

MERCMASTER™ LED LOW PROFILE LUMINAIRES

STANDARD — HAZARDOUS LOCATION

FEATURES

- Compact light weight low profile design is suited for low mounting heights
- Customize to the application requirements with four different globe options: clear polycarbonate, diffused polycarbonate, clear glass and prismatic glass refractor complemented by color globes accessories (Amber, Blue, Red and Green)
- Cold start temperature option (-50 °C) for arctic temperature areas
- 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, and Killark™ ‡ hoods available.
- Watertight Pendant Hood available to address the water ingress into the 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
- Hinged wire compartment cover is secured with captive screws for safety and convenience

WARRANTY

- 5 year standard warranty

TYPICAL APPLICATIONS

- 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

- Areas of low clearance, low ceiling heights or where fixture weights must be minimized
- A wide range of industrial, chemical processing and other areas where flammable gases, vapors and combustible dusts are present including simultaneous exposure

LUMINAIRE 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
- Globe guard and safety cable: stainless steel

ACCESSORIES (PURCHASE SEPARATELY)

- Globe guard: MGU1
- Visor: MMVISOR
- Colored Glass globes: Amber (VPGLGLASSAM), Blue (VPGLGLASSBL), Red (VPGLGLASSRE), Green (VPGLGLASSGR)

NEC/CEC/NOM LISTINGS

- NEC: 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
- CEC: Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Zone 20, Group IIIC Class I, Zone 2 Ex ec II
- Type 3R, 4, 4X
- IP66/IP67
- IK08
- Simultaneous Exposure
- Suitable for Use in Wet Locations
- Marine Outside Type (Salt Water)

ATEX/IECEX

- ATEX/IECEX: Zone 2 – 21 and 22

NOTABLE LISTINGS

- ABS Certified
- Dark Sky (IDA) Approved
- DLC listed



MLLED + Clear Globe + Ceiling Mount



MLLED + Short Refractor + Ceiling Mount

RELATED PRODUCTS

- Mercmaster LED Low Profile Luminaires with Emergency Battery Backup
- Mercmaster LED Generation 3 Standard and with Emergency Battery Backup Luminaires
- Mercmaster LED Generation 3 Zone 1 Luminaires
- Mercmaster Connect LED Luminaires
- Industrial Mercmaster LED Low Profile Luminaires
- Industrial Mercmaster LED Generation 3 Standard and with Emergency Battery Backup Luminaires
- Industrial Mercmaster Connect LED Luminaires

① Refer to catalog pages for detailed certification information.

‡ Killark is a registered trademark of Hubbell incorporated.

† Crouse-Hinds and Champ are registered trademarks of Cooper industries, inc., a wholly owned subsidiary of the Eaton Corporation plc.

⊕ For warranty details go to www.appleton.emerson.com.

PRODUCT SPECIFICATIONS

Series * Lumen Output	MLLED*2	MLLED*3	MLLED*4	MLLED*7
Nominal Wattage (W, @120 V)	28	38	48	51
Equivalencies (W, HID)	70 -100	100 -150	150 -175	175-250
Nominal Lumens ①	3500	4750	6000	7460
Efficacy (up to, lm/W) ①	125	125	125	146
Color Temperature (CCT) (K)	5000/4000/3000/1800/Amber			
Color Rendering index (CRI)	≥ 70 CRI (5000K, 1800K) ≥ 80 CRI (4000K/3000K)			
Voltage ②	BU: 100-277 Vac, 50/60 Hz; 125-300 Vdc BH: 347-480 Vac, 50/60 Hz B2: 24-48 Vdc			
Surge Protection	6 kV, 3 kA			
L70 Lifetime (hrs)	Reported: > 60000 hours @ 25 °C > 60000 hours @ 65 °C Calculated: > 200000 hours @ 25 °C > 200000 hours @ 65 °C			
Ambient Temperature ② ④	Standard: -40 °C to +65 °C (-40 °F to +149 °F) Cold Temperature Option: -50 °C to +65 °C (-58 °F to +149 °F)			
Temperature Code ②	T4 - T6			
Fixture Weight - kg (lbs) ④	4.6 (10.1)			
Replaceable Parts	Drivers, Globes			

① Nominal lumens based on Type V optics, 5000K CCT with clear glass lens. Refer to catalog pages for detailed performance.

② Refer to catalog pages for detailed temperature tables/operating temperature based on lumen output/voltage/certification.

③ Driver housing weight shown. See catalog pages for more details.

④ Cold temperature option is available for use with clear glass globe, and BU (100-277 Vac), or B2 (24-48 Vdc) voltages only. Not available with Photocontrol.

APPLETON™

For product information:
www.masteringled.com
1.800.621.1506


EMERSON™

MERCMASTER™ LED LOW PROFILE LUMINAIRES

STANDARD — HAZARDOUS LOCATION

Project Information		Specifications	
Part Number:	_____	Date:	_____
Project:	_____		
Fixture Type:	_____		

CATALOG NUMBERING GUIDE

Series Prefix	Mounting	Lumen (nominal)	Hub Size	Color Temperature	Globe Material	Light Distribution Pattern	Dimming	Voltage	Fusing	Operating Temperature	Options
MLLED						5					

SERIES PREFIX:		LUMEN (NOMINAL): ②		GLOBE MATERIAL: ③		OPERATING TEMPERATURE:	
MLLED	Mercmaster LED Low Profile Series	2	3,300	P	Clear Polycarbonate Globe	C	Cold Temperature -50 °C (-58 °F) Minimum Ambient ⑥
MOUNTING:		3	4,400	D	Diffused Polycarbonate Globe	Blank	Standard -40 °C (-40 °F) Minimum Ambient
A	Pendant	4	5,500	G	Clear Glass Globe ⑧	OPTIONS:	
B	Watertight Pendant ▲	7	7,500 ⑦	J	Short Glass Prismatic Refractor	1	Photocontrol 120V ⑤
C	Ceiling ▲ ⑥	HUB SIZE: ① ⑦		LIGHT DISTRIBUTION PATTERN:		2	Photocontrol 208-277V ⑤
D	Pendant Cone ▲ ⑥	2	3/4" NPT	VOLTAGE: ⑧ ⑨		Blank	No Options Chosen
R	90° Stanchion ①	3	1" NPT	5	Type V		
S	25° Stanchion ①	4	1-1/4" NPT stanchion	BU	100-277 Vac, 50/60 Hz; 125-300 Vdc		
T	Trunion +	5	1-1/2" NPT stanchion	BH	347-480 Vac, 50/60 Hz ▲		
K	Killark™ ✦ Adapter Universal ▲	6	Metric M20 +	B2	24-48 Vdc		
U	Mercmaster II Adapter, Ceiling or Pendant ▲ ⑦	Blank	If using adapter or no hood	FUSING: ④			
V	Mercmaster II Adapter, Stanchion or Wall ▲ ⑦	COLOR TEMPERATURE (CCT): †		F	Fusing		
W	Wall	C	Cool, 5000K	Blank	No fusing		
X	Crouse Hinds™ + Adapter, Ceiling or Pendant ▲	N	Neutral, 4000K				
Y	Crouse Hinds™ + Adapter, Stanchion or Wall ▲	W	Warm, 3000K				
Blank	No mounting hood	S	HPS, 1800K CCT				
		A	Yellow Amber				

- ① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in 90° and 25° Stanchion mounting options.
- 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.

- ⑧ Luminaires have 0-10V variable dimming input providing 10% to 100% dimming curve for BU/BH voltage options at standard temperature and 0% to 100% dimming curve for B2 voltage or cold temperature models.
- ⑨ Cold temperature option is available for use with clear glass globe, and BU (100-277 Vac), or B2 (24-48 Vdc) voltages only. Not available with Photocontrol.
- ⑩ Operating temperature range is -40 °C to +60 °C (-40 °F to +140 °F) for BU/BH standard; -50 °C to +60 °C (-58 °F to +140 °F) for BU/BH cold temperature; -40 °C to +65 °C (-40 °F to +149 °F) for B2 standard; -40 °C to +65 °C (-58 °F to +149 °F) for B2 cold temperature.
- + Metric M20 hub size is only available with Ceiling, Trunion and Wall mount 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. Adapters and BH Voltage are not available for use with photocontrol.
- ✦ Killark is a registered trademark of Hubbell incorporated.
- + Crouse-Hinds is a registered trademark of Cooper industries, inc. a wholly owned subsidiary of the Eaton Corporation plc.
- ⊗ Use of fuse voids Marine Outside Type (Salt Water) rating.

DIMENSIONAL DRAWINGS | MILLIMETERS (INCHES)

MLLED*2 to MLLED*7	
<p>With Globe</p>	<p>With Short Prismatic Glass Refractor</p>

① Driver housing models shown. Refer to catalog pages or the Product Drawing configurator page for additional dimensional information; available on www.masteringled.com.

MERCMASTER™ LED LOW PROFILE LUMINAIRES WITH EMERGENCY BATTERY BACKUP — HAZARDOUS LOCATION

FEATURES

- Compact light weight low profile design is suited for low mounting heights.
- 90 or 180 minutes of emergency battery backup available
- Customize to the application requirements with four different globe options: clear polycarbonate, diffused polycarbonate and clear glass
- 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, and Killark™ hoods available.
- Watertight Pendant Hood with IP68 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
- Hinged wire compartment cover is secured with captive screws for safety and convenience

WARRANTY ④

- 5 year standard warranty

TYPICAL APPLICATIONS

- 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
- Areas of low clearance, low ceiling heights or where fixture weights must be minimized
- A wide range of industrial, chemical processing and other areas where flammable gases, vapors and combustible dusts are present including simultaneous exposure

LUMINAIRE 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
- Globe guard and safety cable: stainless steel wire

ACCESSORIES (PURCHASE SEPARATELY)

- Globe guard: MGU1
- Visor: MMVISOR

NEC/CEC LISTINGS ①

- NEC: 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
- CEC: Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Zone 20, Group IIIC
- Type 3R, 4, 4X
- IP66/IP67
- IK08
- Simultaneous Exposure
- Suitable for Use in Wet Locations
- Marine Outside Type (Salt Water)

NOTABLE LISTINGS ①

- ABS Certified



MLLED + Clear Globe + Ceiling Mount

RELATED PRODUCTS

- Mercmaster LED Low Profile Standard Luminaires
- Mercmaster LED Generation 3 Standard and with Emergency Battery Backup Luminaires
- Mercmaster LED Generation 3 Zone 1 Luminaires
- Mercmaster Connect LED Luminaires
- Industrial Mercmaster LED Low Profile Luminaires
- Industrial Mercmaster LED Generation 3 Standard and with Emergency Battery Backup Luminaires
- Industrial Mercmaster Connect LED Luminaires

① Refer to catalog pages for detailed certification information.

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④ For warranty details go to www.appleton.emerson.com.

PRODUCT SPECIFICATIONS

Series * Lumen Output	MLLED*2	MLLED*3	MLLED*4	MLLED*7
Nominal Wattage (W, @120 V)	28	38	48	56
Equivalencies (W, HID)	70 -100	100 -150	150 -175	175-250
Nominal Lumens Standard Mode ①	3300	4400	5500	7460
Nominal Lumens Emergency Mode ①	1700 (90 min) 850 (180 min)			
Efficacy (up to, lm/W) ①	100	110	112	133
Color Temperature (CCT) (K)	5000/4000/3000/1800/Amber			
Color Rendering index (CRI)	≥ 70 CRI (5000K, 1800K) ≥ 80 CRI (4000K/3000K)			
Voltage	120–277 Vac, 50/60 Hz			
Surge Protection	6 kV, 3 kA			
L70 Lifetime (hrs)	Reported: > 60000 hours @ 25 °C > 60000 hours @ 65 °C Calculated: > 200000 hours @ 25 °C > 200000 hours @ 65 °C			
Ambient Temperature ②	-20 °C to +55 °C (-4 °F to +131 °F)			-20 °C to +50 °C (-4 °F to +122 °F)
Temperature Code ②	T4 - T6			
Fixture Weight - kg (lbs) ③	5.8 (13.8)			
Replaceable Parts	Drivers, Globes, Battery Management Module, Battery Pack			

① Nominal lumens based on Type V optics, 5000K CCT with clear glass lens. Refer to catalog pages for detailed performance.

② Refer to catalog pages for detailed temperature tables/operating temperature based on lumen output/certification.

③ Driver housing weight shown. See catalog pages for more details.

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MERCMASTER™ LED LOW PROFILE LUMINAIRES WITH EMERGENCY BATTERY BACKUP — HAZARDOUS LOCATION

Project Information	Specifications
Part Number: _____ Date: _____	_____
Project: _____	_____
Fixture Type: _____	_____

CATALOG NUMBERING GUIDE

Series Prefix	Mounting	Lumen (nominal)	Hub Size	Color Temperature	Globe Material	Light Distribution Pattern	Voltage	Emergency
MLLED						5	BU	

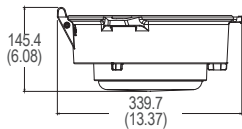
SERIES PREFIX: MLLED Mercmaster LED Low Profile Series with Emergency Battery Backup	MOUNTING: A Pendant B Watertight Pendant ▲ C Ceiling ▲ D Pendant Cone ▲ R 90° Stanchion ① S 25° Stanchion ① T Trunnion † K Killark™ † Adapter Universal ▲ U Mercmaster II Adapter, Ceiling or Pendant ▲ ④ V Mercmaster II 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 7 7,500 HUB SIZE: ① ④ 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 COLOR TEMPERATURE (CCT): † C Cool, 5000K N Neutral, 4000K W Warm, 3000K S HPS, 1800K CCT A Yellow Amber	GLOBE MATERIAL: ③ P Clear Polycarbonate Globe D Diffused Polycarbonate Globe G Clear Glass Globe LIGHT DISTRIBUTION PATTERN: 5 Type V VOLTAGE: ⑤ BU 120–277 Vac, 50/60 Hz EMERGENCY: ⑥ H 90 Minutes E 180 Minutes
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- ① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in 90° and 25° Stanchion mounting options.
- 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.
- ⑤ All luminaires ship standard with a two-wire, 0-10V variable dimming input port for controlling the light output from 10% to 100% of the rated lumen output. Luminaire cannot be dimmed in emergency mode.
- † Metric M20 hub size is only available with Ceiling, Trunnion and Wall mount options.
- ‡ Other CCT options available upon request. Contact your local sales representative for more information.
- ▲ Adapters and watertight pendant hood only certified for cCSAus.
- ◇ Killark is a registered trademark of Hubbell Incorporated.
- † Crouse-Hinds is a registered trademark of Cooper Industries, Inc. a wholly owned subsidiary of the Eaton Corporation plc.

DIMENSIONAL DRAWINGS ① | MILLIMETERS (INCHES)

MLLED*2 to MLLED*7

With Globe



① Driver housing models shown. Refer to catalog pages or the Product Drawing configurator page for additional dimensional information; available on www.masteringled.com.