

304 Series™

LED Recessed Soffit Luminaire

Product Description

High performance energy efficient LED down light, designed for use in drop ceilings with 20-24" (508-610mm) on center building construction. Heavy gauge steel recessed mounting frame features 1-1/2" (38mm) deep aperture throat to accommodate most standard ceiling thicknesses, and universal mounting brackets that accept 1/2" (13mm) EMT conduit, C-channel mounting bars or flat bar hangers (all by others) with 5" (127mm) vertical adjustment from either above or below the ceiling. Luminaire is constructed from rugged die cast and extruded aluminum components. LED driver is mounted in a sealed weathertight center chamber that allows for access from below the luminaire. High performance heat sinks specifically designed for LED recessed soffit applications.

Applications: Petroleum stations, convenience stores, drive-thru banks and restaurants, retail and grocery

Performance Summary

Patented NanoOptic® Product Technology

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

CRI: Minimum 70 CRI

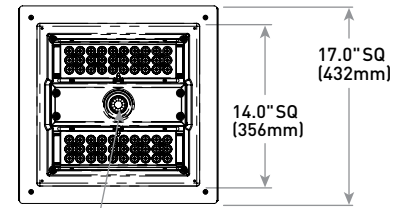
CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard

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

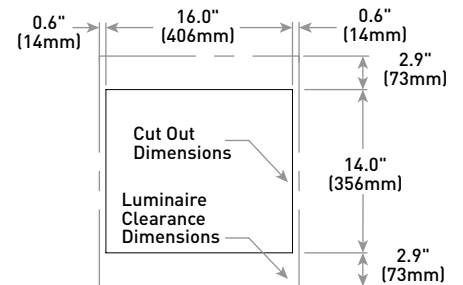
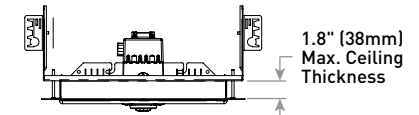
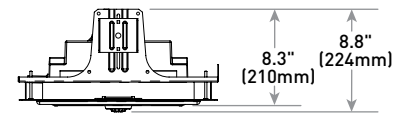
† See <http://lighting.cree.com/warranty> for warranty terms

Accessories

Field-Installed	
Hand-Held Remote XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required	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	



Multi-Level Sensor location (ordered as an option)



LED Count (x10)	Weight
04	22.5 lbs. (10.2kg)
06	22.5 lbs. (10.2kg)

Ordering Information

Example: SFT-304-5M-RM-04-E-UL-WH-350

SFT-304		RM		E				
Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
SFT-304	5M Type V Medium 5S Type V Short PS Petroleum Symmetric SL Sparkle Petroleum	RM Recessed	04 06 - Available on Non-IC rated luminaires only	E	UL Universal 120-277V - For use with IC option only UH Universal 347-480V - For use with IC option only 12 120V - Available on Non-IC rated luminaires only 27 277V - Available on Non-IC rated luminaires only	BK Black BZ Bronze SV Silver WH White	350 350mA 525 525mA - Available on Non-IC rated luminaires only 700 700mA - Available on Non-IC rated luminaires only - Available on luminaires with 40 LEDs only	DIM 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current F Fuse - When code dictates fusing, use time delay fuse - Refer to PML spec sheet for availability with PML options - Available with UL, 12 and 27 voltages only IC Type IC Rated - Available with 40 LEDs at 350mA only - Must specify UL or UH voltage PML Programmable Multi-Level - Refer to PML spec sheet for details 40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire



Product Specifications

CONSTRUCTION & MATERIALS

- High performance energy efficient LED down light, designed for use in drop ceilings with 20-24" (508-610mm) on center building construction
- Heavy gauge steel recessed mounting frame features 1-1/2" (38mm) deep aperture throat to accommodate most standard ceiling thicknesses, and universal mounting brackets that accept 1/2" (13mm) EMT conduit, C-channel mounting bars or flat bar hangers (all by others) with 5" (127mm) vertical adjustment from either above or below the ceiling
- Slim, low profile design
- Luminaire is constructed from rugged die cast and extruded aluminum components
- LED driver is mounted in a sealed weathertight center chamber that allows for access from below the luminaire
- High performance heat sinks specifically designed for LED recessed soffit applications
- Non-IC luminaires include voltage specific thermal protector to detect overheating
- 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 WEIGHT CHART ON PAGE 1 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
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- **10V Source Current:** 0.15mA
- **Operating Temperature Range:** IC: 350mA: -40°C - +30°C (-40°F - +86°F); Non-IC: 350mA: -40°C - +50°C (-40°F - +122°F); 525mA: -40°C - +40°C (-40°F - +104°F); 700mA: -40°C - +30°C (-40°F - +86°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Non-IC luminaires are thermally protected Type NON-IC in accordance with Article 410 of the NEC and UL 1598
- When IC option is selected, luminaire is Type IC in accordance with Article 410 of the NEC and UL 1598, suitable for direct contact with insulation
- Suitable for through wiring
- Meets FCC Part 15 standards for conducted and radiated emissions
- 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
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- **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							
04	46	0.39	0.24	0.22	0.21	0.15	0.12
06	69	0.57	0.34	0.30	0.27	0.21	0.16
525mA							
04	71	0.59	0.35	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
700mA							
04	94	0.79	0.46	0.40	0.36	0.28	0.21

* Electrical data at 25°C (77°F)

304 Series™ Ambient Adjusted Lumen Maintenance 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. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions

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

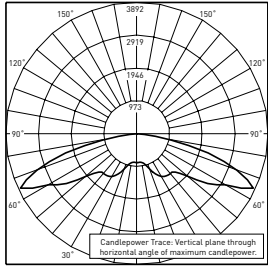
³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6x) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip



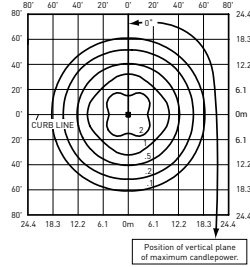
Photometry

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/304-series-1#>

5M



ITL Test Report #: 77285
 PKG-304-5M-**-06-E-UL-700-40K
 Initial Delivered Lumens: 11,681

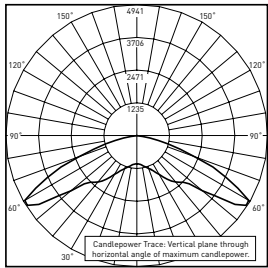


SFT-304-5M-**-06-E-UL-525-40K
 Mounting Height: 15' (4.6m)
 Initial Delivered Lumens: 9,311
 Initial FC at grade

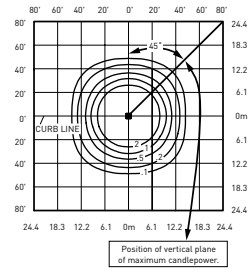
Type V Medium Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA IC Rated				
04	4,291	N/A	4,456	N/A
350mA Non-IC Rated				
04	4,516	B3 U1 G1	4,690	B3 U1 G1
06	6,651	B3 U1 G1	6,907	B3 U1 G2
525mA Non-IC Rated				
04	6,323	B3 U1 G1	6,566	B3 U1 G1
06	9,311	B3 U1 G2	9,669	B3 U1 G2
700mA Non-IC Rated				
04	7,678	B3 U1 G2	7,973	B3 U1 G2

* Initial delivered lumens at 25°C (77°F)
 ** 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>

5S



ITL Test Report #: 77876
 PKG-304-5S-**-06-E-UL-700-40K
 Initial Delivered Lumens: 12,738



SFT-304-5S-**-06-E-UL-525-40K
 Mounting Height: 15' (4.6m)
 Initial Delivered Lumens: 10,346
 Initial FC at grade

Type V Short 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 IC Rated				
04	4,768	B2 U0 G1	4,952	B2 U0 G1
350mA Non-IC Rated				
04	5,018	B2 U0 G1	5,211	B2 U0 G1
06	7,390	B3 U0 G1	7,674	B3 U0 G1
525mA Non-IC Rated				
04	7,025	B3 U0 G1	7,295	B3 U0 G1
06	10,346	B3 U0 G2	10,744	B3 U0 G2
700mA Non-IC Rated				
04	8,531	B3 U0 G1	8,859	B3 U0 G1

* Initial delivered lumens at 25°C (77°F)
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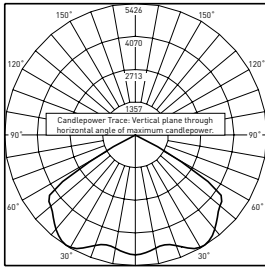


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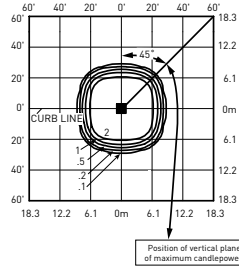
Photometry

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PS



ITL Test Report #: 76940
CAN-304-PS-**-06-E-UL-700-40K
Initial Delivered Lumens: 13,581

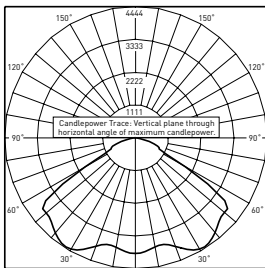


SFT-304-PS-**-06-E-UL-525-40K
Mounting Height: 15' (4.6m)
Initial Delivered Lumens: 10,576
Initial FC at grade

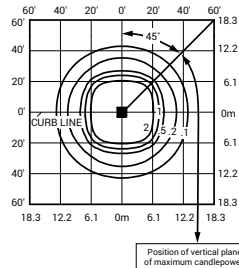
Petroleum Symmetric Distribution		
LED Count (x10)	4000K	5700K
	Initial Delivered Lumens*	Initial Delivered Lumens*
350mA IC Rated		
04	4,874	5,062
350mA Non-IC Rated		
04	5,130	5,327
06	7,554	7,844
525mA Non-IC Rated		
04	7,181	7,458
06	10,576	10,982
700mA Non-IC Rated		
04	8,720	9,056

* Initial delivered lumens at 25°C (77°F)

SL



ITL Test Report #: 77415
CAN-304-SL-**-06-E-UL-700-40K
Initial Delivered Lumens: 12,707



SFT-304-SL-**-06-E-UL-525-40K
Mounting Height: 15' (4.6m)
Initial Delivered Lumens: 10,231
Initial FC at grade

Sparkle Petroleum Distribution		
LED Count (x10)	4000K	5700K
	Initial Delivered Lumens*	Initial Delivered Lumens*
350mA IC Rated		
04	4,291	4,456
350mA Non-IC Rated		
04	4,962	5,153
06	7,308	7,589
525mA Non-IC Rated		
04	6,947	7,214
06	10,231	10,624
700mA Non-IC Rated		
04	8,436	8,760

* Initial delivered lumens at 25°C (77°F)