

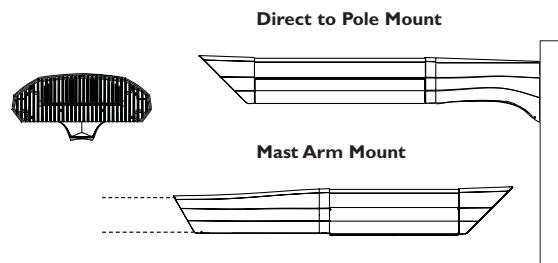
Job:
Type:
Notes:

Radiant

Page 1 of 4

Generation 2 LED Area Luminaires

Philips Gardco Radiant generation 2 LED area luminaires combine LED performance excellence and advanced Philips Gardco LED thermal management technology with a distinctly contemporary architectural style to provide outdoor area lighting that is both energy efficient and aesthetically pleasing. The high performance LED optical systems are available with Type II, Type III, Type IV and Type V optical systems. Philips Gardco's LED technology provides maximized light output and maximum energy savings. Radiant luminaires are available with Automatic Profile Dimming, and Radiant single LED array luminaires are available with Motion Response, for even greater potential savings. Radiant LED area luminaires provide full cutoff performance.



PREFIX	MOUNTING	OPTICAL SYSTEM	LED WATTAGE	LED SELECTION	VOLTAGE	FINISH	OPTIONS

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 pages 3 and 4 for more detailed information)

RL	Constant Wattage / Full Light Output
RL-DIM	0 - 10V Dimming (Requires 0-10V dimming control system by others.)
RL-DCC	Dual Circuit Control (Available in Dual LED Array luminaires only.)
RL-APD	Automatic Profile Dimming (Available in 120V through 277V only.)
RL-MRI	Motion Response with Integral Motion Sensor (Available in Single LED Array luminaires only, 120V through 277V only.)
RL-APD-MRI	Automatic Profile Dimming with Motion Response Override and Integral Motion Sensor (Available in Single LED Array luminaires only, 120V through 277V only.)

MOUNTING

Direct to Pole Mount	
1	Single Assembly
2	Twin Assembly
2@90	Twin Assembly at 90°
3	Triple at 90°
3@120	Triple at 120°
4	Quad Assembly
Mast Arm Mount	
MA	Mast Arm Mount (requires 2 3/8" OD Mast Arm)

OPTICAL SYSTEM

2V2	Type II
3V2	Type III
4V2	Type IV
5V2	Type V

LED WATTAGE AND LUMEN VALUES (Continued on Page 2)

Single LED Array Luminaires 29" Housing (33" with Mast Arm Mount)				Luminaire Initial Absolute Lumens ²			
Ordering Code	LED Current (mA)	Average System Watts ¹	LED Selection	STANDARD PERFORMANCE (Features Version 2 LEDs)			
				TYPE 2 (2V2)	TYPE 3 (3V2)	TYPE 4 (4V2)	TYPE 5 (5V2)
70LA	350	70	NW	7,831	8,290	7,974	7,924
90LA	350	90	NW	9,789	10,365	9,970	9,905
105LA	530	105	NW	11,161	11,870	11,366	11,288
130LA	530	130	NW	13,668	14,245	13,649	13,623

1. 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.

2. Lumen values based on tests performed in compliance with IESNA LM-79, unless otherwise indicated.

CW and WW photometric tests are in process for the luminaires shown in this table. Contact OutdoorLighting.Applications@philips.com if any approximate estimates are required for design purposes.



PHILIPS



LED WATTAGE AND LUMEN VALUES *(continued from Page 1)*

Dual LED Array Luminaires 39" Housing (43" with Mast Arm Mount)				Luminaire Initial Absolute Lumens ²			
Ordering Code	LED Current (mA)	Average System Watts ¹	LED Selection	STANDARD PERFORMANCE <i>(Features Version 2 LEDs)</i>			
				TYPE 2 (2V2)	TYPE 3 (3V2)	TYPE 4 (4V2)	TYPE 5 (5V2)
140LA	350	140	NW	15,661	16,583	15,951	15,846
180LA	350	180	NW	19,218	19,945	19,479	19,213
210LA	530	210	NW	21,654	22,472	21,948	21,648
260LA	530	260	NW	27,067	28,090	27,435	27,060

1. 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.

2. Lumen values based on tests performed in compliance with IESNA LM-79, unless otherwise indicated.

CW and WW photometric tests are in process for the luminaires shown in this table. Contact OutdoorLighting.Applications@philips.com if any approximate estimates are required for design purposes.

LED SELECTION

Ordering Code	Description - Color Temperature °K	CRI - V2 LEDs Standard Performance	CRI - V3 LEDs Premium Performance
CW	Cool White - 5700°K	70	75
NW	Neutral White - 4000°K	65	70
WW	Warm White - 3000°K	70	80

VOLTAGE

120	
208	
240	
277	
347	
480	
UNIV	Accepts 120V through 277V input, 50hz to 60hz.
HVU	Accepts 347V through 480V input, 50hz to 60hz.

FINISH

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

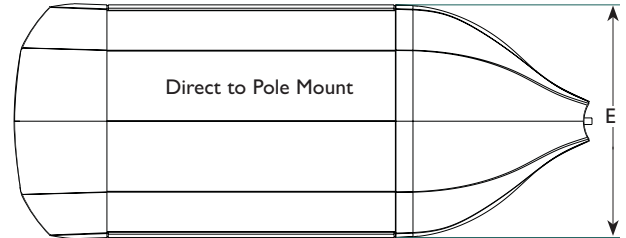
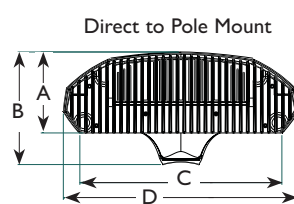
OPTIONS

F ³	Fusing
LF ³	Line Fusing
PC ³	Photocontrol and Receptacle
PCR	Photocontrol Receptacle only
DL	Diffusing Lens <i>(reduces performance significantly)</i>
HS1 ⁴	External House Side Shield
HS2 ⁵	2 Part External House Side Shield
PTF2	Pole Top Fitter for 2 3/8" Tenon
PTF3	Pole Top Fitter for 3" to 3 1/2" Tenon
PTF4	Pole Top Fitter for 3 1/2" to 4" Tenon
BD1 ⁶	Bird Deterrent Spike Kit - for Single LED Array Luminaires
BD2 ⁶	Bird Deterrent Spike Kit - for Dual LED Array Luminaires

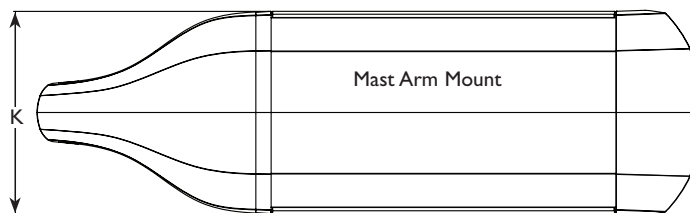
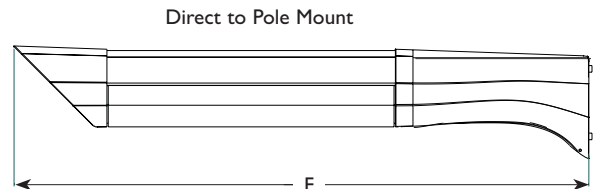
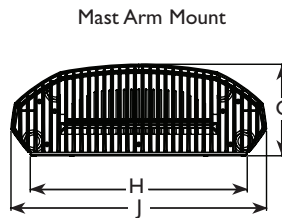
3. Specify actual input voltage
4. For Single LED Array luminaires only.
5. For Dual LED Array luminaires only.
6. Kits consist of 25 (BD1) or 45 (BD2) injection molded plastic bird deterrent spikes. Field installation only.

DIMENSIONS

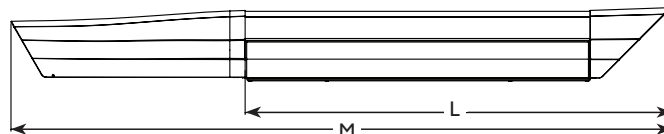
Radiant Direct to Pole Mount		
	Inches	cm
A - All	4.79"	12.167cm
B - All	6.40"	16.256cm
C - All	11.35"	28.829cm
D - All	13.37"	33.960cm
E - All	13.37"	33.960cm
F - Single LED Array	28.98"	73.609cm
F - Dual LED Arrays	38.83"	98.628cm



Radiant Mast Arm Mount		
	Inches	cm
G - All	4.79"	12.167cm
H - All	11.35"	28.829cm
J - All	13.37"	33.960cm
K - All	13.37"	33.960cm
L - Single LED Array	17.98"	45.669cm
L - Dual LED Arrays	27.83"	70.688cm
M - Single LED Array	33.29"	84.557cm
M - Dual LED Arrays	43.14"	109.576cm



Mast Arm Mount



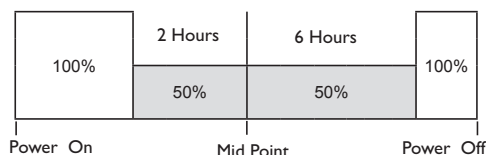
LED Arrays Housing Length: Pole Mount / MA Mount	EPA (Effective Projected Area)			Weight (Single)
	1	2	3/4	
Single LED Array 30" / 33"	.69 ft ² .065 m ²	1.38 ft ² .129 m ²	1.5 ft ² .140 m ²	36 lbs 16.33 kg
Dual LED Arrays 39" / 43"	1.0 ft ² .093 m ²	2.0 ft ² .186 m ²	3.8 ft ² .354 m ²	43 lbs 19.51 kg

LUMINAIRE CONFIGURATION INFORMATION (Continued on page 4)

APD CONFIGURATIONS: Radiant luminaires with Automatic Profile Dimming are provided with the Philips DynaDimmer module included in single LED array luminaires, or with programmable LED drivers in dual LED array luminaires. The DynaDimmer module or programmable driver is 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 DynaDimmer module 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.

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

APD Dimming Profile:



MOTION RESPONSE CONFIGURATIONS:

Luminaires with Integral Motion Sensor - MRI: Luminaires with Motion Response and an integral motion sensor include the DynaDimmer module and an integral motion sensor. Luminaires operate at 50% power and light output until motion is detected. 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 50%. Duration period is factory set at 15 minutes.

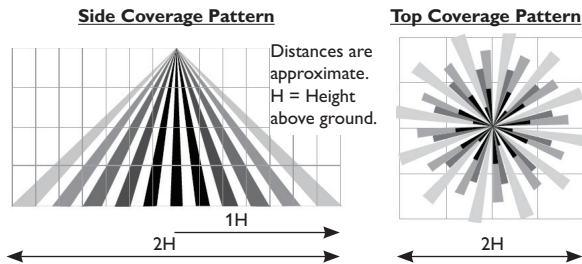
MRI configurations are available with 120V through 277V (UNIV) input voltages only.

MRI configuration is available on single LED array luminaires only.

LUMINAIRE CONFIGURATION INFORMATION (Continued from page 3)

MRI luminaires are provided with the WattStopper FS-355-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.

FS-355-L3W - Supplied with Radiant MRI Luminaires



Luminaires with Automatic Profile Dimming and Motion Response

Override - APD-MRI: Luminaires combine the benefits of both automatic profile dimming and motion response. The luminaire will dim to 50% power, 50% light output, per the dimming profile shown for APD luminaires (see page 3). 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.

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

APD-MRI configuration is available on single LED array luminaires only.

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

SPECIFICATIONS

GENERAL DESCRIPTION: Philips Gardco Radiant LED area luminaires combine LED performance excellence and advanced Gardco LED thermal management technology with a distinctly contemporary architectural style to provide outdoor area lighting that is both energy efficient and aesthetically pleasing.

HOUSING: The Philips Gardco Radiant LED housing consists of a die cast aluminum arm adapter, an extruded aluminum housing body with an integral LED radiant thermal management system, and a die cast aluminum end cap. The structure is secured with lateral threaded stainless steel rods running the length of the housing to provide rigidity and unify the housing structure. Metallic screens are integrated to the top of the housing to prevent the buildup of dust, dirt and contaminants, while permitting required air flow for cooling.

LED PERFORMANCE:

PREDICTED LUMEN DEPRECIATION DATA ⁸			
Ambient Temperature °C	Driver mA	L ₇₀ Hours ⁹	
		V2 LEDs Standard Performance	V3 LEDs Premium Performance
25 °C	350	167,000	240,000
	530	118,000	200,000
40 °C	350	165,000	180,000
	530	117,000	148,000

8. 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.
9. L₇₀ is the predicted time when LED performance depreciates to 70% of initial lumen output.

Note: For Motion Response luminaires, and luminaires with Automatic Profile Dimming, L₇₀ values are presumed likely to exceed the values shown in the table above. No specific test data to verify this presumption is yet available.

LED THERMAL MANAGEMENT: The Gardco Radiant LED housing design provides extruded aluminum integral thermal radiation fins in the upper housing, combined with lateral air ways, to provide the excellent thermal management so critical to long LED system life. Metallic screens are integrated to the top of the housing to prevent the buildup of dust, dirt and contaminants, while permitting required air flow for cooling.

OPTICAL SYSTEMS: Lensed LED arrays are set to achieve IES Type II, Type III, Type IV and Type V distributions. Individual LED arrays are replaceable.

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. Surge protector standard. 10KA per ANSI/IEEE C62.41.2.

FINISH: Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidic 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. Radiant luminaires equipped with NW and CW are DesignLights Consortium® qualified.

WARRANTY: Philips Gardco luminaires feature a 5 year limited warranty. Philips Gardco LED luminaires feature a 5 year limited warranty covering the LED arrays and the LED drivers. See Warranty Information on www.sitelighting.com for complete details and exclusions.

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.



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