

Low Pressure Sodium
Parking Areas
Roadway
Large Areas



Manufacturer photo
clearly shows that fixture
is fully shielded

Specifications



Certifications

The fixture shall be ETL and CETL listed for wet location.

Light Distribution

The luminaire shall meet the specified light distribution and footcandle levels with an internal optical system and horizontal lamping.

Assembly

Field installation to bracket or pole shall be accomplished without having to remove or disassemble any fixture component. Fixture shall be ETL listed "suitable for wet locations."

Housing

The fixture housing shall be constructed from heavy gauge aluminum sheet, internally welded and silicone sealed.

Door Frame Assembly

Extruded clear anodized aluminum door frame shall be furnished with fully tempered, thermal and shock resistant clear glass. White dacron open cell gasket prevents entry of moisture, dust, and insects. All external hardware to be stainless steel.

Ballast

Ballast shall be tray mounted and readily accessible, removable and insulated. The fixture is to be factory pre-wired, completely assembled and electronically tested prior to shipment. Quick disconnects are standard.

Optical Assembly

The optical assembly shall be of highly specular aluminum.


Finish

BK-BZ-WH-GR-GY-NA baked enamel standard, other colors available. Duranodic® anodized finishes shall be applied over brushed aluminum surfaces of a uniform fine grain. (Specify baked enamel or anodized finish color.)

Mounting Details

AL-09-B Bracket externally slip fits 2 3/8" O.D. tenons, and the AL-09-R Bracket externally slip fits 2 3/8" to 4" diameter tenons if required. Specify exact tenon dimension, and dimensions of top of round or square poles to ensure compatibility. AL-09-BC denotes aluminum arm finished with hardware for direct mounting to side of pole. Luminaire shall be pre-wired with high temperature wire, making disassembly for installation unnecessary.

PROJECT
FIXTURE TYPE
CATALOG#



Some luminaires use fluorescent or high intensity discharge (HID) lamps that contain small amounts of mercury. Such lamps are labeled "Contains Mercury" and/or with the symbol "Hg." Lamps that contain mercury must be disposed of in accordance with local requirements. Information regarding lamp recycling and disposal can be found at www.lamprecycle.org

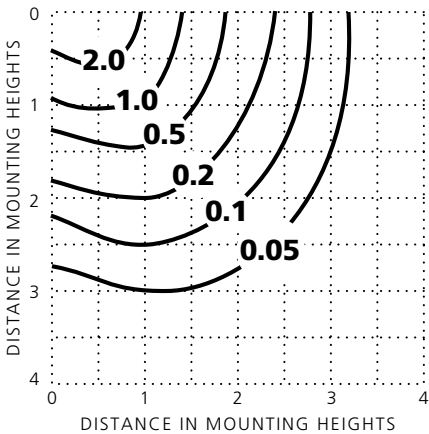
Product Order Guide

Series	Mounting		Number of Fixtures	Max Watts	Lamp Type	Voltage ¹	Reflector		Options
	Type						Type	Finish ¹	
AL-09	BC/		1	35/55 LPS	T17	120	SXIII	BZ Bronze	F Fusing
	B/		2	180 LPS	T21	208	SXII ²	BK Black	FF Double Fusing
	R/			(2) 35/55	T17	240		GR Green	PCC Photo Control W/Receptacle
	K/			Twin Lamp		277		WH White	HSS House Side Shield (Internal)
	CM/			(2) 90	T21	480		GY Gray	CP Clear Polycarbonate Lens
				Twin Lamp				CC Custom Color	PSV Pole Side Visor (External)
								BAA Clear Anodized	FF480V Double Fusing 480V
								BZA Bronze Anodized	
								BJA Black Anodized	
								NA Natural Aluminum	

1 Consult factory for other colors and voltages

Example: AL-09-B/1-180LPS-T21-120-SXIII-BZ-PCC

Photometric Data



Conversion Factor

Mounting Height	20'	25'	30'	35'	40'
Footcandle Multiplier	2.2	1.4	1.0	1.73	.56

AL-09-135LPS-SXIV
 Clear Lamp
 22,500 Lumens
 30' Mounting Height
 ISOLUX Curves—value in initial footcandles

Photometric data shows that light from fixture is unidirectional and does not leak above the horizontal plane of the shielding

Luminaire Dimensions

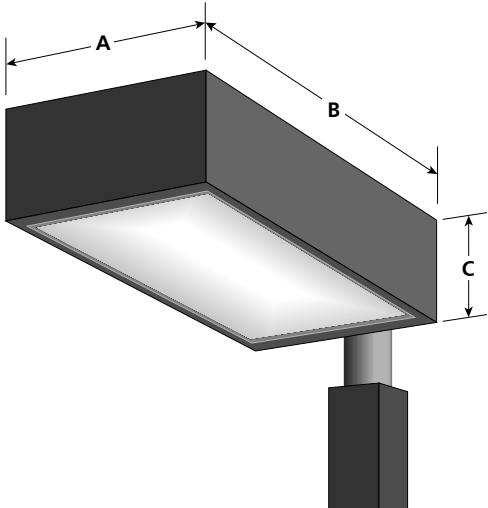
Luminaire	A	B	C	Weight	EPA
AL-09-35/55	14-5/16"	20-3/4"	7-1/4"	42#	1.40
AL-09-90	14-5/16"	24-5/8"	7-1/4"	48#	1.52
AL-09-135	14-5/16"	34-3/8"	7-1/4"	55#	1.95
AL-09-180	14-5/16"	48"	7-1/4"	62#	2.65

Mounting Type

Mounting Type

- BC/ Concealed Hardware Mounting Arm
- B/ Square Hub Mounting for 2-3/8" Tenon
- R/ Round Hub Mounting for 2-3/8" - 4" Tenon
- K/ Adjustable Knuckle for 2-3/8" Tenon
- CM/ Ceiling Mount

For other mounting types see bracket section



CHALLENGER® WALL SCNCE (Various reflectors are protected by U.S. Patent No. 6,464,378.)

HOUSING - The aerodynamic aluminum housing is a rectangular shape. All mounting hardware is stainless steel or electro-zinc plated steel.

WALL MOUNT - A galvanized-steel universal wall mounting plate easily mounts directly to a 4" octagonal or square junction box. An EPDM gasket is supplied to be installed between the mounting plate and junction box, sealing the junction box from entrance of water. The galvanized-steel universal plate allows the fixture to be suspended while making wiring connections. A unique clamping design securely locks the fixture to the wall mounting plate by utilizing two hex head screws. The universal plate permits the fixture to be mounted in the uplighting position (listed for damp locations) or downlighting position (listed for wet locations).

DOOR FRAME - The aluminum door frame with two stainless steel captive fasteners allows easy access into the fixture. A one piece extruded silicone gasket seals the door frame against the housing. The door swings open and is held in place by a retainer.

LENS/GASKET - A flat clear tempered glass lens, which is sealed to the door frame with EPDM gasketing, is standard. An optional polycarbonate lens is available on most

SOCKET and n fixture base for the Small fixture d. The Compact Fluorescent

LIGHT SOURCES - The fixture is designed to operate with horizontal Pulse-Start Metal Halide, Pulse-Start Metal Halide Reduced, Super Metal Halide, Super Metal Halide Reduced, Metal Halide, Metal Halide Reduced, High Pressure Sodium, and single, double or triple Compact Fluorescent lamps. Lamps supplied as standard – HID (clear, shipped installed), and Compact Fluorescent (coated, 4100K shipped in separate carton).

BALLASTS/ELECTRICAL COMPONENTS - Electrical components are factory-mounted in housing and prewired with voltage specific leads which extend out the back of the unit through a rubber grommet. This grommet prevents the entry of insects, dust, and moisture into the fixture. The need to open the fixture to make wiring connections is eliminated, thus making installation quick and easy. UL listed HID components with high-power factor ballasts rated for -20° F starting. Compact Fluorescent ballasts are Electronic Universal Voltage (120-277V, 50/60Hz) or 347V (60Hz), 0°F starting. Compact Fluorescent fixtures with UE (Universal Electronic) voltage are available with an optional dimming ballast for multiple types of controls such as building lighting controls and occupancy sensors. Available battery back-up is voltage specific with 32°F rated starting temperature for U.S. applications for 26 watt through 70 watt lamps. Consult factory for available wattages and voltages for use in Canada.

EMERGENCY OPERATION - A variety of integral emergency options are available to comply with Life Safety Codes which require emergency lighting along the path of egress on the building's exterior, so building occupants can exit safely. Integral Emergency Battery Back-up option is available on Compact Fluorescent units. Emergency Quartz option is offered on HID units. Options for one or two 12 volt separate circuit(s), for use with up to 35 watt Halogen lamp(s) are available on both Compact Fluorescent and HID units.

REFLECTORS/DISTRIBUTION PATTERNS - Forward Throw (FTM, FT) and Type III (3) reflectors are available on small and medium. Wall Wash (WW) reflectors are also available on small. All are high performance, full cut-off distribution as defined by the IESNA (downlight position only). Photometric data is tested in accordance with IESNA guidelines.

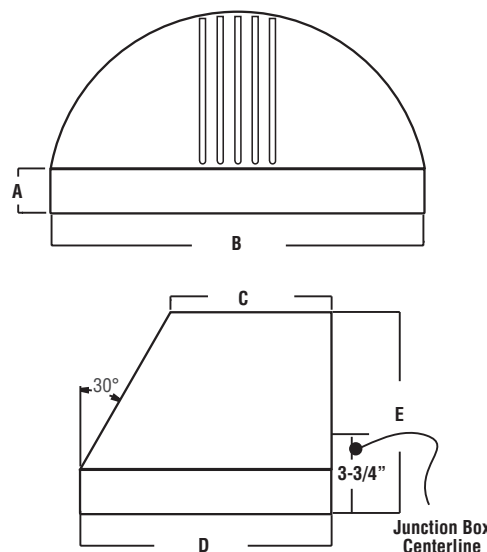
FINISHES - Each fixture is finished with LSI's DuraGrip® polyester-powder finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling and is guaranteed for five full years. Standard colors include bronze, black, platinum plus, buff, white, green, metallic silver, and graphite.

PHOTOMETRICS - Please visit our web site at www.lsi-industries.com for detailed photometric data.

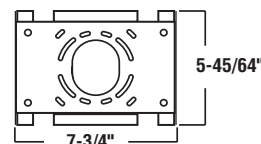


Flat-lensed fixtures meet IESNA full cutoff classification.

DIMENSIONS



	A	B	C	D	E
Small	1-7/8"	17-1/2"	5-21/32"	9-5/8"	8-3/4"
Medium	2-3/8"	19-7/8"	8-5/8"	13-7/16"	10-3/4"



Universal Mounting Plate

SHIPPING WEIGHTS - Challenger Wall Sconce

Catalog Number	Est. Weight (lbs.)	Length (in.)	Width (in.)	Height (in.)
CHWS-HID	22	24.25	15.5	13.5
CHWM-HID	32	24.25	15.5	16.5
CHWS-CFL	17	24.25	15.5	13.5
CHWM-CFL	24	24.25	15.5	16.5



wet location
(Downlight only)

damp location
(Uplight - covered locations only)



Project Name _____ Fixture Type _____
Catalog # _____

CHALLENGER® WALL SCNCE

LUMINAIRE ORDERING INFORMATION

Luminaire Prefix	Distribution	Lamp Wattage	Light Source	Lens	Line Voltage ³	Luminaire Finish
CHWS (Small)	3 - Type III FT - Forward Throw WW - Wall Wash	50 70 100 150 175	MH - Metal Halide 50, 70, 100 ¹ , 150, 175 Watt HPS - High Pressure Sodium 50, 70, 100, 150 Watt	F- Flat Clear Tempered Glass	120 208 240 277 347	BRZ - Bronze BLK - Black WHT - White PLP - Platinum Plus BUF - Buff GRN - Green GPT - Graphite MSV - Metallic Silver
	FTM - Forward Throw Medium	26 32 42	CFL - Compact Fluorescent Single 26, 32, 42 Watt CFL2 - Compact Fluorescent Double 26, 32, 42 Watt	F- Flat Clear Tempered Glass FPC - Flat Clear Polycarbonate	UE - Universal Electronic (120-277V 50/60Hz) 347 ⁴	
	WW - Wall Wash		CFL - Compact Fluorescent Single 26, 32, 42 Watt			
CHWM (Medium)	3 - Type III FT - Forward Throw	250 320 400	PSMH - Pulse Start Metal Halide 250, 320 Watt PSMHR - Pulse Start Metal Halide Reduced 400 Watt SMH - Super Metal Halide 250 Watt SMHR - Super Metal Halide Reduced Envelope 400 Watt MH - Metal Halide 250 Watt MHR - Metal Halide Reduced Envelope 400 Watt HPS - High Pressure Sodium 250, 400 Watt	F- Flat Clear Tempered Glass	120 208 240 277 347 480	
		26 32 42 57 70	CFL - Compact Fluorescent Single 57, 70 Watt CFL2 - Compact Fluorescent Double 57, 70 Watt CFL3 - Compact Fluorescent	F- Flat Clear Tempered Glass FPC - Flat Clear Polycarbonate ²	UE - Universal Electronic (120-277V 50/60Hz) 347 ⁴	

CHWS	3	175	MH	F	120	BRZ	SQT
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EXAMPLE OF A TYPICAL ORDER

FOOTNOTES:

- 1- Supplied with a HX-HPF transformer as standard. Also available with a 120/277 volt CWA transformer. Consult factory.
- 2- If a polycarbonate lens is required on an Uplight Medium fixture in 70 CFL2 or 42 CFL3, the glass lens with Polycarbonate Shield (CHWM PLS) accessory must be ordered.
- 3- For international voltages, consult factory.
- 4- 347V CFL is not available with dimming ballast (DIM) option. Consult factory for battery back-up (BB) option.
- 5- Tamper-proof Screwdriver must be ordered separately (See Accessory Ordering Information)
- 6- CFL Dimming Control by others.
- 7- SQN or SQT available on 100 Watt minimum HID fixtures.
- 8- Fixtures 250 Watt and below are shipped with 100 Watt quartz lamp. 320 and 400 Watt fixtures are shipped with 250 Watt quartz lamp.
- 9- Battery Back-up available on single, double and triple voltage specific units. On double and triple units, one lamp will be energized by Battery Back-up (BB) option. Battery Back-up complies with "Means of Egress" requirements only when used in connection with CFL WW reflector and 42 watt lamp in downlight position. Consult factory for specific job application compliance.
- 10- Utilizes GY6.35 socket(s). 12 volt separate circuit(s) required.

Options

- PCI120 - Button-Type Photocell
- PCI208 - Button-Type Photocell
- PCI240 - Button-Type Photocell
- PCI277 - Button Type-Photocell
- PCI347 - Button Type-Photocell
- TP - Tamper Proof⁵
- PMA - Pole Mount Adaptor for use with square poles
- PMAR - Pole Mount Adaptor for use with round poles
- DIM - CFL Control Voltage Dimming Ballast⁶
- C - Coated MH or PSMH Lamp
- SQT - Standby Quartz (Time Delay)^{7,8}
- SQN - Standby Quartz (Non-Time Delay)^{7,8}
- EQ - Emergency Quartz (separate circuit - HID only)⁸
- BB - CFL Battery Back-up⁹
- EM1 - One Emergency 12V Circuit Provision with 35 Watt Halogen Lamp¹⁰
- EM1LL - One Emergency 12V Circuit Provision - Less Halogen Lamp¹⁰
- EM2 - Two Emergency 12V Circuit Provisions with (2) 35 Watt Halogen Lamps¹⁰
- EM2LL - Two Emergency 12V Circuit Provisions - Less Halogen Lamps¹⁰
- LL - Less Lamp

ACCESSORY ORDERING INFORMATION

(Accessories are field installed)

Description	Order Number	Description	Order Number
FK120 - Single Fusing	FK120+	CHWS PLS - Polycarbonate Shield for Small	172786
FK277 - Single Fusing	FK277+	CHWM PLS - Polycarbonate Shield for Medium	172787
DFK208, 240 - Double Fusing	DFK208, 240+	SW BLK - Surface Wiring Box	173156BLK+++
DFK480 - Double Fusing	DFK480++	SCD - Tamper-proof Screwdriver	36449
FK347 - Single Fusing	FK347+		

+ Available on HID fixtures only. Fusing to be installed in a compatible junction box supplied by contractor.

++ Available on HID Medium fixture only. Fusing to be installed in a compatible junction box supplied by contractor.

+++SW BLK not compatible with PMA or PMAR option.



Project Name _____ Fixture Type _____
Catalog # _____

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