

LS8™

8' (2438mm) LED Surface Ambient Luminaire

Product Description

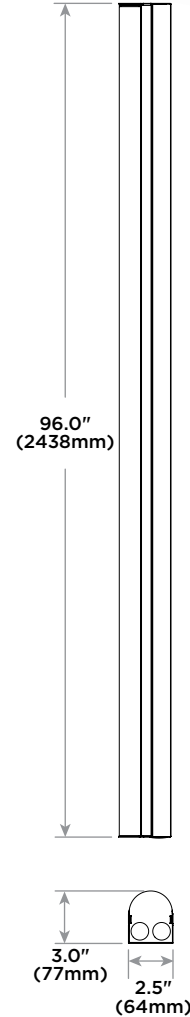
The LS8™ LED surface ambient luminaire delivers 90 lumens per watt of Cree TrueWhite® Technology 92 CRI illumination. The 8' (2438mm) luminaire is available with 8000 lumens in 3500K, 4000K and 5000K color temperatures. The LS Series' sleek and compact architectural design with flexible lumen packages, color temperatures and standard 0-10V dimming make it ideal for surface ambient applications in both new construction and upgrade applications. The LS Series' flexible mounting allows for individual mount or continuous row applications for surface mount, suspended mount, pendant mount and cove installations.

Performance Summary

Utilizes Cree TrueWhite® Technology
Delivered Light Output: 8000 lumens
Input Power: 88 watts
Efficacy: 90 LPW
CRI: 92 CRI
CCT: 3500K, 4000K, 5000K
Input Voltage: 120-277 VAC, 60Hz
Lifetime: Designed to last 50,000 hours
Limited Warranty: 10 years
Dimensions: L 96" (2438mm) x W 2.5" (64mm) x H 3.0" (77mm)
Weight: 10 lbs (4.5kg)
Dimming: 0-10V dimming to 5%*

Accessories

Accessories	
Adjustable Cable Support Kits for T-Bar Applications AC5-48-Q14B-TB - Includes 5.0" (127mm) Canopy, 48.0" (1219mm) Adjustable Cable, Q14B Gripper and T-Bar Clip	Adjustable Cable Support Kits w/ Power Feeds AC5-12/3-48-Q14B-JB - Non-dimming applications - Includes 5.0" (127mm) Cable Canopy, 48.0" (1219mm) #12/3 SJT Cord, Q14B Gripper and J-Box Strap
Continuous Row Through Wiring Kit LS8TWK - Includes (3) #12AWG 102.0" (2591mm) Wires for Line (black), Neutral (white), Ground (green), (2) #18AWG 102.0" (2591mm) Wires for 0-10V dimming (purple, gray) and (10) Wire Nuts	AC5-18/5-48-Q14B-JB - Dimming applications - Includes 5.0" (127mm) Cable Canopy, 48.0" (1219mm) #18/5 SJT Cord, Q14B Gripper and J-Box Strap
	AC5-18/2-48-Q14B-JB - For use with AC5-12/3-48-Q14B-JB for selective luminaire dimming control in row mounted luminaires - Includes 5.0" (127mm) Cable Canopy, 48.0" (1219mm) #18/2 SVT Cord, Q14B Gripper and J-Box Strap



Ordering Information

Example: LS8-80L-35K-10V

LS8	80L		10V		
Product	Lumen Output	Color Temperature	Dimming	Voltage	Options
LS8	80L 88W, 8000 lumens - 90 LPW	35K 3500 Kelvin 40K 4000 Kelvin 50K 5000 Kelvin	10V* 0-10V dimming to 5%	Blank 120-277 Volt	EB14 1400 lumen emergency backup

* See www.cree.com/lighting/products/warranty for warranty terms

* Reference www.cree.com/lighting for recommended dimming controls and wiring diagrams



Rev. Date: 04/10/2014



LS8™
8' (2438mm) LED Surface Ambient Luminaire

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 & MATERIALS

- Constructed of durable 22 gauge steel
- Acrylic lens delivers a low-glare, diffused light distribution
- Prepainted white for enhanced smooth finish

OPTICAL SYSTEM

- Unique combination of reflective and refractive optical components achieves a uniform, comfortable appearance while eliminating pixelation and color fringing
- Components work together to optimize distribution, balancing the delivery of high illuminance levels on horizontal surfaces with an ideal amount of light on walls and vertical surfaces. This increases the perception of spaciousness

ELECTRICAL SYSTEM

- **Power Factor:** = 0.9 nominal
- **Input Power:** Stays constant over life
- **Input Voltage:** 120-277 VAC, 60Hz
- **Temperature Rating:** Designed to operate in temperatures -28 °C to 35 °C
- **Total Harmonic Distortion:** < 20%

CONTROLS

- Continuous dimming to 5% with 0-10V DC control protocol*

REGULATORY & VOLUNTARY QUALIFICATIONS

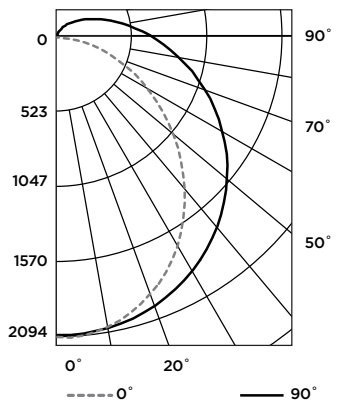
- cULus listed
- DLC qualified
- Suitable for damp locations
- UL924 (EB option)
- Designed for indoor use

* Reference www.cree.com/lighting for recommended dimming controls and wiring diagrams

Photometry

LS8-80L-40K BASED ON CESTL REPORT TEST #: PL03354-001

Fixture photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a fixture efficiency of 100%.



Coefficients Of Utilization - Zonal Cavity Method

RC %:	80			
RW %:	70	50	30	10
RCR: 0	116	116	116	116
1	104	98	93	88
2	93	84	76	70
3	85	73	64	57
4	77	64	55	48
5	71	57	48	41
6	65	51	42	36
7	60	47	37	31
8	56	42	34	28
9	52	39	30	25
10	49	36	28	22

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m2)

Horizontal Angle		0°	45°	90°
Vertical Angle	45°	3078	3623	4133
	55°	2643	3507	4213
	65°	2153	3467	4399
	75°	1562	3612	4847
	85°	733	4385	6232

Zonal Lumen Summary

Zone	Lumens	% Lamp	Luminaire
0-30	1627.0	N/A	20.6%
0-40	2676.9	N/A	33.8%
0-60	4854.9	N/A	61.3%
0-90	7026.1	N/A	88.8%
0-180	7914.8	N/A	100%

Reference www.cree.com/lighting for detailed photometric data.

LS8™ Lumen Maintenance¹

Ambient	Initial LMF	25K hr Projected ² LMF	50K hr Calculated ³ LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
0 °C (32 °F)	1.05	0.99	0.94	0.90	0.85
5 °C (41 °F)	1.04	0.98	0.93	0.89	0.85
10 °C (50 °F)	1.03	0.97	0.93	0.88	0.84
15 °C (59 °F)	1.02	0.96	0.92	0.87	0.83
20 °C (68 °F)	1.01	0.95	0.91	0.86	0.82
25 °C (77 °F)	1.00	0.94	0.90	0.86	0.81
30 °C (86 °F)	0.99	0.93	0.89	0.85	0.81
35 °C (95 °F)	0.98	0.92	0.88	0.84	0.80

¹Lumen maintenance values at 25 °C 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 ((DUT) 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 ((DUT) i.e. the packaged LED chip)

