



#### GeoForm





GCS LED wall sconce

Gardco GeoForm cylinder small LED wall sconce features a compact geometric design that will complement a range of architectural styles. GeoForm is available with two light engines: highly efficient precision plus optics which feature type 2, 3, and 4 distributions, as well as light effects optics which offer wall wash, spot, and pencil beam distributions. GeoForm with light effects may be inverted for a wet location uplight option. Emergency battery backup option provides path-of-egress illumination and multiple control options further enhance energy savings.

Project:	
Location:	
Cat.No:	
Туре:	
Lamps:	Qty:
Notos	

ovample: CCS-A03-830-T3M-UNV-MC

#### Ordering guide

Ordering gui	ae						example: GCS-AC	3-830-13M-UNV-MG
Luminaire GCS	Configuration (nom. lumens)	Color Temperature Dis	Distribution	Voltage	Dimming Controls <sup>2</sup>	Electrical	Options	Finish
GCS GeoForm	Precision Plus o	ptics		<b>120</b> 120V	none Leave blank	none Leave blank	none Leave blank	Textured
Cylinder Small	A01¹ 1,500 lumens A02¹ 2,500 lumens A03 4,000 lumens A04 5,000 lumens A05 6,000 lumens	3000K T3	<b>2M</b> Type 2 <b>3M</b> Type 3 <b>4M</b> Type 4	208 208V 240 240V 277 277V UNV 120-277V 347 347V 480 480V HVU 347-480V	(0-10V dimming driver standard)  DLEA <sup>2</sup> Dimming Leads Externally Accessible (controls by others)  FAWS <sup>2</sup> Field	(10kV kA surge protection standard)  SP2 Surge Protector 20kV/10kA (option)  FS1 Single Fuse (120, 277, or 347VAC)  FS2 Double Fuse	EMI:6 Emergency Battery Pack (0-40°C)  BAC <sup>5</sup> Meets the requirements of the Buy American Act of 1933 (BAA)	BK Black WH White BZ Bronze DG Dark Gray MG Medium Gray  Customer specified OC Specify optional color or RAL, contact factory
	Light Effects op	tics			Adjustable Wattage	(208V, 240V, or 480V)		SC Special Color
	B01 <sup>3</sup> 700 lumens B02 <sup>3</sup> 1,100	3000K SF	VAW Wall Wash SPT Spot PEN Pencil		Selector	PCB <sup>4</sup> Photocontrol Button (120-277V)		(must supply color chip, requires factory quote)
	B03³ 2,200 lumens	4000K	Beam					

- 1. Only available from 120-277V, or in UNV.
- 2. Only one option can be selected from Dimming Controls column.
- 3. Not available with Emergency battery pack.
- ${\it 4.~Only~available~from~120-277V,~must~specify~voltage.}\\$

5. Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.

6. Consult Signify to confirm whether specific accessories are BAA-compliant.

Luminaire Accessories (order separately)<sup>6</sup>

GF-WS-BK Wall Mounted Box for surface conduit, painted black
GF-INV Inversion Mounting kit (required with inverted mounting)







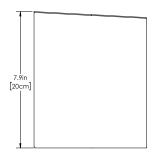
## Wall sconce

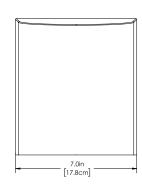
**Dimensions** 

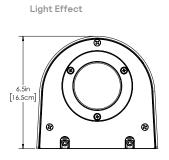
GCS Small Cylinder

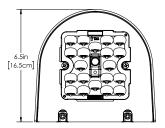
Standard

Weight: 6.2 Lbs (2.8kg)



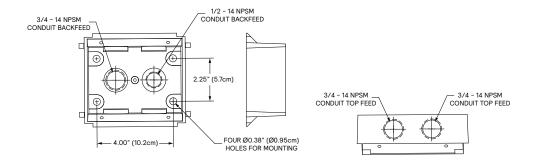






#### Accessory details

GF-WS-BK Details



## Wall sconce

GCS Lumen values

3000K, 80CRI

			Average		Type 2M			Туре 3М			Type 4M	
Ordering Code	сст	CRI	System Wattage	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
GCS-A01-830	3000	80	10	1483	B1-U0-G1	145	1503	B1-U0-G1	147	1467	B0-U0-G1	144
GCS-A02-830	3000	80	17	2478	B1-U0-G1	147	2511	B1-U0-G1	149	2452	B1-U0-G1	145
GCS-A03-830	3000	80	25	3522	B1-U0-G1	143	3570	B1-U0-G1	145	3485	B1-U0-G1	142
GCS-A04-830	3000	80	34	4601	B1-U0-G1	137	4664	B1-U0-G1	139	4553	B1-U0-G1	136
GCS-A05-830	3000	80	41	5501	B2-U0-G2	134	5575	B2-U0-G2	136	5443	B1-U0-G1	132

4000K, 80CRI

			Average		Туре 2М		Type 3M			Type 4M			
Ordering Code	сст	CRI	System Wattage	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	
GCS-A01-840	4000	80	10	1537	B1-U0-G1	151	1558	B1-U0-G1	153	1521	B0-U0-G1	149	
GCS-A02-840	4000	80	17	2569	B1-U0-G1	152	2604	B1-U0-G1	154	2542	B1-U0-G1	151	
GCS-A03-840	4000	80	25	3652	B1-U0-G1	148	3701	B1-U0-G1	150	3613	B1-U0-G1	147	
GCS-A04-840	4000	80	34	4771	B1-U0-G1	142	4835	B2-U0-G2	144	4721	B1-U0-G1	141	
GCS-A05-840	4000	80	41	5703	B2-U0-G2	139	5780	B2-U0-G2	141	5643	B1-U0-G2	137	

4000K, 70CRI

			Average		Type 2M		Type 3M			Туре 4М			
Ordering Code	сст	CRI	System Wattage	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	
GCS-A01-740	4000	70	10	1732	B1-U0-G1	170	1756	B1-U0-G1	172	1714	B1-U0-G1	168	
GCS-A02-740	4000	70	17	2895	B1-U0-G1	171	2934	B1-U0-G1	174	2865	B1-U0-G1	170	
GCS-A03-740	4000	70	25	4115	B1-U0-G1	167	4171	B1-U0-G1	170	4072	B1-U0-G1	166	
GCS-A04-740	4000	70	34	5376	B2-U0-G2	160	5449	B2-U0-G2	163	5320	B1-U0-G1	159	
GCS-A05-740	4000	70	41	6427	B2-U0-G2	156	6514	B2-U0-G2	158	6359	B1-U0-G2	155	

5000K, 70CRI

			Average		Type 2M			Туре 3М			Type 4M	
Ordering Code	сст	CRI	System Wattage	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
GCS-A01-750	5000	70	10	1663	B1-U0-G1	163	1686	B1-U0-G1	165	1646	B1-U0-G1	161
GCS-A02-750	5000	70	17	2780	B1-U0-G1	165	2818	B1-U0-G1	167	2751	B1-U0-G1	163
GCS-A03-750	5000	70	25	3952	B1-U0-G1	161	4005	B1-U0-G1	163	3910	B1-U0-G1	159
GCS-A04-750	5000	70	34	5163	B2-U0-G2	154	5233	B2-U0-G2	156	5109	B1-U0-G1	153
GCS-A05-750	5000	70	41	6172	B2-U0-G2	150	6255	B2-U0-G2	152	6107	B1-U0-G2	149

Light Effects Optics 3000K, 80 CRI

			Average	Wall Was	h (WAW)	Spot	Spot (SPT)		eam (PEN)
Ordering Code	сст	CRI	System Wattage	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)
GCS-B01-830	3000	80	8	699	88	767	97	66	8
GCS-B02-830	3000	80	18	1397	78	1534	86	133	7
GCS-B03-830	3000	80	30	2446	82	2685	90	232	8

Light Effects Optics 4000K, 80 CRI

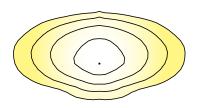
			Average	Wall Was	sh (WAW)	Spot	(SPT)	Pencil Beam (PEN)		
Ordering Code	сст	CRI	System Wattage	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	
GCS-B01-840	4000	80	8	734	92	805	101	70	9	
GCS-B02-840	4000	80	18	1467	82	1611	90	139	8	
GCS-B03-840	4000	80	30	2568	86	2819	94	244	8	

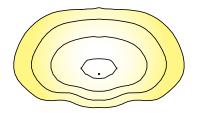
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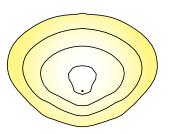
LED Wattage and Lumen Values (Emergency Mode)

			Avg.	Тур	pe 2	Тур	e 3	Тур	e 4
Ordering Code	сст	CRI	System Wattage (W)	Lumen Output	BUG Rating	Lumen Output	BUG Rating	Lumen Output	BUG Rating
GCS-A01/2/3/4/5-830-x-EM	3000	80	6	856	B0-U0-G0	868	B0-U0-G0	847	B0-U0-G1
GCS-A01/2/3/4/5-840-x-EM	4000	80	6	887	B0-U0-G0	899	B0-U0-G0	878	B0-U0-G1
GCS-A01/2/3/4/5-740-x-EM	4000	70	6	1000	B0-U0-G0	1014	B0-U0-G0	990	B0-U0-G1
GCS-A01/2/3/4/5-750-x-EM	5000	70	6	960	B0-U0-G0	973	B0-U0-G0	950	B0-U0-G1

#### **Optical Distributions**







Type 2

Type 4

#### **Specifications**

#### Construction

Main body housing and door frame made of low copper die cast aluminum alloy for a high resistance to corrosion. Removable die cast backplate to allow access to driver or other electronic components for servicing. The housing acts as the main heat sinking component, for maximum thermal dissipation. Giving the freedom to have a clean minimalist aesthetic design while allowing it to house emergency battery backup equipment and various other options. Luminaire housing rated to IP65, tested in accordance to Section 9 of IEC 60509-1

IK Rating IKO8 high impact resistance rating for both the housing and optics

IP Rating IP65 rated luminaire with IP66 rated light engine

#### Light engine

Electrical components are RoHS compliant, IP66 sealed light engine equipped LEDs tested by ISO 17025-2005 accredited lab in accordance with IESNA LM-80 guidelines in compliance with EPA ENERGY STAR, extrapolations in accordance with IESNA TM-21. Metal core board ensures greater heat transfer and longer lifespan.

#### LED Module

Precision plus LED printed circuit board assembly made of 20 LEDs populated on aluminum metal clad board for optimal thermal dissipation ensuring long LED life. Light Effects feature single COB LED array.

#### **Optical System**

Precision plus optics composed of high performance UV stabilized optical grade polymer refractor lenses to achieve desired distribution for optimized spacing, target lumens and a superior lighting uniformity. Performance tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance. 0% uplight and UO per IESNA TM-15.

Light effects optics composed of low iron tempered clear glass with molded gasket attached to lens without tools or RTV. Lenses provide narrow spot, pencil beam, and wall wash optical distributions.

#### Mounting

Type 3

Mounting is achieved through integral back plate that features a hook and lock quick mount plate that secures with two set screws from bottom of luminaire. Mounting plate is located in the center of the luminaire body. Luminaire ships fully assembled, ready to install. GeoForm requires a mounting kit accessory for use of inverted luminaires. Mounting kit includes Safety Cable and hardware. GeoForm with Precision Plus optics are suitable for damp locations only when inverted. GeoForm with Light Effects optics are suitable for wet location when inverted.

#### Installatio

GeoForm features an integral hook on its mounting plate which allows a single installer to perform wiring without assistance. See installation instructions for complete details.

#### Control options

**0-10V dimming (DLEA):** Access to 0-10V dimming leads supplied through back of luminaire (for secondary dimming controls by others). Cannot be used with other control options.

Field Adjustable Wattage Selector (FAWS): Luminaire equipped with the ability to manually adjust the wattage in the field to reduce total luminaire lumen output and light levels. Comes pre-set to the highest position lumen output selected. Use chart below to estimate reduction in lumen output desired. Cannot be used with other control options or motion response.

FAWS Position	Percent of Typical Lumen Output
1	25%
2	50%
3	55%
4	65%
5	75%

FAWS Position	Percent of Typical Lumen Output
6	80%
7	85%
8	90%
9	95%
10	100%

Note: Typical value accuracy +/- 5%

### Wall sconce

#### Specifications (cont'd)

Emergency Battery Backup (EM): Emergency battery packs included integral to the luminaire, allowing for a consistent look between emergency and non-emergency luminaires. Emergency is suitable for use in ambient temperature conditions from 0°C (32°F) to 40°C (104°F) designed to have a secondary driver with relay to immediately detect AC power loss to power luminaire for a minimum of 90 minutes from the time power is lost. Available with 120-277V, or 'UNV' only.

#### Electrical

**Driver:** Driver efficiency (>90% standard). 120-480V available (restrictions apply). Open/short circuit protection. 0-10V dimming driver down to 10% standard. RoHS compliant.

**Button Photocontrol (PCB):** Button style design for internal luminaires mounting applications. The photocontrol is constructed of a high impact UV stabilized polycarbonate housing. Rated voltage of 120V or 208-277V with a load rating of 1000 VA. The photocell will turn on with 1-4Fc of ambient light.

Surge protection (SP2): Each luminaire is provided as standard with surge protector tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/5kA waveforms for Line Ground, Line Neutral and Neutral Ground, and in accordance with U.S. DOE (Department of Energy) MSSLC (Municipal Solid-State Street Lighting Consortium) Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High Test Level 10kV / 5kA. Optional 20kV is available for additional protection.

#### Listings

**UL/cUL** listed to the UL 1598 standard, suitable for wet locations when mounted downward facing. GeoForm with Precision Plus optics listed for damp locations when inverted. GeoForm with light effects optics listed for wet location in up or down orientation. Suitable for use in ambient temperatures from -40° to 40°C (-40° to 104°F). GeoForm configurations with Precision Plus optics are qualified under Design Lights Consortium® Premium category. Consult DLC Qualified Products List on Specific Classifications and for more details. CCTs 3000K and warmer are IDA Dark Sky Approved. FCC Compliant.

#### Finis

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powder coat finish. The surface treatment achieves a minimum of 1000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard. Standard colors include bronze (BZ), black (BK), white (WH), dark gray (DGY), and medium gray (MGY). Consult factory for specs on optional or custom colors.

#### Service Tag

Each individual luminaire is uniquely identifiable, thanks to the Service tag application. With a simple scan of a QR code, placed on the inside of the mast door, you gain instant access to the luminaire configuration, making installation and maintenance operations faster and easier, no matter what stage of the luminaire's lifetime. Just download the APP and register your product right away. For more details visit: signify.com

#### Warranty

GeoForm luminaires feature a 5-year limited warranty. See signify.com/warranties for complete details and exclusions.

#### **Predicted Lumen Depreciation Data**

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

Ambient Temperature °C	Drive current	L <sub>70</sub> per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	up to 1200 mA	>102,000 hours	>91%



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