

228 Series™

LED Soffit Luminaire – IC Rated

Product Description

High performance energy-efficient LED down light designed for use in new construction or remodel applications where there is direct contact with insulation. The recessed mount is for use in drywall, plywood or hard lid ceilings with 16" (406mm) to 24" (610mm) on center building construction. Heavy gauge steel recessed mounting frame features 1.5" (38mm) deep aperture throat to accommodate most standard ceiling thicknesses, and a universal mounting bracket that accepts 0.5" (13mm) EMT conduit, C-channel mounting bars or flat bar hangers with 5" (127mm) vertical adjustment from either above or below the ceiling. An oversized junction box is listed for eight #12 AWG feed through wires. The recessed remodel mount is entirely supported by the ceiling material and is designed to accept ceiling thickness from 0.375" (10mm) to 2.25" (57mm) and is an ideal replacement for recessed 12" (305mm) square HID luminaires.

Applications: Petroleum canopies, soffits, indoor retail or industrial spaces

Performance Summary

Patented NanoOptic® Product Technology

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

CRI: Minimum 70 CRI

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

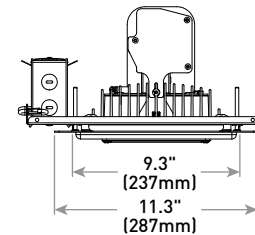
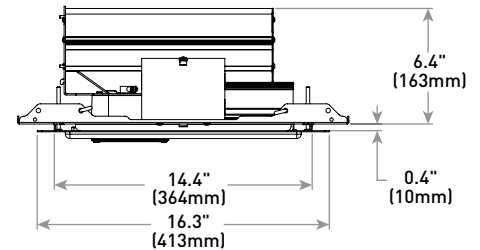
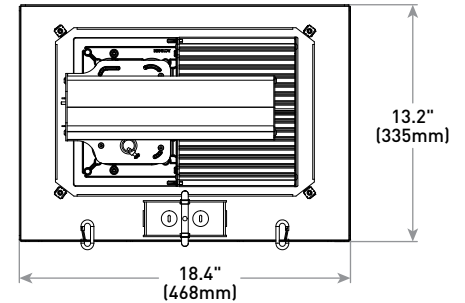
Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

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

Accessories

Field-Installed	
RM Mount Accessories Mounting C-Channel XA-MC14 - Pair of 14" [356mm] rigid 3/4" x 1/2" [19mm x 13mm] galvanized C-Channel bars XA-MC22 - Pair of 22" [559mm] rigid 3/4" x 1/2" [19mm x 13mm] galvanized C-Channel bars XA-MC30 - Pair of 30" [762mm] rigid 3/4" x 1/2" [19mm x 13mm] galvanized C-Channel bars	Hanger Bar Mounting Brackets XA-MB4 - Kit contains 4

RM Mount



LED Count (x10)	Weight
03	28.7 lbs. (13.0kg)

RR Mount - see page 3 for weight & dimensions

Ordering Information

Example: SFT-228-SL-RM-03-E-UL-WH-350

Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
SFT-228			03	E			350	IC
SFT-228	SL Sparkle Petroleum PS Petroleum Symmetric	RM Recessed RR Recessed Remodel	03	E	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze WH White	350 350mA	IC IC Rated 40K 4000K Color Temperature - Color temperature per luminaire - Minimum 70 CRI



US: lighting.cree.com

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

Rev. Date: V2 10/02/2018

Canada: www.cree.com/canada



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

Product Specifications

CONSTRUCTION & MATERIALS

- Luminaire sides are rugged die cast aluminum with high performance extruded aluminum heat sinks specifically designed for high power LEDs, factory assembled to the trim and wired to the driver
- Driver compartment is constructed of anodized extruded aluminum for exceptional thermal performance
- 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 and white are available
- **Weight:** See Weight Chart on pages 1 and 3

RM

- High performance energy-efficient LED down light, designed for use in new construction applications with drywall, plywood or hard lid ceilings and 16" (406mm) to 24" (610mm) on center building construction
- Heavy gauge steel recessed mounting frame features 1.5" (38mm) deep aperture throat to accommodate most standard ceiling thicknesses, and a universal mounting bracket that accepts 0.5" (13mm) EMT conduit, C-channel mounting bars or flat bar hangers with 5" (127mm) vertical adjustment from either above or below the ceiling includes an oversized junction box is listed for eight #12 AWG feed through wires


RR

- High performance energy-efficient LED down light, designed for remodel application
- Entirely supported by the ceiling material and is designed to fit through 12" (305mm) x 12" (305mm) opening
- Accepts ceiling thicknesses from 0.375" (10mm) to 2.25" (57mm)
- An ideal replacement for 12" (305mm) x 12" (305mm) recessed HID luminaires

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
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations under covered ceilings
- Meets FCC Part 15 standards for conducted and radiated emissions
- Consult factory for CE Certified products
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Type IC in accordance with Article 410 of the NEC and UL 1598, suitable for direct contact with insulation
- RM mount listed for eight #12 AWG, 75°C rated through branch circuit wires
- 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					
		120V	208V	240V	277V	347V	480V
350mA							
03	34	0.30	0.19	0.18	0.20	0.11	0.09

* Electrical data at 25°C (77°F)

Recommended 228 Series™ Luminaire Lumen Maintenance Factors (LMF) ¹					
Ambient	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)	1.04	0.99	0.97	0.95	0.93
10°C (50°F)	1.03	0.98	0.96	0.94	0.92
15°C (59°F)	1.02	0.97	0.95	0.93	0.91
20°C (68°F)	1.01	0.96	0.94	0.92	0.90
25°C (77°F)	1.00	0.95	0.93	0.91	0.89

¹ Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing

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)

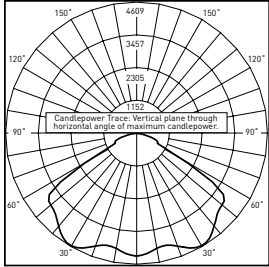
³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)



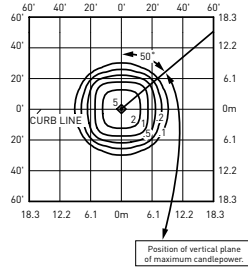
Photometry

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/canopy-and-soffit/228-series>

SL



RESTL Test Report #: PL05297-001
CAN-228-SL-**-06-E-UL-700-40K
Initial Delivered Lumens: 13,102

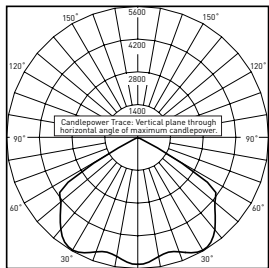


SFT-228-SL-**-03-E-UL-350-IC-40K
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 3,635
Initial FC at grade

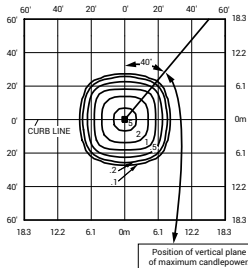
Sparkle Petroleum Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
03	3,635	B2 U0 G1	3,774	B2 U0 G1

* Initial delivered lumens at 25°C (77°F)
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

PS



RESTL Test Report #: PL05295-001
CAN-228-PS-**-06-E-UL-700-40K
Initial Delivered Lumens: 13,753



SFT-228-PS-**-03-E-UL-350-IC-40K
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 3,757
Initial FC at grade

Petroleum Symmetric Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
03	3,757	B2 U0 G0	3,902	B2 U0 G0

* Initial delivered lumens at 25°C (77°F)
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

RR Mount



LED Count (x10)	Weight
03	19.9 lbs. (9.0kg)

