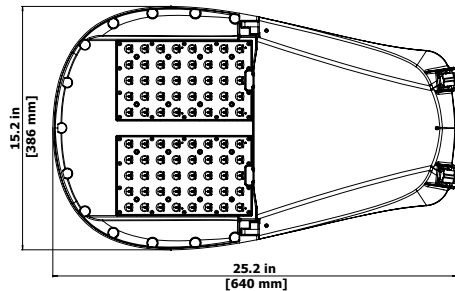
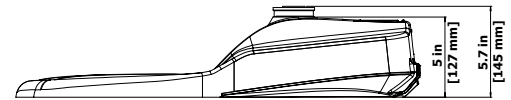
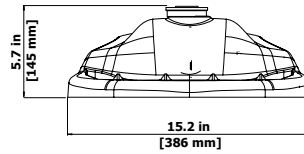


GreenCobra™ LED Street Light

GCL G-Series Specification Data Sheet

Luminaire Data

Weight 18 lbs [8.17 kg]
EPA 0.52 ft.²



Ordering Information

Sample Catalog No. GCL1 60G MV WW 2S GY 350 PCR7 RWG

Product	LED Code	Voltage	Color Temperature	Distribution	Finish ¹	GCL1 Current Code ²	Options	
GCL1	60G	MV 120-277V	WW 3000K	2S Type 2 Short	GY Gray	350	FDC ³ Fixed Drive Current	
		HV 347-480V	NW 4000K	2R Type 2 Medium	DB Dark Bronze	450	FFA ⁴ Full Field Adjustability	
GCL2	60G		CW 5000K	3R Type 3 Medium	BK Black	530	LPCR Receptacle	
						610	PCR7 ⁵ ANSI 7-wire Photocontrol Receptacle	
						700	PCR7-CR ⁶ Control Ready 7-wire Photocontrol Receptacle	
						GCL2 Current Code ²		4B 4-Bolt Slip-Fitter
						750	RWG Rubber Wildlife Guard	
						800	WL Utility Wattage Label	
						900	BBL Bubble Level	
975	CF ⁷ Coastal Paint Finish							
						1A		

Notes:

- 1 Gray, Black and Dark Bronze standard. Consult factory for other finishes.
- 2 Specified drive current code is the factory set maximum drive current. Field adjustable current selector enables standard dimming to lower wattage drive currents only. Consult factory if wattage limits require a special drive current.
- 3 Non-field adjustable, fixed drive current. Specify required drive current. Not available with PCR7-CR option.
- 4 The FFA option enables full field adjustability from the specified drive current code to all drive currents available. This option is not DLC qualified.
- 5 Field adjustable current selector included to enable standard dimming to lower wattage drive currents only. Field changeable connectors included to enable connection to PCR7 (wireless node dimming is disabled by default).
- 6 Control-ready wired at factory for wireless node dimming. Supplied at maximum drive current. If lower drive current is required, consult factory.
- 7 Specify the CF Option for coastal installation. See warranty for details.
- 8 Flush mounted house side shield. Shield cuts light off at 1/2 mounting height behind luminaire.
- 9 Flush mounted cul-de-sac shield. Shield cuts light off at 1/2 mounting height behind luminaire and 1-1/2 mounting height on either side of luminaire.
- 10 Flush mounted front side shield cuts light off at approximately one mounting height in front of luminaire (street side).
- 11 Specify Color (GY, DB, BK)
- 12 Specify MV (120-277V) or HV (347V-480V)

Accessories*

HSSGCL ⁸	House Side Shield, Snap-On*
CSSGCL ⁹	Cul-De-Sac Side Shield, Snap-On*
FSSGCL ¹⁰	Front Side Shield, Snap-On*
SPB ¹¹	Square Pole Horizontal Arm Bracket
RPB ¹¹	Round Pole Horizontal Arm Bracket
PTB ¹¹	Pole Top Tenon Horizontal Arm Bracket
PTB ¹¹	Pole Top Tenon Horizontal Arm Bracket (2@180°)
WB ¹¹	Wall Horizontal Arm Bracket
BSK	Bird Deterrent Spider Kit
LLPC ¹²	Long-Life Twist Lock Photocontrol
SC	Twist Lock Shorting Cap

*Accessories are ordered separately and not to be included in the catalog number. For factory installed HSS, CSS, and FSS consult factory.

Luminaire Specifications

Housing

Die cast aluminum housing with universal two-bolt slip fitter mounts to 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter mast arm. Four-bolt mounting bracket (4B option) is available. Mounting provisions meet 3G vibration per ANSI C136.31-2010 Normal Application, Bridge & Overpass. Mounting has leveling adjustment from ± 5° in 2.5° steps. Electrical components are accessed without tools via high-strength, non-conductive polycarbonate door with stainless steel quick-release latches. Polycarbonate material is UL recognized and meets UL 746C for outdoor usage. Standard mast arm guard is Polycarbonate with removable insert. Available rubber wildlife guard (RWG option) conforms to mast arm with no gaps.

Light Emitting Diodes

Hi-flux/Hi-power white LEDs produce a minimum of 90% of initial intensity at 100,000 hours of life based on IES TM-21 (L90 = 100k hours). LEDs are tested in accordance with IES LM-80 testing procedures. LEDs have correlated color temperature of 3000K (WW), 4000K (NW), or 5000K (CW) and 70 minimum CRI. LEDs are ROHS compliant, 100% mercury and lead free.

Field Adjustability

LED drive current can be changed in the field to adjust light output for local conditions (not available with PCR7-CR option). The specified drive current code will be the factory set maximum drive current and field adjustments can only be made to available lower wattage drive currents. Select the FFA option if full field adjustability to all available drive currents (700mA max or 1A max) is desired. The FFA option is not DLC qualified.

Quality Control

Every luminaire is performance tested before and after a 2-hour burn-in period. Assembled in the USA.

Optical Systems

Micro-lens systems produce IESNA Type 2 Short (2S), Type 2 Medium (2R), Type 3 Medium (3R), Type 4 (4), and Type 5 (5) distributions. Luminaire produces 0% total lumens above 90° (BUG Rating, U=0). Optical systems maintain an IP66 rating. Optional house side shield cuts light off at 1/2 mounting height behind luminaire. Cul-de-sac shield provides back and side light control for end of cul-de-sac applications. Both shields are field installable without tools.

Electrical

Power supply life is rated for 100,000 hours. Power Supply is 1-10V dimmable. Power supply features a minimum power factor of .90 and <20% Total Harmonic Distortion (THD). EMC meets or exceeds FCC CFR Part 15. Terminal block accommodates 6 to 14 gauge wire and is aligned for straight wire entry. Surge protection complies with IEEE/ANSI C62.41 Category C High, 20kV/10kA and ANSI C136.2-2015, 20kV/10kA.

Controls

3-Wire photocontrol receptacle is standard. ANSI C136.41 7-wire (PCR7) photocontrol receptacle is available. All photocontrol receptacles have tool-less rotatable base. Wireless control module is provided by others.

Finish

Housing receives a durable, fade-resistant polyester powder coat finish with 3.0 mil nominal thickness. Standard finish tested to withstand 5000 hours in salt spray exposure per ASTM B117 and Coastal Finish per ASTM G85. Finish meets scribe creepage rating 8 per ASTM D1654. Finish tested 500 hours in UV exposure per ASTM G154 and meets ASTM D523 gloss retention.

Listings/Ratings/Labels

luminaires are UL listed for use in wet locations in the United States and Canada. DesignLights Consortium™ qualified product. Consult DLC QPL for Standard and Premium Classification Listings. International Dark Sky Association listed. Luminaire is qualified to operate at ambient temperatures of -40°C to 40°C.

Photometry

Luminaires photometrics are tested by certified independent testing laboratories in accordance with IES LM-79 testing procedures.

Warranty

10-year limited warranty is standard on luminaire and components.

Vandal Resistance

Housing and optics rated to IK10

Standards

Luminaire complies with:
ANSI: C136.2, C136.3, C136.10, C136.13, C136.15, C136.22, C136.31, C136.35, C136.37, C136.41, C62.41, C78.377, C82.77
Other: FCC 47 CFR, IEC 60598, ROHS II, UL 1449, UL 1598

Performance Data

All data nominal. IES files for all CCTs available at leotek.com.

3000K (WW)

Product	LED Code	Drive Current Code	System Wattage (W)	Delivered Lumens (Lm)	Efficacy (Lm/W) ¹
GCL1	60G	350	70	8800	126
		450	85	10500	124
		530	105	12700	121
		610	120	14200	118
		700	135	15600	116
GCL1	80G	350	85	11150	131
		450	115	14400	125
		530	130	16000	123
		610	160	18700	117
		700	185	20800	112
GCL2	60G	750	149	17500	117
		800	163	18600	114
		900	183	20100	110
		975	192	20600	107
		1A	208	21700	104

Notes:

1 Nominal lumens. Normal tolerance $\pm 10\%$ due to factors including distribution type, LED bin variance, and ambient temperatures.

4000K (NW) and 5000K (NW)

Product	LED Code	Drive Current Code	System Wattage (W)	Delivered Lumens (Lm)	Efficacy (Lm/W) ¹
GCL1	60G	350	70	9250	132
		450	85	11000	129
		530	105	13300	127
		610	120	15000	125
		700	135	16400	121
GCL1	80G	350	85	11700	138
		450	115	15200	132
		530	130	16800	129
		610	160	20000	125
		700	185	22100	119
GCL2	60G	750	149	18500	124
		800	163	19600	120
		900	183	21200	116
		975	192	21800	114
		1A	208	22900	110

Notes:

1 Nominal lumens. Normal tolerance $\pm 10\%$ due to factors including distribution type, LED bin variance, and ambient temperatures.

BUG Ratings

3000K (WW)

			Type 2S	Type 2R	Type 3R	Type 4	Type 5
Product	LED Code	Drive Current Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
GCL1	60G	350	B2 U0 G2	B1 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		450	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		530	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2	B4 U0 G2
		610	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2
		700	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2
	80G	350	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		450	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2
		530	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2
		610	B3 U0 G2	B3 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2
		700	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
GCL2	60G	750	B3 U0 G2	B3 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2
		800	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
		900	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
		975	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
		1A	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2

4000K (NW)

			Type 2S	Type 2R	Type 3R	Type 4	Type 5
Product	LED Code	Drive Current Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
GCL1	60G	350	B1 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		450	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		530	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2	B4 U0 G2
		610	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2
		700	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2
	80G	350	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2	B3 U0 G2
		450	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2
		530	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2
		610	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
		700	B3 U0 G3	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
GCL2	60G	750	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
		800	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
		900	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
		975	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
		1A	B3 U0 G3	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2

BUG Ratings

5000K (CW)

5000K (CW)			Type 2S	Type 2R	Type 3R	Type 4	Type 5	
Product	LED Code	Drive Current Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating	
GCL1	60G	350	B1 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2	
		450	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2	
		530	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2	B4 U0 G2	
		610	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2	
		700	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2	
	80G	350	B1 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		450	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		530	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2	B4 U0 G2
		610	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2	
		700	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B4 U0 G2	
GCL2	60G	750	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2	
		800	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2	
		900	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2	
		975	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2	
		1A	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2	