

Essentia® Series Wrap

LED Wrap – 2' (0.6M)

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

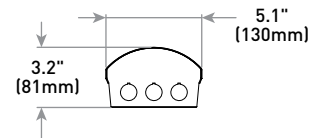
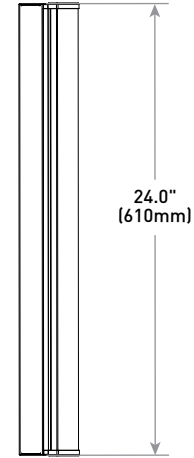
Performance Summary

Initial Delivered Lumens: 2,070 lumens
Input Power: 18 watts
Efficacy: 115 LPW
CRI: 80
CCT: 3000K, 3500K, 4000K
Input Voltage: 120-277 VAC
L₇₀ Lifetime: 100,000 hours at 25°C
Limited Warranty¹: 5 years
Dimming: 0-10V dimming to 5%
Limited Warranty Emergency Back Up (EB) Battery: 1 Year Battery Back Up. Test regularly in accordance with local codes
Mounting: Surface Mount

¹See <http://lighting.cree.com/warranty> for warranty terms

Accessories

Field-Installed	
Dimming Occupancy Sensor w/Photocell S-WRAC-OC-1 - Enables daylight harvesting - Not for use with EB option - Refer to installation instructions for details	
Decorative End Cap Accessory 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-WR2-20L-30K-10V

Product	Size	Initial Delivered Lumens	CCT	Voltage	Control	Options
S-WR Essentia Series Wrap	2 24"	20L 18W, 2,070 lumens	30K 3000K 35K 3500K 40K 4000K	Blank 120-277 volt	10V 0-10V	EB14 Emergency Backup - Minimum 90 minutes - 550 lumens



Rev. Date: V5 05/02/2018



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 94 luminaires at 120V and 220 luminaires at 277V
- Keyhole slots allow for surface mounting; mounting hardware by others
- Suitable for through wiring
- **Weight:** 4.8 lbs. [2.2kg]

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?70982140Z58R34I26620963 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: 12.0' (3.7m)
- 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
20L	18	0.15	0.10	0.08	0.07

* 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) ¹					
Ambient	Initial LMF	25K hr Projected ² LMF	50K hr Calculated ³ LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
25°C (77°F)	1.00	0.98	0.97	0.96	0.95

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

Application Reference

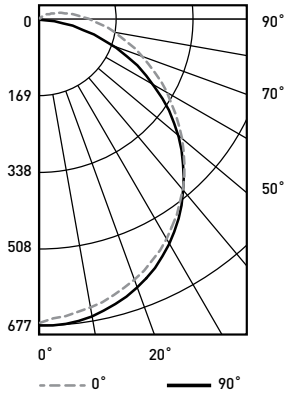
Open Space						
Spacing (ft)	Initial Delivered Lumens	Lumens	Wattage	LPW	w/ft ²	Average fc
8x8	20L	2,070	18	115	0.27	29.0
8x10					0.23	24.1
10x10					0.18	19.3
10x12					0.14	15.4

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

Photometry

S-WR2-20L-40K-10V BASED ON DTC REPORT TEST #: PL08678-001B

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: 2,198
 Efficacy: 118.0 LPW
 S/M: 1.28

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	68	54	45	38
7	63	49	40	33
8	58	44	36	30
9	54	41	32	27
10	51	38	30	24

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m²)			
Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	7,872	6,982	6,914
55°	7,419	6,391	6,438
65°	6,691	5,757	6,051
75°	5,407	5,084	5,779
85°	3,275	4,793	6,101

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	525	N/A	23.9%
0-40	863	N/A	39.3%
0-60	1,544	N/A	70.2%
0-90	2,096	N/A	95.3%
0-180	2,199	N/A	100.0%

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

