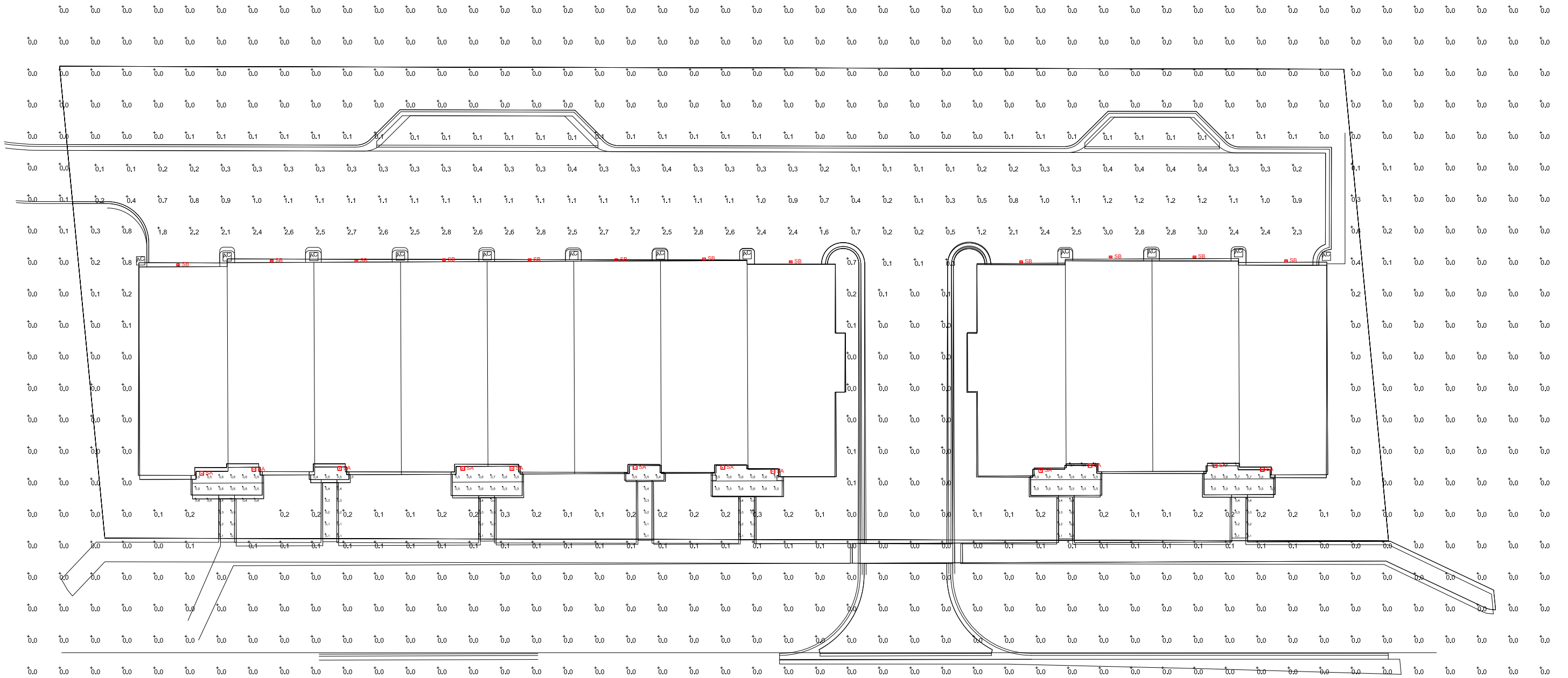


BAUER & MILL TOWNHOMES EXTERIOR LIGHTING

Luminaire Schedule					
Symbol	Qty	Label	Description	LLF	Lum. Lumens
SA	12	SA	EVERGREEN LTG#: TUS-1110L-AB / WALL MTD AT 7' AFG	0.880	453
SB	12	SB	GARDCOR: GCS-A01-840-T4M / WALL MTD AT 8' AFG	0.880	1521

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
BACK DRIVE AREA	Illuminance	Fc	1.02	3.0	0.1	10.20	30.00
SPILL LIGHT	Illuminance	Fc	0.02	0.8	0.0	N/A	N/A
WALKWAY AREAS	Illuminance	Fc	0.41	0.7	0.1	4.10	7.00

Filename: BR-2023-04-20.AGI

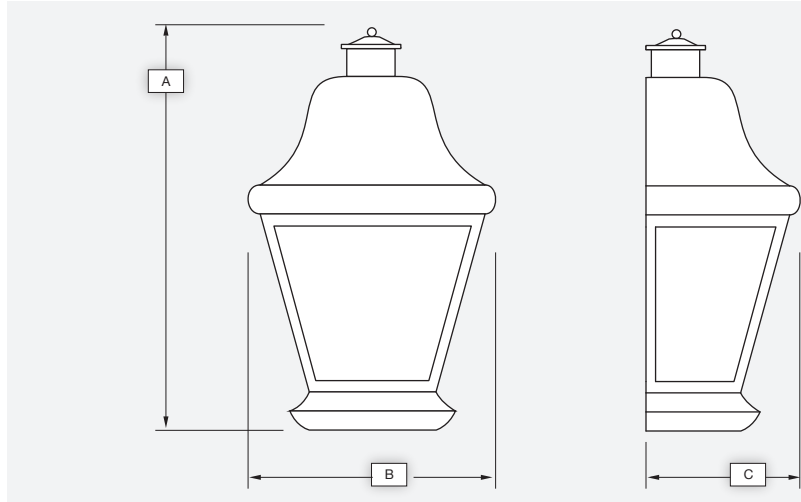




PALERMO

Catalog #		Type
Project		
Description		Date

WALL MOUNT



Standard Features

Material

Paintlok sheet; Standard Powdercoat Finish, White Acrylic Lens; .125 thickness, ETL Wet Location.

Installation

Mounting/wireway hole in center of backplate. Supplied with standard mounting hardware to mount to a 4" J-box or plaster ring.

Optics*

Contact Evergreen Lighting for complete photometrics.

LED Features

LED

Alta LED #AL-R-1W-30LED array to be mounted onto an Aluminum MPCB Board configured to the proper wattage. The LED arrays will be centered within the Lens area and mounted on a white aluminum reflective plate.

Driver

Specific Drivers will be matched with each different LED array configuration/wattage. Standard Driver Features:

- Constant Current
- 3 / 5 year warranty
- 120/277 multi-voltage power supplies
- Kelvin - 2700K, 3000K, 3500K, 4100K, 5000K

Fluorescent Features

Ballast

SC programmed electronic high power factor ballast, multivoltage 120V/277V. Lamps not included

Finishes

Ballast

Architectural Bronze (AB)	Textured Gold (TG)
Textured Bronze (TBR)	Metallic Nickel (MN)
Matte Black (MBK)	Textured Verde Patina (TVP)
Semi Gloss Black (GBK)	Satin Brass (SB)
Textured Black (TBK)	Copper Vein (CV)
Textured Rust (TR)	Gold Vein (GV)
Matte White (MW)	Silver Vein (SV)
Textured White (TW)	Chrome (CH)
Gloss White (GW)	Oil Rubbed Bronze (ORB)
Metallic Grey (MG)	

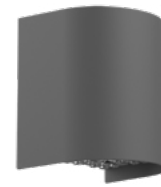
Options*

- Emergency (EMR)
- Vandal Proof Enclosure (VPE)
- Photocell (PC)
- Lamp Sources
- Size Modifications
- Special Lens

Sample Spec Number: TUS1103Q-AB-A

Part #	Lamp/Watts	Lumens	A	B	C
TUS1103Q	13Q	800	14 1/2	8	4 1/2
TUS1105T	26T	1800	14 1/2	8	4 1/2
TUS1204Q	2-13Q	1600	17 3/4	9	5 3/4
TUS1205	26Q	1800	17 3/4	9	5 3/4
TUS1211	32T	2200	17 3/4	9	5 3/4
TUS1304Q	2-13Q	1600	20	10	6 1/2
TUS1306	2-26Q	3600	20	10	6 1/2
TUS1322	42T	3200	20	10	6 1/2
TUS1106L	6LED	600	14 1/2	8	4 1/2
TUS1110L	10LED	1000	14 1/2	8	4 1/2
TUS1212L	12LED	1200	17 3/4	9	5 3/4
TUS1220L	20LED	2000	17 3/4	9	5 3/4
TUS1324L	24LED	2400	20	10	6 1/2
TUS1340L	40LED	4000	20	10	6 1/2
DARK SKY					
TUS1109LS	9LED	900	17	8	4 1/2
TUS1215LS	15LED	1500	19	9	5 3/4
TUS1320LS	20LED	2000	21 1/2	10	6 1/2





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 upright option. A diffuse lens is also available for over doorway applications. Emergency battery backup option provides path-of-egress illumination, and multiple control options further enhance energy savings.

Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Lamps: _____ Qty: _____
 Notes: _____

Ordering guide

example: GCS-A03-830-T3M-UNV-MG

Luminaire	Configuration (nom. lumens)	Color Temperature	Distribution	Voltage	Dimming Controls ²	Electrical	Emergency	Finish	
GCS									
GCS GeoForm Cylinder Small	Precision Plus optics			120 120V 208 208V 240 240V 277 277V UNV 120-277V 347 347V 480 480V HVU 347-480V	none Leave blank (0-10V dimming driver standard) DLEA² Dimming Leads Externally Accessible (controls by others) FAWS² Field Adjustable Wattage Selector	none Leave blank (10kV kA surge protection standard) SP2 Surge Protector 20kV/10kA (option) FS1 Single Fuse (120, 277, or 347VAC) FS2 Double Fuse (208V, 240V, or 480V) PCB⁵ Photocontrol Button (120-277V)	none Leave blank EM^{1,6} Emergency Battery Pack (0-40°C)	Textured BK Black WH White BZ Bronze DG Dark Gray MG Medium Gray Customer specified OC Specify optional color or RAL, contact factory SC Special Color (must supply color chip, requires factory quote)	
	A01¹	1,500 lumens	830 80CRI 3000K						T2M Type 2
	A02¹	2,500 lumens	840 80CRI 4000K						T3M Type 3
	A03	4,000 lumens	740 70CRI 4000K						T4M Type 4
	A04	5,000 lumens	750 70CRI 5000K						
	A05	6,000 lumens							
	Light Effects optics								
	B01³	700 lumens	830 80CRI 3000K						WAW Wall Wash
	B02³	1,100 lumens	840 80CRI 4000K						SPT Spot
	B03³	2,200 lumens							PEN Pencil Beam

1. Only available in 120- 277V or UNV.

2. Only one option can be selected from Dimming Controls column.

3. Not available with Emergency battery pack.

4. 120-277V only. Luminaire must be ordered with DLEA option if using WIAP.

5. Only available in 120-277, must specify voltage.

6. Not available with "Light Effects" B01, B02, B03.

Luminaire Accessories (order separately)

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



GCS GeoForm cylinder small

Wall sconce

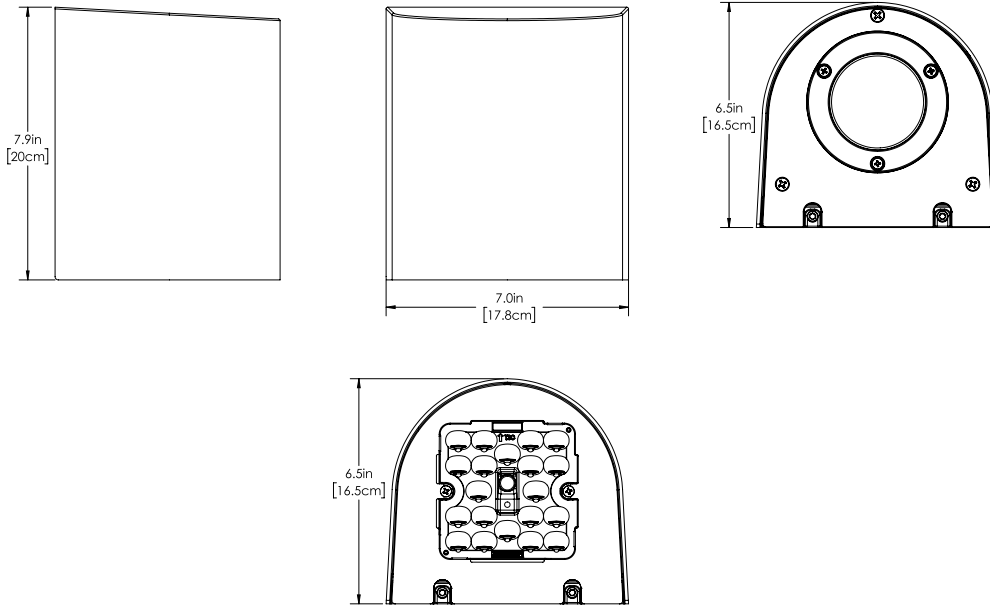
Dimensions

GCS Small Cylinder

Standard

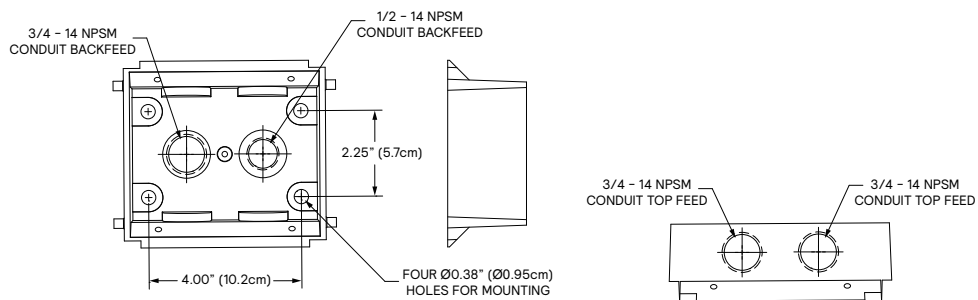
Weight: 6.2 Lbs (2.8kg)

Light Effect



Accessory details

GF-WS-BK Details



GCS GeoForm cylinder small

Wall sconce

GCS Lumen values

3000K, 80CRI

Ordering Code	CCT	CRI	Average System Wattage	Type 2M			Type 3M			Type 4M		
				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

Ordering Code	CCT	CRI	Average System Wattage	Type 2M			Type 3M			Type 4M		
				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

Ordering Code	CCT	CRI	Average System Wattage	Type 2M			Type 3M			Type 4M		
				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

Ordering Code	CCT	CRI	Average System Wattage	Type 2M			Type 3M			Type 4M		
				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

Ordering Code	CCT	CRI	Average System Wattage	Wall Wash (WAW)		Spot (SPT)		Pencil Beam (PEN)	
				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

Ordering Code	CCT	CRI	Average System Wattage	Wall Wash (WAW)		Spot (SPT)		Pencil Beam (PEN)	
				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

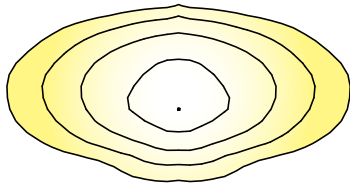
GCS GeoForm cylinder small

Wall sconce

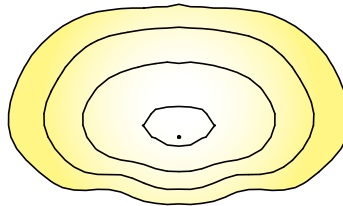
LED Wattage and Lumen Values (Emergency Mode)

Ordering Code	CCT	CRI	Avg. System Wattage (W)	Type 2		Type 3		Type 4	
				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

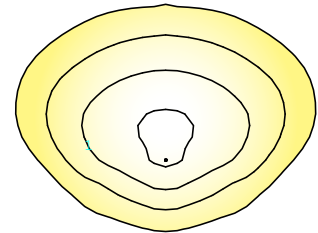
Optical Distributions



Type 2



Type 3



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 60598-1.

IK Rating IK08 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 U0 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

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.

Installation

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%
6	80%
7	85%
8	90%
9	95%
10	100%

Note: Typical value accuracy +/- 5%

GCS GeoForm cylinder small

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 (SP1/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.

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. 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

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

Buy American Act of 1933 (BAA):

This product is manufactured in one of our US factories and, as of the date of this document, this product was considered a commercially available off-the-shelf (COTS) item meeting the requirements of the BAA. This BAA 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. Prior to ordering, please visit www.signify.com/baa to view a current list of BAA-compliant products to confirm this product's current compliance.

Finish

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidic 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.

