

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

UNILETS® for Use with Threaded Metal Conduit.

NEC:

Class I, Division 2, Groups A, B, C, D ①

Class II, Division 1 and 2, Groups E, F, G ②

Class III

Fixtures Outside Type (Salt Water)

Applications

- Enclosed and gasketed HID lighting fixtures for use in tunnels, walkways, bridges, storage facilities, processing plants, parking lots, foundries, manufacturing plants, power plants and other locations where moisture, dirt, dust or corrosive atmospheres are encountered.
- Fixtures suited for Class I, Division 2; Class II, Division 1 and 2; and Class III. Suitable for use in wet and outdoor saltwater locations.
- Wide range of wattages and voltages. Choice of ballasts for 100 W-200 W PSMH; and 50 W-150 W HPS lamps in 120, 208, 240, 277 and 480 voltages.
- Choice of light sources: high pressure sodium and pulse start metal halide.
- Choice of optical assemblies: (1) prismatic globe with or without guard through 200 W; or (2) Type V closed prismatic glass refractor through 200 W. (Types II, III and IV also available through 200 W. Also polycarbonate globes for 100 W max.)
- Choice of mounting hoods: pendant (rigid or flexible), 25° (angle) stanchion, ceiling and wall mounting.
- Porcelain reflector for standard applications and Fiberglass reinforced polyester reflector for installations where luminaire is subject to exceptionally severe corrosive atmospheres.

Features

- Superior corrosion-resistance: copperfree aluminum mounting hoods, ballasts and guards with epoxy powder coat, inside and out.
- Standard pendant mounting hood for rigid or flexible mounting. Balanced round design automatically hangs plumb when used with flexible hanger.
- Positive sealing. Hinge and bolt construction assures 360° compression at all points on gasket.
- One-piece ballast housing for each component provides even heat dissipation for cooler operation and longer ballast life.
- Heat barrier isolates capacitor from ballast. Standard non-PCB biodegradable capacitors installed in separate compartment.
- Mogul socket is furnished with 200 °C (392 °F) welded leads, pre-wired to the ballast.
- Porcelain socket assures trouble-free operation in high ambient installations.
- Guards protect globes from damage. Keyhole slots allow easy installation and are secured with stainless steel screws.
- Prismatic glass globes and glass refractors are standard (plastic refractors also available) and thread directly into fixture housing. Eliminate glare and provide uniform light distribution.
- Vented reflectors result in cooler, dirt-free operation, increased lumen output.
- Reflectors secured to mounting hood with screws (furnished).
- Choice of reflector styles: white porcelain enamel or Fiberglass reinforced polyester; standard dome or 30° angle.
- Optional photocell provides automatic "on-off" control.
- All Mercmaster mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kit listings).



Standard Materials

- Mounting hoods, ballast bodies and guards: copperfree (4/10 of 1% max.) aluminum
- Reflectors: fiberglass reinforced polyester
- Globes: 50 W-100 W, threaded prismatic glass; 150 W, 175 W and 200W, threaded heat-resistant prismatic glass
- Refractors: 50 W to 150 W, heat-resistant prismatic glass and plastic; 175 W to 200 W, prismatic glass

Standard Finishes

- Mounting hoods, ballast bodies, guards: epoxy powder-coat finish. Two-coat baked finish, electrostatically applied for complete uniform surface protection
- Polyester reflectors: natural finish

Options

- Fuses for fixtures. For fuse kits see *Electrical Specifications and Fuse Kits* page.
- MH fixtures for Quartz Auxiliary lamps. Relay switch installed in fixture when specified. Add suffix **-MTE** to fixture catalog number for 120 V through 277 V, and suffix **-480E** to fixture catalog number for 480 V fixture.
- Hot Restrike option add suffix **-R**.
- Smart Starter available for HPS and PSMH. Add suffix **-S**.

NEC Certifications and Compliances

- UL Standard: UL 1598, UL 1598A, UL 844
- UL Listed: E10444

① For specific Class I suitability of each fixture listed, see *Thermal Suitability*.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Note: Fixtures equipped with optional photocell or quartz auxiliary lamp do not comply with UL requirements and are not suitable for use in classified locations.

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Class III

Fixtures Outside Type (Salt Water)

Illustrated Features



High Temperature Sockets

Mogul base high temperature socket for 50W through 400W HID lamps.

Aluminum Inner Reflector

Solid aluminum inner reflector improves photometric efficiency.



Epoxy Finish

Ballast housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing. Fiber insulator protects ballast and capacitor.



Photocell

Installs through knock-out in mounting hood; provides continuous ON-OFF dusk-to-dawn control. Fixtures with optional photocell or quartz auxiliary lamp do not comply with UL requirements for use in classified locations.



Fuses Mount to Hood Bosses

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood.



Hood/Ballast Gasket

Silicone rubber gasket seals out moisture, dirt and dust.



Stainless Steel Latch Assembly

Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.



"Safety" High Hinge

Extra-high hinge provides additional protection against accidental ballast housing disengagement during installation or maintenance.

JB Series Box and Flexible Hanger



Balanced Round Design

Pendant fixtures automatically hang plumb. Fixtures and hangers suitable for Class I, Division 2 applications.

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

UNILETS® for Use with Threaded Metal Conduit.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

Quartz Emergency Light for Pulse Start Metal Halide or High Pressure Sodium Fixtures ③

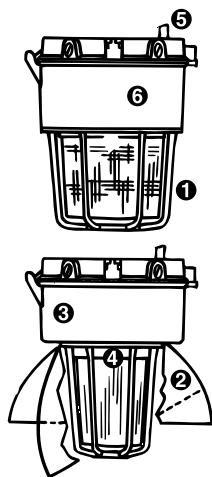


Mercmaster fixtures for or metal halide and high pressure sodium lamps can be supplied with a socket to accept a 150 W 120 V quartz lamp. This D.C. bayonet base socket is in addition to the standard lamp socket. In the event of a momentary power interruption, the quartz lamp is automatically switched on. The single ended quartz lamp remains energized until the HID restrikes and reaches about 60% output.

The quartz emergency lamp socket is wired to a 120 V tap on the ballast and is therefore independent of the lighting fixture voltage. No special field wiring is necessary.

Description	Catalog Suffix
For fixture volts of 120, 208, 240 or 277	-MTE
For fixture volts of 480	-480E

Accessory Options



① **Guards:** Guards are die-cast copperfree aluminum with baked epoxy finish to match fixtures. Fixture supplied with stainless steel mounting screws which thread into stainless steel inserts on fixture housing to attach guard. To order fixture with guard, add suffix **-G** to catalog number before adding voltage suffix.

② **Reflectors:** Standard dome and 30° angle polyester reflectors.

③ **Hot Restrike:** Instantly restrikes a hot HPS lamp when power is restored after a momentary outage. Available factory-installed only. To order, add suffix **-R** to catalog number.

④ **Quartz Emergency Light:** When ordered, HPS fixtures will be supplied with a prewired special DC bayonet base socket to accept a 150W, 120V quartz lamp (not furnished) that automatically switches on when a power outage occurs. Fixtures ordered with this quartz emergency lamp feature do NOT comply with requirements for classified areas and should be used only in non-classified locations. To order, add suffix **-E** to catalog number and specify if a relay switch is desired.

⑤ **Photocell and Fuses:** Photocontrol.

⑥ **Smart Starter:** Performs as a conventional starter in lamp start-up. Removes itself from circuit at end of lamp life or if lamp is out of socket. Add suffix **-S** to catalog number.

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

③ NOTE: Fixtures equipped with quartz emergency light do not comply with UL requirements and are not suitable for use in classified locations.

Mercmaster™ II HID Luminaires

Class I, Division 2, Groups A, B, C, D; Class II, Division 1, Groups E, F, G

UNILETS® for Use with Threaded Metal Conduit.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

The following table shows maximum operating temperatures of Mercmaster fixtures for Class I, Division 2, in a +40 °C (+104 °F) ambient in free air as rated by UL. As shown, the higher the Temperature Identification Number, the cooler the fixture operates. Keep this in mind when selecting a fixture for a specific chemical listed on the Classified Area Suitability pages. Per the NEC. The temperature marking shown on fixtures shall not exceed the

ignition temperature of the gas to be encountered. To illustrate, a 400W HPS fixture, which has a UL-NEC Temperature Identification Number of 350 [+326 — +350 °C (+619 — +662 °F)] does NOT exceed the Group D Methane (natural gas) ignition temperature of +540 °C (+1004 °F), and is therefore suitable for use in atmospheres containing that chemical.

Mercmaster II Thermal Suitability

Lamp		Supply Wire Temp. °C (°F)	Ambient Temp. °C (°F)	Class I, Division 2, Groups A, B, C, D				Class II, Division 1, Groups E, F, G			
Watts	Type			Globe	Globe and Reflector	8" Refractor	12" Refractor	Globe	Globe and Reflector	8" Refractor	12" Refractor
50	HPS	90 (194)	40 (104)	T3	T3	T3A	T3A	T3B	T3B	T3B	T3B
70	HPS	90 (194)	40 (104)	T3	T3	T3A	T3A	T3B	T3B	T3B	T3B
100	HPS	90 (194)	40 (104)	T2C	T2C	T3	T3	T3B	T3B	T3B	T3B
150	HPS	90 (194)	40 (104)	T2A	T2A	T2B	T2B	③	③	③	T3B
100	PSMH	90 (194)	40 (104)	T2A	T2A	T2C	T2C	③	③	③	T3
150	PSMH	90 (194)	40 (104)	T2B	T2B	T2D	T2D	T3	—	—	T3
175	PSMH	90 (194)	40 (104)	T2B	T2B	T2C	T2C	T3	—	—	T3
200	PSMH	90 (194)	40 (104)	T2	T2	T2B	T2B	T3	—	—	T3

“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” Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
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
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

All HPS fixtures suitable for operation at -40 °C (-40 °F); PSMH at -29 °C (-20 °F).

① For specific Class I suitability of each fixture listed, see Thermal Suitability above.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

③ Pendant, ceiling and wall mount are suitable for groups E and F only with T3A rating. Stanchion mount is suitable for groups E, F and G with a T3B rating.

Mercmaster™ II HID Luminaires

50 W, 70 W, 100 W, 150 W HPS

High Power Factor (Min. P.F. 90%). Suitable for Use in Wet Locations. Prismatic Glass Globe or Type V Closed Glass Refractor. Mogul Base Lamps.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

With Globe, Less Guard	With 8" Refractor (NEMA V)	Lamp Watts	Hub Size (Inches)	With Globe ③	Catalog Numbers With 8" Refractor ④	With 12" Refractor
Pendant — One Hub, Rigid or Flexible Mounting						
		50	3/4	LPAL5075 ⑤	LPAL5075J ⑤	LPAL5075R ⑤
			1	LPAL5010 ⑤	LPAL5010J ⑤	LPAL5010R ⑤
		70	3/4	LPAL7075 ⑥	LPAL7075J ⑥	LPAL7075R ⑥
			1	LPAL7010 ⑥	LPAL7010J ⑥	LPAL7010R ⑥
		100	3/4	LPAL1075 ⑥	LPAL1075J ⑥	LPAL1075R ⑥
			1	LPAL1010 ⑥	LPAL1010J ⑥	LPAL1010R ⑥
		150	3/4	LPAL1575 ⑥	LPAL1575J ⑥	LPAL1575R ⑥
			1	LPAL1510 ⑥	LPAL1510J ⑥	LPAL1510R ⑥
Ceiling — Five Hubs, Four Close-Up Plugs						
		50	3/4	LPCL5075 ⑤	LPCL5075J ⑤	LPCL5075R ⑤
			1	LPCL5010 ⑤	LPCL5010J ⑤	LPCL5010R ⑤
		70	3/4	LPCL7075 ⑥	LPCL7075J ⑥	LPCL7075R ⑥
			1	LPCL7010 ⑥	LPCL7010J ⑥	LPCL7010R ⑥
		100	3/4	LPCL1075 ⑥	LPCL1075J ⑥	LPCL1075R ⑥
			1	LPCL1010 ⑥	LPCL1010J ⑥	LPCL1010R ⑥
		150	3/4	LPCL1575 ⑥	LPCL1575J ⑥	LPCL1575R ⑥
			1	LPCL1510 ⑥	LPCL1510J ⑥	LPCL1510R ⑥
Wall — Five Hubs, Four Close-Up Plugs						
		50	3/4	LPWBL5075 ⑤	LPWBL5075J ⑤	LPWBL5075R ⑤
			1	LPWBL5010 ⑤	LPWBL5010J ⑤	LPWBL5010R ⑤
		70	3/4	LPWBL7075 ⑥	LPWBL7075J ⑥	LPWBL7075R ⑥
			1	LPWBL7010 ⑥	LPWBL7010J ⑥	LPWBL7010R ⑥
		100	3/4	LPWBL1075 ⑥	LPWBL1075J ⑥	LPWBL1075R ⑥
			1	LPWBL1010 ⑥	LPWBL1010J ⑥	LPWBL1010R ⑥
		150	3/4	LPWBL1575 ⑥	LPWBL1575J ⑥	LPWBL1575R ⑥
			1	LPWBL1510 ⑥	LPWBL1510J ⑥	LPWBL1510R ⑥
25° Stanchion — One Hub						
		50	1-1/4	LPSL50125 ⑤	LPSL50125J ⑤	LPSL50125R ⑤
			1-1/2	LPSL50150 ⑤	LPSL50150J ⑤	LPSL50150R ⑤
		70	1-1/4	LPSL70125 ⑥	LPSL70125J ⑥	LPSL70125R ⑥
			1-1/2	LPSL70150 ⑥	LPSL70150J ⑥	LPSL70150R ⑥
		100	1-1/4	LPSL10125 ⑥	LPSL10125J ⑥	LPSL10125R ⑥
			1-1/2	LPSL10150 ⑥	LPSL10150J ⑥	LPSL10150R ⑥
		150	1-1/4	LPSL15125 ⑥	LPSL15125J ⑥	LPSL15125R ⑥
			1-1/2	LPSL15150 ⑥	LPSL15150J ⑥	LPSL15150R ⑥

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

③ To order fixture with guard, add suffix **-G** (before adding voltage suffix).

④ Furnished with 8" NEMA V refractor — to order with NEMA I or III refractor, change **J** in the catalog number to **J1** or **J3**.

Add voltage suffix **-MTMED** for Medium Base, 100W (order as special).

⑤ Add voltage suffix **-MT** for 120, 208, 240 or 277 V.

⑥ Add voltage suffix **-MT** for 120, 208, 240 or 277 V; **-480** for 480 V.

Mercmaster™ II HID Luminaires

100 W, 150 W, 175 W, 200 W PSMH

Constant Wattage (Min. P.F. 90%). Suitable for Use in Wet Locations. Prismatic Glass Globe or Type V Closed Glass Refractor. Mogul Base Lamps.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

With Globe, Less Guard	With 8" Refractor (NEMA V)	Lamp Watts	Hub Size (Inches)	With Globe ③	Catalog Numbers With 8" Refractor ④	With 12" Refractor
Pendant — One Hub, Rigid or Flexible Mounting						
		100	3/4	LPAH1075 ⑤	LPAH1075J ⑤	LPAH1075R ⑤
			1	LPAH1010 ⑤	LPAH1010J ⑤	LPAH1010R ⑤
		150	3/4	LPAP1575 ⑤	LPAP1575J ⑤	LPAP1575R ⑤
			1	LPAP1510 ⑤	LPAP1510J ⑤	LPAP1510R ⑤
		175 ②	3/4	LPAP1775 ⑤	LPAP1775J ⑤	LPAP1775R ⑤
			1	LPAP1710 ⑤	LPAP1710J ⑤	LPAP1710R ⑤
		200 ②	3/4	LPAP2075 ⑤	LPAP2075J ⑤	LPAP2075R ⑤
			1	LPAP2010 ⑤	LPAP2010J ⑤	LPAP2010R ⑤
Ceiling — Five Hubs, Four Close-Up Plugs						
		100	3/4	LPCH1075 ⑤	LPCH1075J ⑤	LPCH1075R ⑤
			1	LPCH1010 ⑤	LPCH1010J ⑤	LPCH1010R ⑤
		150	3/4	LPCP1575 ⑤	LPCP1575J ⑤	LPCP1575R ⑤
			1	LPCP1510 ⑤	LPCP1510J ⑤	LPCP1510R ⑤
		175 ②	3/4	LPCP1775 ⑤	LPCP1775J ⑤	LPCP1775R ⑤
			1	LPCP1710 ⑤	LPCP1710J ⑤	LPCP1710R ⑤
		200 ②	3/4	LPCP2075 ⑤	LPCP2075J ⑤	LPCP2075R ⑤
			1	LPCP2010 ⑤	LPCP2010J ⑤	LPCP2010R ⑤
Wall — Five Hubs, Four Close-Up Plugs						
		100	3/4	LPWBH1075 ⑤	LPWBH1075J ⑤	LPWBH1075R ⑤
			1	LPWBH1010 ⑤	LPWBH1010J ⑤	LPWBH1010R ⑤
		150	3/4	LPWBP1575 ⑤	LPWBP1575J ⑤	LPWBP1575R ⑤
			1	LPWBP1510 ⑤	LPWBP1510J ⑤	LPWBP1510R ⑤
		175 ②	3/4	LPWBP1775 ⑤	LPWBP1775J ⑤	LPWBP1775R ⑤
			1	LPWBP1710 ⑤	LPWBP1710J ⑤	LPWBP1710R ⑤
		200 ②	3/4	LPWBP2075 ⑤	LPWBP2075J ⑤	LPWBP2075R ⑤
			1	LPWBP2010 ⑤	LPWBP2010J ⑤	LPWBP2010R ⑤
25° Stanchion — One Hub						
		100	1-1/4	LPSH1075 ⑤	LPSH1075J ⑤	LPSH1075R ⑤
			1-1/2	LPSH1010 ⑤	LPSH1010J ⑤	LPSH1010R ⑤
		150	1-1/4	LPSP15125 ⑤	LPSP15125J ⑤	LPSP15125R ⑤
			1-1/2	LPSP15150 ⑤	LPSP15150J ⑤	LPSP15150R ⑤
		175 ②	1-1/4	LPSP17125 ⑤	LPSP17125J ⑤	LPSP17125R ⑤
			1-1/2	LPSP17150 ⑤	LPSP17150J ⑤	LPSP17150R ⑤
		200 ②	1-1/4	LPSP20125 ⑤	LPSP20125J ⑤	LPSP20125R ⑤
			1-1/2	LPSP20150 ⑤	LPSP20150J ⑤	LPSP20150R ⑤

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

③ To order fixture with guard, add suffix -G (before adding voltage suffix).

④ Furnished with 8" NEMA V refractor — to order with NEMA I or III refractor, change J in the catalog number to J1 or J3.

Add voltage suffix -MTMED for Medium Base, 100W (order as special).

⑤ Add voltage suffix -MT for 120, 208, 240 or 277 V.

⑥ Add voltage suffix -MT for 120, 208, 240 or 277 V; -480 for 480 V.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

Hoods and Ballast Housings are Copperfree Aluminum (4/10 of 1%).

NEC:

Class I, Division 2, Groups A, B, C, D ①

Class II, Division 1 and 2, Groups E, F, G ②

Class III

Fixtures Outside Type (Salt Water)

Mounting Hoods

	Description	Hub Size (Inches)	Catalog Number
Pendant			
	One Hub, Rigid or Flexible Mounting	3/4	LPA-75
		1	LPA-100
Ceiling			
	Five Hubs, Four Close-Up Plugs	3/4	LPC-75
		1	LPC-100
Wall			
	Five Hubs, Four Close-Up Plugs	3/4	LPWB-75
		1	LPWB-100
25° Stanchion			
	One Hub	1-1/4	LPS-125
		1-1/2	LPS-150
Mounting Adapter			
	Permits use of Mercmaster II pendant hood on existing V-51 and Mercmaster I mounting hoods. Remove Mercmaster I ballast body from existing mounting hood, thread in adapter and attach wire to Mercmaster II.		LPAD-1

Mercmaster II Ballast Bodies

	Type	Lamp Watts	Ballast Body Catalog Numbers		Add Voltage Suffixes ①				
			Globe/12" Refractor	8" Refractor	120V	208V	240V	277V	480V
	High Pressure Sodium								
	High Power Factor (Min. P.F. 90%)	50	LPB50L	LPBLH50R	-MT	-MT	-MT	-MT	—
		70	LPB70L	LPBLH70R	-MT	-MT	-MT	-MT	-480
		100	LPB100L	LPBLH100R	-MT	-MT	-MT	-MT	-480
		150	LPB150L	LPBLH150R	-MT	-MT	-MT	-MT	-480
	Pulse Start Metal Halide								
	Constant Wattage (Min. P.F. 90%)	100	LPB100H	LPBH100R	-MTMED	-MTMED	-MTMED	-MTMED	-480MED
		150	LPB150P	LPBP150R	-MT	-MT	-MT	-MT	-480
		175	LPB175P	LPBP175R	-MT	-MT	-MT	-MT	-480
		200	LPB200P	LPBP200R	-MT	-MT	-MT	-MT	-480

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

③ **MT** (multi-volt) ballasts can be operated at an input voltage of either 120, 208, 240 or 277 V. **480** ballasts can be operated at input voltage of 480 V.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

Screws furnished to Fasten Reflectors to Ballast Body. Refractors Thread Directly into Ballast Body.

NEC:

Class I, Division 2, Groups A, B, C, D ①

Class II, Division 1 and 2, Groups E, F, G ②

Class III

Fixtures Outside Type (Salt Water)

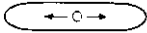
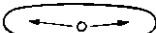
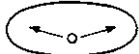
Description		Catalog Number
Prismatic Glass Globes		
	Clear Heat-Resistant	VPGL-2HR
	Amber	VPGL-2AM
	Blue	VPGL-2BL
	Green	VPGL-2GR
	Red	VPGL-2RE

Coated Prismatic Tuff-Skin® ✧ Glass Globes			
	For use in areas where fixture is subject to extreme thermal shock	Clear Heat-Resistant	VPGL-2HRT

Polycarbonate Globes – Impact-Resistant ③			
	Use 100W Lamp max.; do not use in ambients exceeding +25 °C (+77 °F)	Clear Amber Green Red	VPGL-2PL VPGL-2AMPL VPGL-2GRPL VPGL-2REPL

Light Distribution	IES/NECA Distribution Curves	8" Glass (50–200 W ④)	12" Glass (50–200 W ④)	12" Polycarbonate (50–175 W ⑤)
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Closed Prismatic Refractors — 50 W-200 W ③

 8" Refractor	 12" Refractor	NEMA I		LPG-R1	—	—
		NEMA II		—	LPRF-2CG	LPRF-2CP
		NEMA III		LPG-R3	—	LPRF-3CP
		NEMA IV		—	—	LPRF-4CP
		NEMA V		LPG-R5	LPRF-5CG	LPRF-5CP

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

③ Polycarbonate globes are shatter-resistant – for use in processing plants, canneries, dairies, bakeries or anywhere broken glass would prove a hazard. Ideally suited for areas where vandalism, high replacement and high maintenance costs are a problem. Do not use in ambients exceeding +25 °C (+77 °F). For burning in vertical base-up positions only.

✧ Registered trademark of Thomas Manufacturing Corporation, Parkton, Md. It is recommended that guards be used with these globes.

④ 150 W max. for HPS.

⑤ 100 W max. for MH.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

Screws furnished to Fasten Reflectors to Ballast Body. Refractors Thread Directly into Ballast Body.

NEC:

Class I, Division 2, Groups A, B, C, D ①

Class II, Division 1 and 2, Groups E, F, G ②

Class III

Fixtures Outside Type (Salt Water)

Description		Catalog Number
Guard		
	Guard for Glass Globe	KGU2
Steel Guards for 8" and 12" Refractors		
	Guard for 8" Refractor	LPRG-2
	Guard for 12" Refractor	LPBG-12
	3 machine screws furnished	
Polyester Reflectors		
	Standard Dome	KR2-ST
	30° Angle	KR2-AN
Replacement Gaskets — Silicone Rubber		
	Globe and 12" Refractor Gasket	VPGL-GK
	8" Refractor Gasket	KRF-GK
Photocell (Hazardous)		
	120 Volt	PC120D2
	208 thru 277 Volt	PC247D2

Mounting Hood Weights

Type	Weight kg (lb)
Pendant	1.4 (3)
Ceiling	2.3 (5)

Type	Weight kg (lb)
Wall	2.3 (5)
Stanchion	1.8 (4)

Reflectors and Refractors — Weight includes globe and guard

Watts	HPS	PSMH	Wt. kg (lb) Standard Dome Reflector	Catalog Number	Wt. kg (lb) 30° Angle Reflector	Catalog Number	Wt. kg (lb) 8" Refractor	Catalog Number	Wt. kg (lb) 12" Refractor	Catalog Number
50, 70	14	—								
100	15	15	1.1 (2.5)	KR2-ST	1.1 (2.5)	KR2-AN	2.4 (5.25)	LPG-R1	5.9 (13)	LPRF-5CG
150	16	—					2.4 (5.25)	LPG-R3	5.9 (13)	
175	—	16					2.4 (5.25)	LPG-R5	5.9 (13)	
200		18								

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

UNILETS® for Use with Threaded Metal Conduit.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

Electrical Specifications

Line Voltage	Type of Ballast	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
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
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
480	HX-HPF	0.33	0.31	135
150 Watt High Pressure Sodium				
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
480	HX-HPF	0.50	0.47	189
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
480	HX-HPF	0.30	0.35	140
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
480	C.W.A.	0.45	0.42	185
175 Watt Pulse Start Metal Halide				
120	C.W.A.	0.90	1.78	199
208	C.W.A.	0.50	1.08	199
240	C.W.A.	0.35	0.89	199
277	C.W.A.	0.30	0.76	199
480	C.W.A.	0.25	0.50	213
200 Watt Pulse Start Metal Halide				
120	C.W.A.	2.10	2.00	238
208	C.W.A.	1.15	1.25	238
240	C.W.A.	1.10	1.00	238
277	C.W.A.	.75	.85	238
480	C.W.A.	.58	.50	237

Fuse Kit

Order fuses as a separate item by catalog number from right columns.

Lamp Watts	Volts	Fuse Quantity Required	Fuse Kit Catalog Number	
			HPS	PSMH
50	120	1	F5	—
	208	2	F3	—
	240	2	F3	—
	277	1	F2	—
70	120	1	F5	—
	208	2	F3	—
	240	2	F3	—
	277	1	F2	—
100	480	2	F2	—
	120	1	F8	F6
	208	2	F5	F4
	240	2	F5	F3
150	277	1	F3	F3
	480	2	F3	F2
	120	1	F10	F10
	208	2	F5	F5
175	240	2	F5	F5
	277	1	F5	F4
	480	2	F3	F3
	120	1	—	F5
200	208	2	—	F3
	240	2	—	F3
	277	1	—	F2
	480	2	—	F2
	120	1	—	F9
	208	2	—	F6
	240	2	—	F5
	277	1	—	F4
	480	2	—	F2



Fuses are filled with non-combustible granular material. Fuse Kit includes fuse, fuse block, wire, mounting screws and connectors. All mounting hoods have provisions for easy field installation of fuses in fixtures.

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

UNILETS® for Use with Threaded Metal Conduit.

NEC:

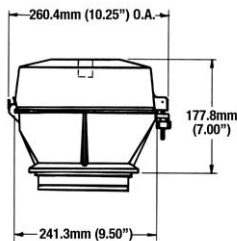
Class I, Division 2, Groups A, B, C, D ①

Class II, Division 1 and 2, Groups E, F, G ②

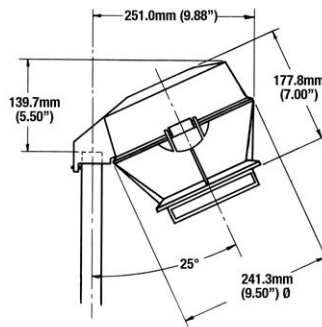
Class III

Fixtures Outside Type (Salt Water)

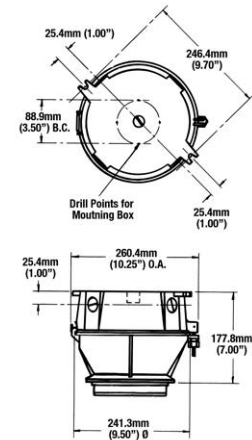
Dimensions in Millimeters (Inches)



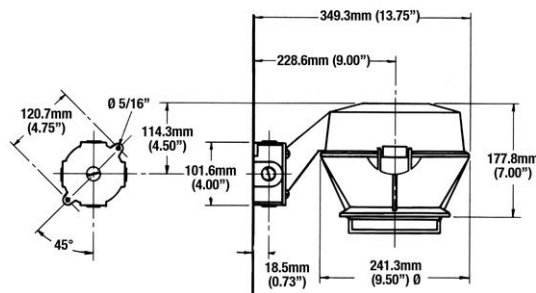
Pendant Mount



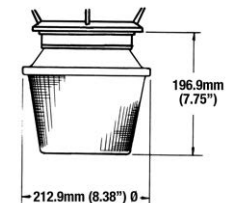
25° Angle Stanchion Mount



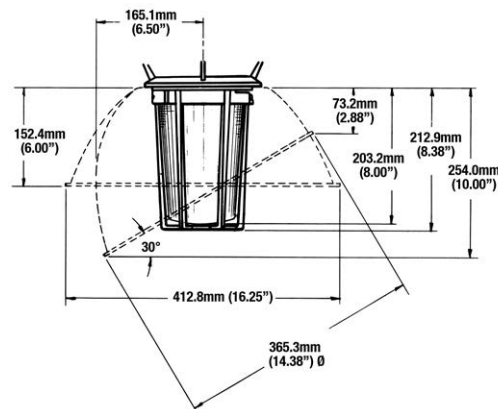
Ceiling Mount



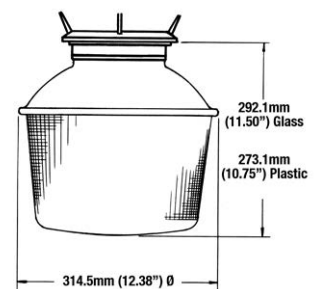
Wall Mount



Fixture with 8" Refractor



Fixture with Guard and Polyester Reflector



Fixture with 12" Refractor

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

150 W HPS

* Photometric data is based on fixtures with 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers; for 100 W (9,500 lumen) HPS lamp – 0.594; for 70 W (6,400 lumen) HPS lamp – 0.40; for 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by 0.95.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

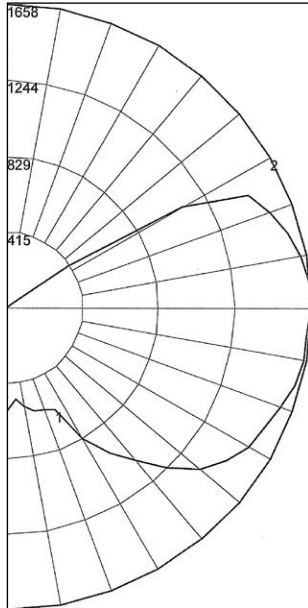
Photometric Data

Total Luminaire Efficiency = 86.1%

CIE Type – Semi-Direct

Plane	Spacing Criteria
0-180	2.82
90-270	2.82
Diagonal	2.82

Zone	Lumens
0-10	50.74
10-20	164.55
20-30	310.47
30-40	611.05
40-50	961.13
50-60	1308.18
60-70	1542.35
70-80	1716.10
80-90	1799.18
90-100	1802.19
100-110	1676.86
110-120	1379.11
120-130	441.46
130-140	9.61
140-150	3.33
150-160	0.74
160-170	0.00
170-180	0.00



REPORT NUMBER: LP15LGG

150 W High Pressure Sodium fixture 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	50	30	10	0
0	95	95	95	95	89	89	89	89	77	77	77	67	67	67	57	57	57	53				
1	81	74	69	64	75	69	64	59	59	55	51	50	47	44	42	39	37	33				
2	71	62	54	47	65	57	50	44	49	43	38	41	36	32	33	30	27	23				
3	64	52	44	37	58	48	41	34	41	35	30	34	29	25	28	24	20	17				
4	57	45	36	30	53	42	34	28	35	29	24	29	24	20	24	19	16	13				
5	52	40	31	24	48	37	29	23	31	24	19	26	20	16	21	16	13	10				
6	48	35	26	20	44	32	25	19	27	21	16	23	17	13	18	14	11	8				
7	44	31	23	17	40	29	21	16	24	18	14	20	15	11	16	12	9	7				
8	40	28	20	15	37	26	19	14	22	16	12	18	13	10	15	11	8	6				
9	38	25	18	13	35	24	17	12	20	14	10	17	12	8	14	10	7	5				
10	35	23	16	11	32	22	15	11	18	13	9	15	11	7	13	9	6	4				

Zonal Lumen Summary

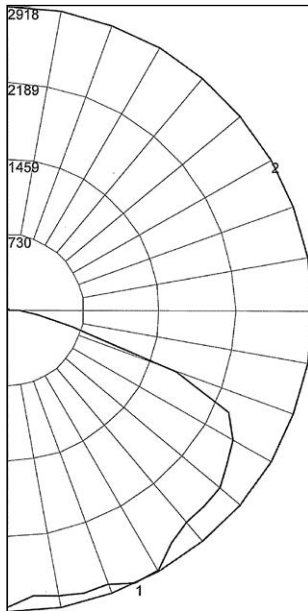
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	525.75	3.3	3.8	90-120	4858.16	30.4	35.3
0-40	1136.81	7.1	8.3	90-130	5299.62	33.1	38.5
0-60	3406.12	21.3	24.7	90-150	5312.56	33.2	38.5
0-90	8463.75	52.9	61.4	90-180	5313.30	33.2	38.6
				0-180	13777.05	86.1	100.0

Total Luminaire Efficiency = 73.6%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.46
90-270	1.46
Diagonal	1.68

Zone	Lumens
0-10	266.98
10-20	799.41
20-30	1337.05
30-40	1732.06
40-50	2067.60
50-60	2317.60
60-70	2210.81
70-80	866.77
80-90	145.09
90-100	14.46
100-110	8.75
110-120	7.93
120-130	4.51
130-140	2.16
140-150	0.48
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: LP15LST

150 W High Pressure Sodium fixture 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	50	30	10	0
0	88	88	88	88	86	86	86	86	82	82	82	78	78	78	75	75	75	73				
1	79	76	72	69	77	74	71	68	71	68	66	68	66	64	65	64	62	60				
2	71	65	59	55	69	63	58	54	61	57	53	58	55	52	56	53	50	49				
3	64	56	49	44	62	55	49	44	52	47	43	50	46	42	48	45	41	40				
4	58	49	42	36	57	48	41	36	46	40	36	44	39	35	42	38	35	33				
5	53	43	36	31	52	42	35	30	40	35	30	39	34	30	38	33	29	28				
6	49	38	31	26	47	38	31	26	36	30	26	35	30	25	34	29	25	24				
7	45	34	27	23	44	34	27	23	33	27	22	31	26	22	30	26	22	20				
8	42	31	24	20	40	31	24	20	30	24	20	29	23	19	28	23	19	18				
9	39	28	22	18	38	28	22	18	27	21	17	26	21	17	25	21	17	16				
10	36	26	20	16	35	26	20	16	25	19	16	24	19	16	23	19	15	14				

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	2403.44	15.0	20.4	90-120	31.14	0.2	0.3
0-40	4135.50	25.8	35.1	90-130	35.65	0.2	0.3
0-60	8520.70	53.3	72.3	90-150	38.29	0.2	0.3
0-90	11743.37	73.4	99.7	90-180	38.29	0.3	0.3
				0-180	11781.65	73.6	100.0

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

150 W HPS

* Photometric data is based on fixtures with 150-watt clear High Pressure Sodium lamp (16,000 lumen). For candlepower values of fixtures with other HPS lamps, use the following multipliers; for 100 W (9,500 lumen) HPS lamp – 0.594; for 70 W (6,400 lumen) HPS lamp – 0.40; for 50 W (4,000 lumen) HPS lamp – 0.25. For candlepower values of fixture with guard, multiply by 0.95.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

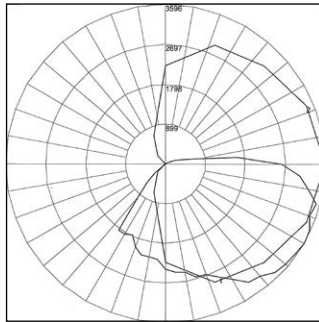
Photometric Data

Total Luminaire Efficiency = 73.1%

CIE Type – Direct

Plane	Spacing Criteria
0-180	2.06
90-270	1.58
Diagonal	1.62

Zone	Lumens
0-10	222.62
10-20	664.60
20-30	1084.32
30-40	1536.55
40-50	1771.90
50-60	1771.51
60-70	1668.93
70-80	1422.36
80-90	994.54
90-100	432.23
100-110	104.58
110-120	20.99
120-130	1.21
130-140	0.04
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: LP15LAN

150 W High Pressure Sodium fixture with 30° Angle 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	50	30	10	0
0	86	86	86	86	84	84	84	84	79	79	79	75	75	75	71	71	71	70	71	71	70
1	76	71	67	63	73	69	65	62	65	62	59	62	59	57	58	56	54	52	58	56	52
2	68	60	54	49	65	58	53	48	55	50	46	52	48	45	49	46	43	41	49	46	41
3	61	52	45	39	59	50	44	39	48	42	37	45	40	36	43	39	35	33	43	39	33
4	55	45	38	32	53	44	37	32	42	36	31	39	34	30	37	33	29	27	37	33	27
5	50	40	33	27	49	39	32	27	37	31	26	35	30	25	33	29	25	23	33	29	23
6	46	36	28	23	45	35	28	23	33	27	22	31	26	22	30	25	21	20	30	25	20
7	43	32	25	20	41	31	25	20	30	24	19	28	23	19	27	22	19	17	27	22	17
8	40	29	22	18	38	28	22	17	27	21	17	26	21	17	25	20	16	15	25	20	15
9	37	26	20	16	36	26	20	16	25	19	15	24	19	15	23	18	15	13	23	18	13
10	35	24	18	14	33	24	18	14	23	17	14	22	17	13	21	16	13	12	21	16	12

Zonal Lumen Summary

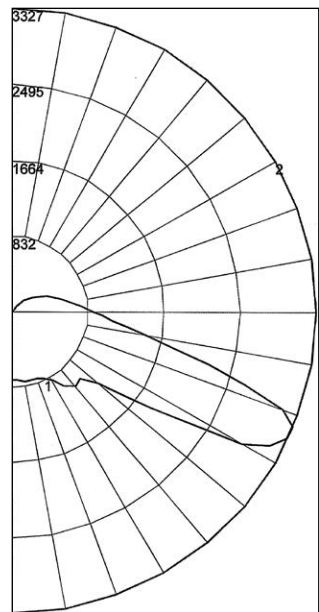
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	1971.54	12.3	16.9	90-120	557.80	3.5	4.8
0-40	3508.09	21.9	30.0	90-130	559.01	3.5	4.8
0-60	7051.50	44.1	60.3	90-150	559.04	3.5	4.8
0-90	11137.33	69.6	95.2	90-180	559.04	3.5	4.8
				0-180	11696.38	73.1	100.0

Total Luminaire Efficiency = 81.1%

CIE Type – Semi-Direct

Plane	Spacing Criteria
0-180	1.98
90-270	1.98
Diagonal	3.40

Zone	Lumens
0-10	72.83
10-20	222.26
20-30	380.73
30-40	621.11
40-50	852.53
50-60	1765.29
60-70	3192.58
70-80	2366.61
80-90	1230.65
90-100	450.14
100-110	712.41
110-120	499.15
120-130	323.44
130-140	185.00
140-150	81.31
150-160	21.08
160-170	2.81
170-180	0.00



REPORT NUMBER: LP15LJ

150 W High Pressure Sodium fixture with
8" Prismatic Glass Refractor – NEMA Type V *

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	50	30	10	0
0	93	93	93	93	89	89	89	89	82	82	82	76	76	76	70	70	70	67	70	70	67
1	80	73	68	63	76	70	65	61	64	60	56	58	55	52	53	50	48	45	53	50	45
2	69	59	51	45	65	56	49	43	51	45	40	46	41	37	41	37	34	31	41	37	34
3	61	49	40	33	57	47	38	32	42	35	29	38	32	27	34	29	25	22	34	29	22
4	54	42	32	25	51	40	31	24	35	28	22	32	26	21	28	23	19	16	28	23	19
5	49	36	27	20	46	34	26	19	31	23	18	27	21	16	24	19	15	12	24	19	15
6	45	32	23	16	42	30	22	16	27	20	14	24	18	13	21	16	12	10	21	16	12
7	41	28	20	14	38	27	19	13	24	17	12	24	15	11	19	14	10	8	19	14	10
8	38	25	17	12	36	24	16	11	22	15	10	19	14	9	17	12	8	6	17	12	8
9	35	23	15	10	33	22	15	10	20	13	9	18	12	8	16	11	7	5	16	11	7
10	33	21	14	9	31	20	13	9	18	12	8	16	11	7	15	10	6	5	15	10	6

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	675.83	4.2	5.2	90-120	1661.70	10.4	12.8
0-40	1296.93	8.1	10.0	90-130	1985.14	12.4	15.3
0-60	3914.76	24.5	30.2	90-150	2251.45	14.1	15.3
0-90	10704.60	66.9	82.5	90-180	2275.34	14.2	17.5
				0-180	12979.94	81.1	100.0

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

175 W PSMH

* Photometric data is based on fixtures with 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for 250 W (23,750 lumen) PSMH lamp – 1.36; for 100 W (8,500 lumen) PSMH lamp – 0.49. For candlepower values of fixture with guard, multiply by 0.95.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

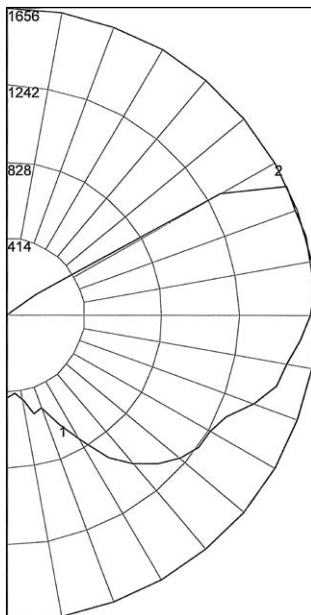
Photometric Data

Total Luminaire Efficiency = 75.4%

CIE Type – General Diffuse

Plane	Spacing Criteria
0-180	n/a
90-270	n/a
Diagonal	n/a

Zone	Lumens
0-10	42.67
10-20	151.27
20-30	305.99
30-40	587.79
40-50	880.58
50-60	1114.51
60-70	1306.71
70-80	1568.03
80-90	1720.24
90-100	1797.50
100-110	1750.20
110-120	1559.14
120-130	391.09
130-140	7.81
140-150	3.19
150-160	0.61
160-170	0.18
170-180	0.00



REPORT NUMBER: LP17PGG

175 W Pulse Start Metal Halide fixture 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	50	30	10	0
0	82	82	82	82	77	77	77	77	66	66	66	57	57	57	48	48	48	44				
1	70	65	60	55	65	60	56	52	51	47	44	42	40	37	35	33	31	27				
2	62	54	47	42	57	50	44	39	42	37	33	35	31	28	28	25	22	19				
3	55	46	38	33	51	42	36	30	35	30	26	29	25	21	23	20	17	14				
4	50	40	32	26	46	37	30	24	31	25	21	25	21	17	20	16	13	11				
5	46	35	27	22	42	32	25	20	27	21	17	22	17	14	17	14	11	8				
6	42	31	23	18	38	28	22	17	24	18	14	20	15	12	15	12	9	7				
7	38	27	20	15	35	25	19	14	21	16	12	18	13	10	14	10	8	6				
8	35	25	18	13	32	23	17	12	19	14	10	16	12	9	13	9	7	5				
9	33	22	16	12	30	21	15	11	17	13	9	14	10	7	12	8	6	4				
10	31	20	14	10	28	19	13	9	16	11	8	13	9	7	11	7	5	3				

Zonal Lumen Summary

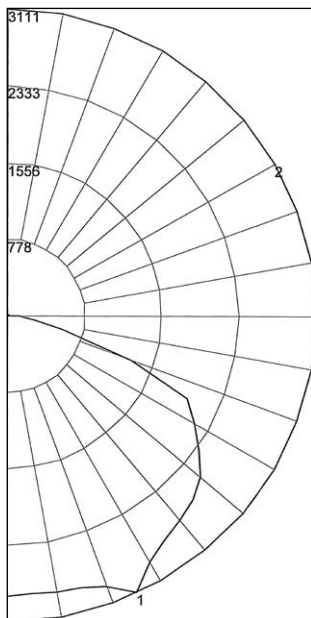
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	499.93	2.9	3.8	90-120	5106.84	29.2	38.7
0-40	1087.72	6.2	8.2	90-130	5497.93	31.4	41.7
0-60	3082.80	17.6	23.4	90-150	5508.93	31.5	41.7
0-90	7677.78	43.9	58.2	90-180	5509.71	31.5	41.8
				0-180	13187.48	75.4	100.0

Total Luminaire Efficiency = 63.8%

CIE Type – Direct

Plane	Spacing Criteria
0-180	1.50
90-270	1.50
Diagonal	1.66

Zone	Lumens
0-10	271.72
10-20	817.50
20-30	1392.53
30-40	1749.97
40-50	2044.83
50-60	2121.25
60-70	1862.42
70-80	720.46
80-90	141.89
90-100	14.66
100-110	8.28
110-120	9.57
120-130	5.69
130-140	3.14
140-150	2.17
150-160	1.71
160-170	1.70
170-180	0.36



REPORT NUMBER: LP17PST

175 W Pulse Start Metal Halide fixture 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	50	30	10	0
0	76	76	76	76	74	74	74	74	71	71	71	68	68	68	65	65	65	64				
1	69	66	63	61	67	65	62	60	62	60	58	59	57	56	57	55	54	53				
2	62	57	52	48	61	56	51	48	53	50	47	51	48	46	49	47	45	43				
3	56	49	44	39	55	48	43	39	46	42	38	45	41	38	43	40	37	35				
4	51	43	37	33	50	42	37	33	41	36	32	39	35	32	38	34	31	30				
5	47	38	32	28	45	37	32	28	36	31	27	35	30	27	33	30	27	25				
6	43	34	28	24	42	33	28	24	32	27	23	31	27	23	30	26	23	22				
7	40	31	25	21	39	30	25	21	29	24	20	28	24	20	27	23	20	19				
8	37	28	22	18	36	27	22	18	26	22	18	26	21	18	25	21	18	16				
9	34	25	20	16	33	25	20	16	24	19	16	23	19	16	23	19	16	15				
10	32	23	18	15	31	23	18	15	22	18	14	22	17	14	21	17	14	13				

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	2481.75	14.2	22.2	90-120	32.51	0.2	0.3
0-40	4231.72	24.2	37.9	90-130	38.20	0.2	0.3
0-60	8397.80	48.0	75.2	90-150	43.51	0.2	0.3
0-90	11122.57	63.6	99.6	90-180	47.28	0.3	0.4
				0-180	11169.85	63.8	100.0

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

175 W PSMH

* Photometric data is based on fixtures with 175-watt clear Pulse Start Metal Halide lamp (17,500 lumen). For candlepower values of fixtures with other PSMH lamps, use the following multipliers: for 250 W (23,750 lumen) PSMH lamp – 1.36; for 100 W (8,500 lumen) PSMH lamp – 0.49. For candlepower values of fixture with guard, multiply by 0.95.

NEC:

Class I, Division 2, Groups A, B, C, D ①
Class II, Division 1 and 2, Groups E, F, G ②
Class III
Fixtures Outside Type (Salt Water)

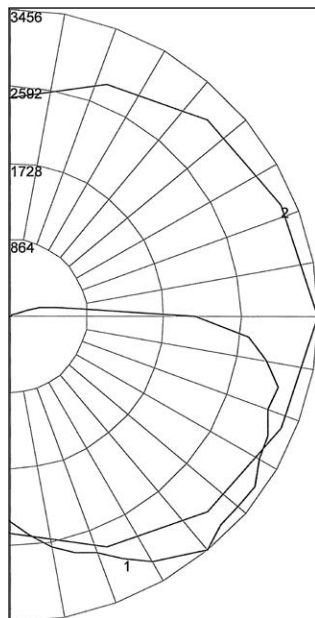
Photometric Data

Total Luminaire Efficiency = 61.6%

CIE Type – Direct

Plane	Spacing Criteria
0-180	2.02
90-270	1.62
Diagonal	1.58

Zone	Lumens
0-10	221.01
10-20	674.48
20-30	1111.79
30-40	1519.14
40-50	1697.13
50-60	1644.77
60-70	1457.83
70-80	1248.84
80-90	814.94
90-100	280.33
100-110	87.54
110-120	16.66
120-130	1.25
130-140	0.06
140-150	0.06
150-160	0.00
160-170	0.00
170-180	0.00



REPORT NUMBER: LP17PAN

175 W Pulse Start Metal Halide fixture with 30° Angle 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	50	30	10	0
0	73	73	73	73	73	71	71	71	71	67	67	67	64	64	64	61	61	61	59	59	59	59
1	64	61	57	54	54	62	59	56	53	56	53	51	53	51	49	50	49	47	45	45	45	45
2	58	52	46	42	42	56	50	45	42	47	44	40	45	42	39	43	40	38	36	36	36	36
3	52	45	39	34	34	50	43	38	34	41	36	33	39	35	32	37	34	31	29	29	29	29
4	47	39	33	28	28	46	38	32	28	36	31	27	34	30	27	33	29	26	24	24	24	24
5	43	34	28	24	24	42	34	28	24	32	27	23	30	26	23	29	25	22	21	21	21	21
6	40	31	25	20	20	38	30	24	20	29	24	20	27	23	20	26	22	19	18	18	18	18
7	37	28	22	18	18	35	27	22	18	26	21	17	25	20	17	24	20	17	15	15	15	15
8	34	25	20	16	16	33	25	19	16	24	19	15	23	18	15	22	18	15	14	14	14	14
9	32	23	18	14	14	31	23	17	14	22	17	14	21	17	13	20	16	13	12	12	12	12
10	30	21	16	13	13	29	21	16	12	20	15	12	19	15	12	18	15	12	11	11	11	11

Zonal Lumen Summary

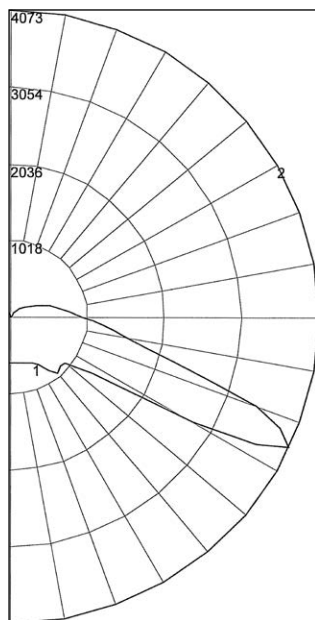
Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	2007.28	11.5	18.6	90-120	384.53	2.2	3.6
0-40	3526.41	20.2	32.7	90-130	385.77	2.2	3.6
0-60	6868.32	39.2	63.7	90-150	385.89	2.2	3.6
0-90	10389.94	59.4	96.4	90-180	385.89	2.2	3.6
				0-180	10775.83	61.6	100.0

Total Luminaire Efficiency = 73.9%

CIE Type – Semi-Direct

Plane	Spacing Criteria
0-180	2.08
90-270	2.08
Diagonal	3.78

Zone	Lumens
0-10	58.60
10-20	179.87
20-30	316.74
30-40	543.99
40-50	726.99
50-60	1445.41
60-70	3661.34
70-80	2432.42
80-90	1351.63
90-100	477.79
100-110	717.26
110-120	474.07
120-130	293.44
130-140	163.08
140-150	70.40
150-160	18.48
160-170	2.58
170-180	0.00



REPORT NUMBER: LP17PJ

175 W Pulse Start Metal Halide fixture with Globe and 8" Prismatic Glass Refractor – NEMA Type V *

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	50	30	10	0
0	85	85	85	85	85	82	82	82	82	75	75	75	69	69	69	64	64	64	61	61	61	61
1	72	66	61	56	56	68	63	58	54	57	54	50	52	49	46	47	45	43	40	40	40	40
2	62	53	46	39	39	59	51	44	38	46	40	35	41	36	32	37	33	30	27	27	27	27
3	55	44	35	29	29	51	41	34	28	37	31	25	33	28	23	30	25	21	19	19	19	19
4	49	37	28	22	22	46	35	27	21	31	24	19	28	22	17	25	20	16	13	13	13	13
5	44	32	23	17	17	41	30	22	16	27	20	15	24	18	14	21	16	12	10	10	10	10
6	40	28	20	14	14	37	26	19	13	24	17	12	21	15	11	19	14	10	8	8	8	8
7	37	25	17	12	12	34	23	16	11	21	15	10	19	13	9	17	12	8	6	6	6	6
8	34	22	15	10	10	32	21	14	9	19	13	8	17	12	8	15	10	7	5	5	5	5
9	31	20	13	8	8	30	19	13	8	17	11	7	16	10	7	14	9	6	4	4	4	4
10	29	18	12	7	7	28	18	11	7	16	10	6	14	9	6	13	8	5	4	4	4	4

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture	Zone	Lumens	% Lamp	% Fixture
0-30	555.22	3.2	4.3	90-120	1669.13	9.5	12.9
0-40	1099.21	6.3	8.5	90-130	1962.57	11.2	15.2
0-60	3271.60	18.7	25.3	90-150	2196.06	12.5	15.2
0-90	10717.00	61.2	82.9	90-180	2217.10	12.7	17.1
				0-180	12934.11	73.9	100.0

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.

Mercmaster™ II HID Luminaires

High Pressure Sodium and Pulse Start Metal Halide. Mogul Base

UNILETS® for Use with Threaded Metal Conduit.

NEC:

Class I, Division 2, Groups A, B, C, D ①

Class II, Division 1 and 2, Groups E, F, G ②

Class III

Fixtures Outside Type (Salt Water)

Isofootcandle Data

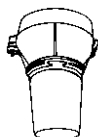
HPS Lamp Wattage	Mounting Height M (Ft)	Horizontal Distance from Mounting Point M (Ft)										
		0 (0)	1.5 (5)	3.0 (10)	4.6 (15)	6.1 (20)	7.6 (25)	9.1 (30)	10.7 (35)	12.2 (40)	13.7 (45)	50 (152)

Mercmaster II, High Pressure Sodium, No Reflector, No Guard

70 Watt – 5,800 Lumen

100 Watt – 9,500 Lumen

150 Watt – 16,000 Lumen



Footcandle Chart (Initial Horiz. FTC)

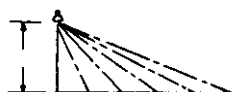
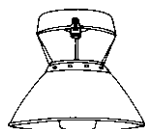
70	2.4 (8)	.60	2.70	1.50	.73	.38	.21	.13	.08	.06	.04	.03
	3.0 (10)	.39	1.70	1.30	.72	.40	.24	.15	.10	.07	.05	.04
	3.7 (12)	.27	1.10	1.10	.68	.41	.26	.17	.11	.08	.06	.04
	4.6 (15)	.17	.66	.81	.60	.39	.26	.18	.13	.09	.07	.05
	6.1 (20)	.10	.37	.43	.40	.33	.25	.18	.13	.10	.08	.06
100	2.4 (8)	1.00	4.80	2.70	1.20	.62	.35	.21	.14	.10	.07	.05
	3.0 (10)	.64	2.80	2.20	1.30	.67	.40	.25	.16	.11	.08	.06
	3.7 (12)	.44	1.80	1.80	1.30	.71	.42	.28	.18	.13	.09	.07
	4.6 (15)	.28	1.10	1.30	.97	.70	.45	.30	.21	.15	.11	.08
	6.1 (20)	.16	.59	.69	.70	.55	.42	.32	.23	.17	.13	.10
150	2.4 (8)	2.50	8.30	4.60	2.20	1.10	.62	.38	.25	.17	.12	.09
	3.0 (10)	1.60	5.40	4.00	2.20	1.20	.71	.44	.29	.20	.14	.11
	3.7 (12)	1.10	4.20	3.30	2.00	1.20	.76	.49	.33	.23	.17	.12
	4.6 (15)	.72	2.10	2.40	1.80	1.20	.79	.54	.38	.27	.20	.15
	6.1 (20)	.40	1.10	1.30	1.30	1.00	.73	.54	.40	.30	.23	.18

Mercmaster II, High Pressure Sodium, With Reflector, No Guard

70 Watt – 5,800 Lumen

100 Watt – 9,500 Lumen

150 Watt – 16,000 Lumen



Footcandle Chart (Initial Horiz. FTC)

70	2.4 (8)	14.80	10.00	3.80	1.50	.55	.15	.05	.03	.02	.01	.01
	3.0 (10)	9.50	7.70	3.70	1.60	.74	.32	.12	.05	.03	.02	.01
	3.7 (12)	6.60	6.60	3.30	1.50	.87	.46	.18	.10	.05	.02	.02
	4.6 (15)	4.20	4.20	2.70	1.70	.94	.56	.33	.18	.10	.06	.03
	6.1 (20)	2.40	2.50	1.90	1.30	.92	.62	.41	.28	.18	.12	.08
100	2.4 (8)	21.90	16.80	6.30	2.40	.86	.28	.08	.05	.03	.02	.01
	3.0 (10)	14.00	12.40	6.00	2.70	1.20	.53	.19	.07	.04	.03	.02
	3.7 (12)	9.70	9.40	5.50	2.80	1.40	.73	.36	.20	.13	.04	.03
	4.6 (15)	6.20	6.70	4.40	2.70	1.60	.90	.53	.33	.19	.11	.05
	6.1 (20)	3.50	4.30	3.10	2.20	1.50	1.0	.68	.44	.30	.21	.13
150	2.4 (8)	36.90	27.80	10.50	3.80	1.30	.35	.14	.08	.04	.03	.02
	3.0 (10)	23.60	20.80	10.10	4.40	2.00	.78	.29	.11	.07	.04	.03
	3.7 (12)	16.40	15.80	9.20	4.60	2.20	1.20	.54	.30	.16	.06	.04
	4.6 (15)	10.50	11.60	7.50	4.50	2.60	1.50	.86	.42	.26	.16	.08
	6.1 (20)	5.90	7.20	5.20	3.70	2.50	1.70	1.10	.73	.50	.32	.19

① For specific Class I suitability of each fixture listed, see Thermal Suitability.

② For 175 W and 200 W fixtures, use 12" refractor only for Groups E, F and G. Heat-resistant glass globe supplied with 175 W and 200 W fixtures.