

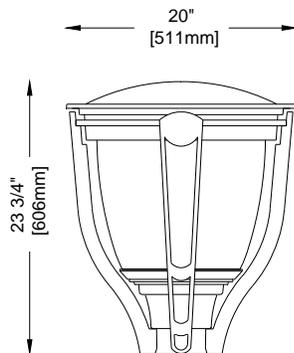
Project : City of Oak Street

Order: SQ_014119

Type: A Luminaire : CY2702-LAPR-3L-67W-4K-480-DIM-MOM-RALXXXXTX

Page: 2/3

Qty:1


Luminaire components

Head module : Round shape. A cast aluminum hood, tops an injection-molded clear acrylic prismatic (LAPR) vessel. UV polymer resistant. The vessel is mechanically assembled with an aluminum die-cast ring on the locking system.

Opening system: A quarter-turn locking mechanism with constant pressure points. Allows a tool-free access inside the luminaire, to the LED and driver. Made with cast aluminum parts and sealed with a gasket compression system. The luminaire offers an **IP66** weatherproof protection.

Cone module: Driver housing made of an aluminum extrusion. Tool-free installation with a stainless steel captive retaining latch. Certification, maintenance and luminaire codification labels are located on the cone.

Fitter module: Cast aluminum alloy 356 fitter complete with four (4) arms. Secured on pole with 3 set screws 5/16-18 UNC. Slip-fits on a 4"(10cm) outside diameter x 3" (7cm) long tenon.

Optical/electrical components

LED: 67 watts, 4000K (White), Super high flux output and high luminance, design for high current operation. LED board is mechanically mounted on heatsink for easy replacement.

Heatsink: Die cast aluminium alloy has been thermally tested for maximum efficacy.

Optic: IES type III (3L). The optic's reflector is made of pre-anodized aluminum reflecting sheets (86% min. reflection), segmented in multiple facets with heat sink radiator to keep the LED temperature down and increase their longevity.

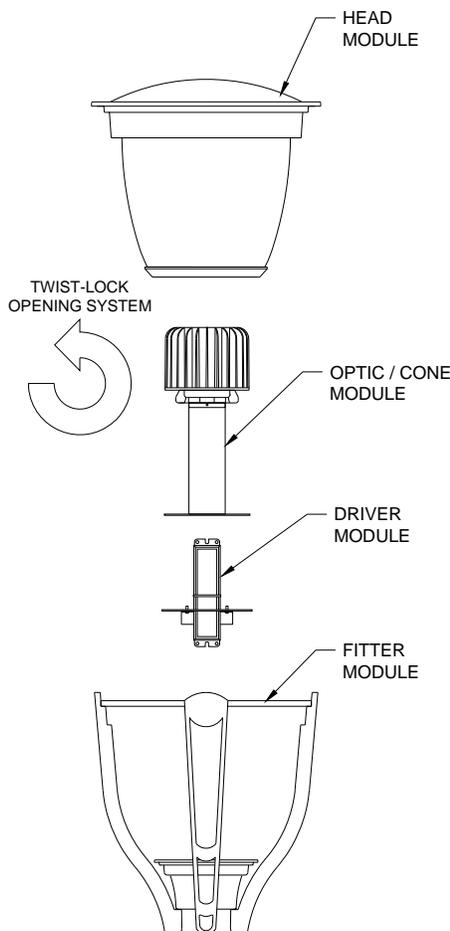
Driver module: Auto-adjustable 120-277VAC Class I driver. Primary voltage at **480 volts**. 50/60 Hz. THD max 20%. ROHS compliant. Assembled with quick-disconnect connectors resisting up to 221°F (105°C). High power factor of 90%. Minimum starting temperature: -40°F (-40°C). Maximum operating temperature: 130°F (55°C). Overheat protection: Output current is reduced to 150mA if internal driver temperature (Tcase) exceeds 185°F (85°). Complete with a 3-Pole 10KV surge protector for Line-Ground, Line-Neutral and Neutral-Ground according to IEEE/ANSI C62.41.2 C High. Complete with with 0-10 volts dimmer.

Generals/Options

Wiring/hardware : Type TEW 14-7. 12" (30cm) minimum exceeding from luminaire. All electrical connections between modules are made with quick-disconnect connectors. All exposed hardware is stainless steel. Silicone gasketing are applied.

Mom system: Multi optimization monitoring system. Dimmable et programmable wireless equipment.

Color: To be determined ____ (RALXXXX) / **Finish:** textured or smooth . Application of a polyester powder coat of paint. (5 mils /127 microns). The finish meets the ASTM G7, B117 and D1654 requirements relative to salt spray and humidity resistance. **Cyclone recommends the textured finish for this product.**


 EPA : 3.11 ft² Weight: 37 Lbs / 17 Kg

Stamp/Approval

Name : _____ Date : _____

File : CY2702 - SQ_014119 - CITY OF OAK CREEK.DOC

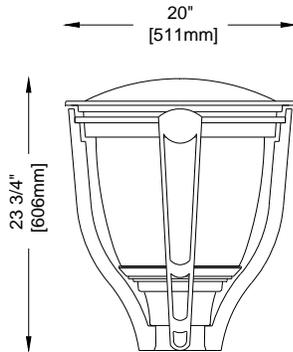
Date : 04/02/2014 Page : 2/3

Designer : jchurch

Project : City of Oak Creek
Order: SQ_014119
TYPE B&C Luminaire : CY2702-LAPR-3L-88W-4K-480-DIM-MOM-RALXXXXTX

Page: 2/3

Qty:1


Luminaire components

Head module : Round shape. A cast aluminum hood, tops an injection-molded clear acrylic prismatic (LAPR) vessel. UV polymer resistant. The vessel is mechanically assembled with an aluminum die-cast ring on the locking system.

Opening system: A quarter-turn locking mechanism with constant pressure points. Allows a tool-free access inside the luminaire, to the LED and driver. Made with cast aluminum parts and sealed with a gasket compression system. The luminaire offers an **IP66** weatherproof protection.

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Optic: IES type III (3L). The optic's reflector is made of pre-anodized aluminum reflecting sheets (86% min. reflection), segmented in multiple facets with heat sink radiator to keep the LED temperature down and increase their longevity.

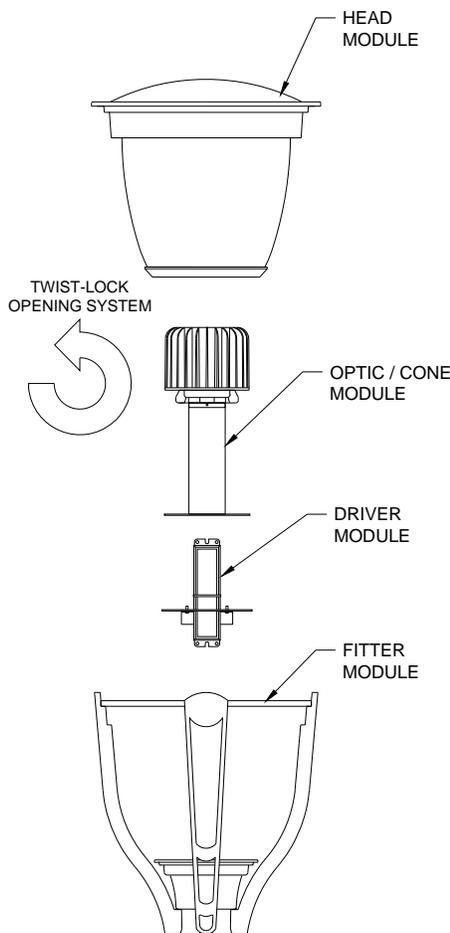
Driver module: Auto-adjustable 120-277VAC Class I driver. Primary voltage at **480 volts**. 50/60 Hz. THD max 20%. ROHS compliant. Assembled with quick-disconnect connectors resisting up to 221°F (105°C). High power factor of 90%. Minimum starting temperature: -40°F (-40°C). Maximum operating temperature: 130°F (55°C). Overheat protection: Output current is reduced to 150mA if internal driver temperature (Tcase) exceeds 185°F (85°). Complete with a 3-Pole 10KV surge protector for Line-Ground, Line-Neutral and Neutral-Ground according to IEEE/ANSI C62.41.2 C High. Complete with with 0-10 volts dimmer.

Generals/Options

Wiring/hardware : Type TEW 14-7. 12" (30cm) minimum exceeding from luminaire. All electrical connections between modules are made with quick-disconnect connectors. All exposed hardware is stainless steel. Silicone gasketing are applied.

Mom system: Multi optimization monitoring system. Dimmable et programmable wireless equipment.

Color: To be determined ___(RALXXXX) / **Finish: textured** **or smooth** . Application of a polyester powder coat of paint. (5 mils /127 microns). The finish meets the ASTM G7, B117 and D1654 requirements relative to salt spray and humidity resistance. **Cyclone recommends the textured finish for this product.**


EPA : 3.11 ft² Weight: 37 Lbs / 17 Kg
Stamp/Approval
 Name : _____ Date : _____

 File : CY2702 - SQ_014119 - CITY OF OAK CREEK.DOC
 Date : 03/02/2014 Page : 2/3
 Designer : jchurch

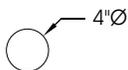
PA40/PA42

Pole Height Anchorage Base cover Options Color

Ordering example

PA40	12	SA	BS15	NONE	RAL9005TX
------	----	----	------	------	-----------

ALUMINUM POLE



Pole

Round, 4" (10cm)Ø, 6061-T6 aluminum shaft.

Hand hole 2" x 5" (8cm x 12cm) with weatherproof cover and ground lug.

Square shape. Two-piece formed aluminum alloy 1100 base cover.

Finish / Options

5 mils/127 microns polyester powder coating. Meet the ASTM G7, B117 and D1654. A wide variety of RAL colors is available.

Options

- DU: Duplex receptacle
- FU: Fuse and in-line fuse holder
- GFI: Ground fault Duplex receptacle
- PC: Button type photocell
- PCD: Button type photocell on removable door
- TP: Tamperproof hardware

Epa

	HEIGHT		WALL THICKNESS		WEIGHT		EPA RATING (sq.ft)					ANCHOR BOLTS	
	ft	m	in	mm	lbs	kg	80mph	90mph	100mph	110mph	120mph	150mph	in
PA40	8	2.44	0.125	3.2	19	9	13.6	10.4	8.2	6.5	5.3	3.3	3/4-20
PA42	8	2.44	0.226	5.7	30	14	24.4	19.0	15.1	12.3	10.1	6.3	3/4-20
PA40	10	3.05	0.125	3.2	23	10	10.4	7.9	6.0	4.7	3.7	2.2	3/4-20
PA42	10	3.05	0.226	5.7	36	16	19.3	14.9	11.7	9.4	7.7	4.7	3/4-20
PA40	12	3.66	0.125	3.2	27	12	8.1	5.9	4.4	3.3	2.5	1.4	3/4-20
PA42	12	3.66	0.226	5.7	42	19	15.5	11.8	9.2	7.2	5.8	3.5	3/4-20
PA40	13	3.96	0.125	3.2	29	13	7.1	5.1	3.7	2.7	2.0	1.1	3/4-20
PA42	13	3.96	0.226	5.7	46	21	14.0	10.6	8.2	6.3	5.0	3.0	3/4-20
PA40	14	4.27	0.125	3.2	31	14	6.2	4.4	3.1	2.1	1.5	-	3/4-20
PA42	14	4.27	0.226	5.7	49	22	12.7	9.5	7.2	5.6	4.4	2.5	3/4-20
PA40	15	4.57	0.125	3.2	32	15	5.4	3.7	2.5	1.6	1.0	-	3/4-20
PA42	15	4.57	0.226	5.7	52	24	11.5	8.5	6.4	4.8	3.7	2.1	3/4-20
PA40	16	4.88	0.125	3.2	34	15	4.7	3.1	2.0	1.2	-	-	3/4-20
PA42	16	4.88	0.226	5.7	55	25	10.4	7.6	5.6	4.2	3.1	1.7	3/4-20
PA42	18	5.49	0.226	5.7	61	28	8.2	5.9	4.2	2.9	2.0	1.0	1-36
PA42	20	6.10	0.226	5.7	68	31	6.5	4.4	2.9	1.8	1.1	-	1-36

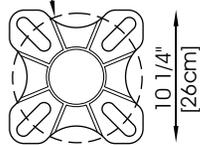
Type A&C

Type B

Bolt circle

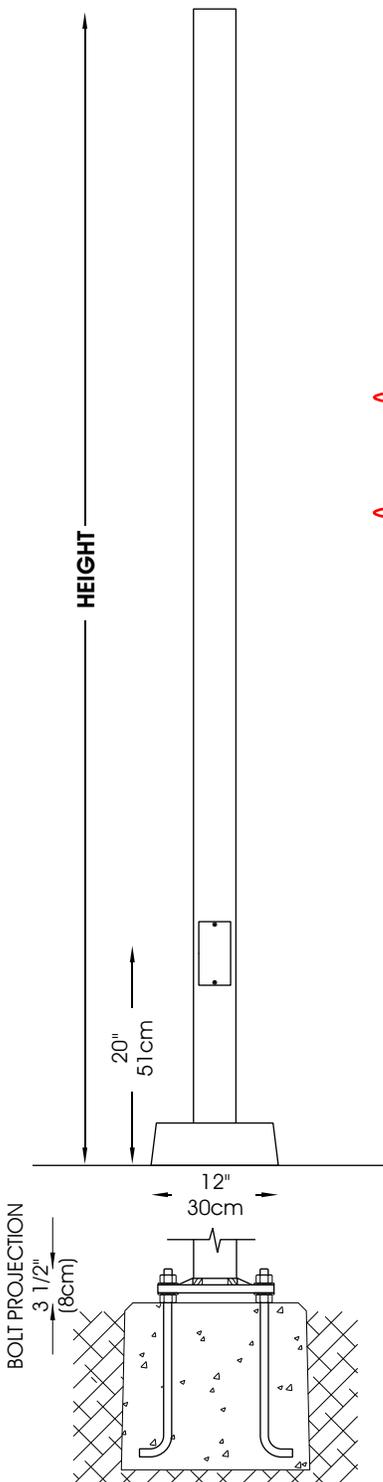
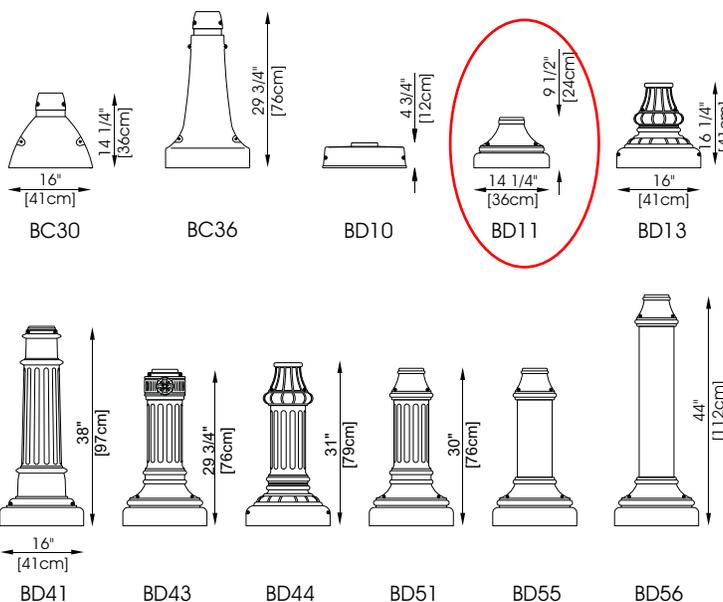
Anchor plate (SA)

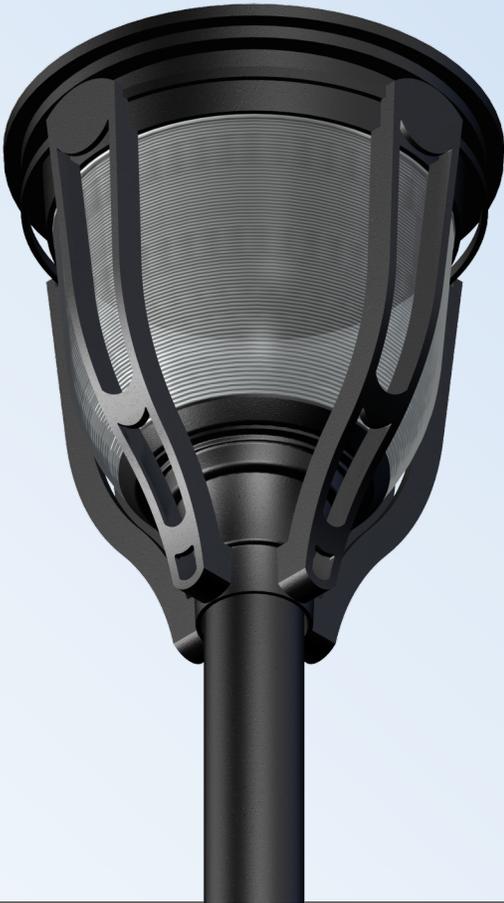
Bolt Circle: 10" (25cm)Ø
Accepts: 7" to 11 1/2"Ø (18 to 29cm)Ø



Pole with anchor plate, supplied with galvanized anchor bolts, nuts & washers.

Base covers





Cy2702

Job:
 Type: **D**
 Notes:



PureForm LED

Page 1 of 8

P21 Area and Pedestrian Scale Luminaires

Philips Gardco PureForm luminaires combine LED performance excellence and advanced Gardco 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. The die cast aluminum housing mounts directly to a pole or wall, and has a maximum profile of just 3". The advanced LED optical systems provide IES Types II, III, IV and V distributions, as well as a Backlight Control optic. Special LEED corner cutoff optics are also available. All LED wattages utilize high performance Class 1 LED systems. The luminaire features a state of the art integral thermal control system to maximize LED performance and life, and to extend component life. The door frame is die cast aluminum. Luminaires are finished with a fade and abrasion resistant TGIC powdercoat. PureForm luminaires are available in a wide variety of mountings and arms. All PureForm luminaires provide full cutoff performance.

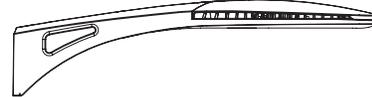
A1 - 9" Standard Arm Mount



A2 - 5" Short Arm Mount



A3 - Decorative Arm Mount



MA - Mast Arm Mount



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

PREFIX	ARM	MOUNTING	OPTICAL SYSTEM	LED WATTAGE	LED SELECTION	VOLTAGE	FINISH	OPTIONS
<input type="text"/>								

Enter the order code into the appropriate box above. Note: Philips Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

PREFIX

(See page 4 and page 5 for details on luminaire configurations.)

- P21** 21" PureForm Luminaire - Constant Wattage
- P21-DIM** 21" PureForm with 0-10V Dimming
- P21-MR50¹** 21" PureForm with Motion Response - 50% Low, Pole Mounted Motion Sensor
- P21-APD²** 21" PureForm with Automatic Profile Dimming
- P21-APD-MRO¹** 21" PureForm - APD with Motion Response Override, Pole Mounted Motion Sensor
- P21-MRI^{2,3}** 21" PureForm with Motion Response - 50% Low, Integral Motion Sensor
- P21-APD-MRI^{2,3}** 21" PureForm - APD with Motion Response Override, Integral Motion Sensor

1. MR50 and APD-MRO luminaires require one motion sensor per pole, ordered separately. See Accessories on page 2. Motion Response luminaires available 120V or 277V only.
 2. Available 120V through 277V only.
 3. MRI and APD-MRI luminaires include an integral motion sensor.

ARM (Omit for Mast Arm Mount luminaires)

Arm Style	Available Mountings
A1 Standard 9" Arm	Direct to Pole Mount and Wall Mount
A2 Short 5" Arm	Direct to Pole Mount and Wall Mount
A3 Decorative Arm	Direct to Pole Mount Only

Note: All Arm Styles shown above mount to a round pole with no adapter. If mounting to a square pole, specify the appropriate Square Pole Adapter option: **SPA1-2** for A1 or A2 arms, **SPA3** for A3 arms. See **Options** on page 2.

MOUNTING

Direct to Pole Mount (Available with A1, A2 or A3 Arms)

- 1** Single Pole Mount
- 2** Twin Pole Mount at 180°
- 2@90** Twin Pole Mount at 90°
- 3** 3-way Pole Mount at 90°
- 3@120°** 3-way Pole Mount at 120°
- 4** 4-way Pole Mount

Mast Arm Mount

MA Mast Arm Mount (Requires 2 3/8" OD Mast Arm)

Wall Mount

(Available with A1 or A2 Arms Only.
 Not available in P21-MR50, or P21-APD-MRO.)

- W** Wall Mount
- WS** Wall Mount, Surface Conduit

OPTICAL SYSTEM⁴ Featuring unitized optic lens construction.

Optic Type	Standard Optic Position	Optic Rotated Left ⁵ (90°)	Optic Rotated Right ⁵ (270°)
Type II	2	2-90	2-270
Type III	3	3-90	3-270
Type IV	4	4-90	4-270
Type V Medium	5M		
Type V Wide	5W		
Backlight Control	BLC	BLC-90	BLC-270
LEED Corner Cutoff Optics ⁶		LCL	LCR

4. Luminaire door frame and optic assembly provided standard without glass lens. Specify CLR option for clear glass lens. See **Options** on page 2.

5. See pages 7 and 8 for information on optical rotation prior to ordering.

6. Available with 90LA or 130LA LED wattages only.





LED WATTAGE AND LUMEN VALUES

Ordering Code	Average System Watts ⁷	LED Current (mA)	LED Quantity - Single LED Array	LED Selection	Luminaire Initial Absolute Lumens ^{8,9}				
					TYPE 2	TYPE 3	TYPE 4	TYPE 5M	TYPE 5W
55LA	55	350	48	NW	4,402(s)	4,563 (s)	4,412	5,133 (s)	5,357 (s)
70LA	70	350	64	NW	5,869 (s)	6,084 (s)	5,838 (s)	6,6844 (s)	7,142 (s)
90LA	90	350	80	NW	7,336	7,605 (s)	7,298	8,555	8,928
80LA	80	530	48	NW	6,176 (s)	6,518 (s)	6,211	7,165 (s)	7,860
105LA	105	530	64	NW	8,235(s)	8,691 (s)	8,152 (s)	9,553 (s)	10,425
130LA	130	530	80	NW	10,294	10,864	10,190	11,941	13,009

7. Wattage may vary by +/- 8% due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average for 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage.
 8. Values shown are for luminaires without the CLR, DL or EHHS options. Tests are in process for configurations not shown. "(s)" following the value indicates that values are scaled from tests on similar, but not identical luminaire configurations. Contact Gardco.applications@philips.com if any approximate estimates are required for design purposes.
 9. Lumen values based on tests performed in compliance with IESNA LM-79.

LED SELECTION

CW	Cool White - 5700°K - 75 CRI Nominal
NW	Neutral White - 4000°K - 70 CRI Nominal
WW	Warm White - 3000°K - 80 CRI Nominal

VOLTAGE

UNIV	120V through 277V, 50hz or 60hz
HVU	347V through 480V, 50hz or 60hz (High Voltage Universal)

FINISH

BRP	Bronze Paint
BLP	Black Paint
WP	White Paint
NP	Natural Aluminum Paint
OC	Optional Color Paint Specify Optional Color or RAL ex: OC-LGP or OC-RAL7024.
SC	Special Paint Specify. Must supply color chip.

OPTIONS

F¹⁰	Fusing
LF	In-Line/In-Pole Fusing
BD¹¹	Bird Deterrent Spike Kit
PC^{12,13}	Photocontrol and Receptacle
PCR¹³	Photocontrol Receptacle only
PCB^{12,13}	Button Photocontrol
EHHS	External Houseside Shield
PTF2	Pole Top Fitter - 2 3/8" - 3" Dia. Tenon
PTF3	Pole Top Fitter - 3" - 3 1/2" Dia. Tenon
PTF4	Pole Top Fitter - 3 1/2" - 4" Dia. Tenon
SPA1-2	Square Pole Adapter (for use with A1 or A2 Arms)
SPA3	Square Pole Adapter (for use with A3 Arms)

DL	Diffusing Lens (reduces performance significantly)
CLR	Clear Glass Lens (reduces performance)
POLY¹⁴	Polycarbonate Lens (reduces performance)
SPR¹⁵	Surge Protection for 120V through 277V Input meeting ANSI C62.41.2
SPRH¹⁵	Surge Protection for 347V through 480V Input meeting ANSI C62.41.2
TB	Terminal Block
TL	Provides for access to the LED arrays and driver without tools

10. Available with A1 arm or with MA mounting only. Provide specific input voltage.

11. Kits consist of 25 injection molded plastic bird deterrent spikes. Field installation only.

12. Not available in 480V. Provide specific input voltage.

13. Available with A1 or A2 arms, or with MA mounting only.

14. Polycarbonate lenses feature a 1 year warranty only.

15. Not available with Fusing (F) option.

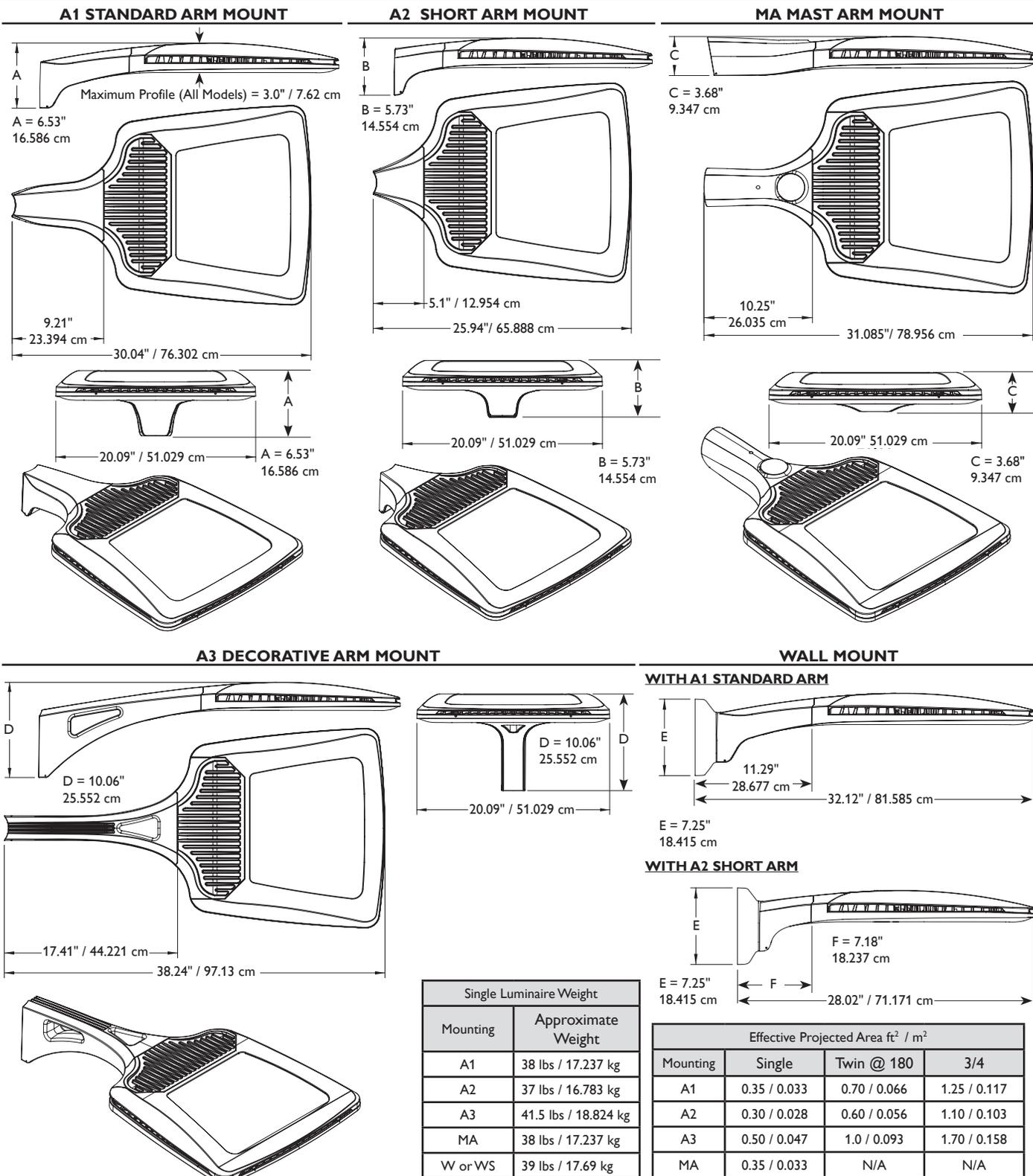
ACCESSORIES (Ordered separately)

MS-A-120V	120V Input - Area Motion Sensor for P21-MR50 (Motion Response) or P21-APD-MRO (Automatic Profile Dimming with Motion Response Override)
MS-A-277V	277V Input - Area Motion Sensor for P21-MR50 (Motion Response) or P21-APD-MRO (Automatic Profile Dimming with Motion Response Override)

Motion Sensors are ordered separately, with one (1) motion sensor required per pole location for P21-MR50 or P21-APD-MRO 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.



DIMENSIONS AND EPA



1611 Clovis Barker Road, San Marcos, TX 78666
 (800) 227-0758 (512) 753-1000 FAX: (512) 753-7855 sitelighting.com

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G200-035/1012

PHILIPS





P21 Area and Pedestrian Scale Luminaires

LUMINAIRE CONFIGURATION INFORMATION (CONTINUED ON PAGE 5)

P21: Philips Gardco PureForm LED standard luminaire providing constant wattage and constant light output when power to the luminaire is energized.

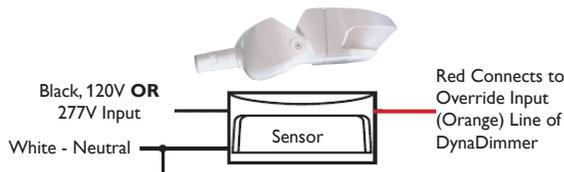
P21-DIM: Philips Gardco PureForm LED luminaire provided with 0 -10V dimming for connection to a control system provided by others.

P21-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 15 minutes, and is field adjustable from 5 minutes up to 15 minutes.

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

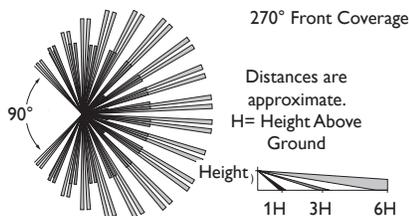
P21-MR50 is available in 120V through 277V input only to the luminaire. Motion sensors require single voltage 120V or 277V input.

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.

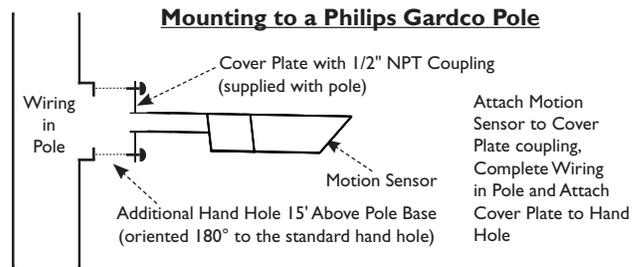


The area motion detector provides coverage equal to up to 6 times the sensor height above ground, 270° from the front-center of the sensor.

Area PIR Motion Sensor Coverage Pattern:



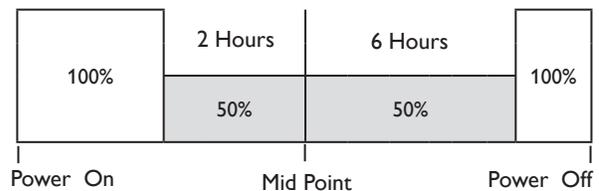
Motion response requires that the pole include an additional hand hole 15 feet above the pole base, normally oriented 180° to the standard hand hole. For Philips Gardco poles, order the pole with the Motion Sensor Mounting (MSM) option which includes the hand hole and a special hand hole cover plate 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.**



P21-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. Mid-point 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.

P21-APD is available in 120V through 277V input only.

P21-APD Dimming Profile:



The P21-APD offers many of the advantages of a sophisticated control system, including an average energy savings of at least 33% versus constant wattage, constant light output systems, without the need for a control system.



LUMINAIRE CONFIGURATION INFORMATION (CONTINUED FROM PAGE 4)

P21-APD-MRO: Philips Gardco PureForm LED luminaire with Automatic Profile Dimming, with Motion Response Override. The P21-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 P21-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 15 minutes, and is field adjustable from 5 minutes up to 15 minutes.

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

P21-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 P21-APD-MRO has the same pole requirements and utilizes the same motion sensors as the P21-MR50. The motion sensor mounts and wires identically as well. The P21-APD-MRO utilizes the identical dimming profile as shown for the P21-APD.

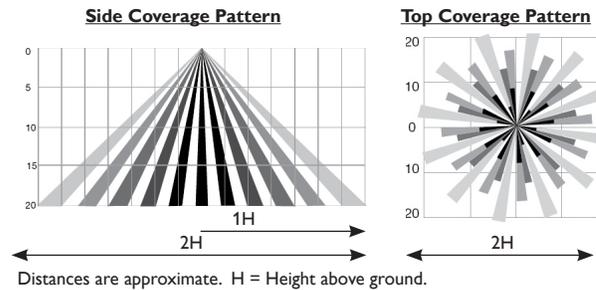
By combining the benefits of automatic profile dimming and motion response, the P21-APD-MRO assures maximum energy savings, and insures that adequate light is present if motion is detected.

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

Luminaires with Integral Motion Sensor - P21-MRI: Luminaires with Motion Response and an integral motion sensor include a programmable LED driver and an integral motion sensor. The programmable LED driver 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 15 minutes. Available with 120V through 277V (UNIV) only.

P21-MRI luminaires are provided with the WattStopper FS-305-L3W motion sensor, with a maximum recommended 20 ft. mounting height. The area coverage and range of the integral sensors make them most suitable for applications not requiring long range detection. For longer range detection applications, configurations with pole mounted motion sensors are recommended.

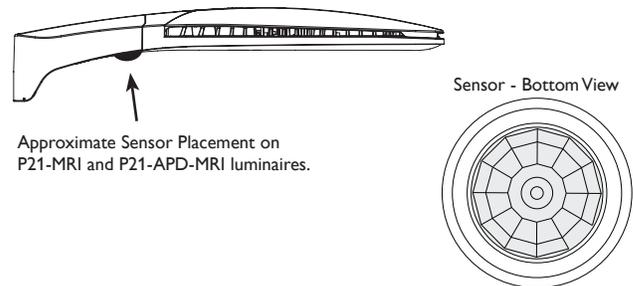
FS-305-L3W - Supplied with PureForm MRI Luminaires



Luminaires with Integral Motion Sensor - P21-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 15 minutes.

APD-MRI luminaires are available with 120V through 277V (UNIV) input voltages only.

APD-MRI luminaires use the identical motion sensor as MRI luminaires. See motion sensor details for P21-MRI.





SPECIFICATIONS

GENERAL DESCRIPTION: Philips Gardco PureForm luminaires combine LED performance excellence and advanced Gardco 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. The die cast aluminum housing mounts directly to a pole or wall, and has a maximum profile of just 3". All LED wattages utilize high performance Class 1 LED systems. The luminaire features a state of the art integral thermal control system to maximize LED performance and life, and to extend component life. The door frame is die cast aluminum. Luminaires are finished with a fade and abrasion resistant TGIC powdercoat. PureForm luminaires are available in a wide variety of mountings and arms.

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.

OPTICAL SYSTEMS: The advanced LED optical systems provide IES Types II, III, IV and V 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 system to complement the performance of the LED optic. The redirecting reflector system includes a black surrounding surface to 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.

LED RELIABILITY:

PREDICTED LUMEN DEPRECIATION DATA		
Ambient Temperature °C	Driver mA	L ₇₀ Hours ¹⁶
25 °C	350 mA	240,000
	530 mA	180,000
40 °C	350 mA	225,000
	530 mA	160,000

16. 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.

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.

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.

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 (WVP), and natural aluminum (NP). Consult factory for specs on optional or custom colors.

LABELS: All luminaires bear UL or CUL (where applicable) Wet Location labels.

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 www.sitelighting.com for complete details and exclusions. Polycarbonate lenses carry a 1 year warranty.

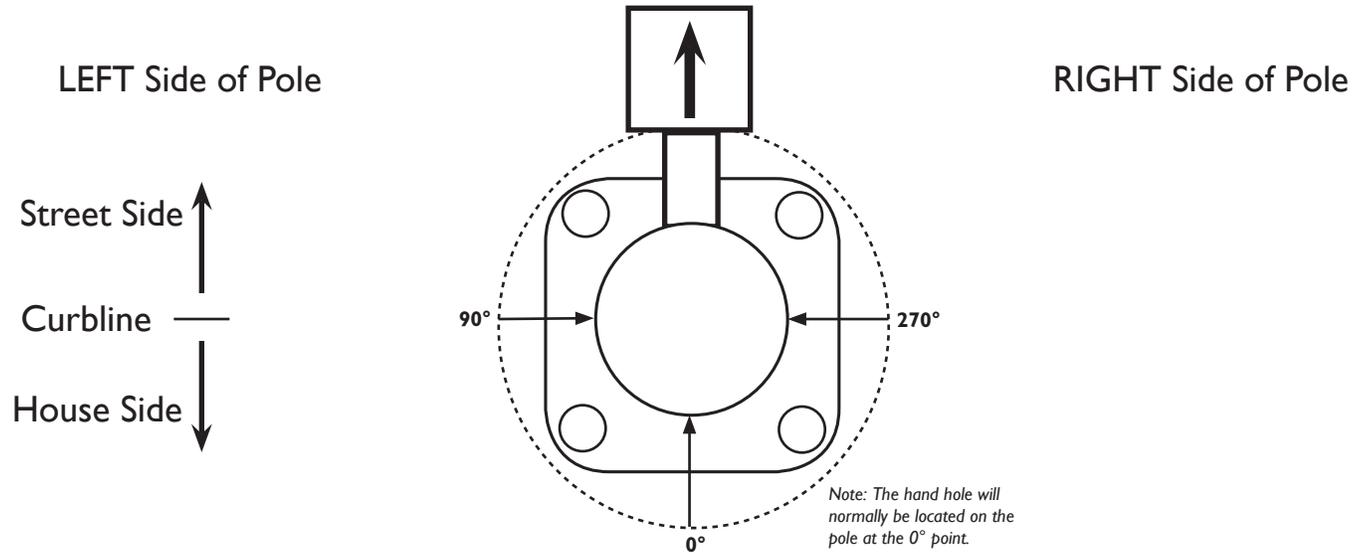
FULL CUTOFF PERFORMANCE: Full cutoff performance means a luminaire distribution where zero candela intensity occurs at an angle at or above 90° above nadir. Additionally, the candela per 1000 lamp lumens does not numerically exceed 100 (10 percent) at a vertical angle of 80° above nadir. This applies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



ASYMMETRIC OPTICAL ORIENTATION INFORMATION (CONTINUED ON PAGE 8)

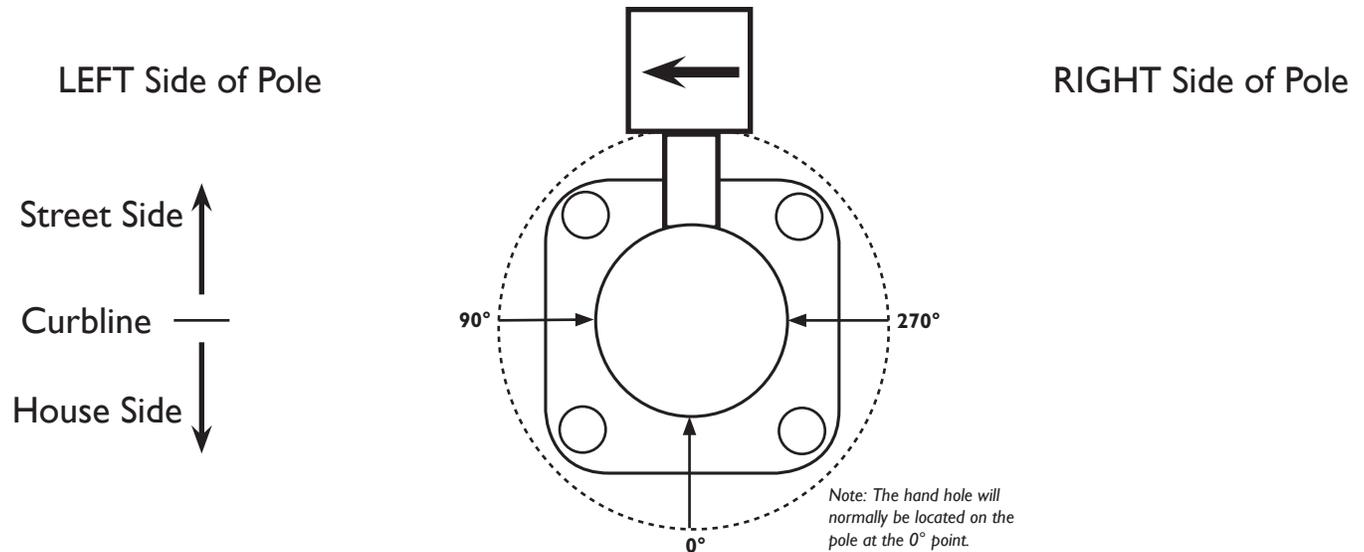
STANDARD OPTIC POSITION:

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



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:

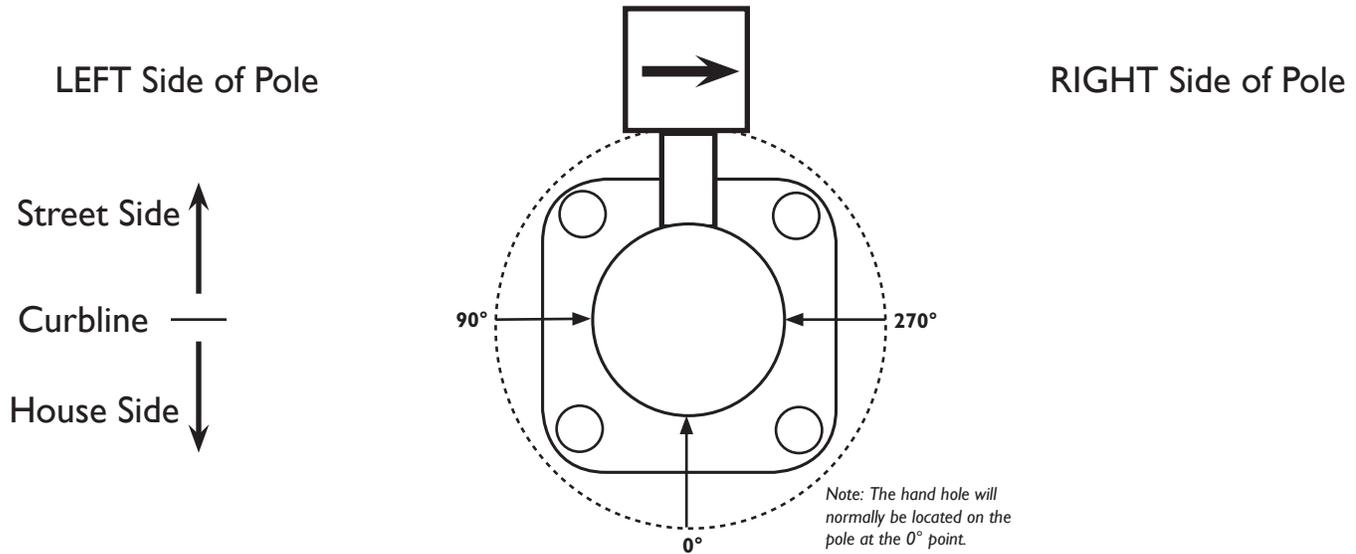




ASYMMETRIC OPTICAL ORIENTATION INFORMATION (CONTINUED FROM PAGE 7)

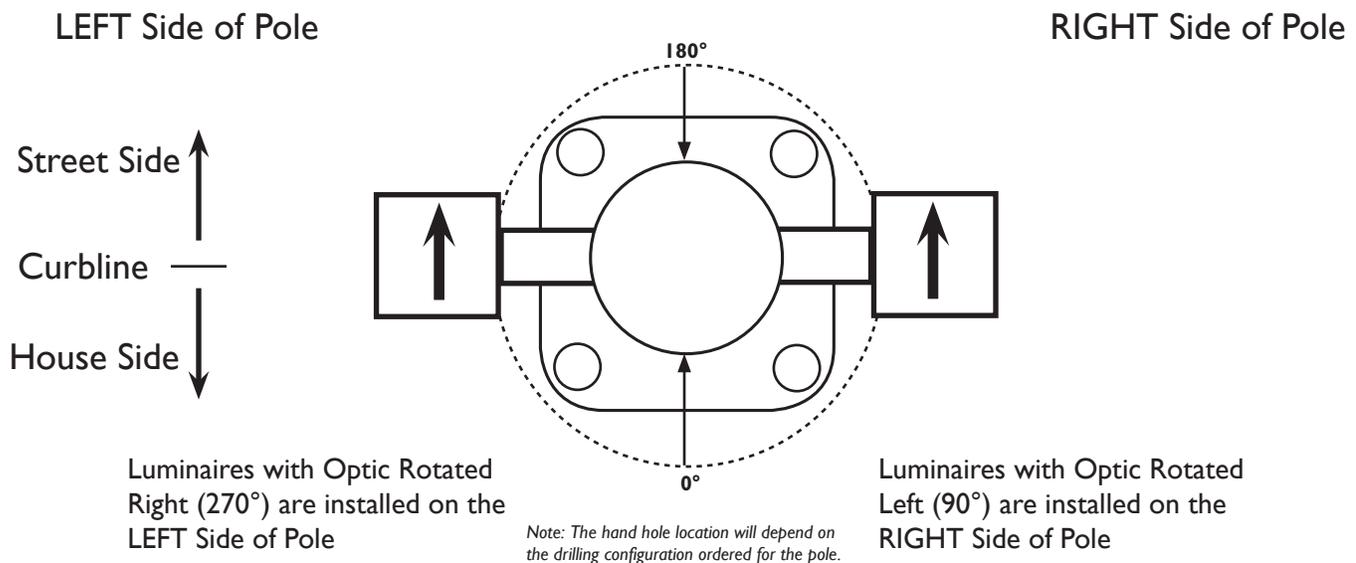
OPTIC ROTATED RIGHT (270°) OPTIC POSITION:

Luminaires ordered with asymmetric optical systems in the **OPTIC ROTATED RIGHT (270°)** optic position will have the optical system oriented as shown below:



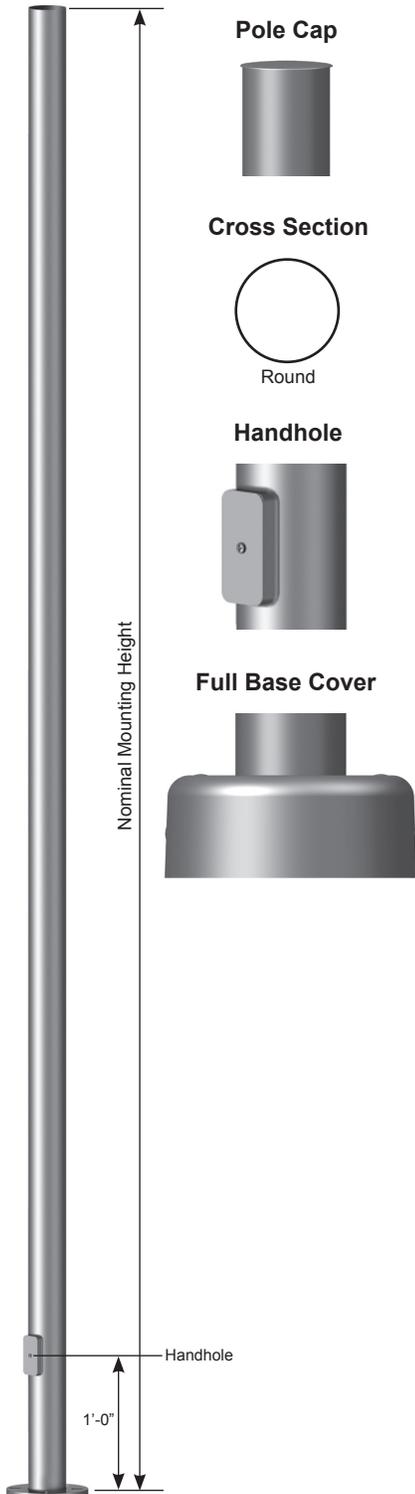
TWIN LUMINAIRE ASSEMBLIES WITH ROTATED OPTICAL SYSTEMS:

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.



Job Name: _____	Client Name: _____
Job Location - City: _____ State: _____	Created By: _____ Date: _____
Product: _____ Quote: _____	Customer Approval: _____ Date: _____

SPECIFICATIONS



Pole - The pole shaft is fabricated from hot rolled welded steel tubing of one-piece construction with a minimum yield strength of 42,000 psi.

Pole Top - A removable pole cap is provided for poles receiving drilling patterns for side-mount luminaire arm assemblies. For top mount luminaire and/or bracket consult the factory.

Handhole - A covered handhole and grounding provision with hardware is provided.

Full Base Cover - The two-piece standard full base cover is fabricated from ABS plastic.

Anchor Base - The anchor base (base plate) conforms to ASTM A36.

Anchor Bolts - Anchor bolts conform to ASTM F1554 Grade 55 and are provided with two hex nuts and two flat washers. Bolts have an "L" bend on one end and are galvanized a minimum of 12" on the threaded end.

Hardware - All structural fasteners are galvanized high strength carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

Finish - Standard finishes are galvanized, prime painted or any of Valmont's V-PRO™ Protection Systems. Additional finish options available upon request.

Design Criteria - Please reference Design Criteria Specification for appropriate design conditions.

ROUND NON-TAPERED STEEL DS340

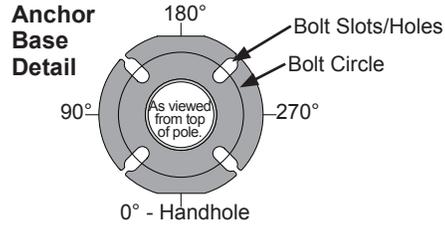


STRUCTURES

Job Name: _____	Client Name: _____
Job Location - City: _____ State: _____	Created By: _____ Date: _____
Product: _____ Quote: _____	Customer Approval: _____ Date: _____

ANCHORAGE DATA

POLE		ANCHOR BASE				ANCHOR BOLTS			
BASE OD (IN)	WALL THK (IN)	BOLT CIRCLE		DIAMETER (IN)	THK (IN)	DIA x LENGTH x HOOK (IN)	PROJECTION (IN)	± (IN)	
		DIA (IN)	± (IN)						
3.00	0.120	8.00	1.00	10.50	0.750	0.75 x 17.00 x 3.00	3.50	0.25	
4.00	0.120	8.00	1.00	10.50	0.750	0.75 x 17.00 x 3.00	3.50	0.25	
4.50	0.120	8.00	1.00	10.50	0.750	0.75 x 17.00 x 3.00	3.50	0.25	
5.00	0.120	8.00	1.00	10.50	0.750	0.75 x 17.00 x 3.00	3.50	0.25	
5.00	0.180	8.00	1.00	10.50	0.750	0.75 x 17.00 x 3.00	3.50	0.25	



LOAD AND DIMENSIONAL DATA

NOMINAL MOUNTING HEIGHT	DESIGN INFORMATION						POLE DIMENSIONS				MODEL NUMBER
	80 MPH w/1.3 GUST		90 MPH w/1.3 GUST		100 MPH w/1.3 GUST		BASE OD (IN)	TOP OD (IN)	WALL THK (IN)	STRUCTURE WEIGHT ² (LBS)	
	MAX EPA ¹ (SQFT)	MAX WEIGHT ¹ (LBS)	MAX EPA ¹ (SQFT)	MAX WEIGHT ¹ (LBS)	MAX EPA ¹ (SQFT)	MAX WEIGHT ¹ (LBS)					
10'-0"	10.0	250	7.7	190	6.0	175	3.00	3.00	0.120	55	R300V100
	19.1	480	15.0	375	12.2	305	4.00	4.00	0.120	70	R400V100
	24.5	615	19.5	490	15.8	395	4.50	4.50	0.120	75	R450V100
12'-0"	7.7	195	5.8	145	4.4	130	3.00	3.00	0.120	60	R300V120
	15.0	390	11.8	300	9.5	240	4.00	4.00	0.120	80	R400V120
	19.8	495	15.7	395	12.7	320	4.50	4.50	0.120	85	R450V120
14'-0"	6.0	175	4.4	130	3.3	90	3.00	3.00	0.120	70	R300V140
	12.2	305	9.4	250	7.6	195	4.00	4.00	0.120	90	R400V140
	16.2	405	12.8	320	10.3	260	4.50	4.50	0.120	95	R450V140
16'-0"	4.6	125	3.2	100	2.3	60	3.00	3.00	0.120	80	R300V160
	9.6	250	7.4	185	5.9	150	4.00	4.00	0.120	100	R400V160
	13.1	330	10.2	265	8.2	205	4.50	4.50	0.120	105	R450V160
18'-0"	3.4	90	2.3	60	1.4	70	3.00	3.00	0.120	90	R300V180
	7.6	190	5.7	180	4.5	130	4.00	4.00	0.120	110	R400V180
	10.5	265	8.2	210	6.5	165	4.50	4.50	0.120	115	R450V180
20'-0"	2.4	100	1.4	75	N/A	N/A	3.00	3.00	0.120	100	R300V200
	6.0	150	4.4	150	3.4	125	4.00	4.00	0.120	120	R400V200
	8.5	215	6.6	165	5.2	130	4.50	4.50	0.120	130	R450V200
	11.7	300	9.1	230	7.2	180	5.00	5.00	0.120	145	R500V200
25'-0"	2.8	100	1.9	75	1.3	75	4.00	4.00	0.120	145	R400V250
	4.8	130	3.6	90	2.7	90	4.50	4.50	0.120	155	R450V250
	7.2	180	5.5	150	4.2	150	5.00	5.00	0.120	180	R500V250
	12.1	300	9.4	250	7.4	200	5.00	5.00	0.180	260	R5006250
30'-0"	2.3	80	1.5	75	1.0	60	4.50	4.50	0.120	185	R450V300
	4.2	150	3.0	125	2.2	100	5.00	5.00	0.120	210	R500V300
	8.0	200	6.5	160	4.7	125	5.00	5.00	0.180	305	R5006300

- Maximum EPA (Effective Projected Area) and weight values are based on side mounted fixtures only. Consult factory on loading criteria for pole top mounted luminaires and/or brackets. Variations from sizes above are available upon inquiry at the factory. Satisfactory performance of poles is dependent upon the pole being properly attached to a supporting foundation of adequate design.
- Structure weight is a nominal value which includes the pole shaft and base plate only.

PRODUCT ORDERING CODES

DESIGN SERIES	MODEL NUMBER	FIXTURE MOUNTING	FINISH	COLOR	V-PRO™ PROTECTION SYSTEM	OPTIONS
DS340						
	R300V100 R400V180 R400V100 R450V180 R450V100 R300V200 R300V120 R400V200 R400V120 R450V200 R450V120 R500V200 R300V140 R400V250 R400V140 R450V250 R450V140 R500V250 R300V160 R5006250 R400V160 R450V300 R450V160 R500V300 R300V180 R5006300	Drill Mounting D1 = 1 Luminaire D2 = 2 @ 180° D3 = 3 @ 120° D4 = 4 @ 90° D5 = 2 @ 90° D6 = 3 @ 90° Tenon Mounting P2 = 2.38" OD x 4.00" P4 = 4.00" OD x 6.00"	GV = Galvanize PP = Prime Paint FP = Finish Paint GF = Galvanized + Finish Paint	-- = Galvanize -- = Prime Paint WH = White ST = Sandstone BK = Black SM = Silver Metallic SL = Silver LG = Light Gray SG = Slate Gray DT = Dark Tan MB = Medium Bronze CB = Bronze DB = Dark Bronze BN = Brown HG = Hunter Green DG = Dark Green RD = Red SC = Special Color (Contact Factory)	-- = Galvanize -- = Prime Paint V1 = V-PRO 1 Basic 1 Coat Powder. V2 = V-PRO 2 2 Coat Powder or Liquid. Includes epoxy primer & top coat. V3 = V-PRO 3 2 Coat Powder or Liquid. Includes zinc primer & top coat. V4 = V-PRO 4 2 Coat Powder or Liquid. Includes zinc primer & premium top coat.	See Accessories at valmontstructures.com (Please Specify)

Applications

PureForm is at home in any architectural environment. Whether site specifications require tall poles and wide spacings or are more pedestrian in scale, the refined beauty of the PureForm luminaire complements its surroundings. A choice of two sizes, multiple arm configurations and a wide variety of colors provide further design flexibility, assuring that the PureForm is the right choice in any situation.



