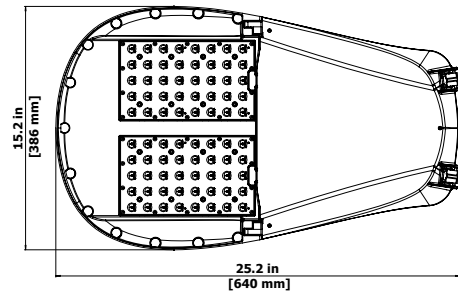
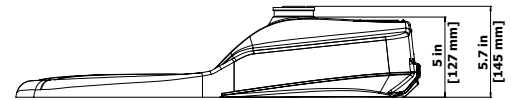
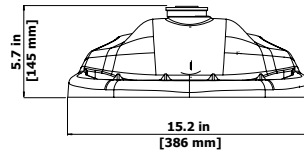


GreenCobra™ LED Street Light

GCL G-Series Specification Data Sheet

Luminaire Data

Weight 19 lbs [8.7 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 80G	MV 120-277V HV 347-480V	WW 3000K NW 4000K CW 5000K	2S Type 2 Short 2R Type 2 Medium 3R Type 3 Medium 4 Type 4 5 Type 5	GY Gray DB Dark Bronze BK Black	350	FDC ³ Fixed Drive Current
						450	LPCR Less Photocontrol
GCL2	60G					530	PCR7 ⁴ ANSI 7-wire Photocontrol Receptacle
						610	PCR7-CR ⁵ Control Ready 7-wire Photocontrol Receptacle
						700	LSSP2 Extreme Surge Protection, Fail-to-off, 20kV/10kA Rating
							4B 4-Bolt Slip-Fitter
							RWG Rubber Wildlife Guard
							WL Utility Wattage Label
	BBL Bubble Level						
	DSC Door Safety Cable						
	CF ⁶ Coastal Paint Finish						

Notes:

- 1 Gray, Black and Dark Bronze standard. Consult factory for other finishes.
- 2 Specified drive current code is the factory set drive current. Field adjustable current selector enables fixture to be changed in the field to adjust light output for local conditions (not available with Fixed Drive Current (FDC) or PCR7-CR option). 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 Includes current selector that enables field adjustability of light levels. Includes connectors to allow easy upgrade of wireless dimming via PCR7. Wireless node by others.
- 5 Control-ready wired at factory for wireless node dimming (node by others). Current selector not included in the fixture. Not able to adjust above specified drive current.
- 6 Specify the CF Option for coastal installation. See warranty for details.
- 7 Flush mounted house side shield. Shield cuts light off at 1/2 mounting height behind luminaire.
- 8 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.
- 9 Flush mounted front side shield cuts light off at approximately one mounting height in front of luminaire (street side).
- 10 Specify Color (GY, DB, BK)
- 11 Specify MV (120-277V) or HV (347V-480V)

Accessories*

HSSGCL ⁷	House Side Shield, Snap-On*
CSSGCL ⁸	Cul-De-Sac Side Shield, Snap-On*
FSSGCL ⁹	Front Side Shield, Snap-On*
SPB ¹⁰	Square Pole Horizontal Arm Bracket
RPB ¹⁰	Round Pole Horizontal Arm Bracket
PTB ¹⁰	Pole Top Tenon Horizontal Arm Bracket
PTB2 ¹⁰	Pole Top Tenon Horizontal Arm Bracket (2@180°)
WB ¹⁰	Wall Horizontal Arm Bracket
BSK	Bird Deterrent Spider Kit
LLPC ¹¹	Long-Life Twist Lock Photocontrol
SC	Twist Lock Shorting Cap

*Unless specified for field installation, Shields are installed and Shorting Cap is included in the box. All other options are shipped separately.



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. One-piece aluminum housing provides passive heat-sinking of the LEDs and has upper surfaces that shed precipitation. 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. All hardware is stainless steel. Electrical components are accessed without tools via die cast aluminum door with stainless steel quick-release latches. Provided standard with removable polycarbonate wild life guard. For additional protection, optional rubber wildlife guard (RWG) which conforms snugly to the mast arm is offered.

Light Emitting Diodes

LEDs produce minimum 90% of initial intensity at 60,000 hours of life per IES recommended lumen maintenance life projection based on 6 times the duration of the collected LM-80 data. For details on IESNA Position on LED Product Lifetime Prediction, PS-10-18. LEDs have correlated color temperature of 3000K (WW), 4000K (NW), or 5000K (CW) and 70 CRI minimum. LEDs are ROHS compliant, 100% mercury and lead free.

Field Adjustability

LED lumen output can be changed in the field to adjust drive current for local conditions (not available with PCR7-CR option). The specified driver current will be the factory set output. Field adjustments can be made with the output selector included in the fixture. Field adjustable range shown in performance data table.

Quality Control

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

Optical Systems

Micro-lens optical systems produce IESNA Type 2, Type 3, Type 4, or Type 5 distributions and are fully sealed to maintain an IP66 rating. Luminaire produces 0% total lumens above 90° (BUG Rating, U=0). Optional house side shield cuts light off at 1/2 mounting height behind luminaire. Front side shield cuts light off at approximately one mounting height in front of the luminaire (street side). Cul-de-sac shield provides back and side light control for end of cul-de-sac applications. All 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. Consult DLC QPL for Standard and Premium Classification Listings. All electronic components inside of the luminaire are NRTL damp location rated per ANSI 136.37-2011 Ingress Protection standard. 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. See Leotek.com for warranty details.

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

Color Specifications

Order Code	Color	RAL #	Pantone Equivalent
GY	Gray	7040	429C
BK	Black	9004	426C
DB	Dark Bronze	6022	BLACK 2C

TM21 Lumen Maintenance per IES TM21-11 Calculation

Model Number	60,000 Hours*	80,000 Hours	100,000 Hours
All GCL G	>95%	>94%	>93%

*Calculation based on IES position statement on Lumen Maintenance Life Projections

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	Field Adjustable Output Range
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	Field Adjustable Output Range
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) & 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	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