

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

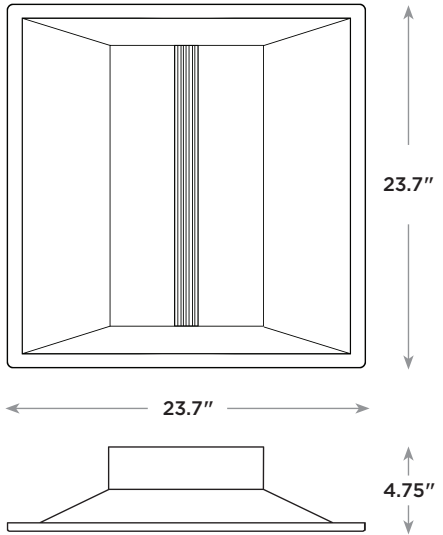
Utilizes Cree TrueWhite® Technology
Active Color Management
Room-Side Heat Sink
Made in America
Efficacy: 90 LPW
Delivered Light Output: 2000, 3200 lumens
Input Power: 22, 35 watts
CRI: 90
CCT: 3000K, 3500K, 4000K
Input Voltage: 120-277 VAC
Warranty: 10 Years*
Lifetime: Designed to last 50,000 hours
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)	

CR22



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

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)	S 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 November 2012. Suggested MSRP for the adder over the standard CR Series fixture for the Lutron EcoSystem® Enabled feature is \$49. *** Not available with LES option. †See www.cree.com/lighting for warranty terms.



Rev. Date 10/30/2012



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.

ROOM-SIDE HEAT SINK

An innovative thermal management system designed to maximize cooling effectiveness by integrating a unique room-side heat sink into the diffusing lens. This breakthrough design creates a pleasing architectural aesthetic while conducting heat away from LEDs in a temperature-controlled environment. This enables the LEDs to consistently run cooler, providing significant boosts to lifetime, efficacy, and color consistency.

LUMEN MAINTENANCE FACTORS

- Reference www.cree.com/lighting for detailed lumen maintenance factors.

CONSTRUCTION & MATERIALS

- Durable 20-gauge steel housing with standard troffer access plate for electrical installation.
- Field replaceable light engine integrates LEDs, driver, power supply, thermal management, and optical mixing components.
- One-piece lower reflector finished with a textured high reflectance white polyester powder coating creates a comfortable visual transition from the lens to the ceiling plane.
- Provided t-bar clips and holes for mounting support wires enable recessed or suspended installation.
- Individual fixtures may be mounted end to end for a continuous row of illumination.

NOTE: Reference www.cree.com/lighting for detailed instructions on field replacement of the light engine.

OPTICAL SYSTEM

- Unique combination of reflective and refractive optical components achieves a uniform, comfortable appearance while eliminating pixelation and color fringing.
- Components work together to optimize distribution, balancing the delivery of high illuminance levels on horizontal surfaces with an ideal amount of light on walls and vertical surfaces. This increases the perception of spaciousness.
- Diffusing lens integrated with upward-facing LED strip eliminates direct view of LEDs while lower reflector balances brightness of lens with the ceiling to create a low-glare high angle appearance.

ELECTRICAL SYSTEM

- Integral, high-efficiency driver and power supply.
- Power Factor** = 0.9 nominal
- Input Power:** Stays constant over life.
- Input Voltage:** 120V-277V, 50/60Hz
- Battery Backup:** Consult factory.
- Temperature Rating:** Designed to operate in temperatures 35 C and below room side and plenum side.
- Total Harmonic Distortion:** < 20%

CONTROLS

- Step dimming to 50% comes standard.*
- Optional continuous dimming to 5% with 0-10V DC control protocol.*
- Optional Lutron EcoSystem® Enabled option allows seamless integration with Lutron EcoSystem controls.*

REGULATORY & VOLUNTARY QUALIFICATIONS

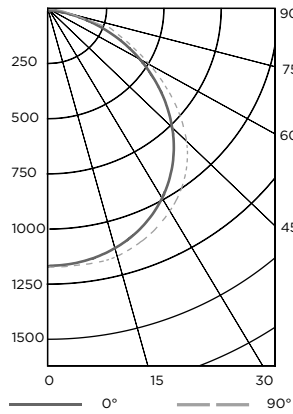
- cULus Listed
- DLC qualified.
- Suitable for damp locations.

See www.cree.com/patents for patents that cover these products.

*Reference www.cree.com/lighting for recommended dimming controls and wiring diagrams.

Photometry

CR22 BASED ON LTL REPORT TEST #: 24292



Coefficients Of Utilization

RCC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	110	105	101	98
2	100	92	85	80
3	91	81	73	67
4	84	72	63	57
5	77	64	55	49
6	71	58	49	43
7	66	52	44	38
8	61	48	39	33
9	57	44	36	30
10	53	40	32	27

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m2)

Vertical Angle	Horizontal Angle		
	0°	45°	90°
0°	3864	3864	3864
45°	3575	3864	3972
55°	3164	3656	3758
65°	2498	3133	3347
75°	1620	2348	2051
85°	366	252	168

Zonal Lumen Summary

Zone	Lumens	% Lamp	Luminaire
0-30	923	N/A	28.1%
0-40	1527	N/A	46.5%
0-60	2704	N/A	82.5%
0-90	3280	N/A	100%

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

Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft²	Average fc
8 x 8	2000L	22W	90	0.35	28
	3200L	35W	90	0.55	44
8 x 10	2000L	22W	90	0.28	23
	3200L	35W	90	0.44	37
10 x 10	2000L	22W	90	0.22	20
	3200L	35W	90	0.35	31
10 x 12	2000L	22W	90	0.19	16
	3200L	35W	90	0.29	25

9' ceiling: 80/50/20 reflectances; 2.5' workplane, open room LLF: 1.0 Initial.
Open Space: 50' x 40' x 10'

