

DESCRIPTION

The geometric form of MESA LED luminaire allows it to adapt to either contemporary or traditional architectural settings. Available in single or twin pole mount configurations with optional wall mounting capability, the MESA LED luminaire's mounting options allow for harmonized site design whether at the entryway or in the parking lot. UL/cUL listed for use in wet locations.

SPECIFICATION FEATURES

Construction

HOUSING: Die-cast aluminum main housing and spider mount base maintain a minimum 0.125 wall thickness. Integral aluminum heat sink provides superior thermal heat transfer in +40°C ambient environments. **DOOR ASSEMBLY:** Top mounted, heavy wall, die-cast aluminum door maintains a nominal 0.125 thickness. Door includes a self-retaining interior hinge. **GASKET:** Continuous silicone gasket provided to seal housing door assembly and optic tray. **LENS:** Downlight lens is LED board integrated acrylic over-optics, each individually sealed for IP66 rating. **HARDWARE:** Four inset fasteners on underside of housing provide access to luminaire interior. Concealed, stainless steel four bar hinge lock allows door to lock in the open position.

Optics

Choice of twelve patented, high-efficiency AccuLED Optic™ technology manufactured from injection-molded acrylic. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optic technology, creates consistent distributions with the

scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT and 5000K CCT. For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed. The house-side shield is designed to seamlessly integrate with the SL2, SL3 or SL4 optics. LightBAR optic tray is removable and able to rotate 360° in 90° increments for specific placement of the distribution relative to fixture.

Electrical

LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature and IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per

IESNA TM-21. Occupancy sensor and dimming options available.

Mounting

Fitter assembly mounts over 3" O.D. tenon and is secured via three concealed stainless steel set screws. Design of fitter provides seamless transition to 4" round poles. Additional mounting accessories include a dual fixture post top mounting arm and wall mount arm.

Finish

Housing is finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. LightBAR™ cover plates are standard white and may be specified to match finish of luminaire housing. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.

Warranty

Five-year warranty.



MSA MESA LED

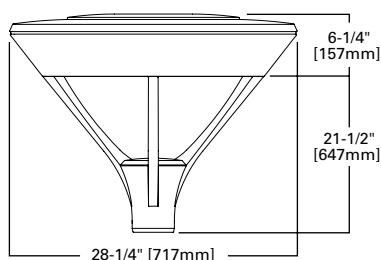
1-6 LightBARs

Solid State LED

DECORATIVE LUMINAIRE

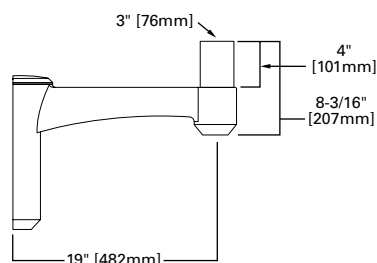


DIMENSIONS

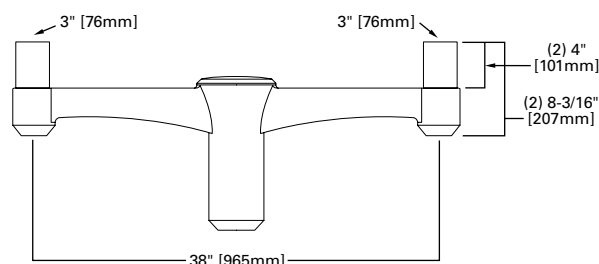


MOUNTING ACCESSORIES

Wall Mount Arm



DUAL MOUNT ARM (EPA 1.36)



CERTIFICATION DATA

UL/cUL Listed
ISO 9001
IP66 LightBARs
LM79 / LM80 Compliant
2G Vibration Tested
Dark Sky Approved* (3000K CCT and warmer only)

ENERGY DATA

Electronic LED Driver

>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz,
480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating

EPA

Effective Projected Area: (Sq. Ft.)
Single Mount 1.1

SHIPPING DATA

Approximate Net Weight:
50 lbs. (22.7 kgs.)

POWER AND LUMENS BY BAR COUNT (21 LED LIGHTBARS)

Number of LightBARs		E01	E02	E03	E04	E05	E06
Drive Current		350mA Drive Current					
Power (Watts)		25W	52W	75W	97W	127W	150W
Current @ 120V (A)		0.22	0.44	0.63	0.82	1.07	1.26
Current @ 277V (A)		0.10	0.20	0.28	0.36	0.48	0.56
Power (Watts)		31W	58W	82W	99W	132W	159W
Current @ 347V (A)		0.11	0.19	0.28	0.29	0.39	0.48
Current @ 480V (A)		0.09	0.15	0.20	0.21	0.30	0.36
T2	Lumens	2,460	4,920	7,379	9,839	12,299	14,759
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
T3	Lumens	2,485	4,970	7,456	9,941	12,426	14,911
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
T4	Lumens	2,423	4,845	7,268	9,690	12,113	14,535
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
5MQ	Lumens	2,615	5,230	7,844	10,459	13,074	15,689
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
5WQ	Lumens	2,604	5,207	7,811	10,415	13,018	15,622
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
5XQ	Lumens	2,603	5,206	7,809	10,412	13,015	15,618
	BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G3	B4-U0-G3	B4-U0-G3
SL2	Lumens	2,445	4,891	7,336	9,781	12,226	14,672
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3
SL3	Lumens	2,461	4,921	7,382	9,842	12,303	14,763
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3
SL4	Lumens	2,376	4,752	7,128	9,504	11,880	14,256
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
RW	Lumens	2,398	4,796	7,194	9,591	11,989	14,387
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4
SLL/SLR	Lumens	2,227	4,453	6,680	8,906	11,133	13,360
	BUG Rating	B1-U1-G1	B1-U1-G2	B1-U1-G3	B1-U1-G3	B2-U2-G3	B2-U2-G4

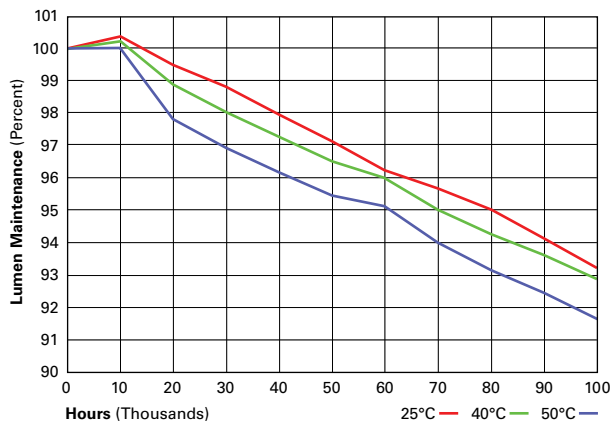
LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99
50°C	0.96



POWER AND LUMENS BY BAR COUNT (7 LED LIGHTBARS)

Number of LightBARs		F01	F02	F03	F04	F05	F06
Drive Current		1A Drive Current					
Power (Watts)		26W	55W	78W	102W	133W	157W
Current @ 120V (A)		0.22	0.46	0.66	0.86	1.12	1.31
Current @ 277V (A)		0.10	0.21	0.29	0.37	0.50	0.58
Power (Watts)		32W	60W	85W	105W	137W	164W
Current @ 347V (A)		0.11	0.19	0.28	0.30	0.41	0.49
Current @ 480V (A)		0.09	0.15	0.21	0.22	0.31	0.37
T2	Lumens	2,031	4,061	6,092	8,122	10,153	12,184
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3
T3	Lumens	2,052	4,103	6,155	8,206	10,258	12,310
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
T4	Lumens	2,000	4,000	6,000	7,999	9,999	11,999
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3
5MQ	Lumens	2,159	4,317	6,476	8,634	10,793	12,951
	BUG Rating	B1-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2
5WQ	Lumens	2,149	4,299	6,448	8,597	10,747	12,896
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2
5XQ	Lumens	2,149	4,298	6,446	8,595	10,744	12,893
	BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G3	B4-U0-G3	B4-U0-G3
SL2	Lumens	2,019	4,037	6,056	8,075	10,093	12,112
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
SL3	Lumens	2,031	4,062	6,094	8,125	10,156	12,187
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
SL4	Lumens	1,961	3,923	5,884	7,846	9,807	11,769
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3
RW	Lumens	1,980	3,959	5,939	7,918	9,898	11,877
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
SLL/SLR	Lumens	1,838	3,676	5,514	7,352	9,191	11,029
	BUG Rating	B0-U1-G1	B1-U1-G2	B1-U1-G2	B1-U1-G3	B1-U1-G3	B2-U2-G3

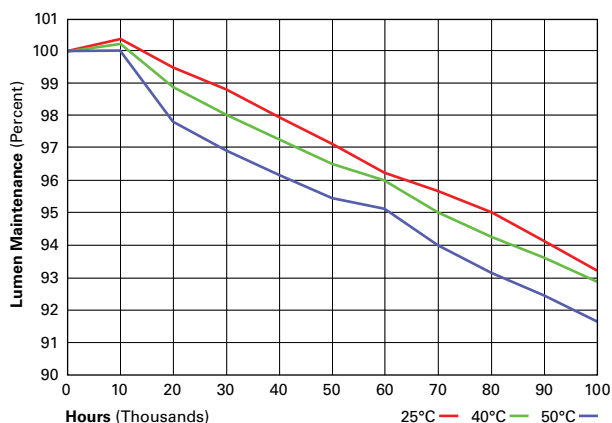
LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99
50°C	0.96



CONTROL OPTIONS

0-10V (DIM)

The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

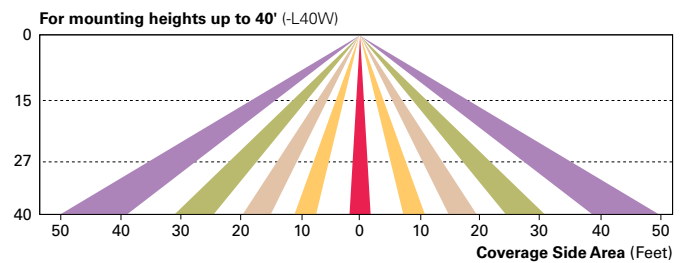
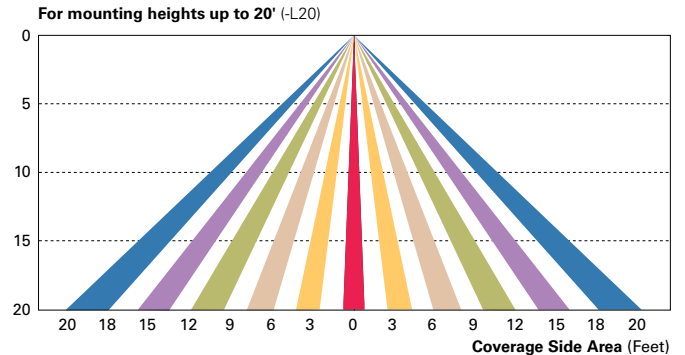
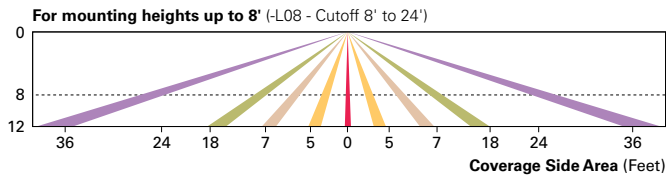
Photocontrol (PC, R and PER7)

Optional button-type photocontrol (PC) and photocontrol receptacles (R) provide a flexible solution to enable “dusk-to-dawn” lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PER7 receptacle.

Dimming Occupancy Sensor (MS/DIM-LXX)

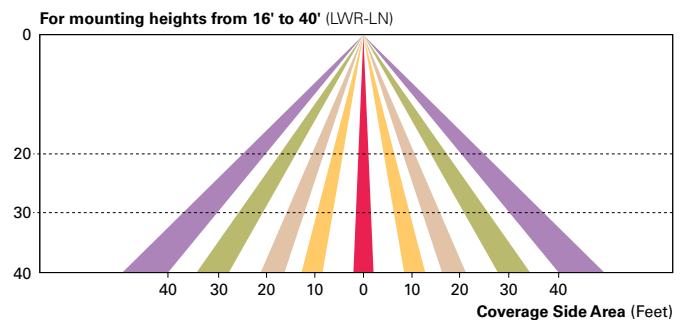
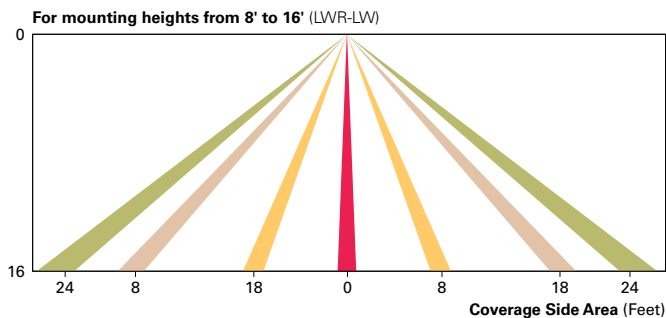
These sensors are factory installed in the luminaire housing. When the MS/DIM-LXX sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes.

These occupancy sensors includes an integral photocell that can be activated with the FSIR-100 accessory for “dusk-to-dawn” control or daylight harvesting - the factory preset is OFF. The FSIR-100 is a wireless tool utilized for changing the dimming level, time delay, sensitivity and other parameters. A variety of sensor lens are available to optimize the coverage pattern for mounting heights from 8'-40'.



Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)

Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.



WaveLinX Wireless Outdoor Lighting Control Module (WOLC-7P-10A)

The 7-pin wireless outdoor lighting control module enables WaveLinX to control outdoor area, site and flood lighting. WaveLinX controls outdoor lighting using schedules to provide On/Off and dimming controls based on astronomic or time schedules based on a 7 day week.

ORDERING INFORMATION

Sample Number: MSA-E06-LED-E1-T3-GM

Product Family	Number of LightBARs ^{1, 2}	Lamp Type	Voltage	Distribution	Color ⁵
MSA=Mesa	E01 =(1) 21 LED LightBAR ³ E02 =(2) 21 LED LightBARs E03 =(3) 21 LED LightBARs E04 =(4) 21 LED LightBARs E05 =(5) 21 LED LightBARs E06 =(6) 21 LED LightBARs F01 =(1) 7 LED LightBAR ³ F02 =(2) 7 LED LightBARs F03 =(3) 7 LED LightBARs F04 =(4) 7 LED LightBARs F05 =(5) 7 LED LightBARs F06 =(6) 7 LED LightBARs	LED =Solid State Light Emitting Diodes	E1 =Electronic (120-277V) 347 =347V 480 =480V ⁴	T2 =Type II T3 =Type III T4 =Type IV SL2 =Type II w/Spill Control SL3 =Type III w/Spill Control SL4 =Type IV w/Spill Control RW =Rectangular Wide 5MQ =Type V Square Medium 5WQ =Type V Square Wide 5XQ =Type V Square Extra Wide SLL =90° Spill Light Eliminator Left SLR =90° Spill Light Eliminator Right	AP =Grey BZ =Bronze BK =Black DP =Dark Platinum GM =Graphite Metallic WH =White
Options (Add as Suffix)				Accessories (Order Separately) ²⁰	
PC =Button Type Photocontrol (Specify Voltage) R =NEMA Twistlock Photocontrol Receptacle PER7 = NEMA 7-PIN Twistlock Photocontrol Receptacle ^{11, 12} 2L =Two Circuits ⁶ LCF =LightBAR Cover Plate Matches Housing Finish 7030 =70 CRI / 3000K CCT ⁷ 7050 =70 CRI / 5000K CCT ⁷ 8030 =80 CRI / 3000K CCT ⁷ ICB =Integral Cold Weather Battery Pack (Specify 120 or 277V) ⁸ LWR-LW =Enlighted Wireless Sensor, Wide Lens for 8' - 16' Mounting Height ⁹ LWR-LN =Enlighted Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height ⁹ HSS =Factory Installed House Side Shield ¹⁰ DIM =0-10V Dimming Drivers MS/DIM-L08 =Motion Sensor for Dimming Operation, Maximum 8' Mounting Height ^{13, 14, 15, 16, 17} MS/DIM-L20 =Motion Sensor for Dimming Operation, 9' - 20' Mounting Height ^{13, 14, 15, 16, 18} MS/DIM-L40W =Motion Sensor for Dimming Operation, 21' - 40' Mounting Height (Wide Range) ^{13, 14, 15, 16, 19}				VA6028-XX =Dual Mount Arm (EPA 1.38) VA6029-XX =Wall Mount Arm OA/RA1016 =NEMA Photocontrol - Multi-Tap OA/RA1027 =NEMA Photocontrol - 480V OA/RA1201 =NEMA Photocontrol - 347V MA1253 =10kV Circuit Module Replacement LB/HSS-21 =Field Installed House Side Shield for "E" LightBARs ^{10, 21} LB/HSS-07 =Field Installed House Side Shield for "F" LightBARs ^{10, 21} WOLC-7P-10A =WaveLinX Outdoor Control Module (7-pin) ²²	

NOTES:

- Standard 4000K CCT and nominal 70 CRI.
- 21 LED LightBAR powered at 350mA, 7 LED LightBAR powered at 1A.
- Streetside orientation 90° to LightBAR.
- Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
- Cutsum and RAL color matching available upon request. Consult your lighting representative at Cooper Lighting Solutions for more information.
- Low-level output varies by bar count. Consult factory. Not available with 347V or 480V. Requires quantity two or more LightBARs.
- Consult factory for lead times and lumen multiplier.
- Available with E01-E04 or F01-F04 configurations only. Specify 120V or 277V. LED cold weather integral battery pack is rated for minimum operating temperature -40°F (-20°C). Operates one LightBAR for 90-minutes. Not available in all configuration, consult factory. Rated for use in 25°C ambient.
- Enlighted wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-PoE8 in appropriate quantities. See www.cooperlighting.com for Enlighted application information.
- Only for use with SL2, SL3 and SL4 distributions.
- Not available with MS, MSDIM options.
- Compatible with standard 3-PIN photocontrols and 5-PIN or 7-PIN ANSI controls.
- Consult factory for more information.
- Utilizes internal step-down transformer when 347V or 480V is selected.
- The FSIR-100 accessory is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
- Not available with HA option.
- Approximately 22' detection diameter at 8' mounting height.
- Approximately 40' detection diameter at 20' mounting height.
- Approximately 100' detection diameter at 40' mounting height.
- Replace XX with color designation.
- One required for each LightBAR.
- Requires 7-pin NEMA twistlock photocontrol receptacle. The WOLC-7 cannot be used in conjunction with additional sensors or controls.