PORTLAND WATER BUREAU
FROM FOREST TO FAUCET

Bull Run TREATMENT PROJECTS | Filtration

Technical Memorandum

Subject:	Land Use Permit Lighting Report
PWB Project #s:	W02229
Date:	September 23, 2022
To:	David Peters, Program Director Portland Water Bureau
From:	Mark Graham, P.E., Project Manager Stantec
Prepared by:	Marilee Klimek, LC, Lighting Designer Elcon Associates, Inc.
Reviewed by:	Travis Arnzen, P.E., Principal Elcon Associates, Inc.

ELCON ASSOCIATES, INC.

Brett Harsha, Project Manager
Elcon Associates, Inc.
D 971-249-1528 | bharsha@elcon.com

RENEWS: **12/31/23**

THIS IS A PRELIMINARY MEMORANDUM FOR PERMITTING AND IS NOT INTENDED FOR USE AS A FINAL CONSTRUCTION DOCUMENT BY ELCON ASSOCIATES, INC. IT SHOULD NOT BE RELIED UPON; CONSULT THE FINAL DOCUMENT.

Exhibit A.47

Contents

1.0 Introduction

The purpose of this report is to provide an analysis of the site lighting at the Bull Run Filtration Facility. The exterior lighting for the site is necessary for the safe and secure operation of the facility but could, without mitigation, impact the surrounding rural environment. The site lighting has been computer modeled using AGI32 lighting software to calculate the illumination levels in footcandles (fc) during an emergency operation where all the lighting is on. The analysis demonstrates compliance with the Multnomah County Dark Sky Lighting Standards (MCC 39.6850).

1.1 Client Requirements – Exterior Lighting

The Water Bureau's criteria for site lighting are as follows:

"The Exterior lighting will be laid out to minimize any impacts to future site expansions, both above and below grade. Exterior lights will be sharp cut-off type to minimize light trespass outside the facility site. Exterior lighting will be designed and laid out in order to attain the LEED exterior light pollution credit; however, security lighting requirements may require more exterior light power density, or non-cutoff fixtures. These features may make it difficult to meet the LEED exterior light pollution credit requirements and should be analyzed further. Exterior roadway and area lighting will be light-emitting diode (LED) technology. At entrances to buildings, lighting will be light-emitting diode (LED) technology."

1.2 Multnomah County Dark Sky Lighting Standards

Below are the applicable lighting criteria to be met by MCC 39.6850 Dark Sky Lighting Standards.

- "Dark Sky Lighting Standards require non-exempt lighting to be fully shielded from the sky and for light to be contained on the property.

  C. The following standards apply to all new exterior lighting supporting a new, modified, altered, expanded, or replaced use approved through a development permit and to all existing exterior lighting on property that is the subject of a development permit approval for enlargement of a building by more than 400 square feet of ground coverage.

  1. The light source (bulbs, lamps, etc.) must be fully shielded with opaque materials and directed downwards. "Fully shielded" means no light is emitted above the horizontal plane located at the lowest point of the fixture's shielding. Shielding must be permanently attached.

  2. The lighting must be contained within the boundaries of the Lot of Record on which it is located. To satisfy this standard, shielding in addition to the shielding required in paragraph (C)(1) of this section may be required."

2.0 Proposed Exterior Lighting Design

The proposed exterior lighting design implements fixtures with no uplight component while containing the illumination within the property line. Lighting controls are set to be dimmed under normal conditions and will only increase the level in localized areas when necessary.

2.1 Proposed Luminaires

Attachment A is a luminaire schedule and Attachment D contains the catalog cut sheets of the exterior fixtures mounted above the grade or decking in the model. It comprises of 18' roadway poles, 12' pedestrian poles, 8' catwalk poles, wallpack area lights, wall sconces, pendant fixtures, recessed downlights, and signage adjustable accents aimed downward. All of the fixtures except type ZA1 (signage light) have full cutoff beam distributions as shown in the B-U-G rating column with U0 (zero uplight) to be compliant with the Multnomah County Dark Sky Lighting Standard section C.1. Type ZA1 has a snoot to control the narrow 20 degree beamspread and the fixtures are aimed downward, focused on illuminating the signage. The snoot's angled cut provides extra upward shielding to comply with Section C.1. All these luminaires use 3000K (warm light) sources to minimize nighttime lighting impact on people and animals.

2.2 Proposed Site Layout

All of the luminaires used at the Bull Run Filtration Facility are oriented to contain all the lighting within the site. There is 0 footcandle light trespass along all property lines when all lights are fully energized. This complies with the Multnomah County Dark Sky Lighting Standard section C.2. This is demonstrated in Attachment B. In this figure, the property boundary is shown by the magenta line, and the small numbers in colored boxes show the calculated light intensity in footcandles. All light intensity calculations at the property line show no light spill, as indicated by the dark blue boxes.

2.3 Proposed Lighting Controls

The overall exterior lighting control strategy is to keep the light levels as low as possible for security and safety, and only increase the illumination when necessary. This is achieved through low light levels during typical nighttime hours, motion sensor triggered or a manual switch to full light output, then returning to a low level after the task is completed.

2.4 Site Calculations

The exterior lighting layout has been designed to be mindful of the rural site location while providing a safe and secure work environment. The light levels follow the Illuminating Engineering Society (IES) recommendations for local roads and walkways within the site to keep footcandle levels low at the full light output levels. The dimmed security lighting will emit ambient levels considerably lower than IES recommendations. The process areas also follow IES recommended levels for exterior industrial applications, but these are only used when the area is occupied. During a typical night, these illumination levels are dimmed well below IES recommended levels.

Attachment B shows all the lights fully energized. This condition is not realistic in that a localized area needs to be triggered on for the lighting to emit at full light output. The only way this condition could occur is if every

motion sensor and light switch was signaled to be on simultaneously. The purpose of this calculation is to show that there is no light spill off of the property with all of the lights at full light output.

Attachment C shows the lighting at a dimmed level. This is more characteristic of a typical night setting where none of the motion sensors or switches are signaling the light to full output.

3.0 Conclusions

The lighting design proposed will meet the operations and maintenance needs of the Facility while complying with the Multnomah County Dark Sky Lighting Standards as described above, including the following:

- Except for submerged lights needed for process monitoring, which are exempt from the standard, all lighting will be fully shielded from the sky. All fixtures have full cutoff beam distributions with zero uplight.
- Light will be contained on the property. Light modeling demonstrates that there is 0 footcandle light trespass along all property lines.

Beyond meeting code requirements, the exterior lighting layout has been designed to be mindful of the rural site location, using a control strategy that keeps nighttime illumination levels low, with fixtures dimmed to the minimum needed for security and safety, using motion sensors and manual switches to increase light output when needed.

This page intentionally left blank.

Attachment A: Luminaire Schedule

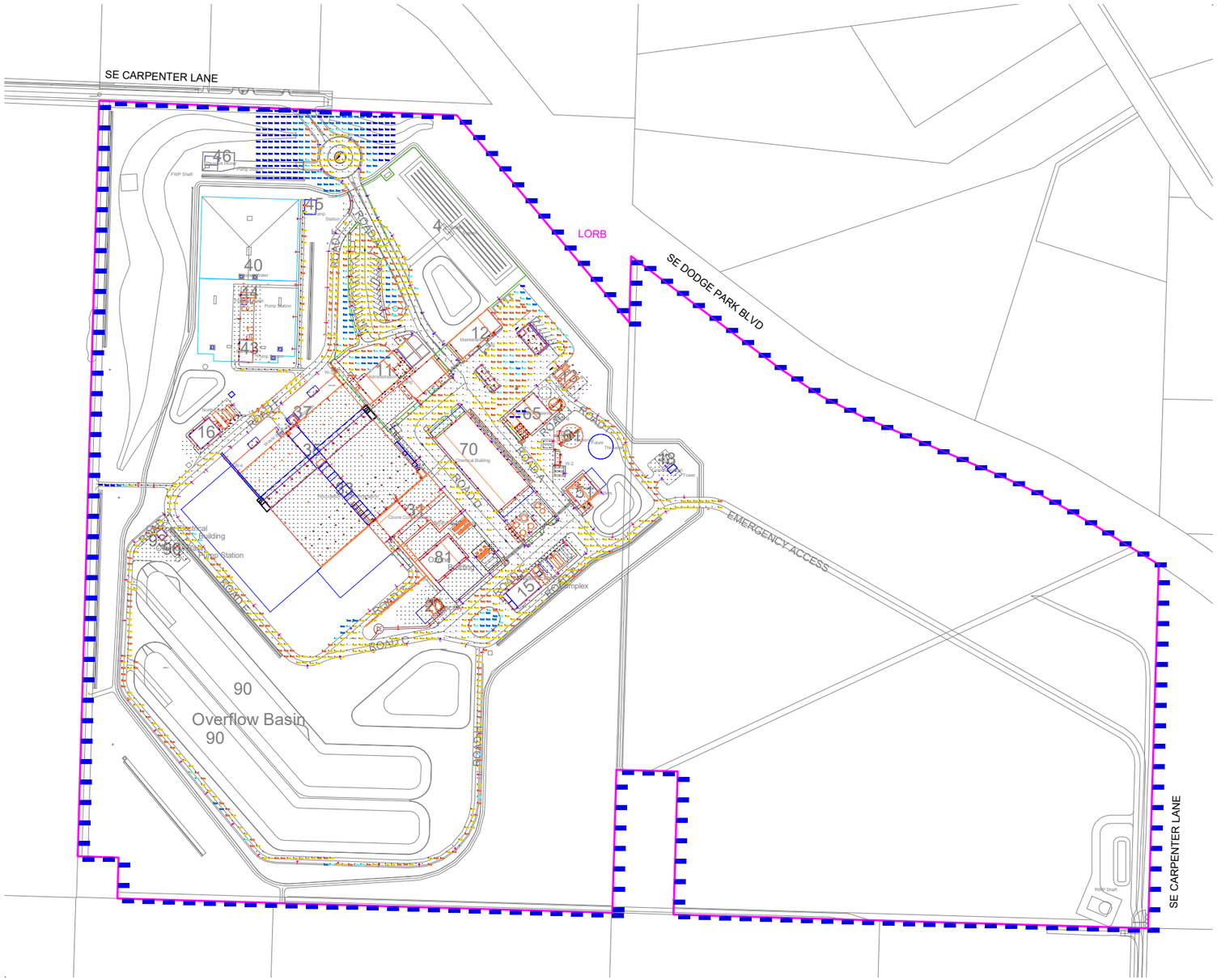
B-U-G rating of U0 indicates "no uplight" component for the fixture.

Luminaire Schedule									
Scene: AMBIENT & TASK									
Symbol	Qty	Arr. Lum. Lumens	Arr. Watts	Tag	Arrangement	LLF	Description	Filename	BUG Rating
	8	1210	9.81	NIC	SINGLE	0.750	lithonia WDGE2 LED P1 30K 80CRI VF	WDGE2_LED_P1_30K_80CRI_VF.ies	B0-U0-G0
	2	1319	20.62	ZA1	SINGLE	0.750	hydrel SAF1 LED P3 30K 80CRI 20DEG MVOLT L3 C3	SAF1_LED_P3_30K_80CRI_20DEG_MVOLT_L3_C3.ies	N.A.
	16	3409	28	ZC1	SINGLE	0.750	cooper TT-D1-830-U-CQ	TT-D1-830-U-CQ.ies	B1-U0-G1
	14	2792	10.7	ZC2	SINGLE	0.308	kirlin LRC-04SDN-3000L-SQR-WFL, prorated to 1000 lumens	LRC-04SDN-3000L-SQR-WFL.IES	B2-U0-G0
	2	2861	36	ZC4H	SINGLE	0.750	birchwood VAN-LED-400-HLO-30-4-FW_1, hung/pendant mount	VAN-LED-400-HLO-30-4-FW.ies	B1-U0-G1
	4	2861	36	ZC4M	SINGLE	0.750	birchwood VAN-LED-400-HLO-30-4-FW_1, mullion/side mount	VAN-LED-400-HLO-30-4-FW.ies	B1-U0-G1
	3	2861	9	ZC4S	SINGLE	0.260	birchwood VAN-LED-400-HLO-30-4-FW_1, mullion mt, 2', SLO output	VAN-LED-400-HLO-30-4-FW.ies	B1-U0-G1
	43	1161	10.0002	ZD2F	SINGLE	0.750	lithonia WDGE1 LED P1 30K 80CRI VF	WDGE1_LED_P1_30K_80CRI_VF.ies	B0-U0-G0
	27	1164	10.0002	ZD2W	SINGLE	0.750	lithonia WDGE1 LED P1 30K 80CRI VW	WDGE1_LED_P1_30K_80CRI_VW.ies	B0-U0-G0
	62	1078	14.1	ZD3	SINGLE	0.750	bega 24374K4	COPY 24374K4_BEGA_IES.ies	B1-U0-G0
	14	8371	49.85	ZF1T	SINGLE	0.713	linmore LL-SL1-SM-50WD-35K-T4-UNV-G2, 3000K, trunnion mtd	LL-SL1-SM-50WD-35K-T4-UNV-G2-L052010703R01.IES	B1-U0-G2
	6	3276	34	ZP2A	SINGLE	0.750	cooper GPC-SA1A-830-U-SL2-HSS	GPC-SA1A-830-U-SL2-HSS.ies	B1-U0-G1
	17	2809	34	ZPFA	SINGLE	0.750	cooper GPC-SA1A-830-U-T4FT-HSS	GPC-SA1A-830-U-T4FT-HSS.ies	B0-U0-G1
	89	3444	44	ZPFB	SINGLE	0.750	cooper GPC-SA1B-830-U-T4FT-HSS	GPC-SA1B-830-U-T4FT-HSS.ies	B1-U0-G1
	49	2867	34	ZPWA	SINGLE	0.750	cooper GPC-SA1A-830-U-T4W-HSS	GPC-SA1A-830-U-T4W-HSS.ies	B0-U0-G1
	2	2867	17	ZPWC	SINGLE	0.375	cooper GPC-SA1A-830-U-T4W-HSS, prorated to half lumens	GPC-SA1A-830-U-T4W-HSS.ies	B0-U0-G1
	38	2879	33	ZR3A-6	SINGLE	0.750	cooper GALN-SA1A-830-U-T3R-HSS, 6ft arm	GALN-SA1A-830-U-T3R-HSS_2879 lumens.ies	B0-U0-G1
	3	3582	44	ZR3B-6	SINGLE	0.750	cooper GALN-SA1B-830-U-T3R-HSS, 6ft arm	GALN-SA1B-830-U-T3R-HSS_3582 lumens.ies	B1-U0-G1
	3	4789	44	ZR5B-6	SINGLE	0.750	cooper GALN-SA1B-830-U-5WQ, 6ft arm	GALN-SA1B-830-U-5WQ_4789 lumens.ies	B3-U0-G1
	25	3295	44	ZRFB-6	SINGLE	0.750	cooper GALN-SA1B-830-U-T4FT-HSS, 6ft arm	GALN-SA1B-830-U-T4FT-HSS_3295 lumens.ies	B0-U0-G1
	1	5320	66	ZRWA-6-2	BACK-BACK	0.750	cooper GALN-SA1A-830-U-T4W-HSS, 6ft arm, 2 heads	GALN-SA1A-830-U-T4W-HSS_2660 lumens.ies	B0-U0-G1
	21	2660	33	ZRWA-6	SINGLE	0.750	cooper GALN-SA1A-830-U-T4W-HSS, 6ft arm	GALN-SA1A-830-U-T4W-HSS_2660 lumens.ies	B0-U0-G1
	2	6620	88	ZRWB-6-2	BACK-BACK	0.750	cooper GALN-SA1B-830-U-T4W-HSS, 6ft arm, 2 heads	GALN-SA1B-830-U-T4W-HSS_3310 lumens.ies	B0-U0-G1
	34	3310	44	ZRWB-6	SINGLE	0.750	cooper GALN-SA1B-830-U-T4W-HSS, 6ft arm	GALN-SA1B-830-U-T4W-HSS_3310 lumens.ies	B0-U0-G1
	20	2809	34	ZWFA	SINGLE	0.750	cooper GWC-SA1A-830-U-T4FT-HSS	GWC-SA1A-830-U-T4FT-HSS.ies	B0-U0-G1
	11	3444	44	ZWFB	SINGLE	0.750	cooper GWC-SA1B-830-U-T4FT-HSS	GWC-SA1B-830-U-T4FT-HSS.ies	B1-U0-G1
	25	2867	34	ZWWA	SINGLE	0.750	cooper GWC-SA1A-830-U-T4W-HSS	GWC-SA1A-830-U-T4W-HSS.ies	B0-U0-G1
	16	3514	44	ZWWB	SINGLE	0.750	cooper GWC-SA1B-830-U-T4W-HSS	GWC-SA1B-830-U-T4W-HSS.ies	B0-U0-G1
	7	3276	34	ZEP2	SINGLE	0.750	cooper GPC-SA1A-830-U-SL2-HSS	GPC-SA1A-830-U-SL2-HSS.ies	B1-U0-G1
	5	2809	34	ZEPF	SINGLE	0.750	cooper GPC-SA1A-830-U-T4FT-HSS	GPC-SA1A-830-U-T4FT-HSS.ies	B0-U0-G1
	7	2867	17	ZEPC	SINGLE	0.375	cooper GPC-SA1A-830-U-T4W-HSS, prorated to half lumens	GPC-SA1A-830-U-T4W-HSS.ies	B0-U0-G1
	16	2867	34	ZEPW	SINGLE	0.750	cooper GPC-SA1A-830-U-T4W-HSS	GPC-SA1A-830-U-T4W-HSS.ies	B0-U0-G1
	3	3444	44	ZEPG	SINGLE	0.750	cooper GPC-SA1B-830-U-T4FT-HSS	GPC-SA1B-830-U-T4FT-HSS.ies	B1-U0-G1
	1	3310	44	ZERW-6	SINGLE	0.750	cooper GALN-SA1B-830-U-T4W-HSS, 6ft arm	GALN-SA1B-830-U-T4W-HSS_3310 lumens.ies	B0-U0-G1

FIXTURE TYPE/TAG NIC IS PROVIDED BY GENERATOR ENCLOSURE MANUFACTURER AND IS CONSIDERED PART OF THEIR EQUPMENT.

Attachment B: Site Illumination Plan – Full Output

All lighting is fully energized with no light spill over the property line. This scenario requires every motion sensor and switch to be activated (a highly unlikely occurrence).



Scale: 1 inch= 300 Ft.

SITE PLAN ILLUMINANCE (IN FC AT GRADE) - FULL OUTPUT

ILLUMINATION CRITERIA

MULTNOMAH COUNTY MCC 39.6850 DARK SKY LIGHTING STANDARDS
Lighting contained within the boundaries of the Lot of Record.

Calculation Summary

Scene: AMBIENT & TASK

Label	Description	CalcType	Units	Max	Min
LORB	Lot of Record Boundary	Illuminance	Fc	0.00	0.00

FOOTCANDLE (FC) LEGEND

🟦	0.0 FC (NO SPILL LIGHT)
🟦	0.01 - 0.09 FC (SPILL - INACTIVE STORAGE YARDS MIN)
🟦	0.10 - 0.19 FC (INACTIVE STORAGE YARDS MIN - LOW PED WALK AVG.)
🟧	0.20 - 0.49 FC (LOW PED WALK AVG - PKG LOT MIN)
🟨	0.5 - 0.99 FC (PKG LOT MIN - SITE AMBIENT)
⬜	1.00 FC AND OVER

N

Bull Run Filtration Facility (BRFF)
Elcon #5455-070.00

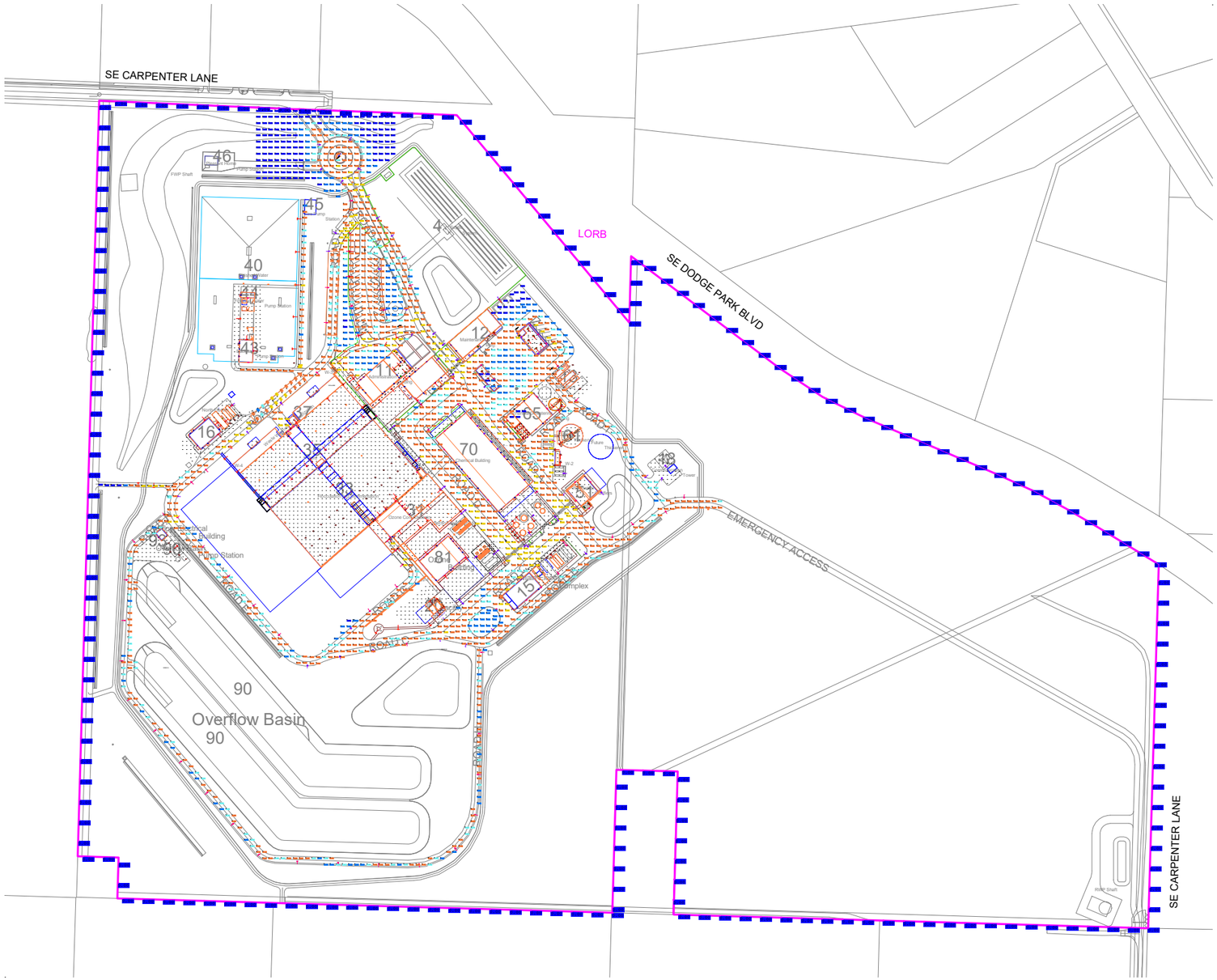
ELCON ASSOCIATES, INC.
ENGINEERS - CONSULTANTS

R:\5545-070.00 PDX\Calculations\agi32\SITE\2022-08-11 land use report\BRFF SITE-ORIGINAL-land use.AGI

8/15/2022 8:01:24 AM

Attachment C: Site Illumination Plan – Dimmed

This is a typical nighttime scenario where the lighting is dimmed for security. No motion sensors are triggered, and light switches are turned off.



SITE PLAN ILLUMINANCE (IN FC AT GRADE) - DIMMED

ILLUMINATION CRITERIA

MULTNOMAH COUNTY MCC 39.6850 DARK SKY LIGHTING STANDARDS
Lighting contained within the boundaries of the Lot of Record.

Calculation Summary					
Scene: AMBIENT- DIMMED					
Label	Description	CalcType	Units	Max	Min
LORB	Lot of Record Boundary	Illuminance	Fc	0.00	0.00

FOOTCANDLE (FC) LEGEND
- 0.0 FC (NO SPILL LIGHT)
- 0.01 - 0.09 FC (SPILL - INACTIVE STORAGE YARDS MIN)
- 0.10 - 0.19 FC (INACTIVE STORAGE YARDS MIN - LOW PED WALK AVG.)
- 0.20 - 0.49 FC (LOW PED WALK AVG - PKG LOT MIN)
- 0.5 - 0.99 FC (PKG LOT MIN - SITE AMBIENT)
- 1.00 FC AND OVER

N

Bull Run Filtration Facility (BRFF)
Elcon #5455-070.00

ELCON ASSOCIATES, INC.
ENGINEERS - CONSULTANTS

R:\5545-070.00 PDX\Calculations\agi32\SITE\2022-08-11 land use report\BRFF SITE-ORIGINAL-land use.AGI 8/15/2022 8:06:33 AM

Attachment D: Lighting Fixture Cuts

Catalog cut sheets of the exterior fixtures.

HYDREL

CATALOG NUMBER

NOTES

TYPE

Type ZA1

AMHM

Architectural Multi Head Mount

Buy American

HIGHLIGHTS

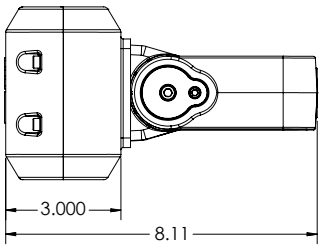
- Mounting available in Knuckle or Yoke
- Option to mount two, three or four fixtures
- AMHM, Multi Head can also be used with other mounting accessories such as ADPMR/ADPMS, AMPC, APAR/APAS, AWSC, CAJB, CJB, CPM, CPMSA, CSM and CWMAE/CWMAT

Specifications

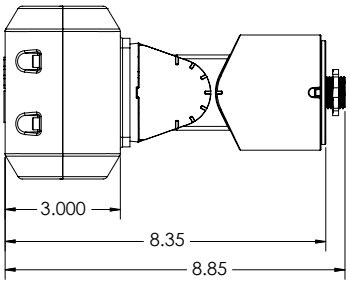
Weight:	6lbs.

DIMENSIONS

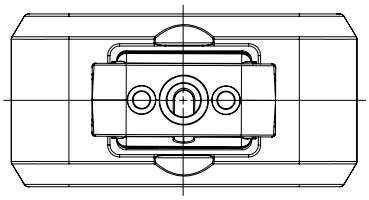
SIDE VIEW for YOKE MOUNT



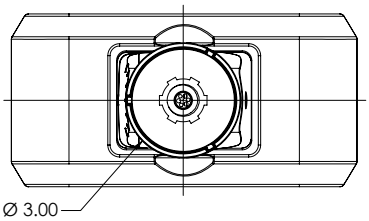
SIDE VIEW for KNUCKLE MOUNT



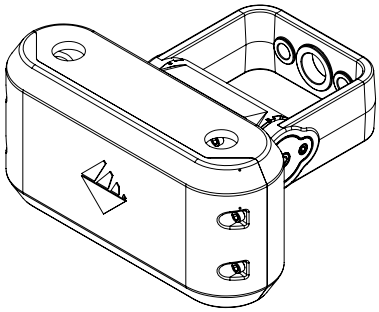
BOTTOM VIEW for YOKE MOUNT



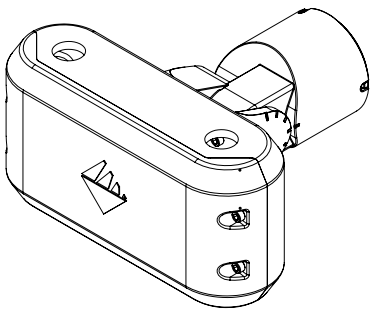
BOTTOM VIEW for KNUCKLE MOUNT



ISOMETRIC VIEW for YOKE MOUNT



ISOMETRIC VIEW for KNUCKLE MOUNT



ORDERING INFORMATION

AMHM2 YM 78C CSL xx

EXAMPLE: AMHM2 KM 78C BRT

Series*	Mounting*	Fixture Mounting*	Cord Set Length	Finish*
AMHM2 Architectural Multi Head Mount (two fixtures)	**KM** Knuckle Mount	**78C** 7/8" Thru Hole	**CSL_** 10' - 50' of cord available in 5' increments	**BL** Black Textured
AMHM3 Architectural Multi Head Mount (three fixtures)	**YM** Yoke Mount		*Note: Cord length required for Yoke Mounting (YM) only*	**BRS** Bronze Smooth
AMHM4 Architectural Multi Head Mount (four fixtures)				**BRT** Bronze Textured
				DBL Black Smooth
				DDB Designer Bronze
				DNA Natural Aluminum
				NBS Natural Bronze Smooth
				VET Verde Textured
				WH White Textured
				WHS WhiteSmooth
				__Z Zinc Undercoat (i.e BLZ)
				CF Custom Finish
				RALTBD RAL Paint Finishes
				Note: RALTBD for pricing only, replace with applicable RAL call out when ready to order. See the RALBROCHURE for available options. It is recommended that Hydrel products only use textured paint.

*Required Fields

AMHM2 KM WITH TWO SAF1 FIXTURES

AMHM3 KM WITH THREE SAF1 FIXTURES

AMHM4 KM WITH FOUR SAF1 FIXTURES

AMHM Multi Head can also be used with other mounting accessories such as ADPMR/ADPMS, AMPC, APAR/APAS, AWSC, CAJB, CJB, CPM, CPMSA, CSM and CWMAE/CWMAT. Mounting accessories are ordered separetly.

Example of AMHM with AMPC and CAJB with SAF1 fixtures

AMHM4 KM WITH AMPC6 MOUNTING ACCESSORY

AMHM4 YM WITH AMPC6 MOUNTING ACCESSORY

AMHM4 KM WITH CAJB MOUNTING ACCESSORY

AMHM4 YM WITH CAJB MOUNTING ACCESSORY

FEATURES & SPECIFICATIONS

MATERIAL: Heavy cast aluminum.

MOUNTING: Knuckle or Yoke to hold two, three or four fixtures.

FASTENERS: Stainless Steel.

FINISH: Super durable Polyester TGIC powder coat finish (standard). Optional Zinc undercoat for harsh environments.

BUY AMERICAN: Hydrel products are assembled in the USA. Our products meet the Buy America(n) government procurement requirements under FAR, DFARS, and DOT. Please refer to www.acuitybrands.com/buy-america

WARRANTY: 1-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

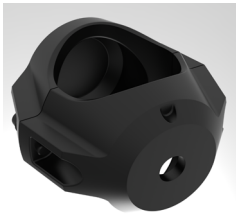
HYDREL

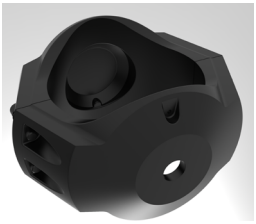
CATALOG NUMBER

NOTES

TYPE

Type ZA1





AMPC

Architectural Mid Pole Clamp

HIGHLIGHTS

Buy American

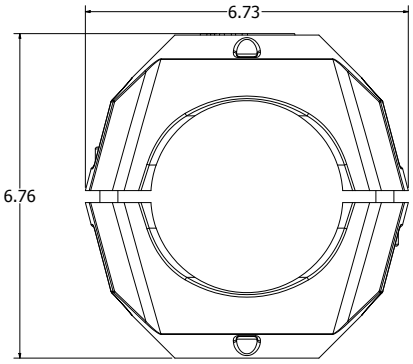
- Clamp pole mount design for quick install and fixture aiming
- Intended for 4" or 6" round straight pole
- Mounting location mid pole
- Mount one or two fixtures
- Designed for SAF1, SAF7 and SAF14 series with safety cable option

Specifications

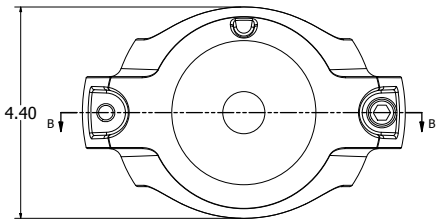
Weight:	AMPC4: 4lbs.
	AMPC6: 8lbs.

DIMENSIONS

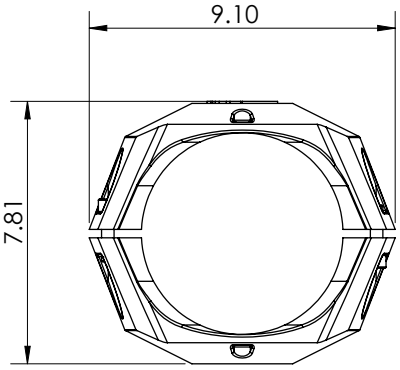
TOP VIEW

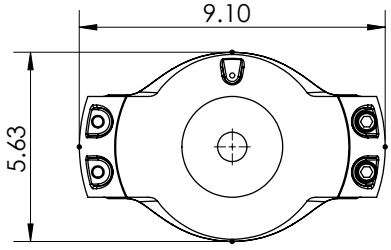


SIDE VIEW



AMPC4





AMPC6

Phone: 800-705-SERV (7378) • www.hydrel.com

ORDERING INFORMATION AMPC4/1 xxx xx

EXAMPLE: AMPC4/1 78C BRT

Series*		Fixture Mounting*		Finish*	
AMPC4/1	Architectural Mid Pole Clamp 4" (install 1 fixture)	**78C**	7/8" Thru Hole	**BL**	Black Textured
AMPC4/2	Architectural Mid Pole Clamp 4" (install 2 fixtures)	**XLSC**	Stainless Cord Seal	**BRS**	Bronze Smooth
AMPC6/1	Architectural Mid Pole Clamp 6" (instal 1 fixture)			**BRT**	Bronze Textured
AMPC6/2	Architectural Mid Pole Clamp 6" (instal 2 fixtures)			**DBL**	Black Smooth
				DDB	Designer Bronze
				DNA	Natural Aluminum
				NBS	Natural Bronze Smooth
				VET	Verde Textured
				WH	White Textured
				WHS	White Smooth
				CF	Custom Finish
				__Z	Zinc Undercoat (i.e BLZ)
				RALTBD	RAL Paint Finishes

Note:
AMPC4/1 is offered with SAF1, SAF7 and SAF14
AMPC4/2 is offered with SAF1, SAF7
AMPC6/1 is offered with SAF1, SAF7 and SAF14
AMPC6/2 is offered with SAF1, SAF7 and SAF14

Note:
78C to be used with SAF1, SAF7 and SAF14 Knuckle Mount (KM)
XLSC to be used with SAF7 ans SAF14 Yoke Mount (YM)

Note:
RALTBD for pricing only, replace with applicable RAL call out when ready to order.
See the RALBROUCHURE for available options. It is recommended that Hydrel products only use textures paint.

*Required Fields

FEATURES & SPECIFICATIONS

MATERIAL: Heavy cast aluminum.

MOUNTING: One or two fixture mounting mid pole for a 4" or 6" round straight pole.

FASTENERS: Stainless Steel.

FINISH: Super durable Polyester TGIC powder coat finish (standard). Optional Zinc undercoat for harsh environments.

BUY AMERICAN: Hydrel products are assembled in the USA. Our products meet the Buy America(n) government procurement requirements under FAR, DFARS, and DOT. Please refer to www.acuitybrands.com/buy-america

WARRANTY: 1-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

HYDREL

CATALOG NUMBER

NOTES

TYPE

Type ZA1

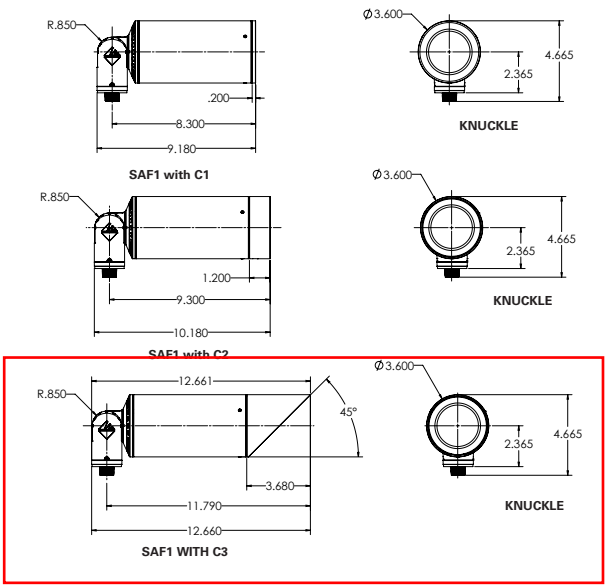
SAF1 LED SPECIALTY ARCHITECTURAL FLOOD

MVOLT LED

Specifications

Weight:	4 lbs.
EPA:	C1: 0.266 Square Feet
	C2: 0.294 Square Feet
	C3: 0.314 Square Feet

DIMENSIONS



HIGHLIGHTS

- Suitable for a variety of mounting applications including ground, wall, pole, stanchion and tree
- 0-10V, Reverse phase Dimming
- Taper-Lock technology provides full aiming integrity utilizing a rugged knuckle design
- Available in 80CRI
- 1500 lm
- Minimalist design that provides clean and intentional lines and transitions
- Slightly convex watershed lens that evades water build up and staining
- NOM Listed
- 3G vibration rating per ANSI C136.31

LED

5 YEAR warranty

IP66

Buy American

LUMEN PACKAGES

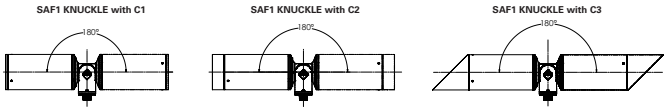
	6DEG	10DEG	15DEG	20DEG	30DEG	40DEG
Delivered Lumens	731	691	1,487	1,479	1,463	1,441
Watts	16	16	21	21	21	21
LPW	46	43	71	70	70	69
Max Candela	48,860	17,042	12,343	10,447	4,191	2,880
	50DEG	**70DEG**	**15Vx60H**	**30Vx60H**		
Delivered Lumens	1,386	1,320	1,468	1,379		
Watts	21	21	21	21		
LPW	66	63	70	66		
Max Candela	1,442	964	2,923	1,897		

Note: Information based on 4000K @ P2, for 6DEG and 10DEG and P3 for 15DEG+ with C1. See page 3 for more information.

STANDARD DISTRIBUTION

6DEG 10DEG 20DEG 40DEG 50DEG

AIMING DETAIL



SAF1 LED P3 80CRI 30K MVOLT 20DEG CWL KM L3 C3 xx

ORDERING INFORMATION

EXAMPLE: SAF1 LED P1 80CRI 27K MVOLT 6DEG CWL KM CJB L1 ZT C1 BL

SAF1

Series*	Source*	Performance Packages*	CRI*	Color Temperature*	Voltage*	Distribution*	Lens*	Mounting*
SAF1 Specialty Architectural Flood	**LED**	**P1** **P2** **P3** *Note: P3 not available in 6DEG & 10DEG*	**80CRI** *Note: CRI not required with AMBLW*	**27K** 2700K **30K** 3000K **35K** 3500K **40K** 4000K **AMBLW**[1] Amber Limited Wavelength (591nm) *Note: AMBLW not available in 6DEG, 20DEG and 40DEG* *Note: AMBLW only available in P1*	**MVOLT**	**6DEG** 6° **10DEG** 10° **15DEG** 15° **20DEG** 20° **30DEG** 30° **40DEG** 40° **50DEG** 50° **70DEG** 70° **15VX60H** 15° x 60° **30VX60H** 30° x 60°	**CWL** Clear Watershed Lens	**KM** Knuckle

Mounting Accessories	Options Internal Accessory	Control Input	External Caps*	Finish*
AMPC_/_ Architectural Mid Pole Clamp available to fit on a 4" or 6" pole with 1 or 2 fixtures **AWMC** Architectural Wall Mount Cover **AWSC** Architectural Wall Splice Cover **CAJB** Cylindrical Architectural Junction box **CJB** Cylindrical Junction Box **CPM** Cylindrical Pedestal Mount **CPMSA** Cylindrical Pole Mount Splice Access **CSM_** Cylindrical Stanchion Mount 12"-48" available in 6" increments *Note: Multi Head (AMHM) mounting accessory is available and can be ordered separately, please see below and spec sheet for options.* **Extended Arms** **EA__** 12", 24" or 36" **EA45__** 45° -12", 24" or 36" **EA90__** 90° - 12", 24" or 36" *Note: EA used with AWSC and AWMC mountings only*	**L1** Prismatic Lens **L2** Linear Spread Lens **L3** Softening Lens **IHL** Honeycomb Louver *Note: Only one Internal accessory can be chosen* **Internal Filters** **FG** Green **FGD** Green Dichroic **FLB** Light Blue **FM** Mercury Vapor **FMB** Medium Blue **FMBD** Medium Blue Dichroic **FR** Red **FRD** Red Dichroic *Note: Only one Internal Accessory can be chosen*	**ZT** 0-10V dimming to 1% **ELV** Reverse phase	**C1** Short Flush **C2** Recessed Lens **C3** 45° Angle Cut	**BL** Black Textured **BRS** Bronze Smooth **BRT** Bronze Textured **DBL** Black Smooth **DDB** Designer Bronze **DNA** Natural Aluminum **NBS** Natural Bronze Smooth **VET** Verde Textured **WH** White Textured **WHS** White Smooth **__Z** Zinc Undercoat (i.e.BLZ) Note: Zinc Undercoat provides corrosion protection for Marine Environment and Natatorium Construction **CF** Custom Finish **RALTBD** RAL Paint Finishes *Note: RALTBD for pricing only, replace with applicable RAL call out when ready to order. See the RALBROCHURE for available options. It is recommended that Hydrel products only use textured paint.*

*Required Fields

Notes:

1 Lumens not reflective of Amber output. See below chart

DIMMING CHART

Voltage	Control Input	Min Dimming Level
MVOLT	ZT	1%
MVOLT	ELV Reserve Phase	1%

PERFORMANCE DATA

LUMEN OUTPUT — SAF1

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	Distribution Type	Field Angle		Beam Angle		27K (2700K, 80CRI)			30K (3000K, 80CRI)			35K (3500K, 80CRI)			40K (4000K, 80CRI)		
			°H	°V	°H	°V	Max CD	Lumens	LPW	Max CD	Lumens	LPW	Max CD	Lumens	LPW	Max CD	Lumens	LPW
P1	9W	6DEG	11	11	5	5	31,205	467	52	32,798	491	55	34,853	522	58	35,328	529	59
		10DEG	19	19	9	9	10,884	441	49	11,440	464	52	12,157	493	55	12,322	499	55
	6W	15DEG	33	33	16	16	3,746	451	75	3,902	470	78	4,017	484	81	4,064	490	82
		20DEG	36	36	17	17	3,171	449	75	3,303	468	78	3,400	481	80	3,439	487	81
		30DEG	57	57	31	31	1,272	444	74	1,325	463	77	1,364	476	79	1,380	482	80
		40DEG	69	69	38	38	874	438	73	911	456	76	937	469	78	948	475	79
		50DEG	92	92	58	58	438	421	70	456	438	73	469	451	75	475	456	76
		70DEG	107	107	75	75	293	401	67	305	417	70	314	430	72	317	435	72
		15Vx60H	95	44	66	21	887	445	74	924	464	77	951	478	80	962	483	81
		30Vx60H	94	72	62	38	576	419	70	600	436	73	618	449	75	625	454	76
P2	16W	6DEG	11	11	5	5	43,157	646	40	45,361	679	42	48,203	721	45	48,860	731	46
		10DEG	19	19	9	9	15,053	610	38	15,822	641	40	16,813	681	43	17,042	691	43
	11W	15DEG	33	33	16	16	7,155	862	78	7,453	898	82	7,672	925	84	7,761	935	85
		20DEG	36	36	17	17	6,055	857	78	6,307	893	81	6,493	919	84	6,568	930	85
		30DEG	57	57	31	31	2,430	848	77	2,531	883	80	2,605	909	83	2,635	920	84
		40DEG	69	69	38	38	1,669	836	76	1,739	870	79	1,790	896	81	1,811	906	82
		50DEG	92	92	58	58	836	803	73	871	837	76	896	862	78	907	872	79
		70DEG	107	107	75	75	559	765	70	582	797	72	599	821	75	606	830	75
		15Vx60H	95	44	66	21	1,694	851	77	1,765	886	81	1,817	912	83	1,838	923	84
		30Vx60H	94	72	62	38	1,100	800	73	1,146	833	76	1,179	857	78	1,193	867	79
P3	21W	15DEG	33	33	16	16	11,379	1,371	65	11,853	1,428	68	12,202	1,470	70	12,343	1,487	71
		20DEG	36	36	17	17	9,631	1,364	65	10,032	1,421	68	10,327	1,462	70	10,447	1,479	70
		30DEG	57	57	31	31	3,864	1,349	64	4,025	1,405	67	4,143	1,446	69	4,191	1,463	70
		40DEG	69	69	38	38	2,655	1,329	63	2,766	1,384	66	2,847	1,425	68	2,880	1,441	69
		50DEG	92	92	58	58	1,329	1,278	61	1,385	1,331	63	1,426	1,370	65	1,442	1,386	66
		70DEG	107	107	75	75	889	1,217	58	926	1,268	60	953	1,305	62	964	1,320	63
		15Vx60H	95	44	66	21	2,695	1,353	64	2,807	1,409	67	2,890	1,451	69	2,923	1,468	70
		30Vx60H	94	72	62	38	1,749	1,272	61	1,822	1,324	63	1,876	1,363	65	1,897	1,379	66

Performance Package	System Watts	Distribution Type	Field Angle		Beam Angle		AMBLW		
			°H	°V	°H	°V	Max CD	Lumens	LPW
P1	8W	10DEG	19	19	9	9	3,132	127	16
		15DEG	33	33	16	16	1,031	124	16
		30DEG	57	57	31	31	350	122	15
		50DEG	92	92	58	58	120	116	14
		70DEG	107	107	75	75	81	110	14
		15Vx60H	95	44	66	21	244	123	15
		30Vx60H	94	72	62	38	159	115	14

PROJECTED LED LUMEN MAINTENANCE

Data references the extrapolated performance projections for the Fixture platform in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	20,000	40,000	60,000
Lumen Maintenance Factor	1	0.9309	0.8726	0.818

Note: Based on P1 Performance Package 6Deg & 10DEG

Operating Hours	0	20,000	40,000	60,000
Lumen Maintenance Factor	1	0.9664	0.948	0.9299

Note: Based on P1 Performance Package 15+Deg

LED LIFE: L70@ > 36,000 hours for 6DEG & 10DEG
L70@ > 60,000 hours for 15+DEG

CSA LISTING TEMPERATURE: -30°C through 40°C (P1 6DEG & 10DEG)
-30°C through 30°C (P2 6DEG & 10DEG)
-30°C through 50°C (P1 15+ DEG)
-30°C through 35°C (P2 15+ DEG)
-30°C through 25°C (P3 15+ DEG)
-30°C through 45°C (AMBER)

PHOTOMETRIC DIAGRAMS

To see complete photometric reports or download .ies files for this product, visit www.hydrel.com

PERFORMANCE DATA

ELECTRICAL LOAD

Light Engines	Drive Current (mA)	System Watts	Input Current (A)			
			120	208	240	277
Static White P1 6Deg & 10Deg	1800mA	9.4	0.077	0.045	0.04	0.035
Static White P2 6Deg & 10Deg	3000mA	17	0.144	0.082	0.071	0.062
Static White P1 15+Deg	180mA	5.6	0.046	0.027	0.024	0.021
Static White P2 15+Deg	350mA	10.8	0.089	0.053	0.047	0.042
Static White P3 15+Deg	690mA	18.4	0.179	0.105	0.092	0.081
Amber P1 10+Deg	667mA	8.5	0.071	0.041	0.035	0.031

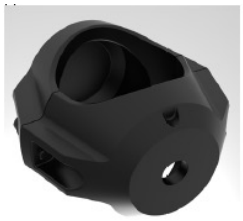
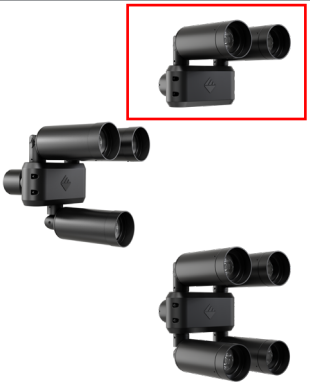
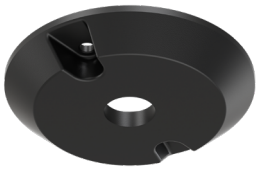
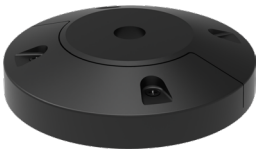
LUMEN AMBIENT TEMPERATURE (LAT) MULTIPLIERS

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F)

Ambient		Static White - 6&10Deg Lumen Multiplier	Static White - ≥15Deg Lumen Multiplier	Amber Lumen Multiplier
0°C	32°F	1.06	1.04	1.22
10°C	50°F	1.03	1.02	1.11
20°C	68°F	1.01	1.01	1.04
25°C	77°F	1	1	1
30°C	86°F	0.99	0.99	0.97
40°C	104°F	0.96	0.98	0.91

SAF1 Multipler	
Symmetric Distributions (6DEG-70DEG)	
C1	1.00
C2	0.98
C3	0.94
L1	0.91
L2	0.90
L3	0.96
IHL	0.60
Asymmetric Distributions (xxVXxxH)	
C1	1.00
C2	0.97
C3	0.92
L1	0.86
L2	0.84
L3	0.96
IHL	0.38

SAF MOUNTING ACCESSORIES

		Part #
	• AMPC Architectural Mid Pole Clamp • Clamp pole mount design for quick install and fixture aiming • Intended for 4" or 6" round straight pole • Mount one or two fixtures • Mounting location mid pole • Designed for SAF7 and SAF14 series with safety cable option	Example: AMPC4/1 78C BL See spec sheet for more options
	• AMHM Architectural Multi Head Mount • Directional multi-head mounting accessory for spot lighting multiple targets from one vantage point • Equipped with inner cavity that allows for quick wire connections • Infinite maneuverability and positioning with taper lock technology so contractors can easily set it and forget it. • Available in Knuckle or Yoke mount • Mount two, three or four fixtures • Multi Head mount is compatible with other mounting accessories such as ADPMR/ADPMS, AMPC, APAR/APAS, AWSC, CAJB, CPM, CPMSA, CSM and CWMAE/CWMAT	Example: AMHM2 KM 78C BL See spec sheet for more options
	• AWMC Architectural Wall Mount Cover • Designed to be mounted over a recessed wall box • Compatible with SAF1	Example: AWMC 78C BL See spec sheet for more options
	• AWSC Architectural Wall Splice Cover • Designed to be mounted over a recessed wall box or can be surface mounted for direct conduit entrance • Supplied with an integral splice access compartment for easy fixture connections • Designed for SAF7 & SAF14 fixtures	Example: AWSC 78C DNA See spec sheet for more options
	• CAJB Cylindrical Architectural Junction Box • Designed for architectural and landscape applications • Recommended for mounting on a rigid metallic conduit • For direct mounting of the SAF7 & SAF14 series light fixtures	Example: CAJB 34B XLSC DBL See spec sheet for more options
	• CJB Cylindrical Junction Box • Drilled and tapped to ¾" NPT specifications • For larger hole sizes , consult factory • Recommended to seal conduit to maintain dry components • Compatible with SAF7 & SAF14 Flood luminaries	Example: CJB 34S XLSC VET See spec sheet for more options

SAF MOUNTING ACCESSORIES

		Part #
	• CPM Cylindrical Pedestal Mount • Suitable for architectural and landscape applications • Provided with front access cover for easy wiring and installation. • Compatible with SAF7 & SAF14 Flood luminaries	Example: CPM 78C BL See spec sheet for more options
	• CPMSA Cylindrical Pole Mount Splice Access • Designed to mount atop of 4" round poles • Provided with splice compartment • Compatible with SAF7 & SAF14 Flood luminaries	Example: CPMSA 78C DBL See spec sheet for more options
	• CSM Cylindrical Stanchion Mount • Available in heights from 12" to 48" in 6" increments • Provided with front access cover for easy wiring and installation. • Compatible with SAF7 & SAF14 Flood luminaries	Example: CSM12 XLSC BRT See spec sheet for more options
	• EA-Extended Arms • Available in lengths 12", 24" and 36" • Available in angles 45° and 90° • Material available in aluminum • Extended arms are compatible with AWMC and AWSC wall mounts	Example: AWMC EA12 78C BL AWSC EA4512 78C BRS See spec sheet for more options See spec sheet for more options

EXTERNAL CAPS

	• C1 Short Flush Cap
	• C2 Recessed Lens Cap
	• C3 45° Angle Cut Cap

FEATURES & SPECIFICATIONS

MATERIAL: Die cast copper-free aluminum (A360) housing & doors with separate optical and driver compartments to ensure thermal isolation of the electronic drivers and LED's.

LIGHT SOURCE: Proprietary PBCA LED technology with correlated color temperatures (CCT) of 2700K, 3000K, 3500K, 4000K (>80 CRI). All within 3 MacAdam ellipses

VOLTAGE: MVOLT 120V-277V. 50/60Hz

DISTRIBUTION: Available in 6DEG, 10DEG, 15DEG, 20DEG, 30DEG, 40DEG, 50DEG, 70DEG, 15Vx60H and 30Vx60H

LENS: Molded from heat strengthened borosilicate glass for superior clarity and strength.

MOUNTING: Adjustable knuckle is 1/2" NPSM. Aluminum knuckle & stainless steel locking hardware with infinite aiming adjustment capabilities and a wide array of mounting accessories. Knuckle mount luminaries are provided with 48" leads (qty 3 #18 for power supply and qty 2 #18 for dimming control)

ELECTRICAL: MVOLT (120-277) LED class 2 power supply. 6-21 watts, L83 lifetime ≥ 100,000 hours at 25°C. Power factor > 90%, THD < 20%. 6KV surge protection meets a minimum Category C low operation per ANSI/IEEE C62.41.2.

FEATURES Taper lock knuckle for infinite aiming and an unparalleled locking ability.

FINISH: Exterior parts are protected by a zinc-infused durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climates without cracking or peeling.

BUY AMERICAN: Hydrel products are assembled in the USA. Our products meet the Buy America(n) government procurement requirements under FAR, DFARS, and DOT. Please refer to www.acuitybrands.com/buy-america

LISTING: cCSAus, Suitable for outdoor & wet location. IP66 rated

WARRANTY: 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Consult factory for details.

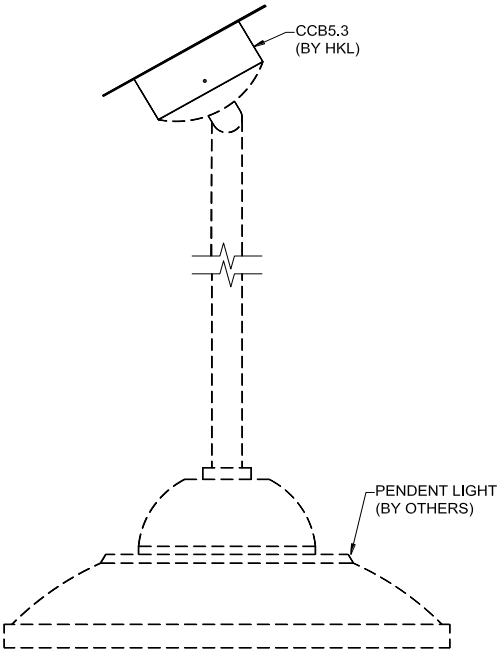
NOTE: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

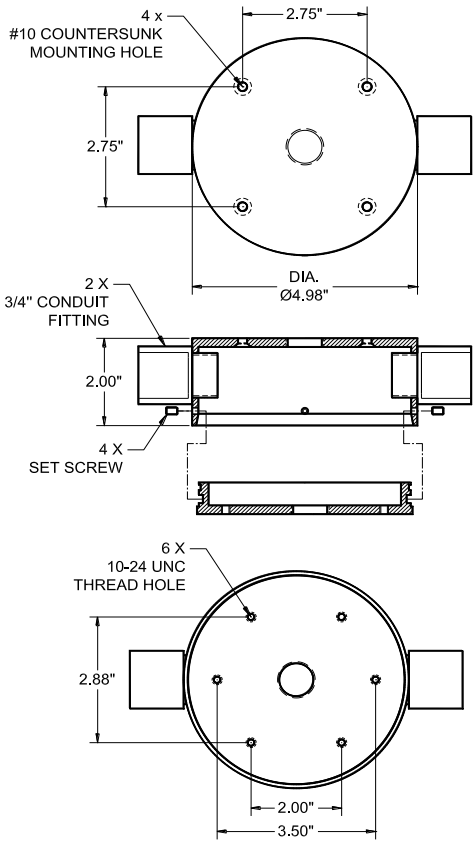
Type ZC1

MODEL CCB5.3

SINGLE FXTURE CANOPY BOX

SURFACE MOUNT





CCB5.3

SPECIFICATION

NOTE: Specifications and Dimensions subject to change without notice.

MATERIAL: Machined silicone magnesium aluminum alloy (6061-T6) resistant to corrosion, stainless steel (SS304) hardware Brass and stainless steel versions available upon request

FITTING 1/2" NPS thread hole

		CODE
SERIES: CCB	MODEL:	CCB 5.3
FINISHES: Anodized		
	Black	**ABK**
	Clear	**ACL**
Polyester coating with chromate conversion substrate surface.	Black	**BK**
	Bronze	**BZ**
	White	**WT**
Custom colors available. Please provide international color code.		**PPC**

PROJECT:

TYPE:

HK LIGHTING GROUP
3529 Old Conejo Road, #118
Newbury Park, CA 91320
Phone: 805.480 4881
FAX: 805 480 4811
E-mail: sales@hklightinggroup.com

Type ZC1

Project		Catalog #		Type	
Prepared by		Notes		Date	

McGraw-Edison

TT TopTier

Parking Garage Luminaire

Product Features

Light ARchitect™

Interactive Menu

Product Certifications

Quick Facts

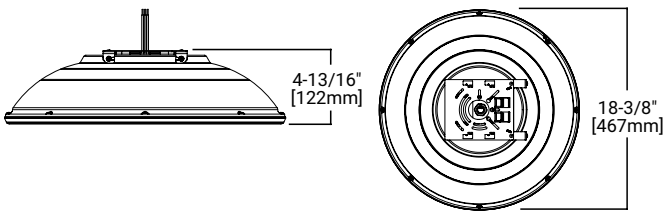
- Lumen packages range from 2,757 - 22,831
- Efficacies up to 146 lumens per watt
- Utilizes patented waveguide technology for maximum visual comfort
- Surface, pendant, trunnion, wall and direct conduit mount options

Connected Systems

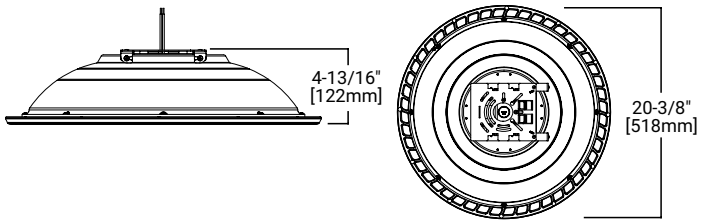
- WaveLinx Lite
- Synapse

Dimensional Details

SURFACE MOUNT
CQ, MQ, WQ and RW: D1-D6
DL: D1-D4
Base luminaire weight: 18.2 lbs (8.3 kg)



SURFACE MOUNT
CQ, MQ, WQ and RW: D7+
DL: D5+
Base luminaire weight: 20.1 lbs (9.1 kg)



NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.
2. IDA Certified for 3000K CCT and warmer only.

Ordering Information

ZC1: BAA-TT D1 830 U CQ STM ##L xx TT/BG-UP-XX DPMS36-XX ZW-SWPD4WH

SAMPLE NUMBER: **TT-D3-740-U-WQ-STM-30L-AP**

Product Family	Configuration	Color Temperature	Voltage	Distribution	Mounting	Lead Length [7]	Finish
TT=TopTier [1] **BAA-TT**=TopTier Buy American Act Compliant[27] **TAA-TT**=TopTier Trade Agreements Act Compliant[27]	**D1**=4,000 Nominal Lumens **D2**=5,500 Nominal Lumens **D3**=6,500 Nominal Lumens **D4**=8,000 Nominal Lumens **D5**=10,000 Nominal Lumens **D6**=13,000 Nominal Lumens **D7**=15,000 Nominal Lumens **D8**=18,000 Nominal Lumens **D9**=20,000 Nominal Lumens **D10**=22,000 Nominal Lumens	**735**=70 CRI, 3500K CCT **740**=70 CRI, 4000K CCT **750**=70 CRI, 5000K CCT **830**=80 CRI, 3000K CCT	**U**=120-277V **H**=347-480V [22, 26] **1**=120V **4**=277V **8**=480V **9**=347V	**CQ**=Concentrated **MQ**=Medium **WQ**=Wide **RW**=Rectangular Wide [3] **DL**=Drive Lane / Type 4 [3]	**[Blank]**=Surface Mount [16] **TMB**=Trunnion Mount with Connection Box **DPM**=Decorative Pendant Mount [4] **WM**=Wall Mount **STM**=Stem Mount to 1/2" conduit [16]	**[Blank]**=6" **30L**=30" **36L**=36" **48L**=48" **72L**=72" **108L**=108" **120L**=120" **144L**=144"	**NW**=White **AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic

Options (Add as Suffix)

F=Single Fuse (120, 277 or 347V Specify Voltage)
FF=Double Fuse (208, 240 or 480V Specify Voltage)
IBP=Integral Battery Pack [5, 24]
IBP-CEC=Integral Battery Pack, CEC compliant [5]
ITS=Integral Transfer Switch [3]
924=UL924 listed luminaire [19]
CG=Clear Glass [8]
SG=Solite® Glass [9]
UPL=Uplight [3, 6]
TR=Tamper Resistant Hardware
NAT=Natatorium finish
DALI=DALI Driver [15]
MS/DIM-L08=Dimming Occupancy Sensor (<9' Mounting) [11, 17]
MS/DIM-L20=Dimming Occupancy Sensor (9' - 20' Mounting) [11, 17]
ZW=WaveLinx-Enabled Module and 4-PIN Receptacle [23]
SPB1=Dimming Motion and Daylight Sensor, Bluetooth Programmable, < 8' Mounting [11, 21]
SPB2=Dimming Motion and Daylight Sensor, Bluetooth Programmable, 8' - 20' Mounting [11, 21]
SPB4=Dimming Motion and Daylight Sensor, Bluetooth Programmable, 20' - 40' Mounting [11, 21]
ZD=WaveLinx-Enabled Module with DALI Driver and 4-PIN Receptacle [23]
ZW-SWPD4WH=WaveLinx Control Module and Wireless Sensor – 7'-15'
ZW-SWPD5WH=WaveLinx Control Module and Wireless Sensor – 15'-40'
ZW-WOBWH=WaveLinx Control Module and LC Bluetooth Sensor – 7'-15'
ZW-WOFWH=WaveLinx Control Module and LC Bluetooth Sensor – 15'-40'
ZD-SWPD4WH=WaveLinx with DALI Driver and Wireless Sensor – 7'-15'
ZD-SWPD5WH=WaveLinx with DALI Driver and Wireless Sensor – 15'-40'
ZD-WOBWH=WaveLinx with DALI Driver and LC Bluetooth Sensor – 7'-15'
ZD-WOFWH=WaveLinx with DALI Driver and LC Bluetooth Sensor – 15 -40'
LWR-LW=Enlighted Wireless Sensor, Wide Lens 8' - 16' Mounting Height [11, 18]
LWR-LN=Enlighted Wireless Sensor, Narrow Lens 16' - 40' Mounting Height [11, 18]
DIM10-MS/DIM-L08=Synapse occupancy sensor (<8' Mounting)
DIM10-MS/DIM-L20=Synapse occupancy sensor (8'-20' Mounting)

Accessories (Order Separately) [28]

MA1252=Replacement 10kV Surge Module
TT/WG=Wire Guard [25]
TT/BG-UP-XX=Bird Guard [12, 13]
TT/HSS-XX=House Side Shield [25]
DPMS36-XX=36" Pendant Mount Stem [12, 14]
DPMS48-XX=48" Pendant Mount Stem [12, 14]
DPMS96-XX=96" Pendant Mount Stem [12, 14]
FSIR-100=Wireless Configuration Tool for Occupancy Sensor [17]
SWPD4-WH=WaveLinx Wireless Sensor, 7'–15' Mounting Height [20, 21, 22, 23]
SWPD5-WH=WaveLinx Wireless Sensor, 15'–40' Mounting Height [20, 21, 22, 23]

NOTES:

1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
2. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
3. Not available with D10 configuration.
4. Order Pendant Mount Stem accessory
5. IBP ambient operating temperature -20°C to 35°C (D1-D3), -20°C to 25°C (D4-D6). Not available with D7-D10 configurations, DALI, or ZD options.
6. Additional 8.0W. Provides 920 lumens.
7. Choose lead length for Surface Mount and Stem Mount only. TMB, DPM and WM lengths predetermined.
8. Not available with CQ.
9. Standard with CQ, option available with WQ only.
10. U voltage only. Ambient operating temperature -20°C to 50°C (D1-D4) or -20°C to 40°C (D5-D6). UL924 listed component.
11. Includes integral photocell.
12. Specify color in place of XX.
13. Designed for use with Stem Mount and Decorative Pendant Mount only.
14. Designed for use with Decorative Pendant Mount only.
15. Not available with H voltage or IBP. Not compatible with MS/DIM or LWR sensors.
16. Specify Lead Length for wire harness length.
17. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay and more.
18. Enlighted wireless sensors are factory installed only, and require network components in appropriate quantities.
19. 924 option provides luminaire UL924 listing, used in conjunction with ITS or IBP-CEC.
20. Requires ZW or ZD receptacle.
21. Sensor configuration mobile application required for configuration. See controls page for details.
22. Cannot be used with other control options.
23. For WaveLinx applications, WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed. Not required for WaveLinx Lite Commercial (LC) applications.
24. Specify 120V or 277V.
25. TT/WG and TT/HSS cannot be installed together. TT/HSS & TT/WG not available on D7-D10 configurations.
26. D4-D10 only. Not compatible with battery.
27. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
28. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

Product Specifications

Construction

- Low profile, die-cast aluminum housing provides a clean, symmetric aesthetic

Optics

- Five optical distributions utilizing visual comfort waveguide technology
- 10 lumen packages, ranging from 2,757 to 22,831
- Integral uplight option utilizes a dedicated, 8W light engine, producing 920 lumens for reduced visual contrast and cave effect
- IDA Certified for 3000k CCT and warmer only. Not available with uplight option.

Electrical

- D1-D6: -40C - 50C operating temperature
- D7-D10: -40C - 40C operating temperature
- Greater than 90% lumen maintenance at 50,000 hours
- IP66 rated
- 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation
- 10kV surge module standard
- 0-10V dimming standard

Mounting

- Surface mount directly to square or octagonal 4" surface or recessed junction box using quick mount bracket
- Optional stem mount bracket with set screw for direct 1/2" NPS conduit mounting
- Trunnion, decorative pendant, and wall mount options also available

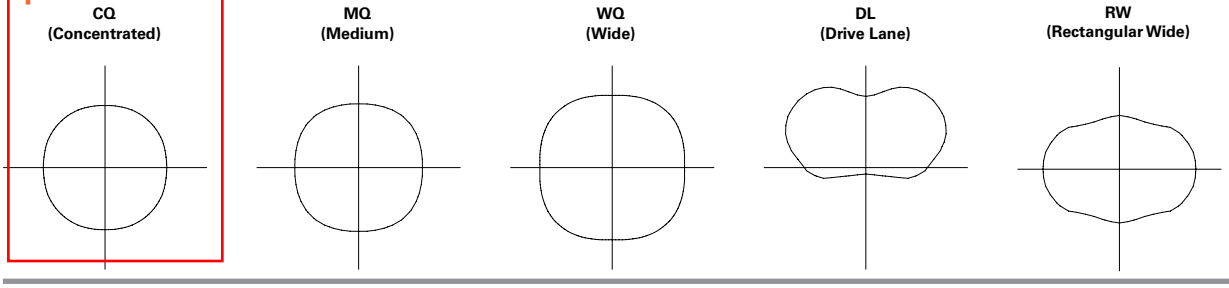
Finish

- 2.5 mil nominal TGIC powder coat thickness
- Finishes include white, black, bronze, gray, dark platinum and graphite metallic
- RAL and custom color matches available
- Natatorium option (NAT) available, providing 5,000 hour salt spray rating per ASTM B117, with a scribe rating of 9 per ASTM D1654

Warranty

- Five-year warranty

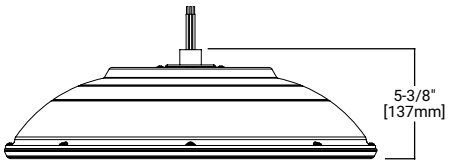
Optical Distributions

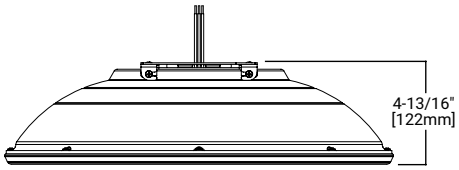


Mounting Details

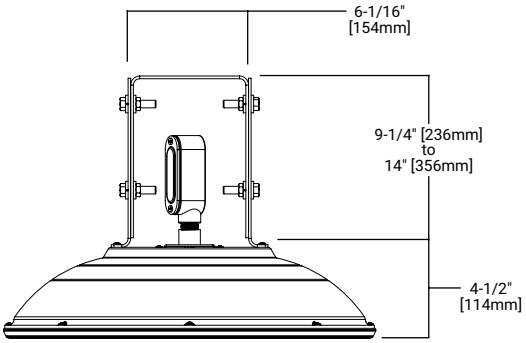
***D1-D6 configuration shown (D1-D4 for DL distribution)**

Stem Mount

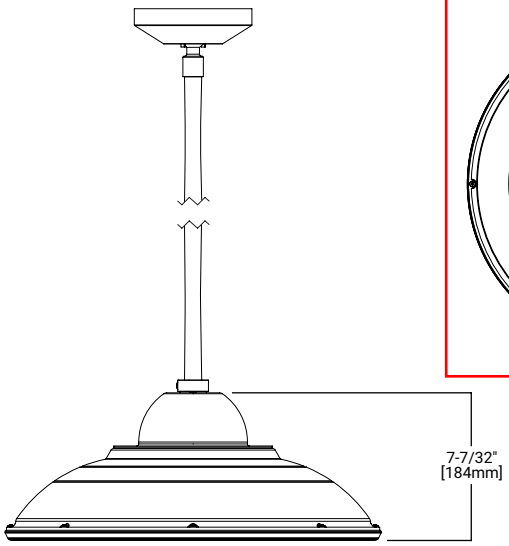




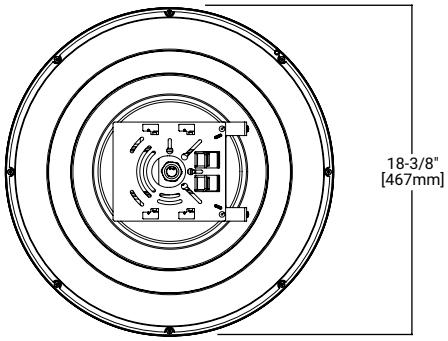
Trunnion Mount



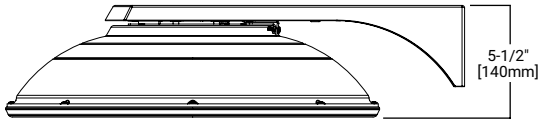
Decorative Pendant Mount



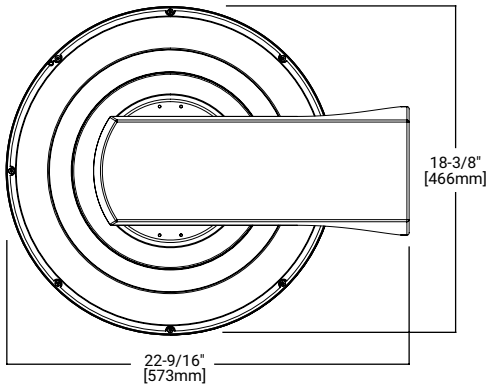
Top View



Wall Mount

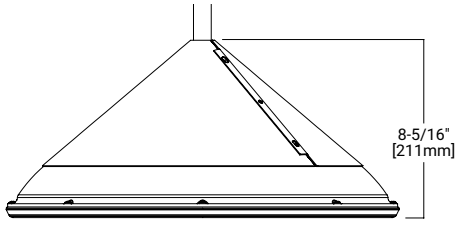


Top View - Wall Mount

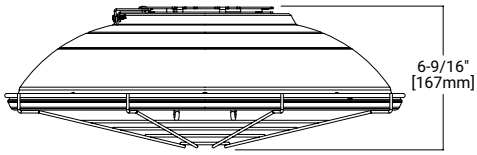


Accessories

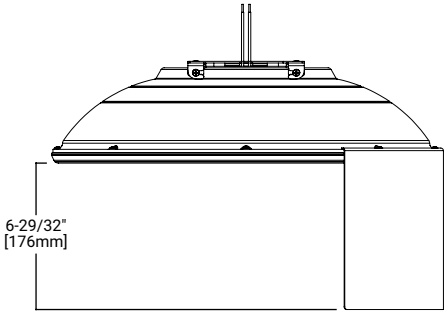
Bird Guard (TT/BG-UP-XX)



Wire Guard (TT/WG)



House Side Shield (TT/HSS-XX)



Energy and Performance Data

View TopTier IES files

Power and Lumens (3000K/3500K/4000K/5000K) ZC1

Lumen Package			D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
Power (Wattage) CQ, MQ, WQ			28.0	39.2	47.2	57.6	74.7	105.2	124.7	148.7	173.1	193.8
Power (Wattage) RW Only			28.0	39.2	47.2	57.6	74.7	105.2	127.1	152.6	178.0	--
Power (Wattage) DL Only			28.8	40.5	48.8	59.8	62.3	97.4	127.1	152.6	178.0	--
Distribution												
3000K CCT 80 CRI	CQ Concentrated	Lumens	3,409	4,640	5,595	6,660	8,383	11,030	12,307	14,411	16,430	18,001
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G2
		Lumens per Watt	122	118	119	116	112	105	99	97	95	93
	MQ Medium	Lumens	3,647	4,964	5,986	7,125	8,969	11,800	12,854	15,053	17,161	18,802
		BUG Rating	B2-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G3
		Lumens per Watt	130	127	127	124	120	112	103	101	99	97
	WQ Wide	Lumens	3,449	4,695	5,662	6,740	8,483	11,161	12,350	14,463	16,489	18,065
		BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3
		Lumens per Watt	123	120	120	117	114	106	99	97	95	93
	RW Rectangular Wide	Lumens	2,757	3,753	4,526	5,387	6,781	8,922	11,977	13,619	15,122	--
		BUG Rating	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G3	--
		Lumens per Watt	98	96	96	94	91	85	94	89	85	--
	DL Drive Lane / Type 4	Lumens	2,959	3,985	4,762	5,622	6,537	8,771	11,834	13,337	14,768	--
		BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G4	--
		Lumens per Watt	103	98	98	94	105	90	93	87	83	--
3500K CCT 70 CRI	CQ Concentrated	Lumens	3,618	4,925	5,940	7,070	8,899	11,708	14,944	17,500	19,951	21,858
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2
		Lumens per Watt	129	126	126	123	119	111	120	118	115	113
	MQ Medium	Lumens	3,872	5,270	6,355	7,564	9,520	12,527	15,609	18,279	20,839	22,831
		BUG Rating	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3
		Lumens per Watt	138	134	135	131	127	119	125	123	120	118
	WQ Wide	Lumens	3,662	4,984	6,011	7,154	9,005	11,848	14,997	17,562	20,022	21,936
		BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G4
		Lumens per Watt	131	127	127	124	121	113	120	118	116	113
	RW Rectangular Wide	Lumens	2,927	3,984	4,805	5,719	7,198	9,471	14,544	16,537	18,363	--
		BUG Rating	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	--
		Lumens per Watt	105	102	102	99	96	90	114	108	103	--
	DL Drive Lane / Type 4	Lumens	3,141	4,230	5,055	5,968	7,938	10,650	14,370	16,195	17,933	--
		BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	--
		Lumens per Watt	109	104	104	100	127	109	113	106	101	--
4000K/ 5000K CCT 70 CRI	CQ Concentrated	Lumens	3,828	5,211	6,284	7,480	9,415	12,387	14,944	17,500	19,951	21,858
		BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2
		Lumens per Watt	137	133	133	130	126	118	120	118	115	113
	MQ Medium	Lumens	4,096	5,575	6,723	8,002	10,072	13,253	15,609	18,279	20,839	22,831
		BUG Rating	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3
		Lumens per Watt	146	142	142	139	135	126	125	123	120	118
	WQ Wide	Lumens	3,874	5,273	6,359	7,569	9,527	12,535	14,997	17,562	20,022	21,936
		BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G4
		Lumens per Watt	138	135	135	131	128	119	120	118	116	113
	RW Rectangular Wide	Lumens	3,097	4,215	5,083	6,050	7,615	10,020	14,544	16,537	18,363	--
		BUG Rating	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	--
		Lumens per Watt	111	108	108	105	102	95	114	108	103	--
	DL Drive Lane / Type 4	Lumens	3,323	4,475	5,348	6,314	7,938	10,650	14,370	16,195	17,933	--
		BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	--
		Lumens per Watt	115	110	110	106	127	109	113	106	101	--

Energy and Performance Data

CQ, MQ and WQ Distributions

Lumen Package	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
Power (Wattage)	28.0	39.2	47.2	57.6	74.7	105.2	124.7	148.7	173.1	193.8
Input Current @ 120V (A)	0.23	0.33	0.39	0.48	0.62	0.88	1.09	1.31	1.53	1.72
Input Current @ 208V (A)	0.13	0.19	0.23	0.28	0.36	0.51	0.57	0.67	0.78	0.88
Input Current @ 240V (A)	0.12	0.16	0.20	0.24	0.31	0.44	0.56	0.66	0.76	0.85
Input Current @ 277V (A)	0.10	0.14	0.17	0.21	0.27	0.38	0.49	0.58	0.67	0.74
Input Current @ 347V (A)	0.08	0.11	0.14	0.17	0.22	0.30	0.40	0.47	0.55	0.62
Input Current @ 480V (A)	0.06	0.08	0.10	0.12	0.16	0.22	0.30	0.35	0.41	0.45

RW Distribution

Lumen Package	D1	D2	D3	D4	D5	D6	D7	D8	D9
Power (Wattage)	28.0	39.2	47.2	57.6	74.7	105.2	127.1	152.6	178.0
Input Current @ 120V (A)	0.23	0.33	0.39	0.48	0.62	0.88	1.11	1.34	1.58
Input Current @ 208V (A)	0.13	0.19	0.23	0.28	0.36	0.51	0.58	0.69	0.81
Input Current @ 240V (A)	0.12	0.16	0.20	0.24	0.31	0.44	0.56	0.67	0.78
Input Current @ 277V (A)	0.10	0.14	0.17	0.21	0.27	0.38	0.50	0.59	0.68
Input Current @ 347V (A)	0.08	0.11	0.14	0.17	0.22	0.30	0.41	0.48	0.57
Input Current @ 480V (A)	0.06	0.08	0.10	0.12	0.16	0.22	0.30	0.36	0.42

DL Distribution

Lumen Package	D1	D2	D3	D4	D5	D6	D7	D8	D9
Power (Wattage)	28.8	40.5	48.8	59.8	62.3	97.4	127.1	152.6	178.0
Input Current @ 120V (A)	0.24	0.34	0.41	0.50	0.55	0.86	1.11	1.34	1.58
Input Current @ 208V (A)	0.14	0.19	0.23	0.29	0.28	0.44	0.58	0.69	0.81
Input Current @ 240V (A)	0.12	0.17	0.20	0.25	0.28	0.43	0.56	0.67	0.78
Input Current @ 277V (A)	0.10	0.15	0.18	0.22	0.24	0.37	0.50	0.59	0.68
Input Current @ 347V (A)	0.08	0.12	0.14	0.17	0.21	0.31	0.41	0.48	0.57
Input Current @ 480V (A)	0.06	0.08	0.10	0.12	0.15	0.23	0.30	0.36	0.42

Lumen Maintenance

Lumen Package	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
D1-D6 (D1 - D4 DL/T4)	25°C	98.0%	95.2%	94.1%	89.8%	> 300,000
	40°C	97.9%	94.8%	93.6%	89.0%	> 290,000
	50°C	97.7%	94.5%	93.2%	88.4%	> 270,000
D7 - D10 (D5+ DL/T4)	25°C	95.8%	93.2%	92.2%	88.2%	> 300,000
	40°C	93.9%	89.7%	88.1%	81.9%	> 180,000

* Supported by IES TM-21 standards
**Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

Lumen Multiplier

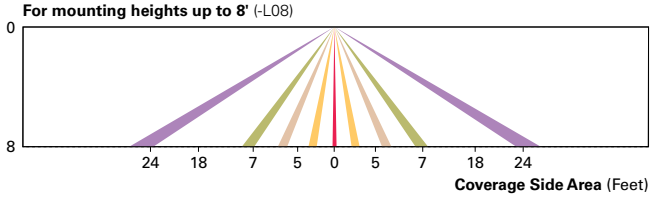
Ambient Temperature	Multiplier
0°C	1.03
10C	1.02
25°C	1.00
40°C	0.98
50°C	0.97

Control Options

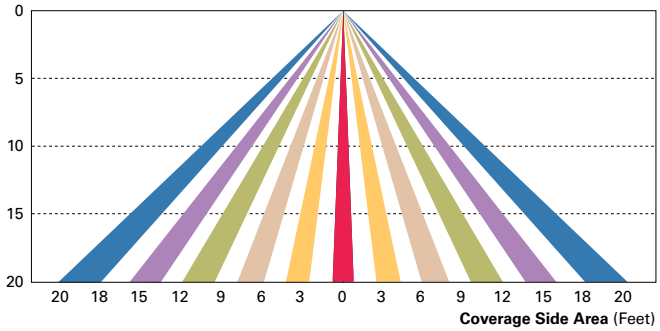
0-10V (D) 0-10V dimming comes standard on all TopTier configurations for use with integrated or external lighting controls.

Dimming Occupancy Sensor (MS/DIM) These sensors are factory installed in the luminaire, dimming to 50% after five minutes of no motion detected. When motion is detected, the luminaire output is 100%. Includes an integral photocell that can be programmed for "dusk-to-dawn" operation. The FSIR-100 programming tool can be utilized to adjust dimming level, time delay, sensitivity and other parameters. Two lens options provide optimal coverage patterns up to 20' mounting height.

For mounting heights up to 8' (-L08)



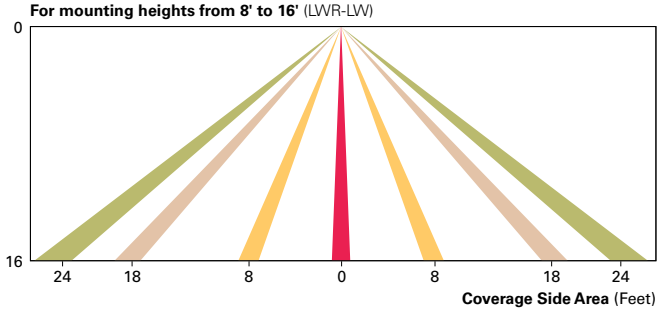
For mounting heights up to 20' (-L20)



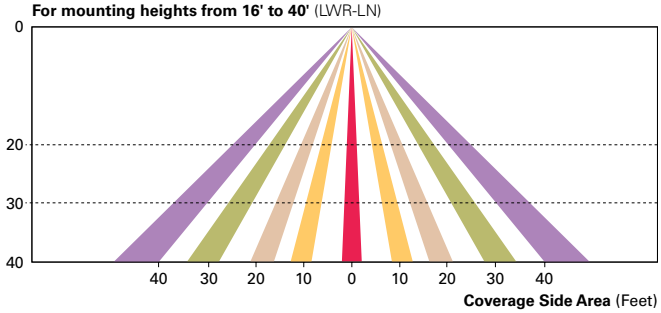
WaveLinx-Ready 4-PIN Twistlock Receptacle (ZW) Includes the WaveLinx control module, integrated 4-Pin receptacle, and standard 0-10V dimming driver, enabling the subsequent addition of a WaveLinx sensor.

Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN) The Enlighted control system is a connected lighting solution, combining LED luminaires with an integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes while collecting valuable data about building performance and use. Software applications utilizing energy dashboards maximize data inputs to help optimize the use of other resources beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)

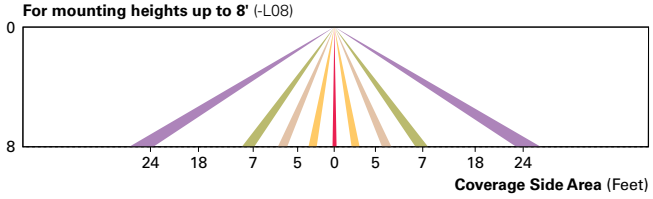


For mounting heights from 16' to 40' (LWR-LN)

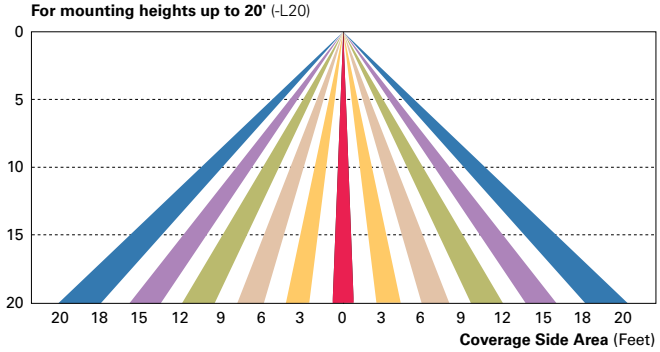


Synapse (DIM10) SimplySNAP integrated wireless controls system by Synapse. Includes factory installed DIM10 control module and MS/DC motion sensor; requires additional Synapse system components for operation. Contact Synapse at www.synapsewireless.com for product support, warranty, and terms and conditions.

For mounting heights up to 8' (-L08)

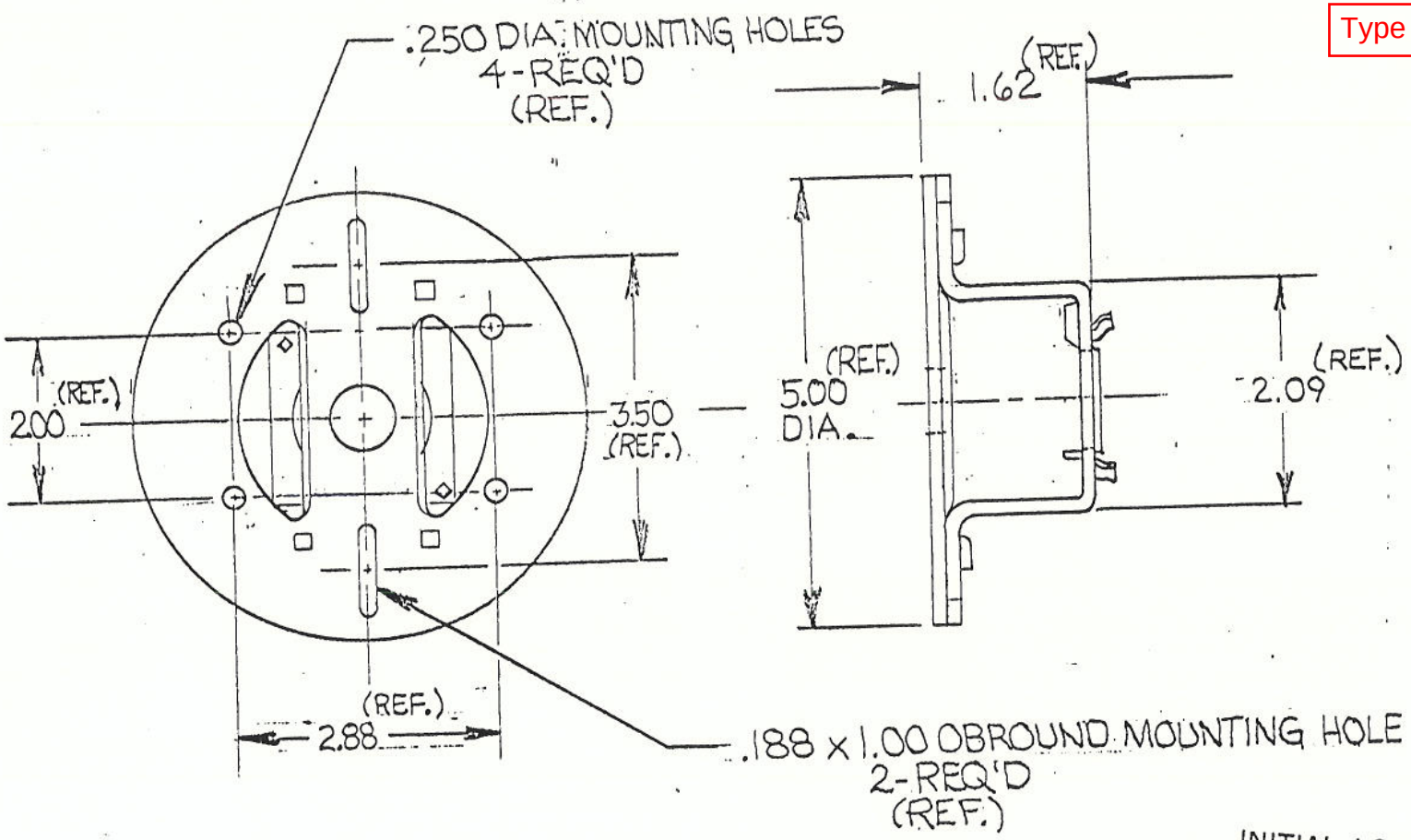


For mounting heights up to 20' (-L20)



ALLEGHENY PART NO.	PART NO.
00579-03-82	LSB00093X001

Type ZC1, ZC1H



INITIAL LOAD

NO.	DATE	BY	CKD.	REVISION	ECN
1	10-31-83	TK	TK	M85L30-CODED FOR OVERSEAS	85-637

TOLERANCE
UNLESS OTHERWISE SPECIFIED:
1 PLACE DECIMAL ± .06
2 PLACE DECIMAL ± .03
3 PLACE DECIMAL ± .010
ANGULAR ± °

WEIGHT —

FINISH —

MATERIAL —

A-E McGRAW-EDISON
Lighting Products Division
McGraw-Edison Company
Racine, Wisconsin 53405

DWN. CAR	DATE 2-9-82	APPD RF	DATE 2-9-82
CKD. RF	DATE 2-9-82	DESIGN REF. M82581	82-63

YOKE FOR SWIVEL DOME STEM HANGER

H

SCALE HALF.	LSB00093X	SH. OF

X

KIRLIN
ARCHITECTURAL LIGHTING

CATALOG #		TYPE
JOB NAME	WATTAGE	VOLTAGE

Choice Series

Type ZC2

LRC-04SDN

Super Shallow 4" Downlight • COB LED

2¾" Housing Depth • 50,000+ Hours • Type IC • 1.0% Dimming
2 or 3 Step Binning • Wet Listed • LM-80 and LM-79 Certified

Specifications

Delivered System Performance
- Lumen Series: **Must Specify**
  - Type IC
  - **-3000L**
  - **-2500L**
  - **-2000L**
  - **-1500L**
  - **-1000L**
- Select trim & beam distribution: see chart
- Select color (CCT): see chart; 80+ CRI standard; Option -HC for 90+ (15% lumen loss)
- 60,000 hour life, 50,000 in insulation

Thermal Management System
- Aluminum heat sink and components for cool operation, long life, and low maintenance

LED Driver - INTERNAL
- Indoor/Outdoor: -30°C to 60°C (-22°F to 140°F)
- 0-10V CCR 1.0% dimming standard
- Voltage Options: **Must Specify**
  -UNV: -120-277/50-60Hz; load insensitive
  -120: -120V input (50-60Hz); for -29 only

Trim Assembly
- White self-flanged regressed trim with microprismatic lens (-RND/-SQR)
- Brushed nickel flat trim with frosted microprismatic lens (-FTR)
- Brushed nickel "Porthole" trim (-PTR)
- Optional colors and finishes available

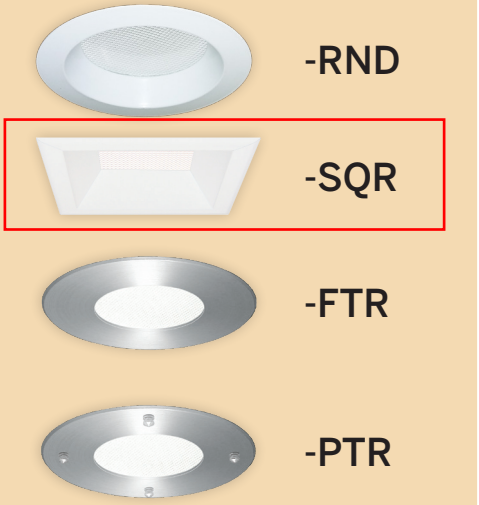
Acrylic Enameled Aluminum Housing
- Rustproof: exceeds 1000 hour ASTM 5% salt spray test; all components fully sustainable
- Shallow depth for restricted plenums
- Cool operation extends component life
- Modular design; visible and fully serviceable through aperture

Outlet Box (Galvanized)
- UL Listed, 14GA, insulated, removable cover
- ½" and ¾" knockouts
- Up to 4 #12 AWG through-branch conductors

Installation & Hardware
- Indoor/outdoor in ceilings up to 1⅛" thick
- Compatible with fire rated enclosures (by others)
- 27" hanger bars & adjusting brackets (2) supplied

UL, C-UL (Canada) & FCC Compliance
- UL Listed: wet, damp or dry locations, covered ceilings

Trim Options



- Type IC up to -3000L
- FCC Part 15 certified for EMI/RFI emissions

FIVE YEAR Limited Warranty
- Complete standard fixture

Made in the USA | Natatorium *See Option -NAT* | BioGard™ *See Option -BG* | FCC Part 15 Certified | UL Listed Wet, Damp, Dry

Options and Ordering Configuration

(Example: LRC-04SDN-3000L-UNV-RND-NFL-30K-46) LRC-04SDN 1000L UNV SQR WFL 30K xx

Must Specify						Optional			
Model	**Lumens**	**Volts**	**Trim**	**Beam**	**CCT† & CRI**	**Driver Options**	**Emergency Options**	**Trim Options**	**Other Options**
LRC-04SDN									
	Type IC **-3000L** **-2500L** **-2000L** **-1500L** **-1000L**	**-UNV** **-120**	**-RND** **-SQR** **-FTR** **-PTR**	**-RND & -SQR** **-NFL** **-MFL** **-WFL** **-FTR & -PTR** **-MFL** **-WFL**	**80+ CRI*** **-27K:** 2700°K **-30K:** 3000°K **-35K:** 3500°K **-40K:** 4000°K **-50K:** 5000°K ***Note:** Lumen Factor = 0.93 for -27K **90+ CRI**** **-27K-HC:** 2700°K **-30K-HC:** 3000°K **-35K-HC:** 3500°K **-40K-HC:** 4000°K **-50K-HC:** 5000°K (-2500L or below) ****Note:** Lumen Factor = 0.79 for -27K-HC; All Others = 0.85 † For 2 SDCM, consult factory	**(Blank):** Standard 0-10V CCR 1.0% dim **Consult Factory:** **-D2:** 0-10V 0.1% dim **-D3:** DALI 1.0% dim **-D4:** DALI 100-0.1% dim **-D5:** DMX512A 0.1% dim **-D6:** Triac/ELV dim - **120 volt only** **-ECO:** Lutron EcoSys; Dim-to-black **-29:** Lutron 2-wire PWM dim - **120 volt only**	**(Blank):** None **-EI:** Remote emergency inverter for 100% rated lumens up to -3000L; 90+ minutes; N/A for options -29 or -FS **-ERH:** Remote emergency battery pack; Delivers 1000 lumens; 90+ minutes (CEC Compliant)	**(Blank):** Standard trim; see photos **Trim Finishes** **-30T:** White enamel trim (standard for -RND and -SQR trims) **-35T:** Silver enamel trim **-37T:** Dark bronze enamel trim **-38T:** Black enamel trim **-94:** Custom color; consult factory **-BG:** BioGard™ anti-microbial white **Other Trim Features** **-13:** .125" clear poly. lens overlay **-23:** Frosted microprismatic lens (standard for -FTR & -PTR trims) **-32:** White trim extender, specify OD **-33:** Decorative Glow Ring; see last page for details (-PTR trim only) **-45:** Gasket between trim & ceiling **-46:** Gasket between lens & trim **-DA:** Diffuse acrylic lens **-DF:** Electrically isolated trim **-WA:** White acrylic lens	**(Blank):** None **Mounting** **-79:** Extension collar; ceilings up to 2" thick **Other Options** **-99:** Special modification; consult factory **-FS:** Fused primary; One per fixture; N/A for Options -EI **-NAT:** Modified for natatorium use

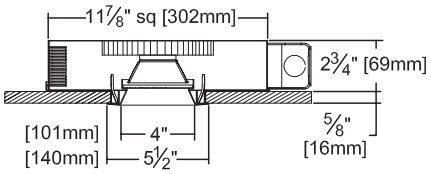
KIRLIN ARCHITECTURAL LIGHTING

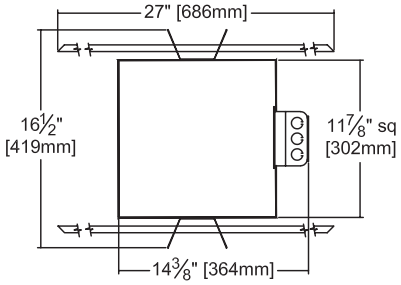
Performance Factors

NOMINAL LUMENS	LUMEN FACTOR	NOMINAL WATTS	LPW FACTOR
-3000L	1.00	27.5	1.00
-2500L	0.89	24.7	0.99
-2000L	0.76	20.3	1.04
-1500L	0.56	14.4	1.07
-1000L	0.41	10.7	1.05

** See notes on page 1 for additional info on Lumen Factors*

Dimensions





Ceiling Cut-out
5" Dia. (-RND, -PTR)
5¼" Sq. (-SQR)

Photometry - Installed Complete Fixture

Photometry from I.T.L., Boulder, CO

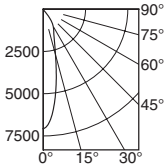
LM-79 IESNA Certified Photometry from Independent Lab

-3000L-RND-NFL

Lumens: 2873
LPW: 104
Beam: ~26°
SC: 0.43
ITL Test: 92803

Cone of Light ▲

Dist.	FC	Dia.
6	195.7	2.6
8	110.1	3.4
10	70.5	4.3
12	48.9	5.1
14	35.9	6.0
16	27.5	6.8



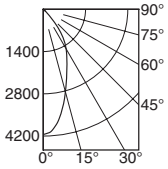
Nominal Lumens	Actual Lumens	Actual LPW
3000L	2873	104.1
2500L	2551	103.3
2000L	2193	108.0
1500L	1597	110.9
1000L	1169	109.2

-3000L-RND-MFL

Lumens: 2901
LPW: 105
Beam: ~43°
SC: 0.66
ITL Test: 92804

Cone of Light ▲

Dist.	FC	Dia.
6	114.2	3.9
8	64.2	5.2
10	41.1	6.6
12	28.5	7.9
14	21.0	9.2
16	16.1	10.5



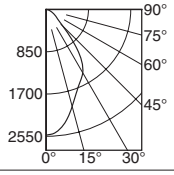
Nominal Lumens	Actual Lumens	Actual LPW
3000L	2901	105.1
2500L	2575	104.3
2000L	2215	109.1
1500L	1612	112.0
1000L	1180	110.3

-3000L-RND-WFL

Lumens: 2786
LPW: 101
Beam: ~67°
SC: 0.86
ITL Test: 92805

Cone of Light ▲

Dist.	FC	Dia.
6	70.0	5.2
8	39.4	6.9
10	25.2	8.6
12	17.5	10.4
14	12.9	12.1
16	9.8	13.8



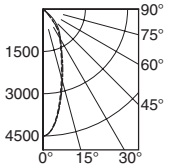
Nominal Lumens	Actual Lumens	Actual LPW
3000L	2786	100.9
2500L	2473	100.1
2000L	2127	104.8
1500L	1548	107.5
1000L	1134	105.9

-3000L-SQR-NFL

Lumens: 2829
LPW: 103
Beam: ~34°
SC: 0.54
ITL Test: 92818

Cone of Light ▲

Dist.	FC	Dia.
6	124.4	3.3
8	70.0	4.4
10	44.8	5.5
12	31.1	6.6
14	22.8	7.6
16	17.5	8.7



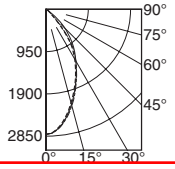
Nominal Lumens	Actual Lumens	Actual LPW
3000L	2829	102.5
2500L	2512	101.7
2000L	2160	106.4
1500L	1572	109.2
1000L	1151	107.6

-3000L-SQR-MFL

Lumens: 2841
LPW: 103
Beam: ~57°
SC: 0.82
ITL Test: 92819

Cone of Light ▲

Dist.	FC	Dia.
6	78.1	4.9
8	43.9	6.6
10	28.1	8.2
12	19.5	9.9
14	14.3	11.5
16	11.0	13.2



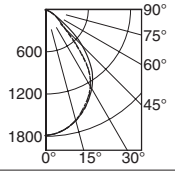
Nominal Lumens	Actual Lumens	Actual LPW
3000L	2841	102.9
2500L	2522	102.1
2000L	2169	106.8
1500L	1579	109.6
1000L	1156	108.0

-3000L-SQR-WFL

Lumens: 2792
LPW: 101
Beam: ~76°
SC: 1.09
ITL Test: 92820

Cone of Light ▲

Dist.	FC	Dia.
6	49.5	6.6
8	27.9	8.8
10	17.8	11.0
12	12.4	13.2
14	9.1	15.4
16	7.0	17.6



Nominal Lumens	Actual Lumens	Actual LPW
3000L	2792	101.2
2500L	2479	100.4
2000L	2131	105.0
1500L	1552	107.7
1000L	1136	106.2

LED manufacturers maintain a tolerance of +/-7% on flux (lumens) and power (electrical) measurements.

▲ Cone of Light Key
Dia. (in ft.) shown is where FC value is half the FC at nadir.

Dist. Distance (Ft.) from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

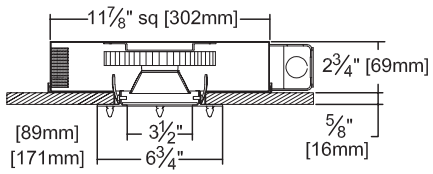
KIRLIN ARCHITECTURAL LIGHTING

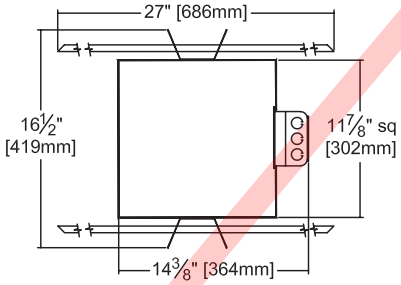
Performance Factors

NOMINAL LUMENS	LUMEN FACTOR	NOMINAL WATTS	LPW FACTOR
-3000L	1.31	27.5	0.98
-2500L	1.16	24.7	0.96
-2000L	1.00	20.3	1.00
-1500L	0.73	14.4	1.03
-1000L	0.53	10.7	1.02

** See notes on page 1 for additional info on Lumen Factors*

Dimensions



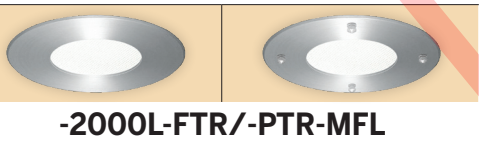


Ceiling Cut-out
5" Dia. (-RND, -PTR)
5¼" Sq. (-SQR)

Photometry - Installed Complete Fixture

Photometry from I.T.L., Boulder, CO

LM-79 IESNA Certified Photometry from Independent Lab

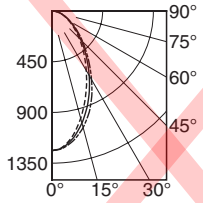


-2000L-FTR/-PTR-MFL

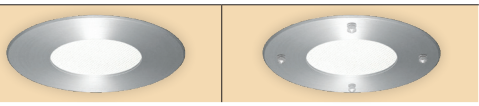
Lumens: 1779
LPW: 88
Beam: ~62°
SC: 0.87
ITL Test: 92687

Cone of Light ▲

Dist.	FC	Dia.
6	34.4	5.3
8	19.3	7.0
10	12.4	8.8
12	8.6	10.5
14	6.3	12.3
16	4.8	14.0



Nominal Lumens	Actual Lumens	Actual LPW
3000L	2330	84.7
2500L	2069	83.8
2000L	1779	87.6
1500L	1295	89.9
1000L	948	88.6

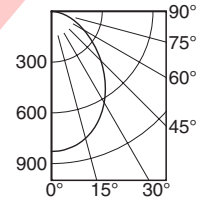


-2000L-FTR/-PTR-WFL

Lumens: 1813
LPW: 89
Beam: ~90°
SC: 1.13
ITL Test: 92688

Cone of Light ▲

Dist.	FC	Dia.
6	23.0	6.8
8	12.9	9.1
10	8.3	11.3
12	5.8	13.6
14	4.2	15.9
16	3.2	18.1



Nominal Lumens	Actual Lumens	Actual LPW
3000L	2375	86.4
2500L	2109	85.4
2000L	1813	89.3
1500L	1320	91.7
1000L	966	90.3

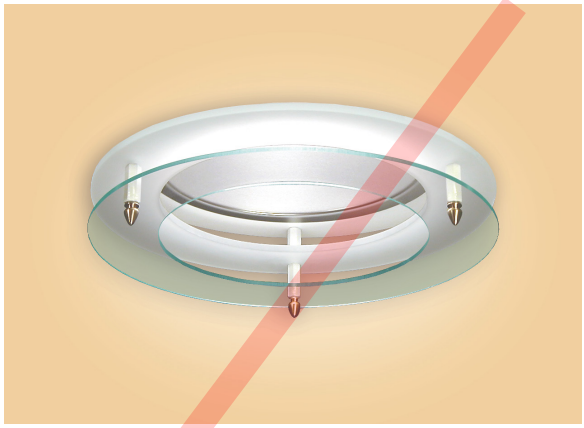
LED manufacturers maintain a tolerance of +/-7% on flux (lumens) and power (electrical) measurements.

▲ Cone of Light Key
Dia. (in ft.) shown is where FC value is half the FC at nadir.

Dist. Distance (Ft.) from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

KIRLIN
ARCHITECTURAL LIGHTING

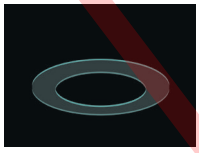
Classic Glow Rings: Option -33 for Choice Series



To order a Kirlin Glow Ring, begin by adding -33 to the product number. Then, configure your Glow Ring by selecting each of the 7 design elements listed below:

(**Example:** LRC-04SDN-3000L-UNV-PTR-MFL-30K-**33-GLM-1L-FRR-ROF-SIF-ROS-SIS**)

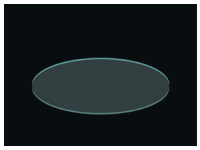
1. Ring Material (choose one)

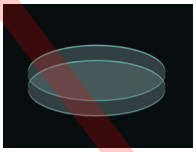

Glass (-GLM)

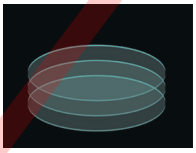

Acrylic (-ACM)


Custom (-CUM)

2. # of Rings (choose one)

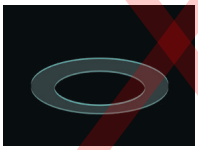

1 Ring (1L)


2 Rings (-2L)

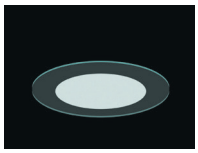

3 Rings (-3L)

3. Ring Design (choose one)


Frosted Ring (-FRR)


Clear Ring (-CRR)


Solid Disk (-SDR)


Frosted Center (-FCR)


Frosted Disk (-FDR)

4. Finial Design (choose one)


Round (-ROF)

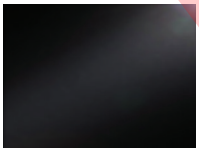

Knurled (-KNF)


Cone (-COF)

5. Finial Color (choose one)


Brass (-BRF)

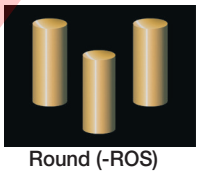

Silver (-SIF)

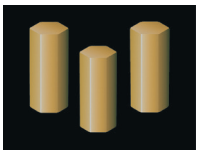

Black (-BLF)


White (-WHF)


Custom (-CUF)

6.Standoff Design (choose one)

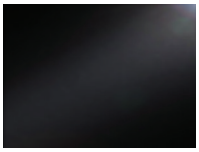

Round (-ROS)


Hexagonal (-HOS)

7.Standoff Color (choose one)


Brass (-BRS)


Silver (-SIS)


Black (-BLS)


White (-WHS)


Custom (-CFS)

LED manufacturers maintain a tolerance of +/-7% on flux (lumens) and power (electrical) measurements.

VAN-LED-400 / CSS

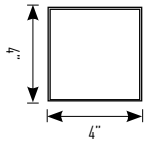
VANESSA 4" Square LED Wet Location Luminaire w/ Cable Suspended Option (CSS)

Type ZC4H

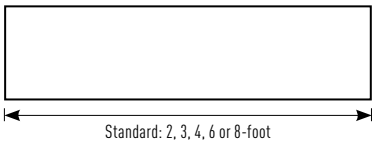
TYPE:

JOB NAME:

DIMENSIONS



NOMINAL LENGTH



Standard: 2, 3, 4, 6 or 8-foot
(Consult factory for custom lengths)

Light Output	Nominal Delivered	System Wattage	Efficacy
Frosted White Lens / 4000K / 80 CRI			
SLO	393 lm/ft	4.4 W/ft	89.4 lm/W
HLO	756 lm/ft	9 W/ft	84 lm/W

Wattage includes driver and LED Module consumption. Delivered lumen output will vary depending on CCT, CRI and Optic selection.

CONSTRUCTION
Heavy gauge square extruded aluminum housing. Precision-machined aluminum end-caps. Extruded acrylic lenses. Stainless steel hardware. Concealed weather-seal gaskets at end caps, lens and power entry on all stand-alone or continuous run fixtures with an IP65 rating. Feed points accept 1/2" trade size threaded wet location conduit fittings.

MOUNTING OPTIONS
(CSS) Cable Suspension System field adjustable 1/16" aircraft cable

FINISHES
(SL) Silver Matte Texture, (MW) Matte White, or (FB) Flat Black. Other powder coat finishes available. Consult factory for details.

LED LIGHT ENGINE SYSTEM
LED Light Engines are available as HLO (High Lumen Output) and SLO (Standard Lumen Output) providing efficient illumination. CLO (Custom Lumen Output) allows for end user specified lumen output or tailored wattage consumption for certain models. Consult factory for details.

DIMMING
Dimming is available with a variety of control protocols and options. Consult factory for availability and specifications.

ACRYLIC LENS OPTIONS
(FW) Frosted White impact resistant extruded lens.

FIXTURE LENGTH
Fixtures are available in 2', 3', 4', 6' and 8' nominal lengths. Continuous run mounting available featuring water-sealed gaskets within knock-outs for maintaining WL rating. See installation section for more details.

ELECTRICAL
Rated for operation with ambient temperatures not to exceed 40°C. Use specification code "HAT" for applications where ambient will be between 40° and 45°C. The "HAT" option is a thermistor which will control internal temperatures so as not to exceed internal device maximum temperature. At certain temperature thresholds, fixture will dim light output to keep internal temperatures within the acceptable range.

LISTING / WARRANTY
- 5-Year Limited Warranty
- UL listed to US and Canadian standards for wet locations
- IP65 Rated

ORDERING CODE: (Example: VAN-LED-400-SLO-279-2-DR-STND-MW-FW-120-D1-CSS-36W)

VAN-LED-400 HLO 30 4 DR STND xx FW 120 D1 PTMT xx
(with hang straight swivel at canopy)

1	2	3	4	5	6	7	8	9	10	11	12

1: Model
- ☐ **VAN-LED-400** (VANESSA 4" Square LED Wet Location Luminaire)

2: Light Output
- ☐ **-SLO** (Standard Lumen Output)
- ○ **-HLO** (High Lumen Output)
- ○ **-CLO** (Custom Lumen Output, See CLO Calculator)

3: CCT/CRI
- ☐ **-279** (2700K / 90CRI)
- ○ **-30** (3000K / 82CRI)
- ○ **-309** (3000K / 90CRI)
- ○ **-35** (3500K / 82CRI)
- ○ **-359** (3500K / 90CRI)
- ○ **-40** (4000K / 82CRI)
- ○ **-409** (4000K / 90CRI)

4: Nominal Length
- ☐ **-2** (2ft)
- ○ **-4** (4ft)
- ○ **-6**[4] (6ft)
- ○ **-8**[4] (8ft)
- ○ **-CR_**[1] (Continuous Run - Note length in feet)

5: Distribution
- ☐ **-DR** (Direct)

6: Power Feed
- ☐ **-STND** (Standard)

7: Finishes
- ☐ **-SMT** (Silver Matte Textured, Powder Coat)
- ○ **-MW** (Matte White, Powder Coat)
- ○ **-FB** (Flat Black, Powder Coat)
- ○ **-CUP**[2] (Custom Powder Coat, Consult Factory)

8: Lens/Optics
- ☐ **-FW** (Frosted White)

9: Voltage
- ☐ **-120** (120V)
- ○ **-277** (277V)
- ○ **-347** (347V)

10: Dimming
- ☐ **-D1** (0-10V Dimming 1%)

11: CSS: Canopy Option
- ☐ **-CSS-36W** (5" Round White Canopy, 36" Aircraft Cable)
- ○ **-CSS-36B** (5" Round Black Canopy, 36" Aircraft Cable)
- ○ **-CSS-36G** (5" Round Gray Canopy, 36" Aircraft Cable)
- ○ **-CU** (Custom, Consult Factory)

12: Options
- ☐ **-EM**[3] (Emergency Backup)
- ☐ **-HAT** (High Ambient Temperature)

PTMT xx Pendant stem mount (length).
Can also spec "Chain hangar brackets" but the contractor would need to furnish the chains (recommend stainless steel for caustic environs)

NOTES:
1. Specify length in nominal feet
2. Contact factory for custom powder coat finish
3. EM's are remote mounted along with the test switch in a dry location, Consult factory for more info
4. 6' & 8' Lengths are made up with (2) 3' fixtures or (2) 4' fixtures respectively

BIRCHWOOD LIGHTING | 3340 E La Palma Ave, Anaheim, CA 92806 | **tel** 714 550-7118 | **fax** 714 550-7151 | www.birchwoodlighting.com

BIRCHWOOD lighting | a LEVITON company

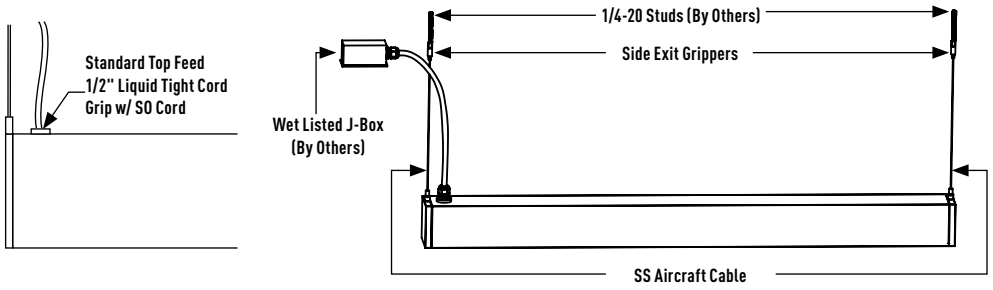
VAN-LED-400 / CSS

VANESSA 4" Square LED Wet Location Luminaire w/ Cable Suspended Option (CSS)

TYPE:

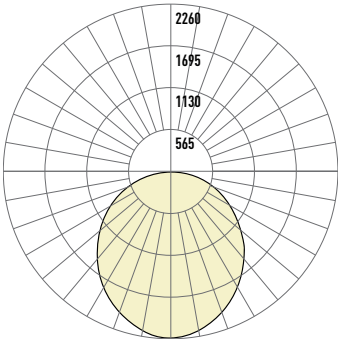
JOB NAME:

CABLE SUSPENSION SYSTEM



VAN-LED-400-HLO-30-4

PHOTOMETRIC CURVE:



Direct (FW): 1182 lm/ft **Wattage:** 36W

Total Lumens (4ft): 4728 lm **CCT/CRI:** 3000K / 80CRI

Efficacy: 131 lm/W

LUMINANCE DATA (cd/sq.m):

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7349	4196	7072
55	7103	6939	6820
65	6998	6815	6672
75	6689	6248	5754
85	6314	4330	3208

CANDELA DISTRIBUTION:

	0	10	20	30	40	50	60	70	80	90
0	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022
5	1023	999	1009	1017	1018	1016	1028	1012	1034	1007
10	1006	992	1011	1009	1007	1003	996	999	1006	1008
15	969	971	980	973	970	975	978	967	971	970
20	927	938	945	943	935	932	937	936	934	928
25	889	898	892	901	896	887	884	895	884	883
30	840	845	846	844	841	839	832	835	835	830
35	782	782	785	784	783	775	777	774	773	773
40	724	726	725	718	722	716	714	710	708	711
45	658	660	656	653	644	645	643	643	640	634
50	591	586	583	581	577	575	574	571	571	566
55	516	510	502	508	507	502	495	494	496	496
60	445	443	440	438	434	434	436	433	433	434
65	375	371	367	365	367	362	367	364	360	357
70	298	291	292	291	287	286	283	281	274	270
75	219	213	216	213	209	201	201	196	191	189
80	146	143	139	135	131	125	121	117	113	113
85	70	68	62	57	51	45	41	38	35	35
90	0	0	0	0	0	0	0	0	0	0

CCT SCALING FACTOR

CCT	2700K	3000K	3500K	4000K
80 CRI	-	0.97	1.00	1.02
90 CRI	0.79	0.83	0.86	0.88

ZONAL LUMEN:

Zone	Lumens
0-10	97
10-20	275
20-30	411
30-40	488
40-50	500
50-60	452
60-70	360
70-80	217
80-90	62

BIRCHWOOD LIGHTING | 3340 E La Palma Ave, Anaheim, CA 92806 | **tel** 714 550-7118 | **fax** 714 550-7151 | www.birchwoodlighting.com

BIRCHWOOD lighting | a LEVITON company

VAN-LED-400 / Surface Mount

VANESSA 4" Square LED Wet Location Luminaire w/ Surface Mount Options

Type ZC4M, ZC4S

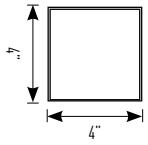
TYPE:

JOB NAME:

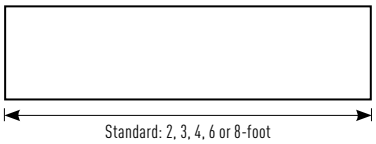
	Light Output	Nominal Delivered	System Wattage	Efficacy
	Frosted White Lens / 4000K / 80 CRI			
ZC4S	SLO	393 lm/ft	4.4 W/ft	89.4 lm/W
ZC4M	HLO	756 lm/ft	9 W/ft	84 lm/W

Wattage includes driver and LED Module consumption. Delivered lumen output will vary depending on CCT, CRI and Optic selection.

DIMENSIONS



NOMINAL LENGTH



Standard: 2, 3, 4, 6 or 8-foot
(Consult factory for custom lengths)

CONSTRUCTION
Heavy gauge square extruded aluminum housing. Precision-machined aluminum end-caps. Extruded acrylic lenses. Stainless steel hardware. Concealed weather-seal gaskets at end caps, lens and power entry on all stand-alone or continuous run fixtures with an IP65 rating. Feed points accept 1/2" trade size threaded wet location conduit fittings.

MOUNTING OPTIONS
(WM) Wall Mount, (CM) Ceiling Mount, (MM) Mullion Mount or (REC) Recessed

FINISHES
(SL) Silver Matte Texture, (MW) Matte White, or (FB) Flat Black. Other powder coat finishes available. Consult factory for details.

LED LIGHT ENGINE SYSTEM
LED Light Engines are available as HLO (High Lumen Output) and SLO (Standard Lumen Output) providing efficient illumination. CLO (Custom Lumen Output) allows for end user specified lumen output or tailored wattage consumption for certain models. Consult factory for details.

DIMMING
Dimming is available with a variety of control protocols and options. Consult factory for availability and specifications.

ACRYLIC LENS OPTIONS
(FW) Frosted White impact resistant extruded lens.

FIXTURE LENGTH
Fixtures are available in 2', 3', 4', 6' and 8' nominal lengths. Continuous run mounting available featuring water-sealed gaskets within knock-outs for maintaining WL rating. See installation section for more details.

ELECTRICAL
Rated for operation with ambient temperatures not to exceed 40°C. Use specification code "HAT" for applications where ambient will be between 40° and 45°C. The "HAT" option is a thermistor which will control internal temperatures so as not to exceed internal device maximum temperature. At certain temperature thresholds, fixture will dim light output to keep internal temperatures within the acceptable range.

LISTING / WARRANTY
- 5-Year Limited Warranty
- UL listed to US and Canadian standards for wet locations
- IP65 Rated

ZC4M: VAN-LED-400 HLO 30 4 DR MM EFx xx FW 120 D1
ZC4S: VAN-LED-400 SLO 30 2 DR MM EFx xx FW 120 D1

ORDERING CODE: (Example: VAN-LED-400-SLO-309-8-DR-WM-STND-MW-FW-120-D1**)**

1	2	3	4	5	6	7	8	9	10	11	12

1: Model
- ◯ **VAN-LED-400** (VANESSA 4" Square LED Wet Location Luminaire)

2: Light Output
- ◯ **-SLO** (Standard Lumen Output)
- ◯ **-HLO** (High Lumen Output)
- ◯ **-CLO** (Custom Lumen Output, See CLO Calculator)

3: CCT/CRI
- ◯ **-279** (2700K / 90CRI)
- ◯ **-30** (3000K / 82CRI)
- ◯ **-309** (3000K / 90CRI)
- ◯ **-35** (3500K / 82CRI)
- ◯ **-359** (3500K / 90CRI)
- ◯ **-40** (4000K / 82CRI)
- ◯ **-409** (4000K / 90CRI)

4: Nominal Length
- ◯ **-2** (2ft)
- ◯ **-4** (4ft)
- ◯ **-6**[4] (6ft)
- ◯ **-8**[4] (8ft)
- ◯ **-CR_**[1] (Continuous Run - Note length in feet)

5: Distribution
- ◯ **-DR** (Direct)

6: Mounting
- ☐ **-WM** (Wall Mount)
- ◯ **-CM** (Ceiling Mount)
- ◯ **-MM** (Mullion Mount)
- ◯ **-REC** (Recessed)

7: Power Feed
- ◯ **-STND** (Standard)
- ◯ **-EFL** (End Feed Left)
- ◯ **-EFR** (End Feed Right)
- ◯ **-EF2** (End Feed Both)
- ◯ **-JBE** (J-Box Extender)

8: Finishes
- ◯ **-SMT** (Silver Matte Textured, Powder Coat)
- ◯ **-MW** (Matte White,Powder Coat)
- ◯ **-FB** (Flat Black,Powder Coat)
- ◯ **-CUP**[2] (Custom Powder Coat, Consult Factory)

9: Lens/Optics
- ◯ **-FW** (Frosted White)

10: Voltage
- ◯ **-120** (120V)
- ◯ **-277** (277V)
- ◯ **-347** (347V)

11: Dimming
- ◯ **-D1** (0-10V Dimming 1%)

12: Options
- ☐ **-EM**[3] (Emergency Backup)
- ☐ **-HAT** (High Ambient Temperature)

NOTES:
1. Specify length in nominal feet
2. Contact factory for custom powder coat finish
3. EM's are remote mounted along with the test switch in a dry location, Consult factory for more info
4. 6' & 8' Lengths are made up with (2) 3' fixtures or (2) 4' fixtures respectively

BIRCHWOOD LIGHTING | 3340 E La Palma Ave, Anaheim, CA 92806 | **tel** 714 550-7118 | **fax** 714 550-7151 | www.birchwoodlighting.com

BIRCHWOOD lighting | a LEVITON company

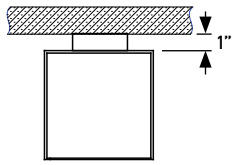
VAN-LED-400 / Surface Mount

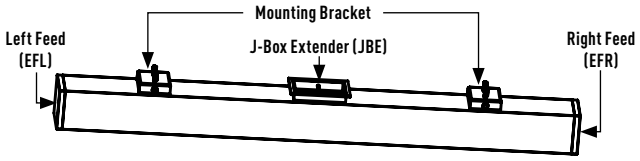
VANESSA 4" Square LED Wet Location Luminaire w/ Surface Mount Options

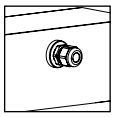
TYPE:

JOB NAME:

CEILING MOUNT

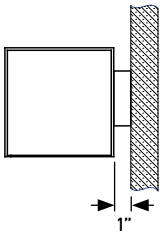


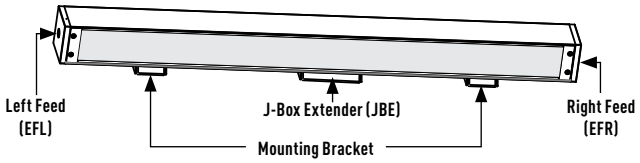


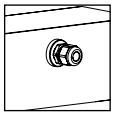


Standard Power Feed
(1/2: NDT Liquid tight
cord grip by others)

WALL MOUNT

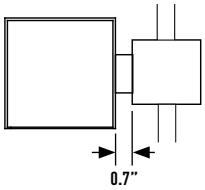


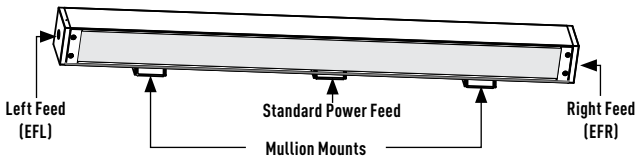


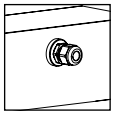


Standard Power Feed
(1/2: NDT Liquid tight
cord grip by others)

MULLION MOUNT

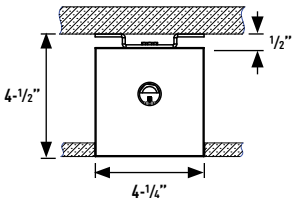


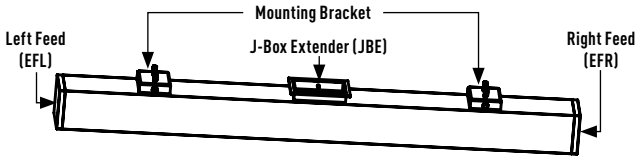


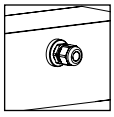


Standard Power Feed
(1/2: NDT Liquid tight
cord grip by others)

RECESSED







Standard Power Feed
(1/2: NDT Liquid tight
cord grip by others)

BIRCHWOOD LIGHTING | 3340 E La Palma Ave, Anaheim, CA 92806 | **tel** 714 550-7118 | **fax** 714 550-7151 | www.birchwoodlighting.com

BIRCHWOOD lighting | a LEVITON company

VAN-LED-400 / Surface Mount

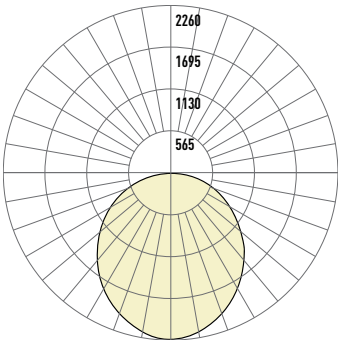
VANESSA 4" Square LED Wet Location Luminaire w/ Surface Mount Options

TYPE:

JOB NAME:

VAN-LED-400-HLO-30-4

PHOTOMETRIC CURVE:



Direct (FW): 1182 lm/ft
Total Lumens (4ft): 4728 lm
Efficacy: 131 lm/W

Wattage: 36W
CCT/CRI: 3000K / 80CRI

LUMINANCE DATA (cd/sq.m):

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7349	4196	7072
55	7103	6939	6820
65	6998	6815	6672
75	6689	6248	5754
85	6314	4330	3208

CANDELA DISTRIBUTION:

	0	10	20	30	40	50	60	70	80	90
0	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022
5	1023	999	1009	1017	1018	1016	1028	1012	1034	1007
10	1006	992	1011	1009	1007	1003	996	999	1006	1008
15	969	971	980	973	970	975	978	967	971	970
20	927	938	945	943	935	932	937	936	934	928
25	889	898	892	901	896	887	884	895	884	883
30	840	845	846	844	841	839	832	835	835	830
35	782	782	785	784	783	775	777	774	773	773
40	724	726	725	718	722	716	714	710	708	711
45	658	660	656	653	644	645	643	643	640	634
50	591	586	583	581	577	575	574	571	571	566
55	516	510	502	508	507	502	495	494	496	496
60	445	443	440	438	434	434	436	433	433	434
65	375	371	367	365	367	362	367	364	360	357
70	298	291	292	291	287	286	283	281	274	270
75	219	213	216	213	209	201	201	196	191	189
80	146	143	139	135	131	125	121	117	113	113
85	70	68	62	57	51	45	41	38	35	35
90	0	0	0	0	0	0	0	0	0	0

ZONAL LUMEN:

Zone	Lumens
0-10	97
10-20	275
20-30	411
30-40	488
40-50	500
50-60	452
60-70	360
70-80	217
80-90	62

CCT SCALING FACTOR

CCT	2700K	3000K	3500K	4000K
80 CRI	-	0.97	1.00	1.02
90 CRI	0.79	0.83	0.86	0.88

BIRCHWOOD LIGHTING | 3340 E La Palma Ave, Anaheim, CA 92806 | **tel** 714 550-7118 | **fax** 714 550-7151 | www.birchwoodlighting.com

BIRCHWOOD lighting | a LEVITON company

Type ZD2F, ZD2W

WDGE1 LED
Architectural Wall Sconce

Buy American

Catalog Number

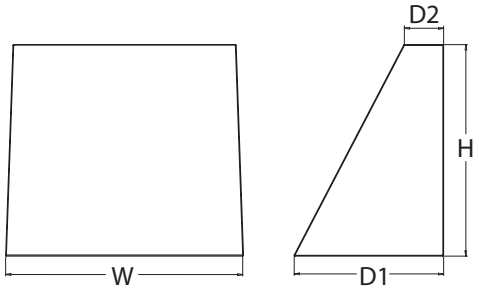
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1): 5.5"
Depth (D2): 1.5"
Height: 8"
Width: 9"
Weight: (without options) 9 lbs



ZD2F: WDGE1 LED P1 30K 80CRI VF MVOLT SRM DMG xxxxx
ZD2W: WDGE1 LED P1 30K 80CRI VW MVOLT SRM DMG xxxxx

Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing true site-wide solution.

WDGE1 delivers up to 2,000 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. The compact size of WDGE1, with its integrated emergency battery backup option, makes it an ideal over-the-door wall-mounted lighting solution.

WDGE LED Family Overview

Luminaire	Standard EM, 0°C	Cold EM, -20°C	Sensor	Lumens (4000K)					
				P1	P2	P3	P4	P5	P6
WDGE1 LED	4W	--	--	1,200	2,000	--	--	--	--
WDGE2 LED	10W	18W	Standalone / nLight	1,200	2,000	3,000	4,500	6,000	--
WDGE3 LED	15W	18W	Standalone / nLight	7,500	8,500	10,000	12,000	--	--
WDGE4 LED	--	--	Standalone / nLight	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

EXAMPLE: WDGE1 LED P2 40K 80CRI VF MVOLT SRM PE DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WDGE1 LED	P1	27K 2700K	80CRI	VF Visual comfort forward throw	MVOLT	**Shipped included**
	P2	30K 3000K	90CRI	VW Visual comfort wide	347[2]	SRM Surface mounting bracket
		35K 3500K				ICW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only)[5]
		40K 4000K				**Shipped separately**
		50K[1] 5000K				AWS 3/8inch Architectural wall spacer
						PBBW Surface-mounted back box (top, left, right conduit entry) Use when there is no junction box available.

Options

E4WH[3]	Emergency battery backup, Certified in CA Title 20 MAEDBS (4W, 0°C min)
PE[4]	Photocell, Button Type
DS	Dual switching (comes with 2 drivers and 2 light engines; see page 3 for details)
DMG	0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)
BCE	Bottom conduit entry for back box (PBBW). Total of 4 entry points.
BAA	Buy America(n) Act Compliant

Finish

DDBXD	Dark bronze	DDBTXD	Textured dark bronze
DBLXD	Black	DBLBXD	Textured black
DNAXD	Natural aluminum	DNATXD	Textured natural aluminum
DWHXD	White	DWHGXD	Textured white
DSSXD	Sandstone	DSSTXD	Textured sandstone

Accessories

Ordered and shipped separately.

WDGEAWS DDBXD	WDGE 3/8inch Architectural Wall Spacer (specify finish)
WDGE1PBBW DDBXD U	WDGE1 surface-mounted back box (specify finish)

NOTES

1. 50K not available in 90CRI.
2. 347V not available with E4WH, DS or PE.
3. E4WH not available with PE or DS.
4. PE not available with DS.
5. Not qualified for DLC. Not available with E4WH.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	Dist. Type	27K (2700K, 80 CRI)					30K (3000K, 80 CRI)					35K (3500K, 80 CRI)					40K (4000K, 80 CRI)					50K (5000K, 80 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P1	10W	VF	1,120	112	0	0	0	1,161	116	0	0	0	1,194	119	0	0	0	1,227	123	0	0	0	1,235	123	0	0	0
		VW	1,122	112	0	0	0	1,163	116	0	0	0	1,196	120	0	0	0	1,229	123	0	0	0	1,237	124	0	0	0
P2	15W	VF	1,806	120	1	0	0	1,872	125	1	0	0	1,925	128	1	0	0	1,978	132	1	0	0	1,992	133	1	0	0
		VW	1,809	120	1	0	0	1,876	125	1	0	0	1,929	128	1	0	0	1,982	132	1	0	0	1,996	133	1	0	0

Electrical Load

Performance Package	System Watts	Current (A)				
		120V	208V	240V	277V	347V
P1	10W	0.082	0.049	0.043	0.038	--
	13W	--	--	--	--	0.046
P2	15W	0.132	0.081	0.072	0.064	--
	18W	--	--	--	--	0.056

Lumen Multiplier for 90CRI

CCT	Multiplier
27K	0.845
30K	0.867
35K	0.845
40K	0.885
50K	0.898

Lumen Output in Emergency Mode (4000K, 80 CRI)

Option	Dist. Type	Lumens
E4WH	VF	646
	VW	647

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.96	>0.95	>0.91

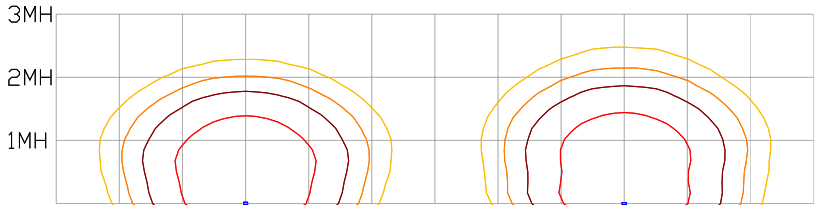
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WDGE LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards.

LEGEND

- 0.25 fc
- 0.5 fc
- 1.0 fc
- 3.0 fc

MH = 8ft
Grid = 8ft x 8ft



WDGE1 LED P2 40K 80CRI VW

WDGE1 LED P2 40K 80CRI VF

Emergency Egress Options

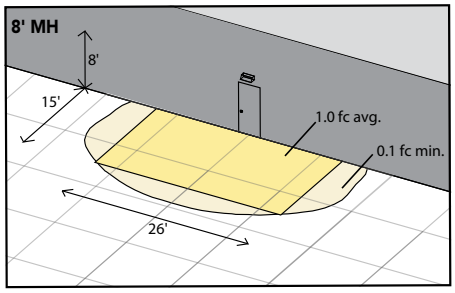
Emergency Battery Backup

The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency battery backup configurations include an independent secondary driver with an integral relay to immediately detect loss of normal power and automatically energize the luminaire. The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time normal power is lost and maintain a minimum of 60% of the light output at the end of 90minutes.

Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9

The example below shows illuminance of 1 fc average and 0.1 fc minimum in emergency mode with E4WH and VF distribution.

Grid = 10ft x 10ft

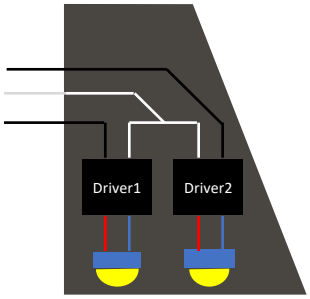


WDGE1 LED xx 40K 80CRI VF MVOLT E4WH

Dual Switching (DS) Option

The dual switching option offers operational redundancy that certain codes require. With this option the luminaire comes integrated with two drivers and two light engines. These work completely independent to each other so that a failure of any individual component does not cause the whole luminaire to go dark. This option is typically used with a back generator or inverter providing emergency power.

Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9



E4WH – 4W Emergency Battery Backup

D = 5.5"

H = 8"

W = 9"

PBBW – Surface-Mounted Back Box
Use when there is no junction box available.

D = 1.75"

H = 8"

W = 9"

AWS – 3/8inch Architectural Wall Spacer

D = 0.38"

H = 4.4"

W = 7.5"

FEATURES & SPECIFICATIONS

INTENDED USE
Common architectural look, with clean rectilinear shape, of the WDGE LED was designed to blend with any type of construction, whether it be tilt-up, frame or brick. Applications include commercial offices, warehouses, hospitals, schools, malls, restaurants, and other commercial buildings.

CONSTRUCTION
The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP66 rating for the luminaire.

FINISH
Exterior painted parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS
Well crafted reflector optics allow the light engine to be recessed within the luminaire, providing visual comfort, superior distribution, uniformity, and spacing in wall-mount applications. The WDGE LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L91/100,000 hours at 25°C). The electronic driver has a power factor of >90%, THD <20%. Luminaire comes with built in 6kV surge protection, which meets a minimum Category C low exposure (per ANSI/IEEE C62.41.2). Fixture ships standard with 0-10v dimmable driver.

INSTALLATION
A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections. The 3/8" Architectural Wall Spacer (AWS) can be used to create a floating appearance or to accommodate small imperfections in the wall surface. The ICW option can be used to mount the luminaire inverted for indirect lighting in dry and damp locations. Design can withstand up to a 1.5 G vibration load rating per ANSI C136.31.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP66 rated. PIR options are rated for wet location. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 2700K and 3000K color temperature only and SRM mounting only.

BUY AMERICAN
Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Type:
BEGA Product:
Project:
Modified:

Application
LED wall mounted luminaires with directed light designed to be mounted at various heights for general purpose illumination or glare free illumination when below eye level.

Materials
Luminaire housing constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
Matte safety glass
Silicone applied robotically to casting, plasma treated for increased adhesion
High temperature silicone gasket
Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations
Protection class IP65
Weight: 3.6 lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-40° C
LED module wattage	12.3 W
System wattage	15.0 W
Controllability	0-10V, TRIAC, and ELV dimmable
Color rendering index	Ra > 80
Luminaire lumens	1,077 lumens (3000K)
Lifetime at Ta = 15° C	> 500,000 h (L70)
Lifetime at Ta = 45° C	108,000 h (L70)

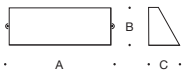
LED color temperature

☐ 4000K - Product number + **K4**
○ 3500K - Product number + **K35**
○ 3000K - Product number + **K3**
○ 2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish
All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors ☐ Black (BLK) ○ White (WHT) ○ RAL:
○ Bronze (BRZ) ○ Silver (SLV) ○ CUS:



24374 K3

LED wall luminaires · directed

		LED	A	B	C
24374	ADA	12.3 W	11 7/8	4 3/8	3 3/8

B1-U0-G0

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

Updated 01/29/18

LinmoreLED
ULTRA PERFORMANCE LIGHTING

PROJECT NAME		DATE	
CAT. NUMBER			
NOTES			

Type ZF1

SPEC SHEET

Site Lighter (SL1)

EXTERIOR LED FIXTURE

BUY AMERICAN ACT COMPLIANT

c UL us

Ready

FC

DLC PREMIUM

10 Year Warranty

10 YEAR WARRANTY

All parts of SL1 are covered for 10 years, including the LED driver.

Superior Heat Dissipation

Extruded aluminum body is exceptional at moving thermal energy. Plus, the aesthetics are modern and attractive.

Controls and Sensors

Linmore LED driver with 0-10V dimming. Plus motion and dimming sensors, photocell and wireless controls available.

KEY FEATURES

- Up to 174 LPW
- 8,500 to 62,000 lumens
- Up to 55°C
- 200-480V high-voltage driver (optional)
- Dimmable 0-10V
- Expected life > 150,000 hours
- Patented Rapid Mount Bracket (optional)

TECHNICAL SPECS

		TYPE				FRONT ROW		FLOOD	
Housing	Watts	T2	T3	T4	T5	FR	FL	F60	F35
SM	50	8,676	8,676	8,598	8,676	8,676	8,676	8,439	8,336
SM	75	12,284	12,284	12,161	12,284	12,284	12,284	11,916	11,793
SM	100	16,729	16,729	16,562	16,729	16,729	16,729	16,227	16,060
MD	125	21,176	21,176	20,965	21,176	21,176	21,176	20,541	20,329
MD	150	24,397	24,397	24,153	24,397	24,397	24,397	23,665	23,421
MD	200	30,980	30,980	30,670	30,980	30,980	30,980	30,051	29,741
LG	300	46,935	46,935	46,465	46,935	46,935	46,935	45,527	45,057
XL	400	62,341	62,341	61,718	62,341	62,341	62,341	60,471	59,847

Typical lumen output (±10%) at 120V (LV) under 25°C ambient temperature.

Lumen Multipliers

Allows to calculate the actual lumen output for your application. Apply each multiplier to the lumens of the shaded table.

COLOR TEMP	
CCT	Multiplier
5000	1.000
4000	1.000
3500	0.980
3000	0.95 per factory (11/01/2021), 0.98 LLF from 3500K photometrics
2200	0.780

Example: How to calculate the actual lumen output of the model 21K at these conditions: 2200K.

1) Find the nominal lumens from the table above.
2) Apply the CCT multiplier.

21,176	x	0.78	=	16,517
Nominal lumens		CCT		Actual lumens

Bug Ratings

HOUSING	WATTS	OPTIC	BUG RATE	OPTIC	BUG RATE	OPTIC	BUG RATE	OPTIC	BUG RATE
SM	50	T5	B3-U0-G1	T4	B1-U0-G1	T3	B1-U0-G1	T2	B1-U0-G1
SM	75	T5	B4-U0-G2	T4	B1-U0-G2	T3	B1-U0-G2	T2	B2-U0-G1
SM	100	T5	B4-U0-G2	T4	B2-U0-G2	T3	B2-U0-G2	T2	B2-U0-G1
MD	125	T5	B4-U0-G2	T4	B2-U0-G2	T3	B2-U0-G2	T2	B2-U0-G1
MD	150	T5	B5-U0-G3	T4	B2-U0-G2	T3	B2-U0-G2	T2	B2-U0-G1
MD	200	T5	B5-U0-G3	T4	B2-U0-G2	T3	B2-U0-G2	T2	B3-U0-G2
LG	300	T5	B5-U0-G3	T4	B2-U0-G3	T3	B2-U0-G3	T2	B3-U0-G2
XL	400	T5	B5-U0-G4	T4	B2-U0-G3	T3	B2-U0-G3	T2	B3-U0-G4

ZF1 (trunnion mtd): LL SL1 SM 50WD 30K T4 HV G2 xxx TM PC-TL

ORDERING

SERIES MODEL	HOUSING SIZE	WATTAGE (WD)	KELVIN	OPTIC	VOLTS
LL-SL1-	**SM** Small 50W, 75W, 100W only **MD** Medium 125W, 150W, 200W only **LG**[6] Large 300W only **XL**[6] Extra Large 400W only	**50WD** **75WD** **100WD** **125WD** **150WD** **200WD** **300WD** **400WD** WD = wattage dimming	**22K**[9] 2200K **30K**[9] 3000K **35K** 3500K **40K** 4000K **50K** 5000K	**T2** Type 2 **T3** Type 3 **T4** Type 4 **T5** Type 5 **FR** Front Row Right **FL** Front Row Left **F35** Flood 35 degrees **F60** Flood 60 degrees	**UNV** 120-277V 0-10V dimming **HV** 200-480V 0-10V dimming

Can I spec a 7-pin NEMA recept?
Yes per mfr

GENERATION	HOUSING COLOR	MOUNTING	OPTIONS
G2 Generation 2	**BRN** Bronze **BLK** Black **WH** White **CUS**[4] Custom (special order)	**RMB** Rapid Mount Bracket **SF** Slip Fitter Bracket **SA**[6] Standard Arm Bracket **TM** Trunnion Mount Bracket * For more information about mounting download our **Outdoor Lighting Guide >**	**PC** Photocell, button, mounted in side plate, 120-480V **PC-TL** Photocell, Twist Lock, 120-480V, depending on model **SSP** 20kA Surge Suppressor, 120-277V **SSPH** 20kA Surge Suppressor, 480V **GSB**[12] Glare Shield Back, contact factory **GSS**[5,12] Glare Shield Side, contact factory **FSP-201** Wattstopper 0-10V dimming sensor, 12V **FSP-211** Wattstopper 0-10V dimming sensor, 120-277V **MCW-BLE** McWong sensor for use with UltraLink only **QBM**[13] Linmore LED UltraLink

ORDERING EXAMPLES

Standard: LL-SL1-MD-150WD-50K-T3-UNV-G2-BRN-SA

With Options: LL-SL1-MD-150WD-50K-T3-UNV-G2-BRN-SA-**QBM-GSB**

OPTICS

PART NUMBER	DESCRIPTION
T2	Type 2 Optics
T3	Type 3 Optics
T4	Type 4 Optics
T5	Type 5 Optics
FL	Front Row Optics Left
FR	Front Row Optics Right
F35	Flood Optics 35 Degrees
F60	Flood Optics 60 Degrees

ACCESSORIES

Must be ordered separately. Packaged separately.

SWITCHES	
EO-ESRPB	Enocean switch. Single rocker with Bluetooth®.
EO-EDRPB	Enocean switch. Double rocker with Bluetooth®.
EO-ESRP	Enocean switch. Single rocker.
EO-EDRP	Enocean switch. Double rocker.
ADAPTER	
LL-SL1-A30-BRN	Adapter - Spacer for STR ARM 1-1/2" X 6", Bronze color. Spacer for use with more than (1) 300W fixture per pole.
GLARE SHIELDS	
LL-SL1-SM-GSB-G2	Site Lighter Glare Shield Back for use with Small Chassis (50-100W)
LL-SL1-MD-GSB-G2	Site Lighter Glare Shield Back for use with Medium Chassis (125-200W)
LL-SL1-LG-GSB-G2	Site Lighter Glare Shield Back for use with Large Chassis (300W)
LL-SL1-XL-GSB-G2	Site Lighter Glare Shield Back for use with Extra Large Chassis (400W)
LL-SL1-ALL-GSS-G2	Side Lighter Glare Shield Side for use with All Models, each

MOUNTING OPTIONS

RMB

Rapid Mount Bracket
U.S. Patent No. 10,845,039

SA

Straight Arm

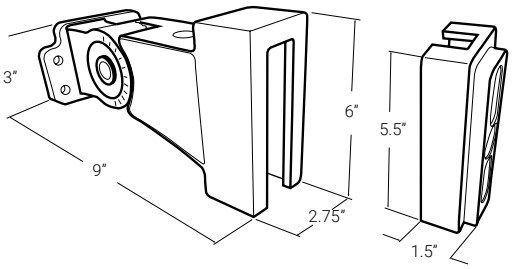
SF

Slip Fitter

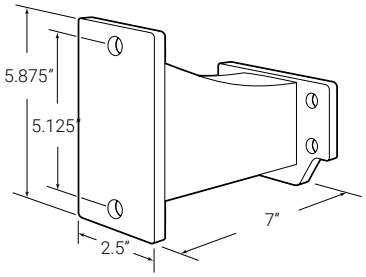
TM

Trunnion (Yoke) Mount Bracket

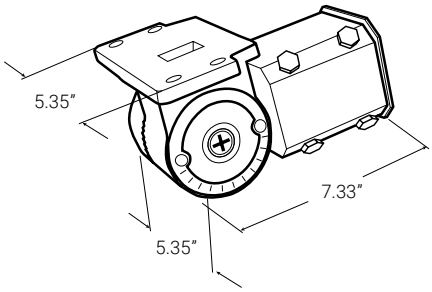
Rapid Mount Bracket



Straight Arm

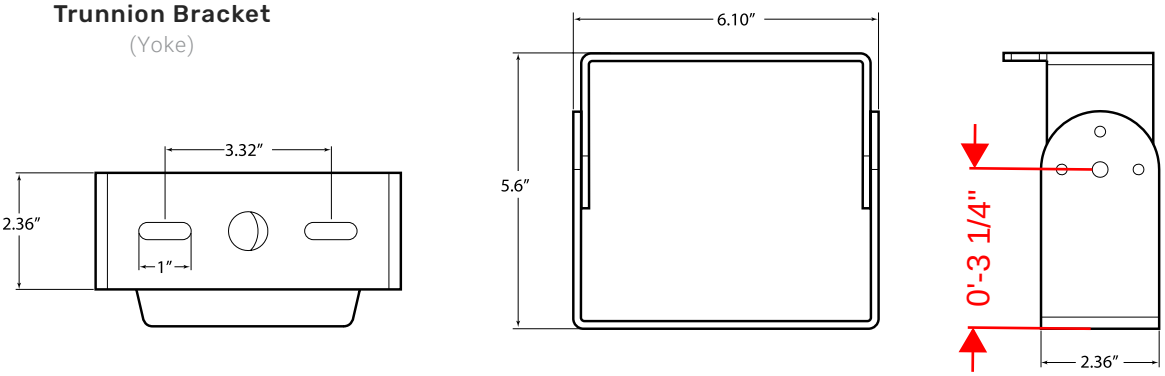


Slip Fitter
(Knuckle Adapter)



ZF1T

Trunnion Bracket
(Yoke)



Cannot be mounted at an angle greater than 60°.

MOUNTING ACCESSORIES *ORDERED SEPARATELY

When ordering after initial fixture purchase, replace ### with color code BRN, WH, BLK or CUS. (If CUS, provide factory with RAL, extended lead time.)

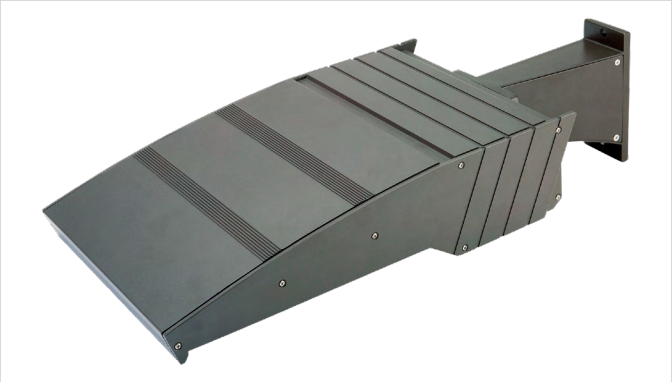
TENONS (WALL BRACKETS)[7]	
LL-SL1-A1-###	Vertical or Horizontal Tenon, for use with 4" and larger square poles or flat surfaces
LL-SL1-A2-###	Horizontal Tenon for Round Poles
LL-SL1-A3-###	Vertical or Horizontal Tenon, for use with flat surfaces including walls and flooring. Provides a round pipe for mounting SL1 Fixtures with a Slip Fitter Bracket or for adding Cross Arms
LL-SL1-A4-###	Vertical Tenon (wall mount), providing a vertical round pipe for mounting SL1 Fixtures with a Slip Fitter Bracket or adding Cross Arms
LL-SL1-A10-###	Single Fixture Multi-Mount Tenon, adds a round pipe for mounting SL1 Fixtures to a variety of vertical and horizontal surfaces with a Slip Fitter Bracket; creating unique options for fixture placement
ADAPTERS[7]	
LL-SL1-A12-###	Round to Square Pole Adapter, to mount a Straight Arm Mount to a round pole
LL-SL1-A5-###	Square to Vertical Slip Fitter Adapter, converts 4" square pole to 2-3/8" O.D., vertical mount
LL-SL1-A6-###	Square to Vertical Slip Fitter Adapter, converts 5" square pole to 2-3/8" O.D., vertical mount
LL-SL1-A18-###	Square to Vertical Slip Fitter Adapter, converts 6" square pole to 2-3/8" O.D., vertical mount
LL-SL1-A14-###	Round Pole to Vertical Slip Fitter Adapter, bracket reduces from 3" pole to 2-3/8" O.D. vertical mount
LL-SL1-A7-###	Round Pole to Vertical Slip Fitter Adapter, bracket reduces 4" round pole to 2-3/8" O.D., vertical mount
LL-SL1-A17-###	Clamp-On Mid-Pole Adapter, for use with 4"-5" square poles. Provides a round vertical pipe for mounting SL1 Fixtures with a Vertical Slip Fitter Adapter at a position on the pole other than the top
CROSS ARMS[8]	
LL-SL1-A8-###	Two Fixture Bullhorn (straight cross arm), adapts from single 2-3/8" O.D. to two 2-3/8" O.D. vertical mounting locations, 28" on center apart
LL-SL1-A9-###	Three Fixture Y Tenon (120° cross arm), adapts from single 2-3/8" O.D. to three 2-3/8" O.D. vertical mounting locations, 28" on center apart
LL-SL1-A11-###	Three Fixture Straight Tenon (straight cross arm), adapts from single 2-3/8" O.D. to three 2-3/8" O.D. vertical mounting locations, 28" on center apart
LL-SL1-A13-###	Four Fixture 90° Cross Arm, adapts from single 2-3/8" O.D. to four 2-3/8" O.D. vertical mounting locations, 28" on center apart
LL-SL1-A15-###	Three Fixture T Tenon (90° cross arm), adapts from single 2-3/8" O.D. to three 2-3/8" O.D. vertical mounting locations, 28" on center apart
LL-SL1-A16-###	Two Fixture L Tenon (90° cross arm), adapts from single 2-3/8" O.D. to two 2-3/8" O.D. vertical mounting locations, 22.65" on center apart

For more information about all mounting accessories, download our Outdoor Lighting Guide >

FEATURES & SPECIFICATIONS

CONSTRUCTION

- **Extruded Aluminum Body:** Improves heat dissipation.
- **Heavy-Duty Powder Coating:** Bronze, white and black standard. Other color options available[11].
- **Modern Form Factor.**
- **Assembled in the USA.**



ELECTRICAL

- **Power Input:** 120-277V or 200-480V, depending on model.
- **Power Factor:** >0.9 (0.99 typical).
- **Total Harmonic Distortion:** <10% typical.
- **Surge Protection:** Standard is 3kV for drivers. Additional surge protection is available.

OPERATION

- **Environment:** Wet locations for exterior applications. IP65 rated.
- **Ambient Range Operation:** -40°C up to 55°C (-40°F up to 130°F).

OPTICS

- **CCT:** 2200K, 3000K, 3500K, 4000K, and 5000K standard.
- **CRI:** >70.
- **Lenses:** UV stable clear polycarbonate.

MOUNTING

- **Mounting:** U.S. Patented Rapid Mount Bracket. Other options are Slip Fitter (Knuckle Adapter), Straight Arm and Trunnion (Yoke) Bracket.

CONTROLS[2]

- **Dimming:** 0-10V standard. Dim to OFF.
- **Sensors:** Compatible with Wattstopper and McWong sensors, and Enocean switches.
- **Networked Control Options:** Compatible with Avi-on[10] networked controls and UltraLink[13] SIG Bluetooth® with Mesh Networked controls[3].

WARRANTY

- **Standard:** 10-year product warranty, including LED driver.

LISTINGS & CERTIFICATIONS

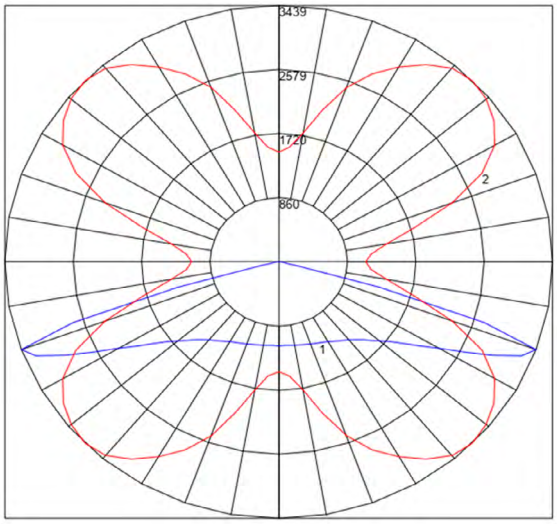
- UL 1598.
- IP65.
- FCC CFR 47, Part 15: Subpart B Class B.
- ANSI C63.4: 2014.
- RoHS compliant.
- cUL.
- BAA/TAA Compliant.
- Design Lights™ Consortium Premium[1].

LIGHT DISTRIBUTION

Download IES Files

50W T5 3500K

Polar Graph



Maximum Candela: 3439

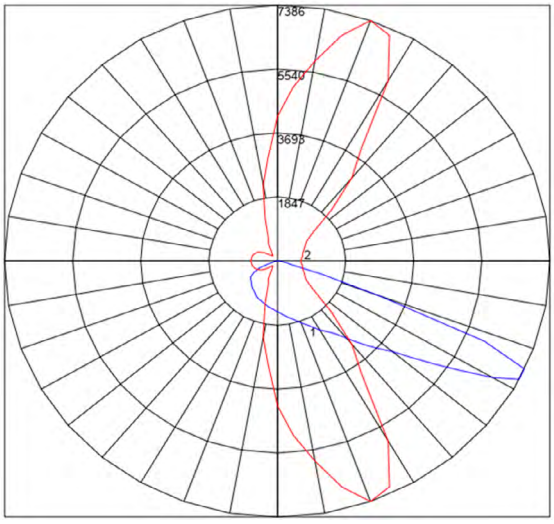
Located at horizontal angle: 45, Vertical angle : 70

#1: Vertical plane through horizontal angles (45-225)(through max Cd.)

#2: Horizontal cone through vertical angle (70)(through max Cd.)

50W T2 3500K

Polar Graph



Maximum Candela: 7386

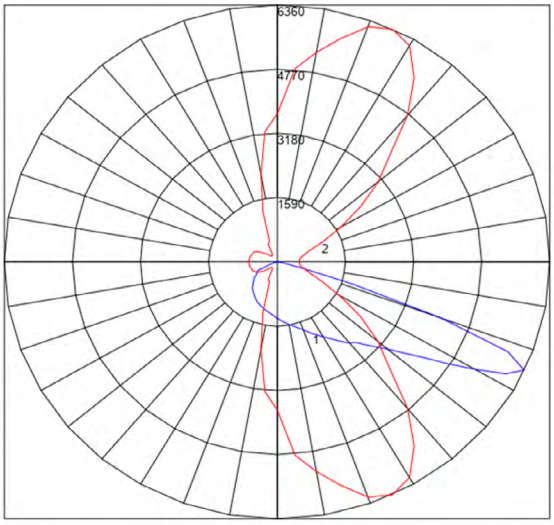
Located at horizontal angle: 70, Vertical angle : 62.5

#1: Vertical plane through horizontal angles (70-250)(through max Cd.)

#2: Horizontal cone through vertical angle (62.5)(through max Cd.)

50W T3 3500K

Polar Graph



Maximum Candela: 6360

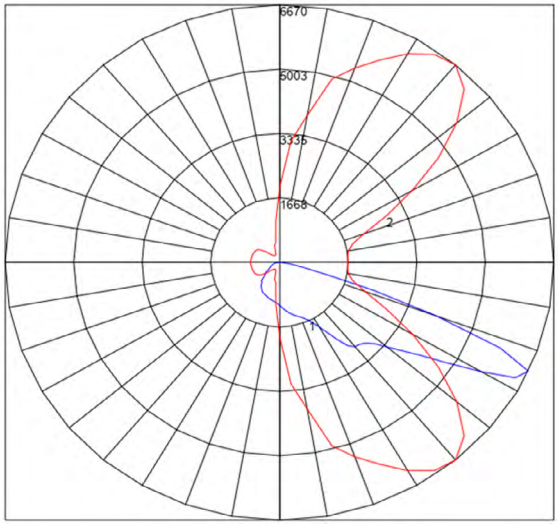
Located at horizontal angle: 65, Vertical angle : 65

#1: Vertical plane through horizontal angles (65-245)(through max Cd.)

#2: Horizontal cone through vertical angle (65)(through max Cd.)

50W T4 3500K

Polar Graph



Maximum Candela: 6670

Located at horizontal angle: 50, Vertical angle : 65

#1: Vertical plane through horizontal angles (50-230)(through max Cd.)

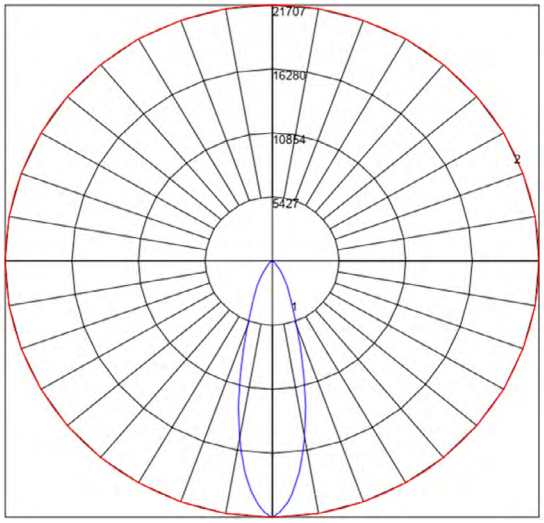
#2: Horizontal cone through vertical angle (65)(through max Cd.)

LIGHT DISTRIBUTION

Download IES Files

50W F35 3500K

Polar Graph



Maximum Candela: 21707

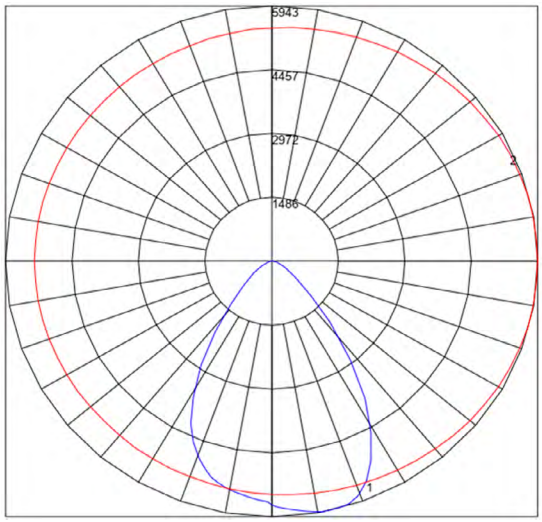
Located at horizontal angle: 90, Vertical angle : 0

#1: Vertical plane through horizontal angles (90-270)(through max Cd.)

#2: Horizontal cone through vertical angle (0)(through max Cd.)

50W F60 3500K

Polar Graph



Maximum Candela: 5943

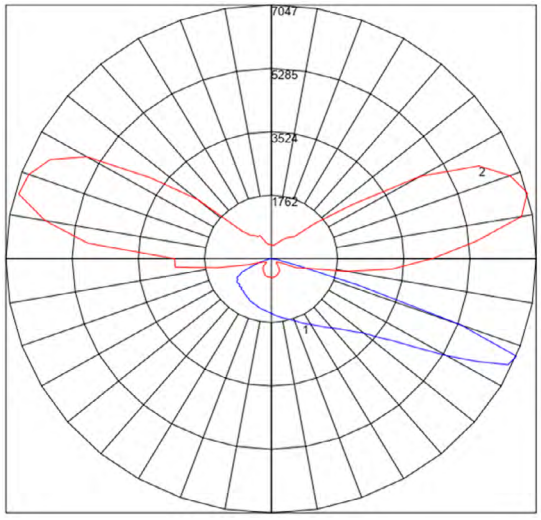
Located at horizontal angle: 0, Vertical angle : 13

#1: Vertical plane through horizontal angles (0-180)(through max Cd.)

#2: Horizontal cone through vertical angle (13)(through max Cd.)

50W FR 3500K

Polar Graph



Maximum Candela: 7047

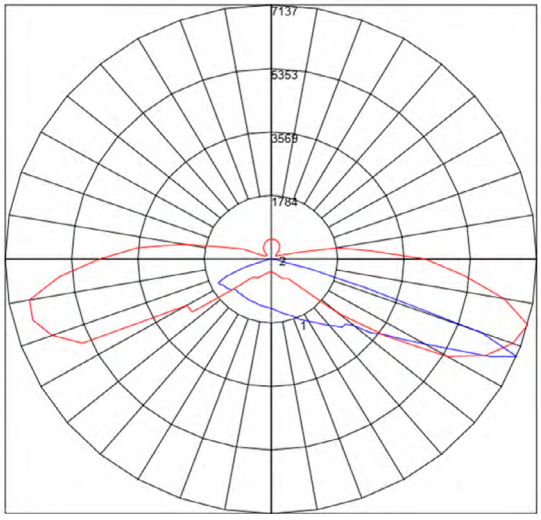
Located at horizontal angle: 15, Vertical angle : 67.5

#1: Vertical plane through horizontal angles (15-195)(through max Cd.)

#2: Horizontal cone through vertical angle (67.5)(through max Cd.)

50W FL 3500K

Polar Graph



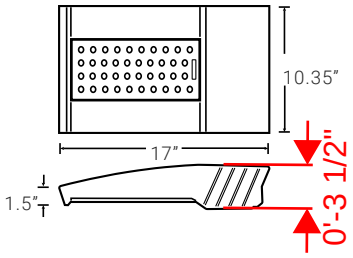
Maximum Candela: 7137

Located at horizontal angle: 345, Vertical angle : 67.5

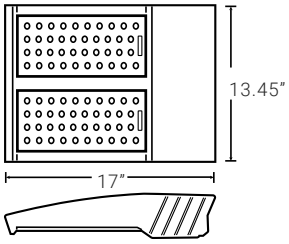
#1: Vertical plane through horizontal angles (345-165)(through max Cd.)

#2: Horizontal cone through vertical angle (67.5)(through max Cd.)

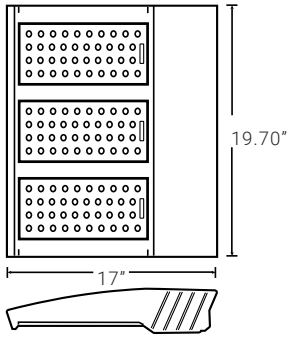
DIMENSIONS & DRAWINGS



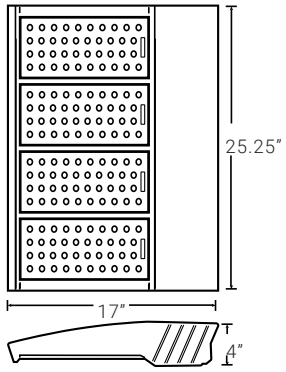
Small (SM)
Weight: 14 lbs.



Medium (MD)
Weight: 16 lbs.



Large (LG)
Weight: 24 lbs.



Extra Large (XL)
Weight: 37 lbs.

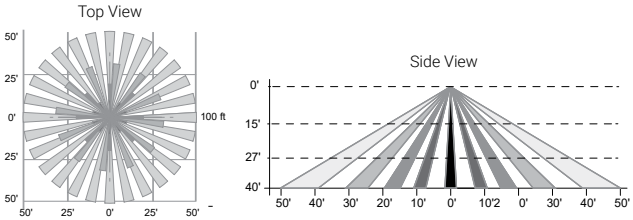
DIMENSIONS

Size	Length (in)	Width (in)	Height (in)	Weight (lb)
SM	17	10.35	4	14
MD	17	13.45	4	16
LG	17	19.70	4	24
XL	17	25.25	4	37

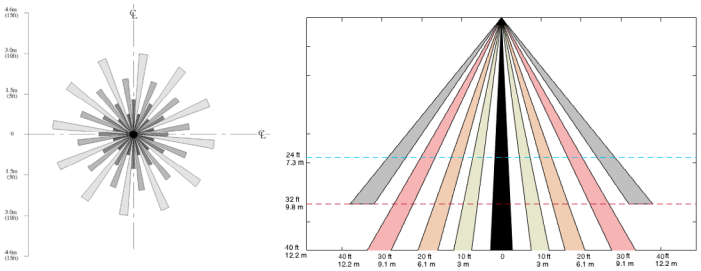
OCCUPANCY SENSORS

Wattstopper

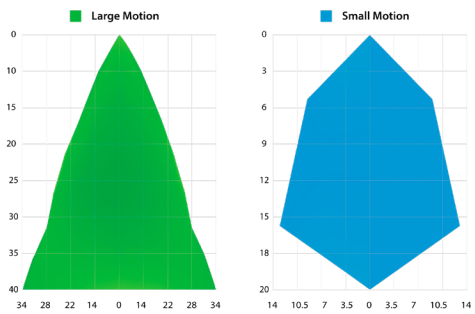
OCC40 / OCCDIM40



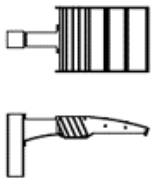
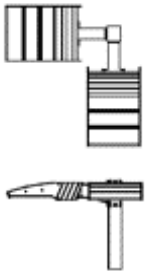
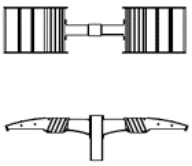
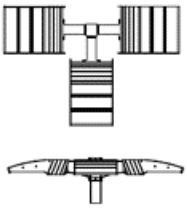
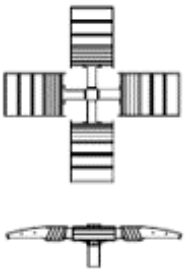
McWong (For use with UltraLink)



Avi-on



EPA RATINGS

BEAM ANGLE	NO.	ITEM					
0°	1	SM	0.58	0.81	1.15	1.29	1.29
	2	MD	0.58	0.85	1.15	1.30	1.30
	3	LG	0.58	0.98	1.15	1.32	1.32
	4	XL	0.58	1.07	1.15	1.33	1.33
15°	1	SM	0.59	1.11	1.17	1.69	1.69
	2	MD	0.67	1.25	1.33	2.00	2.00
	3	LG	0.97	1.56	1.94	2.90	2.90
	4	XL	1.24	1.83	2.48	3.73	3.73
30°	1	SM	0.85	1.44	1.70	2.55	2.55
	2	MD	1.10	1.69	2.21	3.31	3.31
	3	LG	1.60	2.19	3.20	4.80	4.80
	4	XL	2.04	2.63	4.08	6.12	6.12
45°	1	SM	1.15	1.74	2.29	3.44	3.44
	2	MD	1.48	2.07	2.97	4.45	4.45
	3	LG	2.14	2.73	4.29	6.43	6.43
	4	XL	2.74	3.33	5.47	8.21	8.21
60°	1	SM	1.37	1.96	2.74	4.11	4.11
	2	MD	1.77	2.36	3.54	5.32	5.32
	3	LG	2.56	3.15	5.11	7.67	7.67
	4	XL	3.26	3.85	6.52	9.78	9.78

FOOTNOTES

1. Check QPL for up-to-date listings.
2. Synapse, Daintree and Enlighted are available with extended lead time. Electrical changes and additional components required to make fixture compatible.
3. Requires an Enocean switch, McWong sensor or a gateway for complete functionality.
4. Provide RAL or contact factory. Extended lead time.
5. Must specify left or right side. Contact factory.
6. Consult factory when installing 2 or more fixtures on a single pole with less than 180° separation between fixtures.
7. When ordering accessory with fixture, the fixture color will be applied. Custom color is a cost adder with extended lead time.
8. When ordering accessory with fixture, the fixture color will be applied. Custom color will have extended lead time.
9. Not DLC listed.
10. Contact your regional sales director.
11. Custom colors are a cost adder with extended lead time.
12. Glare shields have factory pre-drilled holes in the fixture for installation. Contact factory.
13. Please provide specific input voltage when specifying UltraLink controls to ensure the correct bill-of-materials. Linmore LED cannot manufacture your UltraLink order without this information.

Linmore LED Labs, Inc.
2360 S. Orange Ave, Bldg. 1, Fresno, CA 93725
559.485.6010 | info@linmoreled.com | LinmoreLED.com

Type ZP__ series

Project		Catalog #		Type	
Prepared by		Notes		Date	

McGraw-Edison

GPC Galleon Pedestrian Companion

Area / Site Luminaire

Product Features

Light ARchitect™

Product Certifications

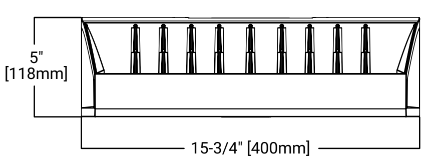
Interactive Menu

ZP2A: GPC SA1A 830 8 SL2 HSS QM xx PR7 SWPD4-xx
ZPFA: GPC SA1A 830 8 T4FT HSS QM xx PR7 SWPD4-xx
ZPFB: GPC SA1B 830 8 T4FT HSS QM xx PR7 SWPD4-xx
ZPWA: GPC SA1A 830 8 T4W HSS QM xx PR7 SWPD4-xx
ZPWC: GPC SA1A(50% lumens) 830 8 T4W HSS QM xx PR7 SWPD4-xx

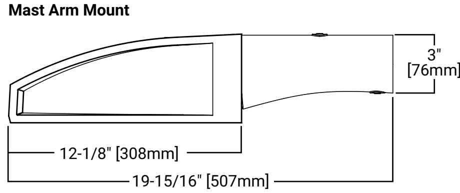
Quick Facts

- Choice of sixteen high-efficiency, patented AccuLED Optics
- Quick mount pole or mast-arm mounting configurations
- Eight lumen packages from 3,215 up to 17,056 lumens
- IP66 rated housing and LED light squares

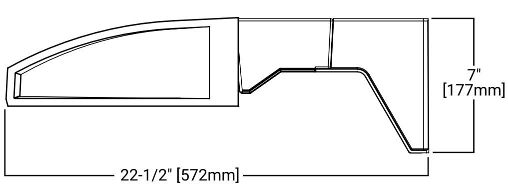
Dimensional Details



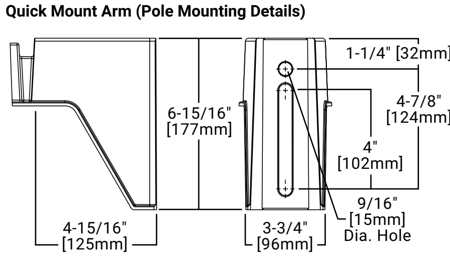
Mast Arm Mount



Mast Arm Mount



Quick Mount Arm (Pole Mounting Details)



Info from sales rep:

Shipping Data

- Effective Projected Area:
  Quick Mount Arm: 0.73 (Sq. Ft.)
  Mast Arm: 0.62 (Sq. Ft.)
- Approximate Net Weight: 27 lbs. (12.2 kgs.)

NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.

Ordering Information

SAMPLE NUMBER: **GPC-SA2C-740-U-T4FT-GM**

Product Family	Light Engine		Color Temperature	Voltage	Distribution	Mounting Options	Finish
	Configuration	Drive Current					
GPC=Galleon Pedestrian Companion **BAA-GPC**=Galleon Pedestrian Companion Buy American Act Compliant [34] **TAA-GPC**=Galleon Pedestrian Companion Trade Agreements Act Compliant [34]	**SA1**=1 Square **SA2**=2 Squares [2]	**A**=615mA **B**=800mA **C**=1000mA **D**=1200mA [4]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [3, 4]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [6,7] **9**=347V [6]	**TT2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **5NQ**=Type V Square Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide **AFL**=Automotive Frontline	**QM**=Quick Mount Arm for Round or Square Pole [2,13] **MA**=2-3/8" Mast Arm [2, 14]	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix) [1]	Controls and Systems Options (Add as Suffix)	Accessories (Order Separately) [35]
F=Single Fused (120, 277 or 347V. Must Specify Voltage) **FF**=Double Fused (208, 240 or 480V. Must Specify Voltage) **10K**=10kV Surge Module **20K**=20kV UL 1449 Fused Surge Protective Device **DIM**=External 0-10V Dimming Leads [9, 10] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **HSS**=Factory Installed House Side Shield [23] **GRSBK**=Factory Installed Glare Shield, BK [4, 27] **GRSWH**=Factory Installed Glare Shield, WH [4, 27] **UPL**=Uplight Housing [13] **HA**=50°C High Ambient [12] **LCF**=Light Square Trim Plate Painted to Match Housing [22] **MT**=Factory Installed Mesh Top **CC**=Coastal Construction finish [5] **CE**=CE Marking and Small Terminal Block [24] **AHD145**=After Hours Dim, 5 Hours [16] **AHD245**=After Hours Dim, 6 Hours [16] **AHD255**=After Hours Dim, 7 Hours [16] **AHD355**=After Hours Dim, 8 Hours [16] **DALI**=DALI Driver [11]	**BPC**=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) **PR**=NEMA 3-PIN Twistlock Photocontrol Receptacle **PR7**=NEMA 7-PIN Twistlock Photocontrol Receptacle [15] **SPB1**=Dimming Occupancy Sensor with Bluetooth Interface, <8' Mounting [19,33] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8'-20' Mounting [19,33] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21'-40' Mounting [19,33] **MS-LXX**=Motion Sensor for On/Off Operation [17, 18, 19] **MS/DIM-LXX**=Motion Sensor for Dimming Operation [17, 18, 19] **ZW**=WaveLinx-enabled 4-PIN Twistlock Receptacle [29, 30] **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle [29, 30] **SWPD4XX**=WaveLinx Sensor Only, 7'-15' [31, 32] **SWPD5XX**=WaveLinx Sensor Only, 15'-40' [31, 32] **WOBXX**=WaveLinx Sensor with Bluetooth, 7'-15' [31, 32] **WOFXX**=WaveLinx Sensor with Bluetooth, 15'-40' [31, 32] **LWR-LW**=Enlighted Wireless Sensor, Wide Lens for 8'-16' Mounting Height [19, 20, 21] **LWR-LN**=Enlighted Wireless Sensor, Narrow Lens for 16'-40' Mounting Height [19, 20, 21]	**OA/RA1013**=Photocontrol Shorting Cap [28] **OA/RA1016**=NEMA Photocontrol - Multi-Tap 105-285V [28] **OA/RA1201**=NEMA Photocontrol - 347V [28] **OA/RA1027**=NEMA Photocontrol - 480V [28] **MA1252**=10kV Circuit Module Replacement **MA1059XX**=Thru-branch Back Box (Must Specify Color) **LS/HSS**=Field Installed House Side Shield [23, 25] **LS/GRSBK**=Glare Shield, Black [8, 25, 27] **LS/GRSWH**=Glare Shield, White [8, 25, 27] **LS/PFS**=Perimeter Shield, Black **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [17] **WOLC-7P-10A**=WaveLinx Outdoor Control Module (7-pin) [26, 29] **SWPD4-XX**=Wavelinx Wireless Sensor, 7' – 15' Mounting Height [29, 30, 31, 32] **SWPD5-XX**=Wavelinx Wireless Sensor, 15' – 40' Mounting Height [29, 30, 31, 32]

NOTES:

1. DesignLight Consortium® Qualified. Refer to www.designlights.org, Qualified Products List under Family Models for details.
2. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional information
3. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
4. Not available with HA option.
5. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.
6. Require the use of a step down transformer. Not available in combination with sensor options at 1200mA.
7. 480V must use Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
8. Reserved.
9. Cannot be used with other control options.
10. Low voltage control leads extended 18" from fixture.
11. Not available in 1200mA. When used with CBP or HA options, only available with single light square.
12. Not available in 1200mA, UPL or CBP options. Available with single light square.
13. Quick mount arm adapter is factory installed. Pole mounting bracket shipped in box. Suitable for 1.5G. Fits square and round poles up to 6" O.D.
14. Mast arm adapter factory installed (2-3/8" O.D. arm only). Suitable for 3G vibration.
15. Compatible with standard 3-PIN photocontrols, 5-PIN or 7-PIN ANSI controls.
16. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
17. The FSIR-100 configuration tool is required to adjust parameters such as high and low modes, sensitivity, time delay and cutoff. Consult your lighting representative at Cooper Lighting Solutions for more information.
18. Replace LXX with L08 (<8' mounting), L20 (8'-20' mounting) or L40W (21'-40' mounting.)
19. Includes integral photosensor.
20. Enlighted wireless sensors are factory installed requiring network components in appropriate quantities.
21. Bronze sensor is shipped with Bronze fixtures. White sensor shipped on all other housing color options.
22. Not available with HSS or GRS options.
23. Not for use with 5NQ, 5MQ, 5WQ or RW optics. The light square trim plate is painted black when the HSS option is selected.
24. CE is not available with the 1200, DALI, LWR, MS, MS/DIM, BPC, PR or PR7 options. Available in 120-277V only.
25. One required for each light square.
26. Requires PR7.
27. Not for use with T4FT, T4W or SL4 optics.
29. Cannot be used in conjunction with additional photocontrol or other controls systems (BPC, PR, PR7, MS, LWR).
30. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed.
31. Requires ZW or ZD receptacle.
32. Replace XX with sensor color (WH, BZ, or BK).
33. Smart device with mobile application required to change system defaults. See controls section for details.
34. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
35. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements Consult factory for further information.

Product Specifications

Construction

- Driver enclosure thermally isolated from optics for optimal thermal performance
- Die-cast aluminum heat sinks
- IP66 rated housing
- 1.5G vibration rated

Optics

- Patented, high-efficiency injection-molded AccuLED Optics technology
- 13 optical distributions

Electrical

- LED driver assembly mounted for ease of maintenance
- Standard with 0-10V dimming
- Optional 10kV or 20kV surge module
- Suitable for operation in -40C to 40C ambient environments. Optional 50C high ambient (HA) configuration.

Mounting

- Gasketed and zinc plated rigid steel mounting attachment
- "Hook-N-Lock" mechanism for easy installation

Finish

- Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Heat sink is powder coated black
- RAL and custom color matches available
- Coastal Construction (CC) option available

Typical Applications

- Outdoor, Parking Lots, Walkways, Roadways, Building Areas

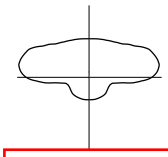
Warranty

- Five-year warranty

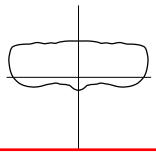
Optical Distributions

Asymmetric Area Distributions

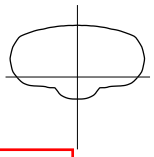
T2 (Type II)



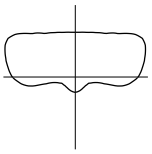
SL2 (Type II with Spill Control)



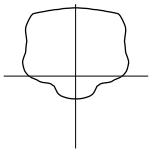
T3 (Type III)



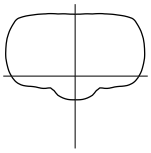
SL3 (Type III with Spill Control)



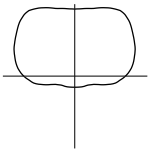
T4FT (Type IV Forward Throw)



T4W (Type IV Wide)

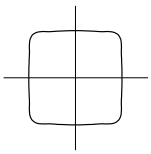


SL4 (Type IV with Spill Control)

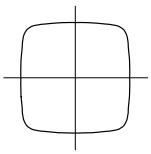


Symmetric Distributions

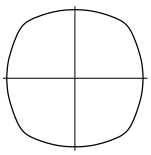
5NQ (Type V Square Narrow)



5MQ (Type V Square Medium)

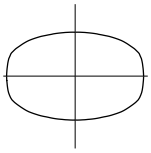


5WQ (Type V Square Wide)

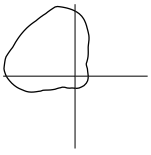


Specialized Distributions

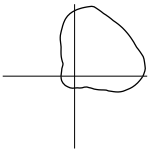
RW (Rectangular Wide Type I)



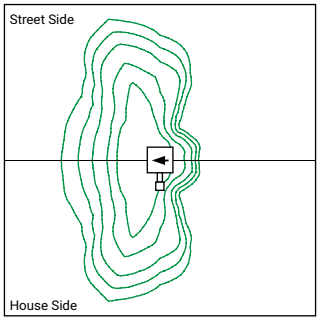
SLL (90° Spill Light Eliminator Left)



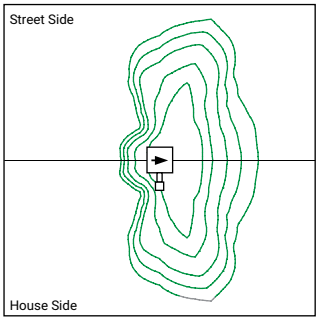
SLR (90° Spill Light Eliminator Right)



Optic Orientation



Optics Rotated Left @ 90° [L90]



Optics Rotated Right @ 90° [R90]

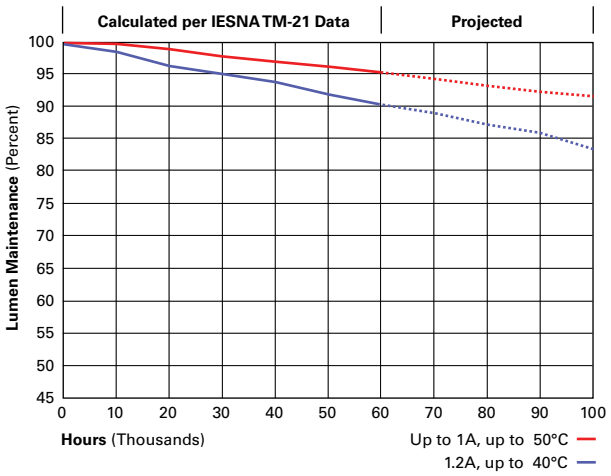
Energy and Performance Data

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0ºC	1.02
10ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.97

Lumen Maintenance

Drive Current	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Projected L70 (Hours)
Up to 1A	Up to 50°C	> 95%	> 416,000
1.2A	Up to 40°C	> 90%	> 205,000



Energy and Performance Data

View GPC Galleon Pedestrian IES files

4000K/5000K/6000K CCT, 70 CRI

Number of Light Squares		1				2			
Drive Current		615mA	800mA	1050mA	1.2A	615mA	800mA	1050mA	1.2A
Nominal Power (Watts)		34	44	59	67	66	86	113	129
Input Current @ 120V (A)		0.30	0.39	0.51	0.58	0.58	0.77	1.02	1.16
Input Current @ 208V (A)		0.17	0.22	0.29	0.33	0.34	0.44	0.56	0.63
Input Current @ 240V (A)		0.15	0.19	0.26	0.29	0.30	0.38	0.48	0.55
Input Current @ 277V (A)		0.14	0.17	0.23	0.25	0.28	0.36	0.42	0.48
Input Current @ 347V (A)		0.11	0.15	0.17	0.20	0.19	0.24	0.32	0.39
Input Current @ 480V (A)		0.08	0.11	0.14	0.15	0.15	0.18	0.24	0.30
Optics									
T2	Lumens	4,883	5,989	7,412	8,131	9,543	11,703	14,485	15,891
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	Lumens per Watt	144	136	126	121	145	136	128	123
T3	Lumens	4,978	6,105	7,556	8,288	9,729	11,929	14,764	16,196
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	146	139	128	124	147	139	131	126
T4FT	Lumens	5,008	6,140	7,599	8,337	9,783	11,998	14,850	16,290
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	147	140	129	124	148	140	131	126
T4W	Lumens	4,942	6,060	7,502	8,229	9,658	11,843	14,658	16,080
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3
	Lumens per Watt	145	138	127	123	146	138	130	125
SL2	Lumens	4,874	5,979	7,399	8,117	9,528	11,684	14,461	15,863
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3
	Lumens per Watt	143	136	125	121	144	136	128	123
SL3	Lumens	4,976	6,104	7,555	8,287	9,727	11,927	14,763	16,194
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	146	139	128	124	147	139	131	126
SL4	Lumens	4,729	5,799	7,178	7,873	9,239	11,333	14,025	15,387
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4
	Lumens per Watt	139	132	122	118	140	132	124	119
5NQ	Lumens	5,134	6,296	7,793	8,547	10,033	12,303	15,226	16,704
	BUG Rating	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2
	Lumens per Watt	151	143	132	128	152	143	135	129
5MQ	Lumens	5,228	6,412	7,935	8,705	10,216	12,529	15,508	17,011
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	154	146	134	130	155	146	137	132
5WQ	Lumens	5,242	6,428	7,956	8,728	10,244	12,563	15,548	17,056
	BUG Rating	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	154	146	135	130	155	146	138	132
SLL/SLR	Lumens	4,373	5,365	6,640	7,283	8,547	10,481	12,973	14,231
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	129	122	113	109	130	122	115	110
RW	Lumens	5,087	6,238	7,721	8,472	9,941	12,190	15,088	16,553
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	150	142	131	126	151	142	134	128

*** Nominal lumen data for 70 CRI. BUG rating for 4000K/5000K. Refer to IES files for 3000K BUG ratings.**

See IES file for BUG ratings

3000K CCT, 80 CRI

Number of Light Squares		1				2			
Drive Current		615mA	800mA	1050mA	1.2A	615mA	800mA	1050mA	1.2A
Nominal Power (Watts)		34	44	59	67	66	86	113	129
Input Current @ 120V (A)		0.30	0.39	0.51	0.58	0.58	0.77	1.02	1.16
Input Current @ 208V (A)		0.17	0.22	0.29	0.33	0.34	0.44	0.56	0.63
Input Current @ 240V (A)		0.15	0.19	0.26	0.29	0.30	0.38	0.48	0.55
Input Current @ 277V (A)		0.14	0.17	0.23	0.25	0.28	0.36	0.42	0.48
Input Current @ 347V (A)		0.11	0.15	0.17	0.20	0.19	0.24	0.32	0.39
Input Current @ 480V (A)		0.08	0.11	0.14	0.15	0.15	0.18	0.24	0.30
Optics									
T2	Lumens	3,880	4,759	5,890	6,461	7,583	9,300	11,510	12,628
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	114	108	100	96	115	108	102	98
T3	Lumens	3,956	4,851	6,004	6,586	7,731	9,479	11,732	12,870
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	Lumens per Watt	116	110	102	98	117	110	104	100
T4FT	Lumens	3,980	4,879	6,038	6,625	7,774	9,534	11,800	12,945
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	117	111	102	99	118	111	104	100
T4W	Lumens	3,927	4,816	5,961	6,539	7,675	9,411	11,648	12,778
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	116	109	101	98	116	109	103	99
SL2	Lumens	3,873	4,751	5,880	6,450	7,571	9,285	11,491	12,605
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	114	108	100	96	115	108	102	98
SL3	Lumens	3,954	4,851	6,004	6,585	7,729	9,478	11,731	12,868
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	116	110	102	98	117	110	104	100
SL4	Lumens	3,758	4,608	5,704	6,256	7,342	9,006	11,145	12,227
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3
	Lumens per Watt	111	105	97	93	111	105	99	95
5NQ	Lumens	4,080	5,003	6,193	6,792	7,973	9,776	12,099	13,274
	BUG Rating	B2-U0-G0	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2
	Lumens per Watt	120	114	105	101	121	114	107	103
5MQ	Lumens	4,154	5,095	6,305	6,917	8,118	9,956	12,323	13,518
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	122	116	107	103	123	116	109	105
5WQ	Lumens	4,166	5,108	6,322	6,936	8,140	9,983	12,355	13,553
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	123	116	107	104	123	116	109	105
SLL/SLR	Lumens	3,475	4,263	5,276	5,787	6,792	8,329	10,309	11,309
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	102	97	89	86	103	97	91	88
RW	Lumens	4,042	4,957	6,135	6,732	7,900	9,687	11,990	13,154
	BUG Rating	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2
	Lumens per Watt	119	113	104	100	120	113	106	102

*** Nominal lumen data for 70 CRI. BUG rating for 4000K/5000K. Refer to IES files for 3000K BUG ratings.**

Control Options

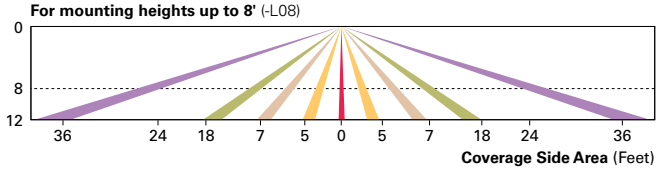
0-10V This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC, PR, and PR7) Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

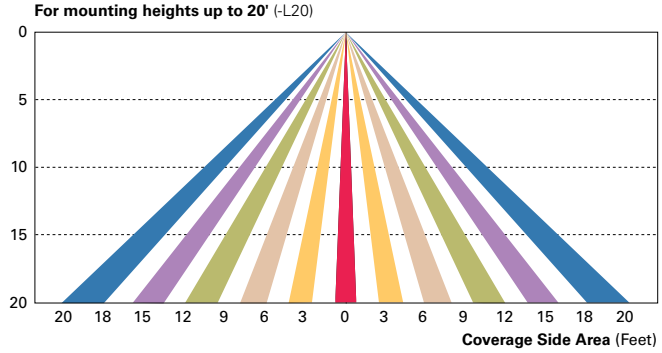
After Hours Dim (AHD) This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX and MS-LXX) These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

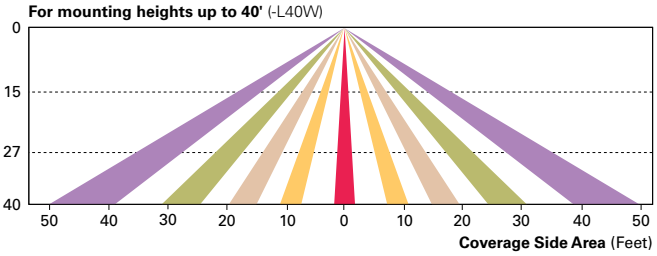
For mounting heights up to 8' (-L08)



For mounting heights up to 20' (-L20)

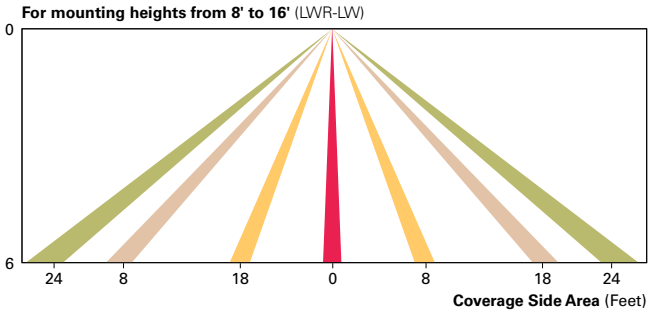


For mounting heights up to 40' (-L40W)

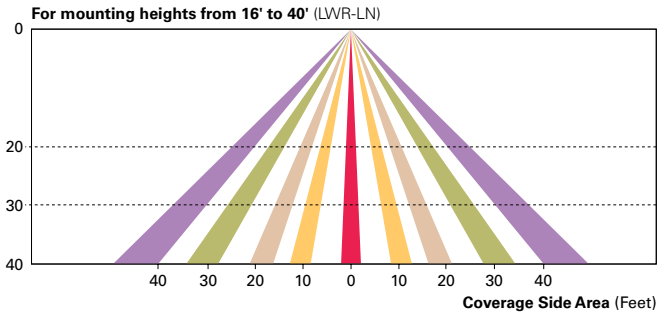


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN) The Enlighted control system is a connected lighting solution, combining LED luminaires with an integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes while collecting valuable data about building performance and use. Software applications utilizing energy dashboards maximize data inputs to help optimize the use of other resources beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)



WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A) The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

Type ZR__ series

Project		Catalog #		Type	
Prepared by		Notes		Date	

McGraw-Edison

GALN Galleon II

Area / Site Luminaire

Product Features

Light ARchitect™

Interactive Menu

Product Certifications

ISO CERTIFIED, DLC QPL LISTED [1], DLC QPL LISTED PREMIUM [1], 3G VIB, IP66, UL CERTIFIED, ida DARK SKY APPROVED [2], 5 YEAR LIMITED WARRANTY, BAA BUY AMERICAN ACT AVAILABLE

Quick Facts

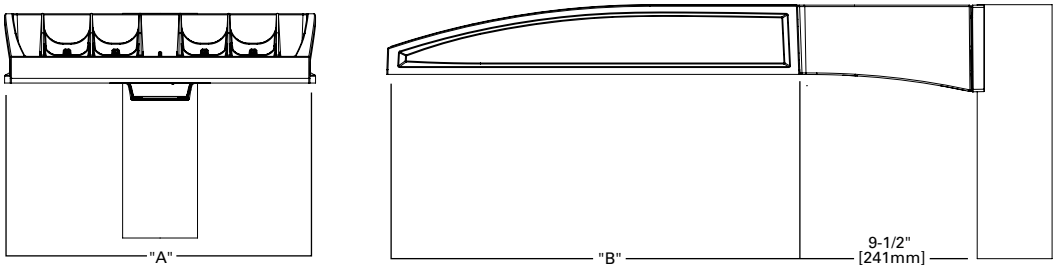
- Lumen packages range from 3,300 - 73,500 (33W - 552W)
- 16 optical distributions
- Efficacy up to 159 lumens per watt

Connected Systems

- WaveLinx Lite
- WaveLinx

Dimensional Details

Standard Arm



Number of Light Squares	Width "A"	Housing Length "B"	Weight with Standard or QM Arm	EPA with Standard or QM Arm
1-4	16"	22"	29 lb	0.95
5-6	22"	22"	39 lb	0.95
7-9	22"	28-1/8"	48 lb	1.1

NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.
2. IDA Certified for 3000K CCT and warmer only.

Ordering Information

SAMPLE NUMBER: **GALN-SA4C-740-U-T4FT-GM**

Product Family [1, 2]	Light Engine		Color Temperature	Voltage	Distribution	Mounting	Finish
	Configuration	Drive Current					
GALN=Galleon II **BAA-GALN**=Galleon II Buy American Act Compliant [27] **TAA-GALN**=Galleon II Trade Agreements Act Compliant [27]	**SA1**=1 Square **SA2**=2 Squares **SA3**=3 Squares **SA4**=4 Squares **SA5**=5 Squares **SA6**=6 Squares **SA7**=7 Squares **SA8**=8 Squares **SA9**=9 Squares	**A**=600mA **B**=800mA **C**=1000mA **D**=1200mA [4, 17]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [15, 17]	**U**=120-277V **H**=347V-480V [7] **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [7] **9**=347V [7]	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **5NQ**=Type V Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **AFL**=Automotive Frontline	**[Blank]**=Standard Pole Mount Arm **QM**=Standard Pole Mount Arm with Quick Mount Adaptor **PA**=Pole Mount, Adjustable **SP**=Slipfitter, Adjustable [8] **MA**=Mast Arm, Fixed **WM**=Wall Mount, Fixed **WA**=Wall Mount, Adjustable **UP**=Upswept Arm	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **RALXX**=Custom Color

Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)	Accessories (Order Separately) [28]
DIM=External 0-10V Dimming Leads [20] **F**=Single Fuse (120, 277 or 347V Specify Voltage) **FF**=Double Fuse (208, 240 or 480V Specify Voltage) **20K**=20kV UL 1449 fused surge protective device [10] **2L**=Two Circuits [10] **HA**=50°C High Ambient **HSS**=Installed House Side Shield [18] **GRSBK**=Glare Reducing Shield, Black [23] **GRSWH**=Glare Reducing Shield, White [23] **LCF**=Light Square Trim Painted to Match Housing [26] **TH**=Tool-less Door Hardware [5] **CC**=Coastal Construction finish [3] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **AHD145**=After Hours Dim, 5 Hours [22] **AHD245**=After Hours Dim, 6 Hours [22] **AHD255**=After Hours Dim, 7 Hours [22] **AHD355**=After Hours Dim, 8 Hours [22] **DALI**=DALI Drivers	**BPC**=Button Type Photocontrol [6] **PR**=NEMA 3-PIN Photocontrol Receptacle **PR7**=NEMA 7-PIN Photocontrol Receptacle [21] **SPB2**=Dimming Motion Sensor, 9'-20' mounting [24] **SPB4**=Dimming Motion Sensor, 21'-40' mounting [24] **SPB2/X**=Dimming Motion Sensor, limited square count, 9'-20' mounting [24] **SPB4/X**=Dimming Motion Sensor, limited square count, 21'-40' mounting [24] **ZW**=WaveLinx Module and 4-PIN Receptacle [19] **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle [19] **ZW-SWPD4XX**=WaveLinx Sensor Only, 7-15ft [19, 12, 13] **ZW-SWPD5XX**=WaveLinx Sensor Only, 15-40ft [19, 12, 13] **ZW-WOBXX**=WaveLinx Sensor with Bluetooth, 7-15ft [19, 12, 13] **ZW-WOFXX**=WaveLinx Sensor with Bluetooth, 15-40ft [19, 12, 13] **ZD-SWPD4XX**=WaveLinx Sensor Only, 7-15ft [19, 12, 13] **ZD-SWPD5XX**=WaveLinx Sensor Only, 15-40ft [19, 12, 13] **ZD-WOBXX**=WaveLinx Sensor with Bluetooth, 7-15ft [19, 12, 13] **ZD-WOFXX**=WaveLinx Sensor with Bluetooth, 15-40ft [19, 12, 13] **DIM10-MS/DIM-L20**=Synapse Occupancy Sensor (9'-20' Mounting) [19] **DIM10-MS/DIM-L40**=Synapse Occupancy Sensor (21'-40' Mounting) [19]	**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 **SRA238**=Adapter kit for mounting to 2-3/8" O.D. Tenon **LS/HSS**=Field Installed House Side Shield [9, 18] **LS/GRSBK**=Glare Reducing Shield, Black [9, 23] **LS/GRSWH**=Glare Reducing Shield, White [9, 23] **LS/PFS**=Perimeter Shield, Black [16] **WOLC-7P-10A**=WaveLinx Outdoor Control Module [11, 19] **WOA-XX**=WaveLinx Wireless Sensor, 7'–15' Mounting Height [12, 13, 14, 19] **WOE-XX**=WaveLinx Wireless Sensor, 15'–40' Mounting Height [12, 13, 14, 19]

NOTES:

1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. Not available with TH option.
4. Drive current 1200mA not available with color temperatures 722, 727 or 830 when either HA or HSS options are selected.
5. TH option not 3G rated. Not available with Coastal Construction (CC) option.
6. Not available with voltage options H, 8 or 9.
7. Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
8. Adjustable Slipfitter arm limited to vertical 3" tenon. For mounting to 2-3/8" O.D. tenons, order accessory SRA238.
9. One required for each Light Square.
10. 2L is not available with SPB at 347V or 480V. Not available with WaveLinx or Enlighted sensors, or 20kV surge option.
11. Requires PR7.
12. Replace XX with sensor color (WH, BZ or BK.)
13. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed. WAC not required for LC Bluetooth sensors.
14. Requires ZW or ZD receptacle.
15. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
16. Set of 4 pcs. One set required per Light Square.
17. Not available with HA option.
18. Not for use with 5NQ, 5MQ, 5WQ or RW optics. A black trim plate is used when HSS is selected.
19. Cannot be used with other control options.
20. Low voltage control lead brought out 18" outside fixture. Not available with DALI or integrated controls options
21. Not available if any SPB, LWR, or WaveLinx sensor is selected. Motion sensor has an integral photocell.
22. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory.
23. Not for use with T4FT, T4W or SL4 optics. See IES files for details.
24. Sensor configuration mobile application required for configuration. See controls page for details.
25. Replace X with number of Light Squares controlled by the SPB, referencing the "SPB/X Availability Table" on the controls page.
26. Not available with HSS, GRSWH or GRSBK.
27. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
28. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

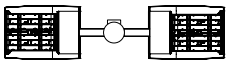
Product Family	Camera Type	Data Backhaul	
L=LumenSafe Technology	**D**=Standard Dome Camera **H**=Hi-Res Dome Camera **Z**=Remote PTZ Camera	**C**=Cellular, No SIM **A**=Cellular, AT&T **V**=Cellular, Verizon **S**=Cellular, Sprint	**R**=Cellular, Rogers **W**=Wi-Fi Networking w/ Omni-Directional Antenna **E**=Ethernet Networking

ZR3A: GALN SA1 A 830 8 T3R HSS PR7 WOLC-7P-10A, 6 ft arm
ZR3A-6: GALN SA1 A 830 8 T3R HSS PR7 WOLC-7P-10A, 6 ft arm
ZRWA-6: GALN SA1 A 830 8 T4W HSS PR7 RWOLC-7P-10A, 6 ft arm
ZR5B-6: GALN SA1 B 830 8 5WQ (no shield) PR7 WOLC-7P-10A, 6 ft arm
ZR3B-6: GALN SA1 B 830 8 T3R HSS PR7 WOLC-7P-10A, 6 ft arm
ZRFB-6: GALN SA1 B 830 8 T4FT HSS PR7 WOLC-7P-10A, 6 ft arm
ZRWB-6: GALN SA1 B 830 8 T4W HSS PR7 WOLC-7P-10A, 6 ft arm

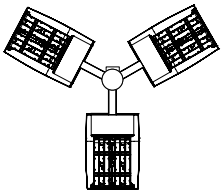
Mounting Details

Pole Configuration Options

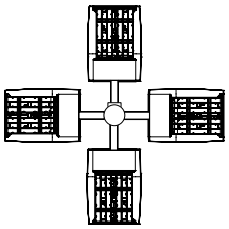
2 @ 180°



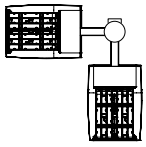
3 @ 120°
(Round poles only)



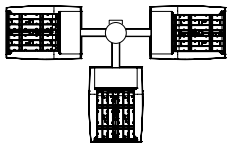
4 @ 90°



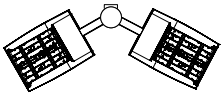
2 @ 90°



3 @ 90°
(Round or square poles only)

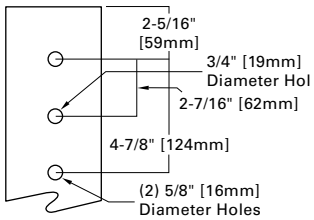


2 @ 120°
(Round poles only)

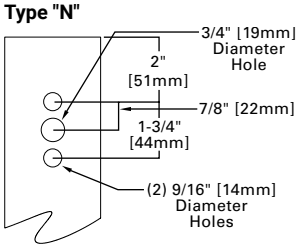


Pole Drilling Patterns

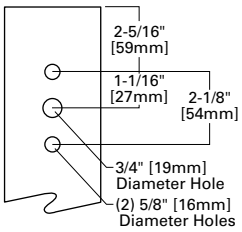
Type "M"



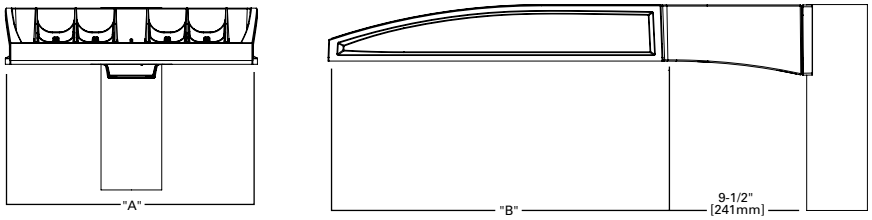
Type "N"



Type "R"



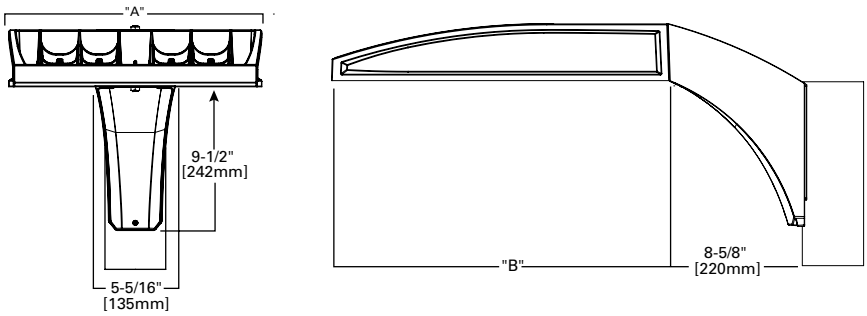
Quick Mount Arm (QM) *



*NOTE: Use Type N drilling pattern

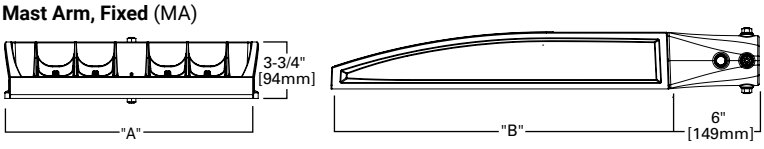
ZW3A

Upswept Arm (UP) *



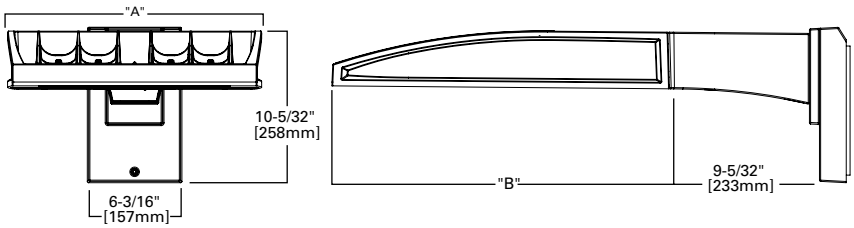
*NOTE: Use Type N, R or M drilling pattern

Mast Arm, Fixed (MA)



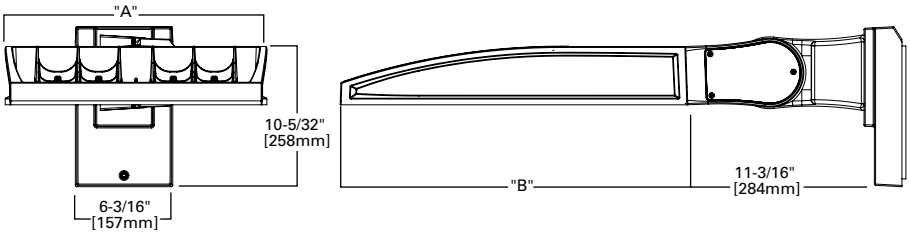
ZR3A-6
ZRWA-6
ZR5B-6
ZR3B-6
ZRFB-6
ZRWB-6

Wall Mount, Fixed (WM)

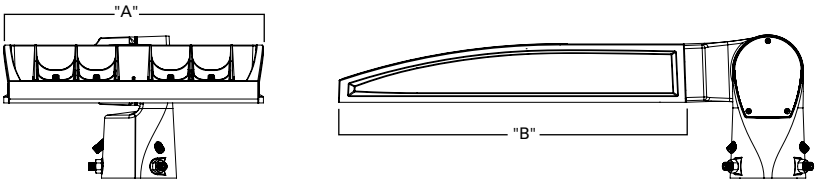


Mounting Details

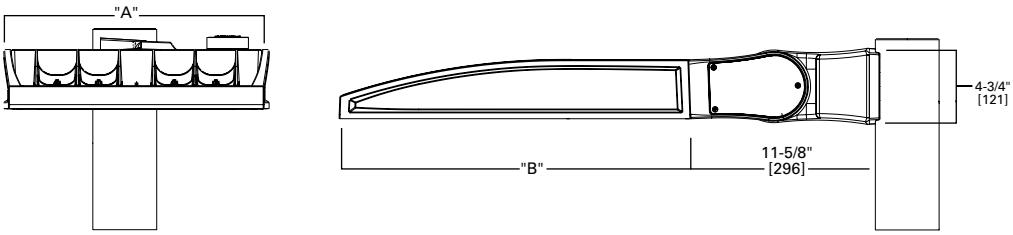
Wall Mount, Adjustable (WA)



Slipfitter, Adjustable (SP)

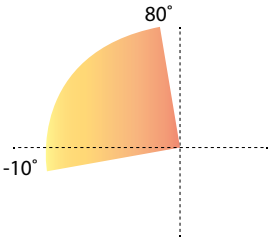


Pole Mount, Adjustable Arm (PA)



Adjustable Arm Range of Motion

- Wall Mount (WA), Slipfitter (SP) and Pole Mount (PA)
- Adjustable in increments of 5°
- Must maintain downward facing orientation



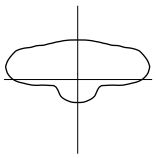
Fixture Weights and EPAs

Tilt Angle (Degrees)	Number of Light Squares	Weight	1 @ 90°	2 @ 180°	2 @ 90°	2 @ 120°	3 @ 90°	3 @ 120°	4 @ 90°
0°	1-4	33.5 lb (15.2 kg)	0.85	1.70	1.46	1.66	2.31	2.25	2.35
	5-6	43.5 lb (19.7 kg)	0.86	1.71	1.62	1.80	2.49	2.35	2.50
	7-9	52.5 lb (23.8 kg)	0.98	1.95	1.75	1.98	2.73	2.55	2.76
15°	1-4	33.5 lb (15.2 kg)	1.10	1.71	1.95	2.26	2.81	3.30	2.87
	5-6	43.5 lb (19.7 kg)	1.42	1.71	2.27	2.72	3.13	3.63	3.15
	7-9	52.5 lb (23.8 kg)	1.69	1.96	2.67	3.22	3.65	4.38	3.72
30°	1-4	33.5 lb (15.2 kg)	1.72	1.81	2.58	3.21	3.44	4.59	3.53
	5-6	43.5 lb (19.7 kg)	2.26	2.29	3.11	4.00	3.97	5.27	4.00
	7-9	52.5 lb (23.8 kg)	2.75	2.85	3.73	4.83	4.71	6.45	4.81
45°	1-4	33.5 lb (15.2 kg)	2.25	2.36	3.10	4.00	3.96	5.63	4.08
	5-6	43.5 lb (19.7 kg)	2.96	2.99	3.81	5.06	4.67	6.49	4.71
	7-9	52.5 lb (23.8 kg)	3.63	3.76	3.73	6.17	5.59	8.03	5.73
60°	1-4	33.5 lb (15.2 kg)	2.63	2.77	3.49	4.58	4.34	6.21	4.48
	5-6	43.5 lb (19.7 kg)	3.46	3.51	4.32	5.84	5.19	7.01	5.22
	7-9	52.5 lb (23.8 kg)	4.27	4.44	5.25	7.15	6.23	8.80	6.40

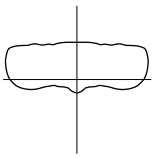
Optical Distributions

Asymmetric Area Distributions

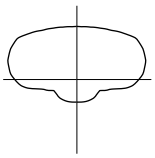
T2 (Type II)



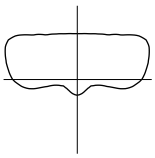
SL2 (Type II with Spill Control)



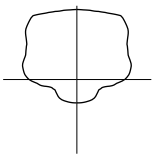
T3 (Type III)



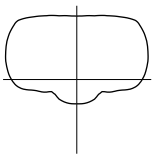
SL3 (Type III with Spill Control)



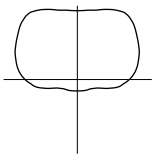
T4FT (Type IV Forward Throw)



T4W (Type IV Wide)

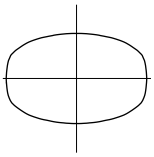


SL4 (Type IV with Spill Control)

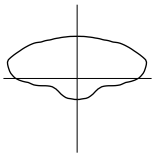


Asymmetric Roadway Distributions

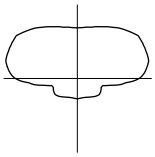
RW (Rectangular Wide Type I)



T2R (Type II Roadway)

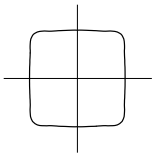


T3R (Type III Roadway)

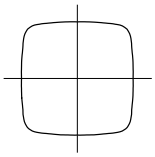


Symmetric Distributions

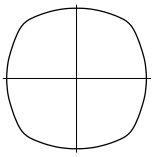
5NQ (Type V Square Narrow)



5MQ (Type V Square Medium)

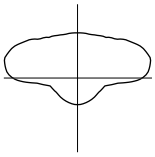


5WQ (Type V Square Wide)

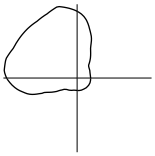


Specialized Distributions

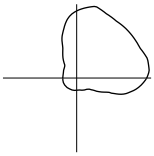
AFL (Automotive Frontline)



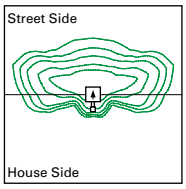
SLL (90° Spill Light Eliminator Left)



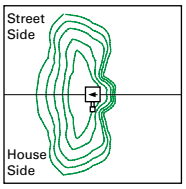
SLR (90° Spill Light Eliminator Right)



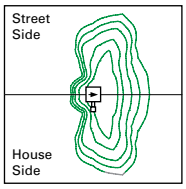
Rotated Optics



Standard



Optics Rotated Left @ 90° [L90]



Optics Rotated Right @ 90° [R90]

Product Specifications

Construction
- Die-cast aluminum housing and heat sink
- Three housing sizes, using 1 to 9 light squares

Optics
- High-efficiency injection-molded AccuLED Optics technology
- 16 optical distributions for area site and roadway applications
- 3 shielding options include HSS, GRS and PFS
- IDA certified (3000K CCT and warmer only, arms at 0° tilt)

Electrical
- Removable power tray assembly includes drivers, surge modules and control modules for ease of maintenance and serviceability
- Standard with 0-10V dimming
- Standard with 10kV surge module, optional 20kV surge module
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration

Mounting
- Arms are factory installed, enabling closed-housing installation
- All arms suitable for round or square pole installation
- All arms provide clearance for multiple fixture installations at 90°

Finish
- 6 standard finishes use super durable TGIC polyester powder coat paint, providing 2.5 mil nominal thickness and salt-spray tested to 3,000 hours per ASTM B117
- RAL and custom color matches available
- Coastal Construction (CC) option salt-spray tested to 5,000 hours per ASTM B117, achieving a scribe rating of 9 per ASTM D1654

Typical Applications
- Outdoor, Parking Lots, Walkways, Roadways, Building Areas

Warranty
- Five year limited warranty

Energy and Performance Data

Lumen Maintenance (TM-21)

Drive Current	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
Up to 1A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.7%	98.3%	98.1%	97.4%	> 1.9M
	50°C	98.2%	97.2%	96.8%	95.2%	> 851,000
1.2A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.5%	97.9%	97.7%	96.7%	> 1.3M

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0ºC	1.02
10ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.97

* Supported by IES TM-21 standards
** Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

Performance Table, Drive Current "A" (615mA)

Number of Light Squares		1	2	3	4	5	6	7	8	9
Nominal Power (Watts)		33	63	93	121	154	182	215	244	274
Input Current @ 120V		0.283	0.529	0.778	1.058	1.310	1.556	1.839	2.089	2.335
Input Current @ 208V		0.165	0.309	0.460	0.618	0.771	0.919	1.082	1.240	1.379
Input Current @ 240V		0.143	0.270	0.398	0.540	0.671	0.796	0.944	1.078	1.194
Input Current @ 277V		0.125	0.237	0.352	0.473	0.581	0.705	0.818	0.962	1.057
Input Current @ 347V		0.098	0.181	0.272	0.362	0.454	0.544	0.636	0.738	0.816
Input Current @ 480V		0.073	0.133	0.200	0.267	0.335	0.400	0.470	0.554	0.600
Optics										
T2	4000K Lumens	4,654	9,249	13,730	18,194	23,032	27,273	32,034	37,138	41,694
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
	Lumens per Watt	141	147	148	150	150	150	149	152	152
T2R	4000K Lumens	4,716	9,372	13,913	18,437	23,340	27,637	32,462	37,634	42,251
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
	Lumens per Watt	143	149	150	152	152	152	151	154	154
T3	4000K Lumens	4,589	9,120	13,538	17,940	22,711	26,892	31,587	36,620	41,112
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B4-U0-G4
	Lumens per Watt	139	145	146	148	147	148	147	150	150
T3R	4000K Lumens	4,735	9,411	13,970	18,513	23,436	27,751	32,596	37,790	42,425
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
	Lumens per Watt	143	149	150	153	152	152	152	155	155
T4FT	4000K Lumens	4,617	9,176	13,622	18,051	22,851	27,058	31,782	36,847	41,366
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	140	146	146	149	148	149	148	151	151
T4W	4000K Lumens	4,631	9,203	13,662	18,104	22,918	27,138	31,876	36,955	41,488
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4
	Lumens per Watt	140	146	147	150	149	149	148	151	151
SL2	4000K Lumens	4,619	9,180	13,627	18,058	22,860	27,069	31,795	36,861	41,383
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5
	Lumens per Watt	140	146	147	149	148	149	148	151	151
SL3	4000K Lumens	4,586	9,115	13,531	17,931	22,699	26,879	31,571	36,602	41,091
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
	Lumens per Watt	139	145	145	148	147	148	147	150	150
SL4	4000K Lumens	4,529	9,002	13,363	17,708	22,417	26,544	31,178	36,146	40,580
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	137	143	144	146	146	146	145	148	148
5NQ	4000K Lumens	4,829	9,598	14,247	18,880	23,901	28,301	33,242	38,539	43,266
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3
	Lumens per Watt	146	152	153	156	155	155	155	158	158
5MQ	4000K Lumens	4,853	9,645	14,318	18,974	24,020	28,442	33,407	38,731	43,482
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	147	153	154	157	156	156	155	159	159
5WQ	4000K Lumens	4,843	9,625	14,288	18,934	23,969	28,382	33,337	38,649	43,390
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	147	153	154	156	156	156	155	158	158
SLL/ SLR	4000K Lumens	3,989	7,927	11,768	15,594	19,741	23,375	27,456	31,831	35,736
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
	Lumens per Watt	121	126	127	129	128	128	128	130	130
RW	4000K Lumens	4,774	9,488	14,085	18,665	23,628	27,979	32,863	38,100	42,774
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
	Lumens per Watt	145	151	151	154	153	154	153	156	156
AFL	4000K Lumens	4,673	9,286	13,785	18,268	23,126	27,384	32,164	37,290	41,864
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
	Lumens per Watt	142	147	148	151	150	150	150	153	153

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Performance Table, Drive Current "B" (800mA)

Number of Light Squares		1	2	3	4	5	6	7	8	9
Nominal Power (Watts)		44	82	121	164	204	243	286	325	364
Input Current @ 120V		0.367	0.689	1.014	1.378	1.704	2.027	2.393	2.716	3.041
Input Current @ 208V		0.213	0.401	0.594	0.802	0.997	1.188	1.400	1.605	1.782
Input Current @ 240V		0.184	0.347	0.510	0.694	0.860	1.021	1.210	1.386	1.531
Input Current @ 277V		0.160	0.303	0.449	0.605	0.757	0.898	1.065	1.242	1.347
Input Current @ 347V		0.125	0.235	0.355	0.471	0.592	0.710	0.828	0.958	1.065
Input Current @ 480V		0.092	0.172	0.258	0.344	0.432	0.517	0.605	0.706	0.775
Optics										
T2	4000K Lumens	5,790	11,508	17,083	22,638	28,658	33,935	39,859	46,210	51,879
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	132	140	141	138	140	140	139	142	143
T2R	4000K Lumens	5,868	11,662	17,311	22,941	29,041	34,388	40,391	46,827	52,572
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	133	142	143	140	142	142	141	144	144
T3	4000K Lumens	5,710	11,347	16,845	22,322	28,258	33,461	39,303	45,565	51,155
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B4-U0-G4	B4-U0-G5	B4-U0-G5
	Lumens per Watt	130	138	139	136	139	138	137	140	141
T3R	4000K Lumens	5,892	11,710	17,383	23,035	29,161	34,530	40,558	47,020	52,788
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	134	143	144	140	143	142	142	145	145
T4FT	4000K Lumens	5,745	11,418	16,949	22,460	28,433	33,668	39,546	45,847	51,471
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	131	139	140	137	139	139	138	141	141
T4W	4000K Lumens	5,762	11,451	16,999	22,526	28,517	33,767	39,662	45,982	51,622
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
	Lumens per Watt	131	140	140	137	140	139	139	141	142
SL2	4000K Lumens	5,747	11,422	16,956	22,469	28,444	33,681	39,561	45,865	51,491
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	131	139	140	137	139	139	138	141	141
SL3	4000K Lumens	5,707	11,342	16,836	22,311	28,244	33,444	39,283	45,542	51,129
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	130	138	139	136	138	138	137	140	140
SL4	4000K Lumens	5,636	11,201	16,627	22,034	27,893	33,028	38,794	44,976	50,493
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	128	137	137	134	137	136	136	138	139
5NQ	4000K Lumens	6,009	11,942	17,727	23,492	29,739	35,214	41,362	47,953	53,835
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
	Lumens per Watt	137	146	147	143	146	145	145	148	148
5MQ	4000K Lumens	6,039	12,001	17,816	23,609	29,887	35,389	41,568	48,191	54,103
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	137	146	147	144	147	146	145	148	149
5WQ	4000K Lumens	6,026	11,976	17,778	23,559	29,824	35,315	41,480	48,090	53,989
	BUG Rating	B3-U0-G1	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	137	146	147	144	146	145	145	148	148
SLL/ SLR	4000K Lumens	4,963	9,863	14,642	19,403	24,563	29,085	34,163	39,607	44,465
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	113	120	121	118	120	120	119	122	122
RW	4000K Lumens	5,940	11,806	17,526	23,224	29,400	34,813	40,891	47,407	53,222
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	135	144	145	142	144	143	143	146	146
AFL	4000K Lumens	5,814	11,555	17,153	22,730	28,775	34,073	40,021	46,398	52,090
	BUG Rating	B1-U0-G1	B2-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4
	Lumens per Watt	132	141	142	139	141	140	140	143	143

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Performance Table, Drive Current "C" (1050mA)

Number of Light Squares		1	2	3	4	5	6	7	8	9
Nominal Power (Watts)		57	108	160	213	269	321	377	429	481
Input Current @ 120V		0.478	0.905	1.338	1.810	2.244	2.675	3.150	3.584	4.013
Input Current @ 208V		0.279	0.532	0.780	1.064	1.313	1.559	1.845	2.093	2.339
Input Current @ 240V		0.243	0.458	0.664	0.916	1.123	1.328	1.582	1.788	1.991
Input Current @ 277V		0.213	0.404	0.582	0.808	0.997	1.164	1.401	1.589	1.745
Input Current @ 347V		0.164	0.322	0.471	0.644	0.795	0.943	1.117	1.269	1.414
Input Current @ 480V		0.121	0.235	0.341	0.469	0.579	0.681	0.814	0.923	1.022
Optics										
T2	4000K Lumens	7,154	14,219	21,107	27,970	35,408	41,927	49,247	57,094	64,098
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	132	132	131	132	131	131	133	133
T2R	4000K Lumens	7,250	14,408	21,389	28,344	35,881	42,487	49,905	57,857	64,954
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	127	133	134	133	133	132	132	135	135
T3	4000K Lumens	7,054	14,020	20,812	27,580	34,914	41,342	48,560	56,297	63,203
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B4-U0-G4	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	124	130	130	129	130	129	129	131	131
T3R	4000K Lumens	7,280	14,468	21,477	28,461	36,029	42,663	50,111	58,096	65,222
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	128	134	134	134	134	133	133	135	136
T4FT	4000K Lumens	7,098	14,107	20,941	27,751	35,130	41,598	48,860	56,646	63,594
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	125	131	131	130	131	130	130	132	132
T4W	4000K Lumens	7,119	14,148	21,003	27,832	35,233	41,720	49,004	56,812	63,781
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5	B5-U0-G5
	Lumens per Watt	125	131	131	131	131	130	130	132	133
SL2	4000K Lumens	7,101	14,112	20,949	27,761	35,144	41,614	48,879	56,668	63,619
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	125	131	131	130	131	130	130	132	132
SL3	4000K Lumens	7,051	14,013	20,802	27,566	34,897	41,321	48,535	56,269	63,172
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	124	130	130	129	130	129	129	131	131
SL4	4000K Lumens	6,963	13,839	20,543	27,223	34,463	40,808	47,932	55,569	62,386
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	122	128	128	128	128	127	127	130	130
5NQ	4000K Lumens	7,424	14,755	21,903	29,025	36,743	43,508	51,104	59,247	66,515
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	130	137	137	136	137	136	136	138	138
5MQ	4000K Lumens	7,461	14,828	22,012	29,169	36,926	43,725	51,359	59,542	66,846
	BUG Rating	B3-U0-G1	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	131	137	138	137	137	136	136	139	139
5WQ	4000K Lumens	7,445	14,797	21,966	29,108	36,849	43,633	51,250	59,417	66,705
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	131	137	137	137	137	136	136	139	139
SLL/ SLR	4000K Lumens	6,132	12,187	18,091	23,973	30,348	35,936	42,210	48,935	54,938
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	108	113	113	113	113	112	112	114	114
RW	4000K Lumens	7,340	14,587	21,653	28,694	36,325	43,013	50,522	58,573	65,757
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	129	135	135	135	135	134	134	137	137
AFL	4000K Lumens	7,183	14,276	21,193	28,084	35,552	42,098	49,448	57,327	64,359
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B4-U0-G4
	Lumens per Watt	126	132	132	132	132	131	131	134	134

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Performance Table, Drive Current "D" (1200mA)

Number of Light Squares		1	2	3	4	5	6	7	8	9
Nominal Power (Watts)		65	125	184	245	309	368	433	493	552
Input Current @ 120V		0.546	1.041	1.535	2.082	2.578	3.070	3.619	4.114	4.605
Input Current @ 208V		0.318	0.610	0.893	1.219	1.504	1.786	2.113	2.397	2.679
Input Current @ 240V		0.276	0.523	0.758	1.046	1.282	1.516	1.806	2.041	2.274
Input Current @ 277V		0.241	0.460	0.662	0.920	1.133	1.325	1.593	1.807	1.987
Input Current @ 347V		0.187	0.370	0.543	0.740	0.915	1.085	1.285	1.459	1.628
Input Current @ 480V		0.138	0.269	0.391	0.537	0.663	0.782	0.932	1.057	1.173
Optics										
T2	4000K Lumens	7,872	15,645	23,225	30,777	38,962	46,135	54,189	62,824	70,530
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	125	126	126	126	125	125	127	128
T2R	4000K Lumens	7,977	15,854	23,535	31,188	39,482	46,751	54,913	63,663	71,472
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	127	128	127	128	127	127	129	129
T3	4000K Lumens	7,762	15,427	22,901	30,348	38,418	45,491	53,433	61,947	69,546
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G4	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	123	124	124	124	124	123	126	126
T3R	4000K Lumens	8,010	15,920	23,632	31,317	39,645	46,944	55,139	63,925	71,767
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	127	128	128	128	128	127	130	130
T4FT	4000K Lumens	7,810	15,522	23,043	30,535	38,655	45,772	53,763	62,330	69,976
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	120	124	125	125	125	124	124	126	127
T4W	4000K Lumens	7,833	15,568	23,110	30,625	38,769	45,907	53,921	62,513	70,182
	BUG Rating	B2-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G5	B4-U0-G5	B5-U0-G5
	Lumens per Watt	121	125	126	125	125	125	125	127	127
SL2	4000K Lumens	7,813	15,528	23,052	30,547	38,670	45,790	53,784	62,354	70,003
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	120	124	125	125	125	124	124	126	127
SL3	4000K Lumens	7,758	15,419	22,889	30,332	38,398	45,468	53,406	61,916	69,511
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	123	124	124	124	124	123	126	126
SL4	4000K Lumens	7,662	15,228	22,605	29,955	37,921	44,903	52,742	61,146	68,646
	BUG Rating	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	118	122	123	122	123	122	122	124	124
5NQ	4000K Lumens	8,169	16,235	24,101	31,938	40,431	47,874	56,232	65,193	73,190
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	126	130	131	130	131	130	130	132	133
5MQ	4000K Lumens	8,210	16,316	24,221	32,097	40,632	48,113	56,512	65,517	73,554
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	126	131	132	131	131	131	131	133	133
5WQ	4000K Lumens	8,192	16,282	24,170	32,029	40,546	48,011	56,393	65,379	73,399
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	126	130	131	131	131	130	130	133	133
SLL/ SLR	4000K Lumens	6,747	13,410	19,906	26,379	33,394	39,542	46,445	53,846	60,451
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	104	107	108	108	108	107	107	109	110
RW	4000K Lumens	8,076	16,050	23,826	31,574	39,970	47,329	55,592	64,450	72,356
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	124	128	129	129	129	129	128	131	131
AFL	4000K Lumens	7,904	15,709	23,320	30,902	39,120	46,323	54,410	63,079	70,817
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G4	B4-U0-G4
	Lumens per Watt	122	126	127	126	127	126	126	128	128

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Control Options

0-10V (DIM)
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC, PR and PR7)
Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

After Hours Dim (AHD)
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (SPB)
These passive infrared (PIR) sensors are factory installed in the luminaire housing. When the SPB sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when no motion is detected. After a period of time, the luminaire turns off, and when motion is detected, the luminaire returns to full light output. The SPB sensor default parameters are listed in the table below, and can be configured utilizing the Sensor Configuration mobile application for iOS and Android devices. The SPB/X is configured to control only the specified number of light squares. An integral photocontrol can be activated with the app for "dusk-to-dawn" control or daylight harvesting - the factory default is off. Three sensor lenses are available to optimize the coverage pattern for mounting heights from 8'-40'. Four sensor colors are available; Bronze, Black, Gray and White, and are automatically selected based on the luminaire finish as indicated by the table below.

SPB sensor finish matched to luminaire finish

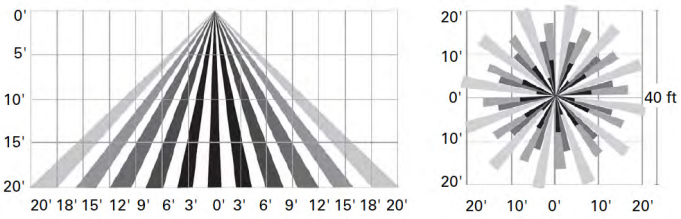
Luminaire Finish		SPB Sensor Finish
WH	White	White
BK	Black	Black
GM	Graphite Metallic	Black
BZ	Bronze	Bronze
AP	Gray	Gray
DP	Dark Platinum	Gray

SPB/X Availability Table

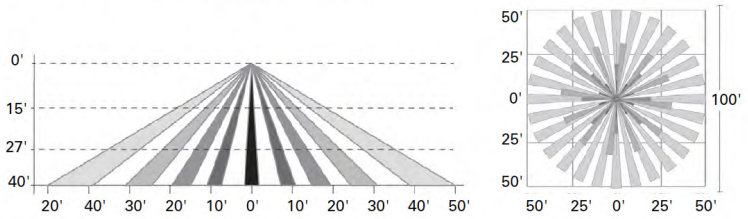
Fixture Square Count	Available SPB/X Square Count
1	Not Available
2	Not Available
3	Not Available
4	2
5	2 or 3
6	3
7	2, 3, 4 or 5
8	2, 3, 5 or 6
9	3 or 6

WaveLinx Wireless Control and Monitoring System
Operates on a wireless mesh network based on IEEE 802.15.4 standards enabling wireless control of outdoor lighting. WaveLinx and WaveLinx Lite sensors utilize the Zhaga Book 18 compliant 4-PIN receptacle (ZD or ZW), while the WOLC control module utilizes a 7-PIN receptacle. ZW option provides 4-PIN receptacle and control module to enable future installation of WaveLinx sensors. ZD option provides 4-PIN receptacle and sensor-ready (SR) driver to enable future installation of WaveLinx sensors, power monitoring, and advanced functionality. WaveLinx (SWPD4 to SWPD5) outdoor wireless sensors offer passive infrared (PIR) occupancy and photocell for closed loop daylight harvesting, and can be factory or field-installed. Sensors are factory preset to dim down to 50% after 15 minutes of no motion detected. Two lens options are available for mounting heights of 7' to 40'. Use the WaveLinx mobile application for set-up and configuration. At least one Wireless Area Controller (WAC) is required for full functionality and remote communication (including adjustment of any factory pre-sets). WaveLinx Lite (WOF and WOB) outdoor wireless sensors provide PIR occupancy and photocell for closed loop daylight harvesting, and can be factory or field-installed. Sensors are factory preset to dim down to 50% after 15 minutes of no motion detected. Two lens options are available for mounting heights of 7' to 40'. Use the WaveLinx Lite mobile application for set-up and configuration. WAC not required. WaveLinx Outdoor Control Module (WOLC-7P-10A) accessory provides a photocontrol enabling astronomic or time-based schedules to provide ON, OFF and dimming control of fixtures utilizing a 7-PIN receptacle. The out-of-box functionality is ON at dusk and OFF at dawn.

For mounting heights up to 15' (SWPD4 and WOB)



For mounting heights up to 40' (SWPD5 and WOF)



LumenSafe Integrated Network Security Camera (LD)
Cooper Lighting Solutions brings ease of camera deployment to a whole new level. No additional wiring is needed beyond providing line power to the luminaire. A variety of networking options allows security integrators to design the optimal solution for active surveillance. As the ideal solution to meet the needs for active surveillance, the LumenSafe integrated network camera is a streamlined, outdoor-ready fixed dome that provides HDTV 1080p video. This IP camera is optimally designed for deployment in the video management system or security software platform of choice.

Synapse (DIM10)
SimplySNAP integrated wireless controls system by Synapse. Includes factory installed DIM10 Synapse control module and MS/DC motion sensor; requires additional Synapse system components for operation. Contact Synapse at www.synapsewireless.com for product support, warranty and terms and conditions.

3000K CCT, 80CRI

Number of Light Squares		1	2	3	4	5	6	7	8	9
Drive Current "A"		615mA	615mA	615mA	615mA	615mA	615mA	615mA	615mA	615mA
Optics										
T2	Lumens	3,698	7,350	10,910	14,458	18,302	21,672	25,456	29,512	33,132
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
	Lumens per Watt	112	117	117	119	119	119	118	121	121
T2R	Lumens	3,747	7,448	11,056	14,651	18,547	21,962	25,796	29,906	33,574
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4
	Lumens per Watt	114	118	119	121	120	121	120	123	123
T3	Lumens	3,646	7,247	10,758	14,256	18,047	21,370	25,100	29,100	32,669
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
	Lumens per Watt	110	115	116	118	117	117	117	119	119
T3R	Lumens	3,763	7,478	11,101	14,711	18,623	22,052	25,902	30,029	33,713
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	114	119	119	122	121	121	120	123	123
T4FT	Lumens	3,669	7,292	10,824	14,344	18,159	21,502	25,256	29,280	32,872
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	111	116	116	119	118	118	117	120	120
T4W	Lumens	3,680	7,313	10,856	14,386	18,212	21,565	25,330	29,366	32,968
	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
	Lumens per Watt	112	116	117	119	118	118	118	120	120
SL2	Lumens	3,670	7,295	10,829	14,350	18,166	21,510	25,265	29,291	32,884
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
	Lumens per Watt	111	116	116	119	118	118	118	120	120
SL3	Lumens	3,645	7,243	10,752	14,249	18,038	21,359	25,088	29,085	32,653
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	110	115	116	118	117	117	117	119	119
SL4	Lumens	3,599	7,153	10,619	14,072	17,813	21,093	24,776	28,724	32,247
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	109	114	114	116	116	116	115	118	118
5NQ	Lumens	3,837	7,627	11,321	15,003	18,992	22,489	26,415	30,625	34,381
	BUG Rating	B2-U0-G0	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G2
	Lumens per Watt	116	121	122	124	123	124	123	126	125
5MQ	Lumens	3,857	7,665	11,378	15,078	19,087	22,601	26,547	30,777	34,552
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4
	Lumens per Watt	117	122	122	125	124	124	123	126	126
5WQ	Lumens	3,848	7,648	11,354	15,046	19,047	22,554	26,491	30,712	34,480
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	117	121	122	124	124	124	123	126	126
SLL/ SLR	Lumens	3,170	6,299	9,351	12,392	15,687	18,575	21,818	25,294	28,397
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	96	100	101	102	102	102	101	104	104
RW	Lumens	3,794	7,540	11,193	14,832	18,776	22,233	26,115	30,276	33,990
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3
	Lumens per Watt	115	120	120	123	122	122	121	124	124
AFL	Lumens	3,713	7,379	10,954	14,517	18,377	21,760	25,559	29,632	33,267
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3
	Lumens per Watt	113	117	118	120	119	120	119	121	121

3000K CCT, 80CRI

Number of Light Squares		1	2	3	4	5	6	7	8	9
Drive Current "B"		800mA	800mA	800mA	800mA	800mA	800mA	800mA	800mA	800mA
Optics										
T2	Lumens	4,601	9,145	13,575	17,989	22,773	26,966	31,674	36,721	41,225
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
	Lumens per Watt	105	112	112	110	112	111	111	113	113
T2R	Lumens	4,663	9,267	13,756	18,230	23,077	27,326	32,097	37,211	41,776
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
	Lumens per Watt	106	113	114	111	113	112	112	114	115
T3	Lumens	4,537	9,017	13,386	17,738	22,455	26,589	31,232	36,208	40,650
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B4-U0-G4
	Lumens per Watt	103	110	111	108	110	109	109	111	112
T3R	Lumens	4,682	9,305	13,813	18,305	23,172	27,439	32,229	37,364	41,948
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
	Lumens per Watt	106	113	114	112	114	113	113	115	115
T4FT	Lumens	4,565	9,073	13,468	17,848	22,594	26,754	31,425	36,432	40,901
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	104	111	111	109	111	110	110	112	112
T4W	Lumens	4,579	9,100	13,508	17,900	22,660	26,833	31,517	36,539	41,021
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	104	111	112	109	111	110	110	112	113
SL2	Lumens	4,567	9,076	13,474	17,855	22,603	26,764	31,437	36,446	40,917
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5
	Lumens per Watt	104	111	111	109	111	110	110	112	112
SL3	Lumens	4,535	9,013	13,379	17,729	22,444	26,576	31,216	36,190	40,629
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
	Lumens per Watt	103	110	111	108	110	109	109	111	112
SL4	Lumens	4,478	8,900	13,213	17,509	22,165	26,246	30,828	35,740	40,124
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	102	109	109	107	109	108	108	110	110
5NQ	Lumens	4,775	9,490	14,087	18,668	23,632	27,983	32,868	38,105	42,780
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3
	Lumens per Watt	109	116	116	114	116	115	115	117	118
5MQ	Lumens	4,799	9,537	14,157	18,761	23,749	28,122	33,032	38,295	42,992
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	109	116	117	114	116	116	115	118	118
5WQ	Lumens	4,789	9,517	14,127	18,721	23,699	28,063	32,962	38,214	42,902
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	109	116	117	114	116	115	115	118	118
SLL/ SLR	Lumens	3,944	7,838	11,635	15,419	19,519	23,112	27,147	31,473	35,334
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
	Lumens per Watt	90	96	96	94	96	95	95	97	97
RW	Lumens	4,720	9,382	13,927	18,455	23,363	27,664	32,494	37,671	42,292
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
	Lumens per Watt	107	114	115	113	115	114	114	116	116
AFL	Lumens	4,620	9,182	13,630	18,062	22,866	27,076	31,803	36,870	41,393
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
	Lumens per Watt	105	112	113	110	112	111	111	113	114

3000K CCT, 80CRI

Number of Light Squares		1	2	3	4	5	6	7	8	9
Drive Current "C"		1050mA	1050mA	1050mA	1050mA	1050mA	1050mA	1050mA	1050mA	1050mA
Optics										
T2	Lumens	5,685	11,299	16,773	22,226	28,137	33,317	39,134	45,370	50,935
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	100	105	105	104	105	104	104	106	106
T2R	Lumens	5,761	11,450	16,997	22,523	28,513	33,762	39,657	45,976	51,615
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	101	106	106	106	106	105	105	107	107
T3	Lumens	5,606	11,141	16,538	21,916	27,744	32,852	38,588	44,736	50,224
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B4-U0-G4	B4-U0-G5	B4-U0-G5
	Lumens per Watt	98	103	103	103	103	102	102	104	104
T3R	Lumens	5,785	11,497	17,067	22,616	28,630	33,902	39,820	46,165	51,828
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	101	106	107	106	106	106	106	108	108
T4FT	Lumens	5,640	11,210	16,641	22,052	27,916	33,056	38,826	45,013	50,535
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	99	104	104	104	104	103	103	105	105
T4W	Lumens	5,657	11,243	16,690	22,117	27,998	33,153	38,940	45,145	50,683
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	99	104	104	104	104	103	103	105	105
SL2	Lumens	5,643	11,214	16,647	22,060	27,927	33,068	38,841	45,031	50,554
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	99	104	104	104	104	103	103	105	105
SL3	Lumens	5,603	11,135	16,530	21,905	27,730	32,836	38,568	44,714	50,199
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	98	103	103	103	103	102	102	104	104
SL4	Lumens	5,533	10,997	16,325	21,633	27,385	32,427	38,089	44,158	49,575
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	97	102	102	102	102	101	101	103	103
5NQ	Lumens	5,900	11,725	17,405	23,064	29,198	34,574	40,610	47,080	52,856
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
	Lumens per Watt	104	109	109	108	109	108	108	110	110
5MQ	Lumens	5,929	11,783	17,492	23,179	29,343	34,746	40,812	47,315	53,119
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	104	109	109	109	109	108	108	110	110
5WQ	Lumens	5,916	11,758	17,455	23,130	29,281	34,672	40,726	47,215	53,007
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	104	109	109	109	109	108	108	110	110
SLL/ SLR	Lumens	4,873	9,684	14,376	19,050	24,116	28,556	33,542	38,886	43,656
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	85	90	90	89	90	89	89	91	91
RW	Lumens	5,832	11,591	17,207	22,802	28,865	34,180	40,147	46,544	52,254
	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
	Lumens per Watt	102	107	108	107	107	106	106	108	109
AFL	Lumens	5,708	11,345	16,841	22,317	28,251	33,453	39,293	45,554	51,142
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4
	Lumens per Watt	100	105	105	105	105	104	104	106	106

3000K CCT, 80CRI

Number of Light Squares		1	2	3	4	5	6	7	8	9
Drive Current "D"		1200mA	1200mA	1200mA	1200mA	1200mA	1200mA	1200mA	1200mA	1200mA
Optics										
T2	Lumens	6,256	12,433	18,456	24,457	30,961	36,661	43,061	49,923	56,046
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	96	99	100	100	100	100	99	101	102
T2R	Lumens	6,339	12,599	18,702	24,784	31,374	37,150	43,636	50,589	56,795
	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	B4-U0-G5
	Lumens per Watt	98	101	102	101	102	101	101	103	103
T3	Lumens	6,168	12,259	18,198	24,115	30,528	36,149	42,460	49,226	55,264
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	95	98	99	98	99	98	98	100	100
T3R	Lumens	6,365	12,651	18,779	24,886	31,503	37,304	43,816	50,798	57,029
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	98	101	102	102	102	101	101	103	103
T4FT	Lumens	6,206	12,335	18,311	24,265	30,717	36,373	42,723	49,530	55,606
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	95	99	100	99	99	99	99	100	101
T4W	Lumens	6,225	12,371	18,364	24,336	30,807	36,479	42,848	49,676	55,769
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	96	99	100	99	100	99	99	101	101
SL2	Lumens	6,209	12,340	18,318	24,274	30,729	36,387	42,739	49,549	55,628
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	96	99	100	99	99	99	99	101	101
SL3	Lumens	6,165	12,253	18,189	24,103	30,513	36,131	42,439	49,201	55,236
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	95	98	99	98	99	98	98	100	100
SL4	Lumens	6,089	12,100	17,963	23,804	30,134	35,682	41,911	48,589	54,549
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	94	97	98	97	98	97	97	99	99
5NQ	Lumens	6,492	12,901	19,152	25,379	32,128	38,043	44,685	51,805	58,160
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4
	Lumens per Watt	100	103	104	104	104	103	103	105	105
5MQ	Lumens	6,524	12,966	19,247	25,505	32,288	38,232	44,907	52,063	58,449
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	100	104	105	104	104	104	104	106	106
5WQ	Lumens	6,510	12,938	19,206	25,452	32,220	38,152	44,813	51,953	58,326
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	100	104	104	104	104	104	103	105	106
SLL/ SLR	Lumens	5,362	10,656	15,818	20,962	26,536	31,422	36,908	42,788	48,037
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	82	85	86	86	86	85	85	87	87
RW	Lumens	6,418	12,754	18,933	25,090	31,762	37,610	44,176	51,215	57,497
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	99	102	103	102	103	102	102	104	104
AFL	Lumens	6,281	12,483	18,531	24,556	31,086	36,810	43,236	50,126	56,274
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
	Lumens per Watt	97	100	101	100	101	100	100	102	102

Energy and Performance Data

Performance Table, Drive Current "A" (615mA)

Number of Light Squares	1	2	3	4	5	6	7	8	9
Nominal Power (Watts)	33	63	93	121	154	182	215	244	274
Input Current @ 120V	0.28	0.53	0.78	1.06	1.31	1.56	1.84	2.09	2.33
Input Current @ 208V	0.16	0.31	0.46	0.62	0.77	0.92	1.08	1.24	1.38
Input Current @ 240V	0.14	0.27	0.40	0.54	0.67	0.80	0.94	1.08	1.19
Input Current @ 277V	0.13	0.24	0.35	0.47	0.58	0.70	0.82	0.96	1.06
Input Current @ 347V	0.10	0.18	0.27	0.36	0.45	0.54	0.64	0.74	0.82
Input Current @ 480V	0.07	0.13	0.20	0.27	0.33	0.40	0.47	0.55	0.60

Performance Table, Drive Current "B" (800mA)

Number of Light Squares	1	2	3	4	5	6	7	8	9
Nominal Power (Watts)	44	82	121	164	204	243	286	325	364
Input Current @ 120V	0.37	0.69	1.01	1.38	1.70	2.03	2.39	2.72	3.04
Input Current @ 208V	0.21	0.40	0.59	0.80	1.00	1.19	1.40	1.61	1.78
Input Current @ 240V	0.18	0.35	0.51	0.69	0.86	1.02	1.21	1.39	1.53
Input Current @ 277V	0.16	0.30	0.45	0.61	0.76	0.90	1.06	1.24	1.35
Input Current @ 347V	0.13	0.24	0.36	0.47	0.59	0.71	0.83	0.96	1.07
Input Current @ 480V	0.09	0.17	0.26	0.34	0.43	0.52	0.60	0.71	0.78

Performance Table, Drive Current "C" (1050mA)

Number of Light Squares	1	2	3	4	5	6	7	8	9
Nominal Power (Watts)	57	108	160	213	269	321	377	429	481
Input Current @ 120V	0.48	0.91	1.34	1.81	2.24	2.68	3.15	3.58	4.01
Input Current @ 208V	0.28	0.53	0.78	1.06	1.31	1.56	1.85	2.09	2.34
Input Current @ 240V	0.24	0.46	0.66	0.92	1.12	1.33	1.58	1.79	1.99
Input Current @ 277V	0.21	0.40	0.58	0.81	1.00	1.16	1.40	1.59	1.75
Input Current @ 347V	0.16	0.32	0.47	0.64	0.80	0.94	1.12	1.27	1.41
Input Current @ 480V	0.12	0.23	0.34	0.47	0.58	0.68	0.81	0.92	1.02

Performance Table, Drive Current "D" (1200mA)

Number of Light Squares	1	2	3	4	5	6	7	8	9
Nominal Power (Watts)	65	125	184	245	309	368	433	493	552
Input Current @ 120V	0.55	1.04	1.53	2.08	2.58	3.07	3.62	4.11	4.60
Input Current @ 208V	0.32	0.61	0.89	1.22	1.50	1.79	2.11	2.40	2.68
Input Current @ 240V	0.28	0.52	0.76	1.05	1.28	1.52	1.81	2.04	2.27
Input Current @ 277V	0.24	0.46	0.66	0.92	1.13	1.32	1.59	1.81	1.99
Input Current @ 347V	0.19	0.37	0.54	0.74	0.91	1.09	1.28	1.46	1.63
Input Current @ 480V	0.14	0.27	0.39	0.54	0.66	0.78	0.93	1.06	1.17

Type ZW__ series

Project		Catalog #		Type	
Prepared by		Notes		Date	

McGraw-Edison

GWC Galleon Wall

Wall Mount Luminaire

Product Features

Light ARchitect™

Product Certifications

Interactive Menu

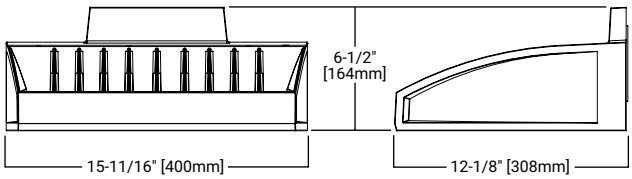
Quick Facts

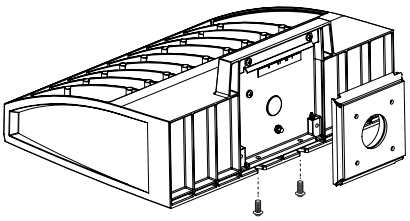
- Choice of thirteen high-efficiency, patented AccuLED Optics™
- Downward and inverted wall mounting configurations
- Eight lumen packages from 3,215 up to 17,056
- Efficacies up to 154 lumens per watt

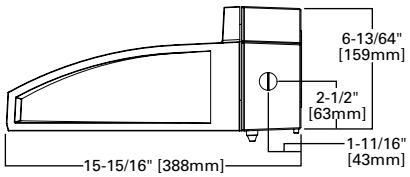
Connected Systems

- WaveLinx
- Enlighted

Dimensional Details







Ordering Information

SAMPLE NUMBER: **GWC-SA2C-740-U-T4FT-GM**

Product Family [1]	Light Engine		Color Temperature	Voltage	Distribution	Finish
	Configuration	Drive Current				
GWC=Galleon Wall **BAA-GWC**=Galleon Wall Buy American Act Compliant [35] **TAA-GWC**=Galleon Wall Trade Agreements Act Compliant [35]	**SA1**=1 Square **SA2**=2 Squares [2]	**A**=615mA **B**=800mA **C**=1000mA **D**=1200mA [4]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [3, 4]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [6,7] **9**=347V [6]	**T2**=Type II **T3**=Type III **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **5NQ**=Type V Square Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)	**Controls and Systems Options** (Add as Suffix)	**Accessories** (Order Separately)[36]
F=Single Fused (120, 277 or 347V. Must Specify Voltage) **FF**=Double Fused (208, 240 or 480V. Must Specify Voltage) **10K**=10kV Surge Module **20K**=Series 20kV UL 1449 Surge Protective Device **DIM**=External 0-10V Dimming Leads [9, 10] **CBP**=Battery Pack with Back Box, Cold Weather Rated [2, 4, 14, 33] **CBP-CEC**=Battery Pack with Back Box, Cold Weather Rated, CEC compliant [2, 4, 14] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **HSS**=Factory Installed House Side Shield [23] **GRSBK**=Factory Installed Glare Shield, BK [4, 27] **GRSWH**=Factory Installed Glare Shield, WH [4, 27] **UPL**=Uplight Housing [13] **HA**=50°C High Ambient [12] **LCF**=Light Square Trim Plate Painted to Match Housing [22] **MT**=Factory Installed Mesh Top **CC**=Coastal Construction finish [5] **CE**=CE Marking and Small Terminal Block [24] **AHD145**=After Hours Dim, 5 Hours [16] **AHD245**=After Hours Dim, 6 Hours [16] **AHD255**=After Hours Dim, 7 Hours [16] **AHD355**=After Hours Dim, 8 Hours [16] **DALI**=DALI Driver [11]	**BPC**=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) **PR**=NEMA 3-PIN Twistlock Photocontrol Receptacle **PR7**=NEMA 7-PIN Twistlock Photocontrol Receptacle [15] **SPB1**=Dimming Occupancy Sensor with Bluetooth Interface, <8' Mounting [19,34] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8' - 20' Mounting [19,34] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21' - 40' Mounting [19,34] **MS-LXX**=Motion Sensor for On/Off Operation [17, 18, 19] **MS/DIM-LXX**=Motion Sensor for Dimming Operation [17, 18, 19] **ZW**=WaveLinx-enabled 4-PIN Twistlock Receptacle [29, 30] **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle [29, 30] **SWPD4XX**=WaveLinx Sensor Only, 7'-15' [31, 32] **SWPD5XX**=WaveLinx Sensor Only, 15'-40' [31, 32] **WOBXX**=WaveLinx Sensor with Bluetooth, 7'-15' [31, 32] **WOFXX**=WaveLinx Sensor with Bluetooth, 15'-40' [31, 32] **LWR-LW**=Enlighted Wireless Sensor, Wide Lens for 8'-16' Mounting Height [19, 20, 21] **LWR-LN**=Enlighted Wireless Sensor, Narrow Lens for 16'-40' Mounting Height [19, 20, 21]	**OA/RA1013**=Photocontrol Shorting Cap [28] **OA/RA1016**=NEMA Photocontrol - Multi-Tap 105-285V [28] **OA/RA1201**=NEMA Photocontrol - 347V [28] **OA/RA1027**=NEMA Photocontrol - 480V [28] **MA1252**=10kV Circuit Module Replacement **MA1059XX**=Thru-branch Back Box (Must Specify Color) **LS/HSS**=Field Installed House Side Shield [23, 25] **LS/GRSBK**=Glare Shield, Black [8, 25, 27] **LS/GRSWH**=Glare Shield, White [8, 25, 27] **LS/PFS**=Perimeter Shield, Black **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [17] **WOLC-7P-10A**=WaveLinx Outdoor Control Module (7-pin) [26, 29] **SWPD4-XX**=Wavelinx Wireless Sensor, 7' – 15' Mounting Height [29, 30, 31, 32] **SWPD5-XX**=Wavelinx Wireless Sensor, 15' – 40' Mounting Height [29, 30, 31, 32]

ZWFA: GWC SA1A 830 U T4FT xx HSS PR7 WOLC-7P-10A
ZWWA: GWC SA1A 830 U T4W xx HSS PR7 WOLC-7P-10A
ZWFB: GWC SA1B 830 U T4FT xx HSS PR7 WOLC-7P-10A
ZWWB: GWC SA1B 830 U T4W xx HSS PR7 WOLC-7P-10A

NOTES:

1. DesignLight Consortium® Qualified. Refer to www.designlights.org, Qualified Products List under Family Models for details.
2. Two light squares with CBP options limited to 25°C. Not available in combination with sensor options at 1200mA.
3. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
4. Not available with HA option.
5. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.
6. Require the use of a step down transformer. Not available in combination with sensor options at 1200mA.
7. 480V must use Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
8. Reserved.
9. Cannot be used with other control options.
10. Low voltage control leads extended 18" from fixture.
11. Not available in 1200mA. When used with CBP or HA options, only available with single light square.
12. Not available in 1200mA, UPL or CBP options. Available with single light square.
13. Not available with SL2, SL3, SL4, HA, CBP, PR or PR7 options.
14. Operates a single light square only. Operates at -20°C to +40°C. Backbox is non-IP rated. Control option limited to BPC.
15. Compatible with standard 3-PIN photocontrols, 5-PIN or 7-PIN ANSI controls.
16. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
17. The FSIR-100 configuration tool is required to adjust parameters such as high and low modes, sensitivity, time delay and cutoff. Consult your lighting representative at Cooper Lighting Solutions for more information.
18. Replace LXX with L08 (<8' mounting), L20 (8'-20' mounting) or L40W (21'-40' mounting.)
19. Includes integral photosensor.
20. Enlighted wireless sensors are factory installed requiring network components in appropriate quantities.
21. White sensor shipped on all housing color options.
22. Not available with HSS or GRS options.
23. Not for use with 5NQ, 5MQ, 5WQ or RW optics. The light square trim plate is painted black when the HSS option is selected.
24. CE is not available with the 1200, DALI, LWR, MS, MS/DIM, BPC, PR or PR7 options. Available in 120-277V only.
25. One required for each light square.
26. Requires PR7.
27. Not for use with T4FT, T4W or SL4 optics.
29. Cannot be used in conjunction with additional photocontrol or other controls systems (BPC, PR, PR7, MS, LWR).
30. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed.
31. Requires ZW or ZD receptacle.
32. Replace XX with sensor color (WH, BZ, or BK).
33. Specify 120V or 277V.
34. Smart device with mobile application required to change system defaults. See controls section for details.
35. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
36. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

Product Specifications

Construction

- Driver enclosure thermally isolated from optics for optimal thermal performance
- Die-cast aluminum heat sinks
- IP66 rated housing
- 1.5G vibration rated

Optics

- Patented, high-efficiency injection-molded AccuLED Optics technology
- 13 optical distributions
- IDA Certified (3000K CCT and warmer only)

Electrical

- LED driver assembly mounted for ease of maintenance
- Standard with 0-10V dimming
- Optional 10kV or 20kV surge module
- Suitable for operation in -40C to 40C ambient environments. Optional 50C high ambient (HA) configuration.

Mounting

- Gasketed and zinc plated rigid steel mounting attachment
- "Hook-N-Lock" mechanism for easy installation

Finish

- Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Heat sink is powder coated black
- RAL and custom color matches available
- Coastal Construction (CC) option available

Typical Applications

- Exterior Wall, Walkway

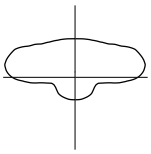
Warranty

- Five-year warranty

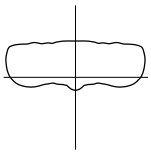
Optical Distributions

Asymmetric Area Distributions

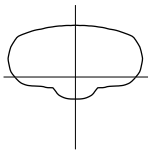
T2 (Type II)



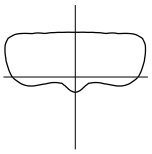
SL2 (Type II with Spill Control)



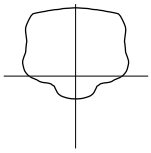
T3 (Type III)



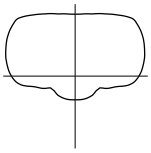
SL3 (Type III with Spill Control)



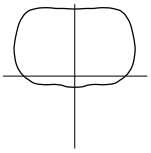
T4FT (Type IV Forward Throw)



T4W (Type IV Wide)

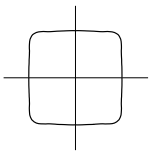


SL4 (Type IV with Spill Control)

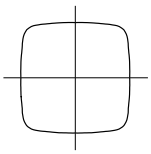


Symmetric Distributions

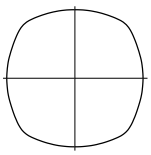
5NQ (Type V Square Narrow)



5MQ (Type V Square Medium)

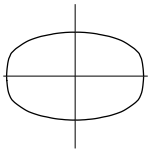


5WQ (Type V Square Wide)

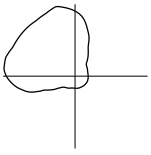


Specialized Distributions

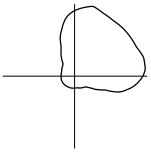
RW (Rectangular Wide Type I)



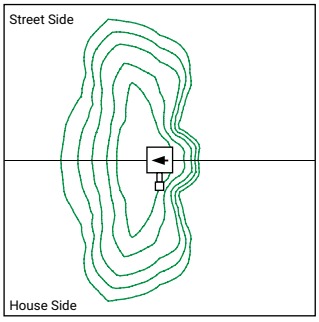
SLL (90° Spill Light Eliminator Left)



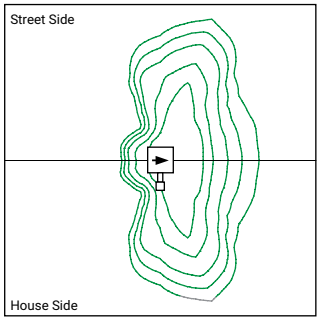
SLR (90° Spill Light Eliminator Right)



Optic Orientation



Optics Rotated Left @ 90° [L90]



Optics Rotated Right @ 90° [R90]

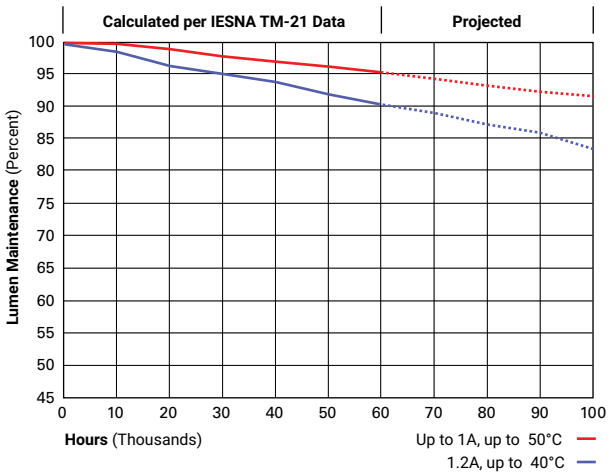
Energy and Performance Data

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0ºC	1.02
10ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.97

Lumen Maintenance

Drive Current	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Projected L70 (Hours)
Up to 1A	Up to 50°C	> 95%	> 416,000
1.2A	Up to 40°C	> 90%	> 205,000



Energy and Performance Data

View GWC Galleon Wall IES files

4000K/5000K/6000K CCT, 70 CRI

Number of Light Squares		1				2			
Drive Current		615mA	800mA	1050mA	1.2A	615mA	800mA	1050mA	1.2A
Nominal Power (Watts)		34	44	59	67	66	86	113	129
Input Current @ 120V (A)		0.30	0.39	0.51	0.58	0.58	0.77	1.02	1.16
Input Current @ 208V (A)		0.17	0.22	0.29	0.33	0.34	0.44	0.56	0.63
Input Current @ 240V (A)		0.15	0.19	0.26	0.29	0.30	0.38	0.48	0.55
Input Current @ 277V (A)		0.14	0.17	0.23	0.25	0.28	0.36	0.42	0.48
Input Current @ 347V (A)		0.11	0.15	0.17	0.20	0.19	0.24	0.32	0.39
Input Current @ 480V (A)		0.08	0.11	0.14	0.15	0.15	0.18	0.24	0.30
Optics									
T2	Lumens	4,883	5,989	7,412	8,131	9,543	11,703	14,485	15,891
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	Lumens per Watt	144	136	126	121	145	136	128	123
T3	Lumens	4,978	6,105	7,556	8,288	9,729	11,929	14,764	16,196
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	146	139	128	124	147	139	131	126
T4FT	Lumens	5,008	6,140	7,599	8,337	9,783	11,998	14,850	16,290
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	147	140	129	124	148	140	131	126
T4W	Lumens	4,942	6,060	7,502	8,229	9,658	11,843	14,658	16,080
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3
	Lumens per Watt	145	138	127	123	146	138	130	125
SL2	Lumens	4,874	5,979	7,399	8,117	9,528	11,684	14,461	15,863
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3
	Lumens per Watt	143	136	125	121	144	136	128	123
SL3	Lumens	4,976	6,104	7,555	8,287	9,727	11,927	14,763	16,194
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	146	139	128	124	147	139	131	126
SL4	Lumens	4,729	5,799	7,178	7,873	9,239	11,333	14,025	15,387
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4
	Lumens per Watt	139	132	122	118	140	132	124	119
5NQ	Lumens	5,134	6,296	7,793	8,547	10,033	12,303	15,226	16,704
	BUG Rating	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2
	Lumens per Watt	151	143	132	128	152	143	135	129
5MQ	Lumens	5,228	6,412	7,935	8,705	10,216	12,529	15,508	17,011
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	154	146	134	130	155	146	137	132
5WQ	Lumens	5,242	6,428	7,956	8,728	10,244	12,563	15,548	17,056
	BUG Rating	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	154	146	135	130	155	146	138	132
SLL/SLR	Lumens	4,373	5,365	6,640	7,283	8,547	10,481	12,973	14,231
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	129	122	113	109	130	122	115	110
RW	Lumens	5,087	6,238	7,721	8,472	9,941	12,190	15,088	16,553
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	150	142	131	126	151	142	134	128

*** Nominal lumen data for 70 CRI. BUG rating for 4000K/5000K. Refer to IES files for 3000K BUG ratings.**

3000K CCT, 80 CRI

Number of Light Squares		1				2			
Drive Current		615mA	800mA	1050mA	1.2A	615mA	800mA	1050mA	1.2A
Nominal Power (Watts)		34	44	59	67	66	86	113	129
Input Current @ 120V (A)		0.30	0.39	0.51	0.58	0.58	0.77	1.02	1.16
Input Current @ 208V (A)		0.17	0.22	0.29	0.33	0.34	0.44	0.56	0.63
Input Current @ 240V (A)		0.15	0.19	0.26	0.29	0.30	0.38	0.48	0.55
Input Current @ 277V (A)		0.14	0.17	0.23	0.25	0.28	0.36	0.42	0.48
Input Current @ 347V (A)		0.11	0.15	0.17	0.20	0.19	0.24	0.32	0.39
Input Current @ 480V (A)		0.08	0.11	0.14	0.15	0.15	0.18	0.24	0.30
Optics									
T2	Lumens	3,880	4,759	5,890	6,461	7,583	9,300	11,510	12,628
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	114	108	100	96	115	108	102	98
T3	Lumens	3,956	4,851	6,004	6,586	7,731	9,479	11,732	12,870
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	Lumens per Watt	116	110	102	98	117	110	104	100
T4FT	Lumens	3,980	4,879	6,038	6,625	7,774	9,534	11,800	12,945
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	117	111	102	99	118	111	104	100
T4W	Lumens	3,927	4,816	5,961	6,539	7,675	9,411	11,648	12,778
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	116	109	101	98	116	109	103	99
SL2	Lumens	3,873	4,751	5,880	6,450	7,571	9,285	11,491	12,605
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	114	108	100	96	115	108	102	98
SL3	Lumens	3,954	4,851	6,004	6,585	7,729	9,478	11,731	12,868
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	116	110	102	98	117	110	104	100
SL4	Lumens	3,758	4,608	5,704	6,256	7,342	9,006	11,145	12,227
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3
	Lumens per Watt	111	105	97	93	111	105	99	95
5NQ	Lumens	4,080	5,003	6,193	6,792	7,973	9,776	12,099	13,274
	BUG Rating	B2-U0-G0	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2
	Lumens per Watt	120	114	105	101	121	114	107	103
5MQ	Lumens	4,154	5,095	6,305	6,917	8,118	9,956	12,323	13,518
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	122	116	107	103	123	116	109	105
5WQ	Lumens	4,166	5,108	6,322	6,936	8,140	9,983	12,355	13,553
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	123	116	107	104	123	116	109	105
SLL/SLR	Lumens	3,475	4,263	5,276	5,787	6,792	8,329	10,309	11,309
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	102	97	89	86	103	97	91	88
RW	Lumens	4,042	4,957	6,135	6,732	7,900	9,687	11,990	13,154
	BUG Rating	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2
	Lumens per Watt	119	113	104	100	120	113	106	102

*** Nominal lumen data for 70 CRI. BUG rating for 4000K/5000K. Refer to IES files for 3000K BUG ratings.**

Control Options

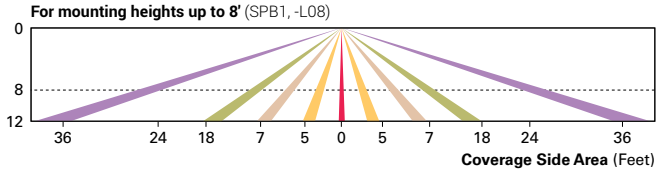
0-10V This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC, PR, and PR7) Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

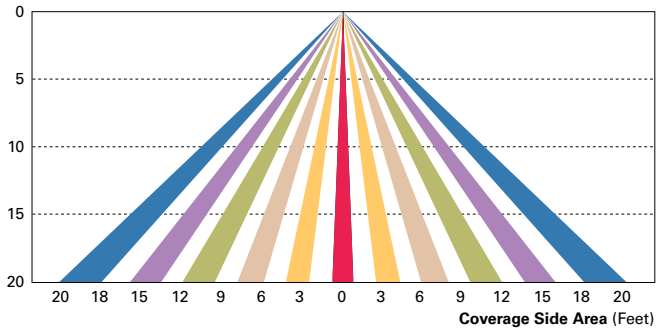
After Hours Dim (AHD) This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX and MS-LXX) These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

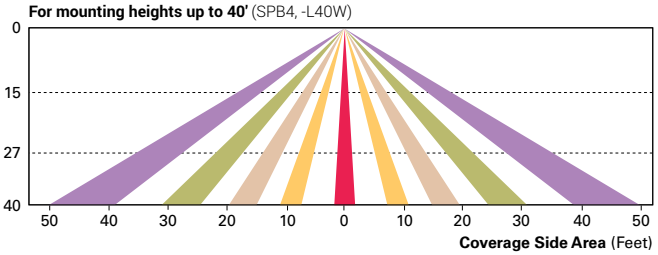
For mounting heights up to 8' (SPB1, -L08)



For mounting heights up to 20' (SPB2, -L20)

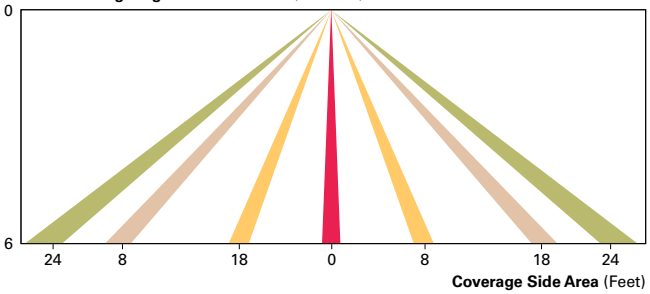


For mounting heights up to 40' (SPB4, -L40W)

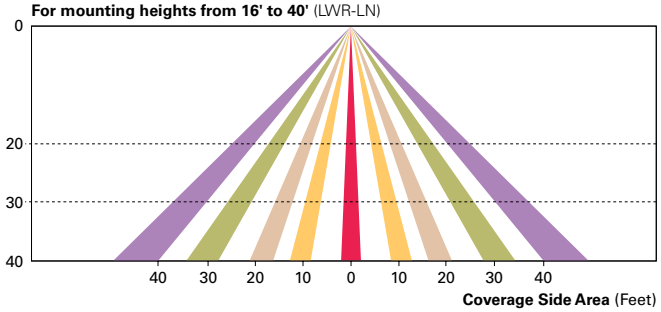


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN) The Enlighted control system is a connected lighting solution, combining LED luminaires with an integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes while collecting valuable data about building performance and use. Software applications utilizing energy dashboards maximize data inputs to help optimize the use of other resources beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)



WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A) The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.