

Site & Area

PureForm

LED area medium, wildlife

Gardco PureForm LED area medium P26 luminaire 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: Qty: Notes:

Ordering guide

example: P26-64L-600-AM-G2-AR-5-120-FWC-MGY

Prefix Num P26	nber of LEDs I		LED Color - Generation AM-G2	Mounting	Distribution	Voltage
medium, wildlife 64L 80L		400 400mA 600 600mA	(nominal 590nm narrow spectrum LED) Generation 2	AR Arm Mount (standard) ¹ The following mounting kits must be ordered separately (See accessories) WS Wall mount with surface conduit rear entry permitted RAM Retrofit arm mount kit ¹	Type 2 2 Type 2 Type 3 3 3 Type 3 Type 4 4 Type 5 5 5W Type 5W	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V (50/60Hz) HVU 347-480V (50/60Hz)

Dimming controls		Motion sensing		Photo-sensing		Electrical		Luminaire	Finish	
FAWS Field BL Bi-ler motic DynaDimmer: A CS50 Secu CM50 Medi CS30 Secu		IMRI3 IMRI7	Integral with #3 lens ¹⁰ Integral with #7 lens ¹⁰	TLRD5 TLRD7	Photocontrol Button ^{5,6} Twist Lock Receptacle 5 Pin ⁷ Twist Lock Receptacle 7 Pin ⁷ Twist Lock Receptacle w/Photocell ^{6,8}	F2 F3 Pole N FP1 FP2 FP3	g Single (120, 277, 347VAC) ⁶ Double (208, 240, 480VAC) ⁶ Canadian Double Pull (208, 240, 480VAC) ⁶ Aount Fusing Single (120, 277, 347VAC) ⁶ Double (208, 240, 480VAC) ⁶ Canadian Double Pull (208, 240, 480VAC) ⁶ Protection (10kA standard)	Square Pole Adapter included as standard TB Terminal Block RPA Round Pole Adapter (fits to 3"- 3.9" O.D. pole) ⁹ FWC Wildlife Friendly External House side shield ²	Cust	Black White Bronze Dark Gray Medium Gray omer specified

1. Mounts to a 4–5" round pole with adapter included for square poles.

2. External shield shipped with luminaire.

- 3. Not available with other control options.
- 4. Not available with motion sensor.

5. Not available in 347 or 480V

6. Must specify input voltage.

7. Dimming will not be connected to NEMA receptacle if ordering with other control options.

8 .Not available in 480V. Order photocell separately with TLRD5/7.

- 9. Not available with WS. RPAs provided with black finish standard.
- 10. Not available with DD and FAWS dimming control options.



PureForm P26 Accessories¹ (order separately, field installed)

Mounting Accessories

 P26-RAM-G2-(F)
 Retrofit Arm mount kit

 P26-WS-G2-(F)
 Wall mount with surface conduit rear entry permitted

 P26-BD-G2
 Bird deterrent

PureForm PTF2 (pole top fitter fits 23/8	3-21/2" OD x 4" depth tenon)	PureForm PTF3 (pole top fitter fits 3-3	1/2" OD x 6" depth tenon)	PureForm PTF4 (pole top fitter fits 31/2-4" OD x 6" depth tenon) PTF4-P26-1-90-(F)1 luminaire at 90°					
PTF2-P26-1-90-(F)1 lum	iinaire at 90°	PTF3-P26-1-90-(F)	1 luminaire at 90°						
PTF2-P26-2-90-(F)	2 luminaires at 90°	PTF3-P26-2-90-(F)	2 luminaires at 90°	PTF4-P26-2-90-(F)	2 luminaires at 90°				
PTF2-P26-2-180-(F)	2 luminaires at 180°	PTF3-P26-2-180-(F)	2 luminaires at 180°	PTF4-P26-2-180-(F)	2 luminaires at 180°				
PTF2-P26-3-90-(F)	3 luminaires at 90°	PTF3-P26-3-90-(F)	3 luminaires at 90°	PTF4-P26-3-90-(F)	3 luminaires at 90°				
PTF2-P26-4-90-(F)	4 luminaires at 90°	PTF3-P26-4-90-(F)	4 luminaires at 90°	PTF4-P26-4-90-(F)	4 luminaires at 90°				
PTF2-P26-3-120-(F)	3 luminaires at 120°	PTF3-P26-3-120-(F)	3 luminaires at 120°	PTF4-P26-3-120-(F)	3 luminaires at 120°				

(F) = Specify finish

1. Consult Signify to confirm whether specific accessories are BAA-compliant.

Predicted Lumen Depreciation Data

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

Ambient Temperature °C	Driver mA	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%

LED Wattage and Lumen Values

Unshielded					Type 2			Туре 3			Type 4			Type 5			Type SW		
		LED	Dominant	Average															
	Total	Current	Wavelength	System	Lumen	Efficacy	BUG	Lumen	Efficacy	BUG									
Ordering Code	LEDs	(mA)	(nm)	Watts	Output	(LPW)	Rating	Output	(LPW)	Rating									
P26-48L-400-AM-G2-x	48	400	596	36	2,833	79	B1-U0-G1	2,739	76	B1-U0-G1	2,842	79	B1-U0-G1	2,918	81	B2-U0-G1	2,935	81	B2-U0-G1
P26-48L-600-AM-G2-x	48	600	596	55	3,316	60	B1-U0-G1	3,206	58	B1-U0-G1	3,326	60	B1-U0-G1	3,415	62	B2-U0-G1	3,435	62	B3-U0-G1
P26-64L-400-AM-G2-x	64	400	596	62	3,731	60	B1-U0-G1	3,608	58	B1-U0-G1	3,743	61	B1-U0-G1	3,842	62	B3-U0-G1	3,865	63	B3-U0-G1
P26-64L-600-AM-G2-x	64	600	596	94	4,367	46	B1-U0-G1	4,223	45	B1-U0-G1	4,381	46	B1-U0-G1	4,498	48	B3-U0-G1	4,524	48	B3-U0-G1
P26-80L-400-AM-G2-x	80	400	596	88	4,291	49	B1-U0-G1	4,150	47	B1-U0-G1	4,305	49	B1-U0-G1	4,420	50	B3-U0-G1	4,445	51	B3-U0-G1
P26-80L-600-AM-G2-x	80	600	596	116	5,023	43	B1-U0-G1	4,857	42	B1-U0-G2	5,039	43	B1-U0-G2	5,173	44	B3-U0-G1	5,203	45	B3-U0-G1

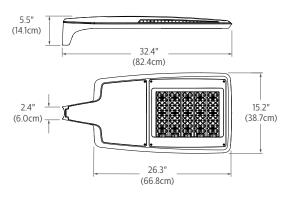
		LED	LED Dominant Average 2-FWC 3-FWC 4-FWC		wc	5-F	wc	5W-FWC						
Shielded Ordering Code	Total LEDs	Current (mA)	Wavelength (nm)	System Watts	Lumen Output	Efficacy (LPW)								
P26-48L-400-AM-G2-x	48	400	596	36	1,094	22	1,058	29	1,098	22	1127	23	1,134	22
P26-48L-600-AM-G2-x	48	600	596	55	1,280	16	1,238	22	1,284	17	1319	18	1,326	17
P26-64L-400-AM-G2-x	64	400	596	62	1,440	21	1,393	23	1,445	22	1483	23	1,492	22
P26-64L-600-AM-G2-x	64	600	596	94	1,686	16	1,630	17	1,691	17	1736	18	1,746	17
P26-80L-400-AM-G2-x	80	400	596	88	1,656	22	1,602	18	1,662	22	1706	23	1,716	23
P26-80L-600-AM-G2-x	80	600	596	116	1,939	17	1,875	16	1,945	17	1997	18	2,009	17

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.

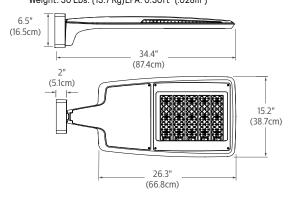
NOTE: Some data may be scaled based on tests of similar (but not identical) luminaires. Contact factory for configurations not shown.

Dimensions

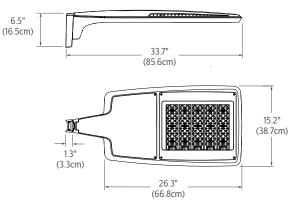
Standard Arm (AR) Weight: 27 Lbs (12.4 Kg) EPA: 0.26ft² (.024m²)



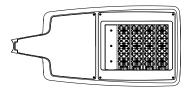
Wall (WS) Weight: 30 Lbs. (13.7 Kg)EPA: 0.30ft² (.028m²)



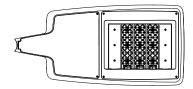
Retrofit Arm **(RAM)** Weight: 28 Lbs (12.7 Kg) EPA: 0.28ft² (.026m²)



4 module configuration

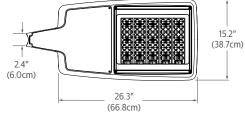


3 module configuration

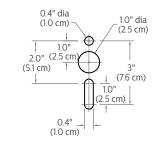


Wildlife Friendly External House side shield (FWC) Weight: 29 Lbs (13.1Kg) EPA: 1.3ft² (0.12m²)

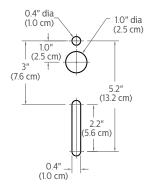




Standard Arm (AR) drill pattern



Retrofit arm (RAM) drill pattern



Specifications

Housing

Two-piece sealed enclosure with main part of the housing designed as the structural and heat sink frame enclosed by cover to give its unique form. It also includes integral arm and separate, self-retained hinged, one-piece die cast door frame. All die-cast parts made of low copper die cast aluminum alloy for a high resistance to corrosion. The sleek profile with optimized surface area allows housing to provide excellent convection heat transfer with minimum use of heat fins, giving the freedom to have a clean minimalist aesthetic design. Luminaire housing rated to IP66, tested in accordance to Section 9 of IEC 60598-1.

Vibration resistance

Luminaire is tested and rated 3G over 100,000 cycles conforming to standards set forth by ANSI C136.31-2010. Testing includes vibration in three axes, all performed on the same luminaire.

Light engine

Light engine comprises of a module of 16-LED aluminum metal clad board fully sealed with optics offered in multiples of 3, 4 and 5 modules or 48, 64 and 80 LEDs. Module is RoHS compliant. Direct Amber LED is narrow spectrum with dominant wavelength at 596 nm (peak wavelength at 601 nm). LED light engine is rated IP66 in accordance to Section 9 of IEC 60598-1.

Optical systems

Type 2, 3, 4, 5 and 5W distributions available. Luminaire designed with 0% uplight (U0 per IESNA TM-15).

Mounting

Standard luminaire arm mounts to 4" O.D. round poles. Can also be used with 5" O.D. poles. Square pole adapter included with every luminaire. Round Pole Adapter (RPA) required for 3-3.9" poles. PureForm features a retrofit arm kit. When specified with the retrofit arm (RAM) option, PureForm seamlessly simplifies site conversions to LED by eliminating the need for additional pole drilling on most existing poles. RAM will be boxed separately. Optional wall mounting accessories.

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%

Automatic Profile Dimming (CS/CM/CE/CA): Standard dimming profiles provide flexibility towards energy savings goals while optimizing light levels during specific dark hours. Dimming profiles include two dimming settings including dim to 30% or 50% of the total lumen output. 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 diming 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)

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

Motion response options

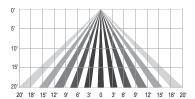
Bi-Level Infrared Motion Response (BL-IMRI): Motion Response module is mounted integral to luminaire factory pre-programmed to 50% dimming when not ordered with other control options. P50-IMRI is set/operates in the following fashion: The motion sensor is set to a constant 50%. When motion is detected 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

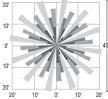
FSIR-100 Wireless Remote Programming Tool (contact Technical Support for details).

Infrared Motion Response with Other Controls: 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.

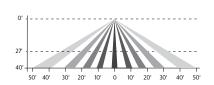
Infrared Motion Response Lenses (IMRI3/IMRI7): Infrared Motion Response Integral module is available with two different sensor lens types to accommodate various mounting heights and occupancy detection ranges. Lens #3 (IMRI3) is designed for mounting heights up to 20' with a 40' diameter coverage area. Lens #7 is designed for higher mounting heights up to 40' with larger coverage areas up to 100' diameter coverage area. See charts for approximate detection patterns:

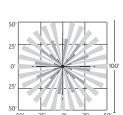
IMRI3 Luminaire or remote mount controller with #3 lens





IMRI7 Luminaire or remote mount controller with #7 lens





Specifications (continued)

Electrical

Twist-Lock Receptacle (TLRD5/TLRD7/TLRPC): Twist Lock Receptacle with 5 pins enabling dimming or with 7 pins with additional functionality (by others) can be used with a twistlock photoelectric cell or a shorting cap. Dimming Receptacle Type B (5-pin) and Type D-24 (7-pin) in accordance to ANSI C136.41. Can be used with third-party control system. Receptacle located on top of luminaire housing. When specifying receptacle with twistlock photoelectric cell, voltage must be specified. When ordering Twist-lock receptacle (TLRD5 or TLRD7), photocell or shorting cap is not included. TLRPC is shipped standard with 5 pin.

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): Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and NeutralGround, and in accordance with DOE MSSLC Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High test level 10kV/10kA. 20kV / 10kA surge protection device that provides extra protection beyond the SP1 10kV/10kA level.

Listings

UL/cUL wet location listed to the UL 1598 standard, 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.

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 offthe-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.

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