

# Essentia® Series Wrap

LED Wrap – 4' (1.2M)

## Product Description

The Essentia® Series Wrap surface mounted LED wrap combines application flexibility and market leading energy efficiency and controls. The smart durable arc lens design provides smooth uniform light quality and an amazing 115 lumens per watt. The LED wrap features standard 0-10V dimming and optional occupancy sensing which delivers amazing energy savings and controllability.


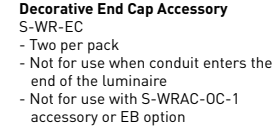

**Applications:** Hospitality, retail, industrial, commercial, petroleum

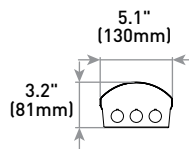
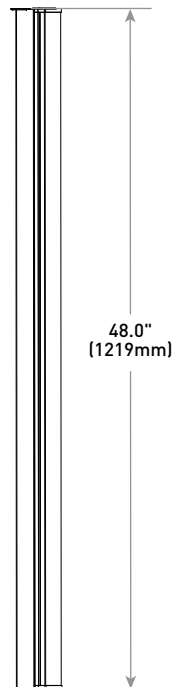
## Performance Summary

<b>Initial Delivered Lumens:</b> 4,140 lumens
<b>Input Power:</b> 36 watts
<b>Efficacy:</b> 115 LPW
<b>CRI:</b> 80
<b>CCT:</b> 3000K, 3500K, 4000K
<b>Input Voltage:</b> 120-277 VAC
<b>L<sub>70</sub> Lifetime:</b> 100,000 hours at 25°C
<b>Limited Warranty*:</b> 5 years
<b>Dimming:</b> 0-10V dimming to 5%
<b>Limited Warranty Emergency Back Up (EB) Battery:</b> 1 Year Battery Back Up. Test regularly in accordance with local codes
<b>Mounting:</b> Surface Mount or Suspended

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

## Accessories

Field-Installed	
<b>Dimming Occupancy Sensor w/Photocell</b> S-WRAC-OC-1 - Enables daylight harvesting - Not for use with EB option - Refer to installation instructions for details	
<b>Through Wiring Kit</b> LS4TWK - Includes (3) #12AWG 54" (1372mm) Wires for Line (black), Neutral (white), Ground (green), (2) #18AWG 54" (1372mm) Wires for 0-10V Dimming (purple, gray) and (10) Wire Nuts - Not for use with EB option	
<b>Decorative End Cap Accessory</b> S-WR-EC - Two per pack - Not for use when conduit enters the end of the luminaire - Not for use with S-WRAC-OC-1 accessory or EB option	



## Ordering Information

Example: S-WR4-40L-30K-10V

Product	Size	Initial Delivered Lumens	CCT	Voltage	Control	Options
S-WR Essentia Series Wrap	4 48"	40L 36W, 4,140 lumens	30K 3000K 35K 3500K 40K 4000K	Blank 120-277 volt	10V 0-10V	EB14 <b>Emergency Backup</b> - Minimum 90 minutes - 1,100 lumens



Rev. Date: V5 05/07/2018



## Product Specifications

### CONSTRUCTION & MATERIALS

- 24ga. steel frame provides strength and uniformity
- Luminaire is post-painted with a soft matte white paint
- Suitable for mounting in any orientation: uplight, downlight, wall
- Can be mounted individually or in continuous rows
- Maximum continuous run is up to 47 luminaires at 120V and 110 luminaires at 277V
- Flexible mounting provisions allow for surface mounting, t-bar grid mounting, chain mounting; mounting hardware by others
- Suitable for through wiring
- **Weight:** 7.7 lbs. (3.5kg)

### OPTICAL SYSTEM

- IP40 lens assembly designed to prevent bug ingress
- Diffuse optical grade acrylic arc lens with matte finish
- Provides 4.7% uplight

### ELECTRICAL SYSTEM

- Integral, high-efficiency driver
- **Power Factor:** > 0.9 (standard luminaire); EB Option: 0.5 (120V) and 0.15 (277V)
- **Input Power:** Stays constant over life
- **Input Voltage:** 120-277V, 60Hz
- **Operating Temperature Range:** 0°C - + 35°C (32°F - + 95°F)
- **Total Harmonic Distortion:** < 20%
- **10V Source Current:** 0.25mA

### CONTROLS

- Continuous dimming to 5% with 0-10V DC control protocol
- For use with Class 2 dimming systems only
- Use only lighting controls with neutral connection or controls intended for use with LED fixtures
- Reference [www.creelink.com/exLink.asp?70982140Z58R34126620963](http://www.creelink.com/exLink.asp?70982140Z58R34126620963) for recommended dimming controls and wiring diagrams

### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for damp locations
- Designed for indoor use
- Not intended for use in environments containing airborne corrosive agents such as chemical solvents, cleaners, or cutting fluids
- RoHS compliant. Consult factory for additional details
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- UL924 (EB option). Maximum mounting height: 15.0' (4.6m)
- DLC qualified for linear ambient category, and DLC Premium qualified for stairwell category. Please refer to update link to <https://www.designlights.org/search/> for most current information

Electrical Data*					
Initial Delivered Lumens	System Watts 120-277V	Total Current (A)			
		120V	208V	240V	277V
40L	36	0.30	0.17	0.15	0.13

\* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V +/- 10%

Recommended Essentia® Series Flat Panel Lumen Maintenance Factors (LMF) <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
25°C (77°F)	1.00	0.98	0.97	0.96	0.95

<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

## Application Reference

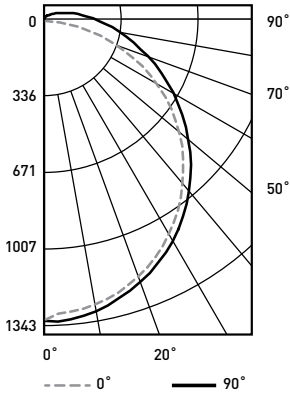
Open Space						
Spacing (ft)	Initial Delivered Lumens	Lumens	Wattage	LPW	w/ft <sup>2</sup>	Average fc
8x8	40L	4,140	36	115	0.54	57.8
8x10					0.45	48.2
10x10					0.36	38.6
10x12					0.29	30.9

<sup>9</sup> Ceiling, 80/50/20 Reflectances, 2.5 workplane. LLF: 1.0 Initial. Open Space: 50' x 40'

**Photometry**

**S-WR4-40L-40K-10V BASED ON DTC REPORT TEST #: PL08677-001B**

Luminaire photometry has been conducted in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%.



Initial Delivered Lumens: 4,348  
 Efficacy: 121.0 LPW  
 S/M: 1.24

Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	118	118	118	118
1	106	101	96	92
2	96	87	80	74
3	87	76	67	61
4	80	67	58	51
5	73	60	51	44
6	67	54	45	38
7	63	49	40	33
8	58	44	36	30
9	54	41	32	27
10	51	38	29	24

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m²)			
Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	7,733	7,041	6,902
55°	7,445	6,522	6,449
65°	6,924	5,913	6,051
75°	5,813	5,281	5,768
85°	3,773	5,040	6,067

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	1,035	N/A	23.8%
0-40	1,701	N/A	39.1%
0-60	3,049	N/A	70.1%
0-90	4,145	N/A	95.3%
0-180	4,349	N/A	100.0%

Reference <http://lighting.cree.com/products/indoor/surface-ambient/essentia-series-wrap> for detailed photometric data

