

ADD ALTERNATE #1

LIGHTING KEYNOTES:

1. CS18_80L HE_40K. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL MOUNTING HARDWARE REQUIRED TO MOUNT FIXTURES, RACEWAYS, AND BOXES. ANY ADJUSTABLE CABLE KIT OPTIONAL ACCESSORIES REQUIRED SHALL BE INCIDENTAL TO THE CONTRACT. WWW.CREE.COM
2. CS14_22I_40K. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL MOUNTING HARDWARE REQUIRED TO MOUNT FIXTURES, RACEWAYS, AND BOXES. ANY ADJUSTABLE CABLE KIT OPTIONAL ACCESSORIES REQUIRED SHALL BE INCIDENTAL TO THE CONTRACT. WWW.CREE.COM
3. CR22_20L_40K. THE LIGHTS IN THE OFFICE SHALL HAVE DIMMING TO 5% INCLUDED. CONTRACTOR SHALL PROVIDE AND INSTALL NEW DIMMER SWITCH PER MANUFACTURE'S RECOMMENDATIONS. DIMMER SWITCH SHALL GO IN SAME LOCATION AS EXISTING SWITCH. WWW.CREE.COM
4. CDL40SAU_4000K. PHILIPS LIGHTING. WWW.LIGHTOLIER.COM
5. CR24_50L_40K_EB14SMK. SURFACE MOUNTED LIGHT WITH EMERGENCY BACKUP. WWW.CREE.COM



ADD ALT #1
BOILER PLANT LIGHTING LAYOUT

Project Title BOILER PLANT LED LIGHTING RETROFIT		Project Number 438-13-125	Office of Construction and Facilities Management Department of Veterans Affairs
Location VA SIOUX FALLS, SD		Building Number 11	
Date APRIL 2013	Checked TRM	Drawn TJM	
		Drawing Number 0-1	

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

Weight: max 13lbs.

Accessories

Reference CS Series Accessories document for more details.

Accessories	
TM Plastic Tong Hanger (Pair) - Standard (Blank)	AC5-18/5-48-Q14B-JB Adjustable Cable Cord Canopy Kits
TMM Metal Tong Hanger (Pair) - Recommended for surface mount	AC5-12/3-48-Q14B-JB Adjustable Cable Cord Canopy Kits
CSESK Electrical Starter Kit. Optional input power/0-10V dimming quick-connect lever termination wiring nuts for first fixture in row.	AC5-18/2-48-Q14B-JB Adjustable Cable Cord Canopy Kits
AC5-48-Q14B-TB Adjustable Cable Canopy Kits	PC5-18/5-24-JB Cord Cable Kits
AC2-48-Q14B-TB Adjustable Cable Canopy Kits	PC5-12/3-24-JB Cord Cable Kits
	PC5-18/2-24-JB Cord Cable Kits
	AC-144-Q14B-LP Adjustable Loop Cable Kits

Ordering Information

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

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

*Reference www.cree.com/lighting for recommended dimming control options.

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



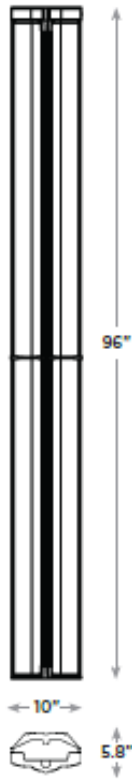
www.cree.com/lighting

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

Rev. Date 02/08/2013



CS18



CS14™

4' LED Linear Luminaire

Product Description

The CS14™ LED linear luminaire delivers up to 4000 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 CS14 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 CS14 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 America
Delivered Light Output: 2200-4000 lumens
Input Power: 33-38 watts
CRI: 90
OCT: 3500K, 4000K
Input Voltage: 120-277 VAC
Warranty: 10 years†
Lifetime: Designed to last 75,000 hours minimum
Dimming: 0-10V Dimming to 5%*
Mounting: Suspended or Surface with Tong Hangers (Standard)
Dimensions: L 48" x W 10" x H 5.8"
Weight: max 8lbs.

Accessories

Reference CS Series Accessories document for more details.

Accessories	
TM Plastic Tong Hanger (Pair) - Standard (Blank)	AC5-18/5-48-Q14B-JB Adjustable Cable Cord Canopy Kits
TMM Metal Tong Hanger (Pair) - Recommended for surface mount	AC5-12/3-48-Q14B-JB Adjustable Cable Cord Canopy Kits
CSESK Electrical Starter Kit. Optional input power/0-10V dimming quick-connect lever termination wiring nuts for first fixture in row.	AC5-18/2-48-Q14B-JB Adjustable Cable Cord Canopy Kits
AC5-48-Q14B-TB Adjustable Cable Canopy Kits	PC5-18/5-24-JB Cord Cable Kits
AC2-48-Q14B-TB Adjustable Cable Canopy Kits	PC5-12/3-24-JB Cord Cable Kits
	PC5-18/2-24-JB Cord Cable Kits
	AC-144-Q14B-LP Adjustable Loop Cable Kits

Ordering Information

Example: CS14-40L HE-35K-10V

Product	Lumen Output	Color Temperature	Voltage	Control
CS14	40L HE 37W 4000 lumens	35K 3500 Kelvin	Blank 120-277 Volt	10V 0-10V Dimming to 5%
	38L HE 35W 3800 lumens	40K 4000 Kelvin		
	38L 38W 3800 lumens			
	22L 22W 2200 lumens			

*Reference www.cree.com/lighting for recommended dimming control options.

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



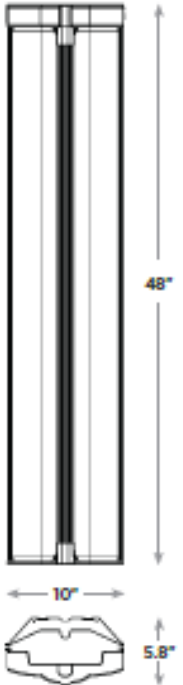
www.cree.com/lighting

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Rev. Date 12/26/2012



CS14



CR22™

2'x2' Architectural LED Troffer

Product Description

The CR22™ architectural LED troffer delivers up to 3200 lumens of exceptional 90+ CRI light while achieving 90 lumens per watt. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology with a unique thermal management approach. The CR22 is available in neutral or cool color temperatures and has step, 0-10V, or Lutron EcoSystem® Enabled dimming options. Its compact, lightweight design easily accommodates recessed, surface mount, or suspended installations, making the CR22 perfect for use in commercial new construction or retrofit applications.

Performance Summary

Utilizes Cree TrueWhite® Technology

Active Color Management

Room-Side Heat Sink

Made In America

Efficacy: 90 LPW

Delivered Light Output: 2000, 3200 lumens

Input Power: 22, 35 watts

CRI: 90

CCT: 3000K, 3500K, 4000K

Input Voltage: 120-277 VAC

Warranty: 5 Years

Lifetime: Designed to last 50,000 hours

Controls: Step Level to 50%, 0-10V Dimming or Lutron EcoSystem® Enabled to 5%*

Mounting: Recessed

Dimensions: L 23.7" x W 23.7" x H 4.75"

Weight: max 20lbs.

Housings & Accessories

Reference Housing & Accessory documents for more details.

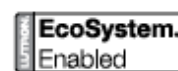
Accessories	
SMK-CR22 Surface Mount Kit	CPLCR Chicago Plenum Field Kit
DGA22-WHT Drywall Grid Adaptor-White	CPLCR-EM Chicago Plenum Field Kit-Emergency
EJBCR-5PK Expanded size junction box for through wiring (5 pack)	

Ordering Information

Example: CR22-20L-35K-S

CR22					
Product	Lumen Output	Color Temperature	Voltage	Control	Options
CR22	20L 22W 2000 lumens - 90 LPW 32L 35W 3200 lumens - 90 LPW	30K 3000 Kelvin 35K 3500 Kelvin 40K 4000 Kelvin	Blank 120-277 Volt (Standard)	5 Step Dimming to 50% 10V 0-10V Dimming to 5% LES** Lutron EcoSystem® Enabled to 5%	EB14 Emergency Backup-1400 lumens

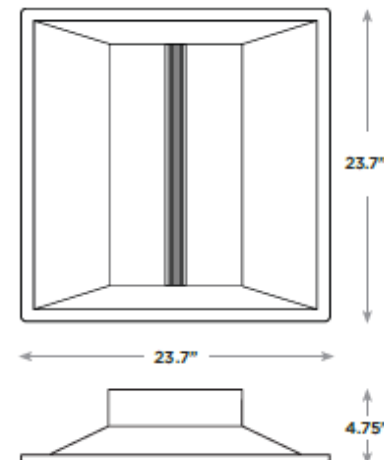
*Reference www.cree.com/lighting for recommended dimming control options. **Target availability mid 2012. Suggested MSRP for the adder over the standard CR Series fixture for the Lutron EcoSystem® Enabled feature is \$49.



www.cree.com/lighting

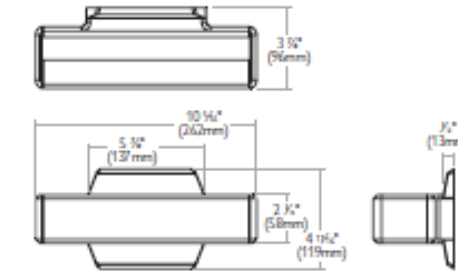
T (800) 236-6800 F (262) 504-5415

CR22



NOTE: Use of Expanded Junction Box will expand the depth to 6.67" and Emergency Backup will expand the depth to 6.30".

Corridor LED



Features

- Delivers* 1200 nominal lumens (600 up and 600 down)
- 36W Max. (0.5W per sq/ft)
- Ashrae compliant (5FC min. on horizontal surfaces)
- ADA compliant
- Available in 2700K, 3000K, 3500K and 4000K
- CRI in the high 80's
- Dimmable: 0-10V
- Accepts two accessory sleeves
- 50,000 hour rated life (L70)
- 5 year warranty

* 1/2" for 3000K

Alternate driver available upon request.
- 20W Max.
- ELV dimmable
- 650 nominal lumens (325 ↑ & 325 ↓)

The Lightolier Architectural Decorative design team introduces its first LED corridor application. The fixture utilizes phosphor film technology, providing superior color stability and consistency, while maintaining a clean visual finish, elegant lines and forms, and an exceptional rhythm of light, to any corridor application.

Ordering information

Corridor LED¹

Catalog No.	CCT	Voltage
CDL27SAU CDL27WHU	2700K	120V/277V
CDL30SAU CDL30WHU	3000K	120V/277V
CDL35SAU CDL35WHU	3500K	120V/277V
CDL40SAU CDL40WHU	4000K	120V/277V

(SA) Satin Aluminum
(WH) Matte White

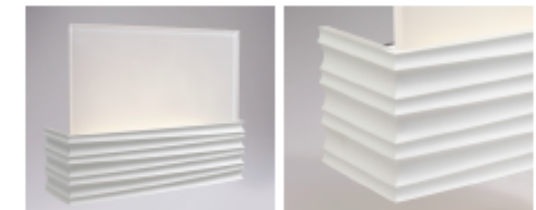
¹ Replace the "U" with a "01" for the 120V (18W) option and a "02" for the 277V (18W) option.

Accessories

Catalog No.	Description ²
CDLS01	White Sleeve Straight Accessory
CDLS02	White Sleeve Wave Accessory
CDLA ³	Acrylic Flat Diffuser
CDLG ³	Glass Flat Diffuser

² The white sleeve accessories are paintable.

³ The CDLA and/or CDLG must be used with either the CDLS01 or CDLS02 accessory.



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Lachine (Quebec) H8T 1C4
Phone (514) 636-0670
www.cdnlight.com

CR24™

2'x4' Architectural LED Troffer

Product Description

The CR24™ architectural LED troffer delivers up to 5000 lumens of exceptional 90+ CRI light while achieving 90-110 lumens per watt. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology with a unique thermal management approach. The CR24 is available in neutral or cool color temperatures and has step, 0-10V, or Lutron EcoSystem® Enabled dimming options. Its compact, lightweight design easily accommodates recessed, surface mount, or suspended installations, making the CR24 perfect for use in commercial new construction or retrofit applications.

Performance Summary

Utilizes Cree TrueWhite® Technology
Active Color Management
Room-Side Heat Sink
Made In America
Efficacy: 90-110 LPW
Delivered Light Output: 2200, 3100, 4000, 5000 lumens
Input Power: 22-50 watts
CRI: 90
CCT: 3000K, 3500K, 4000K
Input Voltage: 120-277 VAC
Warranty: 5 years standard or 7 years with High Efficacy (HE) option
Lifetime: Designed to last 50,000 hours standard or 75,000 hours with HE option
Controls: Step Level to 50%, 0-10V Dimming or Lutron EcoSystem® Enabled to 5%*
Mounting: Recessed
Dimensions: L 47.7" x W 23.7" x H 4.75"
Weight: max 25lbs.

Housings & Accessories

Reference Housing & Accessory documents for more details.

Accessories	
SMK-CR24 Surface Mount Kit	CPLCR Chicago Plenum Field Kit
DGA24-WHT Drywall Grid Adaptor-White	CPLCR-EM Chicago Plenum Field Kit-Emergency
EJBCR-SPK Expanded size Junction box for through wiring (5 pack)	

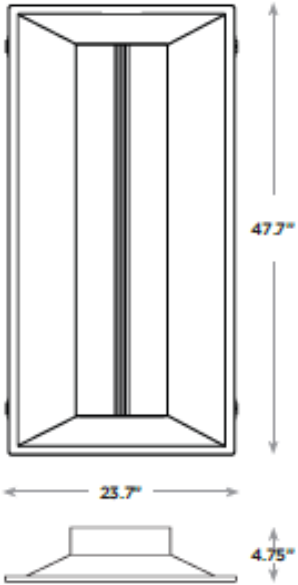
Ordering Information

Example: CR24-40L-35K-5

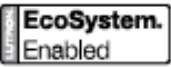
CR24					
Product	Lumen Output	Color Temperature	Voltage	Control	Options
CR24	22L 22W 2200 lumens - 100 LPW 31L 34W 3100 lumens - 90 LPW 40L 44W 4000 lumens - 90 LPW 40L HE** 36W 4000 lumens - 110 LPW (35K) 38W 4000 lumens - 105 LPW (40K) 50L 50W 5000 lumens - 100 LPW	30K 3000 Kelvin 35K 3500 Kelvin 40K 4000 Kelvin	Blank 120-277 Volt (Standard)	5 Step Dimming to 50% 10V 0-10V Dimming to 5% LES**** Lutron EcoSystem® Enabled to 5%	EB14*** Emergency Backup - 1400 lumens

*Reference www.cree.com/lighting for recommended dimming control options. **3500K HE model is 36W (110 LPW), 4000K HE model is 38W (105 LPW). ***Not available with 50L option. ****Target availability mid 2012. Suggested MSRP for the adder over the standard CR Series fixture for the Lutron EcoSystem® Enabled feature is \$49.

CR24



NOTE: Use of Expanded Junction Box will expand the depth to 6.67" and Emergency Backup will expand the depth to 6.30".



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