MERCMASTER™ LED LOW PROFILE LUMINAIRES FOR HAZARDOUS LOCATIONS

SUITABLE LOCATIONS AND APPLICATIONS
- Enclosed and gasketed fixtures suitable for use in:
  - A wide range of industrial, chemical processing and other areas where flammable gases, vapors, and dusts are present
  - Marine and wet locations
  - Areas of low clearance, low ceiling heights or where fixture weights must be minimized
- Typical applications include:
  - Wallways/catwalks
  - Stairwells
  - Grain elevators
  - Tunnels
  - Pipe racks
  - Offshore rigs
  - Vessel lighting
  - Cooling towers
  - Processing areas

FEATURES
- Choice of color temperature (CCT): 5000K cool white, 4000K neutral white or 3000K warm white.
- Seven standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster™ III, Mercmaster™ Premium LED and Mercmaster™ II LED Generation 3.
- Customize to the application requirements with four different field replaceable globe options: clear and diffused polycarbonate, clear glass, or prismatic glass refractor.
- Three light output levels for retrofit of HID fixtures up to 175 W.
- Retrofit adapters for Crouse Hinds™ hood available. See Mercmaster™ CH Adapters.
- Retrofit adapters for Mercmaster™ II hoods available. See Mercmaster™ II Adapters.
- Retrofit adapter for Killark™ hoods available. See Killark™ Adapter.
- New 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.
- Standard 6 kV 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)
- Standard screw-type terminal block can accept UL/CSA 26-10 AWG wire.
- Heavy duty, high temperature silicone rubber gaskets.
- Standard NPT threads.
- LED L70 rated at 109,000 Hours with a calculated fixture life of 200,000 hours @ +25 °C (+77 °F).
- Field replaceable globes and LED driver.
- Rugged housing with superior thermal design translates to long luminaire life.
- Photobiological Safety, per IEC standards

OPTIONS
- Glass globe and glass refractor guard available, purchase separately.
- All Mercmasters have provision for fusing; add suffix –F at the end of the catalog number.
- Photocontrols are available with all except ceiling and pendant cone mounting hoods.

STANDARD MATERIALS
- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Refractor: heat-resistant prismatic glass
- Glass globe guard: stainless steel wire
- Glass refractor guard: die cast aluminum
- 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

RELATED PRODUCTS
- Mercmaster™ Retrofit Adapters
- Mercmaster™ III Products
- Mercmaster™ Generation 3 Products

ACCESSORIES
- Safety Cable - LEDSC
- Refractor Guard - KRG2
- Globe Guard - MGU1
- Angled Reflector - CMR4AN
- Visor - MMVISOR

For product information:
www.appletonelec.com
1.800.621.1506
### NEC/CEC RATINGS
- Class I, Division 2, Group A, B, C, D
- Class I, Zone 2, Group IIIC
- Class II, Division 1, Group E, F, G
- Zone 20, Group IIIIC
- Zone 21, Area B, Zone 11, Group IIIC
- Class III
- Suitable for use in Wet Locations
- Marine Outside Type (Salt Water) For USA ONLY
- Type 3R, 4 and 4X
- IP66/IP67
- Simultaneous Exposure
- American Bureau of Shipping (ABS) Certified
- International Dark Sky (IDA) Approved

### NEC/CEC CERTIFICATIONS AND COMPLIANCES
- UL Standards: UL1598, UL1598A, UL8750, UL508E, UL684
- CSA Standards: 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. 60598-1:16
- NEMA, ANSI/IEC: Master Standard: 60529
- cCSAus Listed: Master Contract 164460, Certificate Number 70134063

### ATEX/IECEX RATINGS AND COMPLIANCES
- Certification Type: Mercmaster™ LED Low Profile
  - Gas: Zones 2
  - Conforming to ATEX 2014/34/EU: II 3 G
  - Type of Protection: Ex e IIC T** Cg
  - Temperature Class: T5 to T4
  - Dust: Zones 21 and 22
  - Conforming to ATEX 2014/34/EU: II 2 D
  - Type of Protection: Ex op ib IIIC T** Cg
  - Temperature Class: T5 to T4

### ATEX/IECEX CERTIFICATIONS AND COMPLIANCES
- ATEX Certificate: Sira 17ATEX9365X
- IIECEx Certificate: IIECEx SIR 17.0085X
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK08
- Photobiological Safety, IEC 62778 and IEC 62471, RG0 on all models and globes

### MERCMASTER™ LED LOW PROFILE LUMINAIRES FOR HAZARDOUS LOCATIONS

#### ATEX/IECEX SERIES
- Certified for cCSAus only.
- 120V-277 VAC versions only. For 347-480 VAC version, please see Mercmaster™ LED Low Profile catalog pages.
- Photocontrols available for cCSAus rating only.
- Luminaires with photocontrol are not rated IP66, Marine Outside Type (Salt Water), or Class II. Photocontrol available for 120-277 VAC only.
- For specific lumen output information, see Lamp Comparison Chart in Mercmaster™ Low Profile LED catalog pages.

### ATEX/IECEX SERIES
- Factory installed. Fusing available for cCSAus rating only.
- Guards for the glass refractors and globes are ordered separately. See Mercmaster™ Low Profile LED Catalog pages.
- J5 glass refractor is available for cCSAus rating only.
- Photocontrols available for cCSAus rating only.
- IDA Dark Sky Approved when ordering MLLED:A(B)CD(R)/W[X]/P(D)/SBox with MMPOS accessory

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**Example part number:** MLLEDA42CJ5BU1

This is a Mercmaster™ LED Low Profile Series luminaire with a pendant mount, 5000 lumen output, 3/4" NPT stanchion, NEMA Type V Clear Polycarbonate Globe. It has a 120-277 VAC or 125-300 VDC, 50/60Hz. It has a 120V photocontrol.

### ATEX/IECEX SERIES

#### MLED Series:
- MLED: NEC/CEC and IECEx/ATEX Certified
- Mercmaster™ LED Low Profile Series

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>2</th>
<th>C</th>
<th>J5</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLLED2</td>
<td>Pendant</td>
<td>Hub Size</td>
<td>Color Temperature:</td>
<td>Voltage:</td>
</tr>
<tr>
<td>MLLED3</td>
<td>Pendant</td>
<td>2-3/4&quot; NPT</td>
<td>C - Cool, 5000K CCT</td>
<td>120-277 VAC, 50/60Hz</td>
</tr>
<tr>
<td>MLLED4</td>
<td>Pendant</td>
<td>3-4&quot; NPT</td>
<td>N - Neutral, 4000K CCT</td>
<td>125-300 VDC</td>
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<tr>
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<td>Pendant</td>
<td>3-4&quot; NPT</td>
<td>W-Warm, 3000K CCT</td>
<td>BH - 347-480 VAC, 50/60Hz</td>
</tr>
</tbody>
</table>

#### IECEX SERIES

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>2</th>
<th>C</th>
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<td>3-4&quot; NPT</td>
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<td>BH - 347-480 VAC, 50/60Hz</td>
</tr>
</tbody>
</table>

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* Refer to ambient range table contained in the IECEx certificate of conformity or the T-code ratings in the catalog pages.
SUITABLE LOCATIONS AND APPLICATIONS

- Enclosed and gasketed fixtures suitable for use in:
  - A wide range of industrial, chemical processing and other areas where flammable gases, vapors, and dusts are present
  - 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

FEATURES

- Three light output levels for retrofit of HID fixtures up to 175 W.
  - 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.
  - 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 maintenance in hazardous locations.
  - Compact light weight low profile design is suited for low mounting heights.
  - 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.
  - Standard 6 kV surge protection.
  - Ambient Temperature: BU: -20°C to +55°C (-4°F to +131°F)
  - Standard screw-type terminal block can accept UL/CSA 26-10 AWG wire.
  - Heavy duty, high temperature silicone rubber gaskets.
  - LED L70 rated at 109,000 Hours @ +25°C (+77°F).
  - Field replaceable globe, battery management module (BMM), battery pack and LED driver.
  - Rugged housing with superior thermal design translates to long luminaire life.
  - Retrofit adapters for Crouse-Hinds™ hood available. See Mercmaster CH Adapters.

STANDARD MATERIALS

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Refractor: heat-resistant prismatic glass
- Glass globe guard: 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

RELATED PRODUCTS

- Mercmaster™ Retrofit Adapters
- Mercmaster™ III Products
- Mercmaster™ Generation 3 Products

ACCESSORIES

- Safety Cable - LEDSC
- Globe Guard - MGU1
- Angled Reflector - CMR4AN
- Exit Sign - EXR400

For product information:
www.appletonelec.com
1.800.621.1506
MERCMASTER™ LED LOW PROFILE EMERGENCY BATTERY BACKUP LUMINAIRES
FOR HAZARDOUS LOCATIONS

MERCMASTER™ LED LOW PROFILE EMERGENCY BATTERY BACKUP LUMINAIRES

**NEC/CEC RATINGS**
- Class I, Division 2, Group A, B, C, D
- Class I, Division 2, Group IIIC
- Zone 21, Group III
- Class II, Division 2 Groups F,G
- Class III
- Suitable for use in Wet Locations
- Type 3K, 4 and 4X
- IP66/IP67
- Simultaneous Exposure
- American Bureau of Shipping (ABS) Certified
- Master Contract 164460; Certificate number 70134063

**NEC/CEC CERTIFICATIONS AND COMPLIANCES**
- UL Standards: UL1598, UL1598A, UL8750, UL508E, UL 844, UL294
- CSA Standards: 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; C22.2 No. 141-15
- NEMA, ANSI/IEC Standard: 60529
- cCSAus Listed; Master Contract 164460

**PRODUCT ORDERING GUIDE**

**MLLED**
- NEC/CEC Certified
- MERCmaster™ LED
- Low Profile with Emergency Battery Backup Series

<table>
<thead>
<tr>
<th>MLLLED A</th>
<th>4</th>
<th>2</th>
<th>C</th>
<th>JS</th>
<th>BU</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hub Size:</td>
<td>2 - 3K Lumens</td>
<td>3 - 4K Lumens</td>
<td>4 - 5K Lumens</td>
<td>Color Temperature:</td>
<td>BU - 120–277 Vac, 50/60Hz</td>
<td>Voltage:</td>
</tr>
<tr>
<td>Lumen Output:</td>
<td>C - Cool, 5000K CCT</td>
<td>N - Neutral, 4000K CCT</td>
<td>W - Warm, 3000K CCT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mounting:</td>
<td>2 - 3/4” NPT</td>
<td>3 - 1” NPT</td>
<td>4 - 1-1/4” NPT stanchion</td>
<td>5 - 1-1/2” NPT stanchion</td>
<td>6 - M20 Metric hub</td>
<td></td>
</tr>
<tr>
<td>Blank - No mounting hood</td>
<td>Blank - No Hub Required - Adapters or no mounting hood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Example part number:** MLLEDA42CD5BUH
This is a MERCMASTER™ LED Low Profile Series luminaire with a pendant mount, 5000 lumen output, 3/4” NPT hub size, 5000K CCT color temperature, with a NEMA Type V Diffused Polycarbonate globe. The voltage is 120-277 Vac or 50/60Hz. It comes with a 90 minute Emergency Battery Backup.

<table>
<thead>
<tr>
<th>MLLLED2</th>
<th>MLLLED3</th>
<th>MLLLED4</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU</td>
<td>BU</td>
<td>BU</td>
</tr>
<tr>
<td>Voltage Range</td>
<td>BU: 120–277 Vac, 50/60Hz</td>
<td></td>
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<tr>
<td>Input Power (@ 120V)</td>
<td>28W</td>
<td>38W</td>
</tr>
<tr>
<td>Color Temperature (CCT)</td>
<td>5000K</td>
<td>4000K</td>
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<tr>
<td>– P5 Lumens</td>
<td>3200</td>
<td>3000</td>
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<tr>
<td>– D5 Lumens</td>
<td>3100</td>
<td>2900</td>
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<tr>
<td>– G5 Lumens</td>
<td>3300</td>
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<tr>
<td>– P5 Lumens</td>
<td>1400</td>
<td>1270</td>
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<tr>
<td>– D5 Lumens</td>
<td>1350</td>
<td>1200</td>
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<tr>
<td>– G5 Lumens</td>
<td>1450</td>
<td>1330</td>
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<tr>
<td>Line Current</td>
<td>0.27 @ 120V</td>
<td>0.33 @ 120V</td>
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<tr>
<td>NEC/CEC T-Code (@ 55 °C simultaneous use)</td>
<td>T4A</td>
<td>T5</td>
</tr>
<tr>
<td>Ambient Temperature</td>
<td>-20 °C to +55 °C (-4 °F to +131 °F)</td>
<td></td>
</tr>
<tr>
<td>CCT/CRI</td>
<td>5000K, 4000K, 3000K/70 CRI</td>
<td></td>
</tr>
<tr>
<td>Fixture Weight</td>
<td>5.8 kg (13.8 lb) (without hood)</td>
<td></td>
</tr>
<tr>
<td>Warranty</td>
<td>60,000+ hours; 5 years</td>
<td></td>
</tr>
</tbody>
</table>

© For specific lumen output information, see Lamp Comparison Chart in MERCMASTER™ Low Profile LED catalog pages.
© Guards for the glass globes are ordered separately. See MERCMASTER™ Low Profile LED Catalog pages.