



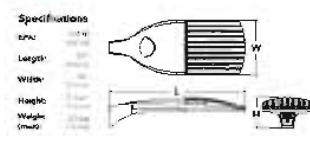
**D-Series Size 1**  
LED Area Luminaire

Model: 401405  
33" x 12" W x 7.5" H  
23 lbs  
140W

**D-Series Size 2**

Model: 401406  
40" x 15" W x 7.5" H  
33 lbs  
240W

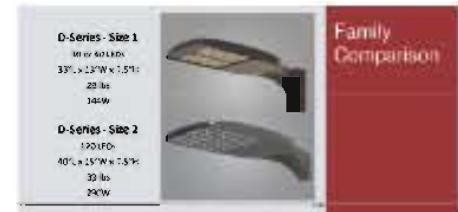
**Introduction**  
The most advanced in the D-Series is being put into production. It is a high performance luminaire with a sleek, modern design. The D-Series is the perfect choice for the best in LED technology. High performance, high efficiency, long life luminaire. The outstanding performance results in less cost, less energy, and longer life. The D-Series is the perfect choice for the best in LED technology. High performance, high efficiency, long life luminaire. The outstanding performance results in less cost, less energy, and longer life.



EXAMPLE: DSX1 18'x2' 2000K 4000HS MVOL 3PH 6000

Item	Description	Quantity	Unit	Notes
1	DSX1 18'x2' 2000K 4000HS MVOL 3PH 6000	1	EA	
2	DSX2 18'x2' 2000K 4000HS MVOL 3PH 6000	1	EA	

Item	Description	Quantity	Unit	Notes
1	DSX1 18'x2' 2000K 4000HS MVOL 3PH 6000	1	EA	
2	DSX2 18'x2' 2000K 4000HS MVOL 3PH 6000	1	EA	



**DSX 2 Arm**

Model: 401407  
33" x 12" W x 7.5" H  
23 lbs  
140W

**DISLIGHTS**

Model: 401408  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401409  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401410  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401411  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401412  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401413  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401414  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401415  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401416  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401417  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401418  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401419  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401420  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401421  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401422  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401423  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401424  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401425  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401426  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401427  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401428  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401429  
33" x 12" W x 7.5" H  
23 lbs  
140W



**DSX 2 Arm**

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33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401410  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401411  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401412  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401413  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401414  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401415  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401416  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401417  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401418  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401419  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401420  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401421  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401422  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401423  
33" x 12" W x 7.5" H  
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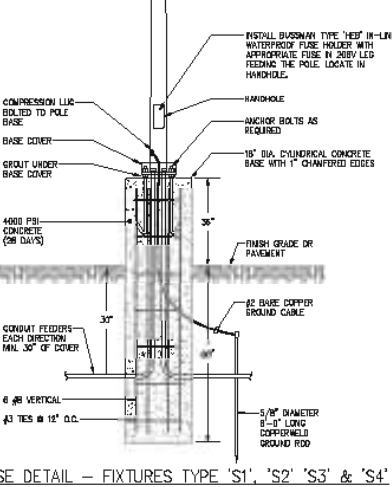
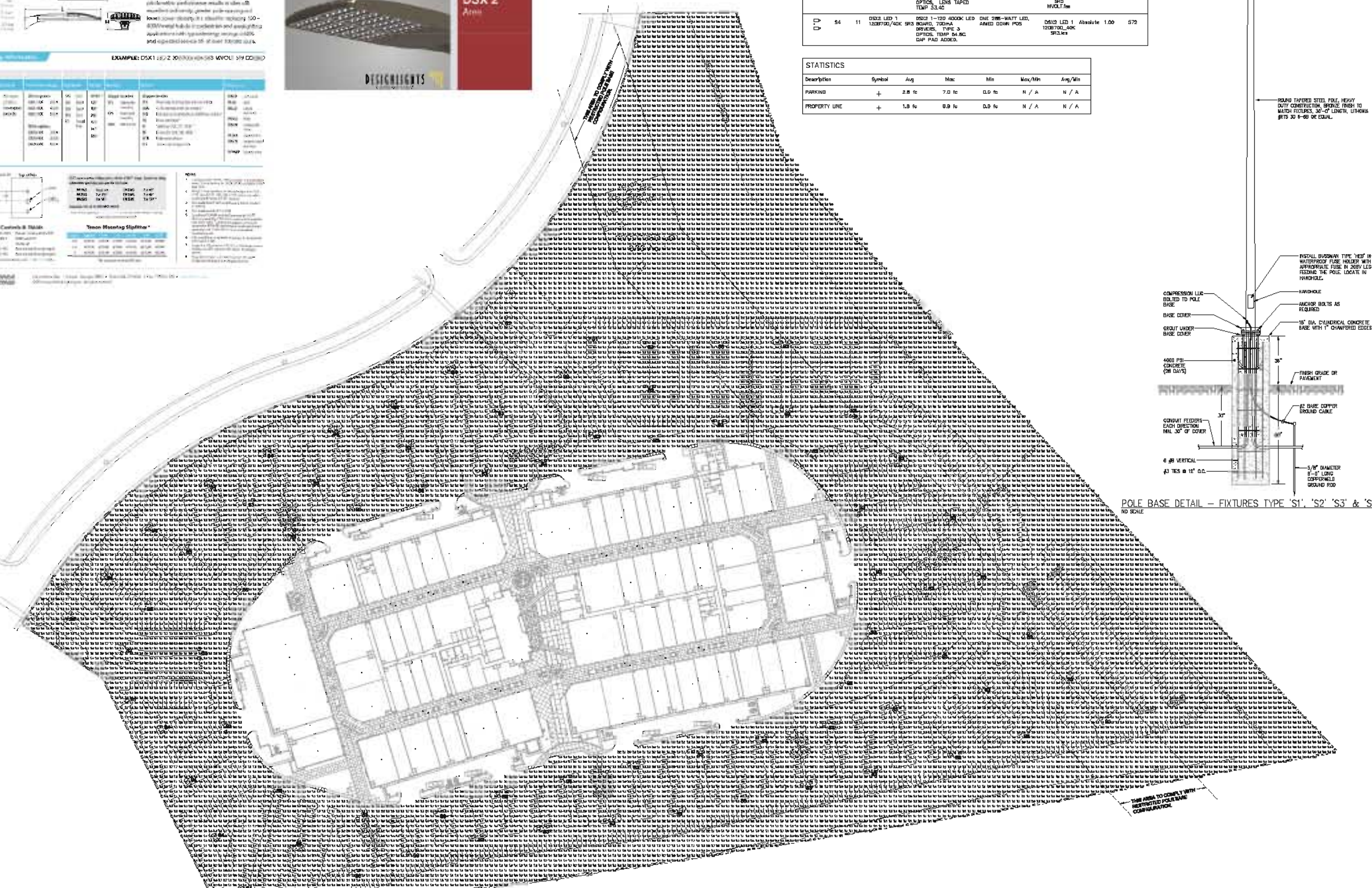
Model: 401427  
33" x 12" W x 7.5" H  
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Model: 401428  
33" x 12" W x 7.5" H  
23 lbs  
140W

Model: 401429  
33" x 12" W x 7.5" H  
23 lbs  
140W

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
□	S1	2	DSX2 LED 1 1200700/40K SP2 BOARD, 700mA DRIVERS, TYPE 3 OPTICS, TEMP 54.8C, CAP PAD ADDED.	DSX2 1-120 4000K LED ONE 288-WATT LED, AMED DOWN POS.	DSX2 LED 1 1200700_40K SP2.les	Absolute	1,000	1.00	288
□	S2	4	DSX2 LED 1 1200700/40K HS SP2 MVOLT.	DSX2 1-120 4000K LED ONE 288-WATT LED, AMED DOWN POS.	DSX2 LED 1 1200700_40K HS SP2 MVOLT.les	Absolute	1,000	1.00	271.0
□	S3	80	DSX2 LED 1 1200700/40K SP2 MVOLT.	DSX2 1-120 4000K LED ONE 288-WATT LED, AMED DOWN POS.	DSX2 LED 1 1200700_40K SP2 MVOLT.les	Absolute	1,000	1.00	281.8
□	S4	11	DSX2 LED 1 1200700/40K SP2 BOARD, 700mA DRIVERS, TYPE 3 OPTICS, TEMP 54.8C, CAP PAD ADDED.	DSX2 1-120 4000K LED ONE 288-WATT LED, AMED DOWN POS.	DSX2 LED 1 1200700_40K SP2.les	Absolute	1,000	1.00	279

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
PARKING	+	2.8 ft	7.0 ft	0.0 ft	N / A	N / A
PROPERTY LURE	+	1.8 ft	9.9 ft	0.0 ft	N / A	N / A



150 Madison Ave  
Tomball, TX 77375  
41-344-7405 fax  
41-344-7400 hls  
www.collaborativeinc.com  
10899collaborative.com

**COLLABORATIVE**

ARCHITECTS  
LANDSCAPE ARCHITECTS  
INTERIOR DESIGNERS  
PLANNERS  
CONTRACT FURNISHERS

STATE OF MISSOURI  
KEYN  
PAUL LAFAYETTE  
NUMBER  
E-27454

**PREMIUM OUTLETS**  
SIMON

**WOODMONT OUTLETS**

PROJECT TITLE  
**ST. LOUIS PREMIUM OUTLETS**  
Chesterfield, MO

CHECKED: RSK  
APPROVED: CRK

TCJ JOB NO. 106081

SHEET TITLE  
**PARKING LOT LIGHTING CALCULATIONS (VARIANCE)**

SHEET NO.  
**LC-4**

mda engineering, Inc.  
1445 Redwood Road  
Houston, TX 77057  
Phone: 281-889-8911  
Fax: 281-889-8912

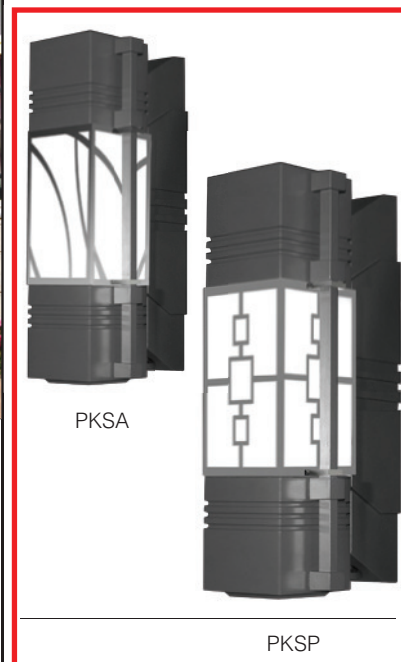
# PKSA/PKSP

## Parkway Square™ – Sconce

1 FIXTURE	2 LAMP/BALLAST	3 DECORATIVE SCREEN	4 OPTIONS			5 COLOR
			GENERAL	HOOD	SCREEN	



PAKWAY SQUARE  
SCONCE



PARKWAY SQUARE FAMILY OF FIXTURES



PKWM



PKWS



PKWB



PKSA/PKSP

### Features

- Six configuration, including down beam, down spread, up beam, up spread, down beam/up spread, up beam/down spread, and egress
- Available with highly efficient LEDs
- Six decorative screen options
- Tamper resistant hardware
- Cast aluminum struts
- Full cutoff options
- EISA compliant
- IP65 rated for horizontal configurations and IP66 rated for vertical configurations
- Powder coat finish in 13 standard colors with a polymer primer sealer

### JOB INFORMATION

TYPE

JOB NAME

LAMP (BY OTHERS)

CUSTOMER

DATE

*Consult factory for any custom/  
modified products*

APPROVALS



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City of Industry | CA 91745  
P 626.968.5666 | F 626.369.2695  
www.aal.net | Copyright © 2012

1 FIXTURE	2 LAMP/BALLAST	3 DECORATIVE SCREEN	4 OPTIONS			5 COLOR
			GENERAL	HOOD	SCREEN	

## 1. FIXTURE

### ACCENT (SMALL) SCALE

<input type="checkbox"/>	PKSA DB	Small - Down beam & egress
<input type="checkbox"/>	PKSA DS	Small - Down spread & egress
<input type="checkbox"/>	PKSA UB	Small - Up beam & egress
<input type="checkbox"/>	PKSA US	Small - Up spread & egress
<input type="checkbox"/>	PKSA DBUS	Small - Down beam/up spread & egress
<input type="checkbox"/>	PKSA UBDS	Small - Up beam/down spread & egress

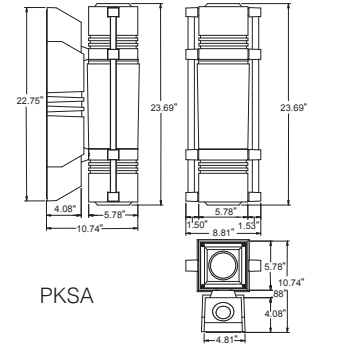
### PEDESTRIAN (MEDIUM) SCALE

<input type="checkbox"/>	PKSP DB	Large - Down beam & egress
<input type="checkbox"/>	PKSP DS	Large - Down spread & egress
<input type="checkbox"/>	PKSP UB	Large - Up beam & egress
<input type="checkbox"/>	PKSP US	Large - Up spread & egress
<input type="checkbox"/>	PKSP DBUS	Large - Down beam/up spread & egress
<input type="checkbox"/>	PKSP UBDS	Large - Up beam/down spread & egress

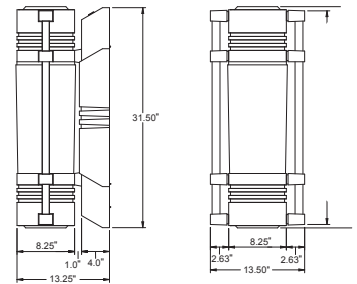
## 2. LAMP/BALLAST

<input type="checkbox"/>	15LED-WW	15 light emitting diode array. Warm white (3500K). Class 2, 120 thru 277 volt. <i>For PKSA DS/US only.</i>
<input type="checkbox"/>	15LED-BW	15 light emitting diode array. Bright white (5100K). Class 2, 120 thru 277 volt. <i>For PKSA DS/US only.</i>
<input type="checkbox"/>	18LED-WW	18 light emitting diode array. Warm white (3500K). Class 2, 120 thru 277 volt. <i>For PKSP DS/US only.</i>
<input type="checkbox"/>	18LED-BW	18 light emitting diode array. Bright white (5100K). Class 2, 120 thru 277 volt. <i>For PKSP DS/US only.</i>
<input type="checkbox"/>	24LED-WW	24 light emitting diode array. Warm white (3500K). Class 2, 120 thru 277 volt. <i>For PKSA DBUS/UBDS only.</i>
<input type="checkbox"/>	24LED-BW	24 light emitting diode array. Bright white (5100K). Class 2, 120 thru 277 volt. <i>For PKSA DBUS/UBDS only.</i>
<input type="checkbox"/>	30LED-WW	30 light emitting diode array. Warm white (3500K). Class 2, 120 thru 277 volt. <i>For PKSP DBUS/UBDS only.</i>
<input type="checkbox"/>	30LED-BW	30 light emitting diode array. Bright white (5100K). Class 2, 120 thru 277 volt. <i>For PKSP DBUS/UBDS only.</i>
<input type="checkbox"/>	24PLL	24 watt PL-L compact fluorescent electronic 120/277 volt ballast. Specify wattage. <i>PKSA only.</i>
<input type="checkbox"/>	35R111	35 watt electronic metal halide R111, 120/277 volt. <i>PKSA only.</i>
<input type="checkbox"/>	20MMC	20 watt electronic metal halide ballast, 120 thru 277 volt. Use PGJ5 base, MiniMastercolor lamp. <i>PKSA only.</i>
<input type="checkbox"/>	39MMC	39 watt electronic metal halide ballast, 120 thru 277 volt. Use PGJ5 base, MiniMastercolor lamp. <i>PKSA only.</i>
<input type="checkbox"/>	50PLL	50 watt PL-L compact fluorescent electronic 120/277 volt ballast. Specify wattage. <i>PKSP only.</i>
<input type="checkbox"/>	39MHT6EB	39 watt electronic metal halide, 120 thru 277 volt ballast. Use G12 base, T-6 ceramic lamp. <i>PKSP only.</i>
<input type="checkbox"/>	70MHT6EB	70 watt metal halide ballast, 120/277/347 volt ballast. Use G12 base, T-6 ceramic lamp. <i>PKSP only.</i>
<input type="checkbox"/>	35R111	35 watt electronic metal halide R111, 120/277 volt. <i>PKSP only.</i>
<input type="checkbox"/>	70R111	70 watt electronic metal halide R111, 120/277 volt. <i>PKSP only.</i>

All fixtures prewired for 277 volts unless specified. Lamps not included (except IL and LED options). All applicable ballasts are EISA compliant. Mini MasterColor® is a registered trademark and CosmoPolis™ is a trademark of Philips Lighting®.



PKSA



PKSP

### JOB INFORMATION

TYPE

JOB NAME

LAMP (BY OTHERS)

CUSTOMER

DATE

Consult factory for any custom/modified products

APPROVALS

1 FIXTURE	2 LAMP/BALLAST	3 DECORATIVE SCREEN	4 OPTIONS			5 COLOR
			GENERAL	HOOD	SCREEN	

### 5. DECORATIVE SCREENS (OPTIONAL)

Painted to match fixture. Also available in stainless steel or copper. Not available with horizontal or LED optics.



**DSIN**  
Infinity design  
painted to  
match fixture.



**DSOF**  
Offset design  
painted to  
match fixture.



**DSWH**  
Wheat design  
painted to  
match fixture.



**DSTR**  
Trio design  
painted to  
match fixture.



**DSSH**  
Shutter design  
painted to  
match fixture.



**DSCS**  
Custom design\*  
painted to  
match fixture.

### 6. OPTIONS

#### GENERAL

- DS39** Dual source - 39 watt mini mastercolor. Specify primary or secondary
- BBU** Integral battery backup
- NEG** No egress lamp. Opening is sealed with a cap and painted to match fixture.

#### DECORATIVE SCREEN

- CPR** Screen in brushed copper
- SSP** Screen in brushed stainless steel

### 7. COLOR

- |  |   |
|--|---|
| <input type="checkbox"/> <b>AWT</b> Arctic White     | <input type="checkbox"/> <b>MDG</b> Medium Grey                                       |
| <input type="checkbox"/> <b>BLK</b> Black            | <input type="checkbox"/> <b>ATG</b> Antique Green                                     |
| <input type="checkbox"/> <b>MTB</b> Matte Black      | <input type="checkbox"/> <b>LGY</b> Light Grey  |
| <input type="checkbox"/> <b>DGN</b> Dark Green       | <input type="checkbox"/> <b>SPP</b> Salt and Pepper (premium)                         |
| <input type="checkbox"/> <b>DBZ</b> Dark Bronze      | <input type="checkbox"/> <b>SFM</b> Seafoam (premium)                                 |
| <input type="checkbox"/> <b>WRZ</b> Weathered Bronze | <input type="checkbox"/> <b>WCP</b> Weathered Copper (premium)                        |
| <input type="checkbox"/> <b>BRM</b> Metallic Bronze  | <input type="checkbox"/> <b>SHK</b> Shamrock (premium)                                |
| <input type="checkbox"/> <b>VBL</b> Verde Blue       | <input type="checkbox"/> <b>RAL COLOR</b> Provide a RAL 4 digit color number          |
| <input type="checkbox"/> <b>CRT</b> Corten           | <input type="checkbox"/> <b>CUSTOM COLOR</b> Please provide a color chip for matching |
| <input type="checkbox"/> <b>MAL</b> Matte Aluminum   |   |

#### JOB INFORMATION

TYPE

JOB NAME

LAMP (BY OTHERS)

CUSTOMER

DATE

Consult factory for any custom/  
modified products

APPROVALS

1	2	3	4			5
FITURE	LAMP/BALLAST	DECORATIVE SCREEN	OPTIONS			COLOR
			GENERAL	HOOD	SCREEN	

**HOUSING**

Parkway Square housings shall be cast aluminum, A356 alloy, free of any porosity, foreign materials, or cosmetic fillers. The vertical lens shall be opal, semi translucent high impact injection molded lighting grade acrylic and shall not be field replaceable. The vertical struts shall be cast aluminum and painted to match the fixture. The lens shall be sealed to the housing with a molded silicone gasket on the top and bottom. The optical lens frame shall be secured with four captive socket cap screws and shall be sealed with a one piece memory retentive, molded silicone gasket. The lamp compartment shall have a molded silicone plug to completely seal the optical system from insects or dirt emanating from the electrical box or conduit. Four stainless steel screws shall release the canopy to allow electrical access. All internal and external hardware shall be stainless steel and zinc.

**REFLECTOR**

The reflector is formed aluminum with bright dip anodized finish for pedestrian scale and bead blasted finish for accent scale fixtures.

**ELECTRICAL**

The ballast or LED driver electrical assembly shall be integral to the fixture and mounted to the cast canopy, the electrical assembly shall be prewired with a quick disconnect plug and removable by loosening two screws. All metal halide ballasts shall be electronic. T6 metal halide lamps shall use G12 sockets; R111 lamps shall use GX8.5 sockets; PL-L fluorescent lamps shall use 2G11 sockets. LED drivers shall have a drive current of 350mA. Standard color temperatures for Nichia NS6L183 and NS6W183 LEDs shall be 3500K and 5100K. The ballast or LED driver shall accept an input voltage of 120 through 277 volts and shall be wired at the factory for 277 volts, unless specified. The MR16 lamp for emergency egress feature shall be included and powered by 120 volt input transformed into low-voltage (12 volt) by the electronic transformer (included). The MR16 lamp shall use a miniature bi-pin base.

**SAFETY**

The fixture shall include an integral secondary source to provide path of egress illumination from building to the public way. The hidden MR16 lamp, powered as a remote head is able to be angle up to 15° in either direction.

**WALL PLATE**

Wall plate shall be secured into wall over j-box and shall be wired to the power circuit. Fixture shall be attached to the wall plate by four set-screws.

**FINISH**

Fixture finish shall consist of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

**CERTIFICATION**

The fixture is listed with ETL for outdoor, wet location use and shall conform to UL1598 and Canadian CSA Std. C22.2 no.9. IP65 rated for horizontal configurations and IP66 rated for vertical configurations.

**WARRANTY**

Fixture is warranted for three years. Driver components carry the driver manufacturer's limited warranty. Any unauthorized return, repair, replacement or modification of the Product(s) shall void this warranty. This warranty applies only to the use of the Product(s) as intended by AAL and does not cover any misapplication or misuse of said Product(s), or installation in hazardous or corrosive environments. Contact AAL for complete warranty language, exceptions, and limitations.

<b>JOB INFORMATION</b>
TYPE _____
JOB NAME _____
LAMP (BY OTHERS) _____
CUSTOMER _____
DATE _____
<i>Consult factory for any custom/modified products</i>
APPROVALS      



## FEATURES & SPECIFICATIONS

**INTENDED USE**— For building- and wall-mounted applications.

**CONSTRUCTION** — Rugged, die-cast, single-piece aluminum housing. Die-cast door frame has a 1/8" thick tempered glass lens. Door frame is fully gasketed with one-piece solid silicone.

**OPTICS** — Segmented reflectors for superior uniformity and control. Reflectors are interchangeable. Three full cutoff distributions available: FT (forward throw), MD (medium throw) and WT (wide throw).

**ELECTRICAL** — Ballast: 50W-150W utilizes a high reactance, high power factor ballast. Metal halide 150W and below are standard with pulse-start technology. 35S utilizes a reactance high power factor ballast. 175W utilizes a constant-wattage autotransformer ballast. CSA, NOM or INTL required for probe start shipments outside of the US for 175M. Not available 175M SCWA. Ceramic metal halide lamps are recommended for use in applications where superior color rendition, lumen maintenance and longer lamp life are desired.

Quick disconnect plug easily disconnects reflector from ballast. Ballasts are 100% factory-tested.

Socket: Porcelain, medium-base socket with copper alloy, nickel-plated screw shell and center contact. UL listed 660W, 600V 4KV pulse rated.

Finish: Standard finish is textured dark bronze (DDBT) corrosion-resistant polyester powder finish. Additional architectural colors are available. Striping is also available.

**INSTALLATION** — Universal mounting mechanism with integral mounting support allows fixture to hinge down. Bubble level provides correct alignment with each installation.

**LISTINGS** — UL Listed (standard). CSA Certified (see Options). Suitable for wet locations (damp location listed in lens-up orientation). WLU option offers wet location listing in up orientation (see Options). IP65 rated. 25°C ambient. ELED: U.S. Patent No. 7,737,640.

Note: Specifications subject to change without notice.

Catalog Number
Notes
Type <b>'D'</b>



Decorative Wall-Mounted Lighting

# WST

METAL HALIDE: 50W-175W  
HIGH PRESSURE SODIUM: 35W-150W

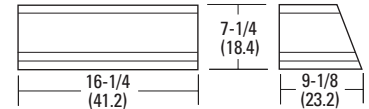
### Specifications

Length: 16-1/4 (41.2)

Depth: 9-1/8 (23.2)

Overall Height: 7-1/4 (18.4)

\*Weight: 30 lbs (13.6 kg)



All dimensions are inches (centimeters) unless otherwise indicated.

\*Weight as configured in example below.

### ORDERING INFORMATION

For shortest lead times, configure product using **standard options (shown in bold)**.

**Example: WST 100M FTTB LPI**

WST	Wattage/source			MD	Voltage	Ballast	Mounting	Options
Series	Distribution			Voltage	Ballast	Mounting	Options	
<b>WST</b>	<b>High pressure sodium</b>	<b>Metal halide</b>	<b>Ceramic metal halide</b>	<b>FT</b> Forward throw	<b>120</b> 208 <sup>3</sup>	<b>(blank)</b> Magnetic ballast	<b>(blank)</b> Surface mount	<b>Shipped installed in fixture</b>
	35S <sup>1</sup>	50M	50MHC	<b>MD</b> Medium throw (coated lamp std.)	240 <sup>3</sup>	CWI Constant wattage isolated	<b>Shipped separately</b> <sup>7</sup>	SF Single fuse (120, 277, 347V) <sup>8</sup>
	50S	<b>70M</b>	70MHC	<b>WT</b> Wide throw	<b>277</b>	<b>Pulse Start</b> NO REGULATORY SERVICE	BBW Surface mount back box	DF Double fuse (208, 240V) <sup>8</sup>
	70S	<b>100M</b>	100MHC		<b>347</b>		UT5 Uptilt 5 degrees	DC12 Emergency circuit 12-volt (35W lamp included) <sup>9</sup>
	100S	<b>150M</b>	150MHC		<b>TB</b> <sup>4</sup>			2DC12 Emergency circuit 12-volt (two 35W lamps included) <sup>9</sup>
	150S	175M <sup>2</sup>	150MHC		23050HZ <sup>5</sup>	SCWA Super CSA pulse start ballast <sup>6</sup>		DC2012 Emergency circuit 12-volt (20W lamp included) <sup>9</sup>
								2DC2012 Emergency circuit 12-volt (two 20W lamps included) <sup>9</sup>

Options (continued)						Finish <sup>16</sup>	Lamp <sup>18</sup>
ELED	Emergency LED secondary source battery pack with time delay (-4°F min. operating temperature) <sup>10</sup>	QRS	Quartz restrike system <sup>11, 15</sup>	Shipped separately <sup>14</sup>	<b>(blank)</b> Dark bronze, textured	<b>LPI</b> Lamp included	
2ELED	Emergency LED secondary source (two modules) battery pack with time delay (-4°F min. operating temperature) <sup>10</sup>	WLU	Wet location door for up orientation	WG Wire guard	DSST Sandstone, textured	<b>L/LP</b> Less lamp	
DFL	Diffusing lens	<b>CSA</b>	CSA certified	VG Vandal guard	<b>DNAT</b> Natural aluminum, textured		
EC	Emergency circuit <sup>11, 12</sup>	NOM	NOM certified <sup>5</sup>		<b>DWHG</b> White, textured		
IBS	Internal backlight shield <sup>13</sup>	INTL	International shipment for 175M		<b>DBLB</b> Black, textured		
<b>PE</b>	Photoelectric cell-button type (n/a TB) <sup>14</sup>				CR Corrosion-resistance		
					CRT Non-stick protective coating <sup>17</sup>		

### Notes

- 120V.
- These wattages do not comply with California Title 20 regulations.
- Must specify CWI for use in Canada.
- Optional multi-tap ballast (120, 208, 240, 277V); (120, 277, 347V in Canada; ships as 120V/347V).
- Consult factory for available wattages.
- Available with 150M or 150MHC only.
- May be ordered as an accessory with prefix "WS". Must specify finish.
- Not available with DC options.
- Not available with ELED, SF, DF, EC or QRS.
- Maximum wattage 100M, 70S. Must specify 120V or 277V. Not available with QRS, EC or DC.
- Maximum allowable wattage lamp included.
- Not available with ELED, QRS or DCs.

- Not available with medium throw (MD, MDU, MDU5) distributions.
- Must be ordered with fixture; cannot be field installed.
- Not available with ELED, EC or DCs.
- See [www.lithonia.com/archcolors](http://www.lithonia.com/archcolors) for additional color options.
- Black finish only.
- Must be specified. L/LP not available with MHC.

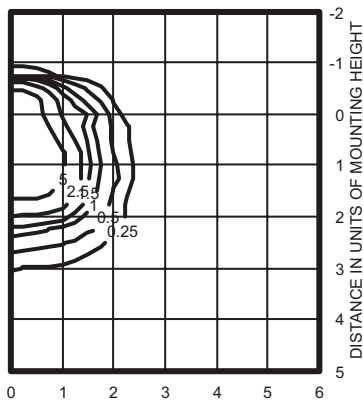


Consistent with LEED® goals & Green Globes™ criteria for light pollution reduction

# WST Metal Halide, High Pressure Sodium Wall Mounted

## WST 150MHC FT LTL11069P

ISOILLUMINANCE PLOT (Footcandle)

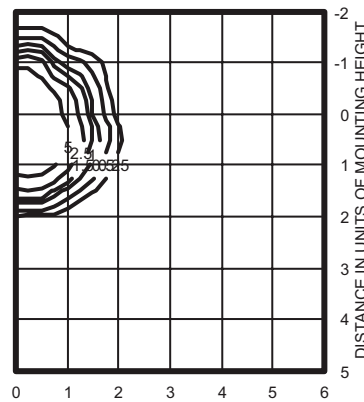


150W pulse start metal halide lamp, horizontal lamp orientation Footcandle values based on 12' mounting height, 14000 rated lumens.

Luminaire Efficiency: 52.9%

## WST 150MHC MD LTL11068P

ISOILLUMINANCE PLOT (Footcandle)

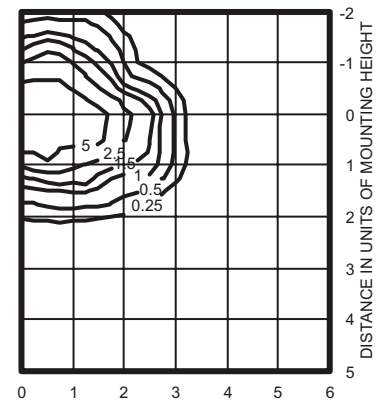


150W pulse start metal halide lamp, horizontal lamp orientation Footcandle values based on 12' mounting height, 12500 rated lumens.

Luminaire Efficiency: 60.2%

## WST 150MHC WT LTL11070P

ISOILLUMINANCE PLOT (Footcandle)



150W pulse start metal halide lamp, horizontal lamp orientation Footcandle values based on 12' mounting height, 14000 rated lumens.

Luminaire Efficiency: 62.5%

Lamp	Initial lumens	Mounting height			
		10'	12'	14'	16'
<b>Metal Halide</b>					
50W MH	3,900	0.43	0.30	0.22	0.17
70W MH	5,500	0.62	0.43	0.31	0.24
100W MH	8,500	0.95	0.66	0.48	0.37
150W MH	12,500	1.41	0.98	0.72	0.55
175W MH	12,800	1.44	1.0	0.73	0.56
<b>High Pressure Sodium</b>					
35W HPS	1,250	0.26	0.18	0.13	0.10
50W HPS	4,000	0.45	0.31	0.23	0.17
70W HPS	6,400	0.72	0.50	0.37	0.28
100W HPS	9,500	1.07	0.74	0.54	0.41
150W HPS	16,000	1.80	1.25	0.91	0.70

Emergency Option Lamp Compatibility							
Lamp options	DC12	2DC12	DC2012	2DC2012	EC	ELED	2ELED
# of lamps/wattage							
35S	■	■	■	■	■	■	■
50S	■	■	■	■	■	■	■
70S	■	■	■	■	■	■	■
100S	■	■	■	■	■		
150S	■	■	■	■	■		
50M	■	■	■	■	■	■	■
70M	■	■	■	■	■	■	■
100M	■	■	■	■	■	■	■
150M	■	■	■	■	■		
175M	■	■	■	■	■		

## FEATURES & SPECIFICATIONS

**INTENDED USE** — For landscape and facade lighting.

**CONSTRUCTION** — Rugged, die-cast, single piece low copper alloy aluminum housing. Die-cast doorframe has impact-resistant, tempered, glass lens. Doorframe is fully sealed with a closed-cell silicone gasket. Standard finish is textured dark bronze (DDBT) polyester powder finish, with other architectural colors available. Patent No. D552,778.

**OPTICS** — Anodized aluminum reflectors; segmented, specular or hammertone finish for superior uniformity and control. Reflectors are interchangeable and allow for tool-less access to electrical components.

**ELECTRICAL** — 50W-150W utilizes a high reactance, high power factor ballast. 175W utilizes a constant-wattage autotransformer ballast. Quick disconnect plug easily disconnects reflector from ballast and fixture from supply wires. Ballasts are precision wound and 100% factory tested. UL Listed. CSA, NOM or INTL required for probe start shipments outside of the US for 175M. Not available with 175M SCWA. Ceramic metal halide lamps are recommended for use in applications where superior color rendition, lumen maintenance and longer lamp life are desired.

Socket: Porcelain, medium-base socket with copper alloy, nickel-plated screw shell and center contact.

**INSTALLATION** — Standard mounting is cast 3/4" threaded knuckle. Mounting mechanism features infinite locking points for aiming precision. Optional yoke mounting available, heavy-duty compact cast aluminum yoke adaptor to maintain fixture aesthetics. Provided with painted steel yoke and three feet of 16/3 SE00W cable.

**LISTING** — UL listed suitable for wet locations in all orientations. UL Listed to U.S. and Canadian safety standards (see Options). NOM Certified (see Options). IP66 rated. Canadian patent pending.

Note: Specifications subject to change without notice.

Catalog Number
Notes
Type 'E'



**AERIS™**  
Architectural Floodlighting

# ASF1

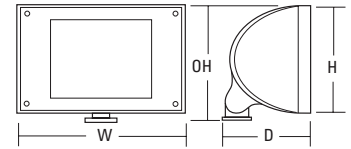
METAL HALIDE: 50W-175W  
HIGH PRESSURE SODIUM: 50W-150W

### Specifications

EPA: 1.20 ft<sup>2</sup>  
Width: 15-1/2 (39.4)  
Depth: 7-5/8 (19.4)  
Height: 10 (25.4)  
Overall Height: 10-7/8 (27.6)  
\*Max. Weight: 20 lbs (9.1 kg)

All dimensions are inches (centimeters) unless otherwise indicated.

\*Weight as configured in example below.



### ORDERING INFORMATION

For shortest lead times, configure products using **standard options** (shown in bold).

**Example:** ASF1 100M HSP TB LPI

Series	Wattage	Distribution	Voltage	Ballast	Mounting	Options	Finish <sup>9</sup>	Lamp <sup>10</sup>
ASF1	Metal halide	SP Spot	<b>120</b>	<b>(blank)</b> Magnetic ballast	<b>Shipped installed</b>	<b>Shipped installed in fixture</b>	<b>DDBT</b> Dark bronze, textured	<b>LPI</b> Lamp included
	50M	<b>HSP</b> Horizontal spot	208 <sup>2</sup>		<b>(blank)</b> Threaded knuckle	SF Single fuse (120, 277, 347V n/a TB)		
	<b>70M</b>	NSP Narrow spot	240 <sup>2</sup>	CWI Constant wattage isolated	<b>YK</b> Yoke mount	DF Double fuse (208, 240, 480V n/a TB)	<b>DNAT</b> Natural aluminum, textured	<b>L/LP</b> Less lamp
	<b>100M</b>		<b>277</b>	<b>Pulse Start</b>	<b>Shipped separately<sup>6,7</sup></b>	PE Photoelectric cell-button type (n/a 480V or TB) <sup>8</sup>		
	<b>150M</b>	<b>WDF</b> Wide flood	347		<b>SCWA</b> Super CWA pulse start ballast <sup>5</sup>	AFSTMTHK Stanchion mount	<b>CSA</b> CSA certified	<b>DWHG</b> White, textured
	175M <sup>1</sup>	<b>MDF</b> medium flood	480 <sup>2</sup>	AFWMATHK Wall mount arm		NOM NOM certified <sup>4</sup>		
	Ceramic metal halide	VFN Vertical narrow	TB <sup>3</sup>	23050HZ <sup>4</sup>	AFTS Tenon slipfitter	INTL International shipment for 175M	<b>DBLB</b> Black, textured	
	50MHC	VFW Vertical wide	150MHC		AFTMBTHK Twin mounting bar			<b>Shipped separately<sup>6</sup></b>
	70MHC	High pressure sodium		100MHC	AFWMPTHK Wall mount plate	ASF1GS Glare shield (upper or bottom visor) <sup>7</sup>	CR Corrosion resistance	
	150MHC		AFJB Architectural J-box		ASF1EV Eggcrate visor (black only)	CRT Non-stick protective coating (black only)		
	50S	High pressure sodium	150S				ASF1FV Full visor <sup>7</sup>	
	70S				<b>ASF1BD</b> Barn door <sup>7</sup>			
	100S				ASF1BVG Vandal guard			
	150S				ASF1FV/BVG Full visor/vandal guard <sup>7</sup>			

### Notes

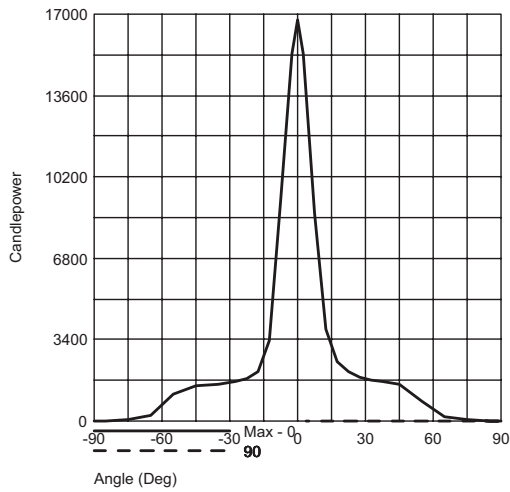
- These wattages do not comply with California Title 20 regulations.
- Must specify CWI in Canada.
- Optional multi-tap ballast (120, 208, 240, 277); (120, 277, 347V in Canada ships as 120/347).
- Consult factory for availability.
- Available with 150M or 150MHC only.
- May be ordered as an accessory.
- Must specify finish when ordered as an accessory.
- Must be ordered with fixture; cannot be field installed.
- See [www.lithonia.com/archcolors](http://www.lithonia.com/archcolors) for additional color options.
- Must be specified. L/LP not available with MHC.



# ASF1 Metal Halide, High Pressure Sodium Architectural Flood

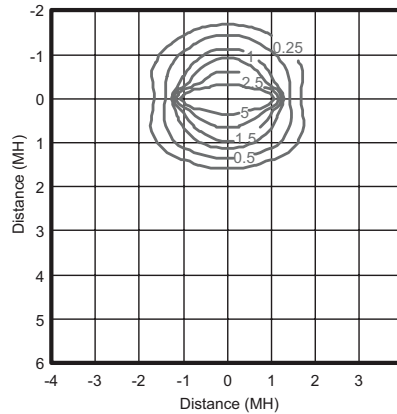
## ASF1 150M HSP

TEST NO. LTL 14889P  
Cartesian Plot



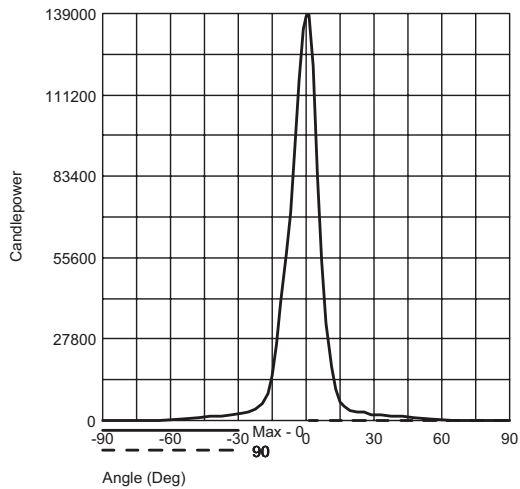
## ISOILLUMINANCE PLOT (FC)

Mounting Height = 20 ft.  
Classification: Unclassified (Type I, Very Short), Cutoff



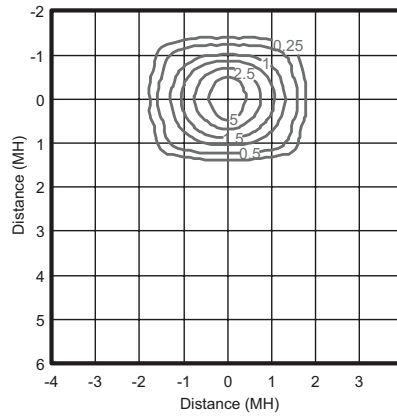
## ASF1 150M NSP

TEST NO. LTL 148256P  
Cartesian Plot



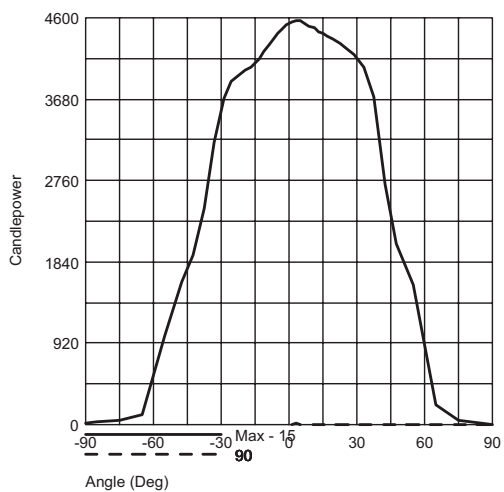
## ISOILLUMINANCE PLOT (FC)

Mounting Height = 20 ft.  
Classification: Unclassified (Type I, Very Short), Cutoff



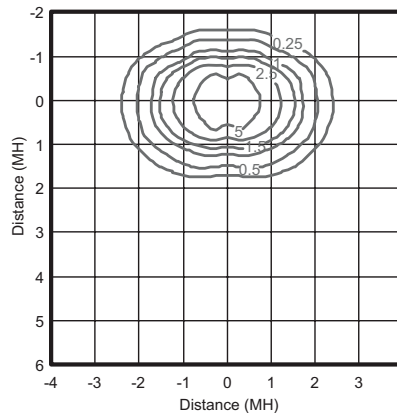
## ASF1 150M WDF

TEST NO. LTL 14888P  
Cartesian Plot



## ISOILLUMINANCE PLOT (FC)

Mounting Height = 20 ft.  
Classification: Unclassified (Type II, Very Short), Cutoff



# FEATURES

## OPTICAL SYSTEM

- Aluminum upper reflector coated with highly reflective white paint provides high efficiency and an evenly illuminated aperture appearance.
- Available with tempered prismatic lens (T73), flat Fresnel lens (FFL) or flat opal lens (FOL).
- Regressed white door (RW) or stepped black baffle (SB) available with white painted flange provided.
- Door is retained by self-aligning, torsion support springs, preventing gaps between door and ceiling.

## MECHANICAL SYSTEM

- 16-gauge galvanized steel mounting/plaster frame with integral brackets to retain optical system. Maximum 1-1/2" ceiling thickness.
- 16-gauge galvanized steel mounting bars with continuous 4" vertical adjustment are shipped pre-installed. Post installation adjustment possible without the use of tools from above or below ceiling.
- Galvanized steel junction box with hinged access covers and spring latch. Two combination 1/2"-3/4" and three 1/2" knockouts for straight-through conduit runs. Capacity: 8 (4 in, 4 out) No. 12 AWG conductors rated for 90°C.

## ELECTRICAL SYSTEM

- Rugged aluminum lampholder housing.
- Vertically-mounted, four-pin, positive-latch, thermoplastic socket.
- Class P, thermally-protected, high power factor, electronic ballast mounted to the junction box.

## LISTING

- Fixtures are UL Listed for thru-branch wiring, Non-IC recessed mounting and wet locations. Listed and labeled to comply with Canadian Standards.

Type

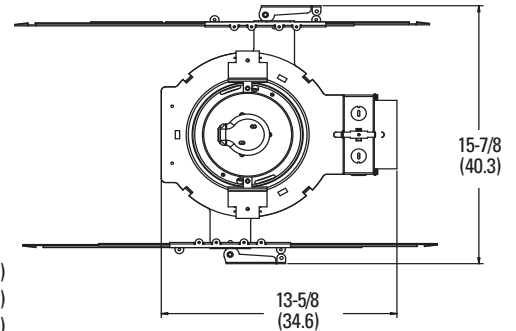
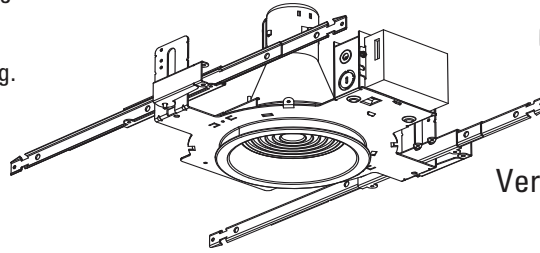
Catalog number

' F ' \_\_\_\_\_  
 \_\_\_\_\_

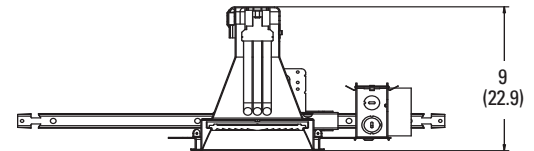
## Compact Fluorescent Downlights

# 6" LGFV

Round Lens  
Wet Location  
Vertical Triple-Tube Lamp



Aperture: 6-1/4 (15.9)  
 Ceiling Opening: 7-1/8 (17.8)  
 Overlap Trim: 7-1/2 (19.1)  
 All dimensions are inches (centimeters).



# ORDERING INFORMATION

Example: **LGFV 26TRT 6RW T73 MVOLT**

Choose the boldface catalog nomenclature that best suits your needs and write it on the appropriate line. Order accessories as separate catalog numbers (shipped separately).

### LGFV

Series	Wattage/Lamp	Door Frame	Shielding	Voltage	Ballast <sup>3</sup>	Options
LGFV	<b>18TRT<sup>1</sup></b>	<b>6RW</b> Regressed white door	<b>T73</b> Tempered prismatic lens	<b>MVOLT<sup>2</sup></b>	<b>(blank)</b> Electronic ballast standard	<b>CP</b> Chicago Plenum <b>TRDA</b> Tamper-Resistant Door Assembly <b>LRC<sup>6</sup></b> Provides compatibility with Lithonia Reloc <sup>®</sup> System. Lithonia Reloc System can be installed less this option with connectors provided by others. Access above ceiling required  <b>GMF</b> Single slow-blow fuse (not available with MVOLT) <b>GLR</b> Single fast-blow fuse (not available with MVOLT) <b>WLP</b> 3500 <sup>o</sup> K Lamp (shipped separately) <b>RIF</b> Radio Interference Filter <b>ELR<sup>7</sup></b> Emergency battery pack. Remote test switch provided <b>GSKT</b> Foam gasketing, ships uninstalled <b>NSD<sup>8</sup></b> Sensorswitch nLight <sup>™</sup> dimming relay
	<b>26TRT<sup>1</sup></b>					
	<b>32TRT</b>	<b>6SB</b> Stepped black baffle	<b>FFL</b> Flat Fresnel lens	<b>277</b>	<b>ECOS</b> EcoSystem electronic dimming ballast. Minimum dimming level 5%.	
	<b>42TRT</b>					
				<b>S5<sup>5</sup></b> Simply5 system ballast		

### NOTES

- 1 Will also operate DTT 4-PIN lamps of same wattage.
- 2 Multi-volt electronic ballast capable of operating on any line voltage from 120V through 277V, 50 or 60 Hz.
- 3 For additional ballast types, refer to Technical Bulletins tab.
- 4 120 or 277V only.
- 5 SIMPLY5<sup>™</sup> includes 9' S5 MLC Reloc wiring system (shipped separately). Available in 120 or 277V only. Not available in 18W. See Simply5.net for more information.
- 6 For compatible Reloc systems, refer to Technical Bulletins tab.
- 7 Not available with ELR option.
- 8 For dimensional changes refer to Technical Bulletins tab.
- 8 One 5A relay with one 0-10 VDC dimming output, shipped installed. Requires additional nLight bus power supply.

### Accessories

Order as separate catalog number.  
**SCA6** Sloped ceiling adapter. Degree of slope must be specified (10D, 15D, 20D, 25D, 30D). Ex: SCA6 10D.

# 6" LGFV Round Lens

Distribution curve

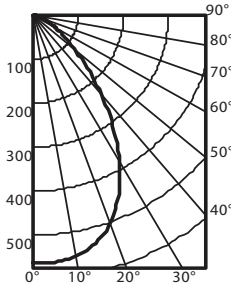
Distribution data

Output data

Coefficient of utilization

Illuminance Data at 30" Above Floor for a Single Luminaire

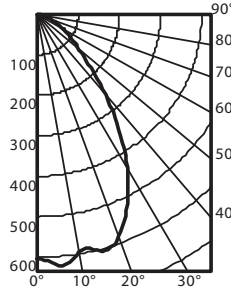
## LGFV 32TRT 6RW T73, 32TRT lamp, 1.1 s/mh, 2400 rated lumens, Test no. LTL14208



From 0°	Ave	Lumens	Zone	Lumens	% Lamp	pf	Coefficient of utilization					
0	563		0° - 30°	408.5	17.0	pc	80%		20%		50%	
5	563	53	0° - 40°	600.8	25.0	pw	50%	30%	50%	30%	50%	30%
15	536	150	0° - 60°	810.1	33.8	1	.39	.38	.39	.37	.37	.36
25	449	205	0° - 90°	873.8	36.4	2	.36	.34	.35	.33	.34	.32
35	309	192	90° - 180°	0.0	0.0	3	.32	.30	.32	.30	.31	.29
45	171	133	0° - 180°	873.8	*36.4	4	.29	.27	.29	.27	.28	.26
55	83	76				5	.27	.24	.26	.24	.26	.24
65	41	42				6	.25	.22	.24	.22	.24	.21
75	16	18				7	.23	.20	.23	.20	.22	.20
85	4	4				8	.21	.18	.21	.18	.20	.18
90	0	0				9	.20	.17	.19	.17	.19	.17
						10	.18	.16	.18	.16	.18	.16

Initial fc		50% beam angle		10% beam angle	
Mount height	at beam center	Beam diameter	fc at beam edge	Beam diameter	fc at beam edge
8	18.6	5.9	9.3	11.2	1.9
10	10.0	8.0	5.0	15.3	1.0
12	6.2	10.1	3.1	19.4	0.6
14	4.3	12.3	2.1	23.5	0.4
16	3.1	14.4	1.5	27.6	0.3

## LGFV 32TRT 6RW FFL, 32TRT lamp, 1.1 s/mh, 2400 rated lumens, Test no. LTL14209



From 0°	Ave	Lumens	Zone	Lumens	% Lamp	pf	Coefficient of utilization					
0	604		0° - 30°	463.7	19.3	pc	80%		20%		50%	
5	624	58	0° - 40°	679.7	28.3	pw	50%	30%	50%	30%	50%	30%
15	605	169	0° - 60°	914.0	38.1	1	.45	.43	.44	.43	.42	.41
25	517	236	0° - 90°	995.1	41.5	2	.40	.38	.40	.38	.38	.37
35	348	216	90° - 180°	0.0	0.0	3	.37	.34	.36	.33	.35	.33
45	184	144	0° - 180°	995.1	*41.5	4	.33	.30	.33	.30	.32	.29
55	99	90				5	.30	.27	.30	.27	.29	.27
65	54	54				6	.28	.25	.28	.25	.27	.24
75	21	22				7	.26	.23	.25	.23	.25	.22
85	4	5				8	.24	.21	.24	.21	.23	.20
90	0	0				9	.22	.19	.22	.19	.22	.19
						10	.21	.18	.21	.18	.20	.18

Initial fc		50% beam angle		10% beam angle	
Mount height	at beam center	Beam diameter	fc at beam edge	Beam diameter	fc at beam edge
8	20.0	6.1	10.0	11.3	2.0
10	10.7	8.3	5.4	15.3	1.1
12	6.7	10.6	3.3	19.4	0.7
14	4.6	12.8	2.3	23.5	0.5
16	3.3	15.0	1.7	27.6	0.3

NOTES:

- For electrical characteristics consult Technical Bulletins tab.
- Tested to current IES and NEMA standards under stabilized laboratory conditions. Various operating factors can cause differences between laboratory data and actual field measurements. Dimensions and specifications are based on the most current available data and are subject to change without notice.

DCF-530

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**gotham**  
An Acuity Brands Company

GOTHAM ARCHITECTURAL DOWNLIGHTING  
1400 Lester Road Conyers Georgia 30012  
P 800 315 4982 F 770 860 3129  
www.gothamlighting.com

1	2	3	4	5	6			7	8
LUMINAIRE	HOOD	OPTICS	LAMP/BALLAST	DECORATIVE SCREEN	OPTIONS			COLOR	MOUNTING
					GENERAL	HOOD	SCREEN		
PKWM									



PAKWAY SQUARE  
MEDIUM SCALE HOUSING



PKWM

**DESIGNER**  
**SSL** SERIES  
FEATURING  
**MICROEMITTER™**  
TECHNOLOGY



PARKWAY SQUARE FAMILY OF FIXTURES



PKWM



PKWS



PKWB



PKSA/PKSP

### Features

- Four optical systems, including LED, horizontal, vertical, and indirect
- Features highly efficient, exclusive MicroEmitter™ technology
- Available with exclusive wiHUBB® technology
  - Wireless control system for 0-10VDC full range dimming control
  - Programmable autonomous operation
- Three hood styles to configure a look in harmony with your architecture
- Six decorative screen options
- Wide variety of custom arm options.
- Tool-less access
- EISA compliant
- IP65 rated for horizontal configurations and IP66 rated for vertical configurations
- Powder coat finish in 13 standard colors with a polymer primer sealer

### JOB INFORMATION

TYPE

JOB NAME

LAMP (BY OTHERS)

CUSTOMER

DATE

*Consult factory for any custom/  
modified products*

APPROVALS







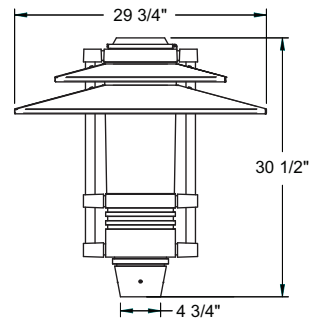
16555 East Gale Ave.  
City of Industry | CA 91745  
P 626.968.5666 | F 626.369.2695  
www.aal.net | Copyright © 2012

1	2	3	4	5	6			7	8
					OPTIONS				
LUMINAIRE	HOOD	OPTICS	LAMP/BALLAST	DECORATIVE SCREEN	GENERAL	HOOD	SCREEN		
PKWM									

### 1. LUMINAIRE

- PKWM Parkway Square Pedestrian (Medium) scale.  
Slips over a 4" open top square pole or 2 3/8" tenon.

<input type="checkbox"/> <b>ANG</b> Angled Hood  Horizontal Optics HT: 30.5"/775 mm DIA: 23"/584 mm EPA: 3.18 WT: 57 lbs.	<input type="checkbox"/> <b>IND</b> Indirect Hood <i>(Underside finished in high reflectance white)</i>  Vertical Optics HT: 30.5"/775 mm DIA: 23"/584 mm EPA: 3.22 WT: 49 lbs.	<input type="checkbox"/> <b>STR</b> Straight Hood  Vertical Optics HT: 30.5"/775 mm DIA: 29.75"/756 mm EPA: 3.21 WT: 63 lbs.	<input type="checkbox"/> <b>DBL</b> Double Hood  Vertical Optics HT: 30.5"/775 mm DIA: 29.75"/756 mm EPA: 3.28 WT: 79 lbs.
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### 3. OPTICS

HORIZONTAL LED OPTICAL SYSTEM – Available with ANG hood and LEDs only. Flat glass lens.

- T2 Horizontal LED optical system. IES Type 2 distribution.
- T3 Horizontal LED optical system. IES Type 3 distribution.
- T4 Horizontal LED optical system. IES Type 4 distribution.
- T5 Horizontal LED optical system. IES Type 5 distribution.

VERTICAL LED OPTICAL SYSTEM

- VL3 Asymmetric distribution
- VL5 Symmetric distribution

HORIZONTAL OPTICAL SYSTEM – Available with ANG hood only. Not available with LEDs. Flat glass lens.

- H2 Horizontal optical system. IES Type 2 distribution.
- H3 Horizontal optical system. IES Type 3 distribution.
- H4 Horizontal optical system. IES Type 4 distribution.
- H5 Horizontal optical system. IES Type 5 distribution.

VERTICAL OPTICAL SYSTEM – Not available with IND or LEDs. Clear acrylic cylinder.

- GLA Vertical optical system. Frosted glass diffuser.
- GR3 Vertical optical system. IES Type 3 glass refractor.
- GR5 Vertical optical system. IES Type 5 glass refractor.

INDIRECT OPTICAL SYSTEM – Available with IND hood only. Not available with LEDs. Clear acrylic cylinder. Underside of hood is painted in high reflectance white.

- 3 Indirect reflector. IES Type 3 distribution.
- 5 Indirect reflector. IES Type 5 distribution.

BARE LAMP – Available with IL system only. Lightly diffused acrylic cylinder.

- BLO Bare lamp system, only for induction lamp system.

<b>JOB INFORMATION</b>
TYPE _____
JOB NAME _____
LAMP (BY OTHERS) _____
CUSTOMER _____
DATE _____
<i>Consult factory for any custom/modified products</i>
<b>APPROVALS</b>

1	2	3	4	5	6			7	8
LUMINAIRE	HOOD	OPTICS	LAMP/BALLAST	DECORATIVE SCREEN	OPTIONS			COLOR	MOUNTING
					GENERAL	HOOD	SCREEN		
PKWM									

### 4. LAMP/BALLAST

- 55LED-BW 42 light emitting diode array. Bright white (5100K). Class 2, 120 thru 277 volt. *VL3 & VL5 only.*

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- 60LED-WW MicroEmitter™ 60 light emitting diode array. Warm white (3500K). Class 1, 120 thru 277 volt. *Horizontal LED only.*

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- 60LED-BW MicroEmitter™ 60 light emitting diode array. Bright white (5100K). Class 1, 120 thru 277 volt. *Horizontal LED only.*

---

- 70MH 70 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.

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- 70MHEB 70 watt electronic metal halide 120 thru 277 volt ballast. Use medium base, ED-17 lamp.

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- 70MHT6 70 watt metal halide 120/277/347 volt ballast. Use G12 base, T6 ceramic lamp.

---

- 70MHT6EB 70 watt electronic metal halide 120 thru 277 volt ballast. Use G12 base, T6 ceramic lamp.

---

- 100MH 100 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.

---

- 100MHEB 100 watt electronic metal halide 120 thru 277 volt ballast. Use medium base, ED-17 lamp.

---

- 150PSMH Pulse start 150 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.

---

- 150PSMHT6 Pulse start 150 watt metal halide 120/277 volt ballast. Use G12 base, T6 ceramic lamp.

---

- 150MHEB 150 watt electronic metal halide 120 or 277 volt ballast. Use medium base, ED-17 lamp.

---

- 150MHT6EB 150 watt electronic metal halide 120 or 277 volt ballast. Use G12 base, T6 ceramic lamp.

---

- 70HPS 70 watt high pressure sodium 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.

---

- 100HPS 100 watt high pressure sodium 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.

---

- 150HPS 150 watt high pressure sodium 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.

---

- IL85 85 watt induction lamp system. 120, 208, 240 or 277 volt. -25°C min. start temp. Available in bare lamp configuration (BLO) with LDL lens only.

---

- CF Compact fluorescent electronic 120 thru 277 volt ballast. Use GX24q base, 26, 32 or 42 watt lamp. Not available with horizontal or LED optics. -18° C min start temp. Specify wattage.

---

- 140CO 140 watt electronic CosmoPolis™ 120 or 208 thru 277 volt ballast. Use PGZ12 base, CosmoPolis™ lamp. Not available with horizontal or LED optics.

*All fixtures prewired for 277 volts unless specified. Lamps not included (except IL and LED options). All applicable ballasts are EISA compliant. Mini MasterColor® is a registered trademark and CosmoPolis™ is a trademark of Philips Lighting®.*

<p><b>JOB INFORMATION</b></p> <p>TYPE _____</p> <p>JOB NAME _____</p> <p>LAMP (BY OTHERS) _____</p> <p>CUSTOMER _____</p> <p>DATE _____</p> <p><i>Consult factory for any custom/modified products</i></p> <div style="border: 1px solid black; height: 100px; margin-top: 10px;"> <p style="text-align: center; padding: 5px;">APPROVALS</p> </div>
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1	2	3	4	5	6			7	8
LUMINAIRE	HOOD	OPTICS	LAMP/BALLAST	DECORATIVE SCREEN	OPTIONS			COLOR	MOUNTING
					GENERAL	HOOD	SCREEN		
PKWM									

### 5. DECORATIVE SCREENS (OPTIONAL)

Painted to match fixture. Also available in stainless steel or copper. Not available with horizontal or LED optics.



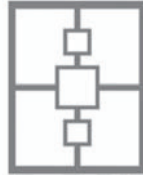
**DSIN**  
Infinity design  
painted to  
match fixture.



**DSOF**  
Offset design  
painted to  
match fixture.



**DSWH**  
Wheat design  
painted to  
match fixture.



**DSTR**  
Trio design  
painted to  
match fixture.



**DSSH**  
Shutter design  
painted to  
match fixture.



**DSCS**  
Custom design\*  
painted to  
match fixture.

### 6. OPTIONS

#### GENERAL

- WIH-IM** In fixtures wireless control module. \*For use with LED only.
- ULS** Upper lens shield above the hood. Reduces light above hood.
- TEN** 2 3/8" O.D. x 4" long tenon. Required for all poles, except for PS4. *GLA only.*
- TEN23** Tenon adaptor slips over a 2 3/8" O.D. x 4" long tenon. Required for poles by others or used in conjunction with the TEN pole option by AAL. *GLA only.*
- LDL** Lightly diffused lens
- 347** 120/240/347 volt ballast for HID only, except 50MH and 50HPS.

#### HOOD

- COP** Brushed copper hood
- STS** Stainless steel hood

#### DECORATIVE SCREEN

- CPR** Screen in brushed copper
- SSP** Screen in brushed stainless steel

### 7. COLOR

- |  |   |
|--|---|
| <input type="checkbox"/> <b>AWT</b> Arctic White     | <input type="checkbox"/> <b>MDG</b> Medium Grey                                       |
| <input type="checkbox"/> <b>BLK</b> Black            | <input type="checkbox"/> <b>ATG</b> Antique Green                                     |
| <input type="checkbox"/> <b>MTB</b> Matte Black      | <input type="checkbox"/> <b>LGY</b> Light Grey  |
| <input type="checkbox"/> <b>DGN</b> Dark Green       | <input type="checkbox"/> <b>SPP</b> Salt and Pepper (premium)                         |
| <input type="checkbox"/> <b>DBZ</b> Dark Bronze      | <input type="checkbox"/> <b>SFM</b> Seafoam (premium)                                 |
| <input type="checkbox"/> <b>WRZ</b> Weathered Bronze | <input type="checkbox"/> <b>WCP</b> Weathered Copper (premium)                        |
| <input type="checkbox"/> <b>BRM</b> Metallic Bronze  | <input type="checkbox"/> <b>SHK</b> Shamrock (premium)                                |
| <input type="checkbox"/> <b>VBL</b> Verde Blue       | <input type="checkbox"/> <b>RAL COLOR</b> Provide a RAL 4 digit color number          |
| <input type="checkbox"/> <b>CRT</b> Corten           | <input type="checkbox"/> <b>CUSTOM COLOR</b> Please provide a color chip for matching |
| <input type="checkbox"/> <b>MAL</b> Matte Aluminum   |   |

#### JOB INFORMATION

TYPE

JOB NAME

LAMP (BY OTHERS)

CUSTOMER

DATE

*Consult factory for any custom/modified products*

APPROVALS

1	2	3	4	5	6			7	8
					OPTIONS				
LUMINAIRE	HOOD	OPTICS	LAMP/BALLAST	DECORATIVE SCREEN	GENERAL	HOOD	SCREEN	COLOR	MOUNTING
PKWM									

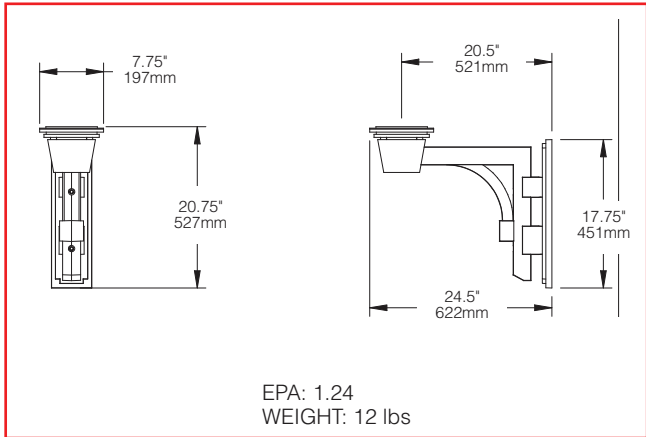
### 8. MOUNTING

WALL MOUNT – *Mounting plate included. Hardware by others.*

- PSWM-TU      Fixture above with arm mounted up.
- PSWM-TD      Fixture above with arm mounted down.
- PSWM-BU      Fixture below with arm mounted up. Not available with indirect.
- PSWM-BD      Fixture below with arm mounted down. Not available with indirect.

POLE MOUNT – *Mounts to the side of 4" O.D. pole.*

- PSA-TU      Fixture above with arm mounted up.
- PSA-TD      Fixture above with arm mounted down.
- PSA-BU      Fixture below with arm mounted up. Not available with indirect.
- PSA-BD      Fixture below with arm mounted down. Not available with indirect.



JOB INFORMATION

TYPE \_\_\_\_\_

JOB NAME \_\_\_\_\_

LAMP (BY OTHERS) \_\_\_\_\_

CUSTOMER \_\_\_\_\_

DATE \_\_\_\_\_

*Consult factory for any custom/modified products*

APPROVALS



1	2	3	4	5	6			7	8
LUMINAIRE	HOOD	OPTICS	LAMP/BALLAST	DECORATIVE SCREEN	OPTIONS			COLOR	MOUNTING
					GENERAL	HOOD	SCREEN		
PKWM									

### HOUSING

Parkway Square housings shall be cast aluminum A356 alloy, free of any porosity, foreign materials, or cosmetic fillers. The driver shall be mounted internally and accessed by loosening four captive bolts and lifting away the lamp compartment. The lamp compartment shall be sealed with a molded silicone gasket. All lenses shall be molded, seamless high impact lighting grade acrylic. The lens shall be sealed to the housing with a molded silicone gasket on the top and bottom. The vertical struts shall be cast aluminum and painted to match the fixture. All internal and external hardware shall be stainless steel. The fixture shall slip over a 4"/100mm square post top and secured with four stainless steel set screws. The hood shall be formed from 5052 H32 aluminum, 304 stainless steel or 110 copper. The underside of the hood shall be finished in a high reflectance white powder coating. Copper hoods shall be unfinished to develop a patina.

The horizontal optical system door shall be cast aluminum painted to match the fixture. The internal horizontal optical system shall be sealed from the outer housing with a silicone gasket. The tempered glass lens shall be sealed to the housing with a silicone gasket. A pair of stainless steel latches shall release the door to allow access to the optical system. The horizontal optical system shall be rotatable on 90° centers for orienting the light distribution. The horizontal optical system shall meet ANSI IES standards for full cutoff reflector systems when using arm in the BU or BD configuration.

### MICROEMITTER™ REFLECTOR

Precision injection molded, high specular reflectors shall be positioned to achieve directional control toward desired task. Secondary reflectors shall have a concave, specular medium hammertone finish that shall be used to redirect light downward. No fasteners shall be placed on the reflective surface. The entire assembly shall fasten to the housing as a one-piece module and shall feature wiring quick-connects for easy installation. MicroEmitters™ shall be field replaceable and shall be driven at 350mA current.

### ELECTRICAL

The driver shall be integral to the fixture, mounted on a prewired module with a quick disconnect plug, and shall be removable by loosening four screws. The driver shall accept 120 thru 277 volts input, with output drive current of 350ma, and shall be wired at the factory for 277 volts, unless specified. Standard color temperatures for LEDs shall be 3500k and 5100k. Rated luminous efficacy of luminaire shall be >40 lm/W, with rated light output of >2960 for 5100k LED. The vertical LED configuration shall have a self contained light engine consisting of a diode array mounted to a die-cast aluminum heat sink and sealed behind an injection molded and optically clear lens.

### INSTALLATION & MOUNTING

The PKWM shall be factory supplied as a complete, prewired assembly. The fixture shall slip over a 4" open top pole or 2 3/8" tenon and secured and leveled with 4 stainless steel set screws or arm mounted to the side 4"/100mm round or square pole.

### FINISH

Fixture finish shall consist of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

### CERTIFICATION

The fixture is listed with ETL or outdoor, wet location use and shall conform to ul1598 and Canadian CSA std. C22.2 No.9. Ip65 rated for horizontal configurations and ip66 rated for vertical configurations.

### WARRANTY

Fixture is warranted for three years, with the exception of Parkway Square MicroEmitter™ LED models. Parkway square MicroEmitter™ LED, including housing, LEDs and electrical components, are warranted for five years. Driver components carry the driver manufacturer's limited warranty. Any unauthorized return, repair, replacement or modification of the product(s) shall void this warranty. This warranty applies only to the use of the product(s) as intended by AAL and does not cover any misapplication or misuse of said product(s), or installation in hazardous or corrosive environments. Contact AAL for complete warranty language, exceptions, and limitations.

<b>JOB INFORMATION</b>
TYPE
JOB NAME
LAMP (BY OTHERS)
CUSTOMER
DATE
<i>Consult factory for any custom/modified products</i>
APPROVALS



## 9100 SERIES HID 150 WATT MAX. IN-GRADE LUMINAIRE

### DESCRIPTION:

The 9100 Series HID flush mounted Up-lights are designed for flush mounting in planting areas or in concrete, and are used for illuminating building facades, walls, trees, and similar applications. The lamp module and power modules are factory sealed, thermally protected, and connected by submersible rated connectors.

### SPECIFICATIONS:

**DOOR MATERIAL:** Cast aluminum or bronze that locks the lamp housing into the Rough-In Section with a single tamperproof stainless steel fastener.

**ROUGH-IN SECTION:** Injection molded ABS, U.V. stabilized, impact and corrosion resistant for use in all types of environments.

**LAMP MODULE HOUSING:** Stainless steel, sealed and purged of all moisture to 100°F (38°C). Electrical access to lamp module is done through submersible rated connector. **THERMALLY PROTECTED.**

**LAMP TYPE:** See ordering guide. **LAMP INCLUDED.**

**VOLTAGE:** See ordering guide.

**DISTRIBUTIONS:** The Spot Reflector is specular spun aluminum. The Wide Flood Reflector is diffuse spun aluminum and the Wall Wash Reflector is diffuse hydroformed aluminum. The Spot and Flood Reflector assemblies have 15° of internal lamp tilt on a 360° axis of rotation. Lamp tilt is not used in the Wall Wash units. The lenses are clear tempered flat glass. Convex lenses are available.

#### THE COMMON LIGHT DISTRIBUTIONS ARE:

**SPOT** = 7° spread; **WFL** = 140° spread;

**NFL** = 30° spread; **MFL** = 60° spread;

**WW** = 10 to 1 Uniformity Ratio

Reflectorized lamp distributions vary depending on manufacturer. Check Photometric Sheets.

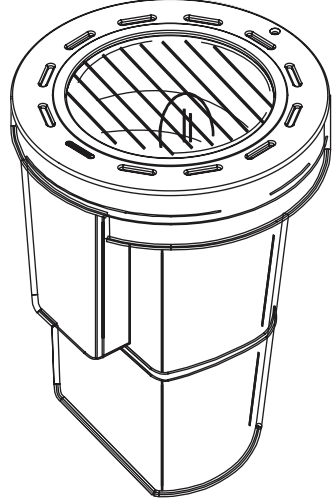
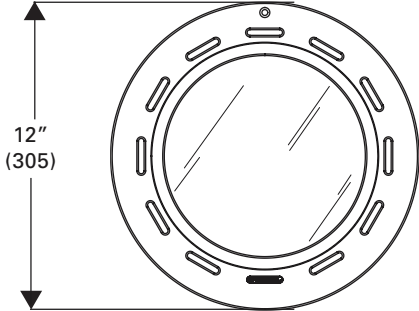
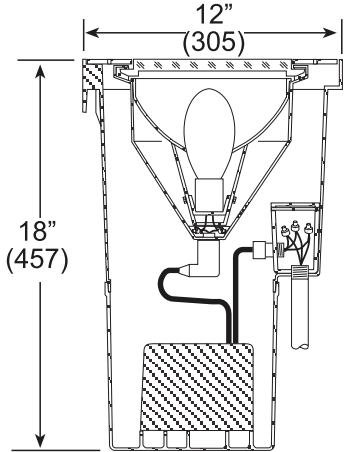
**POWER MODULE:** Sealed unit encapsulated in an engineered composite resin to eliminate all water entry.

**CONDUIT ENTRIES:** 3/4" NPT are available in the cast aluminum integral Junction Box. Suitable for thru-branch wiring. This box has 24 cubic inches of volume.

**LISTING:** U.L., CSA, NEMKO

NOTE: HYDREL RESERVES THE RIGHT TO MODIFY SPECIFICATION WITHOUT NOTICE. Any dimension on this sheet is to be assumed as a reference dimension: "Used for information purposes only. It does not govern manufacturing or inspection requirements." (ANSI Y14.5-1973)

TYPE ' J '		JOB NAME		
PART NUMBER				
Model	Material	Lamp Type	Voltage	Distribution
Conduit	Accessories	Options	Lamp	Listing

APPROVALS

## 9100 ORDERING INFORMATION

60 Hz Application

Choose the boldface catalog nomenclature that best suits your needs. \*Designates required selection.

**PART NO.**

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**EXAMPLE:**

<b>9100</b>	<b>A</b>	<b>150CMT6</b>	<b>MVOLT</b>	<b>MFL</b>	<b>FLC</b>	<b>34B</b>	<b>GEB</b>	<b>LP</b>		
<b>*Model</b>		<b>*Voltage</b>		<b>*Lens</b>		<b>Options</b>				
<input type="checkbox"/> <b>9100</b> Round		<input type="checkbox"/> <b>120</b> <input type="checkbox"/> <b>208</b> <input type="checkbox"/> <b>220</b> <input type="checkbox"/> <b>240</b> <input type="checkbox"/> <b>277</b> <input type="checkbox"/> <b>347</b> <input type="checkbox"/> <b>MVOLT<sup>4</sup></b>		<input type="checkbox"/> <b>FLC</b> Flat Lens Clear <input type="checkbox"/> <b>FLC5</b> Flat Lens 5° Axial Spread <input type="checkbox"/> <b>FLC10</b> Flat Lens 10° Tilt <input type="checkbox"/> <b>FLF</b> Flat Lens Frosted <input type="checkbox"/> <b>FLCAS</b> Flat Lens Clear Anti-Slip <input type="checkbox"/> <b>FLC5AS</b> Flat Lens 5° Axial Spread - Anti-Slip <input type="checkbox"/> <b>CLC</b> Convex Lens Clear		<input type="checkbox"/> <b>GEB<sup>5</sup></b> Electronic Ballast				
<b>*Material</b>						<b>*Conduit</b>				
<input type="checkbox"/> <b>A</b> Aluminum <input type="checkbox"/> <b>B</b> Bronze						<input type="checkbox"/> <b>34B</b> 3/4" NPT Bottom				
<b>*LampType</b>		<b>*Distribution</b>				<b>*Lamp</b>				
<b>MH</b> <input type="checkbox"/> <b>35CMT6</b> T6, G-12 base <input type="checkbox"/> <b>70CMT6<sup>1</sup></b> T6, G-12 base <input type="checkbox"/> <b>150CMT6</b> T6, G-12 base <input type="checkbox"/> <b>50M<sup>8</sup></b> E17, med. base <input type="checkbox"/> <b>70M<sup>7</sup></b> E17, med. base <input type="checkbox"/> <b>70CM<sup>7</sup></b> E17, med. base <input type="checkbox"/> <b>100M</b> E17, med. base <input type="checkbox"/> <b>100CM</b> E17, med. base <input type="checkbox"/> <b>150M</b> E17, med. base <input type="checkbox"/> <b>150CM</b> E17, med. base <input type="checkbox"/> <b>150M</b> E17, med. base <input type="checkbox"/> <b>P3870M<sup>7</sup></b> PAR38, med. base <input type="checkbox"/> <b>P3870CM<sup>7</sup></b> PAR38, med. base <input type="checkbox"/> <b>P38100M</b> PAR38, med. base <input type="checkbox"/> <b>P38100CM</b> PAR38, med. base <input type="checkbox"/> <b>P38150M</b> PAR38, med. base <input type="checkbox"/> <b>P38150CM</b> PAR38, med. base		<input type="checkbox"/> <b>SP</b> Spot <input type="checkbox"/> <b>MFL<sup>1</sup></b> Medium Flood <input type="checkbox"/> <b>NFL<sup>1</sup></b> Narrow Flood <input type="checkbox"/> <b>WFL<sup>1</sup></b> Wide flood <input type="checkbox"/> <b>WWD<sup>1</sup></b> Wall Wash Reflector, 5° spread lens <input type="checkbox"/> <b>FL</b> Flood (PAR lamps only)				<input type="checkbox"/> <b>LP</b> Lamp installed				
<b>HPS</b> <input type="checkbox"/> <b>50S<sup>8</sup></b> E17, med. base <input type="checkbox"/> <b>70S</b> E17, med. base <input type="checkbox"/> <b>100S</b> E17, med. base <input type="checkbox"/> <b>150S</b> E17, med. base						<b>Accessories</b>				
						<b>Internal</b> <input type="checkbox"/> <b>MSR</b> Modular support ring <input type="checkbox"/> <b>IHL</b> Internal honeycomb louver <input type="checkbox"/> <b>ISS<sup>16</sup></b> Internal source shield <input type="checkbox"/> <b>WWL<sup>1</sup></b> Wall Wash Louver				
						<b>External</b> <input type="checkbox"/> <b>GS<sup>2</sup></b> Glare Shield <input type="checkbox"/> <b>RG<sup>23</sup></b> Rock Guard <input type="checkbox"/> <b>PC21</b> 35 cu. in. potting compound				
						<b>Finish<sup>9</sup></b> <input type="checkbox"/> <b>BL</b> Black <input type="checkbox"/> <b>BZ</b> Bronze <input type="checkbox"/> <b>DDB</b> Dark Bronze <input type="checkbox"/> <b>DNA</b> Natural Alum. <input type="checkbox"/> <b>GN</b> Green <input type="checkbox"/> <b>GR</b> Gray <input type="checkbox"/> <b>SND</b> Sand <input type="checkbox"/> <b>STG</b> Steel Gray <input type="checkbox"/> <b>TVG</b> Terra Verde Green <input type="checkbox"/> <b>WH</b> White <input type="checkbox"/> <b>CF</b> Custom Finish				

**Notes:**

- <sup>1</sup> Not Available with PAR Lamps.
- <sup>2</sup> RG and GS are mutually exclusive.
- <sup>3</sup> Not available with CLC Lens.
- <sup>4</sup> MVOLT only valid if GEB is Chosen.
- <sup>5</sup> GEB only available with MH lamps to 150 watts, MVOLT is the default voltage for GEB lamps.
- <sup>6</sup> Not available with WWD distribution.
- <sup>7</sup> Not available in 220 Volt.
- <sup>8</sup> Only available in 120 or 277 Volt.
- <sup>9</sup> Finish is only valid with "A" door material.

**Consisting of:**  
 RIS Rough-In Section  
 ACL Lamp Module  
 HSL Ballast Module

## 9100 ORDERING INFORMATION

### 50 Hz Application

Choose the boldface catalog nomenclature that best suits your needs. \*Designates required selection.

**PART NO.**

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#### EXAMPLE:

9100	A	150CMT6	22050Hz	SP	FLC	16B	ISS	GEB	LP	IEC
<b>*Model</b>										
<input type="checkbox"/> 9100 Round			<input type="checkbox"/> 22050Hz <input type="checkbox"/> 23050Hz <input type="checkbox"/> 24050Hz <input type="checkbox"/> MVOLT <sup>4</sup>			<input type="checkbox"/> 16B PG16 Bottom <input type="checkbox"/> 20B M20 Bottom			<input type="checkbox"/> LP Lamp Installed	
<b>*Material</b>										
<input type="checkbox"/> A Aluminum <input type="checkbox"/> B Bronze			<b>*Distribution</b>			<b>Accessories</b>			<b>Finish<sup>7</sup></b>	
			<input type="checkbox"/> SP Spot <input type="checkbox"/> MFL Medium Flood <input type="checkbox"/> WFL Wide flood <input type="checkbox"/> NFL Narrow Flood <input type="checkbox"/> WWD Wall Wash Reflector, 5° spread lens			<b>Internal</b> <input type="checkbox"/> MSR Modular support ring <input type="checkbox"/> IHL Internal honeycomb louver <input type="checkbox"/> ISS <sup>1,6</sup> Internal source shield <input type="checkbox"/> WWL <sup>1</sup> Wall Wash Louver <b>External</b> <input type="checkbox"/> GS <sup>2</sup> Glare Shield <input type="checkbox"/> RG <sup>2,3</sup> Rock Guard <input type="checkbox"/> PC21 35 cu. in. potting compound			<input type="checkbox"/> BL Black <input type="checkbox"/> BZ Bronze <input type="checkbox"/> DDB Dark Bronze <input type="checkbox"/> DNA Natural Alum. <input type="checkbox"/> GN Green <input type="checkbox"/> GR Gray <input type="checkbox"/> SND Sand <input type="checkbox"/> STG Steel Gray <input type="checkbox"/> TVG Terra Verde Green <input type="checkbox"/> WH White <input type="checkbox"/> CF Custom Finish	
<b>*LampType</b>										
<b>HID</b> <input type="checkbox"/> 35CMT6 T6, G-12 base <input type="checkbox"/> 70CMT6 T6, G-12 base <input type="checkbox"/> 150CMT6 T6, G-12 base <input type="checkbox"/> 70M E27 base <input type="checkbox"/> 70CM E27 base <input type="checkbox"/> 100M E27 base <input type="checkbox"/> 100CM E27 base <input type="checkbox"/> 150M E27 base <input type="checkbox"/> 150CM E27 base					<b>*Lens</b>			<b>Options</b>		<b>Listing</b>
<b>HPS</b> <input type="checkbox"/> 50S E27 base <input type="checkbox"/> 70S E27 base <input type="checkbox"/> 100S E27 base					<input type="checkbox"/> FLC Flat Lens Clear <input type="checkbox"/> FLC5 Flat Lens 5° Axial Spread <input type="checkbox"/> FLC5AS Flat Lens 5° Axial Spread - Anti-Slip <input type="checkbox"/> FLC10 Flat Lens 10° Tilt <input type="checkbox"/> FLF Flat Lens Frosted <input type="checkbox"/> FLCAS Flat Lens Clear Anti-Slip <input type="checkbox"/> CLC Convex Lens Clear			<input type="checkbox"/> GEB <sup>5</sup> Electronic Ballast		<input type="checkbox"/> IEC

#### Notes:

- Not Available with PAR Lamps.
- RG and GS are mutually exclusive.
- Not available with CLC Lenses.
- MVOLT only valid if GEB is Chosen.
- GEB only available with MH lamps to 150 watts, MVOLT is the default voltage for GEB lamps.
- Not available with WWD distribution.
- Finish is only valid with "A" door material.

**Consisting of:**  
 RIS Rough-In Section  
 ACL Lamp Module  
 HSL Transformer Module/  
 Power Cord

**STERNBERG****Ornamental Bollards****730LB PRAIRIE LIGHTED BOLLARD****SPECIFICATIONS****GENERAL**

The Model 730LB decorative lighted bollard shall be aluminum, one-piece construction. The square aluminum shaft base shall be constructed with decorative cast window grilles and overhung roof cap. The Model shall be Sternberg Lighting #730LB lighted bollard or #730LB-QR quick release lighted bollard.

**CONSTRUCTION**

The bollard housing shaft shall be 7" square having a wall thickness of  $\frac{3}{16}$ " and made of ASTM 6061 extruded aluminum and tempered to a T6 condition. The bollard features four 6" wide windows with cast tree design grille work. The cast 12" square roof shall cantilever the fixture body and have a solid aluminum soffit. The assembly comes standard with a 1-piece white lens made of  $\frac{1}{4}$ " thick square heavy-duty acrylic for vandal resistance. Optional lenses are available. The internal anchor base shall be 6  $\frac{1}{2}$ " square and made of heavy wall, 356 alloy cast aluminum and shall be vertically fastened to bollard housing. It shall have a  $\frac{1}{2}$ " thick floor cast as an integral part of the base. The overall height of the bollard shall be 48". (For other heights, consult factory).\*

**ELECTRICAL**

All electrical components shall be U.L. approved. H.I.D. ballasts shall be high power factor with lamp starting down to -30 degrees C. Medium base porcelain sockets to be 4KV rated. The ballast/socket assembly shall be pre-wired. Optional compact fluorescent (PL) ballasts shall be instant start electronic with a starting temperature of down to 0 degrees F. They shall have a 4-pin socket and support quad tube and triple tube lamps. Ballasts shall be DOE EISA compliant.

**QUICK RELEASE MOUNTING (Optional)**

The Model 730LB-QR shall have a quick release option which allows quick removal of the bollard for convenience or emergency access. The burial portion shall be made of ASTM 6061 aluminum extrusion and shall have a keyway and flexible connection system for securing to bollard. The bollard shall have a mated extension and anti-rotation key and padlock slot. The quick release system shall allow for a flush pavement installation after temporary bollard removal.

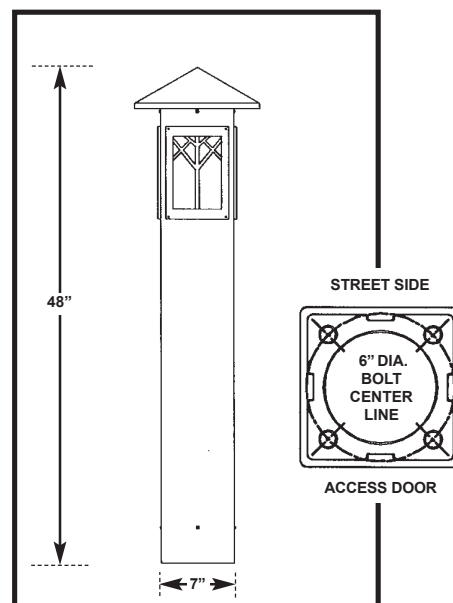
**FINISH**

Prior to coating, each assembly shall be chemically cleaned and etched in a 5-stage washing system which includes alkaline cleaning, rinsing, phosphoric etching, reverse osmosis water rinsing, and non-chrome sealing to ensure corrosion resistance and excellent adhesion for the finish coating. The finish coating shall be electrostatically applied semi-gloss, super durable polyester powder baked at 400 degrees for a durable and superior, color retentive finish. Our optional antique Verde Green finish and Swedish Iron finish are hand brushed using a 3-step process. The total assembly shall be wrapped in shockproof wrapping or fully enclosed in corrugated cartons.

**INSTALLATION**

Four, hot-dipped galvanized "L" type anchor bolts shall be provided with the post for non-quick release bollard anchorage. Quick release anchorage requires no anchor bolts. Bollard will be provided with a grounding stud mounted on the base floor.

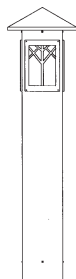
**WARRANTY** Five-year limited warranty. See product and finish warranty guide for details.



See installation template for exact door position.

**BUILDING A PART NUMBER****PART NUMBER SELECTIONS**

BOLLARD MODEL	OPTIONAL CHAIN LOOP	OPTIONS	LIGHT SOURCE BALLAST WATTS/TYPE/VOLTS	FINISH
730LB		FHS	70HPS120	VG

**MODELS\***

- 730LB
- 730LB-QR

\* NOTE: For custom heights, designate height after bollard model.  
Example: 730LB-42"

\*\* TO ORDER CHAIN: Specify total length of chain required for project.

MHP - Metal halide systems are pulse start.

**BALLASTS**

- 35HPS
- 50HPS
- 70HPS
- 100HPS
- 50MHP
- 70MHP
- 100MHP
- 26PLT
- 32PLT
- 42PLT
- INCAND

**VOLTAGES**

- 120
- 208
- 240
- 277
- 480
- MULTI (120-277)

**LAMPS**

- HPS35/MED
- HPS50/MED
- HPS70/MED
- HPS100/MED
- MHP50/MED
- MHP70/MED
- MHP100/MED
- PLT26
- PLT32
- PLT42

**OPTIONAL CHAIN LOOP\*\***

- CL1 Chain Loop
- CL2 Chain Loops 180°

**FINISHES STANDARD**

- BKT Black Textured
- BK Black
- VG Verde Green
- PGT Park Green Textured
- PG Park Green
- ABZT Architectural Medium Bronze Textured
- ABZ Architectural Medium Bronze
- SI Swedish Iron
- DBT Dark Bronze Textured
- DB Dark Bronze

**OPTIONS**

- PEC1 Photocell-Bimetal 120 Volt
- PEC2 Photocell-Bimetal 208-277 Volt
- PEC1-E Photocell-Electronic 120 Volt
- PEC2-E Photocell-Electronic 208-277 Volt
- FHS Single Fuse and Holder-120,277 Volt
- FHD Dual Fuse and Holder-208,240,480 Volt
- GFI Ground Fault Interrupter Duplex Outlet
- LAMPS Select from List

- OWGT Old World Gray Textured
- OWG Old World Gray

**FINISHES CUSTOM**

- WHT White Textured
- WH White
- CV Copper Vein
- WBK Weathered Black
- WBR Weathered Brown
- CD Cedar
- RT Rust
- OI Old Iron
- TT Two Tone
- CM Custom Match

**STERNBERG**  
LIGHTING

555 Lawrence Ave. Roselle, IL 60172 • 847-588-3400 • Fax 847-588-3440  
www.sternberglighting.com

Email: info@sternberglighting.com 1-11

# 4421 BASE OR YOKE MOUNT

## LINE VOLTAGE FOUNTAIN FIXTURE

### DESCRIPTION

The 4421 series is ideal for shallow pool installations. Designed for the 120V T-4 mini-can tungsten halogen (quartz) lamp, 500W Max. It is compact in size with an over all height of 8 3/8". The standard unit employs a medium-angle flood pattern reflector. The reflector is chrome plated spun copper.

### FEATURES & SPECIFICATIONS

**FIXTURE HOUSING & ROCK GUARD:** Heavy wall cast bronze construction. Natural bronze finish.

**LAMP:** 500W Max., T-4 mini-can.

**SOCKET:** Mini-can base type with 200°C insulated leads.

**DISTRIBUTION:** Reflector is parabolic chrome plated spun copper.

**LENS:** 7 9/16" diameter convex clear tempered heat resistant glass.

**MOUNTING: ALB** custom base enables underwater lighting fixtures to be mounted 2" below the water level regardless of the depth of the fountain. This is achieved by securing the base in 3 places and cutting a length of 3/4" red brass pipe (threaded on one end) to the desired size. The locking mechanism allows you to remove the fixture for re-lamping without upsetting the fixture adjustment.

**RISER: RSR6** if no length specified and ALB is chosen. 4"-24" Riser stem, available in 2" increments.

**GASKET:** Single-piece molded U-shaped silicone.

**CORD:** Minimum of 10' of #16-3ST submersible rated cord. Cord entrance is brass, water-tight seal and epoxy encapsulated. **Cord length must be specified.**

**FACTORY LEAK TESTED:** Fixtures are tested at 10 PSI (0.70kg/cm<sup>2</sup>) internal pressure while totally submerged in water.

**LOW WATER CUT-OFF:** Temperature sensing low water cut-off standard.

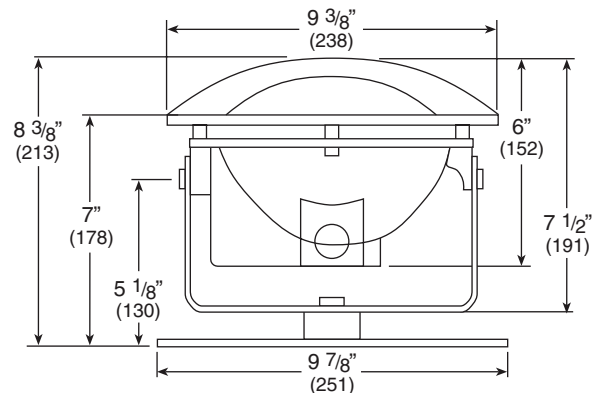
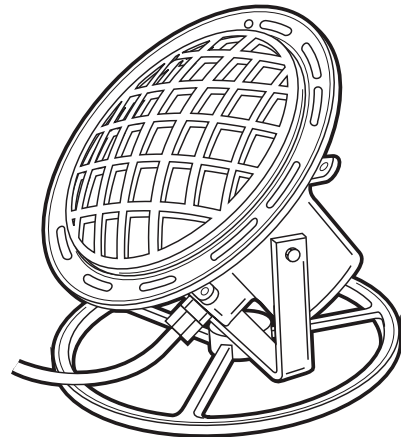
**FASTENERS:** Stainless steel.

**LISTING:** U.L., C.S.A.

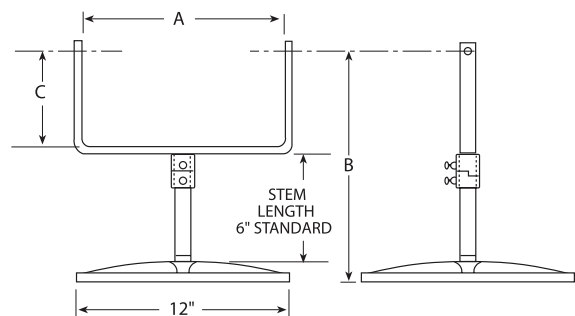
NOTE: HYDREL RESERVES THE RIGHT TO MODIFY SPECIFICATION WITHOUT NOTICE. Any dimension on this sheet is to be assumed as a reference dimension: "Used for information purposes only. It does not govern manufacturing or inspection requirements." (ANSI Y14.5-1973)

TYPE	' L '	JOB NAME
------	-------	----------

PART NUMBER									
Model	Lamp Type	Voltage	Lens	Mounting	Mounting Access.	Cord	Lamp	Options	



### ALB DIMENSIONS



A INSIDE WIDTH	B STANDARD HEIGHT	C YOKE CLEARANCE	B MIN. (CUT STEM)
7 7/8	11	3 7/8	7

APPROVALS

# 4421 ORDERING INFORMATION

## 60 Hz Application

Choose the boldface catalog nomenclature that best suits your needs.

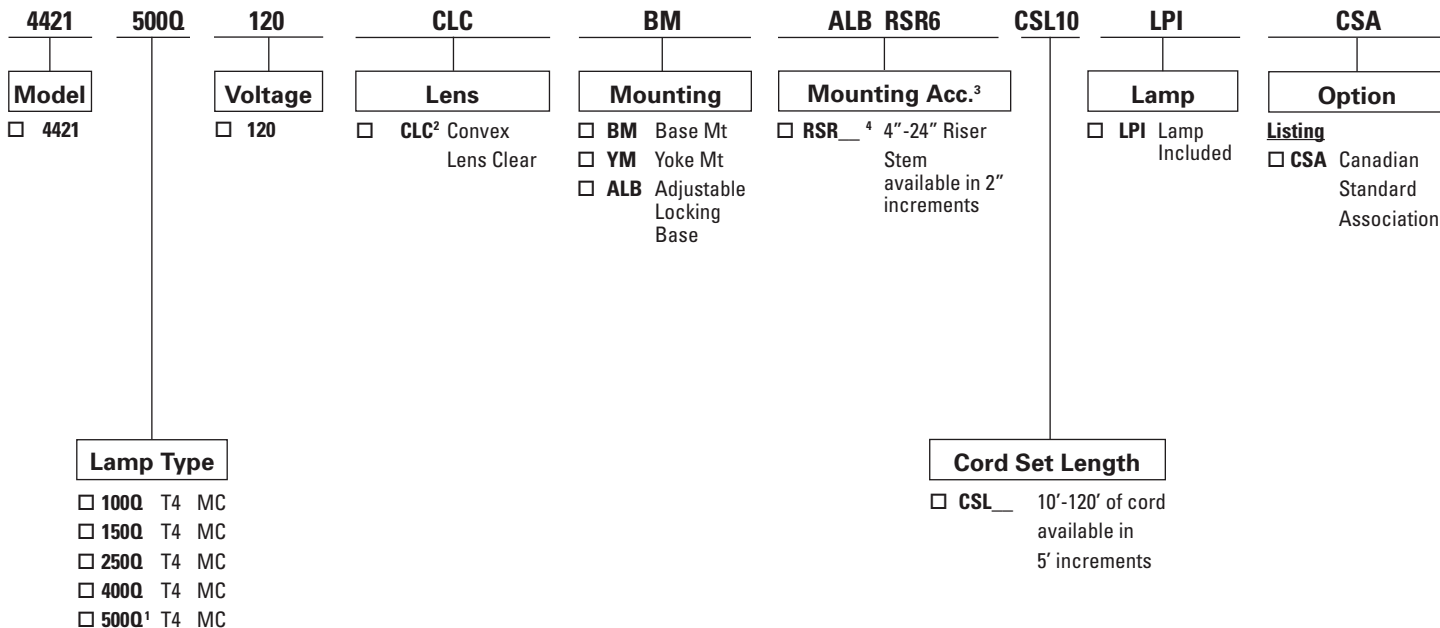
**PART NO.**

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**EXAMPLE:**



**Notes:**

- <sup>1</sup> 500Q will be used if no lamp is chosen.
- <sup>2</sup> CLC will be used if no lens is chosen.
- <sup>3</sup> Mounting Accessories are only available with BM.
- <sup>4</sup> RSR6 will be used if no riser length is specified and ALB is chosen.



# D-Series Size 1 LED Area Luminaire



Catalog Number

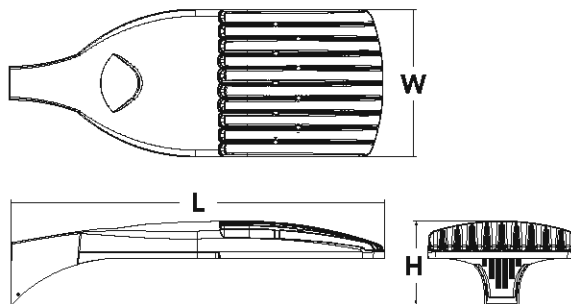
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

## Specifications

<b>EPA:</b>	0.8 ft <sup>2</sup> (0.07 m <sup>2</sup> )
<b>Length:</b>	33" (83.8 cm)
<b>Width:</b>	13" (33.0 cm)
<b>Height:</b>	7-1/2" (19.0 cm)
<b>Weight (max):</b>	27 lbs (12.2 kg)



## Introduction

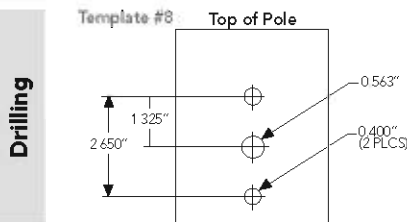
The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing 100 – 400W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

## Ordering Information

**EXAMPLE:** DSX1 LED 2 30B700/40K SR3 MVOLT SPA DDBXD

Series	Light Engines	Performance Package <sup>1</sup>	Distribution	Voltage	Mounting	Options	Finish (optional)
DSX1 LED	1 One engine (30 LEDs) 2 Two engines (60 LEDs)	<b>530 mA options:</b> 30B530/30K 3000K 30B530/40K 4000K 30B530/50K 5000K  <b>700 mA options:</b> 30B700/30K 3000K 30B700/40K 4000K 30B700/50K 5000K	SR2 TypeII SR3 TypeIII SR4 TypeIV SR5 TypeV FT Forward throw	MVOLT <sup>2</sup> 120 <sup>2</sup> 208 <sup>2</sup> 240 <sup>2</sup> 277 <sup>2</sup> 347 <sup>3</sup> 480 <sup>3</sup>	Shipped included SPA Square pole mounting RPA Round pole mounting WBA Wall bracket	Shipped installed PER NEMA twist-lock receptacle only (no controls) DMG 0-10V dimming driver (no controls) <sup>4</sup> DCR Dimmable and controllable via ROAM® (no controls) <sup>5</sup> HS House-side shield <sup>6</sup> SF Single fuse (120, 277, 347V) <sup>7</sup> DF Double fuse (208, 240, 480V) <sup>7</sup> WTB Utility terminal block TLS Tool-less entry trigger latch	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white



### Controls & Shields

DSS124N1.5TJJEU	Photo cell - SSL twist-lock (120-277V) <sup>8</sup>
REN277-NM1 U	ROAM® node (277V) <sup>8</sup>
SC U	Shorting cap <sup>8</sup>
DSX1 LED 1 HS U	House-side shield (for one light engine)
DSX1 LED 2 HS U	House-side shield (for two light engines)

For more control options, visit [DTL](#) and [ROAM](#) online.

DSX1 shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles, per the table below.

DM19AS	Single unit	DM29AS	2 at 90°
DM28AS	2 at 180°	DM39AS	3 at 90°
DM49AS	4 at 90°	DM32AS	3 at 120°*

**Example:** SSA 2D 4C DM19AS DDBXD

Visit Lithonia Lighting's [POLES CENTRAL](#) to see our wide selection of poles, accessories and educational tools.

### Tenon Mounting Slipfitter\*

Tenon O.D.	Single Head	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 180°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

\* For round pole mounting (RPA) only.

- ### NOTES
- Configured with 4000K (40K) provides the shortest lead times. Consult factory for 3000K (30K) and 5000K (50K) lead times.
  - MVOLT driver operates on any line voltage from 120-277V. Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options).
  - Not available with with single board, 530 mA product (130B530).
  - Not available with 347 or 480V.
  - Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Not available with 347 or 480V. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: [sales@roamservices.net](mailto:sales@roamservices.net).
  - Also available as a separate accessory; see Accessories information at left.
  - Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
  - Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item.





**D-Series - Size 1**

30 or 60 LEDs  
33"L x 13"W x 7.5"H  
28 lbs  
144W

**D-Series - Size 2**

120 LEDs  
40"L x 15"W x 7.5"H  
39 lbs  
290W



Family  
Comparison

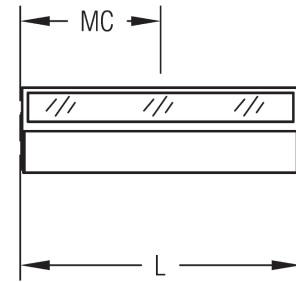
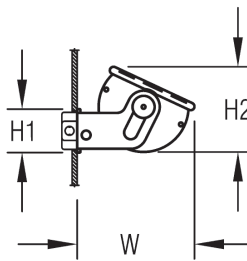


**DSX 2**  
Area

SPI specification sheets are generated on demand in order to ensure the most current information possible. This sheet is current as of 12/28/11 02:17:39 and is subject to change without notice.

**SPI**  
 Echo Round 9.0  
 Exterior Wall  
**EEW9501** Forward Throw

JOB NAME	TYPE 'C'
MODEL NO.	
LAMP	



Dimensions

W	L	MC	H1	H2
11.4 in (29 cm)	27.5 in (69.8 cm)	13.7 in (34.8 cm)	4.2 in (10.7 cm)	8.3 in (21.1 cm)

Description

Echo Round 9.0 is designed to address larger, high-ceiling spaces such as atriums, gymnasiums, libraries, natatoriums and open offices. Its vast lamping range and premium light control provides sufficient and visually uniform illumination to surfaces. Round's proportionate size and basic shape integrates seamlessly into a space.

Features

- Formed stainless steel yoke brackets equip the fixture with durable mounting components that will not rust or corrode.
- Standard thermoset polyester powder coat paint provides durable protection in a palette of color options. Custom colors available upon request.
- Extruded aluminum construction provides durable protection for internal components and is recyclable.
- Cast aluminum end caps protect internal components and are recyclable.
- Field adjustable housing locks into position, enabling precise fixture alignment for high-quality design performance.
- Tempered glass lens protects HID and tungsten halogen lamp engines.
- Premium 95% reflective aluminum is utilized in the highly-efficient and effective reflector design.

Weight

Consult Factory.

Contents
Features
Technical Notes
Ordering Information
Finishes

## EEW9501 Technical Notes

### Accessories

- Only one louver option can be specified per fixture.

### Construction

- Luminaires over 27" in length have a two-piece yoke assembly.

### Electrical

- Black weatherproof power cord with watertight fittings.
- HID versions have integral ballasts eliminating the need for remote mounting, simplifying installation.
- Thermally protected ballast limits operating temperature.
- Class "C" sound rated ballast.
- ETL listed to UL standards (US and Canada) for use in wet locations.

### Finish


- Housing and mounting components painted to match, unless otherwise specified.

### Mounting







- Steel cover fits over standard 4" octagonal junction box.

SPI specification sheets are generated on demand in order to ensure the most current information possible. This sheet is **current as of 12/28/11 02:17:39** and is subject to change without notice.

# EEW9501 Forward Throw

<b>Model Number/Style</b>	<b>Select Lamping</b>	 <b>Select Voltage</b>	<b>Select Lamp Options</b>
EEW9501 [FT]			

Not all options are available in all configurations, consult factory for details.

Lamping		Photometry		Voltage
<b>1M175PS</b>	1PSMH175/BT28/MOG/U	ITL62257		<b>120V</b> 120 Volt
<b>1M250PS</b>	1PSMH250/BT28/MOG	ITL62257		<b>277V</b> 277 Volt
<b>1M315PS</b>	1PSCMH315/T9/PGZ18			
<b>1M320PS</b>	1PSMH320/ED28/MOG			
<b>1M350PS</b>	1PSMH350/ED28/MOG	ITL62257		
<b>1M400PS</b>	1PSMH400/ED28/MOG	ITL62257		

Lamp Options	
<b>CS</b>	Cut-off Shield
<b>F</b>	Fusing

 Finish must be selected.

SPI specification sheets are generated on demand in order to ensure the most current information possible. This sheet is current as of 12/28/11 02:17:39 and is subject to change without notice.



# Exhibitor Series

TOKISTAR® Exhibitor Series is a wet-location festoon lighting system widely used in amusement parks, shopping centers, street decorations and promenades. Exhibitor fixtures may also be surface mounted to accent rooflines and other architectural features.

Light sources include solid-state LEDs and incandescent xenon lamps, enclosed within shatterproof polycarbonate globes. These globes are injection blow-molded for a seamless appearance and excellent clarity. Each globe includes two o-rings for a secure and weatherproof seal to the socket.



## LEDs

Tokistar LEDs operate at 24VAC and consume only 0.48 Watts. This makes them our most energy-efficient light source and dramatically increases the maximum run length of each fixture. With incredible life ratings, LEDs are ideally suited for continuous operation in commercial applications.

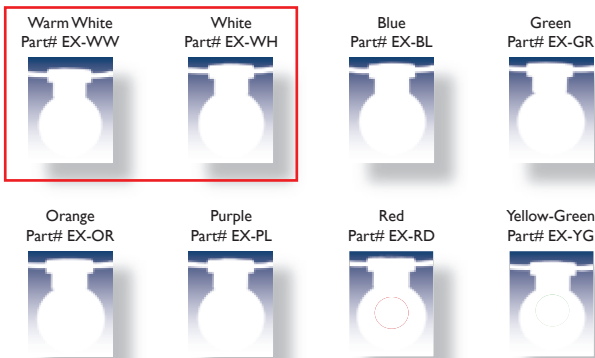


## Xenon Lamps

For a traditional incandescent look, our wedge-base lamps create crisp pin-points of light when specified with transparent globes. These xenon-gas lamps have the apparent brightness of much higher wattage standard incandescent lamps, and significantly longer life.



LEDs shown below with frosted globes.

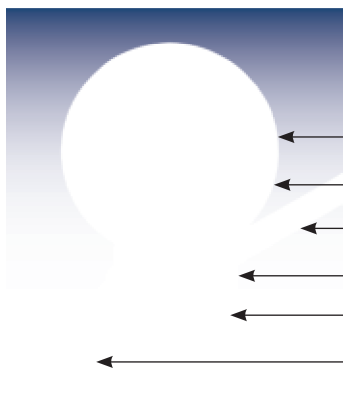


Lamp	Watts/Volts	Hours	Lumens	Color
EX-212	4.2 Watts / 12VAC	10,000	35	2550K
EX-124	7.5 Watts / 24VAC	10,000	65	2500K



In addition to clear and frosted globes, xenon lamps are available with green, amber, blue, red, and violet colored globes.

## Specifications



All plastic components comply with UL746C in respect to Ultraviolet Light and Water Absorption testing.

- ← **Light Sources** include LEDs and xenon lamps
- ← **Polycarbonate Globe** with flammability rating UL 94V-0
- ← **Flexible Conductors** #12 AWG stranded and plated wire
- ← **Two O-Rings** on each globe for weatherproof seal
- ← **Sockets** permanently fastened to cable with sealant
- ← **Insulation** is flexible PVC with flammability rating UL 94 HB



## EXBK - 12 - WW - F

## How to Specify

Three key considerations in specifying an Exhibitor Lighting System are:

### 1) Socket Spacing

Consider viewing distance and perspective when deciding on socket spacing. Wider spacings (18"-24") are the best choice for most festooning applications. Closer spacings (6"-12") are appropriate for applications at closer viewing range.

### 2) Light Source

LEDs create a softer lighting effect and are the most energy-efficient choice. Since LEDs consume so little energy, they can run much greater distances from a single feed point. Xenon lamps will produce brighter distinct points of light.

### 3) Globe Selection

Clear globes have excellent clarity and will emphasize the distinct points of incandescent or LED light. Frosted globes will diffuse light on their entire surface. Colored globes in combination with xenon lamps create vibrant color.

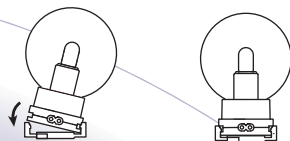
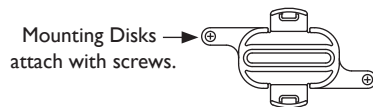
Cable / Socket Color		Socket Spacing		LED			Globe		
Code	Color	Code	Inches (mm)	Code	Color	Watts/Volts	Code	Globe Color	
<b>BK</b>	Black	<b>6</b>	6" (150 mm)	<b>WW</b>	Warm White	0.48 W / 24 VAC	<b>C</b>	Clear	
<b>WH</b>	White	<b>12</b>	12" (300 mm)	<b>WH</b>	White	0.48 W / 24 VAC	<b>F</b>	Frosted	
		<b>18</b>	18" (450 mm)	<b>BL</b>	Blue	0.48 W / 24 VAC	<b>G</b>	Green	
		<b>24</b>	24" (600 mm)	<b>GR</b>	Green	0.48 W / 24 VAC	<b>A</b>	Amber	
			(Custom Spacing is Available)	<b>OR</b>	Orange	0.48 W / 24 VAC	<b>B</b>	Blue	
				<b>PL</b>	Purple	0.48 W / 24 VAC	<b>R</b>	Red	
				<b>RD</b>	Red	0.48 W / 24 VAC	<b>V</b>	Violet	
				<b>YG</b>	Yellow-Green	0.48 W / 24 VAC	<b>M</b>	Multi-Colors	
				(Any Combination of Colors is Possible)					
<b>Xenon Lamp</b>									
		<b>112</b>		<b>2550K</b>		<b>4.2 W / 12VAC</b>			
		<b>124</b>		<b>2500K</b>		<b>7.5 W / 24VAC</b>			

## Mounting Options

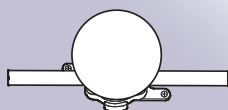
Exhibitor Series can be surface mounted to structures using our mounting disks or straps. For festoon applications, our wire rope adaptor securely holds each socket in place to 1/16" or 1/8" ø wire rope.

### Surface Mounting using Disks

Part# EX-MD-WH (White)  
Part# EX-MD-BK (Black)

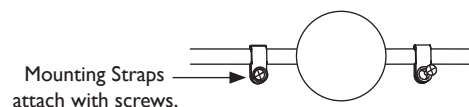


Exhibitor fixture snaps directly into the Mounting Disk and locks in place.



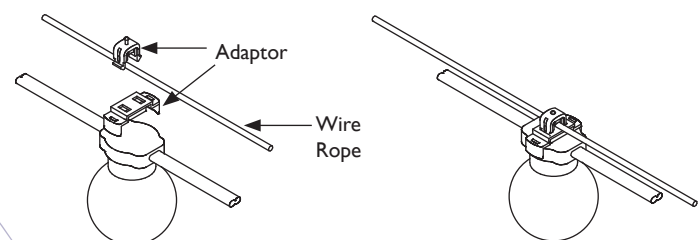
### Surface Mounting using Straps

Part# EX-MS-WH (White)  
Part# EX-MS-BK (Black)

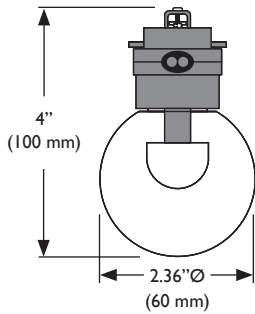


### Festoon Applications w/Wire Rope Adaptors

Part# EX-MDA-WH (White)  
Part# EX-MDA-BK (Black)



# Sizes and Lengths



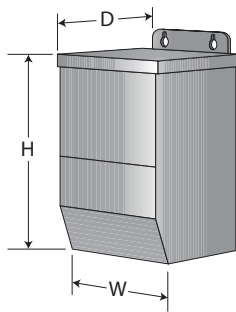
To minimize voltage drop and keep conductors safely within their ratings, do not exceed the maximum lengths shown for each independent fixture.

Socket Spacing	Maximum Run Lengths		
	LED	Xenon Lamps	
	.48 Watt / 24VAC	4.2 Watt / 12VAC	7.5 Watt / 24VAC
6" (150 mm)	250' (76 M)	24' (7 M)	32' (10 M)
12" (300 mm)	350' (106 M)	36' (11 M)	56' (17 M)
18" (450 mm)	426' (130 M)	45' (14 M)	72' (22 M)
24" (600 mm)	492' (150 M)	50' (15 M)	80' (24 M)

# Transformers

Tokistar transformers operate from a 120 VAC/60 Hz input and are fully dimmable. They are provided in a Nema 3R enclosure suitable for wet locations. The secondary outputs are protected by circuit breakers.

Transformers should be installed in an accessible location. Magnetic transformers generate heat and must be installed in locations where there is free air circulation.



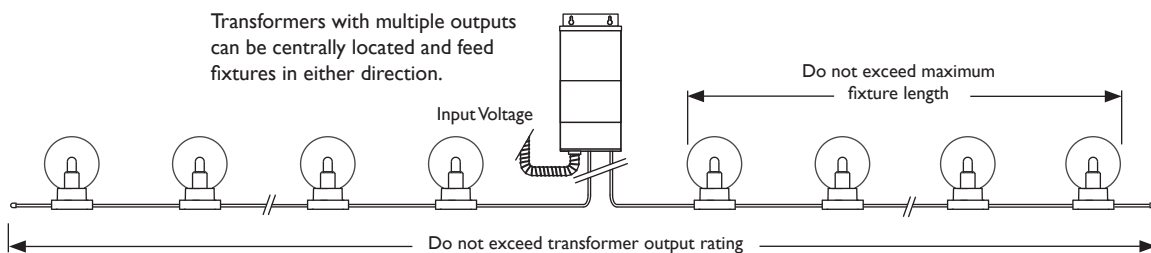
T12 Series Transformers					
Number	Outputs	D	H	W	Weight
T12-100	1 @ 100 Watt / 12VAC	3.0"	9.0"	3.0"	5 lbs
T12-150	1 @ 150 Watt / 12VAC	3.0"	9.0"	3.0"	5 lbs
T12-250	1 @ 250 Watt / 12VAC	3.5"	9.5"	4.5"	8 lbs
T12-300	1 @ 300 Watt / 12VAC	3.5"	9.5"	4.5"	8 lbs
T12-500	2 @ 250 Watt / 12VAC	4.5"	10.5"	4.5"	12 lbs
T12-600	2 @ 300 Watt / 12VAC	4.5"	10.5"	4.5"	15 lbs
T12-750	3 @ 250 Watt / 12VAC	4.5"	10.5"	4.5"	15 lbs
T12-1000	4 @ 250 Watt / 12VAC	5.0"	11.5"	7.0"	28 lbs
T12-1200	4 @ 300 Watt / 12VAC	5.0"	11.5"	7.0"	28 lbs

T24 Series Transformers					
Number	Outputs	D	H	W	Weight
T24-100	1 @ 100 Watt / 24 VAC	3.0"	9.0"	3.0"	5 lbs
T24-150	1 @ 150 Watt / 24 VAC	3.0"	9.0"	3.0"	5 lbs
T24-250	1 @ 250 Watt / 24 VAC	3.5"	9.5"	4.5"	8 lbs
T24-300	1 @ 300 Watt / 24 VAC	3.5"	9.5"	4.5"	8 lbs
T24-500	1 @ 500 Watt / 24 VAC	4.5"	10.5"	4.5"	12 lbs
T24-600	1 @ 600 Watt / 24 VAC	4.5"	10.5"	4.5"	15 lbs
T24-750	2 @ 375 Watt / 24 VAC	4.5"	10.5"	4.5"	15 lbs
T24-1000	2 @ 500 Watt / 24 VAC	5.0"	11.5"	7.0"	28 lbs
T24-1200	2 @ 600 Watt / 24 VAC	5.0"	11.5"	7.0"	28 lbs

Consult factory for transformers with input voltages of 230 or 277 VAC. Sizes and weights shown are approximate and subject to change without notice.

The recommended maximum distance between the fixture and the transformer varies based on the load of each fixture and the size of secondary wire feeding the fixture. Electrical engineers and contractors can calculate these distances.

Should you need guidance, consult the factory.



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