

## DESCRIPTION

The McGraw-Edison BSL / BRL Bollard Series, available in heights from 24" to 42", has crisp, clean lines which blend with any architectural setting. Constructed of seamless, heavy-duty aluminum and finished with a tough polyester powder coat finish, the McGraw-Edison Louvered Bollard Series is gasketed to seal out external contaminants. U.L. 1598 listed and CSA certified for wet locations.

Bollards are designed for walkways, entranceways, drives and other small-area lighting applications where low mounting heights are desirable.

## SPECIFICATION FEATURES

### Construction

**TOP:** Rugged, minimum 5/32" thick cast aluminum top cap secured via a concealed stainless steel allen screw with twist removal mechanism for lamp access. Flow through ventilation assure cool to the touch top. **LOUVERS:** Cast Aluminum Louver blades provide sharp cutoff delivering no direct light above 90°. Louvers are secured to the shaft via tamper stainless steel rods and fasteners. **LOWER HOUSING:** Nominal 1/8" thick aluminum extruded housing. Bollard housing is secured to the base with flathead, counter-sunk screws for smooth, uncluttered appearance. **BASE:** Rugged cast aluminum. Completely concealed.

### Electrical

HID High Power Factor ballast for - 20°F starting. CFL Electronic ballast for 0°F starting. Product is factory mounted to the base. Quick disconnects provided between lamp and electrical assembly. Metal Halide and High Pressure Sodium lamp sources up to 100W and up to 42W Compact Fluorescent sources.

### Optical

**LAMP ENCLOSURE:** One piece tempered glass with internal flutes for even disbursement of illumination. Decorative colored glass optional. Globe is fully gasketed via EPDM material. Socket is porcelain, medium-base for HID lamp sources and

polycarbonate/PBT GX24q-3/q-4 base for compact fluorescent lamps.

### Mounting

Base mounts onto foundation with three (3) 1/2" x 12 1/2" anchor bolts on a 5" Dia. bolt circle (a centrally located 2 7/8" x 3 1/2" wire entrance opening provided).

### Finish

Premium fade and abrasion resistant, TGIC Polyester Powder Coat Finish. Standard colors are Black, Grey, Bronze, White, Dark Platinum and Graphite Metallic. Other finish colors available including all RAL matches.



## BSL/BRL BOLLARD

26 - 100W

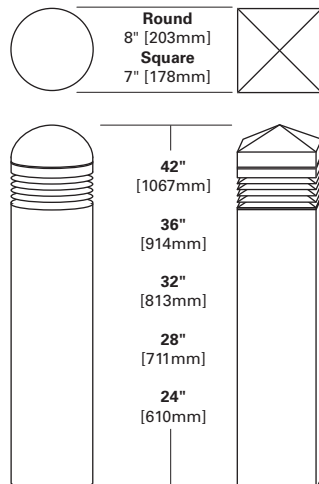
Pulse Start Metal Halide  
High Pressure Sodium  
Compact Fluorescent  
Incandescent

PATHWAY LUMINAIRE



NOTE: In select finishes only.

## DIMENSIONS



## WATTAGE TABLE

Lamp Type	Wattage
Pulse Start Metal Halide (MP)	50, 70, 100W
High Pressure Sodium (HPS)	35, 50, 70, 100W
Compact Fluorescent (CF)	(1) 26, (1) 32, (1) 42W
Incandescent (IN)	100W

### Energy Data

**Reactor Ballast Input Watts**  
35W HPS NPF (46 Watts)

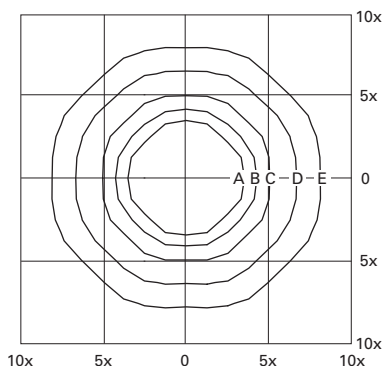
### High Reactance Ballast Input Watts

50W HPS HPF (62 Watts)  
50W MP HPF (69 Watts)  
70W HPS HPF (86 Watts)  
70W MP HPF (94 Watts)  
100W HPS HPF (115 Watts)  
100W MP HPF (129 Watts)  
150W HPS HPF (170 Watts)  
150W MP HPF (185 Watts)

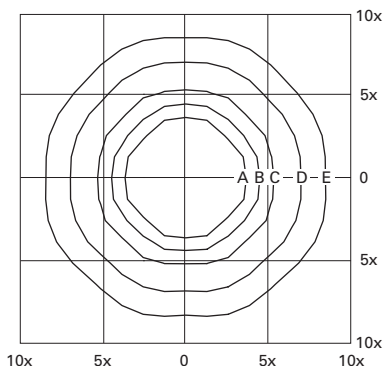
### SHIPPING DATA

**Approximate Net Weight:**  
26 lbs. (12 kgs.)

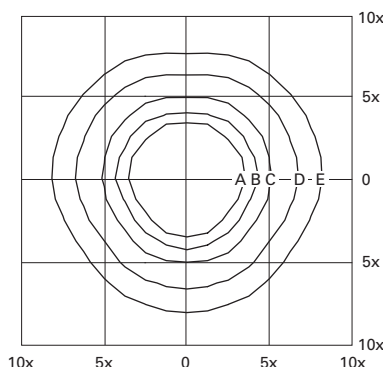
PHOTOMETRICS



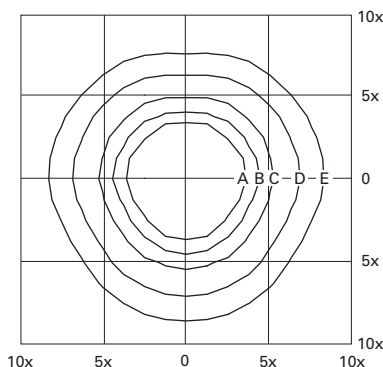
**BSL-36-100-MP**  
100-Watt MP  
7,900-Lumen Lamp (Coated ED-17)



**BSL-36-100-HPS**  
100-Watt HPS  
8,800-Lumen Lamp (Coated ED-17)



**BRL-36-100-MP**  
100-Watt MP  
7,900-Lumen Lamp (Coated ED-17)



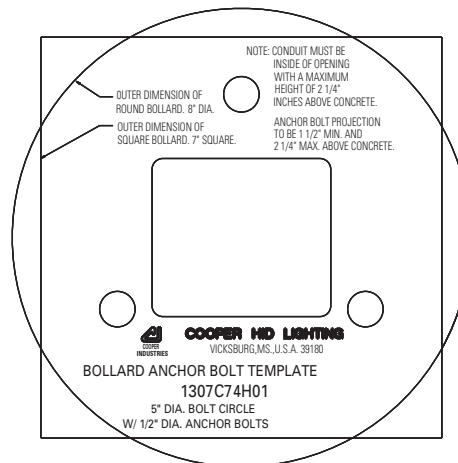
**BRL-36-100-HPS**  
100-Watt HPS  
8,800-Lumen Lamp (Coated ED-17)

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

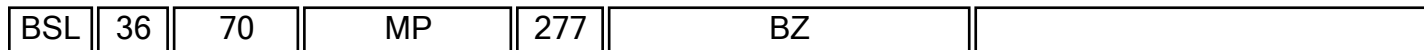
Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
42"	1.20	0.60	0.30	0.12	0.06
36"	2.00	1.00	0.50	0.20	0.10
32"	2.40	1.20	0.60	0.24	0.12
28"	3.20	1.60	0.80	0.32	0.16
24"	4.40	2.20	1.10	0.44	0.22

**ANCHOR BOLT TEMPLATE (NOT TO SCALE)**



ORDERING INFORMATION

BSL-36-70-MP-277-BZ



**Product Family**

**BSL**=Square Bollard with Stacked Louvers and Pyramidal Top  
**BRL**=Round Bollard with Stacked Louvers and Dome Top

**Fixture Height**

**24**=24"  
**28**=28"  
**32**=32"  
**36**=36"  
**42**=42"

**Lamp Wattage**

**MP**  
**50**=50W  
**70**=70W  
**100**=100W  
**HPS**  
**35**=35W<sup>2</sup>  
**50**=50W  
**70**=70W  
**100**=100W  
**CF**  
**26**=(1) 26W  
**32**=(1) 32W  
**42**=(1) 42W  
**IC**  
**100**=100W

**Lamp Type**

**MP**=Pulse Start Metal Halide  
**HPS**=High Pressure Sodium  
**CF**=Compact Fluorescent  
**IC**=Incandescent

**Voltage**

**120**=120V  
**208**=208V  
**240**=240V  
**277**=277V  
**347**=347V  
**MT**=Multi-Tap<sup>4</sup>  
**TT**=Triple-Tap<sup>4</sup>  
**UNV**=Universal<sup>5</sup> 120-277V

**Color**

**AP**=Grey  
**BZ**=Bronze  
**BK**=Black  
**WH**=White  
**DP**=Dark Platinum  
**GM**=Graphite Metallic

**Options**

**F**=Single Fuse (120, 277 or 347V)  
**FF**=Double Fuse (208, 240 or 480V)  
**L**=Lamp Included<sup>8</sup>  
**R1**=Provisional cut for GFI Receptacle<sup>9</sup>  
**R2**=Installed GFI Receptacle<sup>9</sup>  
**CF/EM**=Emergency Battery Pack<sup>10</sup>  
**AB**=Aqua Marine Blue Glass Jar  
**HG**=Hunter Green Glass Jar  
**OR**=Orange Glass Jar  
**RB**=Royal Blue Glass Jar  
**RE**=Red Glass Jar

- Notes:**
- HID lamps are medium base. 175W MH is available for non-U.S. markets only.
  - 35W HPS available in 120V only.
  - Products also available in non-US voltages and 50Hz for international markets. Consult factory for availability and ordering information.
  - Multi-Tap ballast is 120/208/240/277V wired 277V. Triple-Tap ballast is 120/277/347V wired 347V.
  - Compact Fluorescent only Electronic ballast universal voltage 120-277V.
  - Other finish colors available, including a full line of RAL color matches. Consult your Cooper Lighting Representative.
  - Add as suffix in the order shown.
  - Coated lamp standard. Must specify clear lamp if desired.
  - Location of R1 and R2 option on housing subject to height of luminaire.
  - CF lamps only, rated minimum operating temperature 32° F (0° C).

## DESCRIPTION

The Lumark Tribute is the most versatile, functionally designed, universally adaptable outdoor luminaire available. The Tribute brings outstanding performance to walkways, parking lots, roadways, loading docks, building areas, and any security lighting application. U.L. listed and CSA certified for wet locations.

Catalog #		Type
Project		
Comments		Date
Prepared by		

## SPECIFICATION FEATURES

### Construction

Rugged one-piece die-cast aluminum housing and door frame. One-piece silicone gasket protects the optical chamber from performance degrading contaminants. One (1) stainless spring latch and two (2) stainless hinges allow toolless opening and removal of door frame.

### Reflector

Choice of nine (9) high efficiency optical distributions, including five (5) segmented optical systems constructed of premium 95% reflective oxidized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs or other means of attachment which may cause streaking in the light distribution. Optical modules are

field rotatable in 90° increments and offered standard with mogul base lampholders for High Pressure Sodium and 200-400W Metal Halide assemblies or medium-base lampholders for Metal Halide 150W and below.

### Electrical

Ballast and related electrical componentry are hard mounted to die-cast housing for optimal heat transfer and operating efficiency. Optional swing-down galvanized steel power tray with integral handle and quick disconnects allows tray to be completely removed from housing providing ample room for fixture installation and maintenance.

### Mounting

Extruded 8" aluminum arm features internal bolt guides for easy positioning of fixture during installation to pole or wall surface.

Standard single carton packaging of housing, square pole arm and round pole adapter allow for consolidated product arrival to site. Optional internal mast arm mount accepts a 1 1/4" to 2 3/8" O.D. horizontal tenon, while a 4-bolt clamping mechanism secures fixture. Cast-in leveling guides provide +/-5° vertical leveling adjustment.

### Finish

Housing and arm finished in a 5 stage premium TGIC bronze polyester powder coat paint. Optional colors include black, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.



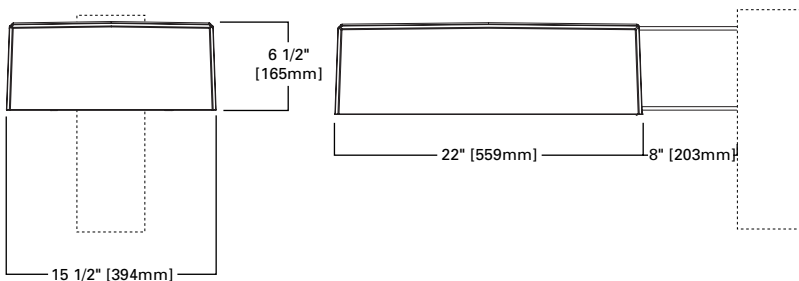
## TR TRIBUTE

**70 - 400W**  
High Pressure Sodium  
Pulse Start Metal Halide  
Metal Halide

AREA LUMINAIRE

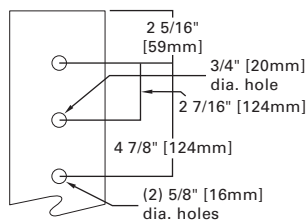


## DIMENSIONS

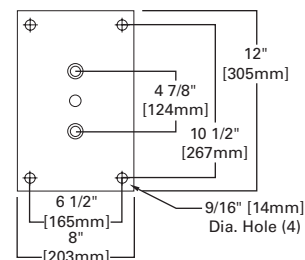


## DRILLING PATTERNS

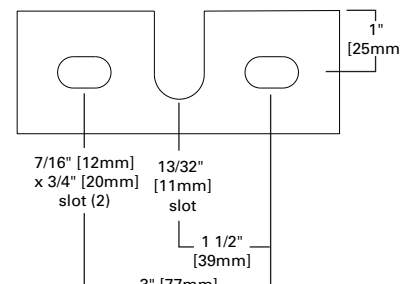
### TYPE "M"



### WALL MOUNT (MA1219-XX)



### TRUNNION MOUNT



## TECHNICAL DATA

UL Wet Locations Listed  
CSA Certified  
EISA Compliant ©

## ENERGY DATA

### Hi-Reactance Ballast Input Watts

70W HPS HPF (95 Watts)  
100W HPS HPF (130 Watts)  
150W HPS HPF (190 Watts)  
150W MP HPF (185 Watts)

### CWI Ballast Input Watts

250W HPS HPF (300 Watts)

### CWA Ballast Input Watts

175W MH HPF (210 Watts) ©  
200W MP HPF (227 Watts) ©  
200W HPS HPF (250 Watts)  
250W MH HPF (295 Watts)  
250W MP HPF (283 Watts) ©  
320W MP HPF (365 Watts) ©  
350W MP HPF (397 Watts) ©  
400W MP HPF (452 Watts) ©  
400W MH HPF (455 Watts)  
400W HPS HPF (465 Watts)

## EPA

Effective Projected Area: (Sq. Ft.)  
Without Arm: 1.19

## SHIPPING DATA

Approximate Net Weight:  
39 lbs. (17.73 kgs.)

ORDERING INFORMATION

MPTR-SL-400-480V

MP	TR	SL	400	480V			See Below
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**Lamp Type**

**MP**=Pulse Start Metal Halide  
**MH**=Metal Halide  
**HP**=High Pressure Sodium

**Series <sup>1</sup>**

**TR**=Tribute (Arm Included)

**Distribution**

**2F**=Type II Formed  
**2S**=Type II Segmented  
**3F**=Type III Formed  
**3S**=Type III Segmented  
**4F**=Type IV Formed  
**4S**=Type IV Segmented  
**5F**=Type V Formed  
**5S**=Type V Segmented  
**SL**=Spill Light Eliminator

**Lamp Wattage <sup>2</sup>**

**MP**  
**70**=70W  
**100**=100W  
**150**=150W  
**200**=200W  
**250**=250W  
**320**=320W  
**350**=350W  
**400**=400W<sup>3</sup>  
**MH**  
**175**=175W<sup>4</sup>  
**250**=250W<sup>4</sup>  
**400**=400W<sup>3,4</sup>  
**HPS**  
**70**=70W  
**100**=100W  
**150**=150W  
**250**=250W  
**400**=400W<sup>3</sup>

**Voltage <sup>5</sup>**

**120V**=120V  
**208V**=208V  
**240V**=240V  
**277V**=277V  
**347V**=347V<sup>6</sup>  
**480V**=480V  
**DT**=Dual-Tap  
**MT**=Multi-Tap, wired 277V  
**TT**=Triple-Tap, <sup>6</sup>wired 347V  
**5T**=5 Tap Wired<sup>5</sup> 480V

**Options**

**F1**=Single Fuse (120, 277 or 347V<sup>7</sup> only)  
**F2**=Double Fuse (208, 240 or 480V<sup>7</sup> only)  
**Q**= Quartz Restrike (Hot Strike Only)<sup>8</sup>  
**EM**= Quartz Restrike with "Delay Relay" (Quartz lamp strikes at both hot and cold starts)  
**EM/SC**= Emergency Separate<sup>8</sup> Circuit  
**LL**: Lamp Included  
**S**= 1 1/4" - 2 3/8" Internal Mast Arm Mount  
**TM**= Trunnion Mount  
**CEC**= California Title 20 Compliant Ballast (Applies to 200-320W and 400W MP only)  
**PT**= Electrical Power Tray  
**PER**= NEMA Twistlock Photocontrol Receptacle  
**PC**= Button Type Photocontrol<sup>9</sup>  
**HS**=House Side Cutoff<sup>10</sup>  
**LA**=Less Arm (Order Mounting Separately)

**Standard Color**

**\_**=Bronze (Standard)  
**WH**=White  
**BK**=Black  
**AP**=Grey  
**DP**=Dark Platinum  
**GM**=Graphite Metallic

**Accessories <sup>11</sup>**

**MA1201-BZ**=Direct Wall Mount Kit<sup>1</sup>  
**MA1218-BZ**=Direct Mount for Pole<sup>1</sup>  
**MA1219-BZ**=Wall Mounting Plate  
**OA1090-BZ**=Adjustable slipfitter Arm for Tenon Mount 2 3/8" O.D. 1  
**MA1221-BZ**= External House Side Shield Kit (EPA= 0.38)  
**MA1222**= Internal House Side Shield Kit for 2S/3S  
**MA1223**= Internal House Side Shield Kit 4S  
**MA1224**= Internal House Side Shield Kit for 2F/3F  
**MA1225**= Internal House Side Shield Kit for 4F  
**MA1010-BZ**= Single Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1011-BZ**= 2 @ 180 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1012-BZ**= 3 @ 120 degrees Tenon Adaptor for 3 1/2" O.D. Tenon  
**MA1013-BZ**= 4 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1014-BZ**= 2 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1015-BZ**= 2 @ 120 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1016-BZ**= 3 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1017-BZ**= Single Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1018-BZ**= 2 @ 180 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1019-BZ**= 3 @ 120 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1045-BZ**= 4 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1048-BZ**= 2 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1049-BZ**= 3 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**TR/VS**=Field Installed Vandal Shield<sup>12</sup>  
**OA/RA1013**=Photocontrol Shorting Cap  
**OA/RA1016**=NEMA Photocontrol - Multi-Tap  
**OA/RA1027**=NEMA Photocontrol 480V  
**OA/RA1201**=NEMA Photocontrol 347V

**Notes:** 1 8 Inch Arm and pole adapter included with fixture. Specify Less Arm "LA" option when mounting accessory is ordered separately. 2 150W and below in Pulse Start Metal Halide are medium base sockets. All other wattages are mogul base. 3 Requires reduced envelope lamp. 4 175W, 250W, and 400W MH available in non-U.S. markets only. 5 Products also available in non-US voltages and 50Hz for international markets. Consult your Cooper Representative for availability and ordering information. 5T only available in 400W MH. 6 88% efficient EISA Compliant MP fixtures not available in 347V or TT Voltages. 7 Must specify voltage. 8 Quartz options not available with SL optics. 9 Specify 120V, 208V, 240V, or 277V only. 10 House side shield not available on 5S, 5F, or SL optics. 11 Order separately/replace XX with color specification. 12 Not available with SLE or House Side Shield.

STOCK SAMPLE NUMBER (Lamp Included)

SAMPLE NUMBER: MPTR2340

<b>MP</b>	<b>TR</b>	<b>23</b>	
<b>Lamp Type</b> MP=Pulse Start Metal Halide HP=High Pressure Sodium <sup>2</sup>	<b>Series <sup>1</sup></b> TR=Tribute	<b>Distribution</b> 23=Type II/III Formed	<b>Lamp Wattage</b> 15=150W 25=250W 32=320W 40=400W

NOTES:

<sup>1</sup> Short logic fixtures are finished bronze include multi-tap ballast, lamp, arm and round pole adapter. Other options not available. Refer to standard ordering logic. <sup>2</sup> Available in 150, 250 and 400 Watt. Refer to In Stock Guide for availability.

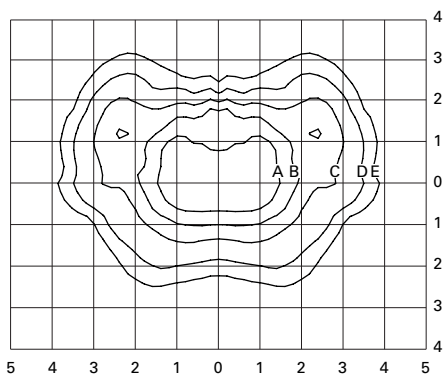
VOLTAGE CHART

DT=Dual-Tap	120/277 (wired 277V)
MT=Multi-Tap	120/208/240/277 (wired 277V)
TT=Triple-Tap	120/277/347 (wired 347V)
5T=5-Tap	120/208/240/277/480 (wired 480V)

LAMP TYPE

WATTAGE

Pulse Start Metal Halide	70, 100, 150, 250, 320, 350, 400W
Metal Halide	175, 250, 400W
High Pressure Sodium	70, 100, 150, 250, 400W

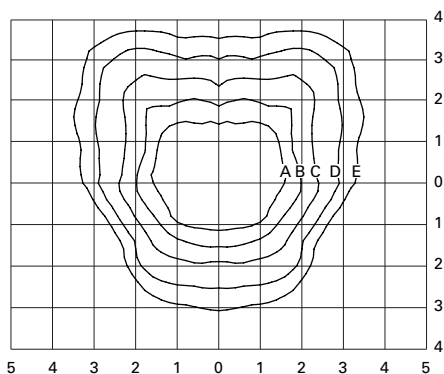


**MPTR-3S-320**  
320—Watt MP  
30,000—Lumen Clear Lamp  
Type III Segmented

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	<b>2.00</b>	<b>1.00</b>	<b>0.50</b>	<b>0.20</b>	<b>0.10</b>
30'	1.38	0.69	0.34	0.13	0.06

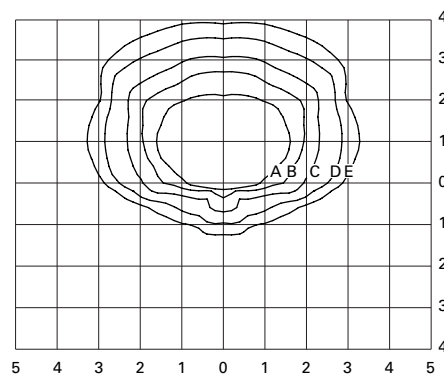


**MPTR-4S-400**  
400—Watt MP  
40,000—Lumen Clear Lamp  
Type IV Segmented

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	<b>2.00</b>	<b>1.00</b>	<b>0.50</b>	<b>0.20</b>	<b>0.10</b>
30'	1.38	0.69	0.34	0.13	0.06



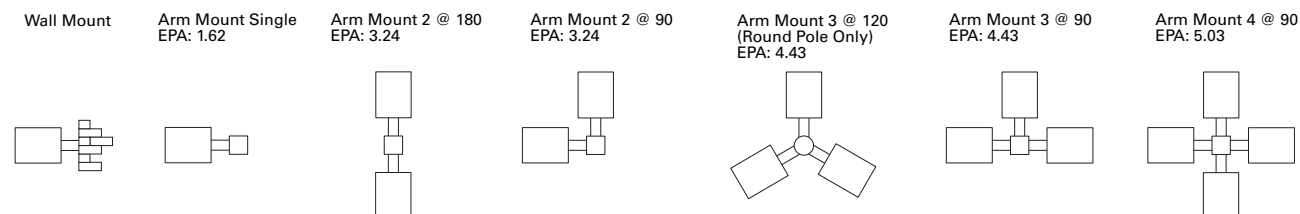
**MPTR-SL-400**  
400—Watt MP  
40,000—Lumen Clear Lamp  
Spill Light Eliminator

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	<b>2.00</b>	<b>1.00</b>	<b>0.50</b>	<b>0.20</b>	<b>0.10</b>
30'	1.38	0.69	0.34	0.13	0.06

**MOUNTING CONFIGURATIONS**



**DESCRIPTION**

Galleria's beauty and versatility make it an excellent choice for roadway and general area lighting applications. An aesthetic reveal in the formed aluminum housing gives the Galleria a distinctive look while a variety of mounting options and lamp wattages provide maximum flexibility.

Galleria's superior light distributions makes it the optimum choice for almost any small, medium or large area lighting application.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

**SPECIFICATION FEATURES**

**Construction**

**HOUSING:** Formed aluminum housing with stamped reveal has interior-welded seams for structural integrity and is finished in premium TGIC polyester powder coat. U.L. listed and CSA certified for wet locations. **DOOR:** Formed aluminum door has heavy-duty hinges, captive retaining screws and is finished in premium TGIC polyester powder coat. (Spider mount unit has steel door.)

**Electrical**

**BALLAST TRAY:** Ballast tray is hard-mounted to housing interior for cooler operation.

**Optical**

**REFLECTOR:** Choice of 14 high efficiency optical systems utilizing horizontal and vertical lamp orientations. Optional high efficiency segmented optical systems constructed of premium 95% reflective anodized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs or other means of attachment which may cause streaking in the light distribution. Standard with mogul-base socket. All optical modules feature quick disconnect wiring

plugs and are field rotatable in 90° increments. **LENS:** Convex tempered glass lens or flat glass.

**Mounting**

Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during assembly. Specify arm-included mounting for contractor-friendly single carton packaging of housing and arm.



**GSS/GSM/GSL  
GALLERIA  
SQUARE**

**70 - 1000W**

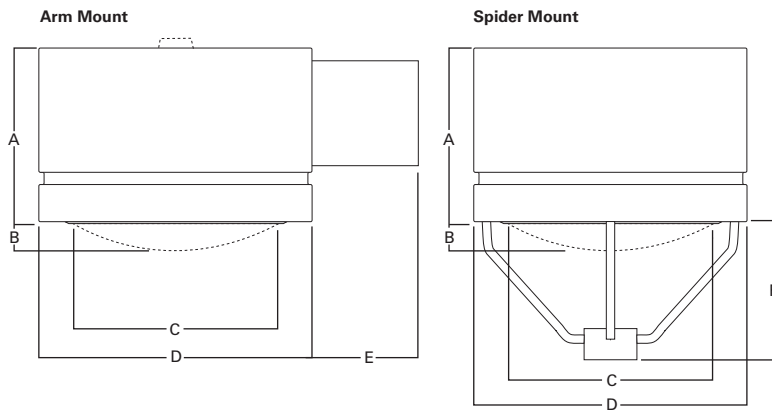
**Pulse Start Metal Halide  
High Pressure Sodium  
Metal Halide**

**ARCHITECTURAL  
AREA LUMINAIRE**

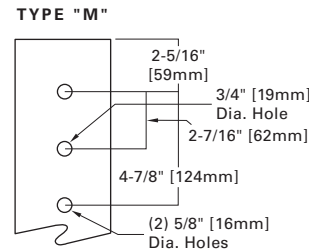


NOTE: In all flat glass configurations only.

**DIMENSIONS**



**ARM DRILLING**



Fixture	A	B	C	D	E	F
<b>GSS</b>	9-1/4" 235mm	1-1/2" 38mm	12-7/8" 327mm	15-5/8" 397mm	6" or 9" 152mm or 229mm	13-1/4" 337mm
<b>GSM</b>	11" 279mm	3-1/2" 89mm	19-1/4" 480mm	21-3/4" 552mm	6" or 14" 152mm or 356mm	15" or 16" 381mm or 406mm
<b>GSL</b>	14-1/2" 368mm	4-1/4" 108mm	25-7/8" 657mm	27" 686mm	6" or 14" 152mm or 356mm	18-3/4" or 19-3/4" 476mm or 502mm

NOTE: Top cap used on GSM with 1000W flat glass vertically lamped optics only.

**WATTAGE TABLE**

Fixture	Lamp Type	Wattage
<b>GSS</b> (Galleria Small)	Pulse Start Metal Halide (MP)	70, 100, 150W
	High Pressure Sodium (HPS)	70, 100, 150W
	Metal Halide (MH)	175W
<b>GSM</b> (Galleria Medium)	Pulse Start Metal Halide (MP)	70, 100, 150, 175, 200, 250, 320, 350, 400, 450, 750, 875, 1000W
	High Pressure Sodium (HPS)	70, 100, 150, 250, 400, 750, 1000W
	Metal Halide (MH)	175, 250, 400, 1000W
<b>GSL</b> (Galleria Large)	Pulse Start Metal Halide (MP)	250, 320, 350, 400, 450, 750, 1000W
	High Pressure Sodium (HPS)	250, 400, 750, 1000W
	Metal Halide (MH)	250, 400, 1000W

**ENERGY DATA**

**CWA Ballast Input Watts**

- 150W MP HPF (185 Watts)
- 175W MP HPF (198 Watts) ©
- 250W MP HPF (283 Watts) ©
- 250W HPS HPF (295 Watts)
- 400W MP HPF (452 Watts) ©
- 400W HPS HPF (457 Watts)
- 750W MP HPF (820 Watts)
- 1000W MH HPF (1080 Watts)
- 1000W HPS HPF (1100 Watts)

**EPA**

**Effective Projected Area: (Sq. Ft.)  
[Without Arm]**

**GSS: 1.20 GSM: 2.40 GSL: 3.90  
[Spider Mount]**

**GSS: 1.53 GSM: 2.86 GSL: 4.45**

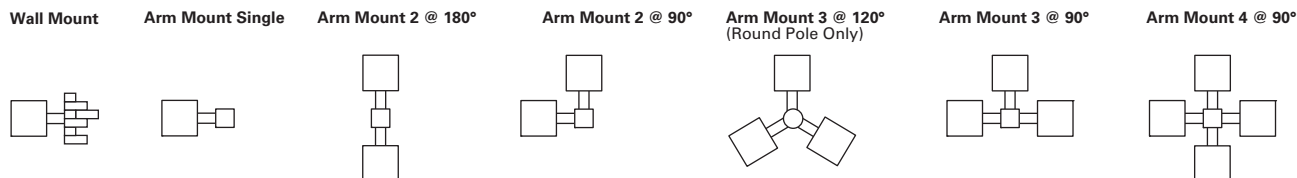
**SHIPPING DATA**

**Approximate Net Weight:**

- 36 lbs. (16 kgs.)
- 79 lbs. (36 kgs.)
- 88 lbs. (40 kgs.)



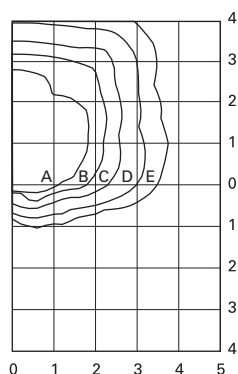
**MOUNTING CONFIGURATIONS**



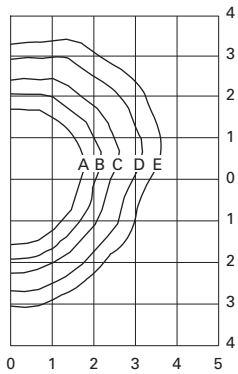
**E.P.A. TABLE**

	Single [w/arm where applicable]	2 @ 180°	2 @ 90°	3 @ 120°	3 @ 90°	4 @ 90°
<b>GSS</b>	1.7	3.4	3.4	4.6	4.6	5.2
<b>GSM</b>	2.9	5.8	6.8	9.2	9.2	10.4
<b>GSL</b>	4.4	8.8	9.8	13.7	13.7	15.6

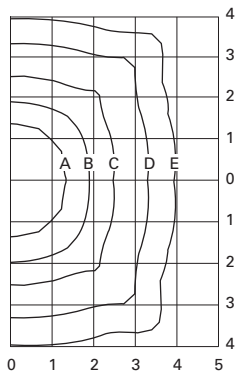
**PHOTOMETRICS**



**GSM-XX-1000-MH-SL-FG**  
1000-Watt MH  
110,000-Lumen Clear Lamp  
Spill Light Eliminator  
Flat Glass



**GSM-XX-1000-MH-3V-FG**  
1000-Watt MH  
110,000-Lumen Clear Lamp  
Type III Vertical  
Flat Glass



**GSM-XX-1000-MH-AS-SG**  
1000-Watt MH  
110,000-Lumen Clear Lamp  
Area Square  
Flat Glass

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
<b>1000W [SL] / 400W [AR]</b>					
25'	2.88	1.44	0.72	0.29	0.14
30'	<b>2.00</b>	<b>1.00</b>	<b>0.50</b>	<b>0.20</b>	<b>0.10</b>
35'	1.46	0.73	0.37	0.15	0.07
<b>1000W [3V/AS]</b>					
30'	3.50	2.00	1.00	0.50	0.20
35'	2.60	0.73	0.37	0.18	0.07
40'	<b>2.00</b>	<b>1.00</b>	<b>0.50</b>	<b>0.20</b>	<b>0.10</b>



ORDERING INFORMATION

GSM-AIS-1000-MP-480-FT-FG-BZ

<b>GSM</b>	<b>AIS</b>	<b>1000</b>	<b>MP</b>	<b>480</b>	<b>FT</b>	<b>FG</b>	<b>BZ</b>			<b>BZ</b>
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**Product Family**

**GSS**=Galleria Square Small  
**GSM**=Galleria Square Medium  
**GSL**=Galleria Square Large

**Mounting Method**

**AM**: Arm Mount<sup>1</sup>  
**AIR**: Arm Included for<sup>2</sup> Round Pole  
**AIS**: Arm Included for<sup>2</sup> Square Pole  
**SM1**: Spider Mount<sup>3</sup> (2 3/8" OD Tenon)  
**SM2**: Spider Mount (3" OD Tenon)  
**SM3**: Spider Mount<sup>4</sup> (3 1/2" OD Tenon)

**Lamp Wattage**

**MP**  
**70**=70W  
**100**=100W  
**150**=150W  
**175**=175W  
**200**=200W  
**250**=250W  
**320**=320W  
**350**=350W  
**400**=400W<sup>6</sup>  
**450**=450W  
**750**=750W  
**875**=875W  
**1000**=1000W<sup>7</sup>  
**HPS**  
**70**=70W  
**100**=100W  
**150**=150W  
**250**=250W  
**400**=400W  
**750**=750W  
**1000**=1000W<sup>7</sup>  
**MH**<sup>8</sup>  
**175**=175W  
**250**=250W  
**400**=400W  
**1000**=1000W<sup>7</sup>

**Lamp Type**

**MP**=Pulse Start Metal Halide  
**HPS**=High Pressure Sodium  
**MH**=Metal Halide<sup>8</sup>  
**Voltage**<sup>9</sup>  
**120**: 120V  
**208**: 208V  
**240**: 240V  
**277**: 277V  
**347**: 347V  
**480**: 480V  
**MT**: Multi-Tap<sup>10</sup>  
**TT**: Triple-Tap<sup>10</sup>  
**5T**=5-Tap<sup>11</sup>

**Distribution**

**Horizontal Lamp**  
**1F**=Type I Formed<sup>12</sup>  
**2F**=Type II Formed  
**2S**=Type II Segmented<sup>13</sup>  
**3F**=Type III Formed  
**3S**=Type III Segmented<sup>13</sup>  
**4S**=Type IV Segmented<sup>13</sup>  
**5S**=Type V Segmented<sup>13</sup>  
**FT**=Forward Throw  
**SL**: Spill Light Eliminator<sup>14</sup>  
**CA**: Cutoff Asymmetric with EHS<sup>15</sup>  
**Vertical Lamp**  
**AR**: Area Round  
**AS**: Area Square<sup>15</sup>  
**3V**: Type III Vertical<sup>15</sup>  
**RW**: Rectangular Wide<sup>15, 16</sup>  
**Lens Type**  
**FG**: Flat Glass<sup>17</sup>  
**SG**: Sag Glass

**Color**<sup>18</sup>

**AP**=Grey  
**BZ**=Bronze  
**BK**=Black  
**WH**=White  
**DP**: Dark Platinum  
**GM**: Graphite Metallic  
**Options**<sup>19</sup>  
**CEC**: California Title 20 Compliant Ballast (Applies to 175-320W and 400W MP only)  
**F**: Single Fuse (120, 277 or 347V)  
**FF**: Double Fuse (208, 240 or 480V)  
**L**: Lamp Included  
**EM**: Quartz Restrike w/<sup>20</sup> Delay  
**Q**: Quartz Restrike<sup>20</sup>  
**R**: NEMA Twistlock Photocontrol Receptacle  
**EHS**=External Adjustable House Side Shield  
**HS**=House Side Shield<sup>21, 22</sup>  
**VS**=Vandal Shield<sup>23</sup>

**Accessories**<sup>24</sup>

**GSM-EXTHS**=External House Side Shield - 2.24 EPA  
**GSL-EXTHS**=External House Side Shield - 2.46 EPA  
**MA1004BZ**=14" Arm for Square Pole. 1.0 EPA<sup>15, 25</sup>  
**MA1005BZ**=6" Arm for Square Pole. 0.5 EPA<sup>15</sup>  
**MA1006BZ**: Direct Mount Kit for Square Pole<sup>15</sup>  
**MA1007BZ**: 14" Arm for Round Pole. 1.0 EPA<sup>15, 25</sup>  
**MA1008BZ**: 6" Arm for Round Pole. 0.5 EPA<sup>15</sup>  
**MA1009BZ**: Direct Mount Kit for Round Pole<sup>15</sup>  
**MA1021BZ**: 6" Arm for Square Pole. 0.5 EPA<sup>3</sup>  
**MA1022BZ**: 6" Arm for Round Pole. 0.5 EPA<sup>3</sup>  
**MA1023BZ**: 9" Arm for Square Pole. 0.5 EPA<sup>3, 25</sup>  
**MA1024BZ**: 9" Arm for Round Pole. 0.5 EPA<sup>3, 25</sup>  
**MA1029BZ**: Wall Mount Bracket with 10" Arm  
**MA1046BZ**: Wall Mount Bracket<sup>3</sup>  
**MA1208BZ**: 11 1/2" Arm and Round Pole Adapter - .08 EPA  
**OA1066BZ**: Mast Arm Adapter  
**MA1010BZ**: Single Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1011BZ**: 2@180° Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1012BZ**=3@120° Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1013BZ**=4@90° Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1014BZ**=2@90° Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1015BZ**=2@120° Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1016BZ**=3@90° Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1017BZ**=Single Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1018BZ**=2@180° Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1019BZ**=3@120° Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1045BZ**=4@90° Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1048BZ**=2@90° Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1049BZ**=3@90° Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1060**=House Side Shield for GSS (Field Installed)<sup>26</sup>  
**MA1061**=House Side Shield for GSM (Field Installed)<sup>26</sup>  
**MA1062**=House Side Shield for GSL (Field Installed)<sup>26</sup>  
**OA/RA1016**=NEMA Twistlock Photocontrol - Multi-Tap  
**OA/RA1027**=NEMA Twistlock Photocontrol - 480V  
**OA/RA1201**=NEMA Twistlock Photocontrol - 347V

- Notes:**
- 1 Arm not included. See Accessories.
  - 2 Arm length varies based on housing size: 9" for GSS, 11-1/2" for GSM and 14" for GSL.
  - 3 Available on GSS housing only.
  - 4 Available on GSL housing only.
  - 5 Standard with medium-base sockets in GSS housing. Mogul-base sockets in GSM and GSL housings. Wattage availability varies by housing size - see Wattage Table.
  - 6 Requires reduced envelope ED-28 lamp when used with GSM housing and flat glass vertically lamped optics.
  - 7 Requires reduced envelope BT-37 lamp when used with GSM housing.
  - 8 175, 250 and 400W MH available for non-US markets only.
  - 9 Products also available in non-US voltages and 50Hz for international markets. Consult factory for availability and ordering information.
  - 10 Multi-Tap ballast is 120/208/240/277V wired 277V. Triple-Tap ballast is 277/347/480V wired 347V.
  - 11 5-Tap ballast is 120/208/240/277/480V wired 480V. Only available in 400-1000W.
  - 12 Medium housing fixture only.
  - 13 Maximum wattage on segmented optical distributions is 400W. 400W Metal Halide lamp must use reduced envelope ED-28 lamp. Not available in GSL housing.
  - 14 Must use reduced envelope lamp, not available in GSL housing.
  - 15 Available on GSM and GSL housings only.
  - 16 RW optic not available with flat glass.
  - 17 1000W GSL with flat glass requires BT-37 lamp and is not available in AS, RW, SL or 3V distributions.
  - 18 Other finish colors available, including a full line of RAL color matches. Consult your Cooper Lighting Representative.
  - 19 Add as suffix in the order shown.
  - 20 Quartz options not available with SL optics.
  - 21 House side shield not available with 5S, RW, AS, AR, SL and CA optics.
  - 22 Not available in 1000W.
  - 23 Arm mount only, 400W Maximum.
  - 24 Order separately, replace XX with color suffix.
  - 25 Use for mounting fixtures at 90 degree increments.
  - 26 Compatible with sag lens vertical optics only.



## DESCRIPTION

The Lumark Tribute is the most versatile, functionally designed, universally adaptable outdoor luminaire available. The Tribute brings outstanding performance to walkways, parking lots, roadways, loading docks, building areas, and any security lighting application. U.L. listed and CSA certified for wet locations.

Catalog #		Type
Project		
Comments		Date
Prepared by		

## SPECIFICATION FEATURES

### Construction

Rugged one-piece die-cast aluminum housing and door frame. One-piece silicone gasket protects the optical chamber from performance degrading contaminants. One (1) stainless spring latch and two (2) stainless hinges allow toolless opening and removal of door frame.

### Reflector

Choice of nine (9) high efficiency optical distributions, including five (5) segmented optical systems constructed of premium 95% reflective oxidized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs or other means of attachment which may cause streaking in the light distribution. Optical modules are

field rotatable in 90° increments and offered standard with mogul base lampholders for High Pressure Sodium and 200-400W Metal Halide assemblies or medium-base lampholders for Metal Halide 150W and below.

### Electrical

Ballast and related electrical componentry are hard mounted to die-cast housing for optimal heat transfer and operating efficiency. Optional swing-down galvanized steel power tray with integral handle and quick disconnects allows tray to be completely removed from housing providing ample room for fixture installation and maintenance.

### Mounting

Extruded 8" aluminum arm features internal bolt guides for easy positioning of fixture during installation to pole or wall surface.

Standard single carton packaging of housing, square pole arm and round pole adapter allow for consolidated product arrival to site. Optional internal mast arm mount accepts a 1 1/4" to 2 3/8" O.D. horizontal tenon, while a 4-bolt clamping mechanism secures fixture. Cast-in leveling guides provide +/-5° vertical leveling adjustment.

### Finish

Housing and arm finished in a 5 stage premium TGIC bronze polyester powder coat paint. Optional colors include black, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.



## TR TRIBUTE

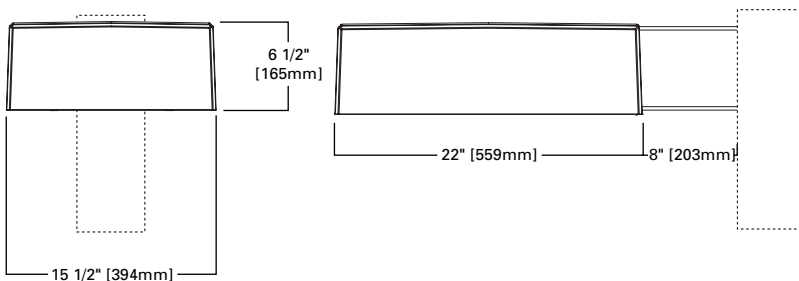
70 - 400W

High Pressure Sodium  
Pulse Start Metal Halide  
Metal Halide

AREA LUMINAIRE

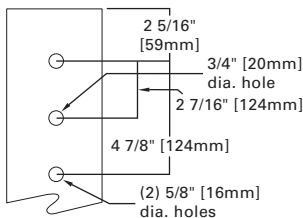


## DIMENSIONS

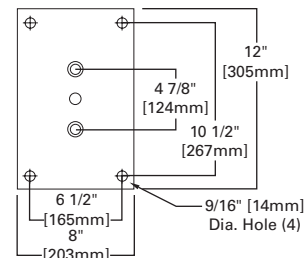


## DRILLING PATTERNS

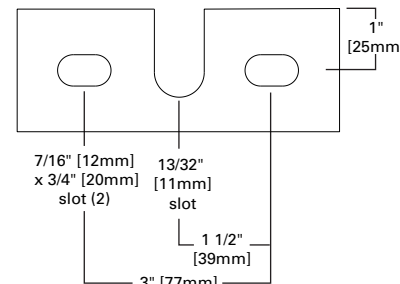
### TYPE "M"



### WALL MOUNT (MA1219-XX)



### TRUNNION MOUNT



## TECHNICAL DATA

UL Wet Locations Listed  
CSA Certified  
EISA Compliant ©

## ENERGY DATA

### Hi-Reactance Ballast Input Watts

70W HPS HPF (95 Watts)  
100W HPS HPF (130 Watts)  
150W HPS HPF (190 Watts)  
150W MP HPF (185 Watts)

### CWI Ballast Input Watts

250W HPS HPF (300 Watts)

### CWA Ballast Input Watts

175W MH HPF (210 Watts) ©  
200W MP HPF (227 Watts) ©  
200W HPS HPF (250 Watts)  
250W MH HPF (295 Watts)  
250W MP HPF (283 Watts) ©  
320W MP HPF (365 Watts) ©  
350W MP HPF (397 Watts) ©  
400W MP HPF (452 Watts) ©  
400W MH HPF (455 Watts)  
400W HPS HPF (465 Watts)

## EPA

Effective Projected Area: (Sq. Ft.)  
Without Arm: 1.19

## SHIPPING DATA

Approximate Net Weight:  
39 lbs. (17.73 kgs.)

ORDERING INFORMATION

MPTR-5S-400-480V

MP	TR	5S	400	480V			See Below
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**Lamp Type**

**MP**=Pulse Start Metal Halide  
**MH**=Metal Halide  
**HP**=High Pressure Sodium

**Series <sup>1</sup>**

**TR**=Tribute (Arm Included)

**Distribution**

**2F**=Type II Formed  
**2S**=Type II Segmented  
**3F**=Type III Formed  
**3S**=Type III Segmented  
**4F**=Type IV Formed  
**4S**=Type IV Segmented  
**5F**=Type V Formed  
**5S**=Type V Segmented  
**SL**=Spill Light Eliminator

**Lamp Wattage <sup>2</sup>**

**MP**  
**70**=70W  
**100**=100W  
**150**=150W  
**200**=200W  
**250**=250W  
**320**=320W  
**350**=350W  
**400**=400W<sup>3</sup>  
**MH**  
**175**=175W<sup>4</sup>  
**250**=250W<sup>4</sup>  
**400**=400W<sup>3, 4</sup>  
**HPS**  
**70**=70W  
**100**=100W  
**150**=150W  
**250**=250W  
**400**=400W<sup>3</sup>

**Voltage <sup>5</sup>**

**120V**=120V  
**208V**=208V  
**240V**=240V  
**277V**=277V  
**347V**=347V<sup>6</sup>  
**480V**=480V  
**DT**=Dual-Tap  
**MT**=Multi-Tap, wired 277V  
**TT**=Triple-Tap, <sup>6</sup>wired 347V  
**5T**=5 Tap Wired<sup>5</sup> 480V

**Options**

**F1**=Single Fuse (120, 277 or 347V<sup>7</sup> only)  
**F2**=Double Fuse (208, 240 or 480V<sup>7</sup> only)  
**Q**= Quartz Restrike (Hot Strike Only)<sup>8</sup>  
**EM**= Quartz Restrike with "Delay Relay" (Quartz lamp strikes at both hot and cold starts)  
**EM/SC**= Emergency Separate<sup>8</sup> Circuit  
**LL**: Lamp Included  
**S**: 1 1/4" - 2 3/8" Internal Mast Arm Mount  
**TM**: Trunnion Mount  
**CEC**: California Title 20 Compliant Ballast (Applies to 200-320W and 400W MP only)  
**PT**: Electrical Power Tray  
**PER**: NEMA Twistlock Photocontrol Receptacle  
**PC**: Button Type Photocontrol<sup>9</sup>  
**HS**=House Side Cutoff<sup>10</sup>  
**LA**=Less Arm (Order Mounting Separately)

**Standard Color**

**\_**=Bronze (Standard)  
**WH**=White  
**BK**=Black  
**AP**=Grey  
**DP**=Dark Platinum  
**GM**=Graphite Metallic

**Accessories <sup>11</sup>**

**MA1201-BZ**=Direct Wall Mount Kit<sup>1</sup>  
**MA1218-BZ**=Direct Mount for Pole<sup>1</sup>  
**MA1219-BZ**=Wall Mounting Plate  
**OA1090-BZ**=Adjustable slipfitter Arm for Tenon Mount 2 3/8" O.D. <sup>1</sup>  
**MA1221-BZ**= External House Side Shield Kit (EPA= 0.38)  
**MA1222**= Internal House Side Shield Kit for 2S/3S  
**MA1223**= Internal House Side Shield Kit 4S  
**MA1224**= Internal House Side Shield Kit for 2F/3F  
**MA1225**= Internal House Side Shield Kit for 4F  
**MA1010-BZ**: Single Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1011-BZ**: 2 @ 180 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1012-BZ**: 3 @ 120 degrees Tenon Adaptor for 3 1/2" O.D. Tenon  
**MA1013-BZ**: 4 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1014-BZ**: 2 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1015-BZ**: 2 @ 120 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1016-BZ**: 3 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1017-BZ**: Single Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1018-BZ**: 2 @ 180 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1019-BZ**: 3 @ 120 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1045-BZ**: 4 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1048-BZ**=2 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1049-BZ**=3 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**TR/VS**=Field Installed Vandal Shield<sup>12</sup>  
**OA/RA1013**=Photocontrol Shorting Cap  
**OA/RA1016**=NEMA Photocontrol - Multi-Tap  
**OA/RA1027**=NEMA Photocontrol 480V  
**OA/RA1201**=NEMA Photocontrol 347V

**Notes:** <sup>1</sup> 8 Inch Arm and pole adapter included with fixture. Specify Less Arm "LA" option when mounting accessory is ordered separately. <sup>2</sup> 150W and below in Pulse Start Metal Halide are medium base sockets. All other wattages are mogul base. <sup>3</sup> Requires reduced envelope lamp. <sup>4</sup> 175W, 250W, and 400W MH available in non-U.S. markets only. <sup>5</sup> Products also available in non-US voltages and 50HZ for international markets. Consult your Cooper Representative for availability and ordering information. <sup>5T</sup> only available in 400W MH. <sup>6</sup> 88% efficient EISA Compliant MP fixtures not available in 347V or TT Voltages. <sup>7</sup> Must specify voltage. <sup>8</sup> Quartz options not available with SL optics. <sup>9</sup> Specify 120V, 208V, 240V, or 277V only. <sup>10</sup> House side shield not available on 5S, 5F, or SL optics. <sup>11</sup> Order separately/replace XX with color specification. <sup>12</sup> Not available with SLE or House Side Shield.

STOCK SAMPLE NUMBER (Lamp Included)

SAMPLE NUMBER: MPTR2340

<b>MP</b>	<b>TR</b>	<b>23</b>	
<b>Lamp Type</b> MP=Pulse Start Metal Halide HP=High Pressure Sodium <sup>2</sup>	<b>Series <sup>1</sup></b> TR=Tribute	<b>Distribution</b> 23=Type II/III Formed	<b>Lamp Wattage</b> 15=150W 25=250W 32=320W 40=400W

NOTES:

<sup>1</sup> Short logic fixtures are finished bronze include multi-tap ballast, lamp, arm and round pole adapter. Other options not available. Refer to standard ordering logic. <sup>2</sup> Available in 150, 250 and 400 Watt. Refer to In Stock Guide for availability.

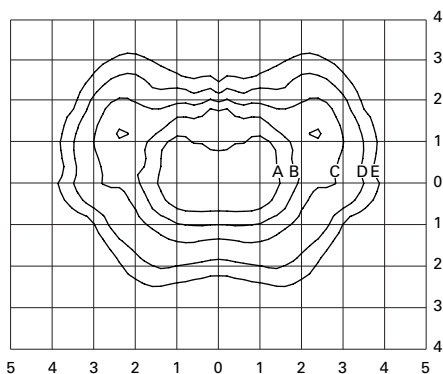
VOLTAGE CHART

DT=Dual-Tap	120/277 (wired 277V)
MT=Multi-Tap	120/208/240/277 (wired 277V)
TT=Triple-Tap	120/277/347 (wired 347V)
5T=5-Tap	120/208/240/277/480 (wired 480V)

LAMP TYPE

WATTAGE

Pulse Start Metal Halide	70, 100, 150, 250, 320, 350, 400W
Metal Halide	175, 250, 400W
High Pressure Sodium	70, 100, 150, 250, 400W

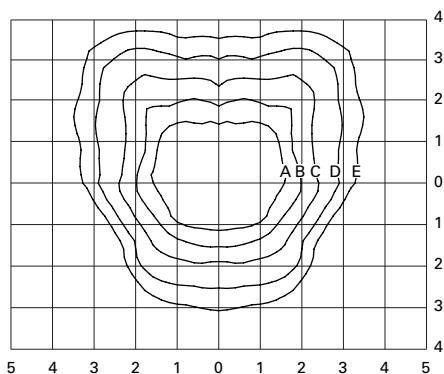


**MPTR-3S-320**  
 320—Watt MP  
 30,000—Lumen Clear Lamp  
 Type III Segmented

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	<b>2.00</b>	<b>1.00</b>	<b>0.50</b>	<b>0.20</b>	<b>0.10</b>
30'	1.38	0.69	0.34	0.13	0.06

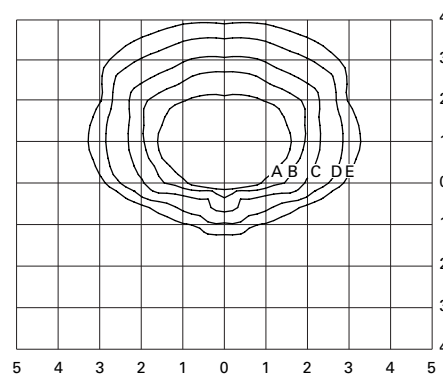


**MPTR-4S-400**  
 400—Watt MP  
 40,000—Lumen Clear Lamp  
 Type IV Segmented

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	<b>2.00</b>	<b>1.00</b>	<b>0.50</b>	<b>0.20</b>	<b>0.10</b>
30'	1.38	0.69	0.34	0.13	0.06



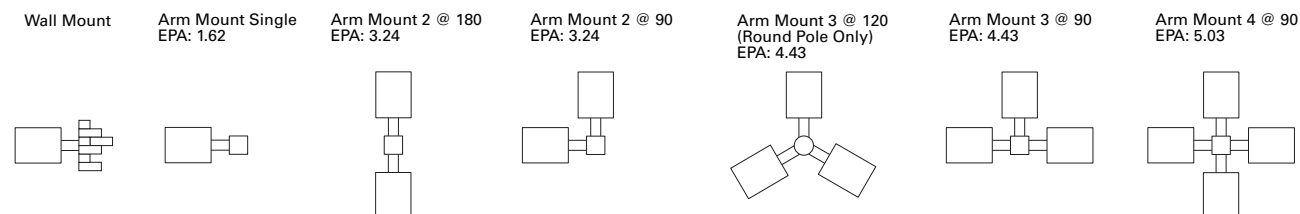
**MPTR-SL-400**  
 400—Watt MP  
 40,000—Lumen Clear Lamp  
 Spill Light Eliminator

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	<b>2.00</b>	<b>1.00</b>	<b>0.50</b>	<b>0.20</b>	<b>0.10</b>
30'	1.38	0.69	0.34	0.13	0.06

**MOUNTING CONFIGURATIONS**



## DESCRIPTION

The Lumark Tribute is the most versatile, functionally designed, universally adaptable outdoor luminaire available. The Tribute brings outstanding performance to walkways, parking lots, roadways, loading docks, building areas, and any security lighting application. U.L. listed and CSA certified for wet locations.

Catalog #		Type
Project		
Comments		Date
Prepared by		

## SPECIFICATION FEATURES

### Construction

Rugged one-piece die-cast aluminum housing and door frame. One-piece silicone gasket protects the optical chamber from performance degrading contaminants. One (1) stainless spring latch and two (2) stainless hinges allow toolless opening and removal of door frame.

### Reflector

Choice of nine (9) high efficiency optical distributions, including five (5) segmented optical systems constructed of premium 95% reflective oxidized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs or other means of attachment which may cause streaking in the light distribution. Optical modules are

field rotatable in 90° increments and offered standard with mogul base lampholders for High Pressure Sodium and 200-400W Metal Halide assemblies or medium-base lampholders for Metal Halide 150W and below.

### Electrical

Ballast and related electrical componentry are hard mounted to die-cast housing for optimal heat transfer and operating efficiency. Optional swing-down galvanized steel power tray with integral handle and quick disconnects allows tray to be completely removed from housing providing ample room for fixture installation and maintenance.

### Mounting

Extruded 8" aluminum arm features internal bolt guides for easy positioning of fixture during installation to pole or wall surface.

Standard single carton packaging of housing, square pole arm and round pole adapter allow for consolidated product arrival to site. Optional internal mast arm mount accepts a 1 1/4" to 2 3/8" O.D. horizontal tenon, while a 4-bolt clamping mechanism secures fixture. Cast-in leveling guides provide +/-5° vertical leveling adjustment.

### Finish

Housing and arm finished in a 5 stage premium TGIC bronze polyester powder coat paint. Optional colors include black, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.



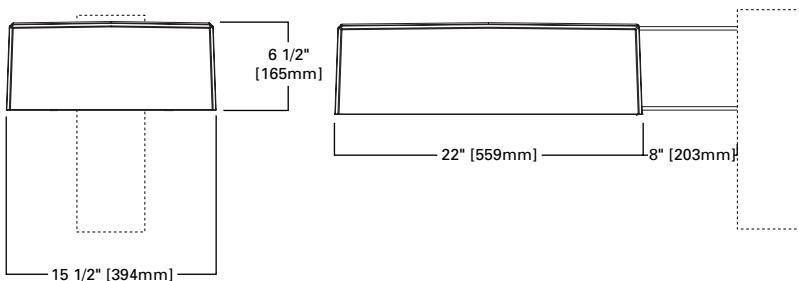
## TR TRIBUTE

**70 - 400W**  
High Pressure Sodium  
Pulse Start Metal Halide  
Metal Halide

AREA LUMINAIRE

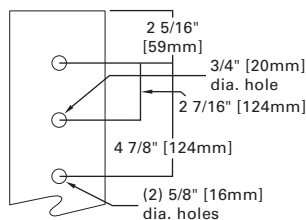


## DIMENSIONS

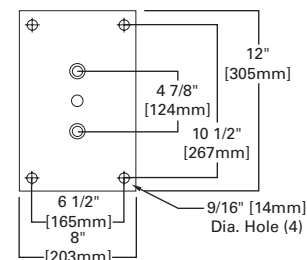


## DRILLING PATTERNS

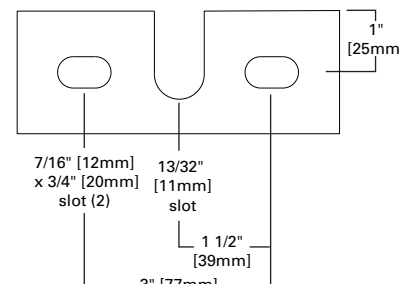
### TYPE "M"



### WALL MOUNT (MA1219-XX)



### TRUNNION MOUNT



## TECHNICAL DATA

UL Wet Locations Listed  
CSA Certified  
EISA Compliant ©

## ENERGY DATA

### Hi-Reactance Ballast Input Watts

70W HPS HPF (95 Watts)  
100W HPS HPF (130 Watts)  
150W HPS HPF (190 Watts)  
150W MP HPF (185 Watts)

### CWI Ballast Input Watts

250W HPS HPF (300 Watts)

### CWA Ballast Input Watts

175W MH HPF (210 Watts) ©  
200W MP HPF (227 Watts) ©  
200W HPS HPF (250 Watts)  
250W MH HPF (295 Watts)  
250W MP HPF (283 Watts) ©  
320W MP HPF (365 Watts) ©  
350W MP HPF (397 Watts) ©  
400W MP HPF (452 Watts) ©  
400W MH HPF (455 Watts)  
400W HPS HPF (465 Watts)

## EPA

Effective Projected Area: (Sq. Ft.)  
Without Arm: 1.19

## SHIPPING DATA

Approximate Net Weight:  
39 lbs. (17.73 kgs.)

ORDERING INFORMATION

MPTR-5F-400-480V

MP	TR	5F	400	480V			See Below
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**Lamp Type**

**MP**=Pulse Start Metal Halide  
**MH**=Metal Halide  
**HP**=High Pressure Sodium

**Series <sup>1</sup>**

**TR**=Tribute (Arm Included)

**Distribution**

**2F**=Type II Formed  
**2S**=Type II Segmented  
**3F**=Type III Formed  
**3S**=Type III Segmented  
**4F**=Type IV Formed  
**4S**=Type IV Segmented  
**5F**=Type V Formed  
**5S**=Type V Segmented  
**SL**=Spill Light Eliminator

**Lamp Wattage <sup>2</sup>**

**MP**  
**70**=70W  
**100**=100W  
**150**=150W  
**200**=200W  
**250**=250W  
**320**=320W  
**350**=350W  
**400**=400W<sup>3</sup>  
**MH**  
**175**=175W<sup>4</sup>  
**250**=250W<sup>4</sup>  
**400**=400W<sup>3, 4</sup>  
**HPS**  
**70**=70W  
**100**=100W  
**150**=150W  
**250**=250W  
**400**=400W<sup>3</sup>

**Voltage <sup>5</sup>**

**120V**=120V  
**208V**=208V  
**240V**=240V  
**277V**=277V  
**347V**=347V<sup>6</sup>  
**480V**=480V  
**DT**=Dual-Tap  
**MT**=Multi-Tap, wired 277V  
**TT**=Triple-Tap, <sup>6</sup>wired 347V  
**5T**=5 Tap Wired<sup>5</sup> 480V

**Options**

**F1**=Single Fuse (120, 277 or 347V<sup>7</sup> only)  
**F2**=Double Fuse (208, 240 or 480V<sup>7</sup> only)  
**Q**= Quartz Restrike (Hot Strike Only)<sup>8</sup>  
**EM**= Quartz Restrike with "Delay Relay" (Quartz lamp strikes at both hot and cold starts)  
**EM/SC**= Emergency Separate<sup>8</sup> Circuit  
**LL**: Lamp Included  
**S**= 1 1/4" - 2 3/8" Internal Mast Arm Mount  
**TM**= Trunnion Mount  
**CEC**= California Title 20 Compliant Ballast (Applies to 200-320W and 400W MP only)  
**PT**= Electrical Power Tray  
**PER**= NEMA Twistlock Photocontrol Receptacle  
**PC**= Button Type Photocontrol<sup>9</sup>  
**HS**=House Side Cutoff<sup>10</sup>  
**LA**=Less Arm (Order Mounting Separately)

**Standard Color**

**\_**=Bronze (Standard)  
**WH**=White  
**BK**=Black  
**AP**=Grey  
**DP**=Dark Platinum  
**GM**=Graphite Metallic

**Accessories <sup>11</sup>**

**MA1201-BZ**=Direct Wall Mount Kit<sup>1</sup>  
**MA1218-BZ**=Direct Mount for Pole<sup>1</sup>  
**MA1219-BZ**=Wall Mounting Plate  
**OA1090-BZ**=Adjustable slipfitter Arm for Tenon Mount 2 3/8" O.D. 1  
**MA1221-BZ**= External House Side Shield Kit (EPA= 0.38)  
**MA1222**= Internal House Side Shield Kit for 2S/3S  
**MA1223**= Internal House Side Shield Kit 4S  
**MA1224**= Internal House Side Shield Kit for 2F/3F  
**MA1225**= Internal House Side Shield Kit for 4F  
**MA1010-BZ**= Single Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1011-BZ**= 2 @ 180 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1012-BZ**= 3 @ 120 degrees Tenon Adaptor for 3 1/2" O.D. Tenon  
**MA1013-BZ**= 4 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1014-BZ**= 2 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1015-BZ**= 2 @ 120 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1016-BZ**= 3 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon  
**MA1017-BZ**= Single Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1018-BZ**= 2 @ 180 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1019-BZ**= 3 @ 120 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1045-BZ**= 4 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1048-BZ**= 2 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**MA1049-BZ**= 3 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon  
**TR/VS**=Field Installed Vandal Shield<sup>12</sup>  
**OA/RA1013**=Photocontrol Shorting Cap  
**OA/RA1016**=NEMA Photocontrol - Multi-Tap  
**OA/RA1027**=NEMA Photocontrol 480V  
**OA/RA1201**=NEMA Photocontrol 347V

**Notes:** <sup>1</sup> 8 Inch Arm and pole adapter included with fixture. Specify Less Arm "LA" option when mounting accessory is ordered separately. <sup>2</sup> 150W and below in Pulse Start Metal Halide are medium base sockets. All other wattages are mogul base. <sup>3</sup> Requires reduced envelope lamp. <sup>4</sup> 175W, 250W, and 400W MH available in non-U.S. markets only. <sup>5</sup> Products also available in non-US voltages and 50HZ for international markets. Consult your Cooper Representative for availability and ordering information. <sup>5T</sup> only available in 400W MH. <sup>6</sup> 88% efficient EISA Compliant MP fixtures not available in 347V or TT Voltages. <sup>7</sup> Must specify voltage. <sup>8</sup> Quartz options not available with SL optics. <sup>9</sup> Specify 120V, 208V, 240V, or 277V only. <sup>10</sup> House side shield not available on 5S, 5F, or SL optics. <sup>11</sup> Order separately/replace XX with color specification. <sup>12</sup> Not available with SLE or House Side Shield.

**STOCK SAMPLE NUMBER (Lamp Included)**

SAMPLE NUMBER: MPTR2340

<b>MP</b>	<b>TR</b>	<b>23</b>	
<b>Lamp Type</b> MP=Pulse Start Metal Halide HP=High Pressure Sodium <sup>2</sup>	<b>Series <sup>1</sup></b> TR=Tribute	<b>Distribution</b> 23=Type II/III Formed	<b>Lamp Wattage</b> 15=150W 25=250W 32=320W 40=400W

**NOTES:**

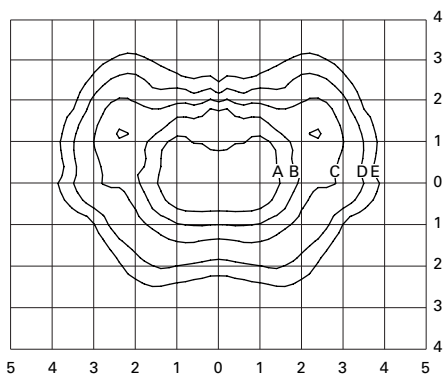
<sup>1</sup> Short logic fixtures are finished bronze include multi-tap ballast, lamp, arm and round pole adapter. Other options not available. Refer to standard ordering logic. <sup>2</sup> Available in 150, 250 and 400 Watt. Refer to In Stock Guide for availability.

**VOLTAGE CHART**

DT=Dual-Tap	120/277 (wired 277V)
MT=Multi-Tap	120/208/240/277 (wired 277V)
TT=Triple-Tap	120/277/347 (wired 347V)
5T=5-Tap	120/208/240/277/480 (wired 480V)

**LAMP TYPE**

LAMP TYPE	WATTAGE
Pulse Start Metal Halide	70, 100, 150, 250, 320, 350, 400W
Metal Halide	175, 250, 400W
High Pressure Sodium	70, 100, 150, 250, 400W

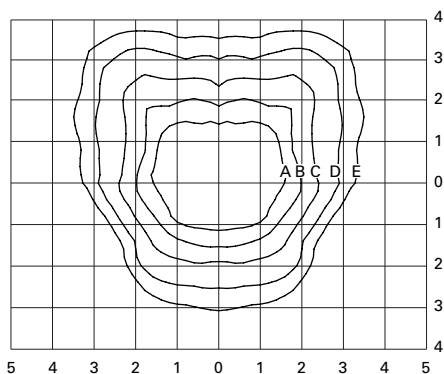


**MPTR-3S-320**  
 320—Watt MP  
 30,000—Lumen Clear Lamp  
 Type III Segmented

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	<b>2.00</b>	<b>1.00</b>	<b>0.50</b>	<b>0.20</b>	<b>0.10</b>
30'	1.38	0.69	0.34	0.13	0.06

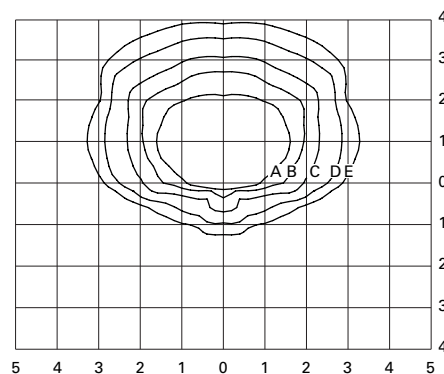


**MPTR-4S-400**  
 400—Watt MP  
 40,000—Lumen Clear Lamp  
 Type IV Segmented

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	<b>2.00</b>	<b>1.00</b>	<b>0.50</b>	<b>0.20</b>	<b>0.10</b>
30'	1.38	0.69	0.34	0.13	0.06



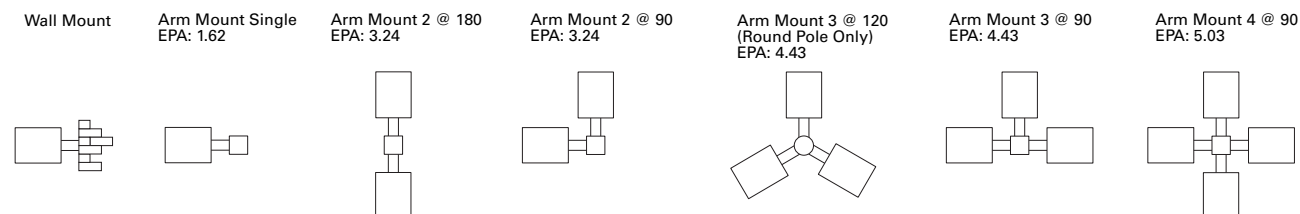
**MPTR-SL-400**  
 400—Watt MP  
 40,000—Lumen Clear Lamp  
 Spill Light Eliminator

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	<b>2.00</b>	<b>1.00</b>	<b>0.50</b>	<b>0.20</b>	<b>0.10</b>
30'	1.38	0.69	0.34	0.13	0.06

**MOUNTING CONFIGURATIONS**



## DESCRIPTION

The Lumark Canopy Light combines lasting durability and excellent photometrics. CSA certified for wet locations. The Canopy Light mounts quickly to a variety of surfaces, making it ideal for covered walkways, convenience store/service station canopies and enclosed parking areas.

Catalog #		Type
Project		
Comments		Date
Prepared by		

## SPECIFICATION FEATURES

### Construction

**HOUSING:** CL housing is constructed of heavy-gauge aluminum. CS housing is constructed of durable steel welded construction. **GASKET:** Fully gasketed door frame seals out contaminants. **DOOR:** Hinged door provides easy access for maintenance and relamping and door can be removed to simplify installation.

### Electrical

**BALLAST:** High power factor ballast with class H insulation. CL construction is listed for 40°C ambient environments. CS construction is listed for 25°C ambient environments.

### Optics

Optical system features an injection-molded prismatic lens with internal prisms and white highly reflective internal surface.

### Finish

Weather- and abrasion-resistant white polyester powder coat finish.



## CL/CS CANOPY LIGHT

**100 - 400W**

**High Pressure Sodium  
Pulse Start Metal Halide  
Metal Halide**

**CANOPY LUMINAIRE**

### TECHNICAL DATA

UL Wet Location Listed  
CSA Certified  
EISA Compliant ©

### ENERGY DATA

#### Reactor Ballast Input Watts

100W HPS HPF (118 Watts)  
100W MP HPF (128 Watts)  
150W HPS HPF (175 Watts)

#### High Reactor Ballast Input Watts

150W MP HPF (185 Watts)

#### CWI Ballast Input Watts

175W MH HPF (223 Watts)  
250W HPS HPF (300 Watts)  
250W MH HPF (300 Watts)  
400W HPS HPF (465 Watts)  
400W MH HPF (475 Watts)

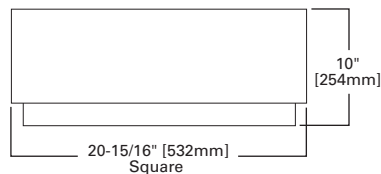
#### CWA Ballast Input Watts

175W MH HPF (210 Watts)  
200W HPS HPF (250 Watts) ©  
200W MP HPF (227 Watts) ©  
250W MP HPF (283 Watts) ©  
320W MP HPF (365 Watts) ©  
400W HPS HPF (465 Watts)  
400W MH HPF (455 Watts)  
400W MP HPF (452 Watt) ©

### SHIPPING DATA

**Approximate Net Weight:**  
44 lbs. (20 kgs.)

## DIMENSIONS

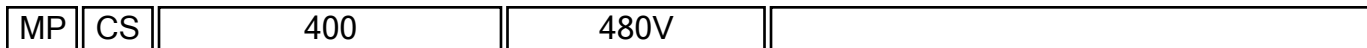


LAMP TYPE	WATTAGE
Pulse Start Metal Halide (MP)	100, 150, 200, 250, 320, 350, 400W
Metal Halide (MH)	175, 250, 400W
High Pressure Sodium (HP)	100, 150, 250, 400W



ORDERING INFORMATION

MPCS-400-480V-BZ



Lamp Type

- MP=Pulse Start Metal Halide<sup>1</sup>
- MH=Metal Halide<sup>2</sup>
- HP=High Pressure Sodium

Series

- CL=Canopy Light (Aluminum Housing)<sup>3</sup>
- CS=Canopy Light (Steel Housing)<sup>4</sup>

Lamp Wattage <sup>5</sup>

- MP
- 100=100W
- 150=150W
- 200=200W
- 250=250W
- 320=320W
- 350=350W
- 400=400W
- MH
- 175=175W<sup>2</sup>
- 250=250W<sup>2</sup>
- 400=400W<sup>2</sup>
- HP
- 100=100W
- 150=150W
- 250=250W
- 400=400W

Voltage <sup>6</sup>

- 120V=120V
- 208V=208V
- 240V=240V
- 277V=277V
- 347V=347V<sup>7</sup>
- 480V=480V
- MT= Multi-Tap
- TT= Triple-Tap, wired<sup>7</sup> 347V

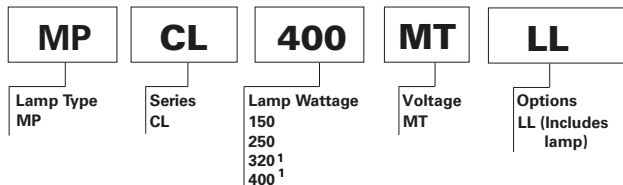
Options

- F1=Single Fuse (120, 277 or 347V only)
- F2=Double Fuse (208, 240 or 480V only)
- Q=Quartz Restrike (Hot Strike Only)
- EM= Quartz Restrike with "Delay Relay" (Quartz lamp strikes at both hot and cold starts)
- C73= Flat Prismatic Tempered Glass Lens
- LL= Lamp Included<sup>8</sup>
- CEC= California Title 20 Compliant Ballast (Applies to 200-320W and 400W MP only)
- POM= Position Oriented Socket

- Notes: 1 150, 200, 250, 320, 350, 400 and 450W only.  
 2 175W, 250W, and 400W MH available in non-U.S. markets only.  
 3 40°C Ambient environment, except 400W HPS is 25°C ambient.  
 4 25°C Ambient environment.  
 5 All lamps are mogul-base except 150W Metal Halide and below are medium-base. Lamp not included.  
 6 Products also available in non-US voltages and 50HZ for international markets.  
 7 88% efficient EISA Compliant fixtures not available in 347V or TT Voltages.  
 8 Lamp is shipped separate from luminaire. Lamp is Cooper designated product based on luminaire requirements. Specified lamps must be ordered as a separate line item.

STOCK SAMPLE NUMBER

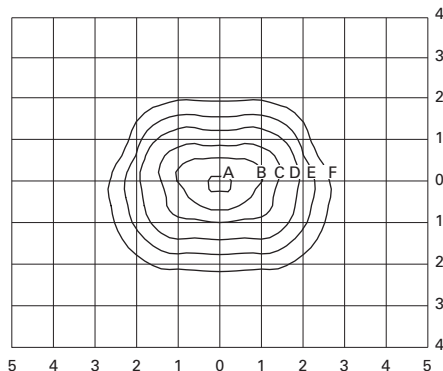
SAMPLE NUMBER: MPCL-400H-MT-LL



VOLTAGE CHART	
MT=Multi-Tap	120/208/240/277 (wired 277V)
TT=Triple-Tap	120/277/347 (wired 347V)

- NOTES:  
 Standard Multi-tap. Refer to In-Stock Guide for availability. Options not available with stock products.  
 Refer to Standard order information and options.  
 1 Available without lamp MPCL-320-MT or MPCL-400-MT.

PHOTOMETRICS



Footcandle Table

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines					
	A	B	C	D	E	F
15'	20.00	10.00	5.00	2.00	1.00	0.50
20'	11.25	5.63	2.81	1.13	0.56	0.28

MPCL-320  
 320-Watt MP  
 30,000-Lumen Clear Lamp