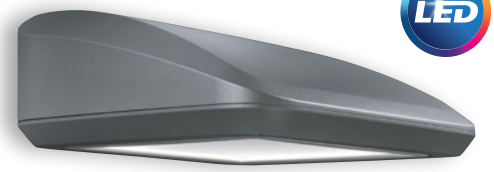
GARDCO by signify

Wall Mount

PureForm

LED wall sconce with comfort optics



Gardco PureForm LED wall sconce comfort PWS offers a sleek, low profile design that will complement a range of architectural styles. Comfort optics are designed to enhance visual comfort by reducing glare. PureForm wall sconce provides up to 10,700 lumens to accommodate multiple mounting heights up to 20′, and is available with Type 2, 3, 4, optical distributions. A full range of control options is available for additional energy savings. Optional emergency battery backup option is available for path-of-egress and is integral to the luminaire.

Project:

Location:

Cat.No:

Type:

Lamps: Qty:

Notes:

Ordering guide

example: PWS-140L-650-NW-G2-2-UNV-DGY

Prefix	Number of LEDs	Drive Current	LED Color – Generation	Distribution	Emergency	Voltage	Options: Dimming controls	Options: Motion sensing	Options: Photo-sensing	Options: Electrical	Finish
PWS											
PWS PureForm wall sconce	**140L** 140 LEDs	**450** 450 mA **650** 650 mA **1150** 1150 mA [1] **1675** 1675 mA [1] **2100** 2100 mA [1,2]	**WW-G2** Warm White 3000K, 70 CRI Generation 2 **NW-G2** Neutral White 4000K, 70 CRI Generation 2 **CW-G2** Cool White 5000K, 70 CRI Generation 2 **WY-G2** Warm Yellow 2700K, 80 CRI Generation 2 [3] **AM-G2** Direct Amber (>590nm) Generation 2 [3]	**2** Comfort Type 2 **3** Comfort Type 3 **4** Comfort Type 4	**EBP** Emergency Battery Pack [1,7,12] **EBPC** Emergency Battery Pack Cold Weather [2,7,13] Leave blank to omit an emergency option	**UNV** 120-277V **HVU** 347-480V **120** 120V **208** 208V **240** 240V **277** 277V **347** 347V **480** 480V	**DD** 0-10V External dimming (controls by others) [4] **FAWS** Field Adjustable Wattage [4,5] **SW** Interface Module for SiteWise [4,5,6,8] **LLC** Integral wireless module [4,5,6,7] **BL** BL Bi-level functionary with motion sensor [4] **DynaDimmer: Automatic Profile Dimming [4,5,7]** **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	**MMRI** High-Frequency motion sensor integral [9]	**PCB** Photocontrol Button [7,10,11]	**Fusing** **F1** Single (120, 277, 347VAC) [10] **F2** Double (208, 240, 480VAC) [10] **F3** Canadian Double Pull (208, 240, 480VAC) [10] **Surge Protection (10kA is standard)** **SP2** Increased 20kA	**Textured** **BK** Black **WH** White **BZ** Bronze **DGY** Dark Gray **MGY** Medium Gray **Customer specified** **RAL** Specify optional color or RAL (ex: RAL7024) **CC** Custom color (Must supply color chip for required factory quote)

1. 1150, 1675, and 2100mA not available with emergency battery backup (EBP).
2. 2100mA not available with emergency battery backup cold weather (EBPC).
3. Extended lead times apply. Contact factory for details.
4. Not available with other control options.
5. Not available with motion sensor.
6. Not available with photocontrol.
7. Not available in 347 or 480V.
8. Available only in 120 or 277V.
9. MMRI not available with emergency battery backup cold weather (EBPC).
10. Must specify input voltage.
11. Not available with SiteWise (SW) and wireless control (LLC).
12. Not available with SiteWise (SW) or Dynadimmer (CS/CM/CE/DA).
13. Not available with SiteWise (SW), Wireless control (LLC), or DynaDimmer (CS/CM/CE/DA).

PWS PureForm LED wall sconce

Wall Mount – with Comfort Optics

Luminaire Accessories (order separately)

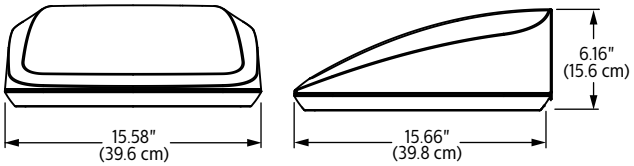
Mounting Accessories	
Wall Mount	
PWS-WS-G2	Wall Mounted Box for Surface Conduit

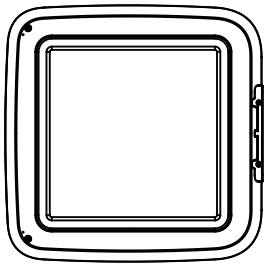
System accessories
Wireless system remote mount module
LLCR2-(F) #2 lens - specify finish in place of (F)
LLCR3-(F) #3 lens - specify finish in place of (F)
Central Remote Motion Response (used connected to SiteWise main panel)
MS2-A-FVR-3
MS2-A-FVR-7

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





Luminaire weights	
PureForm LED wall sconce PWS	**Weight**
Luminaire	20 lbs
Luminaire - EBP (EM battery pack)	22 lbs
Luminaire - EBPC (EM battery pack cold weather)	25 lbs

PWS PureForm LED wall sconce

Wall Mount – with Comfort Optics

LED Wattage and Lumen Values

Ordering Code	LED Qty	LED Current (mA)	Color Temp.	Average System Watts	Type 2			Type 3			Type 4		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
PWS-140L-450-NW-G2-x-UNV	140	450	4000	22	2448	B1-U0-G1	109	2516	B1-U0-G1	112	2671	B1-U0-G1	119
PWS-140L-650-NW-G2-x-UNV	140	650	4000	30	3412	B2-U0-G2	111	3508	B2-U0-G2	114	3724	B1-U0-G1	121
PWS-140L-1150-NW-G2-x-UNV	140	1150	4000	53	5899	B2-U0-G2	112	6064	B2-U0-G2	115	6436	B2-U0-G2	122
PWS-140L-1675-NW-G2-x-UNV	140	1675	4000	75	8189	B3-U0-G3	107	8419	B3-U0-G3	110	8935	B3-U0-G3	117
PWS-140L-2100-NW-G2-x-UNV	140	2100	4000	97	9804	B3-U0-G3	101	10079	B3-U0-G3	104	10698	B3-U0-G3	111

Values from photometric tests performed in accordance with IESNA LM-79 and are representative of the configurations shown. Actual performance may vary due to installation and environmental variables, LED and driver tolerances, and field measurement considerations. It is highly recommended to confirm performance with a photometric layout.

NOTE: Some data may be scaled based on tests of similar (but not identical) luminaires. Contact factory for configurations not shown.

LED Wattage and Lumen Values (Emergency Mode)

Ordering Code	LED Qty	LED Current (mA)	Color Temp.	Temp. Range (°C)	Avg. System Watts		Lumen Outputs					
							Type 2		Type 3		Type 4	
					Normal Mode	Emergency Mode	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode	Normal Mode	Emergency Mode
PWS-140L-450-NW-G2-x-EBP-UNV	140	450	4000	0 to 40	22	10	2448	1376	2516	1415	2671	1502
PWS-140L-650-NW-G2-x-EBP-UNV	140	650	4000	0 to 40	30	10	3412	1376	3508	1415	3724	1502
PWS-140L-450-NW-G2-x-EBPC-UNV	140	450	4000	-20 to 40	22	18	2448	1964	2516	2019	2671	2143
PWS-140L-650-NW-G2-x-EBPC-UNV	140	650	4000	-20 to 40	30	18	3412	1964	3508	2019	3724	2143
PWS-140L-1150-NW-G2-x-EBPC-UNV	140	1150	4000	-20 to 40	52	18	5899	1964	6064	2019	6436	2143
PWS-140L-1675-NW-G2-x-EBPC-UNV	140	1675	4000	-20 to 40	75	18	8189	1964	8419	2019	8935	2143

For emergency EBPC option, publish values are based on initial lumens.

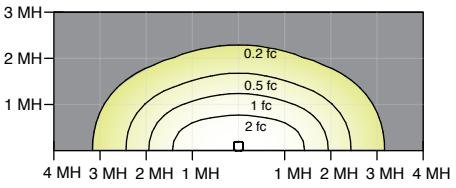
Predicted Lumen Depreciation Data

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.L_{70} is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L_{70} hours limited to 6 times actual LED test hours

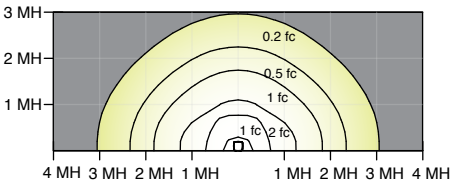
Ambient Temperature °C	Drive current	Calculated L_{70} Hours	L_{70} per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	**up to 2100 mA**	**>100,000 hours**	**>42,000 hours**	**>88%**

Optical Distributions

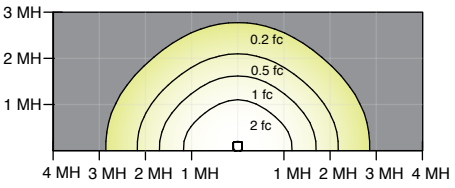
Based on 20' mounting height



Comfort Type 2



Comfort Type 3



Comfort Type 4

PWS PureForm LED wall sconce

Wall Mount – with Comfort Optics

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 guide technology provides low-glare, uniform illumination. Composed of 140 LEDs strategically positioned on the edge of the optical plate. Light engine luminous opening size optimized to best achieve a balance between lumen output and optical performance with the need to provide visual comfort. Light engine frame ensures contact with housing to provide heat conduction and sealing against the elements. Light engine is RoHS compliant. Standard color temperatures: 3000K +/- 130K, 4000K+/- 130K, 5000K +/- 225K. Minimum CRI of 70. Also available in 2700K and Amber (>590nm) with extended lead times. Contact factory for details. LED light engine is rated IP65 in accordance to Section 9 of IEC 60598-1.

Energy saving benefits

System efficacy up to 122 lms/W with significant energy savings over Pulse Start Metal Halide luminaires. Optional control options provide added energy savings during unoccupied periods.

Optical systems

The advanced LED comfort optical system provides Types 2, 3, and 4. Composed of high performance UV-stabilized optical grade lens with molded micro-optics to achieve desired distribution optimized to get a exceptional lighting uniformity. 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.

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%

SiteWise (SW): SiteWise system includes a controller fully integrated in the luminaire that enables the luminaires to communicate with a dimming signal transmitter cabinet located on site using patented central dimming technology. A locally accessible mobile app allows users to access the system and set functionalities such as ON/OFF, dimming levels and scheduling. Cannot be used with other control options, motion response or photocell options. Additional functionalities are available such as communication with indoor lighting and connection to BMS systems. Complete information on the control system can be found on the SiteWise website at signify.com/sitewise.

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. 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)

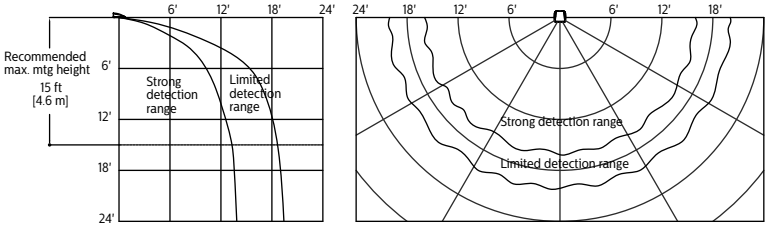
Cannot be used with other control options.

Emergency Battery Backup Cold Pack (EBP/EBPC): Emergency battery packs included integral to the luminaire, allowing for a consistent look between emergency and non-emergency luminaires. A separate surface mount accessory box is not required. EBP is suitable for use in ambient temperature conditions from 0°C (32°F) to 40°C (100°F) available on 450mA and 650mA only. EBPC cold weather rated down to -20°C (-4°F) available on all wattage except the 2100mA configuration. Both systems are designed to have a secondary driver with relay to immediately detect AC power loss to power luminaire for a minimum of 90 minutes from the time power is lost. Available with 120-277V, or 'UNV' only.

Wireless system (LLC): Optional wireless controller integral to luminaire ready to be connected to a Limelight system (sold by others). The system allows you to wirelessly manage the entire site, independent lighting groups or individual luminaires while on-site or remotely. Based on a high-density mesh network with an easy to use web-based portal, you can conveniently access, monitor and manage your lighting network remotely. Wireless controls can be combined with site and area, pedestrian, and parking garage luminaires as well, for a completely connected outdoor solution. Motion response capability can be installed in other luminaires in the mesh or on a remote pod accessory where pod is mounted to pole or wall.

Motion response options

Bi-Level Infrared Motion Response (BL-MMRI): High frequency (5.8GHz +/- 75MHz microwave ISM wave band with <0.5 mW transmitting power) motion sensor is mounted integral to the luminaire. This bi-level motion sensor is designed to detect motion through the light engine so it can be used inside the luminaire without any protruded components. Sensor allows energy savings and meeting code requirements without compromising comfort and aesthetics. The product comes with factory pre-programmed standard settings including a dimming level of 30%, hold time of 3 minutes with no stand-by period. This means that in operations, the sensor will keep the luminaire at 30% of total lumen output and when motion is detected, the luminaire returns to 100% output. It will remain on full power for 3 minutes default prior to dimming back to low when no motion is observed. Other dimming levels, holding times, and stand-by periods are possible. Please contact factory technical support for details.



Wall Mount – with Comfort Optics

Specifications (cont'd)

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). Most PureForm PWS configurations are qualified under Standard DesignLights Consortium® category. Consult DLC Qualified Products list for more details.

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.

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