Project

Type

Catalog No.
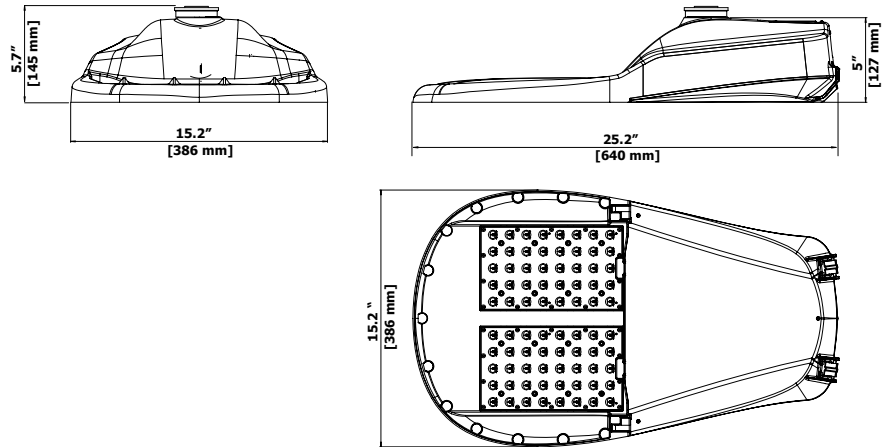
GreenCobra™ LED Street Light
GCL J-Series Specification Data Sheet

Luminaire Data

Weight 18 lbs [8.17 kg]
EPA 0.52 ft.^{2}

Ordering Information

Sample Catalog No. GCL1-80J-MV-30K-2S-GY-185-PCR7-RWG

Model*	LED Code	Voltage	Color Temperature	Distribution	Finish[1]	Output Code[2]	Options	
GCL1* GCL2*	80J	**MV** 120-277V **HV** 347-480V	**30K** 3000K **40K** 4000K **50K** 5000K	**2S** Type 2 Short **2R** Type 2 Medium **3R** Type 3 Medium **3F** Type 3F **4** Type 4 **5** Type 5	**GY** Gray **DB** Dark Bronze **BK** Black	Refer to Page 3 to select the performance code.	**FOC**[3] **LPCR** **PCR7**[4] **PCR7-CR**[5] **4B** **RWG** **WL** **BBL** **DSC** **CF**[6] **SP2**[7] **LSSP2**[7]	Fixed Output Code Less Photocontrol Receptacle ANSI 7-wire Photocontrol Receptacle Control Ready 7-wire Photocontrol Receptacle 4-Bolt Slip-Fitter Rubber Wildlife Guard Utility Wattage Label Bubble Level Door Safety Cable Coastal Paint Finish Extreme Surge Protection, 20KV/10KA, Fail-to-on Extreme Surge Protection, Fail-to-off

* Refer to performance data table on page 3 for specific model with corresponding output code

Notes:
1 Gray, Black and Dark Bronze standard. Consult factory for other finishes. See page 2 for RAL codes of Standard finishes.
2 Specified output code is the factory set lumen performance. Refer to performance data table on page 3 of this spec sheet. Field adjustable output selector enables fixture to be changed in the field to adjust light output for local conditions (not available with Fixed Output Code, FOC) or PCR7-CR option. Consult factory if wattage limits require a special drive current.
3 Non-field adjustable, fixed output code. Specify required output code. Not available with PCR7-CR option.
4 Includes output 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). Output selector not included in the fixture. Not able to adjust above specified output code.
6 Specify the CF Option for coastal installation. See warranty for details.
7 Standard surge protection, 10kV/5kA, fail-to-on, meets enhanced surge protection based on ANSI 136.25-2015 3-part test.
8 Flush mounted house side shield. Shield cuts light off at 1 mounting height behind luminaire. Same shield as H-Series product. Black color.
9 Flush mounted cul-de-sac shield. Shield cuts light off at 1 mounting height behind luminaire and 2 times the mounting height on either side of luminaire. Same shield as H-Series product. Black color.
10 Flush mounted front side shield cuts light off at approximately 1½ mounting height in front of luminaire (street side). Same shield as H-Series product. Black color.
11 Specify Color (GY, DB, BK). Refer to Leotek web site for specific mounting details and drawings at https://leotek.com/lighting-library/
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
PTB2[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 & Overpassby independent test lab. 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

LEDs produce nominal 90% of initial intensity at 60,000 hours 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 minimum CRI. LEDs are ROHS compliant, 100% mercury and lead free.

Field Adjustability

LED lumen output can be changed in the field to adjust light output for local conditions (not available with PCR7-CR option). The specified output code 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

Rated life of electrical components is 100,000 hours. Uses isolated power supply that is 1-10V dimmable. Power supply is wired with quick-disconnect terminals. EMC meets or exceeds FCC CFR Part 15. Terminal block accommodates 6 to 14 gauge wire. Surge protection complies with IEEE/ANSI C62.41 Category C High, 10kV/5kA and ANSI C136.2-2015, 3-part test.

Power Supply

IP66 rated power power supply with high power factor of > 90%. Auto sensing universal AC input from 120 to 277VAC (MV model) and 347 to 480VAC (HV mode) rated for both line to line and line to neutral applications. Maximum THD rating of 20%. Class 1 or Class 2. Built-in overheating protection mechanism will reduce drive current to LEDs and electrical components if the driver experiences unusual internal overheating situation. Built-in short circuit, voltage overload, and current overload protection with automatic recovery after correction.

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. 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. Assembled in the U.S.A

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

Certification and Compliance

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

Performance Data: 3000K (30K)

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

Product	LED Code	Output Code	System Wattage (W)	Delivered Lumens (Lm)	Efficacy (Lm/W)[1]	System Drive Current (mA)	Field Adjustable Output Range
GCL1	80J	185	123	18338	149	500	↑
		195	132	19448	147	540	
		210	146	21073	144	595	
		220	153	21803	143	625	
		240	171	23848	139	700	↓
GCL2	80J	225	161	22626	138	640	↑
		240	173	23845	138	690	
		250	183	24949	136	725	
		260	193	25894	134	765	
		275	206	27033	131	830	↓

Notes:

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

Performance Data: 4000K (40K) and 5000K (50K)

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

Product	LED Code	Output Code	System Wattage (W)	Delivered Lumens (Lm)	Efficacy (Lm/W)[1]	System Drive Current (mA)	Field Adjustable Output Range
GCL1	80J	190	123	19209	156	500	↑
		205	132	20350	154	540	
		220	146	22216	152	595	
		230	153	23129	151	625	
		255	171	25504	149	700	↓
GCL2	80J	235	161	23667	147	640	↑
		250	173	25229	146	690	
		265	183	26444	145	725	
		275	193	27567	143	765	
		295	206	29252	142	830	↓

Notes:

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

BUG Ratings: 3000K (30K)

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

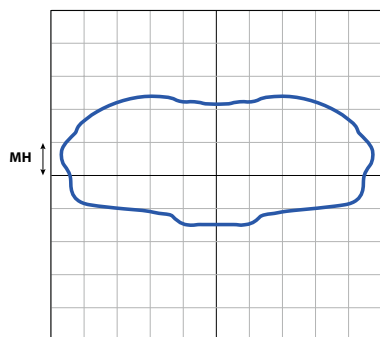| Product & LED Code	Output Code	Type 2R BUG Rating	Type 2S BUG Rating	Type 3R BUG Rating	Type 3F BUG Rating	Type 4 BUG Rating	Type 5 BUG Rating
GCL1 80J	185	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	195	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	210	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	220	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	240	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G2
GCL2 80J	225	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	240	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	250	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G3	B5-U0-G3
	260	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3	B5-U0-G3
	275	B3-U0-G3	B4-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3	B5-U0-G3

BUG Ratings: 4000K (40K) and 5000K (50K)

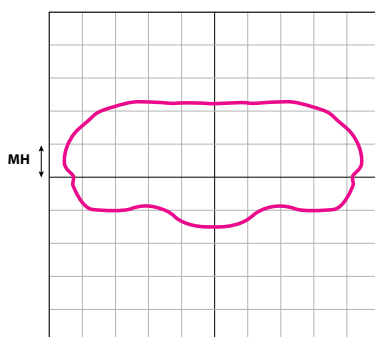All data nominal. IES files for all CCTs are available at leotek.com.

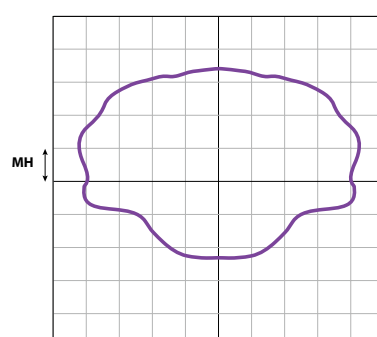| Product & LED Code	Output Code	Type 2R BUG Rating	Type 2S BUG Rating	Type 3R BUG Rating	Type 3F BUG Rating	Type 4 BUG Rating	Type 5 BUG Rating
GCL1 80J	190	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	205	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	220	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	230	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	255	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3	B5-U0-G3
GCL2 80J	235	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	250	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G3	B5-U0-G3
	265	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3	B5-U0-G3
	275	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3	B5-U0-G3
	295	B3-U0-G3	B4-U0-G3	B4-U0-G4	B3-U0-G4	B4-U0-G4	B5-U0-G3

Optical Distribution

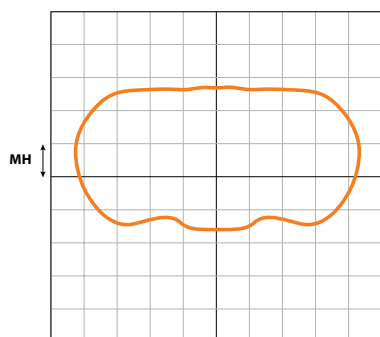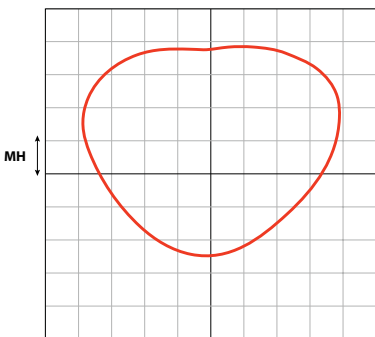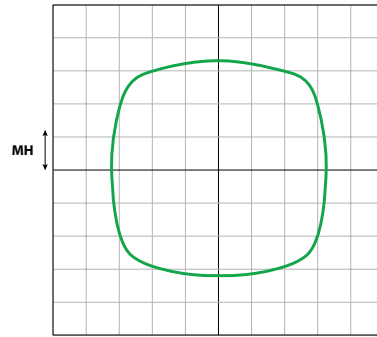(Each square block represents one mounting height, MH)

Type 2R

Type 2S

Type 3F

Type 3R

Type 4

Type 5