

CS14™ with Cree SmartCast™ Technology

4' LED Linear Luminaire

Product Description

The CS14™ LED linear luminaire with Cree SmartCast™ Technology delivers exceptional lighting performance combined with simple lighting controls that are easy to use and install. Cree SmartCast™ Technology products incorporate integrated ambient and occupancy sensing and wireless communication to achieve energy savings and extended product life resulting in lower electricity bills, reduced maintenance, and an improved total cost of ownership over traditional lighting control systems.

Performance Summary

Utilizes Cree TrueWhite® Technology
Active Color Management
Room-Side Heat Sink
Made in the U.S.A. of U.S. and imported parts
Delivered Light Output: 3,800-4,000 lumens
Input Power: 37-38 watts
CRI: 90
CCT: 3500K, 4000K
Input Voltage: 120-277 VAC
Limited Warranty: 5 years*
High Efficacy Lifetime: Designed to last 75,000 hours minimum
Base Lifetime: Designed to last 50,000 hours minimum
Controls: Integral ambient light and motion sensors
Mounting: Suspended or Surface with Tong Hangers (Standard)
Dimensions: L 48" x W 10" x H 5.8"
Weight: max 8 lbs.

Accessories

Reference CS Series Accessories document for more details.

Accessories		
TMM Metal Tong Hanger (Pair) - Recommended for surface mount	AC5-18/5-48-Q14B-JB Adjustable Power Feeds with Cable Support Canopy Kits	PC5-18/5-24-JB Adjustable Power Feed Canopy Cable Kits
	AC5-12/3-48-Q14B-JB Adjustable Power Feeds with Cable Support Canopy Kits	PC5-12/3-24-JB Adjustable Power Feed Canopy Cable Kits
AC5-48-Q14B-TB Adjustable Cable Support Kits	AC5-18/2-48-Q14B-JB Adjustable Power Feeds with Cable Support Canopy Kits	PC5-18/2-24-JB Adjustable Power Feed Canopy Cable Kits
AC2-48-Q14B-TB Adjustable Cable Support Kits	AC-144-Q14B-LP Adjustable Loop Cable Kits	

Ordering Information

Example: CS14-40LHE-35K-CMA

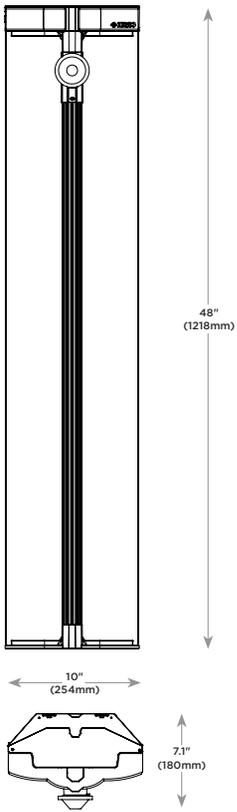
Product	Lumen Output	Color Temperature	Voltage	Control
CS14™	40L HE 37W 4000 lumens	35K 3500 Kelvin	Blank 120-277 Volt	CMA Controls ready with integral motion and ambient sensors. Compatible with control modules listed below.
	38L 38W 3800 lumens	40K 4000 Kelvin		

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

Control Modules

CM-CWC-1 Cree SmartCast™ Technology wireless control module (factory installed)

CS14™



Rev. Date 02/11/2014



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Product Specifications

CREE SMARTCAST™ TECHNOLOGY

Cree SmartCast™ Technology changes the paradigm of lighting control. With the press of a single button, Cree SmartCast™ Technology enabled luminaires and controls create their own secure network and auto-associate to form logical groups throughout every space. Integrated sensors and robust wireless communication included in every luminaire combined with revolutionary OneButton™ Setup enables automated setup and configuration of luminaires and wall controls. With no extra wires or interfaces, Cree SmartCast™ Technology products reduce installation time and complexity.

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 consistency, all while maintaining high luminous efficacy – a true no compromise solution.

THERMAL MANAGEMENT

An innovative thermal management system designed to maximize cooling effectiveness by allowing free air movement around the heat sink and through the fixture. This breakthrough design and operating drive current of less than 350mA enables the LEDs to consistently run cooler, providing significant boosts to lifetime, efficacy, and color consistency.

LUMEN MAINTENANCE FACTORS

- Designed to a minimum of L85 at 75,000 hours with HE option and L88 at 50,000 hours with base option.
- Reference www.cree.com/lighting for detailed lumen maintenance factors.

CONSTRUCTION & MATERIALS

- High strength, lightweight polymer forms the reflector and driver housing.
- Multi-functional heat sink and light bar doubles as the wireway for through wiring harness.
- Two plastic tong hangers provided for surface or suspended installations. One tong hanger per unit plus one per row is required.
- Hangers are adjustable along fixture to accommodate existing mounting points for upgrade projects. Hanger support required within 18 inches of end of fixture.
- Individual fixtures may be connected end to end for continuous row mounting. Easy removal of individual fixtures mounted in continuous row.
- Not intended for use in environments containing airborne corrosive agents such as chemical solvents, cleaners, or cutting fluids.

OPTICAL SYSTEM

- High-efficiency reflector with MicroMixing™ Optics which integrates the intense direct LED light and distributes optimally mixed indirect white light resulting in a comfortable appearance while maintaining high-efficiency optics.
- Indirect LED strip eliminates direct view of highly efficient, lighting quality LEDs.

ELECTRICAL SYSTEM

- Room-side wiring access chamber with hinged door for easy electrical access.
- Integral through wiring harness (3#12 AWG power) with quick-connect plug connectors for easy and efficient continuous row installations while minimizing branch circuit wiring.
- Integral, high-efficiency driver and power supply.
- Power Factor = 0.9 nominal.
- Input Power: Stays constant over life.
- Input Voltage: 120V-277V, 50/60Hz.
- Temperature Rating: Designed to operate in temperatures 0 C to 35 C.
- Total Harmonic Distortion: < 20%.
- Operating Humidity: < 80% non-condensing.
- Dimming: 5% - 100%

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus listed.
- Suitable for damp locations.
- LDL (Lighting Design Lab) qualified.
- DLC qualified.

INTEGRAL MOTION SENSOR

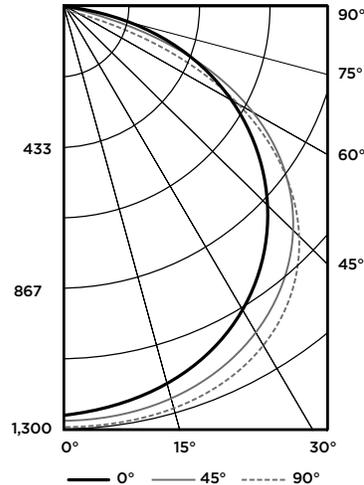
- Passive infrared (PIR).
- Coverage area: 100 sq. ft. at 10 ft. mounting height.

INTEGRAL AMBIENT LIGHT SENSOR

- Sensor response matches response of human eye.

Photometry

CS14™
CS14-40LHE-40K-10v



Coefficients Of Utilization

RCC %:	80			
RW %:	70	50	30	0
RCR: 0	119	119	119	119
1	108	104	99	95
2	98	90	83	77
3	89	79	70	64
4	82	69	60	54
5	75	62	53	46
6	69	55	46	40
7	64	50	41	35
8	59	46	37	31
9	55	42	33	28
10	52	38	30	25

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m2)

Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	874	1005	1030
55°	711	828	816
65°	516	578	504
75°	288	225	195
85°	48	64	73

Zonal Lumen Summary

Zone	Lumens	Luminaire
0-30	1,027	25.00%
0-40	1,722	41.90%
0-60	3,194	77.80%
0-90	4,077	99.20%
0-180	4,100	100%

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



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Cree SmartCast™ Technology

INTEGRAL OCCUPANCY SENSOR

- 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

- 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 ft. in typical commercial applications.
 - 300 ft. 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.