



## MERCMASTER™ LED LUMINAIRES

- Compact light weight low profile design is suited for low mounting heights.
- Modular design allows scores of fixture component combinations to meet installation needs. Uses same mounting hoods as Mercmaster III.
- Fixture housing and mounting hoods are copperfree cast aluminum with baked epoxy finish. All exposed hardware is stainless steel.
- Accommodates a wide range of voltages.
- Ambient temperatures:
  - 70 W to 100 W equivalent: -40 °C to +65 °C (-40 °F to +149 °F)
  - 150 W to 175 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
  - 250 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
  - 350 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
  - 400 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
- Electrical: 120-277 Vac, 50/60 Hz; 347-480 Vac, 50/60 Hz, Volts +/- 10%.
- Pole terminal block: 1 x 8-24 AWG; 1 x 0.75 to 6 mm<sup>2</sup> (0.0012 to 0.0093 in<sup>2</sup>).
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- All Mercmaster mounting hoods have provision for easy field installation of fuses in fixtures (see Fixture Unit – Electrical Specification).
- NPT and metric threads standard.
- NEMA Type V light distribution is standard.
  - Type V distribution is required in areas where sufficient, evenly distributed light is necessary. It produces a circular distribution that has the same intensity at all angles.
- NEMA Type I light distribution is available as an option for select NEC/CEC certified fixtures.
  - Type I distribution is the perfect lighting for walkways, Type I distribution is perfect for lighting walkways, catwalks or anyplace where a narrow beam of light is required.
- For ATEX/IECEx rated fixtures, ballast bodies and mounting hoods must be purchased separately.

### SUITABLE LOCATIONS

- Enclosed and gasketed fixtures suitable for use in:
  - Marine and wet locations
  - A wide range of industrial, chemical processing and other areas where flammable gases and vapors are present
  - Areas of low clearance, low ceiling heights or where fixture weights must be minimized
  - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered
- Typical applications include:
  - Pulp and paper mills
  - Processing plants
  - Chemical plants
  - Oil refineries
  - Foundries
  - Manufacturing plants
  - Storage areas
  - Waste and sewage treatment
  - Parking garages
  - Other areas where dust, water, dirt and rough usage are a problem

### STANDARD MATERIALS

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate

### STANDARD FINISHES

- Mounting hoods, bodies and guards: baked gray epoxy-clad finish, electrostatically applied for complete uniform protection

### NEC/CEC RATINGS

Class I, Division 2, Groups A, B, C, D  
Class I, Zone 2, AEx nA IIC  
Class II, Division 1, Group E, F, G  
Class II, Division 2, Group F, G  
Class III  
Type 3R, 4, 4X  
IP66/67  
Simultaneous Exposure  
Suitable for Use in Wet Locations  
Marine Outside Type (Salt Water)

### ATEX/IECEx RATINGS

Zone 2 and 22  
II 2 GD  
IP66/67

### NBR IEC RATINGS

Zone 2 and 22  
Ex nA IIC Gc  
Ex tc IIIC Dc  
IP66



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[www.appletonelec.com](http://www.appletonelec.com)  
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**NEC/CEC CERTIFICATIONS AND COMPLIANCES**

- UL Standard: UL 50; UL 844, 12th Ed.; UL 1598, 3rd Ed.; UL 1598A, 1st Ed.; UL 8750, 1st Ed
- CSA Standard: C22.2 No 0-10; C22.2 No. 0.4-04; C22.2 No. 0.5; C22.2 No. 94-M91; C22.2 No. 60529:05; C22.2 No. 137- M81; C22.2 No. 250.0-00; C22.2 No. 60079-0:07; E60079-15:02
- ANSI/UL Standards: 60079-0 – 2002; 60079-15 – 2002
- ANSI/IEC Standards: 60529 – 2004
- cCSAus Certified: 2531848

**NBR IEC BRAZILIAN CERTIFICATIONS AND COMPLIANCES**

- Certification Type: MLEDNA
  - Gas: Zone 2
    - IEC Marking: Ex nA IIC Gc
    - T Rating: T5/T6
  - Dust: Zone 22
    - IEC Marking: Ex tc IIIC Dc
    - Surface Temperature: T92°C (T197.6°F)
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
- Ingress Protection (solid and liquid): IP66
- INMETRO Certificate: BVC 12.1522
- Ex Standards: ABNT NBR IEC 60079-0, ABNT NBR IEC 60079-15, ABNT NBR IEC 60079-31
- Other Standards: ABNT NBR IEC 60529

**ATEX/IECEx CERTIFICATIONS AND COMPLIANCES**

- ATEX
  - Gas: Zone 2
    - Conforming to ATEX 94/9/CE: CE 0081 II 3 G
    - ATEX Protection: Ex nA IIC Gc
    - T Rating:
      - 70 W and 100 W equivalent: T4 [+40 °C(+104 °F)], T4 (131 °F/55 °C), T3 [+65 °C (+149 °F)]
      - 150 W to 175 W equivalent: T4 [+40 °C(+104 °F)], T4 [+ 55 °C (+131 °F)]
      - 250 W equivalent: T4 [+40 °C (+104 °F)], T4 [+50 °C (+122 °F)]
      - 400 W equivalent: T3A [+40 °C (+104 °F)], T3 [+55 °C (+131 °F)]
  - Dust: Zone 22
    - Conforming to ATEX 94/9/CE: CE 0081 II 3 D
    - ATEX Protection: Ex tc IIIC Dc
    - Surface Temperature:
      - 70 W and 175 W equivalent: T92 °C (T197.6 °F)
      - 250 W equivalent: T79 °C (T174.2 °F)
    - Ambient Temperature:
      - 70 W and 100 W equivalent: -40 °C to +65 °C (-40 °F to +149 °F)
      - 150 W to 175 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
      - 250 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
- ATEX Certificate: LCIE 11 ATEX 1008/01
- Index of Protection: IP66

**ATEX/IECEx CERTIFICATIONS AND COMPLIANCES**

- IECEx
  - Gas: Zone 2
    - IEC Protection: Ex nA IIC Gc
    - T Rating:
      - 70 W and 100 W equivalent: T4 [+40 °C (+104 °F)], T4 [+ 55 °C (+131 °F)], T3 [+65 °C (+149 °F)]
      - 150 W to 175 W equivalent: T4 [+40 °C (+104 °F)], T4 [+ 55 °C (+131 °F)]
      - 250 W equivalent: T4 [+40 °C (+104 °F)], T4 [+50 °C (+122 °F)]
  - Dust: Zone 22
    - IEC Protection: Ex tc IIIC Dc
    - Surface Temperature:
      - 70 W and 175 W equivalent: T92 °C (T197.6 °F)
      - 250 W equivalent: T79 °C (T174.2 °F)
    - Ambient Temperature:
      - 70 W and 100 W equivalent: -40 °C to +65 °C (-40 °F to +149 °F)
      - 150 W to 175 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
      - 250 W equivalent: -40 °C to +50 °C (-40 °F to 122 °F)
  - IECEx Certificate: IECEx LCI 11.0058
  - Index of Protection: IP66
  - Ex Standards: IEC 60079-0; 60079-15; 60079-31

	MLEDN70	MLEDN10	MLEDN15	MLEDN17	MLEDN25	MLEDN35	MLEDN40
Equivalent to HPS/PSMH	70 W	100W	150W	175W	250W	350 W	400 W
Voltage Range	BU: 120-277Vac, 50/60Hz BH: 347-480Vac, 50/60Hz					BH: 347-480Vac, 50/60Hz	BU: 120-277Vac, 50/60Hz
LED Lumen	2,300	3,450	4,850	6,075	9,455	11,425	12,850
Input Power (W)	35/33 34/32	47.5/46 42/44	61/62 62/64	74/72 86/88	95.5/92 96/95	102/103	127/128
Efficacy	66	71	80	82	93	112	101
Ambient Temperature	-40 °C to +65 °C (-40 °F to +149 °F)	-40 °C to +65 °C (-40 °F to +149 °F)	-40 °C to +55 °C (-40 °F to +131 °F)	-40 °C to +55 °C (-40 °F to +131 °F)	-40 °C to +50 °C (-40 °F to +122 °F)	-40 °C to +50 °C (-40 °F to +122 °F)	-40 °C to +55 °C (-40 °F to +131 °F)
Typical Mounting Meters (feet)	Max. 2.74 m (9 ft)	2.44 m - 3.66 m (8 ft – 12 ft)	3.66 m - 4.27 m (12ft - 14ft)	> 4.27 m (> 14 ft)	4.88 m - 7.62 m (18 ft – 25 ft)	> 7.62 m (> 25 ft)	> 7.62 m (> 25 ft)
CCT/CRI	5650K/70						
Fixture Weight kg (lbs)	4.8 kg (10.6 lbs)						
Standard Materials	Housing – Copper-free cast aluminum Finish – Baked gray epoxy-clad, electrostatically applied Lens – polycarbonate						
Lifetime	60K+ hours						

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