

STOCK & ASSOCIATES
Consulting Engineers, Inc.

Dated: January 17, 2014
Revised: February 17, 2014
Revised: March 20, 2014

Via E-Mail – (ppatel@chesterfield.mo.us)

City of Chesterfield
690 Chesterfield Parkway W
Chesterfield, MO. 63017-0760

Attention: Honorable Chairman and Members of the Planning Commission c/o Aimee Nassif,
AICP, Planning and Development Services Director

Re: Mercy – Virtual Care Center – Parking Reduction and Loading Reduction Study
(Ordinance No. 2749)
(Stock Project No. 211-4821.5)

Dear Honorable Chairman and Members of the Planning Commission:

**Application For Reduction
Of The Number of Required Parking & Loading Spaces**

This firm is the professionally licensed civil engineering firm that has been engaged to prepare and process a Site Development Section Plan for Mercy Virtual Care Center. Included in that engagement is the preparation and submission of this Application and Parking Demand Study. Parking requirements are contained in Section 1003.165 of the City of Chesterfield Municipal Code (the “Parking Section”). Under the provisions of the Parking Section, Mercy’s Virtual Care Center is considered “Office, General” pursuant to the letter from Forum Studio dated 1/29/14 as enclosed. As such, the number of required parking spaces per 1,000 square feet of Gross Floor Area is 3.5 / 1,000 GFA Minimum, and 4.5/1,000 GFA Maximum.

Based on a total building area = 123,466 G.S.F., the minimum required = 432 spaces, and a maximum allowed = 555 spaces.

Based on the attached Mercy/Forum staffing report, the required parking is 405 spaces, which is twenty-seven (27) less than the minimum required. The current Site Development Section Plan provides 409 spaces.

Attached is a letter from Forum Studio dated 1/29/14 which outlines the ‘Programmatic Elements’ of the Virtual Care Center. The combination of this letter and the VCC Parking

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CITY OF CHESTERFIELD
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Analysis dated 10/31/13, prepared by Mercy and Forum, demonstrate the need for the 405 spaces.

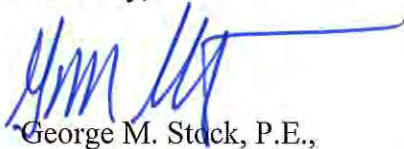
Based on our analysis, the 409 spaces being provided are four (4) more than the study requires. We request your consideration of a waiver from 433 spaces to the 405 spaces, as demonstrated in our study.

At this time we would ask for a reduction of two (2) 10' x 40' truck loading spaces). One (1) 10' x 60' loading docks is more than adequate to service the 123,466 s.f. of building. Based on the building's intended use, the truck docks have a very low volume of truck traffic. Unlike "office buildings" with multiple tenants, Mercy Health will be the sole occupant of the building. It is anticipated that there may be occasional deliveries (2-4) per month and the bulk of the deliveries to the building will be via box trucks, i.e. Fed Ex, UPS through the front entrance.

In cases of multi-tenant buildings, truck deliveries are much more frequent to serve multiple tenants. Mercy is very comfortable that the one (1) truck dock is more than adequate to serve the Virtual Care Center.

As always, we greatly appreciate your cooperation.

Sincerely,



George M. Stock, P.E.,
President



CC: Mr. Terry Bader, Mercy Health (terry.bader@mercy.net)
Mr. John Fogle, Mercy Health (jon.fogle@mercy.net)
Bob Clark, Clayco (clarkb@claycorp.com)
Mr. Chris Cedergreen, Forum Studio (cedergreenc@forumstudio.com)
Mr. David Hirschbuehler, Forum Studio (hirschbuehlerd@forumstudio.com)
Mr. Ryan Taylor, Clayco (taylorr@claycorp.com)
Mr. Josh Barcus, Stock & Associate (josh.barcus@stockassoc.com)

Enclosure: VCC Parking Analysis dated 10/31/13
Forum Letter dated 1/29/14 (Mercy Virtual Care Center)

FORUM

THE ART & SCIENCE OF BUILDING

2199 Innerbelt
Business Center Drive
St. Louis, Missouri 63114

p 314 429 5100
f 314 429 3137
forumstudio.com

Date: 1.29.14
To: George Stock
From: Dave Hirschbuehler
Subject: Mercy Virtual Care Center

The Virtual Care Center (VCC) is an interactive and collaborative work place that accommodates the most innovative needs of a forward thinking healthcare provider.

The programmatic elements include:

- The Health Manager Group – case management, disease management, nurse-on-call, and care management
- The Connector Group – Telemedicine
- Demonstration Area
- Telemedicine Business Unit (TBU) – Administration
- Ancillary Support

The 124,000 sf building is designed to accommodate approximately 400 care givers. Compassionate care will be provided "virtually" via the internet as there will be no patients visiting this facility. Doctors, nurses, case managers, disease managers, and various support personnel will utilize the latest technology to communicate and consult with patients and medical staff throughout the Mercy community.

The Connector and a small portion of the Health Manager Groups will operate 24 hours a day 7 days per week (24/7). Approximately 200 care givers are associated with these 24/7 operations. The staffing models for these services consist of 8, 10 or 12 hour shifts. The remaining 200 occupants will work conventional 8 hour shifts.

There is no other facility like this in the medical community. The Virtual Care Center demonstrates Mercy's tradition of caring and their values of dignity, justice, service, excellence, and stewardship.

VCC - Parking Analysis

Date: October 31, 2013

Group	Hours of Operation	AM											PM												
		12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
Telemedicine	24/7	174	174	174	174	174	174	174	348	174	174	174	174	174	174	174	174	174	174	174	348	174	174	174	174
Hubs	Day								174	174	174	174	174	174	174	174	174	174	174	174	174				
Hubs	Night	174	174	174	174	174	174	174	174					174	174	174	174	174	174	174	174	174	174	174	174
Health Manager	24/7	25	25	25	25	25	25	35	166	166	166	166	166	166	166	166	166	166	35	25	25	25	25	25	25
Nurse On Call		25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Nurse On Call - Shifts								10	10	10	10	10	10	10	10	10	10	10	10						
Disease Manager								50	50	50	50	50	50	50	50	50	50	50							
Case Manager								50	50	50	50	50	50	50	50	50	50	50							
Ancillary								31	31	31	31	31	31	31	31	31	31	31							
TBU - Demo - Training		4	4	4	4	4	4	20.25	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	21	5.25	4	4	4	4	4	4
Factor								0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75						
Total								27	86	86	86	86	86	86	86	86	86	28	7						
TBU								20	30	30	30	30	30	30	30	30	30	20							
TBU - Hoteling								6	6	6	6	6	6	6	6	6	6								
Demo								30	30	30	30	30	30	30	30	30	30								
Training								12	12	12	12	12	12	12	12	12	12								
Ancillary																									
Cofe (operational stuff)		1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1
IT - Build Room		1	1	1	1	1	1	3	3	3	3	3	3	3	3	3	3	3	1	1	1	1	1	1	1
Receptionist								1	1	1	1	1	1	1	1	1	1	1							
Security		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
VCC Totals		303	303	303	303	303	303	403.25	404.5	404.5	404.5	404.5	404.5	404.5	404.5	404.5	404.5	161	214.25	377	203	203	203	203	
Base Office Building		396	396	396	396	396	396	396	396	396	396	396	396	396	396	396	396	396	396	396	396	396	396	396	396
Variance		193	193	193	193	193	193	(7)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	35	182	19	193	193	193	193	

Percentage of HC spaces - Might be higher due to ADA nurses

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

Catalog #	GLEON-AE-02-LED-E1-T3-530	Type
Project	Mercy - VCC	S1
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics

Choice of 12 patented, high-efficiency AccuLED Optics™ manufactured from injection molded acrylic. Optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and nominal

70 CRI. Optional 6000K CCT and 3000K CCT (80 CRI).

Electrical

LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Shipped standard with Cooper Lighting proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. 90% lumen maintenance expected at 60,000 hours.

Mounting

Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during assembly. Designed for pole or wall mounting. When mounting two or more luminaires at 90° or

120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table on page 3. For wall mounting, specify wall mount bracket option. 3G vibration rated.

Finish

Housing finished in Super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

Warranty

Five-year warranty.



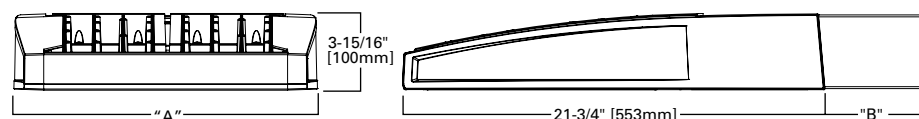
GLEON GALLEON LED

1-10 Light Squares
Solid State LED

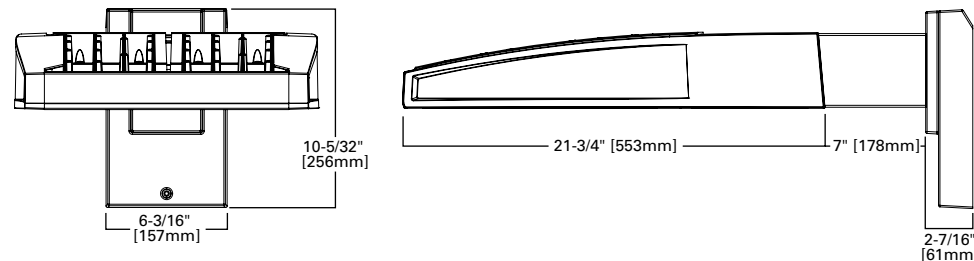
AREA/SITE LUMINAIRE

DIMENSIONS

POLE MOUNT



WALL MOUNT



DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length ¹	Weight with Arm (lbs.)	EPA with Arm ² (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1. Optional arm length to be used when mounting two fixtures at 90° on a single pole. 2. EPA calculated with optional arm length.



CERTIFICATION DATA

UL/cUL Wet Location Listed
ISO 9001
LM79 / LM80 Compliant
3G Vibration Rated
ARRA Compliant
DesignLights Consortium® Qualified*
IP66 Rated

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V & 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)

POWER AND LUMENS BY LIGHT SQUARE COUNT

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Power (Wattage)		51	103	154	206	257	309	360	412	463	515
Current @ 120V (A)		0.43	0.86	1.29	1.72	2.15	2.58	3.01	3.44	3.87	4.30
Current @ 277V (A)		0.19	0.38	0.57	0.76	0.95	1.14	1.33	1.52	1.71	1.90
Optics											
T2	Lumens	3,873	8,372	12,245	16,131	19,993	23,493	27,458	31,329	35,095	38,720
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
T3	Lumens	3,858	8,340	12,198	16,069	19,916	23,403	27,353	31,209	34,961	38,572
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
T4	Lumens	3,699	7,995	11,694	15,405	19,093	22,436	26,222	29,919	33,516	36,978
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL2	Lumens	3,795	8,201	11,996	15,803	19,586	23,015	26,899	30,692	34,382	37,933
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL3	Lumens	3,748	8,101	11,849	15,609	19,345	22,732	26,569	30,314	33,959	37,467
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL4	Lumens	3,811	8,237	12,048	15,871	19,671	23,115	27,016	30,824	34,530	38,097
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
5MQ	Lumens	4,070	8,797	12,867	16,951	21,009	24,687	28,853	32,921	36,879	40,688
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
5WQ	Lumens	4,046	8,745	12,791	16,850	20,884	24,540	28,681	32,725	36,659	40,446
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
5XQ	Lumens	3,947	8,531	12,478	16,437	20,373	23,940	27,979	31,924	35,762	39,456
	BUG Rating	B2-U0-G1	B3-U0-G3	B4-U0-G3	B4-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
RW	Lumens	3,867	8,359	12,226	16,106	19,962	23,457	27,415	31,280	35,041	38,660
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B5-U0-G5	B5-U0-G5
SLL/SLR	Lumens	3,625	7,835	11,459	15,096	18,710	21,986	25,696	29,319	32,844	36,236
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.04
15°C	1.03
25°C	1.00
40°C	0.96
50°C	0.92

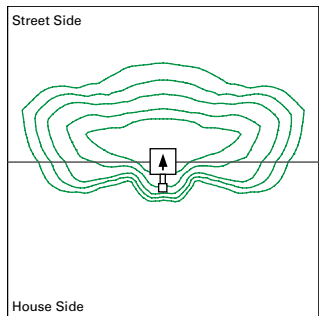
LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C	> 90%	> 170,000

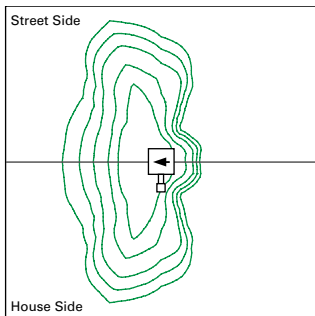
LIGHT SQUARE OPERATION WITH 2L BI-LEVEL SWITCHING

Number of Light Squares	Circuit 1	Circuit 2
1	N/A	N/A
2	1	1
3	2	1
4	2	2
5 (120-277V only)	3	2
6 (120-277V only)	3	3
7	4	3
8	4	4
9	5	4
10 (120-277V)	5	5
10 (347-480V)	6	4

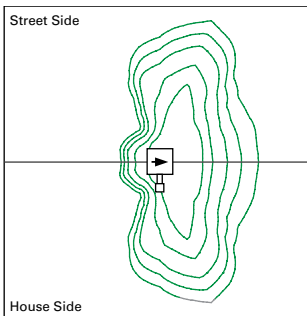
OPTIC ORIENTATION



Standard

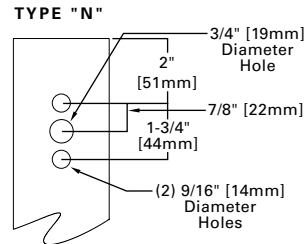


Optics Rotated Left @ 90° [L90]



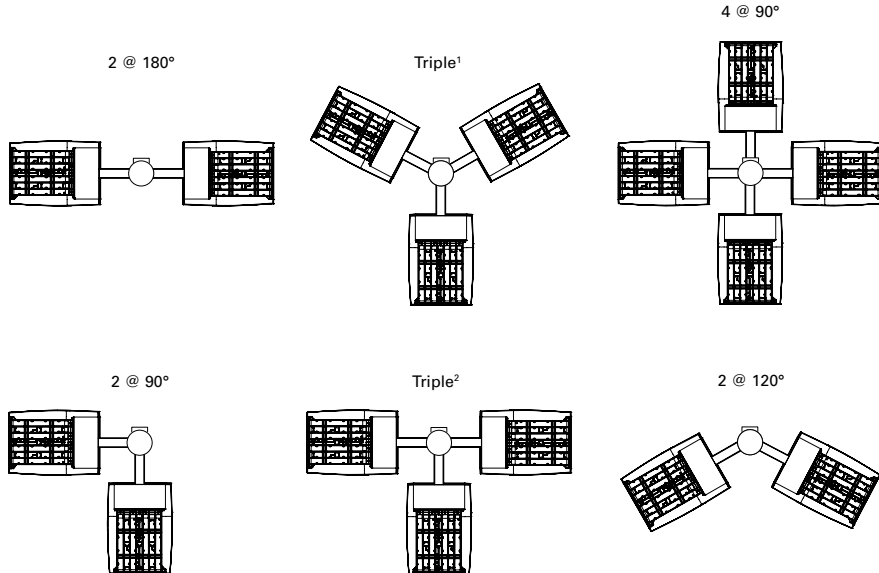
Optics Rotated Right @ 90° [R90]

DRILLING PATTERN



ARM MOUNTING REQUIREMENTS

Configuration	90° Apart	120° Apart
GLEON-AA-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AA-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AA-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AA-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AA-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AA-10	16" Extended Arm (Required)	16" Extended Arm (Required)



ORDERING INFORMATION

Sample Number: GLEON-AA-04-LED-E1-T3-GM

Product Family ¹	Light Engine	Number of Light Squares ²	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	AA=1A, UL Class 2	01=1 02=2 03=3 04=4 05=5 06=6 07=7 08=8 09=9 10=10	LED=Solid State Light Emitting Diodes	E1=120-277V 347=347V ³ 480=480V ³	T2=Type II T3=Type III T4=Type IV SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control 5MQ=Type V Square Medium 5WQ=Type V Square Wide 5XQ=Type V Square Extra Wide RW=Rectangular Wide SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	[Blank]=Arm for Round or Square Pole EA=Extended Arm ⁴ MA=Mast Arm Adapter ⁵ WM=Wall Mount
Options (Add as Suffix)					Accessories (Order Separately)		
2L=Two Circuits ^{6,7} 7060=70 CRI 6000K ⁸ 8030=80 CRI 3000K ⁸ DIM=0-10V Dimming Drivers ^{9,10} HA=50°C High Ambient ⁷ L90=Optics Rotated 90° Left LCF=Matching Housing and Light Square Frame Color MS/DIM-LXX=Motion Sensor for Dimming Operation ^{11,12,13,14} MS/X-LXX=Motion Sensor for On/Off Operation ^{13,14,15} P=Button Type Photocontrol (120, 208, 240 or 277V) R=NEMA Twistlock Photocontrol Receptacle R90=Optics Rotated 90° Right TH=Tool-less Door Hardware AMBER=Amber LEDs ⁸ MT=Factory Installed Mesh Top DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height ¹⁶ DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height ¹⁶					OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap OA/RA1014=120V Photocontrol MA1252=10kV Surge Module Replacement MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1037-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1188-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1189-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1190-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1191-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1039-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon MA1192-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon MA1193-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1194-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1195-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor ¹⁷ GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares		

Notes:

- DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
- Standard 4000K CCT and nominal 70 CRI.
- LumaWatt Wireless Sensors not currently available for 347V or 480V applications.
- May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
- Factory installed.
- Not available with 6 Light Squares in 347V or 480V.
- Not available with LumaWatt wireless sensors.
- Consult your Cooper Lighting representative for lead times and lumen multiplier.
- Not available with 5 or 6 Light Squares in 347V or 480V.
- Consult your Cooper Lighting representative before ordering DIM with 2L option.
- Replace XX with mounting height in feet for proper selection, e.g., MS/DIM-L25.
- 120V or 277V 60Hz and 230V 50Hz only. Replace E1 with specific voltage. Consult factory for availability in 347V and 480V.
- The FSIR-100 accessory is required to adjust parameters.
- Not available with HA option.
- Replace X with number of Light Squares operating in low output mode and replace XX with mounting height in feet for proper lens selection, e.g., MS/3-L25.
- LumaWatt wireless sensors are factory installed only requiring network components RF-EM1, RF-GW1, and RF-ROUT1 in appropriate quantities. See www.cooperlighting.com for LumaWatt application information.
- This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your Cooper Lighting representative for additional details.

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

Catalog #	GLEON-AE-03-LED-E1-5WQ-530	Type
Project	Mercy - VCC	S2
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics

Choice of 12 patented, high-efficiency AccuLED Optics™ manufactured from injection molded acrylic. Optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and nominal

70 CRI. Optional 6000K CCT and 3000K CCT (80 CRI).

Electrical

LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Shipped standard with Cooper Lighting proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. 90% lumen maintenance expected at 60,000 hours.

Mounting

Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during assembly. Designed for pole or wall mounting. When mounting two or more luminaires at 90° or

120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table on page 3. For wall mounting, specify wall mount bracket option. 3G vibration rated.

Finish

Housing finished in Super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

Warranty

Five-year warranty.



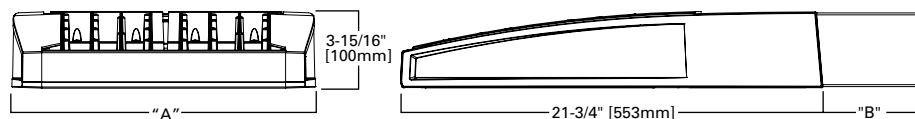
GLEON GALLEON LED

1-10 Light Squares
Solid State LED

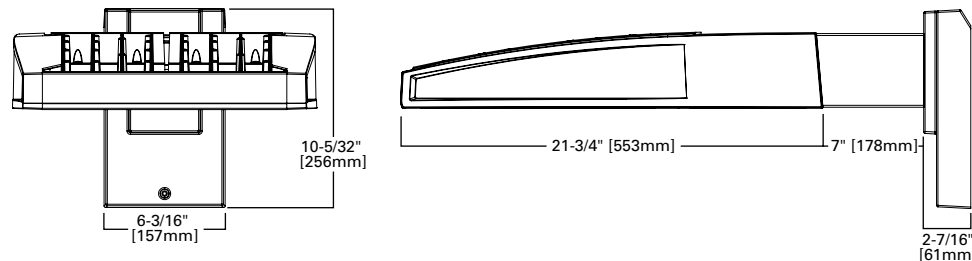
AREA/SITE LUMINAIRE

DIMENSIONS

POLE MOUNT



WALL MOUNT



DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length ¹	Weight with Arm (lbs.)	EPA with Arm ² (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1. Optional arm length to be used when mounting two fixtures at 90° on a single pole. 2. EPA calculated with optional arm length.



CERTIFICATION DATA

UL/cUL Wet Location Listed
ISO 9001
LM79 / LM80 Compliant
3G Vibration Rated
ARRA Compliant
DesignLights Consortium® Qualified*
IP66 Rated

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V & 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)

POWER AND LUMENS BY LIGHT SQUARE COUNT

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Power (Wattage)		51	103	154	206	257	309	360	412	463	515
Current @ 120V (A)		0.43	0.86	1.29	1.72	2.15	2.58	3.01	3.44	3.87	4.30
Current @ 277V (A)		0.19	0.38	0.57	0.76	0.95	1.14	1.33	1.52	1.71	1.90
Optics											
T2	Lumens	3,873	8,372	12,245	16,131	19,993	23,493	27,458	31,329	35,095	38,720
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
T3	Lumens	3,858	8,340	12,198	16,069	19,916	23,403	27,353	31,209	34,961	38,572
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
T4	Lumens	3,699	7,995	11,694	15,405	19,093	22,436	26,222	29,919	33,516	36,978
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL2	Lumens	3,795	8,201	11,996	15,803	19,586	23,015	26,899	30,692	34,382	37,933
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL3	Lumens	3,748	8,101	11,849	15,609	19,345	22,732	26,569	30,314	33,959	37,467
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL4	Lumens	3,811	8,237	12,048	15,871	19,671	23,115	27,016	30,824	34,530	38,097
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
5MQ	Lumens	4,070	8,797	12,867	16,951	21,009	24,687	28,853	32,921	36,879	40,688
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
5WQ	Lumens	4,046	8,745	12,791	16,850	20,884	24,540	28,681	32,725	36,659	40,446
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
5XQ	Lumens	3,947	8,531	12,478	16,437	20,373	23,940	27,979	31,924	35,762	39,456
	BUG Rating	B2-U0-G1	B3-U0-G3	B4-U0-G3	B4-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
RW	Lumens	3,867	8,359	12,226	16,106	19,962	23,457	27,415	31,280	35,041	38,660
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B5-U0-G5	B5-U0-G5
SLL/SLR	Lumens	3,625	7,835	11,459	15,096	18,710	21,986	25,696	29,319	32,844	36,236
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.04
15°C	1.03
25°C	1.00
40°C	0.96
50°C	0.92

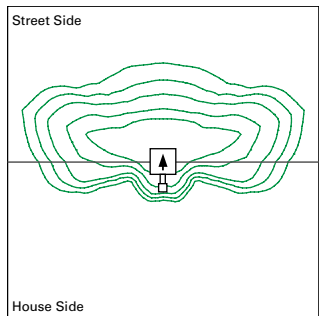
LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C	> 90%	> 170,000

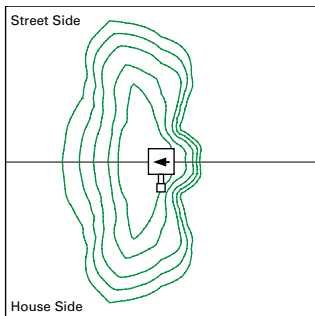
LIGHT SQUARE OPERATION WITH 2L BI-LEVEL SWITCHING

Number of Light Squares	Circuit 1	Circuit 2
1	N/A	N/A
2	1	1
3	2	1
4	2	2
5 (120-277V only)	3	2
6 (120-277V only)	3	3
7	4	3
8	4	4
9	5	4
10 (120-277V)	5	5
10 (347-480V)	6	4

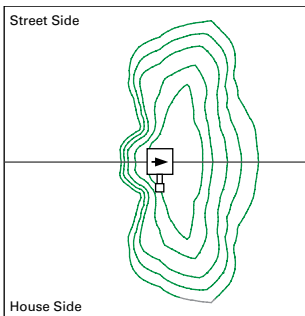
OPTIC ORIENTATION



Standard

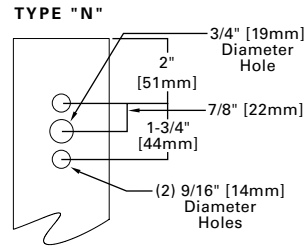


Optics Rotated Left @ 90° [L90]



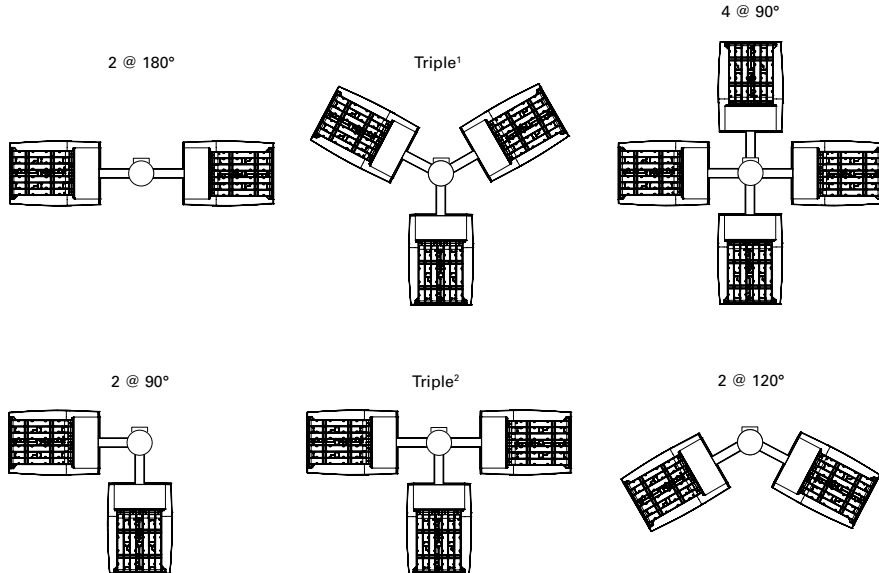
Optics Rotated Right @ 90° [R90]

DRILLING PATTERN



ARM MOUNTING REQUIREMENTS

Configuration	90° Apart	120° Apart
GLEON-AA-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AA-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AA-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AA-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AA-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AA-10	16" Extended Arm (Required)	16" Extended Arm (Required)



ORDERING INFORMATION

Sample Number: GLEON-AA-04-LED-E1-T3-GM

Product Family ¹	Light Engine	Number of Light Squares ²	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	AA=1A, UL Class 2	01=1 02=2 03=3 04=4 05=5 06=6 07=7 08=8 09=9 10=10	LED=Solid State Light Emitting Diodes	E1=120-277V 347=347V ³ 480=480V ³	T2=Type II T3=Type III T4=Type IV SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control 5MQ=Type V Square Medium 5WQ=Type V Square Wide 5XQ=Type V Square Extra Wide RW=Rectangular Wide SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	[Blank]=Arm for Round or Square Pole EA=Extended Arm ⁴ MA=Mast Arm Adapter ⁵ WM=Wall Mount
Options (Add as Suffix)					Accessories (Order Separately)		
2L=Two Circuits ^{6,7} 7060=70 CRI 6000K ⁸ 8030=80 CRI 3000K ⁸ DIM=0-10V Dimming Drivers ^{9,10} HA=50°C High Ambient ⁷ L90=Optics Rotated 90° Left LCF=Matching Housing and Light Square Frame Color MS/DIM-LXX=Motion Sensor for Dimming Operation ^{11,12,13,14} MS/X-LXX=Motion Sensor for On/Off Operation ^{13,14,15} P=Button Type Photocontrol (120, 208, 240 or 277V) R=NEMA Twistlock Photocontrol Receptacle R90=Optics Rotated 90° Right TH=Tool-less Door Hardware AMBER=Amber LEDs ⁸ MT=Factory Installed Mesh Top DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height ¹⁶ DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height ¹⁶					OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap OA/RA1014=120V Photocontrol MA1252=10kV Surge Module Replacement MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1037-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1188-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1189-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1190-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1191-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1039-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon MA1192-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon MA1193-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1194-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1195-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor ¹⁷ GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares		

Notes:

- DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
- Standard 4000K CCT and nominal 70 CRI.
- LumaWatt Wireless Sensors not currently available for 347V or 480V applications.
- May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
- Factory installed.
- Not available with 6 Light Squares in 347V or 480V.
- Not available with LumaWatt wireless sensors.
- Consult your Cooper Lighting representative for lead times and lumen multiplier.
- Not available with 5 or 6 Light Squares in 347V or 480V.
- Consult your Cooper Lighting representative before ordering DIM with 2L option.
- Replace XX with mounting height in feet for proper selection, e.g., MS/DIM-L25.
- 120V or 277V 60Hz and 230V 50Hz only. Replace E1 with specific voltage. Consult factory for availability in 347V and 480V.
- The FSIR-100 accessory is required to adjust parameters.
- Not available with HA option.
- Replace X with number of Light Squares operating in low output mode and replace XX with mounting height in feet for proper lens selection, e.g., MS/3-L25.
- LumaWatt wireless sensors are factory installed only requiring network components RF-EM1, RF-GW1, and RF-ROUT1 in appropriate quantities. See www.cooperlighting.com for LumaWatt application information.
- This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your Cooper Lighting representative for additional details.

DESCRIPTION

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Catalog #	GLEON-AE-02-LED-E1-5WQ-700	Type
Project	Mercy - VCC	S2-2
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

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Mounting

Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during assembly. Designed for pole or wall mounting. When mounting two or more luminaires at 90° or

120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table on page 3. For wall mounting, specify wall mount bracket option. 3G vibration rated.

Finish

Housing finished in Super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

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Five-year warranty.



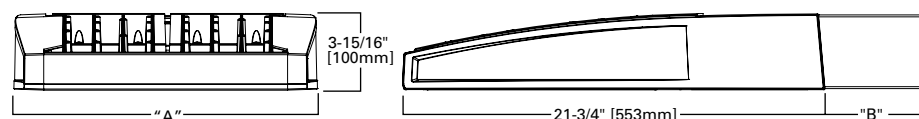
GLEON GALLEON LED

1-10 Light Squares
Solid State LED

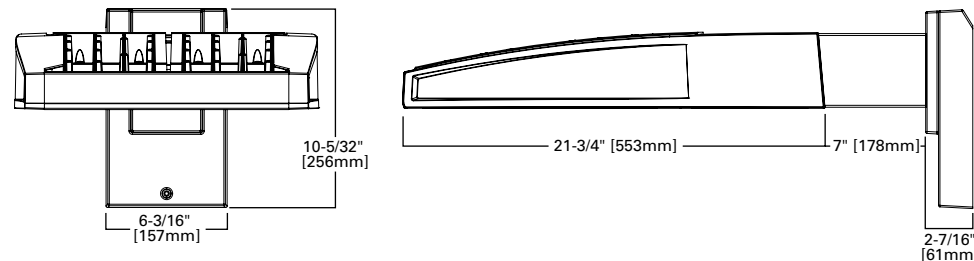
AREA/SITE LUMINAIRE

DIMENSIONS

POLE MOUNT



WALL MOUNT



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IP66 Rated

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<20% Total Harmonic Distortion
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347V & 480V 60Hz
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40°C Max. Temperature
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	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
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	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
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	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
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5WQ	Lumens	4,046	8,745	12,791	16,850	20,884	24,540	28,681	32,725	36,659	40,446
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
5XQ	Lumens	3,947	8,531	12,478	16,437	20,373	23,940	27,979	31,924	35,762	39,456
	BUG Rating	B2-U0-G1	B3-U0-G3	B4-U0-G3	B4-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
RW	Lumens	3,867	8,359	12,226	16,106	19,962	23,457	27,415	31,280	35,041	38,660
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B5-U0-G5	B5-U0-G5
SLL/SLR	Lumens	3,625	7,835	11,459	15,096	18,710	21,986	25,696	29,319	32,844	36,236
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.04
15°C	1.03
25°C	1.00
40°C	0.96
50°C	0.92

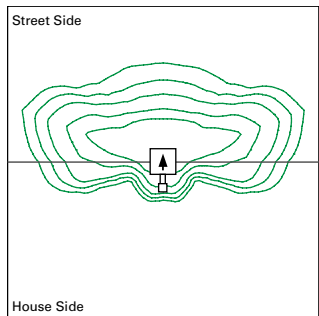
LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C	> 90%	> 170,000

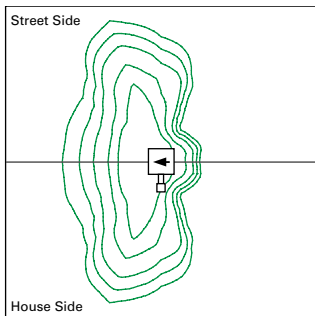
LIGHT SQUARE OPERATION WITH 2L BI-LEVEL SWITCHING

Number of Light Squares	Circuit 1	Circuit 2
1	N/A	N/A
2	1	1
3	2	1
4	2	2
5 (120-277V only)	3	2
6 (120-277V only)	3	3
7	4	3
8	4	4
9	5	4
10 (120-277V)	5	5
10 (347-480V)	6	4

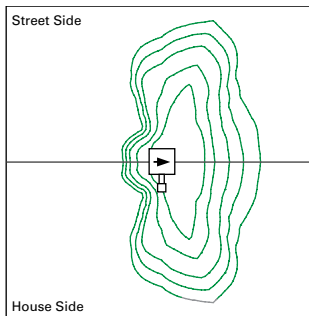
OPTIC ORIENTATION



Standard

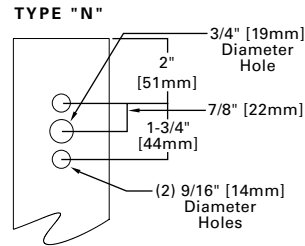


Optics Rotated Left @ 90° [L90]



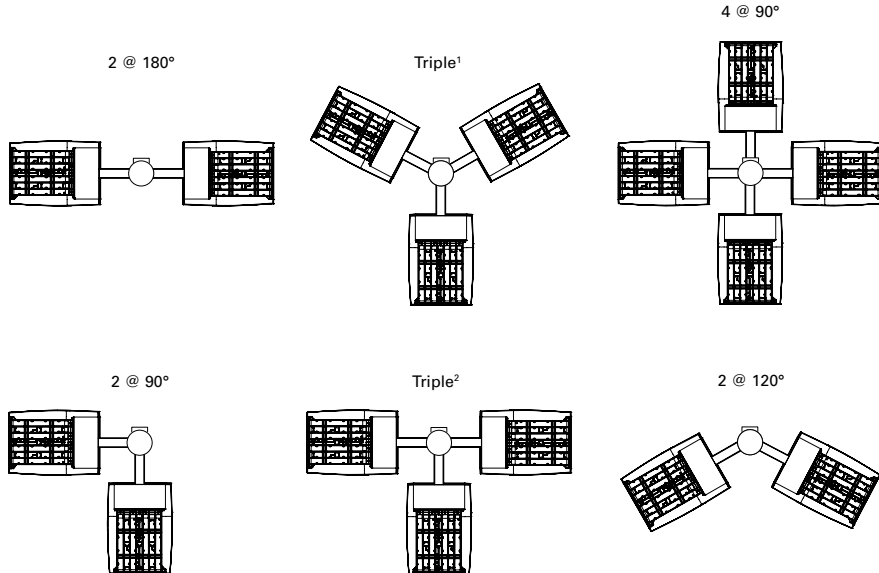
Optics Rotated Right @ 90° [R90]

DRILLING PATTERN



ARM MOUNTING REQUIREMENTS

Configuration	90° Apart	120° Apart
GLEON-AA-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AA-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AA-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AA-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AA-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AA-10	16" Extended Arm (Required)	16" Extended Arm (Required)



ORDERING INFORMATION

Sample Number: GLEON-AA-04-LED-E1-T3-GM

Product Family ¹	Light Engine	Number of Light Squares ²	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	AA=1A, UL Class 2	01=1 02=2 03=3 04=4 05=5 06=6 07=7 08=8 09=9 10=10	LED=Solid State Light Emitting Diodes	E1=120-277V 347=347V ³ 480=480V ³	T2=Type II T3=Type III T4=Type IV SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control 5MQ=Type V Square Medium 5WQ=Type V Square Wide 5XQ=Type V Square Extra Wide RW=Rectangular Wide SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	[Blank]=Arm for Round or Square Pole EA=Extended Arm ⁴ MA=Mast Arm Adapter ⁵ WM=Wall Mount
Options (Add as Suffix)					Accessories (Order Separately)		
2L=Two Circuits ^{6,7} 7060=70 CRI 6000K ⁸ 8030=80 CRI 3000K ⁸ DIM=0-10V Dimming Drivers ^{9,10} HA=50°C High Ambient ⁷ L90=Optics Rotated 90° Left LCF=Matching Housing and Light Square Frame Color MS/DIM-LXX=Motion Sensor for Dimming Operation ^{11,12,13,14} MS/X-LXX=Motion Sensor for On/Off Operation ^{13,14,15} P=Button Type Photocontrol (120, 208, 240 or 277V) R=NEMA Twistlock Photocontrol Receptacle R90=Optics Rotated 90° Right TH=Tool-less Door Hardware AMBER=Amber LEDs ⁸ MT=Factory Installed Mesh Top DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height ¹⁶ DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height ¹⁶					OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap OA/RA1014=120V Photocontrol MA1252=10kV Surge Module Replacement MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1037-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1188-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1189-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1190-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1191-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1039-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon MA1192-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon MA1193-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1194-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1195-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor ¹⁷ GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares		

Notes:

- DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
- Standard 4000K CCT and nominal 70 CRI.
- LumaWatt Wireless Sensors not currently available for 347V or 480V applications.
- May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
- Factory installed.
- Not available with 6 Light Squares in 347V or 480V.
- Not available with LumaWatt wireless sensors.
- Consult your Cooper Lighting representative for lead times and lumen multiplier.
- Not available with 5 or 6 Light Squares in 347V or 480V.
- Consult your Cooper Lighting representative before ordering DIM with 2L option.
- Replace XX with mounting height in feet for proper selection, e.g., MS/DIM-L25.
- 120V or 277V 60Hz and 230V 50Hz only. Replace E1 with specific voltage. Consult factory for availability in 347V and 480V.
- The FSIR-100 accessory is required to adjust parameters.
- Not available with HA option.
- Replace X with number of Light Squares operating in low output mode and replace XX with mounting height in feet for proper lens selection, e.g., MS/3-L25.
- LumaWatt wireless sensors are factory installed only requiring network components RF-EM1, RF-GW1, and RF-ROUT1 in appropriate quantities. See www.cooperlighting.com for LumaWatt application information.
- This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your Cooper Lighting representative for additional details.

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

Catalog #	GLEON-AE-02-LED-E1-SL3-530-HSS	Type
Project	Mercy - VCC	S3
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics

Choice of 12 patented, high-efficiency AccuLED Optics™ manufactured from injection molded acrylic. Optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and nominal

70 CRI. Optional 6000K CCT and 3000K CCT (80 CRI).

Electrical

LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Shipped standard with Cooper Lighting proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. 90% lumen maintenance expected at 60,000 hours.

Mounting

Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during assembly. Designed for pole or wall mounting. When mounting two or more luminaires at 90° or

120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table on page 3. For wall mounting, specify wall mount bracket option. 3G vibration rated.

Finish

Housing finished in Super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

Warranty

Five-year warranty.



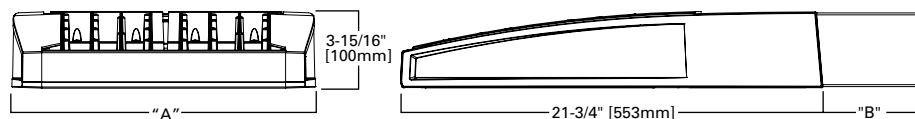
GLEON GALLEON LED

1-10 Light Squares
Solid State LED

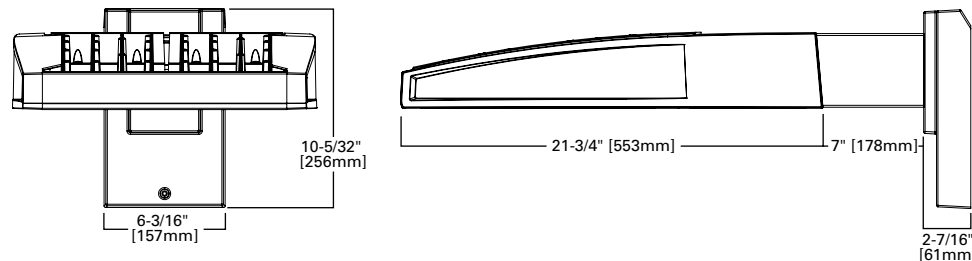
AREA/SITE LUMINAIRE

DIMENSIONS

POLE MOUNT



WALL MOUNT



DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length ¹	Weight with Arm (lbs.)	EPA with Arm ² (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1. Optional arm length to be used when mounting two fixtures at 90° on a single pole. 2. EPA calculated with optional arm length.



CERTIFICATION DATA

UL/cUL Wet Location Listed
ISO 9001
LM79 / LM80 Compliant
3G Vibration Rated
ARRA Compliant
DesignLights Consortium® Qualified*
IP66 Rated

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V & 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)

POWER AND LUMENS BY LIGHT SQUARE COUNT

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Power (Wattage)		51	103	154	206	257	309	360	412	463	515
Current @ 120V (A)		0.43	0.86	1.29	1.72	2.15	2.58	3.01	3.44	3.87	4.30
Current @ 277V (A)		0.19	0.38	0.57	0.76	0.95	1.14	1.33	1.52	1.71	1.90
Optics											
T2	Lumens	3,873	8,372	12,245	16,131	19,993	23,493	27,458	31,329	35,095	38,720
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
T3	Lumens	3,858	8,340	12,198	16,069	19,916	23,403	27,353	31,209	34,961	38,572
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
T4	Lumens	3,699	7,995	11,694	15,405	19,093	22,436	26,222	29,919	33,516	36,978
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL2	Lumens	3,795	8,201	11,996	15,803	19,586	23,015	26,899	30,692	34,382	37,933
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL3	Lumens	3,748	8,101	11,849	15,609	19,345	22,732	26,569	30,314	33,959	37,467
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL4	Lumens	3,811	8,237	12,048	15,871	19,671	23,115	27,016	30,824	34,530	38,097
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
5MQ	Lumens	4,070	8,797	12,867	16,951	21,009	24,687	28,853	32,921	36,879	40,688
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
5WQ	Lumens	4,046	8,745	12,791	16,850	20,884	24,540	28,681	32,725	36,659	40,446
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
5XQ	Lumens	3,947	8,531	12,478	16,437	20,373	23,940	27,979	31,924	35,762	39,456
	BUG Rating	B2-U0-G1	B3-U0-G3	B4-U0-G3	B4-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
RW	Lumens	3,867	8,359	12,226	16,106	19,962	23,457	27,415	31,280	35,041	38,660
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B5-U0-G5	B5-U0-G5
SLL/SLR	Lumens	3,625	7,835	11,459	15,096	18,710	21,986	25,696	29,319	32,844	36,236
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.04
15°C	1.03
25°C	1.00
40°C	0.96
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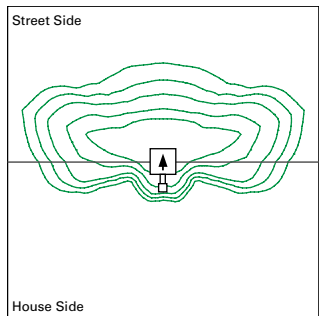
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Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
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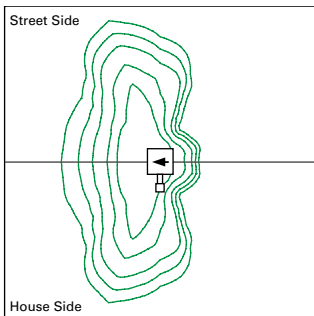
LIGHT SQUARE OPERATION WITH 2L BI-LEVEL SWITCHING

Number of Light Squares	Circuit 1	Circuit 2
1	N/A	N/A
2	1	1
3	2	1
4	2	2
5 (120-277V only)	3	2
6 (120-277V only)	3	3
7	4	3
8	4	4
9	5	4
10 (120-277V)	5	5
10 (347-480V)	6	4

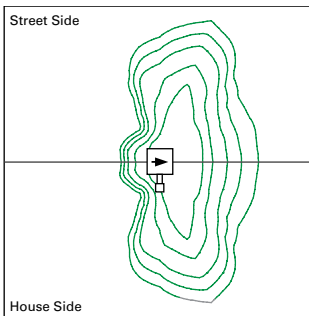
OPTIC ORIENTATION



Standard

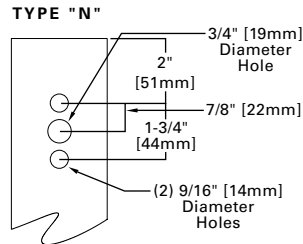


Optics Rotated Left @ 90° [L90]



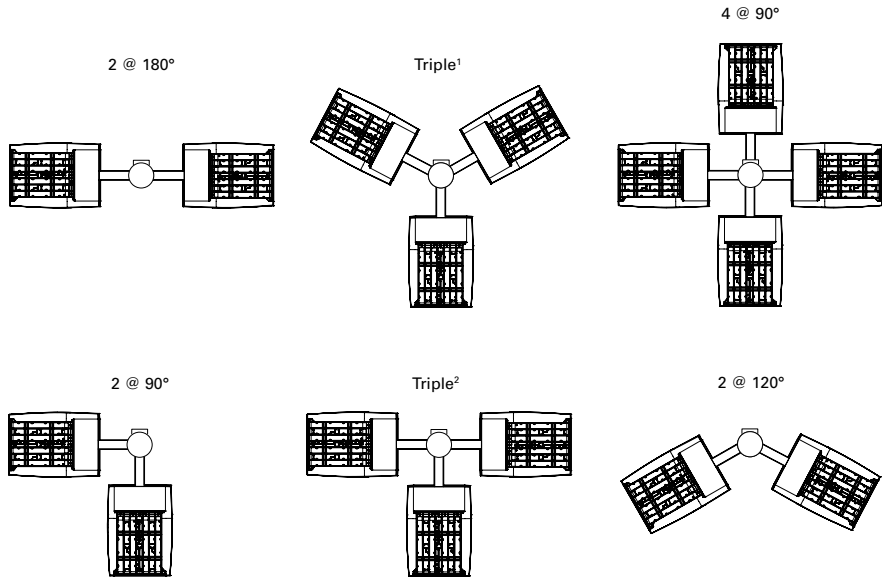
Optics Rotated Right @ 90° [R90]

DRILLING PATTERN



ARM MOUNTING REQUIREMENTS

Configuration	90° Apart	120° Apart
GLEON-AA-01	7" Arm (Standard)	7" Arm (Standard)
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GLEON-AA-05	10" Extended Arm (Required)	7" Arm (Standard)
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GLEON-AA-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AA-10	16" Extended Arm (Required)	16" Extended Arm (Required)



ORDERING INFORMATION

Sample Number: GLEON-AA-04-LED-E1-T3-GM

Product Family ¹	Light Engine	Number of Light Squares ²	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	AA=1A, UL Class 2	01=1 02=2 03=3 04=4 05=5 06=6 07=7 08=8 09=9 10=10	LED=Solid State Light Emitting Diodes	E1=120-277V 347=347V ³ 480=480V ³	T2=Type II T3=Type III T4=Type IV SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control 5MQ=Type V Square Medium 5WQ=Type V Square Wide 5XQ=Type V Square Extra Wide RW=Rectangular Wide SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	[Blank]=Arm for Round or Square Pole EA=Extended Arm ⁴ MA=Mast Arm Adapter ⁵ WM=Wall Mount
Options (Add as Suffix)					Accessories (Order Separately)		
2L=Two Circuits ^{6,7} 7060=70 CRI 6000K ⁸ 8030=80 CRI 3000K ⁸ DIM=0-10V Dimming Drivers ^{9,10} HA=50°C High Ambient ⁷ L90=Optics Rotated 90° Left LCF=Matching Housing and Light Square Frame Color MS/DIM-LXX=Motion Sensor for Dimming Operation ^{11,12,13,14} MS/X-LXX=Motion Sensor for On/Off Operation ^{13,14,15} P=Button Type Photocontrol (120, 208, 240 or 277V) R=NEMA Twistlock Photocontrol Receptacle R90=Optics Rotated 90° Right TH=Tool-less Door Hardware AMBER=Amber LEDs ⁸ MT=Factory Installed Mesh Top DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height ¹⁶ DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height ¹⁶					OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap OA/RA1014=120V Photocontrol MA1252=10kV Surge Module Replacement MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1037-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1188-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1189-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1190-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1191-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1039-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon MA1192-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon MA1193-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1194-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1195-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor ¹⁷ GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares		

Notes:

- DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
- Standard 4000K CCT and nominal 70 CRI.
- LumaWatt Wireless Sensors not currently available for 347V or 480V applications.
- May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
- Factory installed.
- Not available with 6 Light Squares in 347V or 480V.
- Not available with LumaWatt wireless sensors.
- Consult your Cooper Lighting representative for lead times and lumen multiplier.
- Not available with 5 or 6 Light Squares in 347V or 480V.
- Consult your Cooper Lighting representative before ordering DIM with 2L option.
- Replace XX with mounting height in feet for proper selection, e.g., MS/DIM-L25.
- 120V or 277V 60Hz and 230V 50Hz only. Replace E1 with specific voltage. Consult factory for availability in 347V and 480V.
- The FSIR-100 accessory is required to adjust parameters.
- Not available with HA option.
- Replace X with number of Light Squares operating in low output mode and replace XX with mounting height in feet for proper lens selection, e.g., MS/3-L25.
- LumaWatt wireless sensors are factory installed only requiring network components RF-EM1, RF-GW1, and RF-ROUT1 in appropriate quantities. See www.cooperlighting.com for LumaWatt application information.
- This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your Cooper Lighting representative for additional details.

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

Catalog #	GLEON-AE-02-LED-E1-SL4-530	Type
Project	Mercy - VCC	S4
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics

Choice of 12 patented, high-efficiency AccuLED Optics™ manufactured from injection molded acrylic. Optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and nominal

70 CRI. Optional 6000K CCT and 3000K CCT (80 CRI).

Electrical

LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Shipped standard with Cooper Lighting proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. 90% lumen maintenance expected at 60,000 hours.

Mounting

Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during assembly. Designed for pole or wall mounting. When mounting two or more luminaires at 90° or

120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table on page 3. For wall mounting, specify wall mount bracket option. 3G vibration rated.

Finish

Housing finished in Super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

Warranty

Five-year warranty.



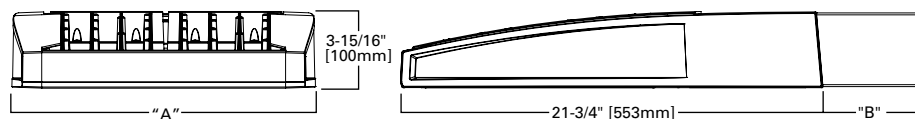
GLEON GALLEON LED

1-10 Light Squares
Solid State LED

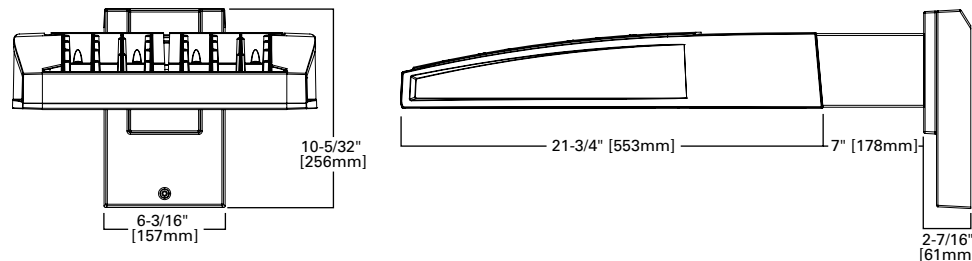
AREA/SITE LUMINAIRE

DIMENSIONS

POLE MOUNT



WALL MOUNT



DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length ¹	Weight with Arm (lbs.)	EPA with Arm ² (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1. Optional arm length to be used when mounting two fixtures at 90° on a single pole. 2. EPA calculated with optional arm length.



CERTIFICATION DATA

UL/cUL Wet Location Listed
ISO 9001
LM79 / LM80 Compliant
3G Vibration Rated
ARRA Compliant
DesignLights Consortium® Qualified*
IP66 Rated

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V & 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)



POWER AND LUMENS BY LIGHT SQUARE COUNT

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Power (Wattage)		51	103	154	206	257	309	360	412	463	515
Current @ 120V (A)		0.43	0.86	1.29	1.72	2.15	2.58	3.01	3.44	3.87	4.30
Current @ 277V (A)		0.19	0.38	0.57	0.76	0.95	1.14	1.33	1.52	1.71	1.90
Optics											
T2	Lumens	3,873	8,372	12,245	16,131	19,993	23,493	27,458	31,329	35,095	38,720
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
T3	Lumens	3,858	8,340	12,198	16,069	19,916	23,403	27,353	31,209	34,961	38,572
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
T4	Lumens	3,699	7,995	11,694	15,405	19,093	22,436	26,222	29,919	33,516	36,978
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL2	Lumens	3,795	8,201	11,996	15,803	19,586	23,015	26,899	30,692	34,382	37,933
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL3	Lumens	3,748	8,101	11,849	15,609	19,345	22,732	26,569	30,314	33,959	37,467
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL4	Lumens	3,811	8,237	12,048	15,871	19,671	23,115	27,016	30,824	34,530	38,097
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
5MQ	Lumens	4,070	8,797	12,867	16,951	21,009	24,687	28,853	32,921	36,879	40,688
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
5WQ	Lumens	4,046	8,745	12,791	16,850	20,884	24,540	28,681	32,725	36,659	40,446
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
5XQ	Lumens	3,947	8,531	12,478	16,437	20,373	23,940	27,979	31,924	35,762	39,456
	BUG Rating	B2-U0-G1	B3-U0-G3	B4-U0-G3	B4-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
RW	Lumens	3,867	8,359	12,226	16,106	19,962	23,457	27,415	31,280	35,041	38,660
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B5-U0-G5	B5-U0-G5
SLL/SLR	Lumens	3,625	7,835	11,459	15,096	18,710	21,986	25,696	29,319	32,844	36,236
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.04
15°C	1.03
25°C	1.00
40°C	0.96
50°C	0.92

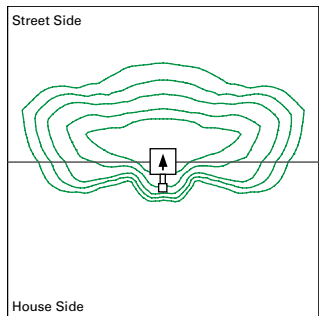
LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C	> 90%	> 170,000

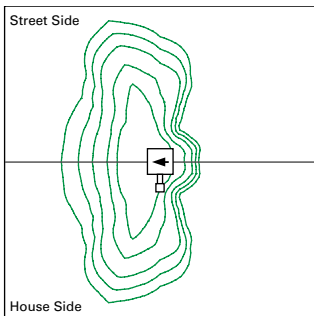
LIGHT SQUARE OPERATION WITH 2L BI-LEVEL SWITCHING

Number of Light Squares	Circuit 1	Circuit 2
1	N/A	N/A
2	1	1
3	2	1
4	2	2
5 (120-277V only)	3	2
6 (120-277V only)	3	3
7	4	3
8	4	4
9	5	4
10 (120-277V)	5	5
10 (347-480V)	6	4

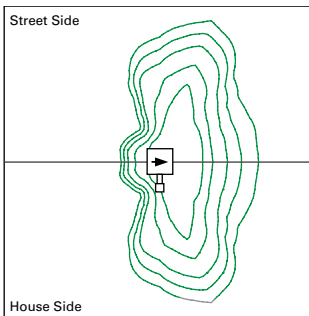
OPTIC ORIENTATION



Standard

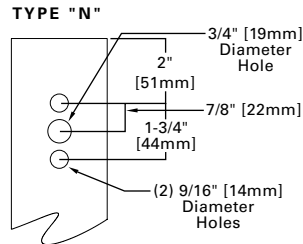


Optics Rotated Left @ 90° [L90]



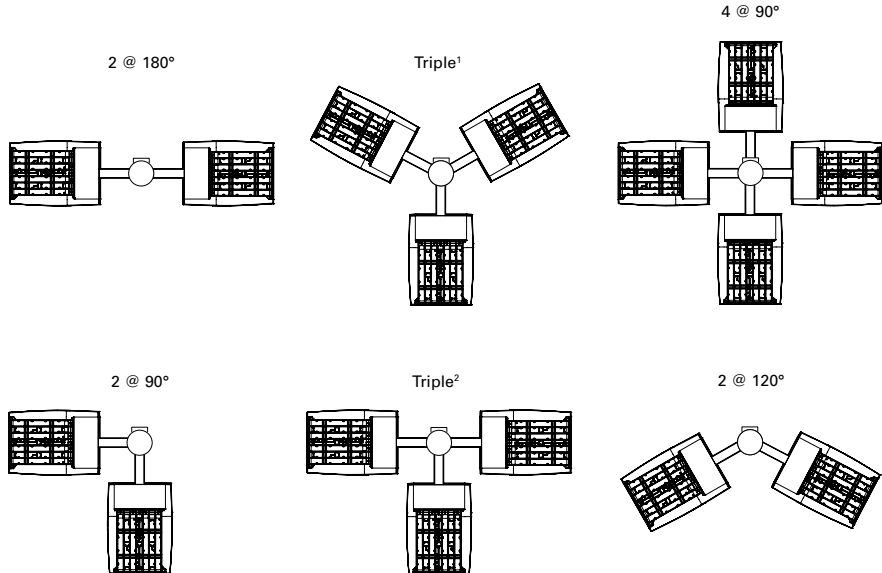
Optics Rotated Right @ 90° [R90]

DRILLING PATTERN



ARM MOUNTING REQUIREMENTS

Configuration	90° Apart	120° Apart
GLEON-AA-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AA-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AA-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AA-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AA-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AA-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AA-10	16" Extended Arm (Required)	16" Extended Arm (Required)



ORDERING INFORMATION

Sample Number: GLEON-AA-04-LED-E1-T3-GM

Product Family ¹	Light Engine	Number of Light Squares ²	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	AA=1A, UL Class 2	01=1 02=2 03=3 04=4 05=5 06=6 07=7 08=8 09=9 10=10	LED=Solid State Light Emitting Diodes	E1=120-277V 347=347V ³ 480=480V ³	T2=Type II T3=Type III T4=Type IV SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control 5MQ=Type V Square Medium 5WQ=Type V Square Wide 5XQ=Type V Square Extra Wide RW=Rectangular Wide SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	[Blank]=Arm for Round or Square Pole EA=Extended Arm ⁴ MA=Mast Arm Adapter ⁵ WM=Wall Mount
Options (Add as Suffix)					Accessories (Order Separately)		
2L=Two Circuits ^{6,7} 7060=70 CRI 6000K ⁸ 8030=80 CRI 3000K ⁸ DIM=0-10V Dimming Drivers ^{9,10} HA=50°C High Ambient ⁷ L90=Optics Rotated 90° Left LCF=Matching Housing and Light Square Frame Color MS/DIM-LXX=Motion Sensor for Dimming Operation ^{11,12,13,14} MS/X-LXX=Motion Sensor for On/Off Operation ^{13,14,15} P=Button Type Photocontrol (120, 208, 240 or 277V) R=NEMA Twistlock Photocontrol Receptacle R90=Optics Rotated 90° Right TH=Tool-less Door Hardware AMBER=Amber LEDs ⁸ MT=Factory Installed Mesh Top DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height ¹⁶ DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height ¹⁶					OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap OA/RA1014=120V Photocontrol MA1252=10kV Surge Module Replacement MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1037-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1188-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1189-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1190-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1191-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1039-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon MA1192-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon MA1193-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1194-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1195-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor ¹⁷ GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares		

Notes:

- DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
- Standard 4000K CCT and nominal 70 CRI.
- LumaWatt Wireless Sensors not currently available for 347V or 480V applications.
- May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
- Factory installed.
- Not available with 6 Light Squares in 347V or 480V.
- Not available with LumaWatt wireless sensors.
- Consult your Cooper Lighting representative for lead times and lumen multiplier.
- Not available with 5 or 6 Light Squares in 347V or 480V.
- Consult your Cooper Lighting representative before ordering DIM with 2L option.
- Replace XX with mounting height in feet for proper selection, e.g., MS/DIM-L25.
- 120V or 277V 60Hz and 230V 50Hz only. Replace E1 with specific voltage. Consult factory for availability in 347V and 480V.
- The FSIR-100 accessory is required to adjust parameters.
- Not available with HA option.
- Replace X with number of Light Squares operating in low output mode and replace XX with mounting height in feet for proper lens selection, e.g., MS/3-L25.
- LumaWatt wireless sensors are factory installed only requiring network components RF-EM1, RF-GW1, and RF-ROUT1 in appropriate quantities. See www.cooperlighting.com for LumaWatt application information.
- This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your Cooper Lighting representative for additional details.

CB12R

Contemporary Concrete Bollard – 12" Round

1			2	3	4	5	6
BOLLARD CB12R			LAMP/BALLAST	CONCRETE FINISH	GRILL COLOR	OPTIONS	MOUNTING
OAH	GRILL	TOP STYLE					
CB12R		FLAT	36LED-WW	MSB	DBZ		



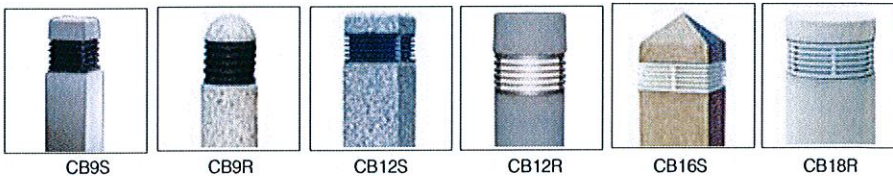
CONTEMPORARY CONCRETE BOLLARD – 12" ROUND



CB12R



CONTEMPORARY CONCRETE BOLLARDS



CB9S

CB9R

CB12S

CB12R

CB16S

CB18R

Features

- Now available with highly efficient LED ring technology
 - Type 5 distribution pattern
 - Warm white (3500K) or bright white (5100K)
- Body and cap are composed of precast concrete reinforced with an internal cage structure of steel
- Grills are cast aluminum with stainless steel hardware
- Inner lens is sealed to the grill frame
- Integral prewired ballast module
- Electrical module is silicone gasketed for weather tight operations
- Color of grills feature TGIC polyester powder finish coating with choice of 13 standard colors.

JOB INFORMATION

TYPE **Type H Site Bollard**

JOB NAME

LAMP (BY OTHERS)

CUSTOMER

DATE

Consult factory for any custom/modified products

APPROVALS



CB12R

Contemporary Concrete Bollard – 12" Round

1			2	3	4	5	6
BOLLARD CB12R			LAMP/BALLAST	CONCRETE FINISH	GRILL COLOR	OPTIONS	MOUNTING
OAH	GRILL	TOP STYLE					

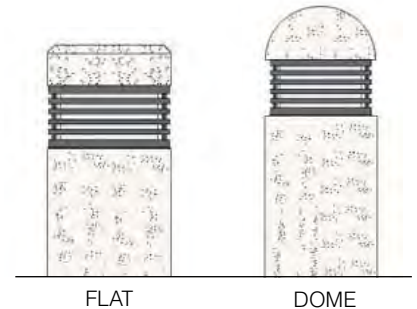
1. BOLLARD

INTERNAL MOUNTING

Round	OAH (in)	Grill	Top Style	WT/ (lbs.)
<input type="checkbox"/> CB12R	24	CUTOFF	FLAT	116
<input type="checkbox"/> CB12R	36	CUTOFF	FLAT	186
<input type="checkbox"/> CB12R	41	CUTOFF	FLAT	214
<input type="checkbox"/> CB12R	26	CUTOFF	DOME	112
<input type="checkbox"/> CB12R	38	CUTOFF	DOME	182
<input type="checkbox"/> CB12R	43	CUTOFF	DOME	210
<input type="checkbox"/> CB12R	24	HORZ	FLAT	116
<input type="checkbox"/> CB12R	36	HORZ	FLAT	186
<input type="checkbox"/> CB12R	41	HORZ	FLAT	214
<input type="checkbox"/> CB12R	26	HORZ	DOME	112
<input type="checkbox"/> CB12R	38	HORZ	DOME	182
<input type="checkbox"/> CB12R	43	HORZ	DOME	210
<input type="checkbox"/> CB12R	24	VERT	FLAT	127
<input type="checkbox"/> CB12R	36	VERT	FLAT	197
<input type="checkbox"/> CB12R	41	VERT	FLAT	225
<input type="checkbox"/> CB12R	24	VERT	DOME	112
<input type="checkbox"/> CB12R	36	VERT	DOME	182
<input type="checkbox"/> CB12R	41	VERT	DOME	210

EXTERNAL MOUNTING

Round	OAH (in)	Grill	Top Style	WT/ (lbs.)
<input type="checkbox"/> CB12R	24	CUTOFF	FLAT	139
<input type="checkbox"/> CB12R	37	CUTOFF	FLAT	214
<input type="checkbox"/> CB12R	42	CUTOFF	FLAT	244
<input type="checkbox"/> CB12R	26	CUTOFF	DOME	135
<input type="checkbox"/> CB12R	39	CUTOFF	DOME	210
<input type="checkbox"/> CB12R	44	CUTOFF	DOME	240
<input type="checkbox"/> CB12R	24	HORZ	FLAT	139
<input type="checkbox"/> CB12R	37	HORZ	FLAT	214
<input type="checkbox"/> CB12R	42	HORZ	FLAT	244
<input type="checkbox"/> CB12R	26	HORZ	DOME	135
<input type="checkbox"/> CB12R	39	HORZ	DOME	210
<input type="checkbox"/> CB12R	44	HORZ	DOME	240
<input type="checkbox"/> CB12R	24	VERT	FLAT	150
<input type="checkbox"/> CB12R	37	VERT	FLAT	225
<input type="checkbox"/> CB12R	42	VERT	FLAT	255
<input type="checkbox"/> CB12R	24	VERT	DOME	135
<input type="checkbox"/> CB12R	37	VERT	DOME	210
<input type="checkbox"/> CB12R	42	VERT	DOME	240



FLAT

DOME

2. LAMP/BALLAST

- 50MH 50 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
- 70MH 70 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
- 100MH 100 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
- 50HPS 50 watt high pressure sodium 120/277 volt ballast. Use medium base, ED-17 lamp.
- 70HPS 70 watt high pressure sodium 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
- 100HPS 100 watt high pressure sodium 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
- 36LED-WW 36 light emitting diode array (37 watt). Warm white (3500K). IES Type 5. 120 thru 277 volt.
- 36LED-BW 36 light emitting diode array (37 watt). Bright white (5100K). IES Type 5. 120 thru 277 volt.

All ballasts are factory wired for 277 volts, unless specified. Lamps not included (except LED options).

3. CONCRETE FINISH

- MSB Medium sandblast, natural color finish
- AGR Exposed aggregate finish

JOB INFORMATION

TYPE

JOB NAME

LAMP (BY OTHERS)

CUSTOMER

DATE

Consult factory for any custom/modified products

APPROVALS



16555 East Gale Ave.
 City of Industry | CA 91745
 P 626.968.5666 | F 626.369.2695
 www.aal.net | Copyright © 2012

CB12R

Contemporary Concrete Bollard – 12" Round

1			2	3	4	5	6
BOLLARD CB12R			LAMP/BALLAST	CONCRETE FINISH	GRILL COLOR	OPTIONS	MOUNTING
OAH	GRILL	TOP STYLE					

4. GRILL COLOR

- | | | | |
|------------------------------|------------------|---|---|
| <input type="checkbox"/> AWT | Arctic White | <input type="checkbox"/> CRT | Corten |
| <input type="checkbox"/> BLK | Black | <input type="checkbox"/> MAL | Matte Aluminum |
| <input type="checkbox"/> MTB | Matte Black | <input type="checkbox"/> MDG | Medium Grey |
| <input type="checkbox"/> DGN | Dark Green | <input type="checkbox"/> ATG | Antique Green |
| <input type="checkbox"/> DBZ | Dark Bronze | <input type="checkbox"/> LGY | Light Grey |
| <input type="checkbox"/> WRZ | Weathered Bronze | <input type="checkbox"/> RAL/
PREMIUM
COLOR | Provide a RAL 4 digit
color number |
| <input type="checkbox"/> BRM | Metallic Bronze | <input type="checkbox"/> CUSTOM
COLOR | Please provide a color
chip for matching |
| <input type="checkbox"/> VBL | Verde Blue | | |

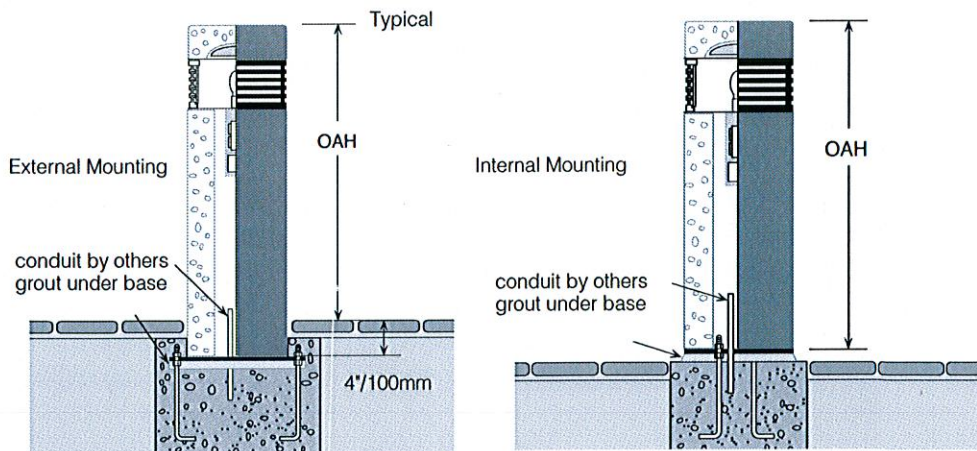
5. OPTIONS

- | | |
|---|--|
| <input type="checkbox"/> HSS | House side shield - 180° |
| <input type="checkbox"/> RBC | A single gang junction box, cast in place, weatherproof cover only.
Consult factory for location. |
| <input type="checkbox"/> Colored Concrete | Based on Davis colors. For custom color and aggregate, customer must
provide aggregate, sand, and colorant. |

6. MOUNTING

- | | |
|------------------------------|-------------------|
| <input type="checkbox"/> INT | Internal mounting |
| <input type="checkbox"/> EXT | External mounting |

Note: Internal mounting not available with CB12R



JOB INFORMATION

TYPE

JOB NAME

LAMP (BY OTHERS)

CUSTOMER

DATE

Consult factory for any custom/
modified products

APPROVALS



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1			2	3	4	5	6
BOLLARD CB12R			LAMP/BALLAST	CONCRETE FINISH	GRILL COLOR	OPTIONS	MOUNTING
OAH	GRILL	TOP STYLE					

CONCRETE BODY AND CAP

The body and caps are composed of precast concrete reinforced with an internal cage structure of steel. The concrete bodies are one-piece castings with a minimum wall thickness of 3"/75mm. All threaded inserts are welded to the steel reinforcing cage and cast in place. The base plate for anchoring is 1/4" hot dipped galvanized steel.

GRILL

Grills are cast aluminum, minimum wall thickness of .250 inches. All castings are pure aluminum #356 alloy, free of any foreign material or porosity. Grills have cast-in-place, integral mounting lugs for attachment to the concrete base. The inner lens is sealed to the grill frame. HID cutoff models have a clear DR acrylic lens. Other HID models have an opal DR acrylic lens. All LED models have an opal DR acrylic lens. The grill assembly has a silicone gasket on the top and bottom for weather tight operation. Recessed stainless steel screws are loosened to remove the top cap for relamping. For HID models, an upper reflector is installed on the inside of all top caps for optimum luminaire efficiency.

CUTOFF

Models with cutoff grill provide IES cutoff classification meaning less than 2.5% of light is emitted above 90° horizontal.

ELECTRICAL MODULE

The electrical module consists of the ballast module and lamp housing. All housing parts are aluminum with stainless steel hardware. The ballast module is prewired on an aluminum strap mounted to the underside of the lamp housing. The electrical module is silicone gasketed for weather tight operation. HID ballasts are high power factor, rated for -30°C starting. Ballasts are wired at the factory for 277 volts, unless specified. LED components are 120 thru 277 volt. LED constant current driver operates at 350mA.

FINISH

Concrete surface finish is natural concrete with a medium sandblast etch or exposed aggregate. Medium sandblast finish includes a clear anti-vandal sealer.

Grill finish consists of a five stage pretreatment regimen with a polymer primer sealer, oven dry off and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

CERTIFICATION

All bollards shall be listed with ETL for outdoor, wet location use, UL1598 and Canadian CSA Std. C22.2 no.250.

WARRANTY

Fixture is warranted for three years. Ballast components carry the ballast manufacturer's limited warranty. Any unauthorized return, repair, replacement or modification of the Product(s) shall void this warranty. This warranty applies only to the use of the Product(s) as intended by AAL and does not cover any misapplication or misuse of said Product(s), or installation in hazardous or corrosive environments. Contact AAL for complete warranty language, exceptions, and limitations.

AAL reserves the right to change product specifications without notice.

Specifications



JOB INFORMATION

TYPE

JOB NAME

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