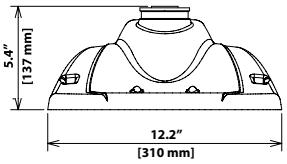
LEOTEK LITE-ON GROUP

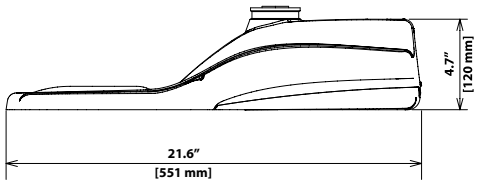
Project City of Overland Park
Type C - GY
Catalog No. GCM1-60J-MV-40K-2R-GY-125-PCR7-CR-RWG-BBL-OPWL-LSSP2-SC

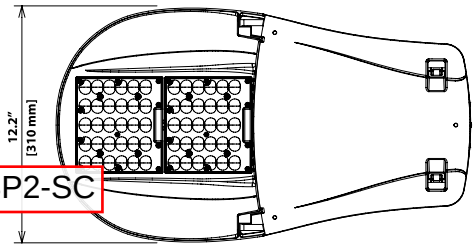
# GreenCobra™ Midsize LED Street Light
## GCM J-Series Specification Data Sheet

### Luminaire Data

**Weight** 11 lbs [5.0 kg]
**EPA** 0.44 ft²




GCM1-60J-MV-40K-2R-GY-125-PCR7-CR-RWG-BBL-OPWL-LSSP2-SC

### Ordering Information

Sample Catalog No. GCM2-60J-MV-30K-2R-GY-130-PCR7-WL

| GCM1 | 60J | MV | 40K | 2R | GY | 125 | PCR7-CR-RWG-BBL-OPWL-LSSP2-SC |
|---|---|---|---|---|---|---|---|
| **Model*** | **LED Code** | **Voltage** | **Color Temperature** | **Distribution** | **Finish**[1] | **Output Code**[2] | **Options** |
| **GCM1*** | 60J | **MV** 120-277V | **30K** 3000K | **2R** Type 2 | **GY** Gray | Refer to Page 3 to select the performance code. | **FOC**[3] Fixed Output Code |
| **GCM2*** | | **HV** 347-480V | **40K** 4000K | **3R** Type 3R | **DB** Dark Bronze | | **LPCR** Less Photocontrol Receptacle |
| **GCM3*** | | | **50K** 5000K | **3F** Type 3F | **BK** Black | | **PCR7**[4] ANSI 7-wire Photo-control Receptacle |
| | | | | **4** Type 4 | | | **PCR7-CR**[5] Control Ready 7-wire PC Receptacle |
| | | | | **5** Type 5 | | | **MSL3** Motion Sensor, L3 Lens |
| | | | | | | | **MSL7** Motion Sensor, L7 Lens |
| | | | | | | OPWL - Overland Park Specific Utility Wattage Label → | **WL** Utility Wattage Label |
| | | | | | | | **4B** 4-Bolt Mounting Bracket |
| | | | | | | | **RWG** Rubber Wildlife Guard |
| | | | | | | | **SWTB** Straight Wire Terminal Block |
| | | | | | | | **BBL** Bubble Level |
| | | | | | | | **DSC** Door Safety Cable |
| | | | | | | | **CF**[6] Coastal Paint Finish |
| | | | | | | | **SP2**[7] Extreme Surge Protection, 20KV/10KA, Fail-to-on |
| | | | | | | LSSP2 - Indicator light and surge protector fails to off → | **LSSP2**[7] Extreme Surge Protection, Fail-to-off, 20kV/10kA Rating |

* 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. Gray frame with black louvres.

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. Gray frame with black louvres.

10 Flush mounted front side shield cuts light off at approximately 11/2 mounting height in front of luminaire (street side). Gray frame with black louvres.

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* | |
|---|---|
| **HSSJGCM**[8] | House Side Shield, Snap-On* |
| **CSSJGCM**[9] | Cul-De-Sac Side Shield, Snap-On* |
| **FSSJGCM**[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 |

*Unless specified for field installation, Shields and Shorting Caps are shipped installed. 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 by independent test lab. 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 mimimum 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 (30K), 4000K (40K), or 5000K (50K) 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 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 bases. 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 |

## TM21 Lumen Maintenance per IES TM21-11 Calculation

| Model Number | 60,000 Hours* | 80,000 Hours | 100,000 Hours |
|---|---|---|---|
| **All GCM 60J** | >96% | >95% | >94% |

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

## 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)[1] | Efficacy (Lm/W) | System Drive Current (mA)[2] | Field Adjustable Output Range |
|---|---|---|---|---|---|---|---|
| GCM1 | 60J | 090 | 59 | 9039 | 154 | 480 | |
| | | 100 | 65 | 9940 | 153 | 530 | |
| | | 110 | 72 | 10999 | 153 | 590 | |
| | | 120 | 80 | 12029 | 151 | 650 | |
| | | 125 | 85 | 12604 | 148 | 700 | |
| GCM2 | 60J | 130 | 89 | 13169 | 148 | 710 | |
| | | 145 | 100 | 14457 | 145 | 800 | |
| GCM3 | 60J | 160 | 111 | 15790 | 142 | 900 | |
| | | 170 | 123 | 17220 | 140 | 970 | |
| | | 180 | 133 | 17846 | 134 | 1050 | |

Notes:
1. Nominal lumens. Normal tolerance ± 10% due to factors including distribution type, LED bin variance, and ambient temperatures.
2. System drive current values (maximum LED drive current is 350mA).

## 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)[1] | Efficacy (Lm/W) | System Drive Current (mA)[2] | Field Adjustable Output Range |
|---|---|---|---|---|---|---|---|
| GCM1 | 60J | 095 | 59 | 9562 | 163 | 480 | |
| | | 105 | 65 | 10525 | 162 | 530 | |
| | | 115 | 72 | 11574 | 161 | 590 | |
| | | 125 | 80 | 12746 | 160 | 650 | |
| | | 135 | 85 | 13402 | 158 | 700 | |
| GCM2 | 60J | 140 | 89 | 13884 | 156 | 710 | |
| | | 155 | 100 | 15400 | 154 | 800 | |
| GCM3 | 60J | 170 | 111 | 16872 | 152 | 900 | |
| | | 185 | 123 | 18387 | 149 | 970 | |
| | | 190 | 133 | 19072 | 143 | 1050 | |

Notes:
1. Nominal lumens. Normal tolerance ± 10% due to factors including distribution type, LED bin variance, and ambient temperatures.
2. System drive current values (maximum LED drive current is 350mA).

### BUG Ratings: 3000K (30K)

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

| | | Type 2 | Type 3R | Type 3F | Type 4 | Type 5 |
|---|---|---|---|---|---|---|
| **Product & LED Code** | **Output Code** | **BUG Rating** | **BUG Rating** | **BUG Rating** | **BUG Rating** | **BUG Rating** |
| **GCM1 60J** | 090 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| | 100 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B3-U0-G2 |
| | 110 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B3-U0-G2 |
| | 120 | B3-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B3-U0-G2 |
| | 125 | B3-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| **GCM2 60J** | 130 | B3-U0-G3 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B4-U0-G2 |
| | 145 | B3-U0-G3 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B4-U0-G2 |
| **GCM3 60J** | 160 | B3-U0-G3 | B3-U0-G3 | B3-U0-G2 | B3-U0-G2 | B4-U0-G2 |
| | 170 | B3-U0-G3 | B3-U0-G3 | B3-U0-G2 | B3-U0-G3 | B4-U0-G2 |
| | 180 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 | B4-U0-G2 |

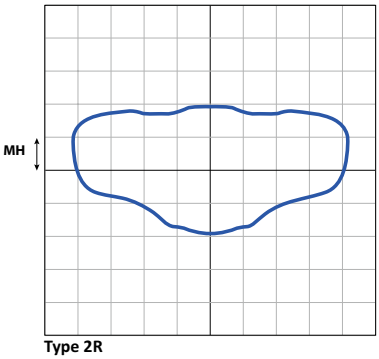
### BUG Ratings: 4000K (40K) and 5000K (50K)

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

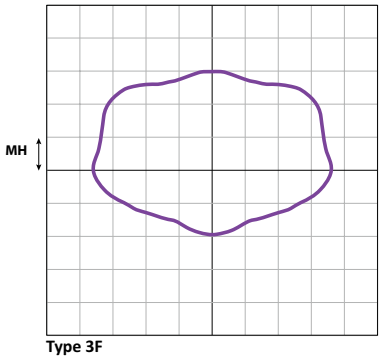
| | | Type 2 | Type 3R | Type 3F | Type 4 | Type 5 |
|---|---|---|---|---|---|---|
| **Product & LED Code** | **Output Code** | **BUG Rating** | **BUG Rating** | **BUG Rating** | **BUG Rating** | **BUG Rating** |
| **GCM1 60J** | 095 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B3-U0-G2 |
| | 105 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B3-U0-G2 |
| | 115 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B3-U0-G2 |
| | 125 | B3-U0-G3 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B4-U0-G2 |
| | 135 | B3-U0-G3 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B4-U0-G2 |
| **GCM2 60J** | 140 | B3-U0-G3 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B4-U0-G2 |
| | 155 | B3-U0-G3 | B2-U0-G2 | B3-U0-G2 | B3-U0-G2 | B4-U0-G2 |
| **GCM3 60J** | 170 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 | B3-U0-G2 | B4-U0-G2 |
| | 185 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 | B4-U0-G2 |
| | 190 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 | B4-U0-G2 |

## Optical Distribution

(Each square block represents one mounting height, MH)



Type 2R



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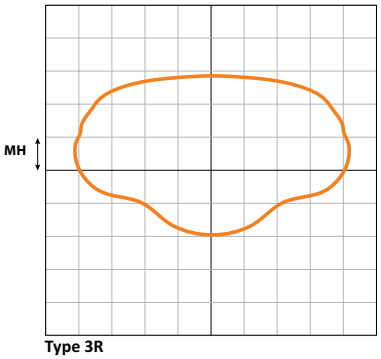

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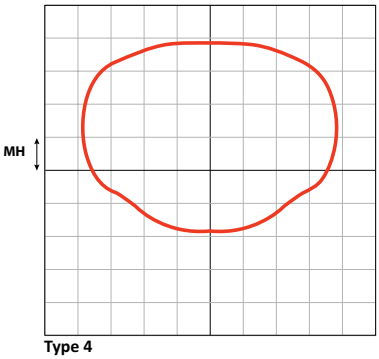
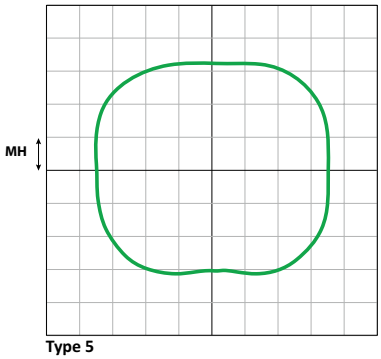


Type 4



Type 5