

LN Series with SmartCast® Technology

LN4™ Suspended Ambient LED Luminaire – Indirect/Direct – 4'

Product Description

The LN4™ suspended ambient luminaire delivers up to 115 lumens per watt utilizing Cree WaveMax® Technology. The 4' (1.2m) luminaire offers up to 3,700 lumens of Cree TrueWhite® Technology 90+ CRI in both 3500K and 4000K color temperatures. The LN Series features an architectural, sleek design with an indirect/direct lighting system that delivers superior ceiling uniformity and creates a comfortable visual environment. The LN4 luminaire with Cree SmartCast® Technology, Cree's intelligent light solution, provides extreme energy productivity and code compliance – all with installation that's so intuitive and simple, it just works.

Applications: Suspended ambient applications for new construction and upgrade

Performance Summary

Utilizes Cree TrueWhite® Technology

Utilizes Cree WaveMax® Technology

Initial Delivered Lumens: Up to 3,700 lumens (60% uplight, 40% downlight)

Input Power: 32 watts

Efficacy: Up to 115 LPW

CRI: 90+ CRI

CCT: 3500K, 4000K

Input Voltage: 120-277 VAC, 60Hz

Limited Warranty*: 10 years

Dimensions: L 48.8" (1240mm) x W 11.7" (298mm) x H 2.7" (69mm)

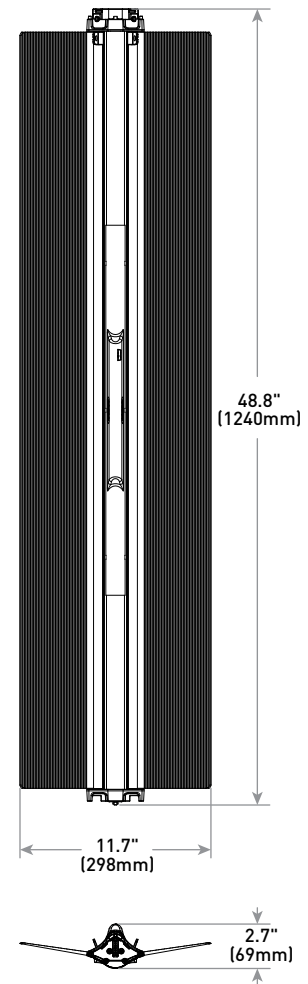
Controls: Cree SmartCast® Technology

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

Accessories

Field-Installed	
Mounting Hardware LN-EC - Power canopy and hanging hardware to support up to an 8' (2.4m) individual mount or an 8' starter section. For continuous rows, one LN-CK-0-AC accessory must be ordered for each additional 8' (2.4m) section added to run - Maximum continuous run is 48' (14.6m) at 120V or 136' (41.5m) at 277V - Includes 4.6" (117mm) Canopy w/3/32" (813mm) Aircraft Cable and Power Feed, 2.1" (53mm) Canopy w/3/32" (813mm) Aircraft Cable, and set of End Caps, one which accepts power feed LN-CK-0-AC - One required for each 8' (2.4m) section added to run beyond starter - 2.1" (53mm) Canopy Kit w/3/32" (813mm) Aircraft Cable, no Power Feed	Luminaires w/Cree SmartCast® Technology Cree SmartCast® Technology Configuration Tool CCT-CWC-1 - One required per project when CMA control is selected Cree SmartCast® Technology Face Plates† CFP-1-WH - Matching Cree face plate, 1-gang, white CFP-2-WH - Matching Cree face plate, 2-gang, white CFP-3-WH - Matching Cree face plate, 3-gang, white Cree SmartCast® Technology Wireless Dimmer/Switch† CWD-CWC-WH Cree SmartCast® Technology Wireless Switch† CWS-CWC-WH
Emergency Options Inverter ELI-125W (powers up to 4 luminaires) - Emergency 125W inverter (Ceiling Installation) Generator EL-SR-120 - Emergency Relay, 120V EL-SR-277 - Emergency Relay, 277V	

† Refer to the [Wireless Dimmer Smartcast Control](#) spec sheet for more details



Ordering Information

Example: LN4-34L-35K-CMA

LN4	34L		CMA	
Product	Initial Delivered Lumens	CCT	Control	Voltage
LN4	34L 3,400 – 3,700 lumens	35K 3500K 40K 4000K	CMA Cree SmartCast® Technology - Integral motion and ambient sensors and wireless communication	Blank 120-277 Volt



SMARTCAST® TECHNOLOGY



Rev. Date: V3 12/21/2016



US: lighting.cree.com

T (800) 236-6800 F (262) 504-5415

Canada: www.cree.com/canada

T (800) 473-1234 F (800) 890-7507

Product Specifications

CREE WAVEMAX® TECHNOLOGY

Featuring up to 90% optical efficiency and precise control, Cree WaveMax® Technology provides unmatched comfort and decreased LED source luminance by smoothly spreading brightness over a broader area. When integrated with luminous surfaces made of a polymer medium engineered with DiamondFacet™ optical elements, extremely high efficacy luminaires are the result – ultimately creating more visually comfortable and appealing environments while exceeding illumination performance.

CREE SMARTCAST® TECHNOLOGY

Cree SmartCast® Technology is the most intuitive and easiest to install intelligent light solution on the market. SmartCast Technology delivers up to 70% energy savings at up to half the cost of other solutions. Luminaires combine best-in-class light with onboard sensors and intelligence to deliver a better light experience. Extreme energy productivity, code compliance and a better light experience without any extra design, installation or setup work.

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 lightweight aluminum
- Acrylic lens delivers a low-glare, diffused light distribution
- Maximum continuous run is up to 48' (14.6m) at 120V and 136' (41.5m) at 277V
- **Weight:** 9.4 lbs. (4.3kg)

OPTICAL SYSTEM

- Cree WaveMax® Technology optics enable more uniform ceiling and task illumination for a comfortable visual environment
- Inspired design targeted to deliver 60% directional uplight and 40% volumetric downlight to create a soft balanced light experience
- Optimal mounting is 18" (457mm) from ceiling

ELECTRICAL SYSTEM

- **Power Factor:** > 0.9
- **Input Power:** Stays constant over life
- **Input Voltage:** 120-277 VAC, 60Hz
- **Operating Temperature Range:** 0°C - +35°C (32°F - +95°F)
- **Total Harmonic Distortion:** < 20%

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for damp locations
- Designed for indoor use
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- DLC Premium qualified. Please refer to www.designlights.org/OPL for most current information

Cree SmartCast® Technology

INTEGRAL MOTION SENSOR

- Passive infrared (PIR)
- **Coverage Area:** 100 sq. ft. (30.5m²) at 10' (3.0m) mounting height
- Not intended to be mounted higher than 12' (3.7m)
- **Operation:**
 - Grouped with a wall control: Luminaire will operate in vacancy mode (manual-on/auto-off)
 - Not grouped with a wall control: Luminaire will operate in occupancy mode (auto-on/auto-off)
- Luminaires operate at full intensity until OneButton™ Setup is initiated by the Cree Configuration Tool

INTEGRAL AMBIENT LIGHT SENSOR

- Sensor response matches response of human eye
- Not intended to be mounted higher than 12' (3.7m)
- Luminaires operate at full intensity until OneButton™ Setup is initiated by the Cree Configuration Tool
- Daylight harvesting calibration performed automatically during OneButton™ Setup

INTEGRAL WIRELESS COMMUNICATION

- 2.4GHz wireless mesh technology with AES 128-bit encryption
- Self assigns to quietest channel during OneButton™ Setup
- **Range:**
 - 30' (9.1m) in typical commercial applications
 - 300' (91.4m) open air without obstructions
- **Network:** 250 devices max.
- **Space:** 100 devices max. per group
- FCC certified
- IC certified

LUMINAIRE

- Luminaires operate at full intensity until OneButton™ Setup is initiated by the Cree Configuration Tool
- 10 year power fail memory of settings

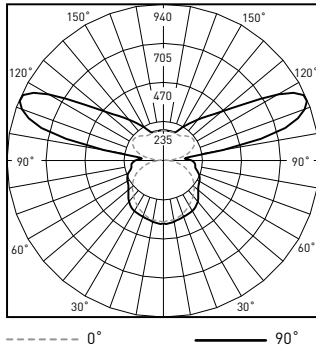
DEPLOYMENT

- Please refer to the SmartCast® Deployment Guide at <https://www.creelink.com/exLink.asp?236135640H88E44I39771048>

Photometry

LN4-34L-35K-CMA BASED ON CESTL REPORT TEST #: PL07271-001B

Luminaire 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 luminaire efficiency of 100%



Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	94	89	85	81
1	85	77	70	64
2	77	67	59	53
3	70	59	50	44
4	64	52	44	37
5	59	47	38	32
6	54	42	34	28
7	50	38	30	24
8	47	34	27	22
9	44	31	24	19
10	44	31	24	19

Effective Floor Cavity Reflectance: 20%

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	297	N/A	8.5%
0-40	500	N/A	14.4%
0-60	950	N/A	27.3%
0-90	1,472	N/A	42.3%
90-120	1,145	N/A	32.9%
90-150	1,849	N/A	53.2%
90-180	2,006	N/A	57.7%
0-180	3,478	N/A	100%

Average Luminance Table [cd/m²]				
Vertical Angle	Horizontal Angle			
		0°	45°	90°
	45°	1,068	1,195	1,197
	55°	1,118	1,270	1,279
	65°	1,195	1,409	1,617
	75°	1,302	1,868	2,246
85°	1,685	4,329	6,199	

Reference <http://lighting.cree.com/products/indoor/suspended-ambient/ln-series> for detailed photometric data

Electrical Data*				
System Watts 120-277V	Total Current			
	120V	208V	240V	277V
32	0.27	0.15	0.13	0.12

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

Recommended LN Series Lumen Maintenance Factors (LMF) ¹					
Ambient	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
0°C (32°F)	1.07	1.06	1.05	1.05	1.04
5°C (41°F)	1.05	1.04	1.04	1.04	1.03
10°C (50°F)	1.04	1.03	1.03	1.02	1.02
15°C (59°F)	1.03	1.02	1.01	1.01	1.00
20°C (68°F)	1.01	1.00	1.00	1.00	0.99
25°C (77°F)	1.00	0.99	0.99	0.98	0.98
30°C (86°F)	0.99	0.98	0.97	0.97	0.96
35°C (95°F)	0.97	0.96	0.96	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

