



Gardco PureForm LED wall sconce PWS features narrow spectrum amber LEDs combined with special shielding, making it a wildlife friendly lighting solution. Multiple distribution and shielding options are available to achieve maximum control. A full range of control options provides additional energy savings.

Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Lamps: _____ Qty: _____
 Notes: _____

Ordering guide

example: PWS-48L-500-AM-G2-2-UNV-FWC-DGY

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Distribution	Voltage	Options				Finish
						Dimming controls	Motion-sensing lens	Photo-sensing	Electrical & Shield	
PWS										
PWS Pure-Form wall sconce	48L 48 LEDs	400 400mA	AM-G2 Direct Amber (590nm) Generation 2 ²	2 Type 2	UNV 120-277V	DD 0-10V External dimming (controls by others) ³ DCC Dual Circuit Control ^{3,4,5,8} FAWS Field Adjustable Wattage Selector ^{3,4} BL Bi-level functionality ^{3,9}	IMR12 ¹⁰ Integral with #2 lens IMR13 ¹⁰ Integral with #3 lens	PCB Photocontrol Button ^{6,7,8}	Fusing	Textured
	600 600mA	3 Type 3		HVU 347-480V	F1 Single (120, 277, 347VAC) ⁷				BK Black WH White BZ Bronze DGY Dark Gray MGY Medium Gray	
	64L 64 LEDs	600 600mA		4 Type 4	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V	DynaDimmer: Automatic Profile Dimming ^{3,6} CS50 Security 50% Dimming, 7 hours CM50 Median 50% Dimming, 8 hours CE50 Economy 50% Dimming, 9 hours DA50 All Night 50% Dimming CS30 Security 30% Dimming, 7 hours CM30 Median 30% Dimming, 8 hours CE30 Economy 30% Dimming, 9 hours DA30 All Night 30% Dimming		F2 Double (208, 240, 480VAC) ⁷ F3 Canadian Double Pull (208, 240, 480VAC) ⁷ Surge Protection (10kA is standard) SP2 Increased 20kA FWC Wildlife Friendly External House side shield ¹	Customer specified RAL Specify optional color or RAL (ex: RAL7024) CC Custom color (Must supply color chip for required factory quote)	

- 1. External shield shipped with luminaire.
- 2. Extended lead times apply. Contact factory for details.
- 3. Not available with other dimming control options.

- 4. Not available with motion sensor.
- 5. Not available with photocontrol.
- 6. Not available in 347 or 480V.
- 7. Must specify input voltage.
- 8. Not available with 64L.

- 9. Must specify a motion sensor lens.
- 10. Not available with DD, DCC, and FAWS dimming control options.



PWS PureForm LED wall sconce

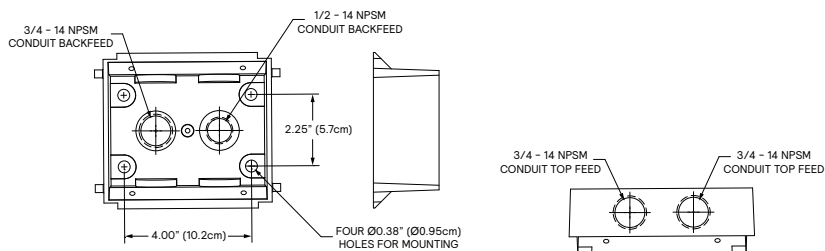
wall mount

Luminaire Accessories (order separately)

Mounting Accessories		System accessories	
Wall Mount			
PWS-WS-G2	Wall Mounted Box for Surface Conduit Painted Black	Wireless system remote mount module	
		LLCR2-(F) #2 lens - specify finish in place of (F)	LLCR3-(F) #3 lens - specify finish in place of (F)

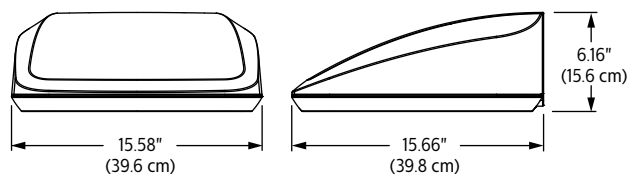
Wireless system remote controller accessory

Wireless system offers a remote radio/sensor module that allows connection to a Limelight system (sold by others). Remote module can be mounted to wall or pole with j-box supplied. May be specified by choosing one of two different lenses to accommodate a variety of mounting heights/sensor detection ranges. Must specify option DD on luminaires that are planned to be used with remote mount controllers.

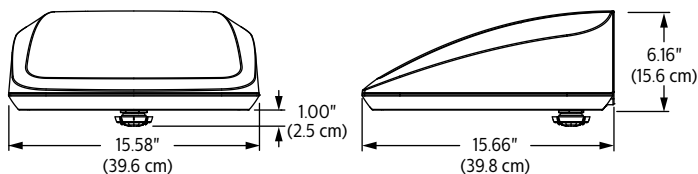


Dimensions

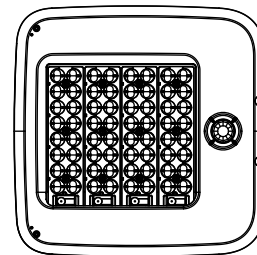
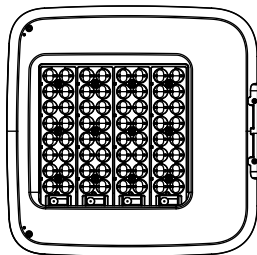
Standard Luminaire



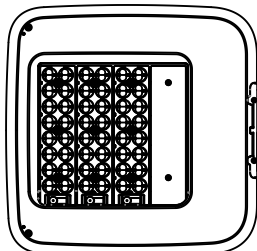
Motion Response and Wireless System



4 modules



3 modules



Luminaire Weights

PureForm LED wall sconce PWS Luminaire	Weight
	24 lbs

PWS PureForm LED wall sconce

wall mount

LED Wattage and Lumen Values – Unshielded

Ordering Code	LED Qty	LED Current (mA)	Dominant Wavelength (nm)	Average System Wattage (W)	Type 2			Type 3			Type 4		
					Lumen Output	Efficacy (Lm/W)	BUG Rating	Lumen Output	Efficacy (Lm/W)	BUG Rating	Lumen Output	Efficacy (Lm/W)	BUG Rating
PWS-48L-400-AM-G2-x	48	400	596	48	2834	59	B1-U0-G1	2740	57	B1-U0-G1	2843	60	B1-U0-G1
PWS-48L-600-AM-G2-x	48	600	596	73	3316	46	B1-U0-G1	3207	44	B1-U0-G1	3327	46	B1-U0-G1
PWS-64L-600-AM-G2-x	64	600	596	94	4367	46	B1-U0-G1	4223	45	B1-U0-G1	4381	46	B1-U0-G1

LED Wattage and Lumen Values – Shielded

Ordering Code	LED Qty	LED Current (mA)	Dominant Wavelength (nm)	Average System Wattage (W)	2-FWC			3-FWC			4-FWC		
					Lumen Output	Efficacy (Lm/W)	BUG Rating	Lumen Output	Efficacy (Lm/W)	BUG Rating	Lumen Output	Efficacy (Lm/W)	BUG Rating
PWS-48L-400-AM-G2-x	48	400	596	48	1094	23	B1-U0-G0	1058	22	B1-U0-G0	1098	23	B1-U0-G0
PWS-48L-600-AM-G2-x	48	600	596	73	1280	18	B1-U0-G0	1238	17	B1-U0-G0	1284	18	B1-U0-G0
PWS-64L-600-AM-G2-x	64	600	596	94	1686	18	B1-U0-G0	1630	17	B1-U0-G0	1691	18	B1-U0-G0

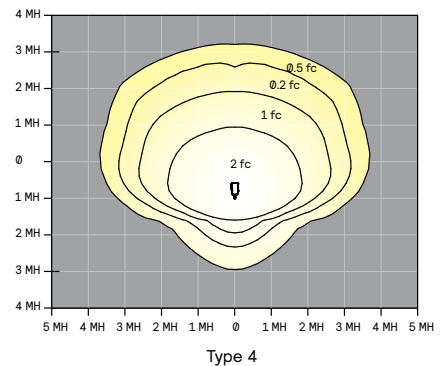
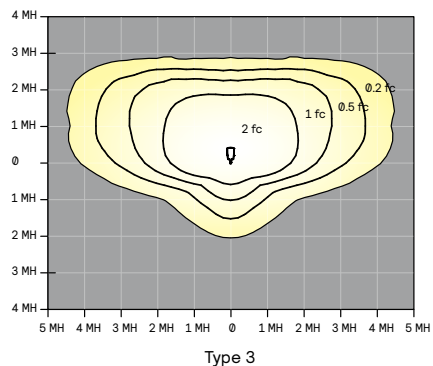
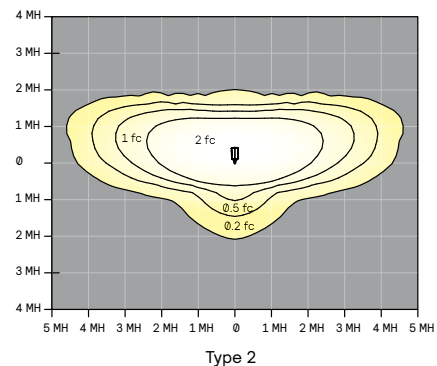
Predicted Lumen Depreciation Data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L₇₀ is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L₇₀ hours limited to 6 times actual LED test hours

Ambient Temperature °C	Drive current	Calculated L ₇₀ Hours	L ₇₀ per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	up to 600 mA	>100,000 hours	>60,000 hours	>88%

Optical Distributions

Based on 20' mounting height



PWS PureForm LED wall sconce

wall mount

Specifications

Housing

Main body housing and door frame made of low copper die cast aluminum alloy for a high resistance to corrosion. Door hinges secured by aircraft cable to allow access to driver or other electronic components for servicing. The door frame acts as the main heat transfer component and it is optimized to allowing the main housing to have no fins, giving the freedom to have a clean minimalist aesthetic design while allowing it to house emergency battery backup equipment and various other options. Luminaire housing rated to IP65, tested in accordance to Section 9 of IEC 60598-1.

Light engine

Light engine comprises of a module of 16-LED aluminum metal clad board fully sealed with optics offered in multiples of 3 and 4 modules or 48 and 64 LEDs. Module is RoHS compliant. Direct Amber LED is narrow spectrum with dominant wavelength at 596 nm (peak wavelength at 601 nm). Contact factory for details. LED light engine is rated IP66 in accordance to Section 9 of IEC 60598-1.

Optical systems

Type 2, 3, and 4 distributions available. Performance tested per LM-79 and TM-15 (IESNA) certifying its photometric performance. Luminaire designed with 0% uplight (U0 per IESNA TM-15).

Mounting

Mounting is completed through integral back plate that features a separate recessed feature for hook and lock quick mount plate that secures with two set screws from bottom of luminaire. Luminaire ships fully assembled, ready to install.

Control options

0-10V dimming (DD): Access to 0-10V dimming leads supplied through back of luminaire (for secondary dimming controls by others). Cannot be used with other control options.

Field Adjustable Wattage Selector (FAWS): Luminaire equipped with the ability to manually adjust the wattage in the field to reduce total luminaire lumen output and light levels. Comes pre-set to the highest position at the lumen output selected. Use chart below to estimate reduction in lumen output desired. Cannot be used with other control options or motion response.

Automatic Profile Dimming (CS/CM/CE/CA): Standard dimming profile of 30% or 50% provide flexibility towards energy savings goals while optimizing light levels during specific dark hours. When used in combination with not programmed motion response it overrides the controller's schedule when motion is detected. After 5 minutes with no motion, it will return to the automatic dimming profile schedule. Automatic dimming profile scheduled with the following settings:

- **CS50/CS30:** Security for 7 hours night duration (Ex., 11 PM - 6 AM)
- **CM50/CM30:** Median for 8 hours night duration (Ex., 10 PM - 6 AM)
- **CE50/CE30:** Economy for 9 hours night duration (Ex., 9 PM - 6 AM)
- **CA50/CA30:** for all night (during all dark hours)

All above profiles are calculated from mid point of the night. Dimming is set for 6 hours after the mid point and 1, 2, or 3 hours before depending of the duration of dimming. Cannot be used with other dimming control options.

FAWS Position	Percent of Typical Lumen Output
1	25%
2	50%
3	55%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

Note: Typical value accuracy +/- 5%

PWS PureForm LED wall sconce

wall mount

Specifications (cont'd)

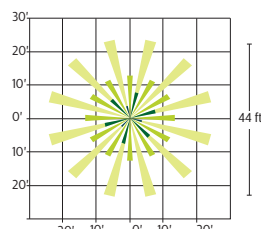
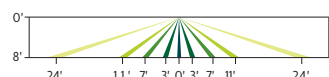
Motion response options

Bi-Level Infrared Motion Response (BL-IMRI3): Motion Response module is mounted integral to luminaire factory pre-programmed to 50% dimming when not ordered with other control options. BL-IMRI is set/operates in the following fashion: The motion sensor is set to a constant 50%. When motion is detected by the PIR sensor, the luminaire returns to full power/light output. Dimming on low is factory set to 50% with 5 minutes default in "full power" prior to dimming back to low. When no motion is detected for 5 minutes, the motion response system reduces the wattage by 50%, to 50% of the normal constant wattage reducing the light level. Other dimming settings can be provided if different dimming levels are required. This can also be done with FSIR-100 Wireless Remote Programming Tool (contact Technical Support for details).

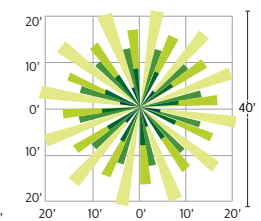
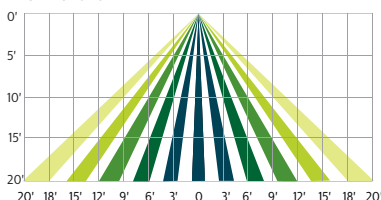
Infrared Motion Response with Other Controls (SW-IMRI3): When used in combination with other controls (Automatic Dimming Profile) motion response device will simply override controller's schedule with the added benefits of a combined dimming profile and sensor detection. In this configuration, the motion response device cannot be re-programmed with FSIR-100 Wireless Remote Programming Tool. The profile can only be re-programmed via the controller.

Infrared Motion Response Lenses (IMRI2/IMRI3): Infrared Motion Response Integral module is available with two different sensor lens types to accommodate various mounting heights and occupancy detection ranges. Lens #2 (IMRI2) is designed for lower mounting heights up to 8' with larger coverage areas up to 44' diameter coverage area. Lens #3 (IMRI3) is designed for mounting heights up to 20' with a 40' diameter coverage area. See charts for approximate detection patterns:

IMRI2 Luminaire or remote mount controller with #2 lens



IMRI3 Luminaire or remote mount controller with #3 lens



Buy American Act of 1933 (BAA):

This product is manufactured in one of our US factories and, as of the date of this document, this product was considered a commercially available off-the-shelf (COTS) item meeting the requirements of the BAA. This BAA designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies. Prior to ordering, please visit www.signify.com/baa to view a current list of BAA-compliant products to confirm this product's current compliance.

Electrical

Driver: Driver efficiency (>90% standard). 120-480V available (restrictions apply). Open/short circuit protection. Optional 0-10V dimming to 10% power. RoHS compliant.

Button Photocontrol (PCB): Button style design for internal luminaires mounting applications. The photocontrol is constructed of a high impact UV stabilized polycarbonate housing. Rated voltage of 120V or 208-277V with a load rating of 1000 VA. The photocell will turn on with 1-4Fc of ambient light.

Surge protection (SP1/SP2): Each luminaire is provided as standard with surge protector tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/5kA waveforms for Line Ground, Line Neutral and Neutral Ground, and in accordance with U.S. DOE (Department of Energy) MSSLC (Municipal Solid-State Street Lighting Consortium) Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High Test Level 10kV / 5kA. Optional 20kV is available for additional protection.

Listings

UL/cUL listed to the UL 1598 standard, suitable for wet locations when mounted downward facing. Also listed for damp locations when inverted upward facing when mounted in covered ceiling application. Suitable for use in ambient temperatures from -40° to 40°C (-40° to 104°F). Florida Wildlife Certified.

Finish

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powdercoat finish. The surface treatment achieves a minimum of 1000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard. Standard colors include bronze (BZ), black (BK), white (WH), dark gray (DGY), and medium gray (MGY). Consult factory for specs on optional or custom colors.

Warranty

PureForm luminaires feature a 5-year limited warranty. See signify.com/warranties for complete details and exclusions.

