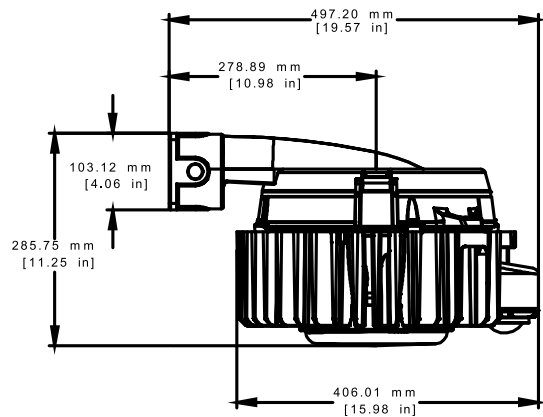
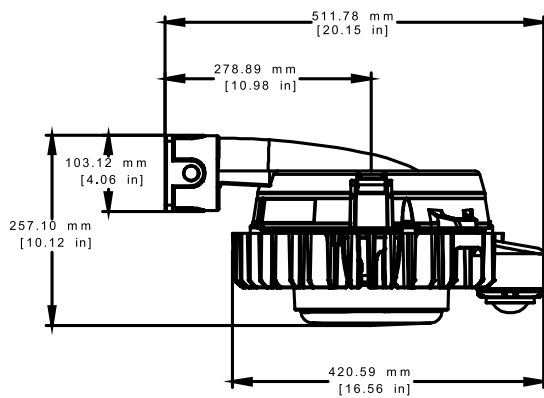
Pendant Cone



Ceiling



Wall Mount



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

Mercmaster™ Connect LED Luminaires

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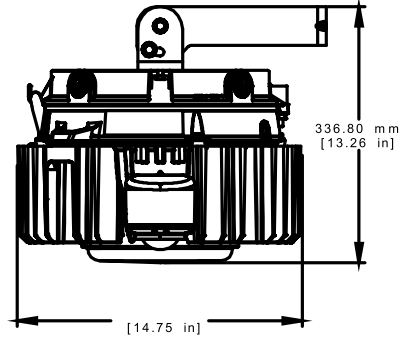
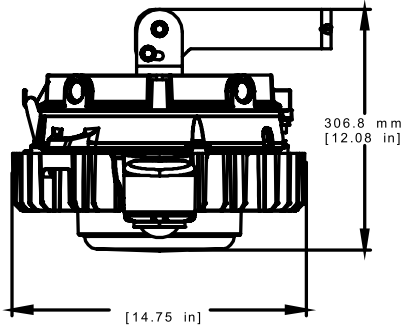
LED Luminaires | Area / Task | Hazardous Location | NEC / CEC / ATEX / IECEx

Dimensional Drawings — Driver Housing with Globe

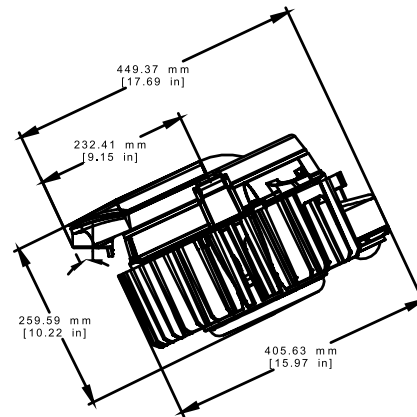
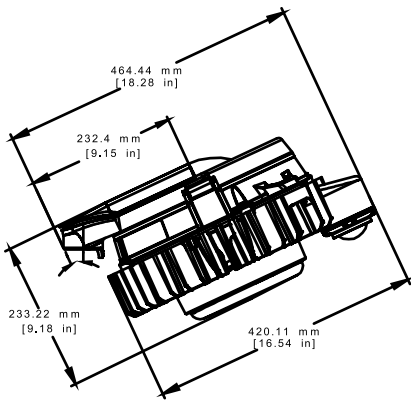
MGCL

MGCH

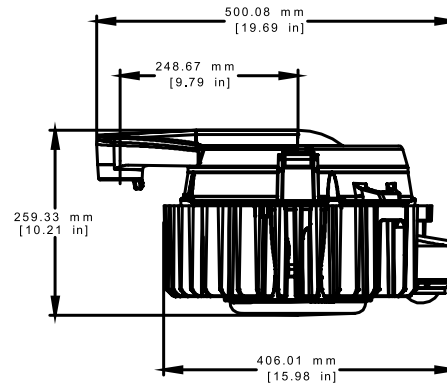
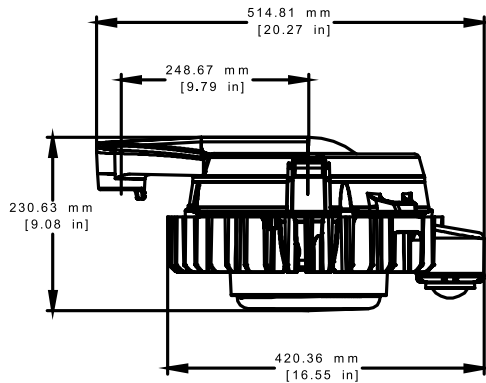
Trunnion Mount



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

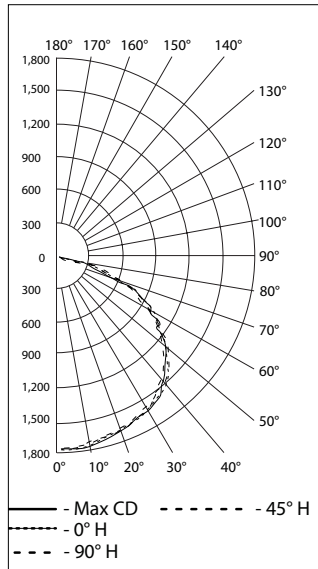
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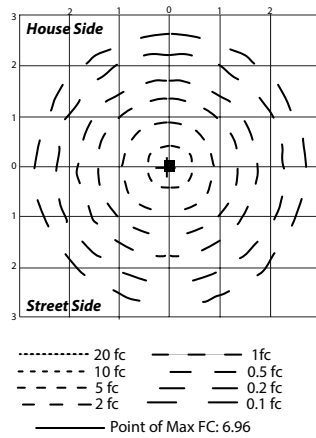
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Type V, Clear Polycarbonate 5000K CCT
 REPORT NUMBER: MGCL5CP5
 Luminaire Lumens 5,660

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% |

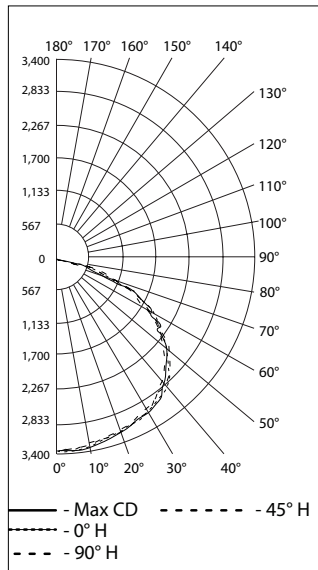
LUMENS PER ZONE

| 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% |

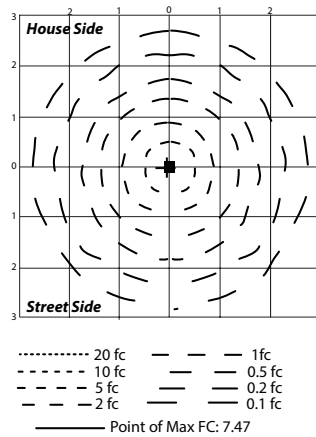
Type V, Clear Polycarbonate 5000K CCT
 REPORT NUMBER: MGCL9CP5

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
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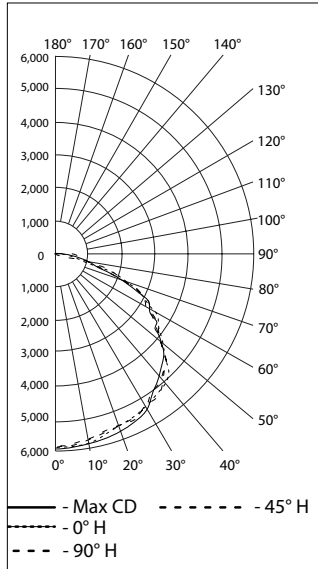
Photometric Data — DATA SHOWN IS ABSOLUTE

Type V, Clear Polycarbonate 5000K CCT

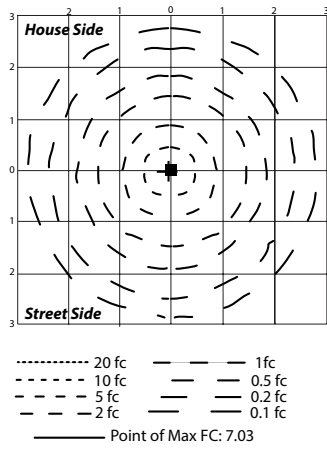
REPORT NUMBER: MGCH6CP5

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.