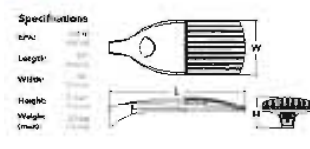




**D-Series Size 1**  
LED Area Luminaire

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

**Introduction**  
The newest design in the D-Series is a slim, yet powerful luminaire with a light output that is 20% greater than its predecessor. The D-Series is the perfect fit for the best in LED technology. High performance light output, long life luminaire. The outstanding performance results in less maintenance and energy costs. Lower power consumption allows for 50-60% overall luminaire cost savings and energy savings. And, it's the best choice for your next LED project.



EXAMPLE: DSX1 18'x2' 20000K 4000HS MVOL 3PH 0.000

ITEM	DESCRIPTION	QTY	UNIT	PRICE	TOTAL
1	DSX1 18'x2' 20000K 4000HS MVOL 3PH 0.000	1	EA	140.00	140.00



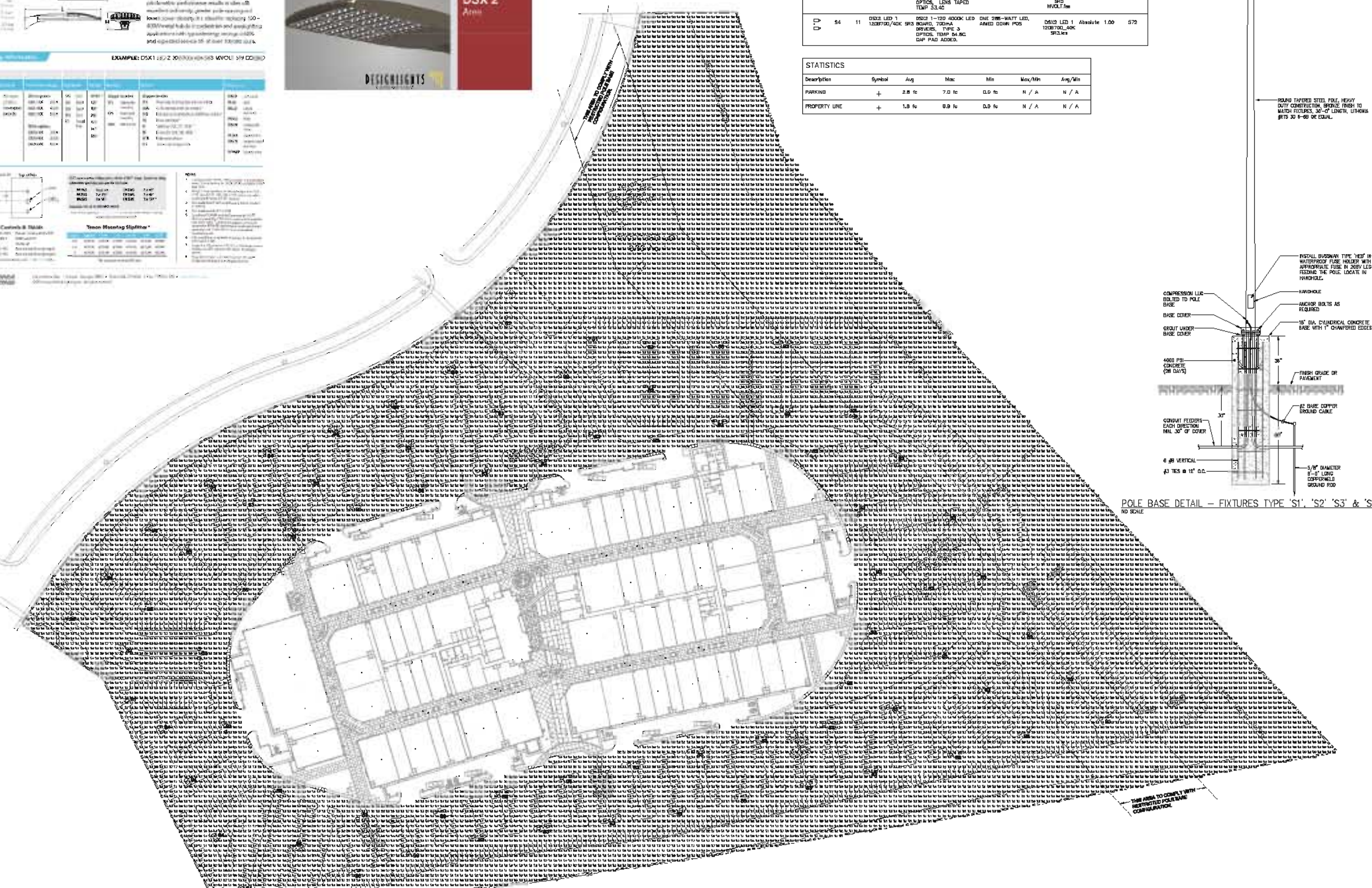
DSX1 18'x2' 20000K 4000HS MVOL 3PH 0.000

**D-Series - Size 1**  
Model: 401405  
33" x 12" W x 7.5" H  
23 lbs  
140W

**D-Series - Size 2**  
Model: 401410  
40" x 15" W x 7.5" H  
33 lbs  
240W

**DSX 2**  
Area

Family Comparison

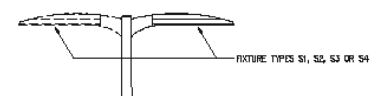


**LUMINAIRE SCHEDULE**

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
S1	DSX2 LED 1	2	DSX2 1-120 4000K LED ONE BOARD, 700mA DRIVERS, TYPE 3 OPTICS, TEMP 54.0C, CAP PAD ADDED.	DSX2 LED 1 Absolute 1.00	ONE 288-WATT LED, AMED DOWN POS.	DSX2 LED 1 Absolute 1.00	298		
S2	DSX2 LED 1	4	DSX2 1-120 4000K LED ONE BOARD, 700mA DRIVERS, HOUSE SIDE OPTICS, TEMP 55.0C.	DSX2 LED 1 Absolute 1.00	ONE 288-WATT LED, AMED DOWN POS.	DSX2 LED 1 Absolute 1.00	571.0		
S3	DSX2 LED 1	80	DSX2 1-120 4000K LED ONE BOARD, 700mA DRIVERS, TYPE 5 OPTICS, LENS TAPED TEMP 53.0C.	DSX2 LED 1 Absolute 1.00	ONE 288-WATT LED, AMED DOWN POS.	DSX2 LED 1 Absolute 1.00	581.8		
S4	DSX2 LED 1	11	DSX2 1-120 4000K LED ONE BOARD, 700mA DRIVERS, TYPE 3 OPTICS, TEMP 54.0C, CAP PAD ADDED.	DSX2 LED 1 Absolute 1.00	ONE 288-WATT LED, AMED DOWN POS.	DSX2 LED 1 Absolute 1.00	579		

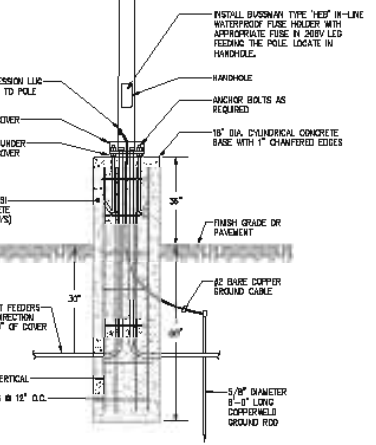
**STATISTICS**

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



FIXTURE TYPES S1, S2, S3 OR S4

ROUND TAPERED STEEL POLE, HEAVY DUTY CONSTRUCTION, FINISH TO MATCH FIXTURES, 30" OF LENGTH, UNLESS NOTED OTHERWISE.



POLE BASE DETAIL - FIXTURES TYPE 'S1', 'S2', 'S3' & 'S4'

150 Madison Ave  
Tomball, TX 77375  
41.944.2405 fax  
41.944.2400 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**

NOTE:  
1. ALL OVERHEAD CONDUIT, PIPING, DUCTWORK, ETC. SHALL BE 2'-0" MIN. CLEARANCE COORDINATE WITH ALL OTHER CONTRACTORS TO MAINTAIN CLEAR SPACE BELOW.  
2. REFER TO ARCHITECTURAL DETAILS FOR ALL STEEL FLOOR PENETRATIONS.

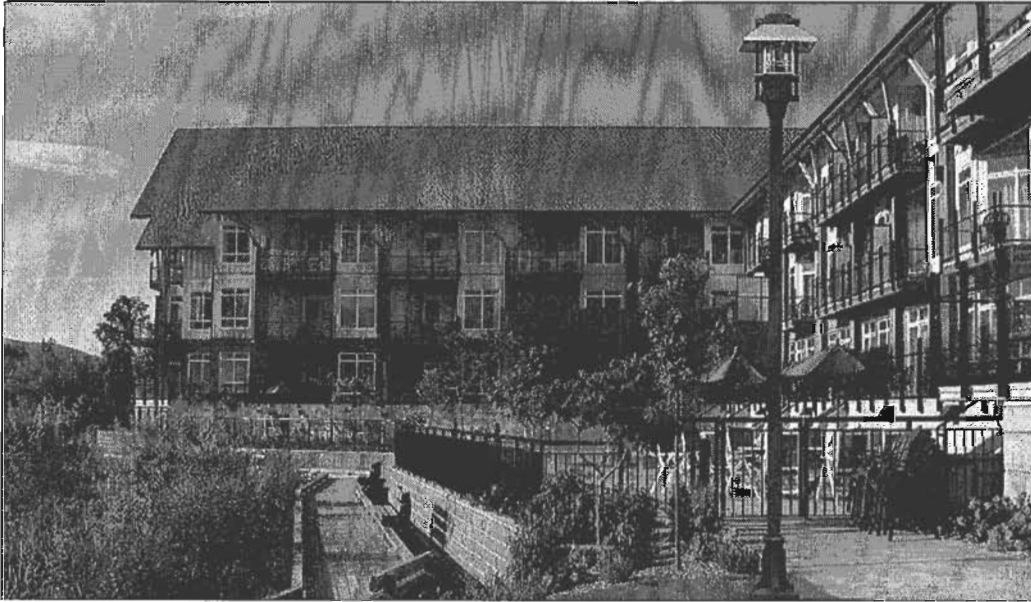


**PARKING LOT LIGHTING CALCULATIONS**  
SCALE: 1" = 80'-0"

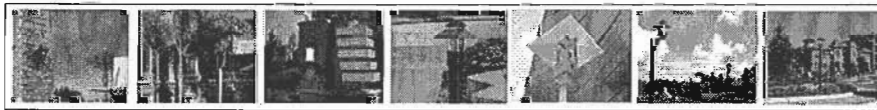
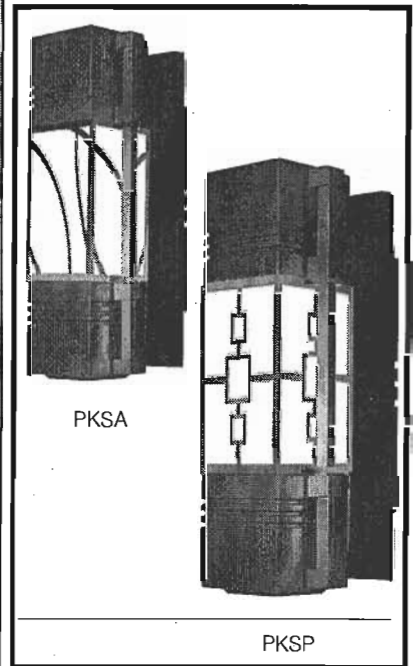
# PKSA/PKSP

## Parkway Square™ – Sconce

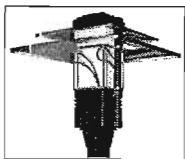
1 FIXTURE	2 LAMP/BALLAST	3 DECORATIVE SCREEN	4 OPTIONS			5 COLOR
			GENERAL	HOOD	SCREEN	



PAKWAY SQUARE  
SCONCE



PARKWAY SQUARE FAMILY OF FIXTURES



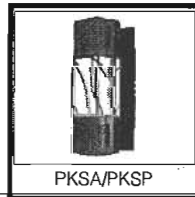
PKWM



PKWS



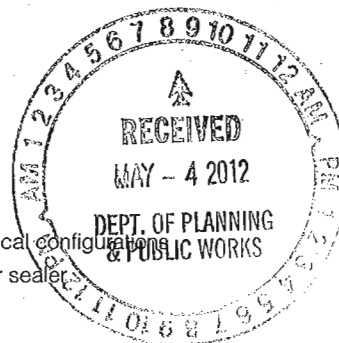
PKWB



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



16555 East Gale Ave.  
City of Industry | CA 91745  
P 626.968.5666 | F 626.369.2695  
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# PKSA/PKSP

Parkway Square™ – Sconce

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

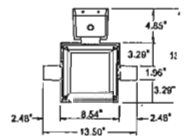
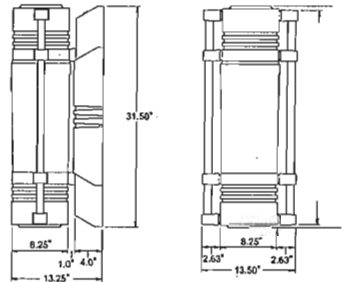
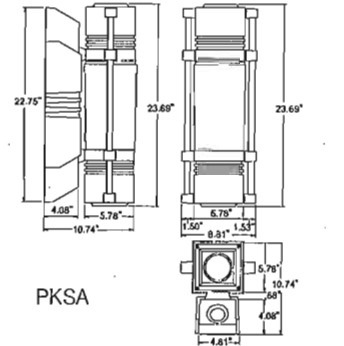
### PEDESTRIAN (MEDIUM) SCALE

<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®.



### JOB INFORMATION

TYPE \_\_\_\_\_

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

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

CUSTOMER \_\_\_\_\_

DATE \_\_\_\_\_

Consult factory for any custom/  
modified products

APPROVALS



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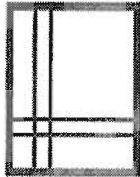
1 FIXTURE	2 LAMP/BALLAST	3 DECORATIVE SCREEN	4 OPTIONS			5 COLOR
			GENERAL	HOOD	SCREEN	

### 5. DECORATIVE SCREENS (OPTIONAL)

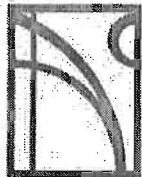
*Painted to match fixture. Also available in stainless steel or copper. Not available with horizontal or LED optics.*



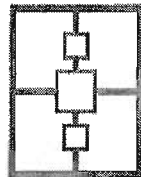
**DSIN**  
Infinity design  
painted to  
match fixture.



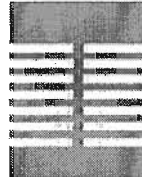
**DSOF**  
Offset design  
painted to  
match fixture.



**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
<i>Consult factory for any custom/modified products</i>
APPROVALS



1	2	3	4			5
FIXTURE	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.

### JOB INFORMATION

TYPE \_\_\_\_\_

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

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

CUSTOMER \_\_\_\_\_

DATE \_\_\_\_\_

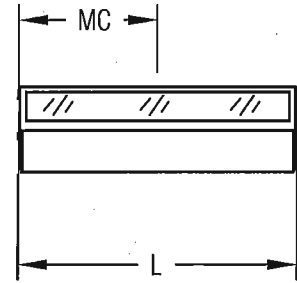
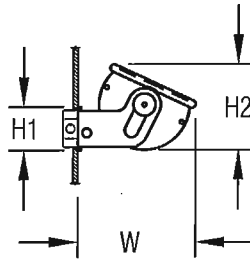
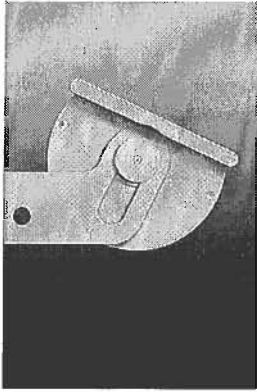
*Consult factory for any custom/modified products*

APPROVALS



**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

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 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

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.

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

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

Lamping	Photometry	Voltage
1M175PS	ITL62257	120V 120 Volt
1M250PS	ITL62257	277V 277 Volt
1M315PS		
1M320PS		
1M350PS	ITL62257	
1M400PS	ITL62257	

Lamp Options	
CS	Cut-off Shield
F	Fusing

 Finish must be selected.



**EEW9501** Forward Throw

The finishes shown here are representations of the standard color selections available for SPI Lighting products. There may be variations in color, texture and finish between the samples shown here and the actual product finishes. If a more accurate paint color or metal finish is required, please contact us at [finishes@spilighting.com](mailto:finishes@spilighting.com).

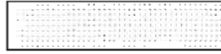
**Painted Aluminum**



**PT01<sup>2</sup>** SuperWhite



**PT02<sup>1</sup>** White



**PT03<sup>1</sup>** Morning Light



**PT04<sup>1</sup>** Warm White



**PT05<sup>1</sup>** Pully



**PT06<sup>1</sup>** Warm Beige



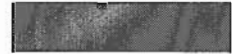
**PT07<sup>1</sup>** Light Taupe



**PT08<sup>1</sup>** Medium Taupe



**PT09<sup>1</sup>** Medium Gray



**PT10<sup>1</sup>** Dark Gray



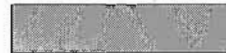
**PT11<sup>1</sup>** Black



**PT12<sup>1</sup>** Dark Chocolate



**PT13<sup>1</sup>** Warm Gray



**PT14<sup>1</sup>** Light Gray



**PT15<sup>1</sup>** Sage



**PT16<sup>1</sup>** Spruce



**PT17<sup>1</sup>** Red



**PT18<sup>1</sup>** Deep Red



**PT19<sup>1</sup>** Blue



**PT20<sup>1</sup>** Dark Green



**PT21<sup>4</sup>** Pearl White



**PT22<sup>4</sup>** Platinum



**PT27<sup>4</sup>** Deep Copper



**PT28<sup>4</sup>** Dark Stainless



**PT29<sup>4</sup>** Red Brass



**PT31<sup>4</sup>** Medium Bronze



**PT32<sup>4</sup>** Dark Bronze



**PT33<sup>1</sup>** Dark Blue



**PT40<sup>1</sup>** Yellow



**PT41<sup>1</sup>** Orange



**PT42<sup>1</sup>** Sky Blue



**PT43<sup>1</sup>** Teal



**PT44<sup>1</sup>** Green



**PT45<sup>1</sup>** Purple



**PT46<sup>3</sup>** Aluminum



**PT47<sup>3</sup>** Deep Red Brass



**PT48<sup>3</sup>** Brass



**PT49<sup>3</sup>** Bronze

<sup>1</sup>Textured <sup>2</sup>Glossy <sup>3</sup>Metallic Textured <sup>4</sup>Metallic Glossy

Custom colors available, consult factory for details.

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.

## 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.

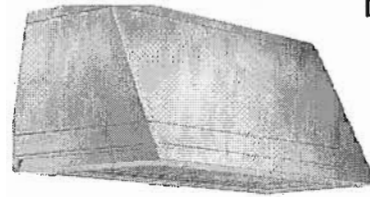
Finish: Standard finish is textured dark bronze (DDBT) corrosion-resistant polyester powder finish. Additional architectural colors are available. Striping is also available.

**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	'D'



Decorative Wall-Mounted Lighting

# WST

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

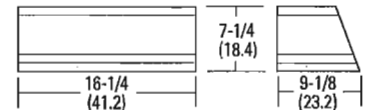
### Specifications

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 FT TB LPI**

WST Series	Wattage/source	MD Distribution	Voltage	Ballast	Mounting	Options
WST	High pressure sodium	FT Forward throw	120	(blank) Magnetic ballast	(blank) Surface mount	Shipped installed in fixture
	Metal halide 50M	MD Medium throw (coated lamp std.)	208 <sup>3</sup>	CWI Constant wattage isolated	Shipped separately <sup>7</sup>	SF Single fuse (120, 277, 347V) <sup>9</sup>
	35S <sup>1</sup> 70M	WT Wide throw	240 <sup>3</sup>	Pulse Start 175W/150W/100W/70W/50W	BBW Surface mount back box	DF Double fuse (208, 240V) <sup>8</sup>
	50S 100M		277		UTS Uptilt 5 degrees	DC12 Emergency circuit 12-volt (35W lamp included) <sup>9</sup>
	70S 150M		347	SCWA Super CSA pulse start ballast <sup>6</sup>		2DC12 Emergency circuit 12-volt (two 35W lamps included) <sup>9</sup>
	100S 175M <sup>2</sup>		TB <sup>4</sup>			DC2012 Emergency circuit 12-volt (20W lamp included) <sup>9</sup>
150S		23050HZ <sup>5</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 restrrike system <sup>11, 15</sup>	Shipped separately <sup>14</sup>	(blank) Dark bronze, textured
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
DFL	Diffusing lens	CSA CSA certified	VG Vandal guard	DNAT Natural aluminum, textured
EC	Emergency circuit <sup>11, 12</sup>	NOM NOM certified <sup>5</sup>		DWHG White, textured
IBS	Internal backlight shield <sup>13</sup>	INTL International shipment for 175M		DBLB Black, textured
PE	Photoelectric cell-button type (n/a TB) <sup>14</sup>			CR Corrosion-resistance
				CRT Non-stick protective coating <sup>17</sup>

### Notes

- 1 120V.
- 2 These wattages do not comply with California Title 20 regulations.
- 3 Must specify CWI for use in Canada.
- 4 Optional multi-tap ballast (120, 208, 240, 277V); (120, 277, 347V in Canada; ships as 120W/347V).
- 5 Consult factory for available wattages.
- 6 Available with 150M or 150MHC only.
- 7 May be ordered as an accessory with prefix "WS". Must specify finish.
- 8 Not available with DC options.
- 9 Not available with ELED, SF, DF, EC or QRS.
- 10 Maximum wattage 100M, 70S. Must specify 120V or 277V. Not available with QRS, EC or DC.
- 11 Maximum allowable wattage lamp included.
- 12 Not available with ELED, QRS or DCs.

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

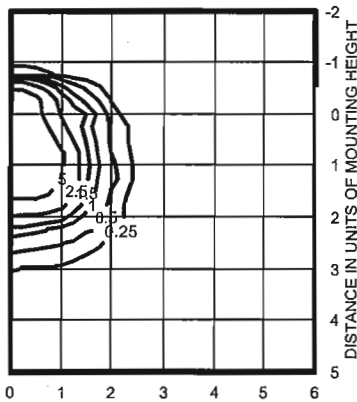


Consistent with LEED® goals & Green Globes™ criteria for light pollution reduction

# WST Metal Halide, High Pressure Sodium Wall Mounted

## WST 150MHC FT LTL11069P

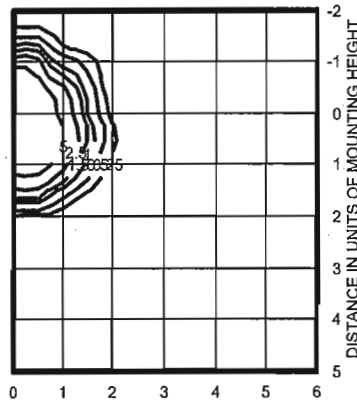
ISOILLUMINANCE PLOT (Footcandle)



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

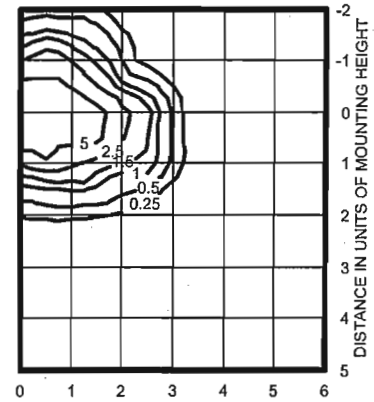
ISOILLUMINANCE PLOT (Footcandle)



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 SEOW 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'



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)

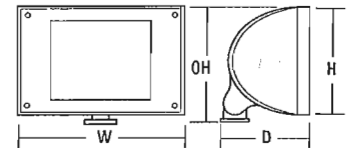
All dimensions are inches (centimeters) unless otherwise indicated.

\*Weight as configured in example below.

**AERIS™**  
 Architectural Floodlighting

**ASF1**

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



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

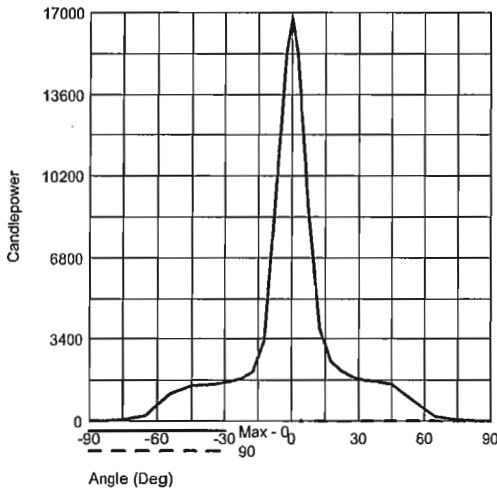
### Notes

- 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 for additional color options.
- Must be specified. L/LP not available with MHC.

# ASF1 Metal Halide, High Pressure Sodium Architectural Flood

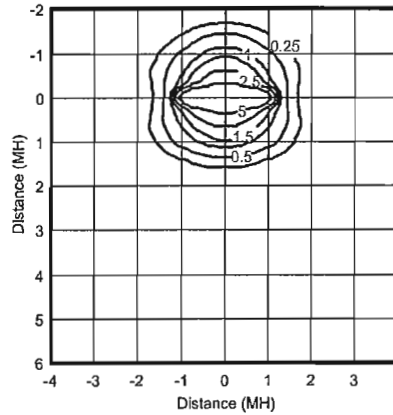
ASF1 150M HSP

TEST NO. LTL 14889P  
Cartesian Plot



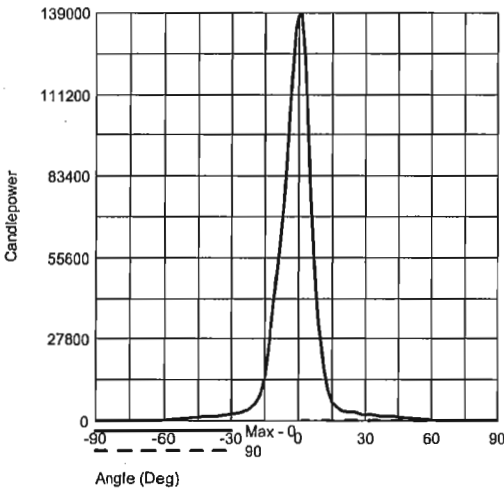
ISOILLUMINANCE PLOT (FC)

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



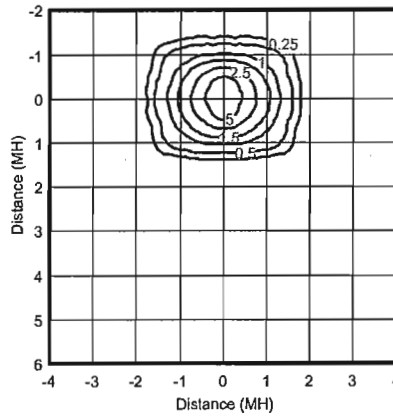
ASF1 150M NSP

TEST NO. LTL 148256P  
Cartesian Plot



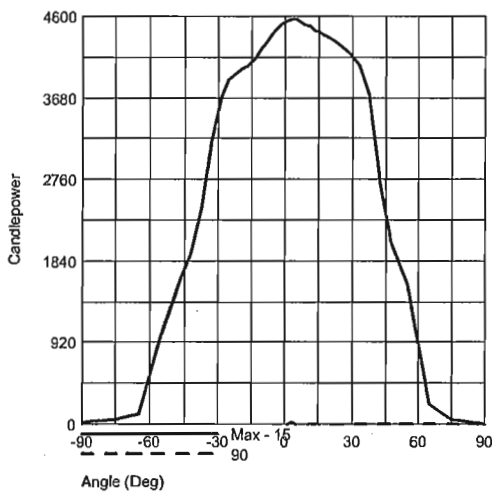
ISOILLUMINANCE PLOT (FC)

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



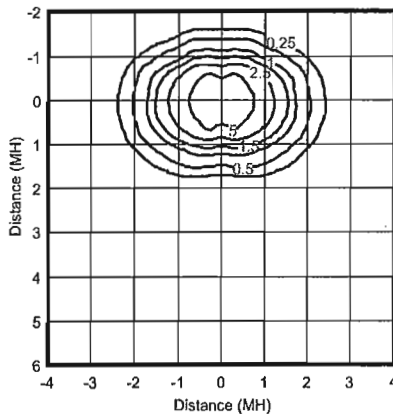
ASF1 150M WDF

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.

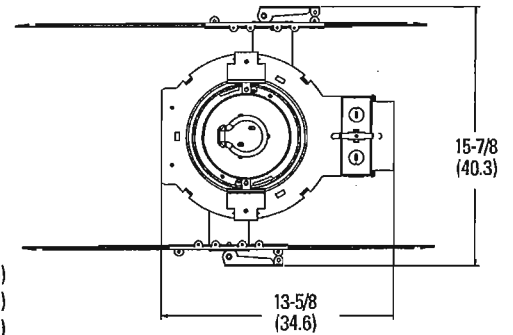
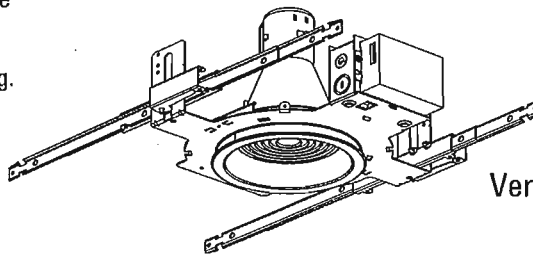
Type Catalog number

'F'

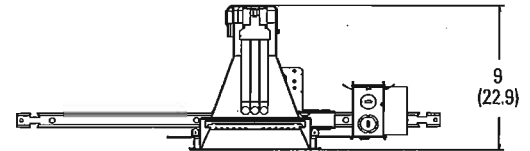
## Compact Fluorescent Downlights

# 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°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>FOL</b> Flat opal lens	<b>ADEZ<sup>4</sup></b> Advance Mark X <sup>™</sup> 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.

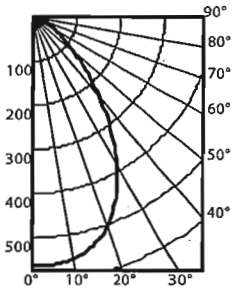
## Accessories

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

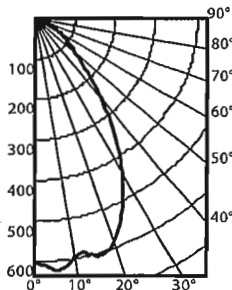
## LGfV 32TRT 6RW T73, 32TRT lamp, 1.1 s/mh, 2400 rated lumens, Test no. LTL14208



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

Mount height	50% beam angle		10% beam angle	
	56.1°		91.2°	
	Initial fc at beam center	Beam diameter	fc at beam edge	Beam diameter
8	18.6	5.9	9.3	11.2
10	10.0	8.0	5.0	15.3
12	6.2	10.1	3.1	19.4
14	4.3	12.3	2.1	23.5
16	3.1	14.4	1.5	27.6

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

Mount height	50% beam angle		10% beam angle	
	58.1°		91.3°	
	Initial fc at beam center	Beam diameter	fc at beam edge	Beam diameter
8	20.0	6.1	10.0	11.3
10	10.7	8.3	5.4	15.3
12	6.7	10.6	3.3	19.4
14	4.6	12.8	2.3	23.5
16	3.3	15.0	1.7	27.6

NOTES:  
 1. For electrical characteristics consult Technical Bulletins tab.  
 2. 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

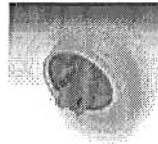
# Exhibitor Series

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.

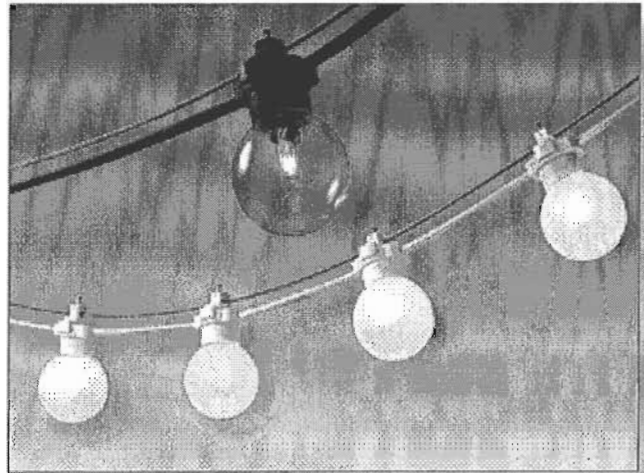
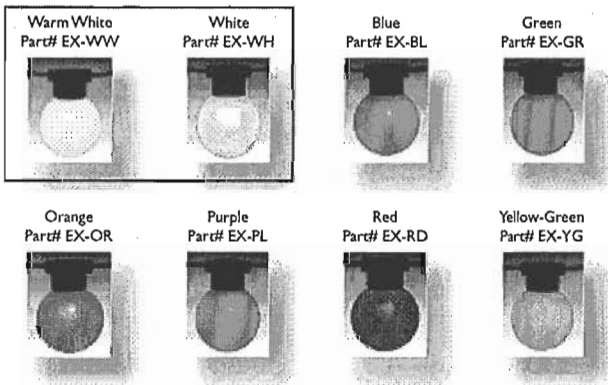
Light sources include solid-state LEDs and incandescent xenon lamps, enclosed within shatterproof polycarbonate globes. These globes are injection blow-molded for a seamless appearance and excellent clarity. Each globe includes two o-rings for a secure and weatherproof seal to the socket.

## 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.



LEDs shown below with frosted globes.

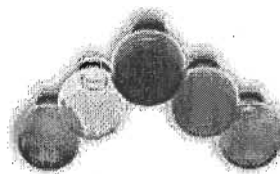


## Xenon Lamps

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.

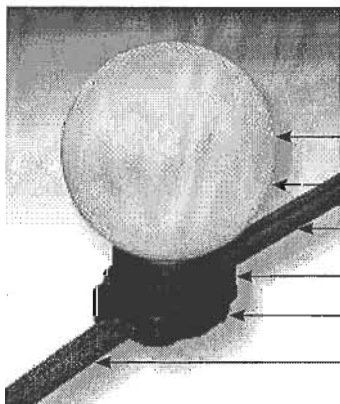


Lamp	Watts/Volts	Hours	Lumens	Color
EX-212	4.2 Watts / 12VAC	10,000	35	2550K
EX-124	7.5 Watts / 24VAC	10,000	65	2500K



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.

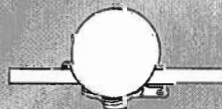
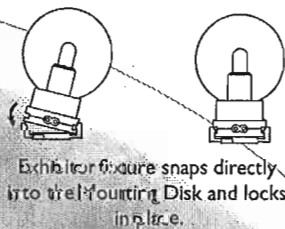
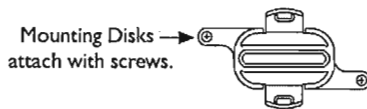
Cable / Socket Color		Socket Spacing		LED			Globe	
Code	Color	Code	Inches (mm)	Code	Color	Watts/Volts	Code	Globe Color
BK	Black	6	6" (150 mm)	WW	Warm White	0.48 W / 24 VAC	C	Clear
WH	White	12	12" (300 mm)	WH	White	0.48 W / 24 VAC	F	Frosted
		18	18" (450 mm)	BL	Blue	0.48 W / 24 VAC	G	Green
		24	24" (600 mm)	GR	Green	0.48 W / 24 VAC	A	Amber
		(Custom Spacing is Available)		OR	Orange	0.48 W / 24 VAC	B	Blue
				PL	Purple	0.48 W / 24 VAC	R	Red
				RD	Red	0.48 W / 24 VAC	V	Violet
				YG	Yellow-Green	0.48 W / 24 VAC	M	Multi-Colors
				(Any Combination of Colors is Possible)				
<b>Xenon Lamp</b>								
		212	2550K	4.2 W / 12 VAC				
		124	2500K	7.5 W / 24 VAC				

## 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" wire rope.

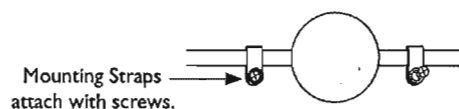
#### Surface Mounting using Disks

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



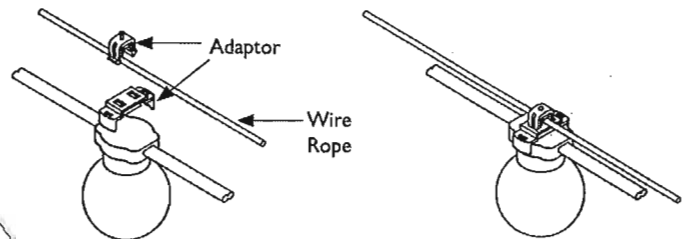
#### Surface Mounting using Straps

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

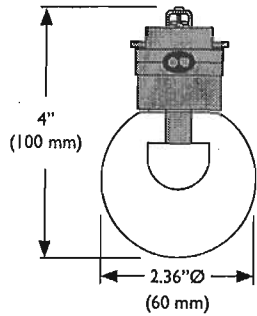


#### Festoon Applications w/Wire Rope Adaptors

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



# Sizes and Lengths



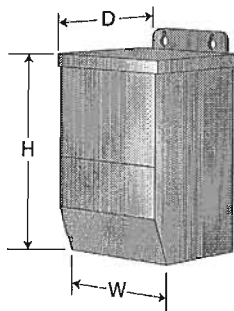
To minimize voltage drop and keep conductors safely within their ratings, do not exceed the maximum lengths shown for each independent fixture.

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.



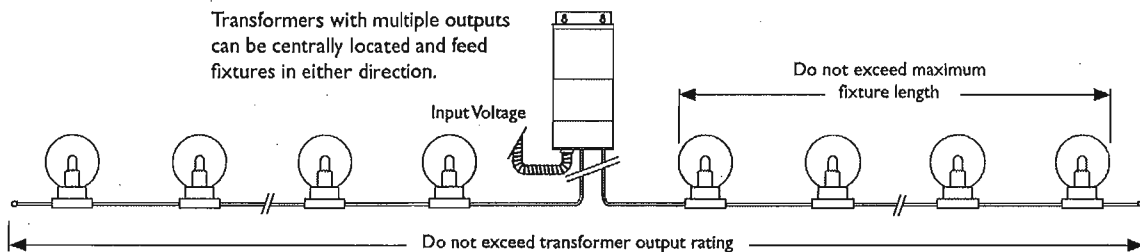
T12 Series Transformers					
Number	Outputs	D	H	W	Weight
T12-100	1 @ 100 Watt / 12 VAC	3.0"	9.0"	3.0"	5 lbs
T12-150	1 @ 150 Watt / 12 VAC	3.0"	9.0"	3.0"	5 lbs
T12-250	1 @ 250 Watt / 12 VAC	3.5"	9.5"	4.5"	8 lbs
T12-300	1 @ 300 Watt / 12 VAC	3.5"	9.5"	4.5"	8 lbs
T12-500	2 @ 250 Watt / 12 VAC	4.5"	10.5"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

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

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.



## TOKISTAR® LIGHTING INC.

1015 E. Discovery Lane • Anaheim, CA 92801

Tel: 714.772.7005 • Fax: 714.772.7014 • Toll free in U.S.A.: 877.340.7633

E-mail: info@tokistar.com • Web site: www.tokistar.com

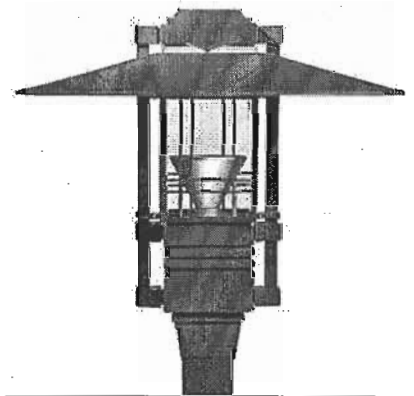
**PKWM**

**Parkway Square™ – Medium Housing Scale**

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



PAKWAY SQUARE  
MEDIUM SCALE HOUSING

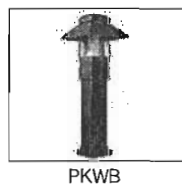
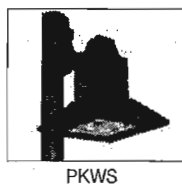
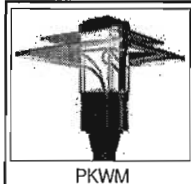


PKWM

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



PARKWAY SQUARE FAMILY OF FIXTURES



**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

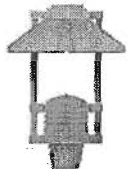

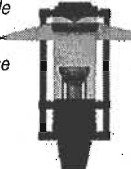



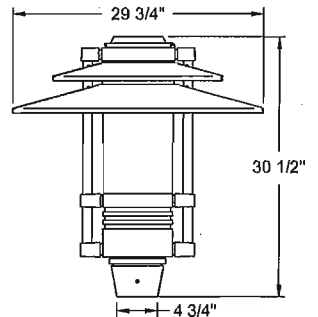
16555 East Gale Ave.  
City of Industry | CA 91745  
P 626.968.5666 | F 626.369.2695  
www.aal.net | Copyright © 2012

1 LUMINAIRE	2 HOOD	3 OPTICS	4 LAMP/BALLAST	5 DECORATIVE SCREEN	6 OPTIONS			7 COLOR	8 MOUNTING
					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 (Underside finished in high reflectance white)  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.
---	---	--	---



### 3. OPTICS

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

- |                             |   |
|-----------------------------|---|
| <input type="checkbox"/> T2 | Horizontal LED optical system. IES Type 2 distribution. |
| <input type="checkbox"/> T3 | Horizontal LED optical system. IES Type 3 distribution. |
| <input type="checkbox"/> T4 | Horizontal LED optical system. IES Type 4 distribution. |
| <input type="checkbox"/> T5 | Horizontal LED optical system. IES Type 5 distribution. |

VERTICAL LED OPTICAL SYSTEM

- |                              |                         |
|------------------------------|-------------------------|
| <input type="checkbox"/> VL3 | Asymmetric distribution |
| <input type="checkbox"/> VL5 | Symmetric distribution  |

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

- |                             |   |
|-----------------------------|---|
| <input type="checkbox"/> H2 | Horizontal optical system. IES Type 2 distribution. |
| <input type="checkbox"/> H3 | Horizontal optical system. IES Type 3 distribution. |
| <input type="checkbox"/> H4 | Horizontal optical system. IES Type 4 distribution. |
| <input type="checkbox"/> H5 | Horizontal optical system. IES Type 5 distribution. |

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

- |                              |  |
|------------------------------|--|
| <input type="checkbox"/> GLA | Vertical optical system. Frosted glass diffuser.     |
| <input type="checkbox"/> GR3 | Vertical optical system. IES Type 3 glass refractor. |
| <input type="checkbox"/> 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.

- |                             |  |
|-----------------------------|--|
| <input type="checkbox"/> -3 | Indirect reflector. IES Type 3 distribution. |
| <input type="checkbox"/> -5 | Indirect reflector. IES Type 5 distribution. |

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

- |                              |   |
|------------------------------|---|
| <input type="checkbox"/> 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.*

---

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

---

- 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.

---

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

---

- 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®.*

### JOB INFORMATION

TYPE

JOB NAME

LAMP (BY OTHERS)

CUSTOMER

DATE

*Consult factory for any custom/modified products*

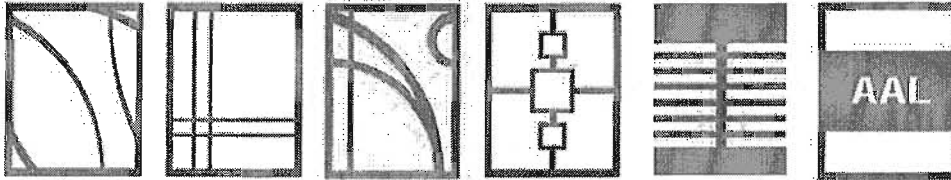
APPROVALS



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

### 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
<i>Consult factory for any custom/modified products</i>
APPROVALS



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

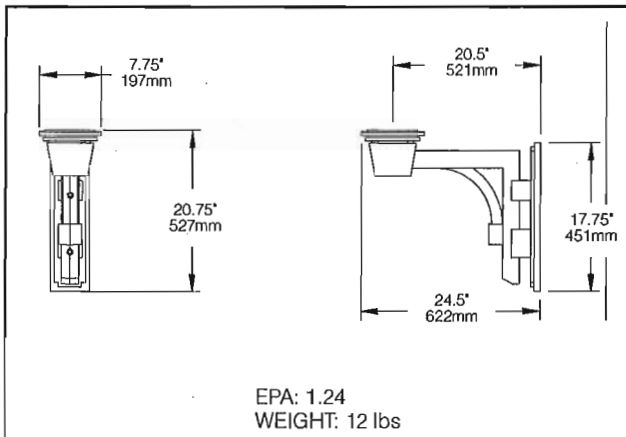
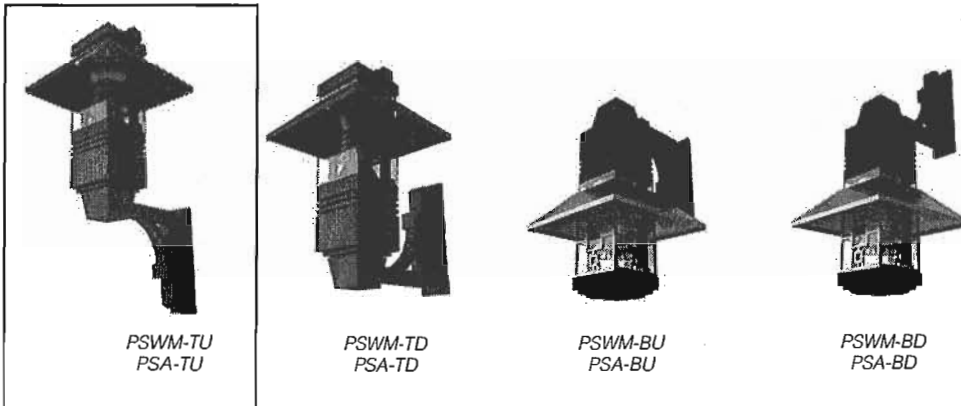
### 8. MOUNTING

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 hammetone 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.

### JOB INFORMATION

TYPE

JOB NAME

LAMP (BY OTHERS)

CUSTOMER

DATE

*Consult factory for any custom/modified products*

APPROVALS







An Acuity Brands Company

IP68  $\nabla$  4M  

# 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:

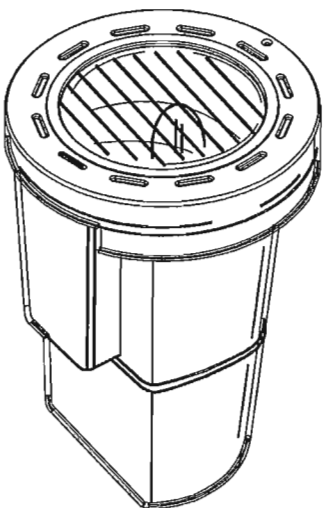
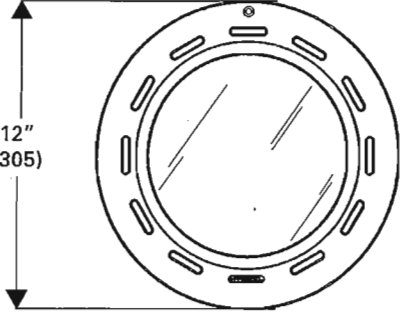
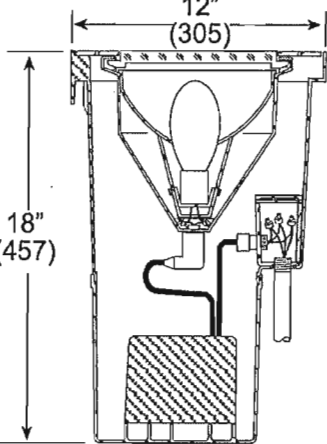
- SPOT** = 7° spread; **WFL** = 140° spread;
  - NFL** = 30° spread; **MFL** = 60° spread;
  - WW** = 10 to 1 Uniformity Ratio
- Reflectorized lamp distributions vary depending on manufacturer. Check Photometric Sheets.

**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	Lens
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"/> 9100 Round		<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 220 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> MVOLT*		<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</b> <sup>5</sup> Electronic Ballast				
<b>*Material</b>										
<input type="checkbox"/> A Aluminum <input type="checkbox"/> B Bronze										
<b>*LampType</b>			<b>*Distribution</b>		<b>*Conduit</b>		<b>*Lamp</b>			
<b>MH</b> <input type="checkbox"/> <b>35CMT6</b> T6, G-12 base <input type="checkbox"/> <b>70CMT6</b> <sup>1</sup> T6, G-12 base <input type="checkbox"/> <b>150CMT6</b> T6, G-12 base <input type="checkbox"/> <b>50M</b> <sup>9</sup> E17, med. base <input type="checkbox"/> <b>70M</b> <sup>7</sup> E17, med. base <input type="checkbox"/> <b>70CM</b> <sup>7</sup> 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</b> <sup>7</sup> PAR38, med. base <input type="checkbox"/> <b>P3870CM</b> <sup>7</sup> 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 <b>HPS</b> <input type="checkbox"/> <b>50S</b> <sup>9</sup> 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			<input type="checkbox"/> <b>SP</b> Spot <input type="checkbox"/> <b>MFL</b> <sup>1</sup> Medium Flood <input type="checkbox"/> <b>NFL</b> <sup>1</sup> Narrow Flood <input type="checkbox"/> <b>WFL</b> <sup>1</sup> Wide flood <input type="checkbox"/> <b>WWD</b> <sup>1</sup> Wall Wash Reflector, 5° spread lens <input type="checkbox"/> <b>FL</b> Flood (PAR lamps only)		<input type="checkbox"/> <b>34B</b> 3/4" NPT Bottom		<input type="checkbox"/> <b>LP</b> Lamp installed			
						<b>Accessories</b>		<b>Finish</b> <sup>9</sup>		
						<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</b> <sup>16</sup> Internal source shield <input type="checkbox"/> <b>WWL</b> <sup>1</sup> Wall Wash Louver <b>External</b> <input type="checkbox"/> <b>GS</b> <sup>2</sup> Glare Shield <input type="checkbox"/> <b>RG</b> <sup>2,3</sup> Rock Guard <input type="checkbox"/> <b>PC21</b> 35 cu. in. potting compound		<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 Lenses.
- <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:**

<b>9100</b>	<b>A</b>	<b>150CMT6</b>	<b>22050Hz</b>	<b>SP</b>	<b>FLC</b>	<b>16B</b>	<b>ISS</b>	<b>GEB</b>	<b>LP</b>	<b>IEC</b>
<b>*Model</b>			<b>*Voltage</b>			<b>*Conduit</b>			<b>*Lamp</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>			<b>*Distribution</b>			<b>Accessories</b>			<b>Finish<sup>7</sup></b>	
<input type="checkbox"/> A Aluminum <input type="checkbox"/> B Bronze			<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>*Lens</b>			<b>Options</b>		<b>Listing</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					<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
<b>HPS</b> <input type="checkbox"/> 50S E27 base <input type="checkbox"/> 70S E27 base <input type="checkbox"/> 100S E27 base										

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

**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> Finish is only valid with "A" door material.

**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 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 1/4" thick square heavy-duty acrylic for vandal resistance. Optional lenses are available. The internal anchor base shall be 6 1/2" square and made of heavy wall, 356 alloy cast aluminum and shall be vertically fastened to bollard housing. It shall have a 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.

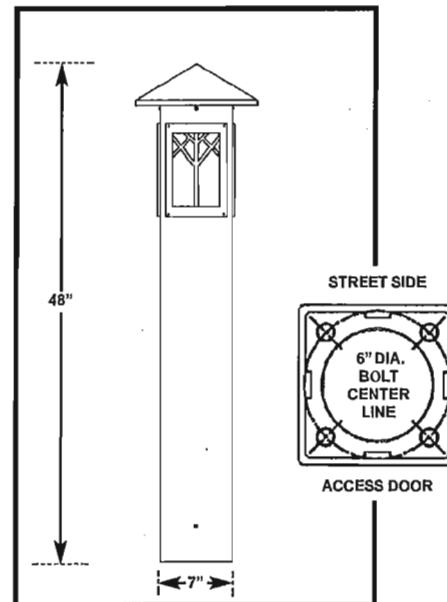
**FINISH**

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**

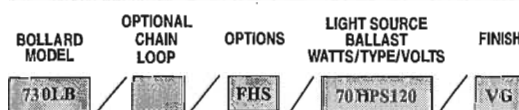
Four, hot-dipped galvanized "L" type anchor bolts shall be provided with the post for non-quick release bollard anchorage. Quick release anchorage requires no anchor bolts. Bollard will be provided with a grounding stud mounted on the base floor.

**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**



**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
- OWGT Old World Gray Textured
- OWG Old World Gray
- 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
- FHD Dual Fuse and Holder-208,240,480 Volt
- GFI Ground Fault Interrupter Duplex Outlet
- LAMPS Select from List



An Acuity Brands Company

IP68  $\nabla$  4M  

# 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.

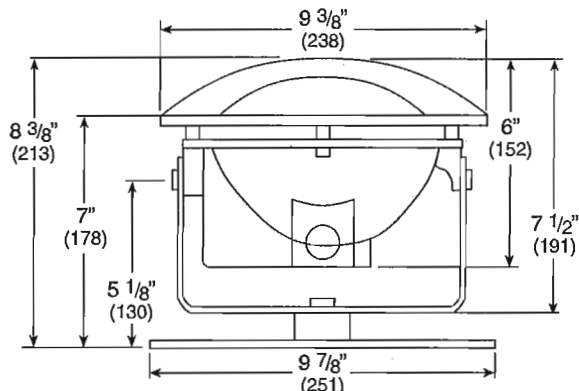
**FASTENERS:** Stainless steel.

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

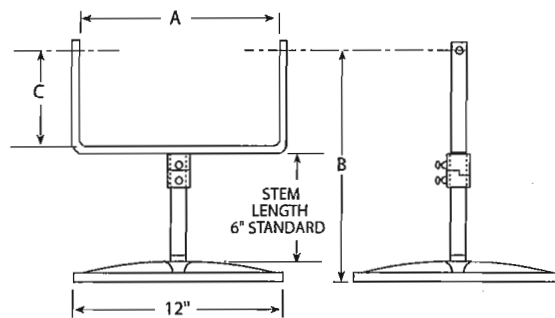
NOTE: HYDREL RESERVES THE RIGHT TO MODIFY SPECIFICATION WITHOUT NOTICE. Any dimension on this sheet is to be assumed as a reference dimension: "Used for information purposes only. It does not govern manufacturing or inspection requirements." (ANSI Y14.5-1973)

TYPE	JOB NAME
'L'	

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
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# 4421 ORDERING INFORMATION

60 Hz Application

Choose the boldface catalog nomenclature that best suits your needs.

**PART NO.**

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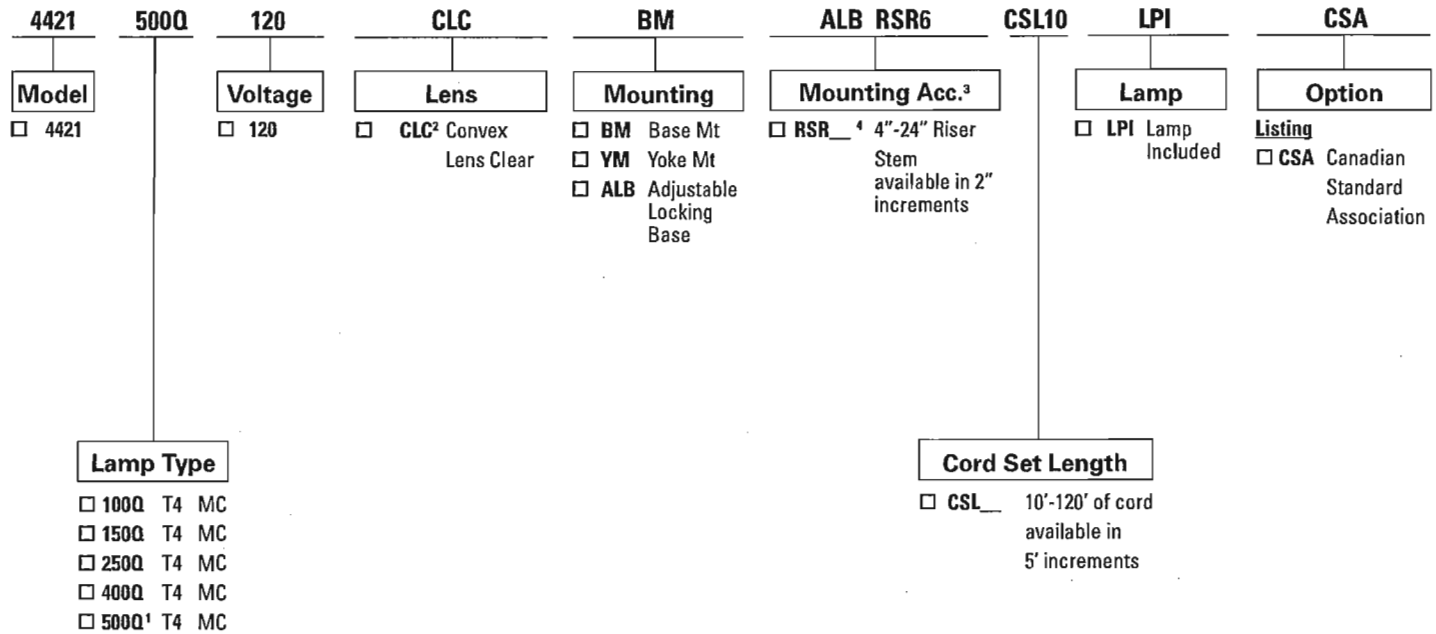


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**EXAMPLE:**



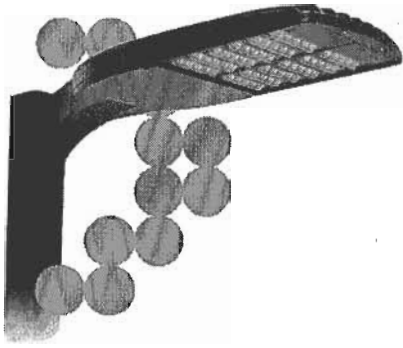
**Notes:**

<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



DESIGNLIGHTS  
CONSORTIUM



Catalog Number

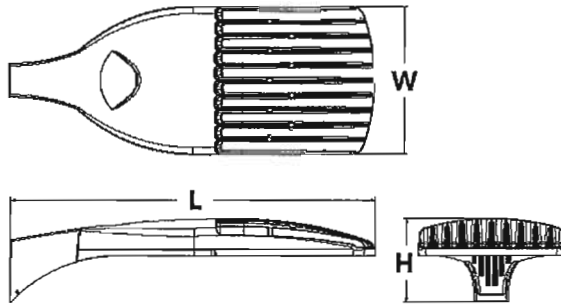
Notes

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

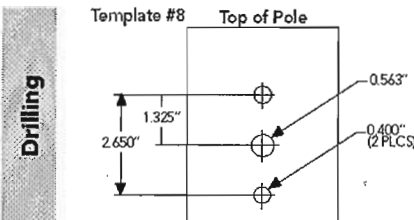
The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

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

DSX1 LED	Series	Light Engines	Performance Package <sup>1</sup>	Distribution	Voltage	Mounting	Options <sup>2</sup>	Finish <sup>3</sup>			
DSX1 LED	1	One engine (30 LEDs)	<b>530 mA options:</b> 30B530/30K 3000K 30B530/40K 4000K 30B530/50K 5000K	SR2	Type II	MVOLT <sup>2</sup>	<b>Shipped Included</b>	<b>Shipped Installed</b>	DDBXD		
				SR3	Type III	120 <sup>2</sup>			SPA	Square pole mounting	PER
DSX1 LED	2	Two engines (60 LEDs)	<b>700 mA options:</b> 30B700/30K 3000K 30B700/40K 4000K 30B700/50K 5000K	SR4	Type IV	208 <sup>2</sup>	RPA	Round pole mounting	DMG	0-10V dimming driver (no controls) <sup>4</sup>	DNAXD
				SR5	Type V	240 <sup>2</sup>			WBA	Wall bracket	DCR
				FT	Forward throw	277 <sup>2</sup>			HS	House-side shield <sup>6</sup>	DDBTXD
						347 <sup>3</sup>			SF	Single fuse (120, 277, 347V) <sup>7</sup>	DBLTXD
						480 <sup>3</sup>			DF	Double fuse (208, 240, 480V) <sup>7</sup>	DBLBXD
									WTB	Utility terminal block	DNATXD
									TLS	Tool-less entry trigger latch	DWHGXD



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

DM18AS	Single unit	DM28AS	2 at 90°
DM28AS	2 at 180°	DM38AS	3 at 90°
DM48AS	4 at 90°	DM32AS	3 at 120°*

Example: SSA 20 4C DM18AS DDBXD

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

## Controls & Shields

DSS124N 1.5 TUE U	Photocell - SSL twist-lock (120-277V) <sup>8</sup>
REN277-NM1 U	ROAM <sup>®</sup> 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 ETI and ROAM online.

## Tenon Mounting Slipfitter\*

Tenon ID	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
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<sup>®</sup> enabled luminaire with 0-10V dimming capability; PER option required. Not available with 347 or 480V. Additional hardware and services required for ROAM<sup>®</sup> deployment; must be purchased separately. Call 1-800-442-6745 or email: sales@roomservices.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.

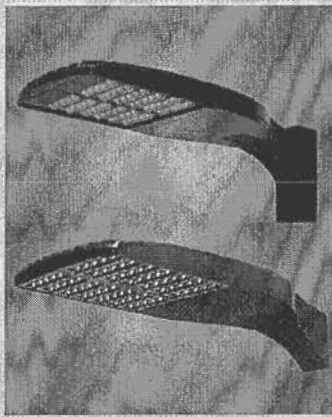


**D-Series - Size 1**

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**

**DESIGNLIGHTS**  
CONSORTIUM