

# LS4™

4' (1219mm) LED Surface Ambient Luminaire

## Product Description

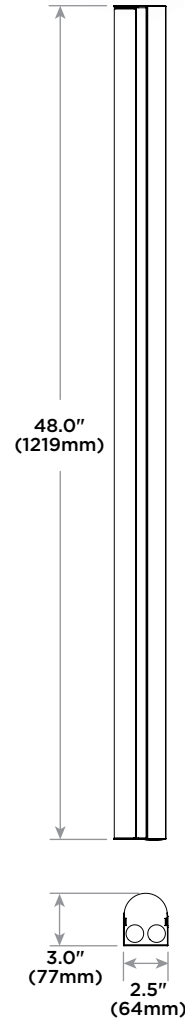
The LS4™ LED surface ambient luminaire delivers 90 lumens per watt of Cree TrueWhite® Technology 92 CRI illumination. The 4' (1219mm) luminaire is available with 4000 lumens in 3500K, 4000K and 5000K color temperatures. The LS Series' sleek and compact architectural design with flexible lumen packages, 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
<b>Delivered Light Output:</b> 4000 lumens
<b>Input Power:</b> 44 watts
<b>Efficacy:</b> 90 LPW
<b>CRI:</b> 92 CRI
<b>CCT:</b> 3500K, 4000K, 5000K
<b>Input Voltage:</b> 120-277 VAC, 60Hz
<b>Lifetime:</b> Designed to last 50,000 hours
<b>Limited Warranty:</b> 10 years
<b>Dimensions:</b> L 48.0" (1219mm) x W 2.5" (64mm) x H 3.0" (77mm)
<b>Weight:</b> 5 lbs. (2.3kg)
<b>Dimming:</b> 0-10V dimming to 5%*

## Accessories

Accessories	
<b>Adjustable Cable Support Kits for T-Bar Applications</b> <b>AC5-48-Q14B-TB</b> - Includes 5.0" (127mm) Canopy, 48.0" (1219mm) Adjustable Cable, Q14B Gripper and T-Bar Clip	<b>Adjustable Cable Support Kits w/ Power Feeds</b> <b>AC5-12/3-48-Q14B-JB</b> - Non-dimming applications - Includes 5.0" (127mm) Cable Canopy, 48" (1219mm) #12/3 SJT Cord, Q14B Gripper and J-Box Strap <b>AC5-18/5-48-Q14B-JB</b> - Dimming applications - Includes 5.0" (127mm) Cable Canopy, 48.0" (1219mm) #18/5 SJT Cord, Q14B Gripper and J-Box Strap <b>AC5-18/2-48-Q14B-JB</b> - 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
<b>Continuous Row Through Wiring Kit</b> <b>LS4TWK</b> - Includes (3) #12AWG 54.0" (1372mm) Wires for Line (black), Neutral (white), Ground (green), (2) #18AWG 54.0" (1372mm) Wires for 0-10V dimming (purple, gray) and (10) Wire Nuts	



## Ordering Information

Example: LS4-40L-35K-10V

LS4	40L		10V		
Product	Lumen Output	Color Temperature	Dimming	Voltage	Options
LS4	40L 44W, 4000 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](http://www.cree.com/lighting/products/warranty) for warranty terms

\* Reference [www.cree.com/lighting](http://www.cree.com/lighting) for recommended dimming controls and wiring diagrams



Rev. Date: 04/10/2014



**LS4™**  
4' (1219mm) 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**

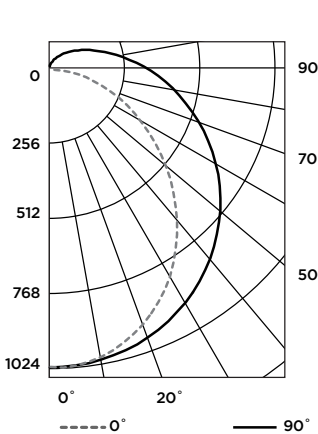
- cULus listed
- DLC qualified
- Suitable for damp locations
- UL924 (EB option)
- Designed for indoor use

\* Reference [www.cree.com/lighting](http://www.cree.com/lighting) for recommended dimming controls and wiring diagrams

**Photometry**

**LS4-40L-40K BASED ON CESTL REPORT TEST #: PLO3353-001**

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	35
7	60	46	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°	3009	3545	4045
	55°	2588	3434	4129
	65°	2113	3403	4322
	75°	1552	3562	4787
	85°	754	4367	6196

**Zonal Lumen Summary**

Zone	Lumens	% Lamp	Luminaire
0-30	795.5	N/A	20.4%
0-40	1308.9	N/A	33.6%
0-60	2375.3	N/A	60.9%
0-90	3446.8	N/A	88.4%
0-180	3897.6	N/A	100%

Reference [www.cree.com/lighting](http://www.cree.com/lighting) for detailed photometric data.

**LS4™ Lumen Maintenance<sup>1</sup>**

Ambient	Initial LMF	25K hr Projected <sup>2</sup> LMF	50K hr Calculated <sup>3</sup> LMF	75K hr Calculated <sup>3</sup> LMF	100K hr Calculated <sup>3</sup> 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

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

<sup>2</sup>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)

<sup>3</sup>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)

