



Philips Gardco PureForm luminaires combine LED performance excellence and advanced LED thermal management technology with a distinct purity of style to provide outdoor area lighting that is both energy efficient and aesthetically pleasing. PureForm is defined by its high performance, sleek low profile design and rugged construction.

Ordering guide

Prefix Controls Mounting **Optical System**⁷ Wattage Color Temp Voltage Finish Options Arm P32 P32-A15 Standard 530 mA cw 120 BRP TL Tool-Less entry and 1 PureForm Standard luminaire Standard Standard **Optic Position** Cool White 120V Bronze Paint driver removal hardware 215LA 32" fixture DCC 9" Arm 5,700 K 260LA 208 BLP ΤВ Terminal Block 2 2 Type 2 Dual Circuit Control 70 CRI A2⁵ 2@180 3 Type 3 Black Paint 208V 640mA F۱ Fusing DIM (nominal) Short 4 Type 4 2@90 240 WP 0-10V Dimming 330LA¹⁰ LF In-Line/In-Pole Fusing Type 5 Medium 5" Arm 5M NW 2@90 White Paint 240V 5W Type 5 Wide 700 mA Neutral PC 3, 4, 12 Receptacle with Photocell A3⁵ Automatic Profile Dim. 277 NP 3 BLC Backlight Ctrl White (Includes PCR5 receptacle) Decorative 290I A APD-MRO² 3@90 Natural Paint 4,000K 277V 2BL Type 2 with PCB^{3, 4, 12} Photocell Button APD with Motion Arm backlight (less shield) 70 CRI 3@120 347 oc Response Override MA PCR5^{3,4,13,14} Photocell Receptacle only (nominal) Optional Color 3@120 347V LEED Corner LCL⁸ pole mounted sensor Mast Arm with 2 dimming connections Specify optional ww Cutoff Optics 480 . APD-MRI^{3,17} Δ Fitter PCR7^{3,4,14,15} Photocell Receptacle only color or RAL Warm White 4@90 480V APD with Motion LEED Corner (requires I CR⁸ (ex: OC-LGP with 2 dimming and 2 3 000 K Response Override 2³/₈" O D w Cutoff Optics UNV or OC-RAL7024) auxiliary connections 80CRI fixture mounted sensor Mast Arm) Wall Mount 120-277V **Optics Rotated** (nominal) sc MRI^{3,17} EHHS External Houseside Shield 50hz/60hz WS⁶ Left (90°)10 Special color Motion Response at 50% SPA1-2 Square Pole Adapter Wall mount HVU low, luminaire mounted 2-90 2 agvT Specify, must including 347-480V for use with A1 or A2 Arms 3-90 supply color chip. Type 3 sensor 50hz/60hz SPA3⁴ Square Pole Adapter surface 4-90 **MR50**² Type 4 Requires factory conduit BLC-90 Backlight Ctrl auote for use with A3 Arms Motion Response rear entrv 2BL-90 Type 2 with at 50% low pole DI 16 Diffusing Lens permitted backlight (less shield) mounted sensor CLR¹⁶ Clear Glass Lens Wireless system **Optics Rotated** Right (270°)¹⁰ (Remote wireless controller available. See 2-270 Type 2 p.2 for details) 3-270 Type 3 LLC3^{1, 3, 4} #3 lens for 4-270 Type 4 9-20' mounting heights BLC-270 Backlight Ctrl LLC4^{1, 3, 4} #4 lens for 2BL-270 Type 2 with 21-40' mounting heights backlight (less shield)

1. Available 120–277V only (UNV, 120, 208, 240 & 277).

2. Available 120V or 277V only. MR50 and APD-MRO require one motion sensor per pole, ordered separately. See page 2 for Accessories.

3. Not available with A3 Arm Style

- LLC3/LLC4 wireless system not configurable with PC/PCB/PCR5/PCR7 Options. See pages 6-7 for more info.
- Arm Styles mount to a round pole with no adapter. If mounting to a square pole, specify the Square Pole Adapter option: SPA1-2 for A1/A2 arms, SPA3 for A3 arms.
- Available with A1 or A2 Arms only. Not available in P32-MR50, or P32-APD-MR0.
- Luminaire door frame and optic assembly provided standard without glass lens.
 Specify CLR option for clear glass lens.
- Available with 260LA or 330LA only.
 See page 8–9 for information on anticular training and a set of the se
- optical rotation prior to ordering. 10 330LA not available in 347 or 480V
- Available with A1 arm or with MA mounting only. Provide specific input voltage.
- 12. Not configurable with 480V. Voltage must be specified.
- 13. Works with 3-pin or 5-pin NEMA photocell/dimming device.
- If ordered with DIM, APD, MRI, MR50, APD-MRI, APD-MRO, dimming will not be connected to NEMA receptacle.
- Works with 3-pin or 5-pin NEMA photocell/dimming device and auxiliary connections are not connected (for future use only).
- 16. Option reduces performance.

example: P32-DIM-A1-130LA-NW-UNV-NP-CLR

 The device is an outboarded sensor enclosure mounted to the arm (See page 5).

32" housing

PureForm accessories (order separately)

PTF2-(F)

Pole top fitter fits 2 3/8-2 1/2" OD x 4" depth tenon with 1, 2, 3 or 4 luminaires at 90° $\,$

PTF3-(F)

Pole top fitter fits 3-3 1/2" OD x 6" depth tenon with 1, 2, 3 or 4 luminaires at 90°

PTF4-(F)

Pole top fitter fits 3 1/2-4" OD x 6" depth tenon with 1, 2, 3 or 4 luminaires at 90°

MS-P – 120V or 277V Input Pedestrian Motion Sensor. For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override)

MS-A-120V – 120V Input Area Motion Sensor For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override) **MS-A-277V** – 277V Input Area Motion Sensor For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override)

Note: Motion Sensors are ordered separately, with one (1) motion sensor required per pole location for P32-MR50 or P32-APD-MR0 luminaires. See Luminaire Configuration Information on page 4-5 for more details. Area motion sensor color is Arctic White. MRI and APD-MRI luminaires include an integral motion sensor.

PureForm Wireless system accessories (for wall or pole mount)^{1,2,3,4}

LLCR2-(F)

Standalone wall or pole wireless controller with #2 Lens.

LLCR3-(F) Standalone wall or pole wireless controller with #3 Lens.

LLCR4-(F) Standalone wall or pole wireless controller with #4 Lens.

1. When using the wireless remote accessory option (LLCR-F) in a pole mount application, specify pole option (CL=Coupling Internal Thread, 3/4" size)

2. 120-277V only

3. Must specify finish (F=Specify matching finish)

4. Luminaire configuration must include 0-10V Dimming 'P32-DIM' option when Wireless system accessories are specified

		LED		Average		Type 2	ype 2 Type 2BL			Туре 3			
Ordering Code	Total LEDs	Current (mA)	Color Temp.	System Watts⁵	Lumen Output ^{5,6}	Efficacy (LPW)	BUG Rating	Lumen Output ^{5,6}	Efficacy (LPW)	BUG Rating	Lumen Output ^{5,6}	Efficacy (LPW)	BUG Rating
215LA	128	530	4000K	218	25,990	119	B3-U0-G3	28943	133	B4-U0-G4	26,251	120	B3-U0-G4
260LA	160	530	4000K	257	32,768	128	B3-U0-G4	36489	142	B5-U0-G5	33,096	129	B3-U0-G4
290LA	128	700	4000K	287	32,614	114	B3-U0-G4	36319	127	B5-U0-G5	32,942	115	B3-U0-G4
330LA	160	640	4000K	326	38,279	117	B3-U0-G4	42628	131	B5-U0-G5	38,664	119	B3-U0-G4

			1											
Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts⁵	Lumen Output ^{5,6}	Type 4 Efficacy (LPW)	BUG Rating	Lumen Output ^{5,6}	Type 5M Efficacy (LPW)	BUG Rating	Lumen Output ^{5,6}	Type 5W Efficacy (LPW)	BUG Rating	
215LA	128	530	4000K	218	25,251	116	B2-U0-G3	27595	126	B5-U0-G2	28,271	130	B5-U0-G3	
260LA	160	530	4000K	257	31,836	124	B3-U0-G4	34791	135	B5-U0-G2	35,634	139	B5-U0-G4	
290LA	128	700	4000K	287	31,687	110	B3-U0-G4	34629	121	B5-U0-G2	35,786	125	B5-U0-G4	
330LA	160	640	4000K	326	37,191	114	B3-U0-G4	40643	125	B5-U0-G2	41,244	127	B5-U0-G4	

 Wattage and lumen output may vary due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average for 120V through 277V input. Measured wattage may vary due to variation in input voltage

6. Lumen values based on photometric tests performed in compliance with IESNA LM-79.

LED Wattage and Lumen values

32" housing



Dimensions – Decorative Arm (A3)



Side View







Dimensions - Wall Mount



C = 5.73"

14.554 cm



Mounting	Approx.Weight		
A1	57 lbs / 25.865 kg		
A2	56 lbs / 25.402 kg		
A3	60.5 lbs / 27.443 kg		
MA	57 lbs / 25.865 kg		
W or WS	58 lbs / 26.309 kg		

Effective Projected Area ft² / m²

Mounting	Single	Twin @ 180	3/4		
A1	0.40 / 0.038	0.80 / 0.075	1.65 / 0.154		
A2	0.35 / 0.033	0.70 / 0.066	1.45 / 0.135		
A3	0.55 / 0.052	1.10 / 0.103	2.0 / 0.186		
MA	0.40 / 0.038	N/A	N/A		

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32" housing

Dimensions – PureForm with wireless system (luminaire mounted controller)





THE R P LEWIS CO.

End View



Luminaire configuration information

P32

Philips Gardco PureForm LED standard luminaire providing constant wattage and constant light output when power to the luminaire is energized.

P32-DCC

Philips Gardco PureForm luminaires provided with dual circuiting, permitting separate switching of each led array.

P32-DIM

Philips Gardco PureForm LED luminaire provided with 0 -10V dimming for connection to a control system provided by others.

P32-APD

Philips Gardco PureForm LED luminaire with Automatic Profile Dimming. Luminaire is provided with a programmable LED Driver, programmed to go to 50% power, 50% light output two (2) hours prior to night time mid-point and remain at 50% for six (6) hours after night time mid-point. Midpoint is continuously recalculated by the programmable LED Driver based on the average mid-point of the last two full night cycles. Short duration cycles, and power interruptions are ignored and do not affect the determination of mid-point.

P32-APD is available in 120V-277V input only.

P32-APD Dimming Profile:

The P32-APD offers many of the advantages of a sophisticated control system, including

100%	50%	50%		100%	
Power On	Mid	Point	Po	wer Off	

an average energy savings of at least 33% versus constant wattage, constant light output systems, without the need for a control system.

P32-MR50

Philips Gardco PureForm LED luminaire with motion response, providing a 50% power reduction on low and a commensurate reduction in light output. The power and light output reduction is accomplished utilizing the Philips DynaDimmer module, programmed for a constant 50% power. Power supplied by the motion sensor connected to the override line on the DynaDimmer takes the luminaire to high setting 100% power and light output when motion is detected. The luminaire remains on high until no motion is detected for the motion sensor duration period, after which the luminaire returns to low. Duration period is factory set at 5 minutes, and is field adjustable from 5 minutes up to 15 minutes.

This configuration is not available for use with wall mounted luminaires.

P32-MR50 is available in 120V–277V input only to the luminaire. Motion sensors require single voltage 120V or 277V input.

The Area PIR motion sensor is the WattStopper EW-200-120-W (120V Input – MSA-120V) or the WattStopper EW-200-277-W (277V Input – MSA-277V.) One motion sensor per pole is required and is ordered separately. Area sensors require single voltage 120V or 277V input.



The area motion detector provides coverage equal to up to 6 times the sensor height above ground, 270° from the front-center of the sensor.

Area PIR Motion Sensor Coverage Pattern:



270° Front Coverage Distances are approximate. H = height above ground

1H 3H 6H

Motion response requires that the pole include an additional hand hole 15 feet above the pole base, normally oriented 180° to the standard hand hole. For Philips Gardco poles, order the pole with the Motion Sensor Mounting (MSM) option which includes the hand hole and a special hand hole cover plate for the sensor with a 1/2" NPT receptacle centered on the hand hole cover plate into which the motion sensor mounts. Once the motion sensor is connected to the hand hole cover plate, then wiring connections are completed in the pole. The plate (complete with motion sensor attached and wired) is then mounted to the hand hole. If poles are supplied by others, the customer is responsible for providing suitable mounting accommodations for the motion sensor in the pole.

Mounting to a Philips Gardco Pole:



32" housing

Luminaire configuration information (Continued)

P32-APD-MRO

Philips Gardco PureForm LED luminaire with Automatic Profile Dimming, with Motion Response Override. The P32-APD-MRO combines the benefits of both automatic profile dimming and motion response, using the Philips DynaDimmer module. The luminaire will dim to 50% power, 50% light output, per the dimming profile shown for the P32-APD. If motion is detected during the time that the luminaire is operating at 50% the luminaire returns to 100% power and light output. The luminaire remains on high until no motion is detected for the duration period, after which the luminaire returns to low. Duration period is factory set at 5 minutes, and is field adjustable from 5 minutes up to 15 minutes.

This configuration is not available for use with wall mounted luminaires.

Notes:

P32-APD-MRO is available in 120V through 277V input only to luminaire. The motion sensor requires either 120V or 277V input to the motion sensor.

The P32-APD-MRO has the same pole requirements and utilizes the same motion sensors as the P32-MR50. The motion sensor mounts and wires identically as well. The P32APD-MRO utilizes the identical dimming profile as shown for the P32-APD.

By combining the benefits of automatic profile dimming and motion response, the P32-APD-MRO assures maximum energy savings, and insures that adequate light is present if motion is detected.

All motion sensors utilized consume 0.0 watts in the off state.

P32-MRI

Luminaires with Motion Response include a programmable LED driver and an outboarded programmable motion sensor. The motion sensor is set to a constant 50%. When motion is detected, the luminaire goes to 100%. The luminaire remains on high until no motion is detected for the motion sensor duration period, after which the luminaire returns to low. Duration period is factory set at 5 minutes. Available with 120V or 277V (UNIV) only.

Luminaires include a passive infrared (PIR) motion sensor, WattStopper FSP-211 equipped with an FSP-L3 lens, capable of detecting motion within 20 feet of the sensor, 180° around the luminaire, when placed at a 20 foot mounting height, or mounted on a wall. Available in 120V or 277V input only. Motion sensor off state power is 0.0 watts.

The approximate motion sensor coverage pattern is as shown below.



Top Coverage Pattern



FSP-211 Sensor - Bottom View



P32-APD- MRI



Luminaires with Integral Motion Sensor - P32-APD- MRI: Luminaires with Automatic Profile Dimming and Motion Response Override combine the benefits of both automatic profile dimming and motion response. APD-MRI luminaires utilize a programmable LED driver. The luminaire will dim to 50% power, 50% light output, per the dimming profile shown for APD luminaires (see page 4). If motion is detected during the time that the luminaire is operating at 50%, the luminaire goes to 100% power and light output. The luminaire remains on high until no motion is detected for the duration period, after which the luminaire returns to low. Duration period is factory set at 5 minutes.

APD-MRI luminaires are available with UNIV input voltages only.

APD-MRI luminaires use the identical motion sensor as MRI luminaires. See motion sensor details for P32-MRI.

Note: P32-MRI and P32-APD-MRI luminaires are only available with the A1 Arm, and include an outboarded sensor enclosure mounted to the arm of the luminaire as shown in the drawings below.



PureForm I FD area luminaire **P32**

32" housing

Luminaire configuration information - PureForm with wireless system

P32-LLC3/4 Luminaire Mounted Controller

LLCR2 (for pole or remote mount only)

Controller attached to luminaire and Includes radio, photocell and motion sensor with #3 or 4 lens for 9-40' mounting heights.





LLCR2/3/4 Pole Mounted Controller

In this configuration, the wireless controller will be mounted to the pole at a fifteen foot mounting height. The number of luminaires on each pole, as well as the specific wattage chosen, will determine how many controllers will be required.



When using the wireless remote accessory option

(LLCR-F) in a pole mount application, specify pole option (CL=Coupling Internal Thread, 3/4" size). Confirm required orientation of luminaire and wireless controller. Indicate height above pole base and orientation to handhold. Recommended min pole height is 18ft, with option (CL) 15ft above pole base. Other heights are possible when choosing the appropriate sensor lens type. See pole specification sheets for more information.

Remote Mount Wireless Controller

Used to extend the communication on site, to extend motion response and add other luminaires that are not pole mounted Consult factory for more information















Wireless Radio

- 1.8 Watts max (no load draw)
- Operating voltage 120-277 VAC RMS
- Communicates using the ZigBee protocol
- Carries out dimming commands from Gateway
- Reports ambient light readings to 1500 Ft-Cd
- Transmission Systems Operating within the
- band 2400-2483.5Mhz - ROHS Compliant

Motion Response

- Detects motion through passive infrared sensing technology with three different lens configurations
- Motion sensor coverage can be adjusted from a narrow to a wide detection range, which helps reduce false triggers to further increase energy savings.
- Sensing profiles can be updated to adapt to activity levels in the environment, such as occupancy level, wind, and mounting height

LLC4/LLCR4 (for luminaire, pole, or remote mount)





- Ambient light photocell on every wireless radio that averages the light levels of up to 5 controllers for an accurate reading and optimal light harvesting activity.
- Reports ambient light readings to 1500 Fc.

20' 18' 15' 12' 9' 6' 3' 0 3' 6'

LLC3/LLCR3 (for luminaire, pole, or remote mount)

Asymmetric optical orientation information

Standard Optic Position

Luminaires ordered with asymmetric optical systems in the standard optic position will have the optical system oriented as shown below:



Note: The hand hole will normally be located on the pole at the 0° point.

Optic Rotated Left (90°) Optic Position

Luminaires ordered with asymmetric optical systems in the Optic Rotated Left (90°) optic position will have the optical system oriented as shown below:



Note: The hand hole will normally be located on the pole at the 0° point.

Asymmetric optical orientation information

Optic Rotated Right (270°) Optic Position

Luminaires ordered with asymmetric optical systems in the Optic Rotated Right (270°) optic position will have the optical system oriented as shown below:



Note: The hand hole will normally be located on the pole at the 0° point.

Twin Luminaire Assemblies With Rotated Optical Systems

Twin luminaire assemblies installed with rotated optical systems are an excellent way to direct light toward the interior of the site (Street Side) without additional equipment. It is important, however, that care be exercised to insure that luminaires are installed in the proper location.



Note: The hand hole location will depend on the drilling configuration ordered for the pole.

Specifications

Housing

The PureForm features a die cast aluminum housing, and mounts directly to a pole or wall. The low profile rounded form reduces the effective projected area of the luminaire significantly. PureForm luminaires supplied with A1, A2 and A3 arms are provided with arms firmly attached to the main luminaire housing body. As a result, the luminaires provide the functionality, strength and installation ease of an integral arm luminaire. Mast arm mount luminaires are provided with the mast arm mounting assembly firmly attached to the main luminaire housing body.

IP Rating

PureForm luminaires have a rating of IP66.

Vibration resistance

PureForm carries a 3G vibration rating that conforms to standards set forth by ANSI C136.31. Testing includes vibration to 3G acceleration in three axes, all performed on the same luminaire.

Electrical

Luminaires are equipped with an LED driver that accepts 120V through 277V, or 347V through 480V, 50hz to 60hz, input. Driver output is based on the LED wattage selected. Component-to-component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600 VAC at 302°F / 150°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher. Power factor is not less than 90%. Luminaire consumes 0.0 watts in the off state. All motion sensors utilized consume 0.0 watts in the off state. Surge protector standard. 10KA per AN SI/IEEE C62.41.2.

Driver

(mA)

Up to 800mA

LED Performance

Ambient

Temperature °C

Up to 40 °C

1

3

LED Thermal management

The Philips Gardco PureForm LED provides die cast aluminum integral thermal radiation fins to provide the excellent thermal management so critical to long LED system life.

Wireless system

PureForm luminaires are available with optional wireless controllers ready to be connected to a Limelight system (sold by other). 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.

Full Cutoff performance

L₇₀ Per

TM-212,3

> 51,400 Hours

Predicted Lumen Depreciation Data¹

Calculated

L₇₀ Hours^{1,2}

> 154,000 Hours

Predicted performance derived from LED manufacturer's data and engineering design estimates.

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

based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.

Full cutoff performance means a luminaire distribution where zero candela intensity occurs at an angle at or above 90° above nadir. Additionally, the candela per 1000 lamp lumens does not numerically exceed 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

Optical systems

The advanced LED optical systems provide IES Types 2, 3, 4 and 5 distributions, as well as a Backlight Control optic. Special LEED corner cutoff optics are also available, both as LCR (right) and LCL (left.) All optical systems feature unitized lens optic construction.

Types 2, 3, 4, BLC and LCR/LCL optical systems utilize an innovative redirecting reflector to complement the performance of the LED optic. The redirecting reflector system utilizes 95% specular reflective material to maximize reflected light forward. Reflector facets minimize aperture brightness when viewed from the rear of the luminaire.

PureForm luminaires are provided standard without a glass lens, for maximized performance. A glass lens is available as an option, resulting in reduced performance. All PureForm luminaires provide full cutoff performance.

Listings

All luminaires bear UL or CUL (where applicable) Wet Location labels. Most PureForm configurations are DesignLights Consortium[®] qualified. 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. Standard colors include bronze (BRP), black (BLP), white (WP), and natural aluminum (NP). Consult factory for specs on optional or custom colors.

Warranty

Philips Gardco luminaires feature a 5 year limited warranty. Philips Gardco LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED Drivers also carry a 5 year limited warranty. Motion sensors are covered by warranty for 5 years by the motion sensor manufacturer. See Warranty information on **philips.com/warranties** for complete details and exclusions.

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Lumen Maintenance %

@ 60,000 hours

91%

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Philips Lighting Canada Ltd. 281 Hillmount Rd, Markham, ON, Canada L6C 2S3 Tel. 800-668-9008

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