

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nR IIC (Z2)
Class I, Zone 2, Ex nR IIC (Z) †
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)

Fixtures Outside Type (Salt Water)
Type 4X
IP66

Applications

- 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 or combustible dusts are present under conditions defined by the National Electrical Code as Class I, Division 2; Class II, Division 1 and 2; and Class III
 - Areas of low clearance, low ceiling heights or where fixture weights must be minimized
 - For Zone 2, the method of protection is AEx nA nR – Restricted Breathing/Nonsparking or AEx nR – Restricted Breathing
 - 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

Features

- Compact light weight low profile design is suited for low mounting heights in conjunction with lower wattage fixtures.
- Modular design allows scores of fixture component combinations to meet installation and lighting needs. Uses same mounting hoods and optical accessories as Mercmaster III.
- A choice of heat-resistant prismatic glass refractors (NEMA I, III or V) or heat-resistant globes which thread directly into ballast housing. Photometrics available upon request – contact your local sales representative.
- Standard dome or 30° angle reflectors made of fiberglass reinforced white polyester. Highly resistant to corrosive atmospheres.
- Accommodates medium base lamps.
- A wide range of voltages available (120 to 600 Volt) and ballast types (Reactor, CWA, CWI and Super CWA).
- Medium base lamp type and watts:
 - HPS 50 W-150 W
 - PSMH 50 W-175 W
- 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 III mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kits).
- Fixtures are for use in Class I, Zone 2 hazardous locations.
- The AEx nA nR / Ex nR (†) factory sealed Mercmaster III prevents vapors and gases from entering the globe chamber. There are no seals or putty required which will reduce installation time and installation errors.



Low Profile Mercmaster III with Prismatic Globe and Guard

Standard Materials

- Mounting hoods, bodies and guard: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Reflectors: Fiberglass reinforced white polyester
- Globes and Refractors: heat-resistant prismatic glass

Standard Finishes

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

Options

- Quartz Auxiliary comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination. Quartz Auxiliary supplied with relay switch and socket to accept 120 V quartz double-contact bayonet base lamp (not included). Add suffix **-E †**.
- Guards with gray epoxy painted to match fixtures, supplied with stainless steel screws. Add suffix **-G** before voltage suffix.
- Hot Restrike to restrike HPS lamp immediately when power is restored after a momentary power interruption. Add suffix **-R**.
- Smart Starter incorporates a 1-1/2 minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Available for all fixtures. Add suffix **-S**.
- Smart Hot Restrike will immediately restrike HPS lamp when power is restored after a momentary power interruption. The smart function removes the hot restrike ignitor from the circuit if the lamp burns out or is removed from the socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps. Add suffix **-SR**.
- AEx nA nR fixtures, add suffix **-ZZ**.
- AEx nR fixtures, add suffix **-ZB**.
- Ex nR fixtures, add suffix **-Z †**.
- Reflectors are available as standard dome and 30° angle polyester. Order separately.

† Fixtures equipped with quartz auxiliary lamp do not comply with NEC/CEC † requirements and are not suitable for use in classified locations.

† CSA Certification Only.

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Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, Ex nR IIC (Z) ¹
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)

Fixtures Outside Type (Salt Water)
Type 4X
IP66

Certifications and Compliances *

- UL Listed: 60079-15
- UL Standard: 1598A, UL 844, Marine Type Electric Fixtures Outside Type (Salt Water)
- CSA Certified: LR25428

Related Products

- Photocells for classified use are available, see PCD2 Series.

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide

| ML | A | L | 15 | 2 | G1 | G | MT | R | Z2 |
|--|--|--|----|--|----|--|---|---|----|
| Series: ML - Mercmaster III Low Profile | | Lamp Type: I - Incandescent L - High Pressure Sodium H or P - Pulse Start Metal Halide H - 175 W Metal Halide (available with TT voltage only) ¹ | | Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion | | Guard Options: G - Cast Guard N - No Guard | | Options: E - Emergency Quartz ⁵ F - Fuse Kit (Specify Voltage) ⁶ R - Hot Restrike ³ S - Smart Starter ⁴ SR - Smart Hot Restrike ³ H1 - Photocontrol 120 V H2 - Photocontrol 208 V H3 - Photocontrol 240 V H4 - Photocontrol 277 V C - Safety Cable Adapted ¹ D - E-27 Export Socket T - Terminal Blocks ¹ V - Anti-Vibration Modifications ¹ X - Appledapter ⁷ Mounting Hood Adapter ¹ <i>Optional Fusing</i> ⁸ FN - 120 V FP - 208 V FS - 240 V FT - 277 V FF - 480 V | |
| | Mounting: A - Pendant (rigid mounting) C - Ceiling D - Pendant Cone Hood F - Pendant (flexible mounting) R - 90° Stanchion S - 25° Stanchion W - Wall | Wattage: 10 - 100 W HPS, PSMH 15 - 150 W HPS, PSMH and 60-150 W max. Incandescent 17 - 175 W PSMH 17 - 175 W MH ¹ 50 - 50 W HPS, PSMH 70 - 70 W HPS, PSMH | | Optical Assembly: ² G1 - Globe J1 - NEMA I Glass Reflector J3 - NEMA III Glass Reflector J5 - NEMA V Glass Reflector P2 - NEMA II Polymeric Reflector P3 - NEMA III Polymeric Reflector P4 - NEMA IV Polymeric Reflector P5 - NEMA V Polymeric Reflector | | Voltage: ¹ LB - Incandescent, 120, 60 Hz MT - 120/208/240/277, 60 Hz 5MT - 120/208/240/ 277/480, 60 Hz 48 - 480, 60 Hz 125 - 120, 50 Hz 225 - 225, 50 Hz 226 - 220, 60 Hz 245 - 240, 50 Hz C2 - 208, 60 Hz, CWI ¹ C3 - 240, 60 Hz, CWI ¹ C6 - 480, 60 Hz, CWI ¹ C7 - 600, 60 Hz, CWI ¹ TT - 120/277/347, 60 Hz, CWA ¹ | Suffix: Z2 - Zone 2 suffix (required for AEx nA nR rating) ZB - Zone 2 suffix (required for AEx nR) Z - Zone 2 suffix (required for Ex nR) ¹ | | |

* Compliance data varies for specific fixtures. Consult Appleton regarding suitability of specific fixtures for a particular application.
¹ Other voltages, frequencies available – contact your local sales representative. Voltages shown are limited to specific combinations; refer to following pages.
² Polymeric Refractor suitable for Class II, Groups F and G, NEMA 4X and Marine Type Electric Fixtures Outside Type (Salt Water) only (100 W PSMH Max.). Reflectors ordered separately.
³ Available for 50-150 W HPS fixtures only.
⁴ Available for HPS or PSMH fixtures.
⁵ Not suitable for hazardous location per NEC/CEC ¹.
⁶ Canadian Electrical Code does NOT allow fusing in hazardous locations ¹.
⁷ Appledapter is available for use with the pendant, ceiling and angled stanchion mounting only.
⁸ Optional fusing is available for use with MT, 5MT and 48 voltage suffixes ONLY.
¹ CSA Certification Only.

Mercmaster™ III Low Profile Luminaire Thermal Performance

Class I, Division 2; Class II, Division 1; Simultaneous exposure to hazardous conditions in both classifications

Temperature identification numbers of Mercmaster III Low Profile High Pressure Sodium and Pulse Start Metal Halide

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class I, Zone 2, Ex nR IIC (Z) ¹
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)

Fixtures Outside Type (Salt Water)
Type 4X
IP66

| Lamp Watts | Type | Supply Wire Min. Temp. | Ambient Temp. (°F/°C) | Class I, Division 2 | | | Class II, Division 1 Groups E, F and G | | | Simultaneous Exposure Class I, Division 2 / Class II, Division 1 | | |
|---------------|-----------------|---------------------------------|-----------------------------|---------------------|----------------------|-----------|---|----------------------|-----------|---|----------------------|-----------|
| | | | | Globe | Globe & Reflector | Reflector | Globe | Globe & Reflector | Reflector | Globe | Globe & Reflector | Reflector |
| 50 | HPS | 194/90 | 104/40 | T3 | T3 | T3B | T4A | T4A | T5 | T3 | T3 | T3 |
| | | 194/90 | 131/55 | T3 | T3 | T3A | T4A | T4A | T4A | T2D | T2D | T2D |
| | | 194/90 | 149/65 | T3 | T3 | T3A | T4 | T4 | T4A | T2C | T2C | T2C |
| 70 | HPS | 194/90 | 104/40 | T3 | T3 | T3 | T4 | T4 | T5 | T2B | T2B | T2D |
| | | 194/90 | 131/55 | T2D | T2D | T3 | T3C | T3C | T4A | T2B | T2B | T2C |
| | | 194/90 | 149/65 | — | — | T3 | — | — | T4 | — | — | T2B |
| 100 | HPS | 194/90 | 104/40 | T2C | T2C | T2D | T4 | T4 | T4A | T2B | T2B | T2B |
| | | 194/90 | 131/55 | T2B | T2B | T2C | T3C | T3C | T4 | T2A | T2A | T2A |
| | | 194/90 | 149/65 | — | — | — | — | — | — | — | — | — |
| 150 | HPS | 194/90 | 104/40 | T2A | T2A | T2B | T3A * | — | T4 | 325 | — | T2 |
| 50 | PSMH | 194/90 | 104/40 | T3 | T3 | T3A | T4A | T4A | T6 | T2D | T2D | T3 |
| | | 194/90 | 131/55 | T3 | T3 | T3 | T4 | T4 | T5 | T2C | T2C | T2D |
| | | 194/90 | 149/65 | T3 | T3 | T3 | T4 | T4 | T4A | T2B | T2B | T2D |
| 70 | PSMH | 194/90 | 104/40 | T3 | T3 | T3 | T3C | T3C | T4A | T2B | T2B | T2C |
| | | 194/90 | 131/55 | T2D | T2D | T3 | T3C | T3C | T4A | T2A | T2A | T2B |
| | | 230/110 | 149/65 | — | — | T3 | — | — | T4 | — | — | T2B |
| 100 | PSMH | 194/90 | 104/40 | T2A | T2A | T2B | T3B | T3B | T4A | T2 | T2 | T2A |
| | | 194/90 | 131/55 | T2A | T2A | T2B | T3A * | T3A * | T4 | T1 | T1 | T2 |
| 150 | PSMH | 230/105 | 104/40 | 350 | 350 | 325 | — | — | T3B | — | — | T1 |
| 175 | PSMH | 230/105 | 104/40 | 350 | 350 | 325 | — | — | T3B | — | — | T1 |
| 175 | MH ¹ | 230/110 | 104/40 | — | — | 325 | — | — | T3B | — | — | — |
| 60 | Inc. | 194/90 | 104/40 | T3B | T3B | T3C | — | — | — | — | — | — |
| | | 194/90 | 131/55 | T3A | T3A | T3C | — | — | — | — | — | — |
| | | 194/90 | 149/65 | T3A | T3A | T3C | — | — | — | — | — | — |
| 100 | Inc. | 194/90 | 104/40 | T3 | T3 | T3 | — | — | — | — | — | — |
| | | 194/90 | 131/55 | T3 | T3 | T3 | — | — | — | — | — | — |
| | | 194/90 | 149/65 | T2D | T2D | T3 | — | — | — | — | — | — |
| 150 | Inc. | 194/90 | 104/40 | T2D | T2D | T3 | — | — | — | — | — | — |
| | | 194/90 | 131/55 | T2B | T2B | T2D | — | — | — | — | — | — |
| | | 194/90 | 149/65 | T2B | T2B | T2D | — | — | — | — | — | — |

“T” Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.

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

* “T” numbers are for Groups E and F only.
¹ CSA Certification only.

Mercmaster™ III Low Profile Luminaire Ballast Bodies

High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

Ballast Bodies



Ballast Body for Glass Refractor

High Pressure Sodium
High Power Factor (Min. P.F. 90%)



Ballast Body for Glass Globe or Polymeric Refractor

Pulse Start Metal Halide
Super Constant Wattage Autotransformer (Min. P.F. 90%)

| Lamp Type | Lamp Watts | Catalog Number ①② | | Voltage Suffixes | | | | | | | | | | | | | | |
|-----------|------------|-------------------|------------------|------------------|----|-----|----|-----|-----|-----|-----|-----|------|------|------|------|------|---|
| | | For Globe | For Refractor | LB | MT | 5MT | 48 | 125 | 225 | 226 | 235 | 245 | C2 ③ | C3 ③ | C6 ③ | C7 ③ | TT ③ | |
| Inc. | 150 Max. | MLBG15I | MLBR15I | X | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| HPS | 50 | MLBG50L ④ | MLBR50L ④ | — | X | — | — | — | X | X | — | X | — | — | — | — | — | X |
| HPS | 70 | MLBG70L ④ | MLBR70L ④ | — | X | — | X | X | X | X | — | X | — | — | — | — | — | X |
| HPS | 100 | MLBG10L ④ | MLBR10L ④ | — | X | — | X | X | X | X | — | X | — | — | — | — | — | X |
| HPS | 150 | MLBG15L ④ | MLBR15L ④ | — | X | — | X | X | X | X | — | X | X | X | X | X | X | X |
| PSMH | 50 | MLBG50H ⑤ | MLBR50H ⑤ | — | X | — | X | — | — | — | — | — | — | — | — | — | — | X |
| PSMH | 70 | MLBG70H ⑤ | MLBR70H ⑤ | — | X | — | X | X | X | — | — | X | — | — | — | — | — | X |
| PSMH | 100 | MLBG10H ⑤ | MLBR10H ⑤ | — | X | — | X | X | X | — | — | X | — | — | — | — | — | X |
| PSMH | 150 | MLBG15P ⑤ | MLBR15P ⑤ | — | X | — | X | — | — | — | — | X | — | — | — | — | — | X |
| PSMH | 175 | MLBG17P ⑤ | MLBR17P ⑤ | — | X | X | X | — | — | — | — | X | — | — | — | — | — | X |
| MH ⑥ | 175 | MLBG17H ② | MLBR17H ② | — | X | — | — | — | — | — | — | — | — | — | X | X | X | X |

Voltages:

LB - Incandescent, 120 V 60 Hz
MT - 120/208/240/277 V 60 Hz
5MT - 120/208/240/277/480 V 60 Hz
48 - 480 V 60 Hz
125 - 120 V 50 Hz
225 - 225 V 50 Hz
226 - 220 V 60 Hz

235 - 230 V 50 Hz
245 - 240 V 50 Hz
C2 - 208 V 60 Hz, CWI ⑦
C3 - 240 V 60 Hz, CWI ⑦
C6 - 480 V 60 Hz, CWI ⑦
C7 - 600 V 60 Hz, CWI ⑦
TT - 120/277/347 V 60 Hz, CWA ⑦

① After voltage suffix add: **-S** for Smart Starter, **-SR** for Smart Hot Restrike, **-R** for ballast body with Hot Restrike Ignitor.
 ② Add **-E** after voltage suffix for ballast body with provision for Quartz Emergency Light. Not suitable for hazardous locations.
 ③ After voltage suffix add: **-S** for Smart Starter.
 ④ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).
 ⑤ Add **Z** for factory sealed restricted breathing protection (Ex nR) ⑦.
 ⑦ CSA Certification Only.

Lighting
 LIGHTING: ENCLOSED AND GASKETED — AREA — HID

Mercmaster™ III Low Profile Luminaire Electrical Specifications and Fuse Kits

High Pressure Sodium and Pulse Start Metal Halide

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Class I, Zone 2, Ex nR IIC (Z) ¹
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G
Class III
Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)

Fixtures Outside Type (Salt Water)
Type 4X
IP66

Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – HID

Electrical Specifications

| Line Voltage | Type of Ballast ① | Starting Amps | Operating Amps | Total Watts |
|--|-------------------|---------------|----------------|-------------|
| 50 Watt High Pressure Sodium | | | | |
| 120 | HX-HPF | 0.58 | 0.58 | 64 |
| 208 | HX-HPF | 0.35 | 0.33 | 64 |
| 240 | HX-HPF | 0.31 | 0.29 | 64 |
| 277 | HX-HPF | 0.25 | 0.25 | 64 |
| 347 ¹ | HX-HPF | 0.26 | 0.21 | 68 |
| 70 Watt High Pressure Sodium | | | | |
| 120 | HX-HPF | 0.90 | 0.82 | 94 |
| 208 | HX-HPF | 0.50 | 0.48 | 94 |
| 240 | HX-HPF | 0.44 | 0.41 | 94 |
| 277 | HX-HPF | 0.35 | 0.36 | 94 |
| 347 ¹ | HX-HPF | 0.30 | 0.30 | 94 |
| 480 | HX-HPF | 0.21 | 0.21 | 94 |
| 100 Watt High Pressure Sodium | | | | |
| 120 | HX-HPF | 1.30 | 1.15 | 130 |
| 208 | HX-HPF | 0.76 | 0.67 | 130 |
| 240 | HX-HPF | 0.66 | 0.60 | 130 |
| 277 | HX-HPF | 0.60 | 0.52 | 130 |
| 347 ¹ | HX-HPF | 0.45 | 0.39 | 130 |
| 480 | HX-HPF | 0.33 | 0.31 | 135 |
| 480 | C.W.I. | 0.17 | 0.30 | 130 |
| 600 | C.W.I. | 0.14 | 0.24 | 130 |
| 150 Watt High Pressure Sodium ② | | | | |
| 120 | HX-HPF | 2.00 | 1.70 | 188 |
| 208 | HX-HPF | 1.15 | 0.95 | 188 |
| 240 | HX-HPF | 1.00 | 0.85 | 188 |
| 277 | HX-HPF | 0.85 | 0.72 | 188 |
| 347 ¹ | HX-HPF | 0.52 | 0.56 | 188 |
| 480 | HX-HPF | 0.50 | 0.47 | 189 |
| 480 | C.W.I. | 0.25 | 0.42 | 190 |
| 600 | C.W.I. | 0.19 | 0.35 | 190 |
| 50 Watt Pulse Start Metal Halide | | | | |
| 120 | HX-HPF | 0.87 | 0.62 | 67 |
| 208 | HX-HPF | 0.51 | 0.40 | 67 |
| 240 | HX-HPF | 0.47 | 0.35 | 67 |
| 277 | HX-HPF | 0.32 | 0.32 | 67 |
| 347 ¹ | HX-HPF | 0.15 | 0.20 | 67 |
| 70 Watt Pulse Start Metal Halide | | | | |
| 120 | HX-HPF | 0.80 | 0.85 | 95 |
| 208 | HX-HPF | 0.50 | 0.52 | 95 |
| 240 | HX-HPF | 0.43 | 0.44 | 95 |
| 277 | HX-HPF | 0.39 | 0.39 | 95 |
| 347 ¹ | HX-HPF | 0.20 | 0.28 | 88 |
| 480 | HX-HPF | 0.26 | 0.23 | 95 |
| 100 Watt Pulse Start Metal Halide | | | | |
| 120 | HX-HPF | 1.20 | 1.15 | 130 |
| 208 | HX-HPF | 0.70 | 0.70 | 130 |
| 240 | HX-HPF | 0.61 | 0.58 | 130 |
| 277 | HX-HPF | 0.55 | 0.50 | 130 |
| 347 ¹ | HX-HPF | 0.40 | 0.40 | 129 |
| 480 | HX-HPF | 0.30 | 0.35 | 140 |

Electrical Specifications

| Line Voltage | Type of Ballast ① | Starting Amps | Operating Amps | Total Watts |
|---|-------------------|------------------------|-----------------------------|------------------------------|
| 150 Watt Pulse Start Metal Halide | | | | |
| 120 | HX-HPF | 1.75 | 1.60 | 188 |
| 208 | HX-HPF | 1.30 | 1.00 | 188 |
| 240 | HX-HPF | 0.85 | 0.80 | 188 |
| 277 | HX-HPF | 0.77 | 0.70 | 188 |
| 347 ¹ | Super C.W.A. | 0.65 | 0.55 | 185 |
| 480 | Super C.W.A. | 0.45 | 0.42 | 185 |
| 175 Watt Pulse Start Metal Halide | | | | |
| 120 | Super C.W.A. | 0.90 | 1.78 | 199 |
| 208 | Super C.W.A. | 0.50 | 1.08 | 199 |
| 240 | Super C.W.A. | 0.35 | 0.89 | 199 |
| 277 | Super C.W.A. | 0.30 | 0.76 | 199 |
| 347 ¹ | Super C.W.A. | 0.25 | 0.65 | 208 |
| 480 | Super C.W.A. | 0.25 | 0.50 | 213 |
| 175 Watt Metal Halide ¹ | | | | |
| 120 | C.W.A. | 1.30 | 1.80 | 210 |
| 208 | C.W.A. | 0.75 | 1.04 | 210 |
| 240 | C.W.A. | 0.65 | 0.90 | 210 |
| 277 | C.W.A. | 0.55 | 0.80 | 210 |
| 347 | C.W.A. | 0.50 | 0.65 | 210 |
| 480 | C.W.I. | 0.20 | 0.45 | 215 |
| 600 | C.W.I. | 0.16 | 0.37 | 215 |
| Fuse Kit for Field Installation | | | | |
| Lamp Watts | Volts | Fuse Quantity Required | Fuse Kit Catalog Number HPS | Fuse Kit Catalog Number PSMH |
| 50W | 120 | 1 | F5 | F3 |
| | 208 | 2 | F3 | F3 |
| | 240 | 2 | F3 | F2 |
| | 277 | 1 | F2 | F2 |
| | 347 ¹ | 1 | F1 | F1 |
| 70W | 120 | 1 | F5 | F4 |
| | 208 | 2 | F3 | F3 |
| | 240 | 2 | F3 | F3 |
| | 277 | 1 | F2 | F2 |
| | 347 ¹ | 1 | F1 | F2 |
| 100W | 480 | 2 | F2 | F1 |
| | 120 | 1 | F8 | F6 |
| | 208 | 2 | F5 | F4 |
| | 240 | 2 | F5 | F3 |
| | 277 | 1 | F3 | F3 |
| 150W | 347 ¹ | 1 | F1 | F2 |
| | 480 | 2 | F3 | F2 |
| | 120 | 1 | F10 | F10 |
| | 208 | 2 | F5 | F5 |
| | 240 | 2 | F5 | F5 |
| 175W | 277 | 1 | F5 | F4 |
| | 347 ¹ | 1 | F2 | F2 |
| | 480 | 2 | F3 | F3 |
| | 120 | 1 | — | F5 |
| | 208 | 2 | — | F3 |
| | 240 | 2 | — | F3 |
| | 277 | 1 | — | F2 |
| | 347 ¹ | 1 | F2 | F2 |
| | 480 | 2 | — | F2 |

① C.W.A. – Constant Wattage Autotransformer. HX-HPF – High Reactance High Power Factor Autotransformer. Super C.W.A. – Super Constant Wattage Autotransformer.

② 150 W HPS units equipped with ballasts to operate 55 V lamps only.

¹ CSA Certification Only.

Mercmaster™ III Low Profile Luminaire Photometric Data

100 W PSMH

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

* Photometric data is based on a fixture with a 100-watt clear Pulse Start Metal Halide lamp (8,500 lumen).

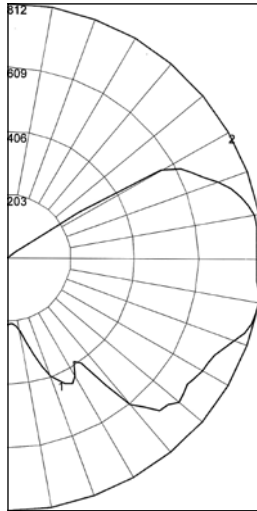
For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for a 50 W (3400 lumen) PSMH lamp – 0.40; for a 70 W (5600 lumen) PSMH lamp – 0.66; for a 150 W (10,500 lumen) PSMH lamp – 1.24; for a 175 W (17,500 lumen) PSMH lamp – 2.06.

For candlepower values of fixture with guard, multiply by – 0.95.

| Zone | Lumens | Total Luminaire Efficiency = 85.7% | |
|---------|--------|------------------------------------|--|
| 0-10 | 21.19 | CIE Type – Semi-Direct | |
| 10-20 | 93.55 | | |
| 20-30 | 201.68 | | |
| 30-40 | 291.92 | | |
| 40-50 | 523.42 | | |
| 50-60 | 637.38 | | |
| 60-70 | 732.34 | | |
| 70-80 | 845.58 | | |
| 80-90 | 874.42 | | |
| 90-100 | 870.80 | | |
| 100-110 | 809.33 | | |
| 110-120 | 643.44 | | |
| 120-130 | 139.00 | | |
| 130-140 | 0.71 | | |
| 140-150 | 0.00 | | |
| 150-160 | 0.00 | | |
| 160-170 | 0.00 | | |
| 170-180 | 0.00 | | |

| Plane | | Spacing Criteria | |
|----------|--|------------------|--|
| 0-180 | | 3.20 | |
| 90-270 | | 3.20 | |
| Diagonal | | 3.08 | |

| Zonal Lumen Summary | | | |
|---------------------|---------|--------|-----------|
| Zone | Lumens | % Lamp | % Fixture |
| 0-30 | 316.42 | 4.1 | 4.7 |
| 0-40 | 608.33 | 7.8 | 9.1 |
| 0-60 | 1769.13 | 22.7 | 26.5 |
| 0-90 | 4221.46 | 54.1 | 63.2 |
| 90-120 | 2323.56 | 29.8 | 34.8 |
| 90-130 | 2462.56 | 31.6 | 36.8 |
| 90-150 | 2463.27 | 31.6 | 36.8 |
| 90-180 | 2463.27 | 31.6 | 36.8 |
| 0-180 | 6684.73 | 85.7 | 100.0 |



REPORT NUMBER: **ML10HG**

Lamps: 100 W Pulse Start Metal Halide with Globe only *

Coefficients of Utilization – Zonal Cavity Method

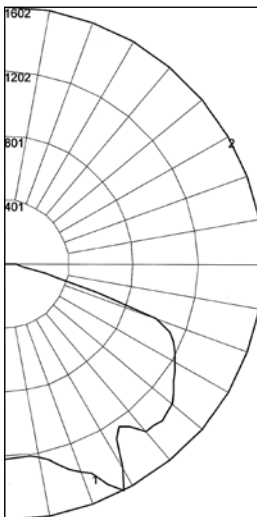
Effective Floor Cavity Reflectance 0.20

| % Ceiling Rcc | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | | | | 0 |
|---------------|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|---|
| | % Walls | Rw | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | | |
| 0 | 95 | 95 | 95 | 95 | 89 | 89 | 89 | 89 | 78 | 78 | 78 | 68 | 68 | 68 | 58 | 58 | 58 | 54 | | | |
| 1 | 81 | 74 | 69 | 64 | 75 | 69 | 64 | 60 | 60 | 56 | 52 | 51 | 48 | 45 | 43 | 40 | 38 | 34 | | | |
| 2 | 71 | 62 | 54 | 48 | 66 | 57 | 50 | 45 | 49 | 43 | 39 | 41 | 37 | 33 | 34 | 31 | 28 | 24 | | | |
| 3 | 64 | 52 | 44 | 37 | 59 | 49 | 41 | 35 | 41 | 35 | 30 | 35 | 30 | 26 | 29 | 25 | 21 | 18 | | | |
| 4 | 57 | 45 | 37 | 30 | 53 | 42 | 34 | 28 | 36 | 29 | 24 | 30 | 25 | 20 | 25 | 20 | 17 | 14 | | | |
| 5 | 52 | 40 | 31 | 25 | 48 | 37 | 29 | 23 | 31 | 25 | 20 | 26 | 21 | 17 | 21 | 17 | 14 | 11 | | | |
| 6 | 48 | 35 | 27 | 21 | 44 | 33 | 25 | 19 | 28 | 21 | 17 | 23 | 18 | 14 | 19 | 15 | 11 | 9 | | | |
| 7 | 44 | 31 | 23 | 17 | 40 | 29 | 22 | 16 | 25 | 19 | 14 | 21 | 16 | 12 | 17 | 13 | 10 | 7 | | | |
| 8 | 41 | 28 | 20 | 15 | 37 | 26 | 19 | 14 | 22 | 16 | 12 | 19 | 14 | 10 | 16 | 11 | 8 | 6 | | | |
| 9 | 38 | 26 | 18 | 13 | 35 | 24 | 17 | 12 | 20 | 15 | 11 | 17 | 12 | 9 | 14 | 10 | 7 | 5 | | | |
| 10 | 35 | 23 | 16 | 12 | 32 | 22 | 15 | 11 | 19 | 13 | 9 | 16 | 11 | 8 | 13 | 9 | 6 | 5 | | | |

| Zone | Lumens | Total Luminaire Efficiency = 75.8% | |
|---------|---------|------------------------------------|--|
| 0-10 | 116.29 | CIE Type – Direct | |
| 10-20 | 371.61 | | |
| 20-30 | 692.88 | | |
| 30-40 | 821.73 | | |
| 40-50 | 1064.03 | | |
| 50-60 | 1154.58 | | |
| 60-70 | 1134.19 | | |
| 70-80 | 470.22 | | |
| 80-90 | 83.66 | | |
| 90-100 | 0.82 | | |
| 100-110 | 0.00 | | |
| 110-120 | 0.00 | | |
| 120-130 | 0.00 | | |
| 130-140 | 0.00 | | |
| 140-150 | 0.00 | | |
| 150-160 | 0.00 | | |
| 160-170 | 0.00 | | |
| 170-180 | 0.00 | | |

| Plane | | Spacing Criteria | |
|----------|--|------------------|--|
| 0-180 | | 1.70 | |
| 90-270 | | 1.70 | |
| Diagonal | | 1.84 | |

| Zonal Lumen Summary | | | |
|---------------------|---------|--------|-----------|
| Zone | Lumens | % Lamp | % Fixture |
| 0-30 | 1180.78 | 15.1 | 20.0 |
| 0-40 | 2002.50 | 25.7 | 33.9 |
| 0-60 | 4221.11 | 54.1 | 71.4 |
| 0-90 | 5909.17 | 75.8 | 100.0 |
| 90-120 | 0.82 | 0.0 | 0.0 |
| 90-130 | 0.82 | 0.0 | 0.0 |
| 90-150 | 0.82 | 0.0 | 0.0 |
| 90-180 | 0.82 | 0.0 | 0.0 |
| 0-180 | 5910.00 | 75.8 | 100.0 |



REPORT NUMBER: **ML10HST**

Lamps: 100 W Pulse Start Metal Halide with Standard Dome Reflector *

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

| % Ceiling Rcc | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | | | | 0 |
|---------------|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|---|
| | % Walls | Rw | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | | |
| 0 | 90 | 90 | 90 | 90 | 88 | 88 | 88 | 88 | 84 | 84 | 84 | 81 | 81 | 81 | 77 | 77 | 77 | 76 | | | |
| 1 | 82 | 78 | 74 | 71 | 80 | 76 | 73 | 70 | 73 | 70 | 68 | 70 | 68 | 66 | 67 | 65 | 64 | 62 | | | |
| 2 | 73 | 66 | 61 | 56 | 71 | 65 | 60 | 55 | 62 | 58 | 54 | 60 | 56 | 53 | 57 | 54 | 51 | 50 | | | |
| 3 | 66 | 57 | 50 | 45 | 64 | 56 | 50 | 45 | 54 | 48 | 44 | 51 | 47 | 43 | 49 | 46 | 42 | 40 | | | |
| 4 | 60 | 50 | 43 | 37 | 58 | 49 | 42 | 37 | 47 | 41 | 36 | 45 | 40 | 36 | 43 | 39 | 35 | 33 | | | |
| 5 | 54 | 44 | 36 | 31 | 53 | 43 | 36 | 31 | 41 | 35 | 30 | 40 | 34 | 30 | 38 | 33 | 30 | 28 | | | |
| 6 | 50 | 39 | 32 | 26 | 48 | 38 | 31 | 26 | 37 | 31 | 26 | 35 | 30 | 26 | 34 | 29 | 25 | 24 | | | |
| 7 | 46 | 35 | 28 | 23 | 45 | 34 | 27 | 23 | 33 | 27 | 22 | 32 | 26 | 22 | 31 | 26 | 22 | 20 | | | |
| 8 | 43 | 32 | 25 | 20 | 41 | 31 | 24 | 20 | 30 | 24 | 20 | 29 | 24 | 20 | 28 | 23 | 19 | 18 | | | |
| 9 | 40 | 29 | 22 | 18 | 38 | 28 | 22 | 18 | 27 | 22 | 17 | 27 | 21 | 17 | 36 | 21 | 17 | 16 | | | |
| 10 | 37 | 26 | 20 | 16 | 36 | 26 | 20 | 16 | 25 | 20 | 16 | 24 | 19 | 16 | 24 | 19 | 15 | 14 | | | |