



**Gardco LED parking garage luminaire G3** combines excellent performance with value, providing one of the most energy efficient lighting solutions for the energy and budget conscious. A complete selection of optical systems are available, including a concentrated downlight for use at entrances or at higher mounting heights. G3 luminaires are available with dimming, as well as motion response technology to expand potential energy savings.

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

**Example: G3-A05-740-5SQ-SUR-UNV-BILV-L2-MG**

### Ordering guide

Prefix	Configuration (nominal lumens shown)	Color Temperature	Distribution	Mounting	Voltage	Options					Finish
						Dimming Controls <sup>1</sup>	Sensing	Fusing	Options		
<b>G3</b>											
G3 G3 LED Parking Garage luminaire	<b>A01</b> 3,000 (1 LED array)	<b>730</b> 70CRI 3000K	<b>5SQ</b> Type 5 Square	<b>SUR</b> Surface/indirect pendant Mount (pendant and junction box by others)	<b>120</b> <b>208</b> <b>240</b> <b>277</b> <b>347</b> <b>480</b>	<b>none</b> leave blank (0-10V dimming driver standard)	<b>none</b> leave blank	<b>none</b> leave blank	<b>none</b> 10kV / 10kA surge protection standard	<b>none</b> 10kV / 10kA surge protection standard	<b>MG</b> Medium Gray
	<b>A02</b> 4,800 (1 LED array)	<b>740</b> 70CRI 4000K	<b>5CD</b> Type 5 Concentrated Downlight	<b>SBO</b> Surface Mount, Bridge/Overpass vibration rated	<b>208</b> <b>240</b> <b>277</b> <b>347</b> <b>480</b>	<b>DLEA</b> <sup>1,2</sup> 0-10V Dimming Leads Externally Accessible (controls by others)	<b>L2</b> <sup>3</sup> Integral Sensing, #2 lens	<b>L3</b> <sup>3</sup> Integral Sensing, #3 lens	<b>FS1</b> <sup>5</sup> Single Fuse (120, 277, 347V)	<b>FS2</b> <sup>5</sup> Double Fuse (208, 240, 480V)	<b>BZ</b> Bronze
	<b>A03</b> 6,300 (1 LED array)	<b>750</b> 70CRI 5000K	<b>T1R</b> Type 1 Rectangular		<b>UNV</b> (120-277V)	<b>BILV</b> <sup>1,3,4</sup> Bi-level with motion sensor	(factory customizable, contact factory <sup>6</sup> )		<b>FS3</b> <sup>5</sup> Double Fuse Canadian double pull (208, 240, 480V)	<b>PCB</b> <sup>1,4,5</sup> Photocontrol Button	<b>BK</b> Black
	<b>A04</b> 8,600 (2 LED arrays)		<b>T3A</b> Type 3 Asymmetric		<b>HVU</b> (347-480V)					<b>BXS</b> Bird Excluding Shroud (for standard surface mount only, factory installed)	<b>WH</b> White
	<b>A05</b> 10,900 (2 LED arrays)										
	<b>A06</b> 12,900 (2 LED arrays)										

1. Choose only 1 option: either DLEA or BILV or PCB. 0-10V dimming driver standard.
2. For DLEA option luminaire has 0-10V dimming wires exiting the luminaire for dimming controls by others.
3. Dimming Controls BILV must be combined with one of the Sensing options either L2 or L3.
4. Available with 120V, 208V, 240V, or 277V (BILV, and PCB) or UNV (BILV) only.
5. For Fusing and PCB must specify applicable specific input voltage, not available with UNV or HVU.
6. Must contact factory prior to ordering - these items are ETO Specials.

### Accessories (order separately)

#### FSIR-100

Hand-held Wireless Remote Programming Tool (For use with BILV-L2 or BILV-L3 motion response when field programming is required). Only one is needed per job.

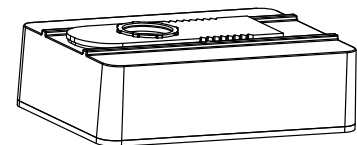
#### BX-16L

#### BX-32L

Bird Excluding Shroud (field installed, for use with PB-NP pendant mount only - requires 12" minimum pendant length, pendant by others). Choose for either 1 array 16L or 2 array 32L.

#### PB-NP

Balanced Offset J-box for Pendant Mount (field installed, Medium Gray paint).



# G3 LED Garage and canopy luminaire

## G3 Luminaire

### LED Wattage and Lumen Values

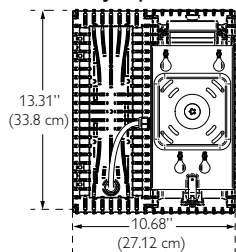
Order Code	Color Temp (K)	Ave System Watts (W)	5			1R			3			CD		
			Lumen Output	BUG Rating	Efficacy (lm/W)	Lumen Output	BUG Rating	Efficacy (lm/W)	Lumen Output	BUG Rating	Efficacy (lm/W)	Lumen Output	BUG Rating	Efficacy (lm/W)
G3-A01-730	3000	23	2,751	B2-U0-G1	120	2,766	B2-U0-G2	121	2,675	B1-U0-G1	117	2,838	B2-U0-G0	124
G3-A02-730	3000	40	4,444	B3-U0-G1	111	4,469	B3-U0-G3	112	4,322	B2-U0-G2	108	4,585	B2-U0-G0	115
G3-A03-730	3000	55	5,883	B3-U0-G1	107	5,916	B3-U0-G3	107	5,721	B2-U0-G2	104	6,070	B3-U0-G0	110
G3-A04-730	3000	62	7,951	B3-U0-G2	129	7,994	B3-U0-G3	130	7,731	B3-U0-G3	126	8,203	B3-U0-G0	133
G3-A05-730	3000	82	10,090	B4-U0-G2	124	10,146	B4-U0-G4	124	9,812	B3-U0-G3	120	10,410	B3-U0-G0	128
G3-A06-730	3000	103	11,933	B4-U0-G2	116	11,999	B4-U0-G4	116	11,604	B3-U0-G3	112	12,312	B3-U0-G0	119
G3-A01-740	4000	23	2,958	B2-U0-G1	129	2,974	B2-U0-G2	130	2,876	B1-U0-G1	126	3,052	B2-U0-G0	133
G3-A02-740	4000	40	4,778	B3-U0-G1	119	4,805	B3-U0-G3	120	4,647	B2-U0-G2	116	4,930	B2-U0-G0	123
G3-A03-740	4000	55	6,327	B3-U0-G1	115	6,362	B3-U0-G3	116	6,153	B2-U0-G2	112	6,528	B3-U0-G0	119
G3-A04-740	4000	62	8,549	B3-U0-G2	139	8,596	B3-U0-G3	140	8,313	B3-U0-G3	135	8,820	B3-U0-G0	143
G3-A05-740	4000	82	10,850	B4-U0-G2	133	10,910	B4-U0-G4	134	10,550	B3-U0-G3	129	11,194	B3-U0-G0	137
G3-A06-740	4000	103	12,831	B4-U0-G2	124	12,901	B4-U0-G4	125	12,477	B3-U0-G3	121	13,238	B4-U0-G0	128
G3-A01-750	5000	23	2,958	B2-U0-G1	125	2,974	B2-U0-G2	128	2,876	B1-U0-G1	133	3,052	B2-U0-G0	132
G3-A02-750	5000	40	4,778	B3-U0-G1	138	4,805	B3-U0-G3	141	4,647	B2-U0-G2	146	4,930	B2-U0-G0	146
G3-A03-750	5000	55	6,327	B3-U0-G1	116	6,362	B3-U0-G3	118	6,153	B2-U0-G2	123	6,528	B3-U0-G0	122
G3-A04-750	5000	62	8,549	B3-U0-G2	140	8,596	B3-U0-G3	143	8,313	B3-U0-G3	148	8,820	B3-U0-G0	148
G3-A05-750	5000	82	10,850	B4-U0-G2	132	10,910	B4-U0-G4	135	10,550	B3-U0-G3	140	11,194	B3-U0-G0	140
G3-A06-750	5000	103	12,831	B4-U0-G2	125	12,901	B4-U0-G4	128	12,477	B3-U0-G3	133	13,238	B4-U0-G0	133

Values from photometric tests performed in accordance with IESNA LM-79 and are representative of the configurations shown. Actual performance may vary due to installation and environmental variables, LED and driver tolerances, and field measurement considerations. It is highly recommended to confirm performance with a photometric layout.

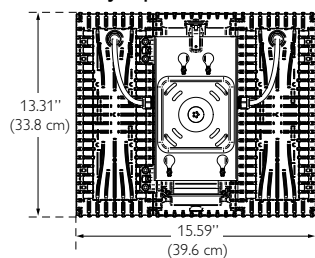
NOTE: Some data may be scaled based on tests of similar (but not identical) luminaires. Contact factory for configurations not shown.

### Dimensions - G3 Standard (EZ hanger plate mount shown)

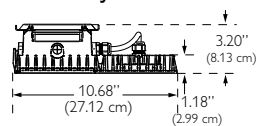
1 LED Array Top View



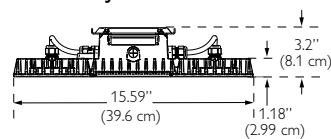
2 LED Array Top View



1 LED Array Side View



2 LED Array Side View



Approximate luminaire Weight: 9.75 Lbs (4.42 Kg)

Approximate luminaire Weight: 12.5 Lbs (5.67 Kg)

# G3 LED Garage and canopy luminaire

## G3 Luminaire

### Specifications

#### Housing

Modular die-cast driver housing with one to two die-cast LED array heatsink assemblies. Made of low copper die cast Aluminum alloy for high resistance to corrosion.

#### IP Rating

IP66 rated luminaire with seal around entire perimeter of the lens and seal around entire perimeter of electrical housing. All electrical components within entire perimeter of IP66 seal.

#### Mounting

**SUR:** Surface mount. A die formed 16 ga. galvanized steel EZ-hang plate supplied for mounting to a recessed or surface-mounted 4" (10.16 cm) junction box (by others) – flush ceiling mount to a recessed junction box, or direct mount to a surface-mounted junction box. Integral hanger tabs on the plate support the luminaire during wiring. Single screw secures luminaire for quick and easy installation. Includes minimum 8" (20.32 cm) SEOWW cord exiting luminaire. For indirect pendant mounting, mount to a wet location junction box (by others) which you then direct mount onto rigid pendant (by others).

**SBO:** Surface mount for higher Bridge / Overpass vibration rating. A die formed 16 ga. galvanized steel EZ-hang plate with integral strengthening feet supplied for mounting to junction box (by others), integral hanger tabs on plate support luminaire during wiring. Single screw secures luminaire for quick and easy installation. Includes minimum 8" (20.32 cm) SEOWW cord exiting luminaire.

All pendants, including rigid pendants and swivel pendants (utilized with the balanced j-box PB-NP option), are supplied by others.

#### Light Engine

Composed of these main components: Heat Sink, LED Module, Optical System, Driver. Electrical components are RoHS compliant. LEDs tested by ISO 17025 2005 accredited lab in accordance with IESNA LM-80 guidelines, extrapolations in accordance with IESNA TM-21. Metal core board ensures greater heat transfer and longer lifespan.

**Heat Sink:** Housing acts as heat sink, designed to ensure high efficacy and superior cooling by natural convection air flow always close to LEDs and driver(s) optimizing their efficiency and life. Product does not use any cooling device with moving parts (only passive cooling).

**LED Module:** Composed of high performance white LEDs. Color temperature as per ANSI/ NEMA bin 3000K nominal (3045K +/-175K), 4000K nominal (3985K +/- 275K) or 5000K nominal (5029K +/- 283K), all CRI 70 min.

**Optical System:** Composed of high performance UV stabilized optical grade polymer refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. Performance shall be tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance. Type 1R Rectangular, Type 3 Asymmetric, Type 5 Square Symmetrical and Concentrated Downlight distributions available, designed for compliance to IES RP-8. Consider Type 1R for one luminaire per bay applications, ramps, and drive lanes leading up to or exiting parking stall decks; Type 3 for perimeter mounted luminaires to throw light into parking garage away from property line (LEED compliance, property cut-off, avoid light trespass); Type 5 for general use in parking bays; Concentrated Downlight and/or higher lumen configurations when enhanced lighting is required for entries and exits, ramps, payment areas, lobbies and waiting areas, etc. and for security lighting per IES G-1.

**Driver:** High power factor of 90% min. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 or 347 to 480 VAC rated for both application line to line or line to neutral. Class I, THD of 20% max. The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built in driver surge protection of 2.5k (min). Driver enables setting LED drive current to meet your specific total wattage consumption, lumen output and/or efficacy needs – ETO Specials, contact factory.

#### Integrated Features

Please note that these integrated features always come with this luminaire standard at no additional cost. 0-10V dimming driver included as standard, dimming leads pre-wired to Dimming Controls option except when DLEA external controls option is selected.

**SP1:** Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground. Surge protection device wired in parallel so that if it fails open the luminaire will remain lit/powerd on.

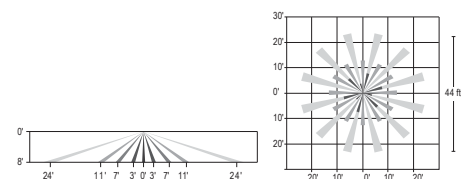
#### Controls Options

Please note that other controls can be integrated as ETO Specials – contact factory.

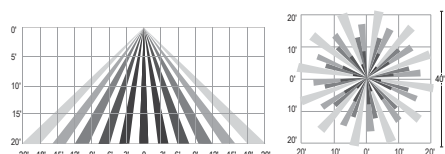
**DLEA:** 0-10V dimming driver with dimming wires externally accessible for connecting dimming controls by others.

**BILV:** Motion Response luminaires include a WattStopper passive infrared (PIR) motion sensor. Motion sensor standby power is 0.5 watts. In Motion Response luminaires, when no motion is detected for 10 minutes, the Motion Response system reduces the wattage by 80%, to 20% of the normal constant wattage per RP-8, reducing the light level accordingly. When motion is detected by the PIR, the luminaire returns to full wattage and full light output. Motion Response includes light sensor feature called Photocell On/Off which is disabled by default. This feature can be enabled in the field using the hand-held Wireless Remote Programming Tool FSIR-100 (ordered separately) – this allows for daylight harvesting (California Title 24 compliant). Motion sensor also includes reading/measuring feature called Light Level that can be used to establish a baseline for daylight harvesting. See FSIR-100 User Guide for details.

with L2 #2 lens



with L3 #3 lens



### Predicted Lumen Depreciation Data

Ambient Temperature °C	Drive Current	Calculated L70 hrs	L70 per TM21	Lumen Maintenance @ 60,000hrs
25 °C	1000 mA	>100,000	>60,000	99%

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. L70 is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L70 hours limited to 6 times actual LED test hours.

# G3 LED Garage and canopy luminaire

## G3 Luminaire

### Specifications (continued)

#### Luminaire Options

**FS1:** Fusing, single (120, 277 or 347VAC) installed in electrical compartment

**FS2:** Fusing, double (208, 240 or 480VAC) installed in electrical compartment

**FS3:** Fusing, Canadian Double Pull (208, 240 or 480VAC) installed in electrical compartment.

**PCB:** Photocell Button (a.k.a. button photoeye).

**BXS:** Bird Excluding Shroud, factory installed for standard surface mount only.

#### Luminaire Useful Life

Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in situ thermal testing in accordance with UL1598 and UL8750, Signify System Reliability Tool, Advance driver data and LED manufacturer LM-80/TM-21 data, expected to reach 100,000 + hours with L70 lumen maintenance @ 25°C. Luminaire Useful Life accounts for LED lumen maintenance AND all of these additional factors including: LED life, driver life, PCB substrate, solder joints, on/off cycles, burning hours and corrosion.

#### LED Products Manufacturing Standard

The electronic components sensitive to electrostatic discharge (ESD) such as LEDs are assembled in compliance with EC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

#### Wiring

#16-#18 AWG wires from the primary circuit, located inside the housing. Due to the inrush current that occurs with electronic drivers, recommend using a time-delay or slow blow fuse to avoid unwanted fuse blowing (false tripping) that can occur with normal or fast acting fuses.

#### Hardware and Seals

All exposed hardware shall be stainless steel and/or corrosion resistant and shall be captive.

All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

#### Vibration Resistance

When ordered with SBO option the surface mount luminaire meets the ANSI C136.31-2018 specifications for Bridge / Overpass applications, as noted in Ordering guide on page 1, tested by independent lab over 100,000 cycles in all three axes.

#### Certifications and Compliance

cULus Listed for Canada and U.S. to the UL1598 and UL8750 standards, suitable for Wet Locations. Suitable for use in ambients from -40°C (-40°F) to +40°C (+104°F). The quality systems of the facility where manufactured have been registered by UL to the ISO 9001 series standards. Configurations are Design-Lights Consortium qualified, consult DLC QPL Qualified Products List for more details. Controls options enable compliance with Outdoor lighting energy codes including ASHRAE 90.1, California Title 24, and IECC.

#### Finish

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powdercoat finish on lower housing.

#### Limited Warranty

5-year limited warranty.

See [signify.com/warranties](https://www.signify.com/warranties) for complete details and exclusions.