

ENTRY "CAN LIGHTS"

KR Series

KR6™ LED Specification Downlight – Round 6"

Product Description

The KR6™ LED specification downlight features Cree TrueWhite® Technology and delivers beautiful, high-quality light with efficacy up to 76 lumens per watt. Designed for new construction applications, the KR Series is available in a variety of color temperatures, round and square trims with high-quality anodized aluminum reflector finishes, a sloped ceiling adaptor accessory, and a variety of dimming options including Cree Sunset Dimming Technology which provides rich, warm light that transitions from 2700K to 1800K as naturally as an incandescent source.

Performance Summary

Utilizes Cree TrueWhite® Technology

Initial Delivered Lumens: 700-5,300 lumens; Delivered lumen output is typical when using a SSGC type reflector

Input Power: 13-87 watts

Emergency Performance: Up to 1,210 Lumens; 10W; Minimum 90 Minutes

CRI: 90

CCT: 2700K, 3000K, 3500K, 4000K, 5000K

Controls: Triac, 0/1-10V; See control availability chart on page 3

Limited Warranty†: 10 years on KR6™ luminaire

Limited Warranty Emergency Back Up (EB) Battery: 1 Year Battery Back Up. Test regularly in accordance with local codes

† See <http://lighting.cree.com/warranty> for warranty terms

Accessories

Field-Installed		
Sloped Ceiling Adaptor KRKS6**WW ** 0-35 (order in 5 degree increments)	C-Channel Hanger Bars RBH30C - Pair of 30" (762mm) rigid 3/4" x 1/2" (19mm x 13mm) C-Channel bars RBH24C-1 - Pair of 24" (610mm) x 1-1/2" (38mm) x 1/2" (13mm) standard C-Channel bars	T-Bar Clips RARC7 - Set of four - For use with RBH24C-1 hanger bars Trim Ring KR6TA - White beauty ring to cover pan head fasteners on KR6T reflector

Ordering Information

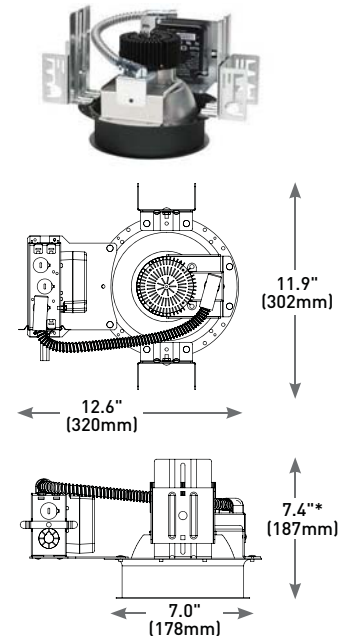
Fully assembled luminaire is composed of two components that must be ordered separately:

Example: **Housing:** KR6-20L-35K-120V-10V + **Reflector:** KR6TR-SSGC-FF

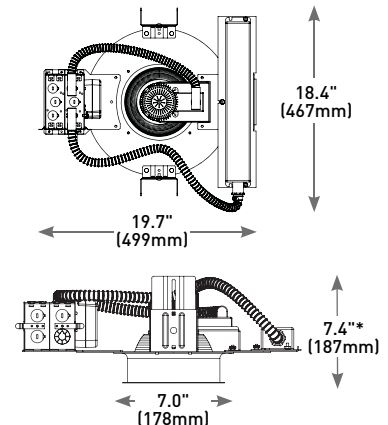
Reflector (Housing must be ordered separately)			
Series	Reflector Finish	Flange Finish	Options
KR6T Standard Trim - Reflector attaches to housing with pan head fasteners and keyhole slots KR6TR Beauty Trim - Reflector attaches to housing with retention springs for seamless appearance	SSGC Soft Satin Glow, Clear	FF Matches Reflector WF White Paint	WW Wall Wash - Available with KR6T standard trim only

Housing (Reflector must be ordered separately)								
Series	Size	Reflector	Initial Delivered Lumens	Optic	CCT	Voltage	Controls	Options
KR	6 6 inch	Blank Round	9L 13W, 700 Lumens – 54 LPW 13L 18W, 1,100 Lumens – 61 LPW 20L 30W, 1,700 Lumens – 57 LPW 30L 39W, 2,550 Lumens – 65 LPW 40L 44W, 3,350 Lumens – 76 LPW 60L 87W, 5,300 Lumens – 61 LPW - Available on 120V and 277V only	Blank 70° Beam Angle	27K - 2700K - 9L thru 40L only 30K 3000K 35K 3500K 40K 4000K 50K 5000K - Available on 40L and 60L only	120V 120 Volts 277V 277 Volts 347V 347 Volts	Blank - For standard control offering refer to control availability chart on page 3 10V 0/1-10V Dimming - Refer to control availability chart on page 3	WD Sunset Dim - 9L and 13L @ 27K with Triac Dimming only EB7 Emergency Backup - Minimum 90 minutes - 120V, 277V only - Minimum operating temperature: 0°C (32°F)

NOTE: Price adder may apply depending on configuration



Emergency Backup



* Add 1.5" (38mm) for 60L Initial Delivered Lumens



Rev. Date: V11 12/23/2016



US: lighting.cree.com

T (800) 236-6800 F (262) 504-5415

Canada: www.cree.com/canada

T (800) 473-1234 F (800) 890-7507

KR6™ LED Specification Downlight – Round 6"

Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics, and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIAL

- Low brightness parabolic spun Alzak aluminum cone, 0.06" (2mm) thick with polished radius and continuous self-flange
- Soft Satin Glow Clear finish, standard
- 2" (51mm) aperture throat to accommodate all standard and up to 3" (76mm) thick ceilings and provide flexibility in mounting within grid
- Provided with quick mounting brackets for optional carrying channels
- Light engine, optics, and driver accessible from below ceiling

ELECTRICAL SYSTEM

- **Power Factor:** > 0.9 for 120V and 277V
- **Total Harmonic Distortion:** < 20% at full load
- **Input Power:** 120, 277V, or 347V, 50/60Hz
- **Operating Temperature Range:** -18°C - +40°C (0°F - +104°F); minimum operating temperature with EB7 option is 0°C (32°F)
- **10V Source Current:** 9L & 12L: 0.15mA; 20L-40L: 2.2mA; 60L: 0.11mA

CONTROLS

- For standard control offering refer to control availability chart on page 3
- For use with Class 2 dimming systems only. Reference <http://lighting.cree.com/products/indoor/new-construction-downlights/kr-series> for recommended dimming controls and wiring diagrams

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for thru-wiring 8#12AWG-90°C
- Suitable for damp locations
- Designed for indoor use
- Thermally protected Type NON-IC in accordance with Article 410 of the NEC and UL 1598
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- EnergyStar® certified. Please refer to <https://www.energystar.gov/productfinder/product/certified-light-fixtures/results> for most current information
- RoHS compliant. Consult factory for additional details

Recommended KR Series Lumen Maintenance Factors (LMF) ¹						
Ambient	Initial Delivered Lumens	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
5°C (41°F)	9L and 13L	1.05	1.04	1.03	1.03	1.02
	20L and 30L	1.03	0.99	0.94	0.90	0.86
	40L and 60L	1.03	0.96	0.90	0.83	0.77
10°C (50°F)	9L and 13L	1.04	1.03	1.03	1.02	1.02
	20L and 30L	1.02	0.97	0.93	0.89	0.85
	40L and 60L	1.03	0.95	0.88	0.82	0.76
15°C (59°F)	9L and 13L	1.03	1.02	1.02	1.01	1.01
	20L and 30L	1.01	0.96	0.91	0.88	0.84
	40L and 60L	1.02	0.94	0.87	0.81	0.75
20°C (68°F)	9L and 13L	1.02	1.01	1.00	1.00	0.99
	20L and 30L	1.01	0.95	0.90	0.87	0.83
	40L and 60L	1.01	0.93	0.86	0.80	0.74
25°C (77°F)	9L and 13L	1.00	1.00	0.99	0.99	0.99
	20L and 30L	1.00	0.94	0.89	0.86	0.82
	40L and 60L	1.00	0.92	0.85	0.79	0.74
30°C (86°F)	9L and 13L	0.99	0.99	0.98	0.98	0.98
	20L and 30L	0.97	0.93	0.88	0.85	0.81
	40L and 60L	0.98	0.91	0.84	0.78	0.73
35°C (95°F)	9L and 13L	0.98	0.97	0.97	0.97	0.97
	20L and 30L	0.96	0.92	0.87	0.84	0.80
	40L and 60L	0.96	0.90	0.83	0.77	0.72
40°C (104°F)	9L and 13L	0.97	0.96	0.96	0.96	0.95
	20L and 30L	0.95	0.90	0.86	0.83	0.79
	40L and 60L	0.95	0.88	0.82	0.76	0.71

¹Lumen maintenance values at 25°C (77°F) are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
²In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (IDUT) i.e. the packaged LED chip
³In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (IDUT) i.e. the packaged LED chip

Installation

- Recommended ceiling cutout 6.5" (165mm)



Note: 30L and 40L versions require marked spacing: 24" (600mm) x 12" (300mm) x 1/2" (12mm). 24" (600mm) luminaire to luminaire, 12" (300mm) luminaire to side wall, 1/2" (12mm) above luminaire
60L versions require marked spacing: 48" (1219mm) x 24" (600mm) x 1" (25mm). 48" (1219mm) luminaire to luminaire, 24" (600mm) luminaire to side wall, 1" (25mm) above luminaire



Cree Edge™ Series

LED Area/Flood Luminaire

Product Description

The Cree Edge™ Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment and high performance aluminum heat sinks. Various mounting choices: Adjustable Arm, Direct Arm, Direct Arm Long, or Side Arm (details on page 2). Includes a leaf/debris guard.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways

Performance Summary

Patented NanoOptic® Product Technology

Assembled in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

* See <http://lighting.cree.com/warranty> for warranty terms

Accessories

Field-Installed	
Bird Spikes XA-BRDSPK Hand-Held Remote XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required	Backlight Control Shields XA-20BLS-4 - Four-pack - Unpainted stainless steel

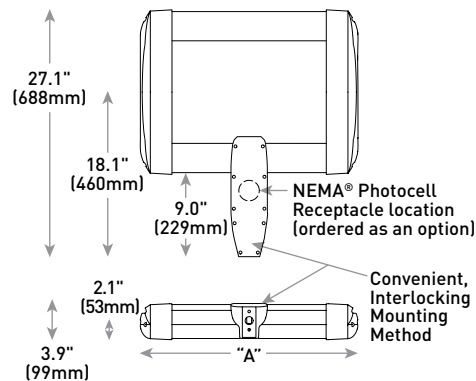
Ordering Information

Example: ARE-EDG-2M-AA-12-E-UL-SV-350

Product	Optic	Mounting*	LED Count (x10)	E	Series	Voltage	Color Options	Drive Current	Options
ARE-EDG	2M Type II Medium	AA Adjustable Arm DA Direct Arm DL Direct Long Arm	02	E	UL Universal 120-277V	BK Black	350 350mA	350	DIM 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current F Fuse - Refer to ML spec sheet for availability with ML options - Available with UL voltage only - Available for U.S. applications only - When code dictates fusing, use time delay fuse HL Hi/Low (Dual Circuit Input) - Refer to HL spec sheet for details - Sensor not included ML Multi-Level - Refer to ML spec sheet for details - Intended for downlight applications at 0° tilt P Photocell - Refer to ML spec sheet for availability with ML options - Available with UL voltage only
	3MB Type III Medium w/BLS		04						
	4MP Type IV Medium w/Partial BLS		06						
	5M Type V Medium		08						
	6M Type VI Medium		10						
	7M Type VII Medium		12						
	8M Type VIII Medium		14						
	9M Type IX Medium		16						
	10M Type X Medium		18						
	11M Type XI Medium		20						
FLD-EDG	25 25° Flood	AA Adjustable Arm SA Side Arm - Available with 20-60 LEDs	25		UL Universal 120-277V	BK Black	350 350mA	350	PML Programmable Multi-Level, 20-40° Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt PML2 Programmable Multi-Level, 10-30° Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt R NEMA® Photocell Receptacle - Intended for downlight applications with maximum 45° tilt - Photocell by others - Refer to ML spec sheet for availability with ML options 40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire
	40 40° Flood		40						
	70 70° Flood		70						
	SN Sign		SN						

* Reference EPA and pole configuration suitability data beginning on page 19

DA Mount



LED Count (x10)	Dim. "A"	Weight
02	12.1" (306mm)	21 lbs. (10kg)
04	12.1" (306mm)	24 lbs. (11kg)
06	14.1" (357mm)	27 lbs. (12kg)
08	16.1" (408mm)	28 lbs. (13kg)
10	18.1" (459mm)	32 lbs. (15kg)
12	20.1" (510mm)	34 lbs. (15kg)
14	22.1" (560mm)	37 lbs. (17kg)
16	24.1" (611mm)	41 lbs. (19kg)

AA/DL/SA Mount - see page 22 for weight & dimensions



Product Specifications


CONSTRUCTION & MATERIALS

- Slim, low profile, minimizing wind load requirements
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment and high performance heat sinks
- DA and DL mount utilizes convenient interlocking mounting method. Mounting is rugged die cast aluminum, mounts to 3-6" (76-152mm) square or round pole and secures to pole with 5/16-18 UNC bolts spaced on 2" (51mm) centers
- AA and SA mounts are rugged die cast aluminum and mount to 2" (51mm) IP, 2.375" (60mm) O.D. tenons
- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available
- **Weight:** See Dimensions and Weight Charts on pages 1 and 22

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- DA and DL mounts designed with integral weathertight electrical box with terminal strips (12Ga-20Ga) for easy power hookup
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- **Maximum 10V Source Current:** 20 LED (350mA): 10mA; 20 LED (525 & 700mA) and 40-80 LED: 0.15mA; 100-160 LED: 0.30mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without P or R options
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards when ordered with AA, DA and DL mounts
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified with select SKUs. Refer to <https://www.designlights.org/search/> for most current information
- Meets Buy American requirements within ARRA
-  **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*							
LED Count (x10)	System Watts 120-480V	Total Current (A)					
		120V	208V	240V	277V	347V	480V
350mA							
02	25	0.21	0.13	0.11	0.10	0.08	0.07
04	46	0.36	0.23	0.21	0.20	0.15	0.12
06	66	0.52	0.31	0.28	0.26	0.20	0.15
08	90	0.75	0.44	0.38	0.34	0.26	0.20
10	110	0.92	0.53	0.47	0.41	0.32	0.24
12	130	1.10	0.63	0.55	0.48	0.38	0.28
14	158	1.32	0.77	0.68	0.62	0.47	0.35
16	179	1.49	0.87	0.77	0.68	0.53	0.39
525mA							
02	37	0.30	0.19	0.17	0.16	0.12	0.10
04	70	0.58	0.34	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
08	133	1.13	0.66	0.58	0.51	0.39	0.28
10	171	1.43	0.83	0.74	0.66	0.50	0.38
12	202	1.69	0.98	0.86	0.77	0.59	0.44
14	232	1.94	1.12	0.98	0.87	0.68	0.50
16	263	2.21	1.27	1.11	0.97	0.77	0.56
700mA							
02	50	0.41	0.25	0.22	0.20	0.15	0.12
04	93	0.78	0.46	0.40	0.36	0.27	0.20
06	134	1.14	0.65	0.57	0.50	0.39	0.29

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/- 10%

Cree Edge™ Series Ambient Adjusted Lumen Maintenance¹					
Ambient	Initial LMF	25K hr Projected² LMF	50K hr Projected² LMF	75K hr Calculated³ LMF	100K hr Calculated³ LMF
5°C (41°F)	1.04	1.01	0.99	0.98	0.96
10°C (50°F)	1.03	1.00	0.98	0.97	0.95
15°C (59°F)	1.02	0.99	0.97	0.96	0.94
20°C (68°F)	1.01	0.98	0.96	0.95	0.93
25°C (77°F)	1.00	0.97	0.95	0.94	0.92

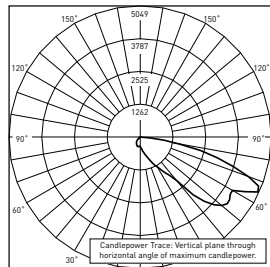
¹ Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors
² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times
(6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip
³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip



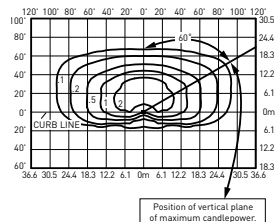
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: <http://lighting.cree.com/products/outdoor/area/cree-edge-series-1>

3MB



RESTL Test Report #: PL10023-001B
ARE-EDG-3MB--06-E-UL-525-40K**
Initial Delivered Lumens: 7,602



ARE-EDG-3MB--10-E-UL-525-40K**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 12,275
Initial FC at grade







Type III Medium Distribution w/BLS










LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,754	B0 U0 G1	1,789	B0 U0 G1
04	3,508	B1 U0 G1	3,578	B1 U0 G1
06	5,202	B1 U0 G2	5,305	B1 U0 G2
08	6,936	B1 U0 G2	7,074	B1 U0 G2
10	8,650	B1 U0 G2	8,821	B1 U0 G2
12	10,380	B1 U0 G3	10,585	B1 U0 G3
14	12,033	B1 U0 G3	12,272	B1 U0 G3
16	13,752	B2 U0 G3	14,025	B2 U0 G3
525mA				
02	2,489	B0 U0 G1	2,542	B0 U0 G1
04	4,979	B1 U0 G2	5,083	B1 U0 G2
06	7,383	B1 U0 G2	7,538	B1 U0 G2
08	9,844	B1 U0 G2	10,050	B1 U0 G3
10	12,275	B1 U0 G3	12,532	B1 U0 G3
12	14,730	B2 U0 G3	15,039	B2 U0 G3
14	17,077	B2 U0 G3	17,434	B2 U0 G3
16	19,516	B2 U0 G3	19,925	B2 U0 G3
700mA				
02	2,938	B1 U0 G1	2,998	B1 U0 G1
04	5,876	B1 U0 G2	5,996	B1 U0 G2
06	8,714	B1 U0 G2	8,891	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit:
<https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

Luminaire EPA

Fixed Arm Mount – ARE-EDG-DA						
LED Count (x10)	Single	2 @ 90°	2 @ 180°	3 @ 90°	3 @ 120°	4 @ 90°
						
02	0.60	0.87	1.20	1.47	1.47	1.75
04	0.60	0.87	1.20	1.47	1.47	1.75
06	0.60	0.92	1.20	1.51	1.51	1.83
08	0.60	0.96 N/A with 3" poles	1.20	1.55 N/A with 3" poles	1.55	1.91 N/A with 3" poles
10	0.60	1.00 N/A with 3" poles	1.20	1.60 N/A with 3" poles	1.60	2.00 N/A with 3" poles
12	0.60	1.04 N/A with 3" poles	1.20	1.64 N/A with 3" poles	1.64	2.08 N/A with 3" poles
14	0.60	1.08 N/A with 3" or 4" poles	1.20	1.68 N/A with 3" or 4" poles	1.68	2.16 N/A with 3" or 4" poles
16	0.60	1.12 N/A with 3" or 4" poles	1.20	1.72 N/A with 3" or 4" poles	1.72	2.24 N/A with 3" or 4" poles
Fixed Arm Mount – ARE-EDG-DL						
02	0.75	1.02	1.50	1.77	1.77	1.91
04	0.75	1.02	1.50	1.77	1.77	1.91
06	0.75	1.07	1.50	1.82	1.82	1.98
08	0.75	1.11	1.50	1.86	1.86	2.04
10	0.75	1.15	1.50	1.90	1.90	2.10
12	0.75	1.19	1.50	1.94	1.94	2.16
14	0.75	1.23	1.50	1.98	1.98	2.22
16	0.75	1.27	1.50	2.02	2.02	2.28

Adjustable Arm Mount – ARE-EDG-AA/FLD-EDG-AA/SA									
LED Count (x10)	Single	2 @ 90°	2 @ 180°	In-Line 2 @ 180°	3 @ 90°	3 @ 120°	In-Line 3 @ 180°	4 @ 90°	In-Line 4 @ 180°
Tenon Configuration If used with Cree tenons, please add tenon EPA with Luminaire EPA									
									
	Vertical: PB-1A*; PT-1; PW-1A3** Horizontal: By others	Vertical: PB-2A*; PB-2R2.375; PW-2A3** Horizontal: PD-2A4(90); PT-2(90)	Vertical: PB-2A*; PB-2R2.375; PW-2A3** Horizontal: PD-2A4(180); PT-2(180)	Vertical: PB-2A*; PB-2R2.375	Vertical: PB-3A*; PB-3R2.375 Horizontal: PD-3A4(90); PT-3(90)	Vertical: PB-3A*; PB-3R2.375 Horizontal: PT-3(120)	Vertical: PB-3A*; PB-3R2.375	Vertical: PB-4A*(90); PB-4R2.375 Horizontal: PD-4A4(90) PT-4(90)	Vertical: PB-4A*(180); PB-4R2.375
0° Tilt									
02	0.66	0.98	1.32	1.32	1.77	1.64	1.98	1.91	2.64
04	0.66	0.98	1.32	1.32	1.64	1.64	1.98	1.97	2.64
06	0.66	1.02	1.32	1.32	1.68	1.68	1.98	2.05	2.64
08	0.66	1.07	1.32	1.32	1.80	1.72	1.98	2.29	2.64
10	0.66	1.11	1.32	1.32	1.76	1.76	1.98	2.21	2.64
12	0.66	1.15	1.32	1.32	1.80	1.80	1.98	2.29	2.64
14	0.66	1.19	1.32	1.32	1.84	1.84	1.98	2.38	2.64
16	0.66	1.23	1.32	N/A	1.89	1.89	N/A	2.46	N/A

* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation

** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")

TRASH ENCLOSURE LIGHTING

McGraw-Edison

DESCRIPTION

The Impact Elite family of wall luminaires is the ideal complement to site design. Incorporating modular LightBAR™ technology, the Impact Elite luminaire provides outstanding uniformity and energy-conscious illumination. Combined with a rugged construction, the Impact Elite luminaire is the ideal facade and security luminaire for zones surrounding schools, office complexes, apartments and recreational facilities. UL/cUL listed for wet locations.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

Construction

Heavy-wall, die-cast aluminum housing and removable hinged door frame for precise tolerance control and repeatability. Hinged door inset for clean mating with housing surface and secured via two captive fasteners. Optional tamper-resistant Torx™ head fasteners offer vandal resistant access to the electrical chamber.

Optics

Choice of six patented, high-efficiency AccuLED Optics™ distributions. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optics technology creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT.

Electrical

LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and are suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature an IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Emergency egress options for -20°C ambient environments and occupancy sensor available.

Mounting

Gasketed and zinc plated rigid steel mounting attachment fits directly to 4" j-box or wall with the Impact Elite "Hook-N-Lock" mechanism for quick installation. Secured with two captive corrosion resistant black oxide coated allen head set screws concealed but accessible from bottom of fixture.

Finish

Cast components finished in a five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

Warranty

Five-year warranty.



ISC/ISS/IST/ISW
IMPACT ELITE LED



1 - 2 LightBARs
Solid State LED

WALL MOUNT LUMINAIRE

CERTIFICATION DATA

UL/cUL Listed
LM79 / LM80 Compliant
IP66 LightBARs
ISO 9001
DesignLights Consortium® Qualified*

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz,
480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating

SHIPPING DATA

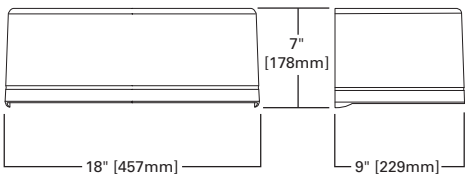
Approximate Net Weight:
18 lbs. (8 kgs.)



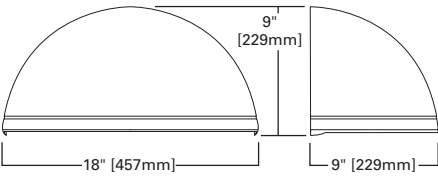
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DIMENSIONS

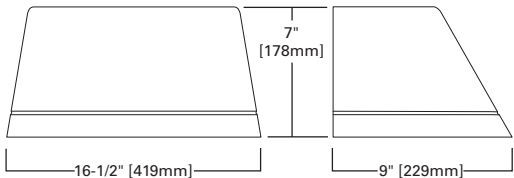
Cylinder



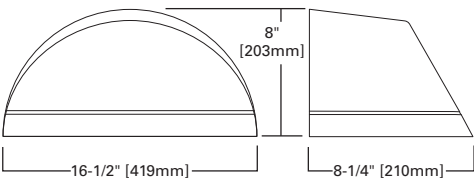
Quarter Sphere



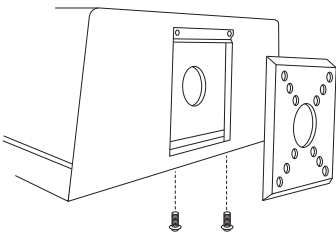
Trapezoid



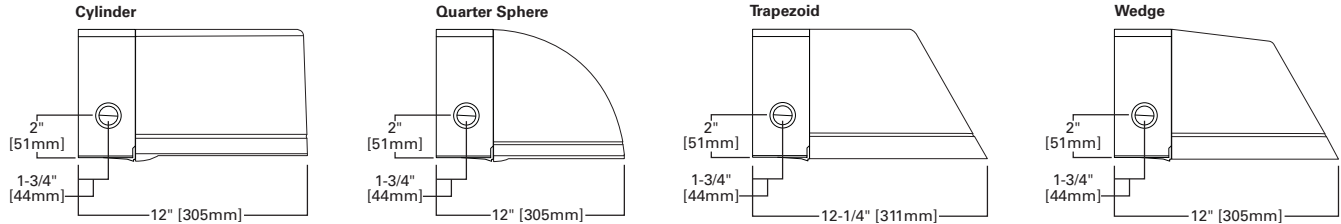
Wedge



HOOK-N-LOCK MOUNTING



THRUWAY BACK BOX



POWER AND LUMENS BY BAR COUNT

Number of LightBARs		E01	E02	F01	F02
		21 LED LightBAR		7 LED LightBAR	
Drive Current		350mA		1A	
Power (Watts)	120-277V	25W	47W	26W	50W
Current (A)	120V	0.22	0.40	0.22	0.42
	277V	0.10	0.18	0.10	0.19
Power (Watts)	347V or 480V	31W	52W	32W	55W
Current (A)	347V	0.11	0.16	0.11	0.17
	480V	0.16	0.18	0.16	0.18
Optics					
BL2	Lumens	2,738	5,476	2,260	4,521
	Bug Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1
BL3	Lumens	2,702	5,405	2,231	4,462
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G1
BL4	Lumens	2,613	5,225	2,157	4,313
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G1
GZW	Lumens	2,785	5,570	2,299	4,598
	Bug Rating	B2-U0-G2	B3-U0-G3	B1-U0-G1	B2-U0-G2
SLR/SL	Lumens	2,435	4,869	2,010	4,020
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2

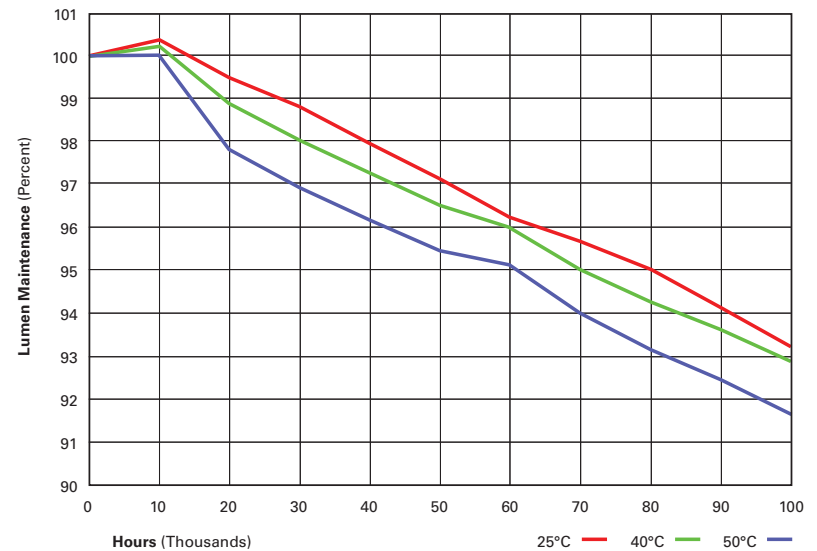
LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99



ORDERING INFORMATION

Sample Number: ISC-E02-LED-E1-BL3-GM

Product Family ¹	Number of LightBARs ^{2,3}	Lamp Type	Voltage	Distribution	Color ⁵
ISC=Impact Elite LED Small Cylinder ISS=Impact Elite LED Small Quarter Sphere IST=Impact Elite LED Small Trapezoid ISW=Impact Elite LED Small Wedge	E01=(1) 21 LED LightBAR E02=(2) 21 LED LightBARs F01=(1) 7 LED LightBAR F02=(2) 7 LED LightBARs	LED=Solid State Light Emitting Diodes	E1=Electronic (120-277V) 347=347V 480=480V ⁴	BL2=Type II w/Back Light Control BL3=Type III w/Back Light Control BL4=Type IV w/Back Light Control GZW=Wall Grazer Wide SL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
Options (Add as Suffix)				Accessories (Order Separately) ¹¹	
2L=Two Circuits ⁶ 7030=70 CRI / 3000K CCT ⁷ 7050=70 CRI / 5000K CCT ⁷ 7060=70 CRI / 5700K CCT ⁷ 8030=80 CRI / 3000K CCT ⁷ P=Button Type Photocontrol (Available in 120, 208, 240 or 277V. Must Specify Voltage) OSB=Occupancy Sensor with Back Box (Specify 120V or 277V) ⁸ BBB-XX=Battery Pack with Back Box (Specify 120V or 277V) ⁹ CWB-XX=Cold Weather Battery Pack with Back Box (Specify 120V or 277V) ¹⁰ DIM=0-10V Dimming Drivers LCF=LightBAR Cover Plate Matches Housing Finish ULG=Uplight Glow TR=Tamper Resistant Hardware				MA1253=10kV Circuit Module Replacement MA1254-XX=Thruway Back Box - Impact Elite Trapezoid MA1255-XX=Thruway Back Box - Impact Elite Cylinder MA1256-XX=Thruway Back Box - Impact Elite Quarter Sphere MA1257-XX=Thruway Back Box - Impact Elite Wedge	

NOTES:

- DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
- Standard 4000K CCT and greater than 70 CRI. LightBARs for downlight use only.
- 21 LED LightBAR powered by 350mA and 7 LED LightBAR powered by 1A.
- 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).
- Custom and RAL color matching available upon request. Consult your lighting representative at Eaton for more information.
- Low-level output varies by bar count. Consult factory. Not available with 347V or 480V. Available with two bars (E02 or F02) only.
- Extended lead times apply.
- Available with E02 or F02, only one bar on street side will be wired to sensor. Time delay factory setting 15-minutes. When ordered with PC option, both bars are connected to photocontrol as primary switching means. Standard sensor lens covers 8' mounting height, 360° coverage, maximum 48" diameter. Not available in all configurations or with BBB or CWB options.
- Specify 120V or 277V. LED standard integral battery pack is rated for minimum operating temperature 32°F (0°C). Operates one bar for 90-minutes. Not available in all configurations or with OSB option. Consult factory.
- Specify 120V or 277V. LED cold weather integral battery pack is rated for minimum operating temperature -4°F (-20°C). Operates one bar for 90-minutes. Not available in all configurations or with OSB option. Consult factory.
- Replace XX with color suffix.

QUBE 300 LX

up + down scone

PROJECT

Job	Notes
Type	
Part #	

SPECIFICATIONS

Source Two Xicato XTM LED modules - up to 3000 lumens each
 C.C.T. 2700K, 3000K, 3500K or 4000K
 Color Consistency 1x2 SDCM (MacAdam) along BBL, CCT +/- 40K to 70K, Duv +/- .001
 CRI (Ra) 83 or 98
 Driver / Location Included / Remote mount or deep canopy options
 Dimming 0-10V or phase dimming to 10% standard; DALI, DMX and 1% dimming available
 Input Voltage 100 to 277VAC, phase dimmable versions are 120VAC only
 Power Up to 47 watts max, depending on LED module / driver
 Reflector 20°, 40° or 60° - field replaceable without tools
 Material CNC machined aluminum with stainless steel hardware
 Finish Powder coat - TGIC polyester for exterior and interior use
 Weight 5 lb. [2.3 kg]
 Location Listed for Wet & Damp locations
 Approvals ETL Listed to UL 1598, 2108, 8750 and CSA C22.2# 9 & #250.0
 L80 Life > 50,000 hours at 80% lumen maintenance based on IESNA LM-80-08
 Warranty Lifetime Limited Warranty - see warranty for details
 IES Files LM-79-08 IES files available at www.v2LightingGroup.com/downloads
 Modifications Any modification or customization is possible - consult factory



ORDERING LOGIC

Model	Driver		# of Circuits	Mounting Location	Up Direction				Down Direction				Shell Color	Options
	Location	Dimming			Output	CRI *	C.C.T.	Reflector	Output	CRI *	C.C.T.	Reflector		
Q3LU														
	R =Remote	N =None	1	D =Damp	07=700lm	83=83	27=2700K	20=20°	07=700lm	83=83	27=2700K	20=20°	XX	(see chart on page 4)
	D =Deep	P =Phase	2	W =Wet	10=950lm	98=98*	30=3000K	40=40°	10=950lm	98=98*	30=3000K	40=40°		
	Canopy	V=0-10V			13=1300lm	35=3500K	60=60°		13=1300lm	35=3500K	60=60°			
	Z=Other				20=2000lm	40=4000K			20=2000lm	40=4000K			ZZ =Custom	
					30=3000lm				30=3000lm					

* 98 CRI not available in 3000 lm

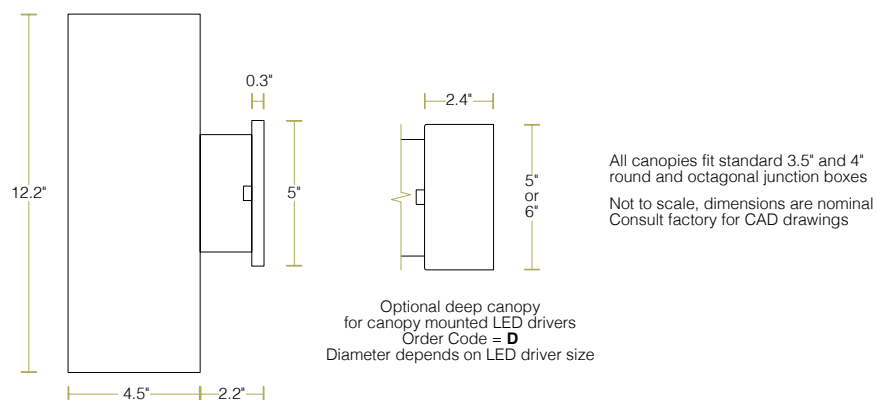
Example Part Number: **Q3LU-RN1D-13832720-20832740-S3**

QUBE 300 LX Up + Down Scone - Remote Driver, No Dimming, 1 Circuit, Damp Location - UP= 1300 lm, 83 CRI, 2700K, 20° Reflector - DOWN= 2000 lm, 83 CRI, 2700K, 40° Reflector- S3 Red Shell

QUBE 300 LX

up + down sconce

DIMENSIONS



LED OPTIONS

Reflector Option	LES ¹	CRI	LED Specifications		
			Lumens ^{2, 3, 4}	Wattage ⁵ (W)	Efficacy ⁶ (lm/W)
20°, 40° & 60°	19mm	Ra = 83 ± 3	700	5.6	129
			950	8.2	118
			1300	11.7	111
			2000	19.5	102
			3000	29.3	102
		Ra = 98 R9 ≥ 90 R15 ≥ 95	700	7.4	97
			950	10.9	89
			1300	15.6	83
			2000	26.4	76

¹ LES: Light Emitting Surface diameter

² ±10%

³ Source lumens - see photometrics on page 3 for LOR to calculate delivered lumens

⁴ Higher lumen outputs are available in CORE / QUBE 400 series

⁵ Maximum luminaire wattage including LED driver = LED wattage x 1.2

⁶ Higher efficacies are available via lower drive currents - consult factory

CONTROL OPTIONS

Standard LED Drivers* (included in base price)	Order Code V = 0-10V dimming to 10%
	Order Code P = Phase dimming to 10% Compatible with both forward and reverse phase dimmers
Optional LED Drivers*	eldoLED 0-10V, DALI, or DMX dimming to 0%
	Lutron Hi-lume™ A-series, EcoSystem or forward phase dimming to 1% Lutron Hi-lume™ 5-series, EcoSystem dimming to 5%

* Standard LED drivers are suitable for Wet Location

* Optional LED drivers are suitable for Damp Location

* All LED drivers must be mounted in a deep canopy or remote

* Dual LED drivers available for independent Up + Down control

* Choosing different lumen outputs for Up + Down may require dual drivers
Consult factory for details

* For EM applications:

All LED drivers may be used with 3rd party inverter style systems

QUBE 300 LX

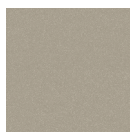
up + down sconce

COLOR OPTIONS

Anodized Effect



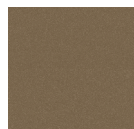
A1
Clear Silver



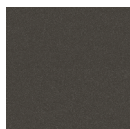
A2
Champagne



A3
Light Bronze



A4
Medium Bronze



A5
Dark Bronze



A6
Black

Metallic



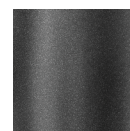
M1
Pearl



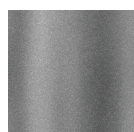
M2
Sea Foam



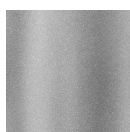
M3
Forest Gray



M4
Charcoal Gray



M5
Gunmetal Gray



M6
Dove Gray



M7
Old Copper



M8
Old Brass

Basic



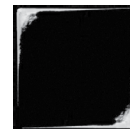
L1
Gloss White



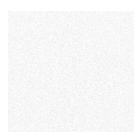
L2
Gloss Light Gray



L3
Gloss Dark Gray



L4
Gloss Black



T1
Textured Matte White



T2
Textured Matte Light Gray



T3
Textured Metallic Dark Gray



T4
Textured Matte Black

Sparkle



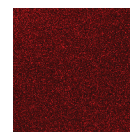
S1
Light Orange



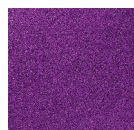
S2
Deep Orange



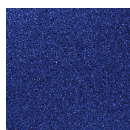
S3
Red



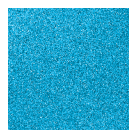
S4
Burgundy



S5
Violet



S6
Deep Blue



S7
Sky Blue



S8
Bright Green

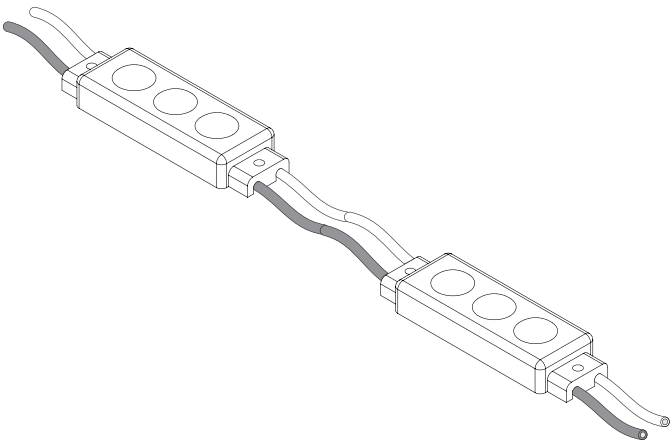
The complete range of powder coat colors from Tiger Drylac is available - consult factory
Custom match powder coat colors are available - consult factory
Printed or on-screen colors are only approximations - consult v2 Color Chip Set Rev.4 before specifying

RECESSED TRIM LIGHTS

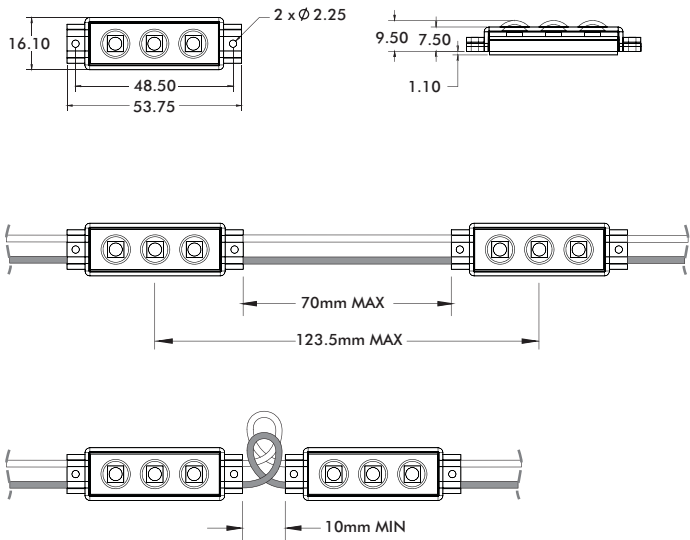


IP-SF-3™ Waterproof LED Light Module

Product Specification Sheet



Mechanical Drawing



Specification Logic

FAMILY	LED COLOR
IP-SF-3™	2700K
	3000K
	3500K
	4000K
	5000K
	6500K
	RD - Red
	GR - Green
	BL - Blue
	AM - Amber

Date: _____

Type: _____

Company: _____

Project: _____

IP-SF-3™ is a low voltage, low wattage LED light module offering an energy efficient, reliable and low cost lighting solution for both indoor and outdoor installations. Typical applications include cove and under-cabinet lighting, backlighting and channel letter signs, delineation and any application where moisture or extreme temperatures may occur.

Each module consists of three LEDs available in 6 color temperatures of white as well as Amber, Red, Green and Blue.

The modules are completely sealed and IP65 rated for wet locations and can operate in ambient temperatures from -40°C to +50°C.

Each module is only 54mm long, 16mm wide, 9.5mm high and connected to adjacent modules with 70mm jumper wires (max. 123.5mm center-to-center). The compact size and flexibility of an IP-SF-3 assembly affords unlimited installation options. Standard assemblies are sold with 100 modules.

The IP-SF-3™ modules can be mounted with the pre-applied Very High Bond (VHB) double sided tape or with screws through the pre-drilled mounting flanges on each end of the module.

Features

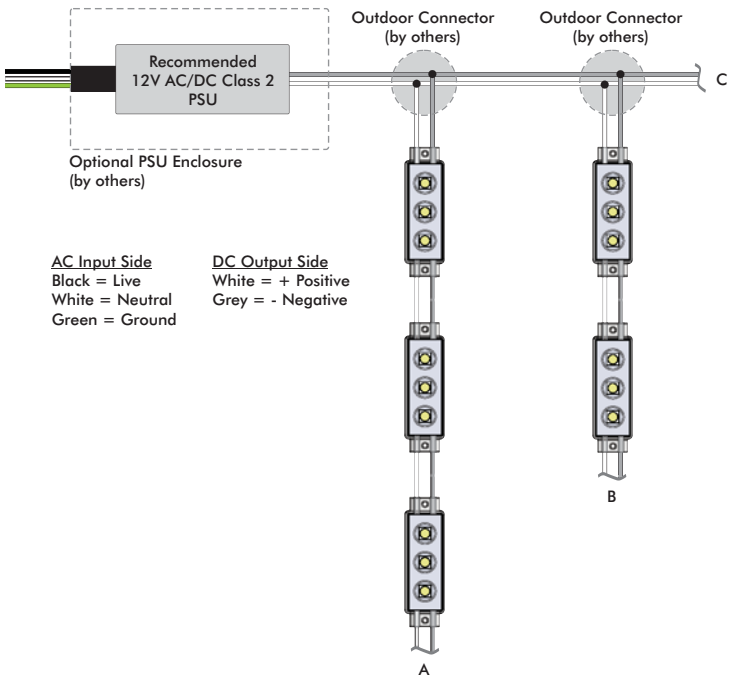
- Three LEDs per module with wide 140° beam angle
- High luminous flux per module, 38lm
- Built-in constant current circuitry maintains equal luminous output module-to-module for full run length
- Projected lifetime 50,000 hours (L50)
- IP65 waterproof protection (sealed by epoxy resin)
- Extreme ambient temperature range: -40°C to +50°C (-40°F to +122°F)
- 100 pre-wired modules with 70mm (2-3/4") long jumper wires eliminate joints, save installation time and provide the ability to build curved illuminated lines
- Safe low voltage operation (12VDC)
- Very low power consumption; Maximum 0.5W per module
- LED available in 6 color temperatures of white as well as Amber, Red, Green and Blue
- Vibration resistant
- Pre-applied VHB double sided tape or built in screw flanges for quick installation
- Low cost

Product Configuration: IP-SF-3-3000K

IP-SF-3™ Waterproof LED Light Module

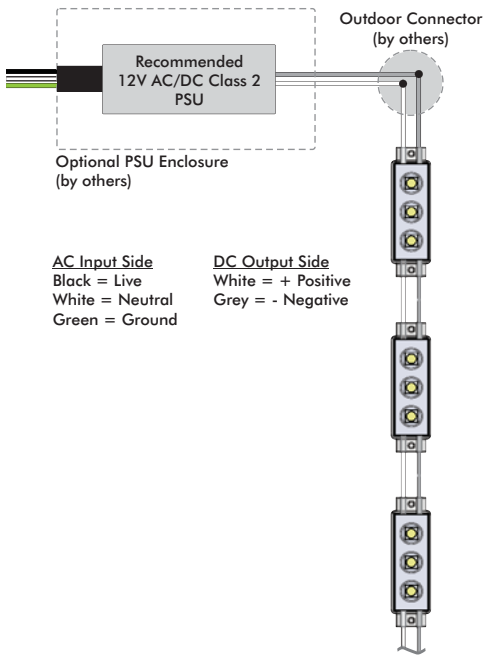
Typical System Diagram

IP-SF-3 in Parallel System Installation



The sum of A+B+C=Maximum of 100 units

IP-SF-3 in Series System Installation



Maximum of 100 units in a series.

Product Specifications

IP-SF-3™

Electrical	Rated Input Voltage		12VDC
	Power Consumption (maximum)		0.5W
	Approved Remote AC/DC Power Supplies		12VDC Class 2 Power Supplies Only
			CLG-60-12
Optical	Light Source		3 x SMT LEDs
	Lumens (typical per module)		38
	Optic		Wide Beam 140°
	Projected Lumen Maintenance		50,000 hours @ 50°C (B50, L70)
Physical	Length x Width x Height	mm	54 x 16 x 9.5
		inches	2.13 x 0.63 x 0.37
	Weight	g	6.5
		oz	0.23
	Housing		
	Injection Molded ABS Body filled with Epoxy Resin		
	Fixture Connections		
	70mm lead wires and 70mm jumper wires between modules		
	Rated Operating Temperature		
	-30°C to +50°C, -22°F to 122°F		
	Environment		
	Indoor/Outdoor, Dry or Damp or Wet Locations		

These figures are subject to change