

# CS18™

8' LED Linear Luminaire

## Product Description

The CS18™ LED linear luminaire delivers up to 8200 lumens of exceptional 90 CRI light. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology and Cree MicroMixing™ Optics with a unique thermal management approach. The CS18 is available in neutral or cool color temperatures and has 0-10V dimming as standard option. Its compact, lightweight design makes it easy to install, making the CS18 perfect for use in grocery retail, showrooms and light industrial applications in new or upgrade construction.

## 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
<b>Delivered Light Output:</b> 4400-8200 lumens
<b>Input Power:</b> 44-75 watts
<b>CRI:</b> 90
<b>CCT:</b> 3500K, 4000K
<b>Input Voltage:</b> 120-277 VAC
<b>Warranty:</b> 10 years†
<b>High Efficacy Lifetime:</b> Designed to last 75,000 hours minimum
<b>Base Lifetime:</b> Designed to last 50,000 hours minimum
<b>Dimming:</b> 0-10V Dimming to 5%*
<b>Mounting:</b> Suspended or Surface with Tong Hangers (Standard)
<b>CS18 Dimensions:</b> L 96" x W 10" x H 5.8"
<b>Weight:</b> max 13 lbs.

## Accessories

Reference CS Series Accessories document for more details.

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

## Ordering Information

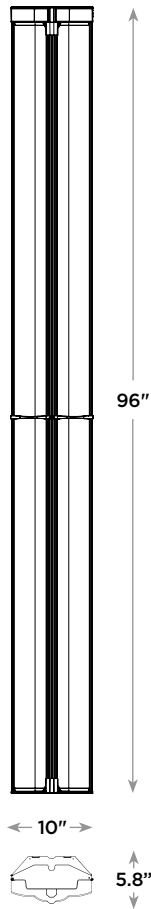
Example: CS18-80L HE-35K-10V

Product	Lumen Output	Color Temperature	Voltage	Control
CS18	<b>82L HE</b> 72W 8200 lumens	<b>35K</b> 3500 Kelvin <b>40K</b> 4000 Kelvin	<b>Blank</b> 120-277 Volt	<b>10V</b> 0-10V Dimming to 5%
	<b>80L HE</b> 73W 8000 lumens			
	<b>75L</b> 75W 7500 lumens			
	<b>44L</b> 44W 4400 lumens			

\*Reference [www.cree.com/lighting](http://www.cree.com/lighting) for recommended dimming control options.

† See [www.cree.com/lighting](http://www.cree.com/lighting) for warranty terms.

CS18



Rev. Date 06/13/2013



## Product Specifications

### CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology mixes the light from the highest performing red and unsaturated yellow LEDs. This patented approach 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.

### 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](http://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 and 2#18 0-10V) 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
- **Dimming:** Dimmable to 5% with 0 to 10V DC control protocol. Class 1 or Class 2 wiring. Use only lighting controls with relay or FET-based outputs, or lighting controls with neutral connection. Reference [www.cree.com/lighting](http://www.cree.com/lighting) for recommended dimming controls.
- **Temperature Rating:** Designed to operate in temperatures 0 C to 35 C
- **Total Harmonic Distortion:** < 20%
- **Operating Humidity:** < 80% non-condensing

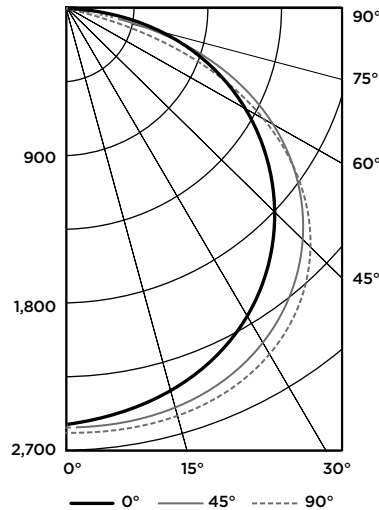
### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for damp locations
- LDL (Lighting Design Lab) qualified
- DLC qualified (7500, 8000 and 8200 lumen packages)

## Photometry

### CS18

CS18-80L HE-40K-10V / Based on DTC Report Test #: 11135-G



### Coefficients Of Utilization

RCC %:	80			
RW %:	70	50	30	0
RCR: 0	119	119	119	119
1	108	103	99	95
2	98	90	83	77
3	89	79	70	63
4	82	69	60	53
5	75	62	52	46
6	69	55	46	40
7	64	50	41	35
8	59	45	37	31
9	55	42	33	28
10	52	38	30	25

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m2)

		Horizontal Angle		
		0°	45°	90°
Vertical Angle	45°	4346	5003	5127
	55°	4377	5080	5013
	65°	4329	4754	4159
	75°	4121	3021	2870
	85°	2753	2986	3259

### Zonal Lumen Summary

Zone	Lumens	Luminaire
0-30	2,059	24.8%
0-40	3,456	41.7%
0-60	6,429	77.6%
0-90	8,233	99.3%
0-180	8,288	100%

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

