

ZR24™

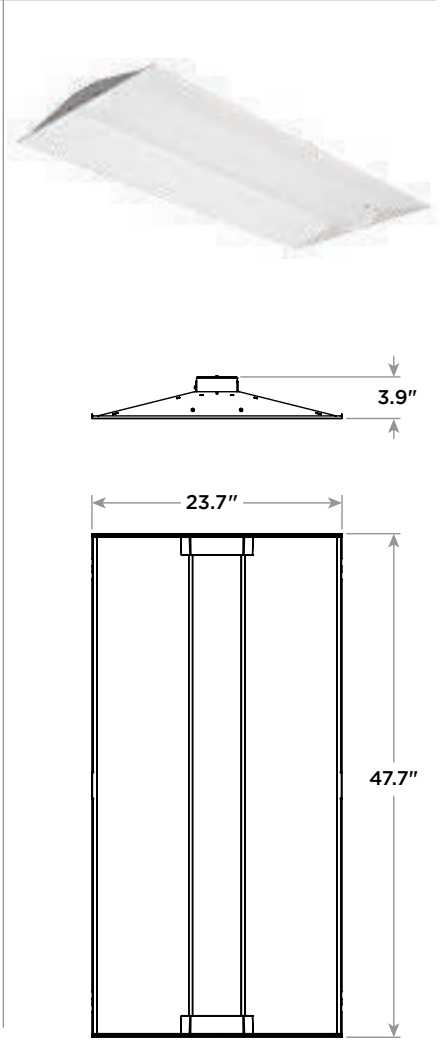
2'x4' LED Troffer

Product Description

The ZR24™ LED troffer delivers 4000 lumens of superior 90 CRI light quality and is perfect for both new construction or renovation. Powered by Cree TrueWhite® Technology, the slim and lightweight ZR24 LED troffer boasts an efficacious 90 LPW performance along with 0-10V dimming to meet local energy codes. The ZR24 LED troffer embodies a breakthrough in balancing energy savings, visual comfort and initial cost.

Performance Summary

| |
|------------------------------------------------------|
| Utilizes Cree TrueWhite® Technology |
| Assembled in the US & Mexico |
| Efficacy: 90 LPW |
| Delivered Light Output: 4000 lumens |
| Input Power: 44 watts |
| CRI: 90 CRI |
| CCT: 3500K, 4000K |
| Input Voltage: 120-277 VAC |
| Limited Warranty: 10 years† |
| Lifetime: Designed to last up to 75,000 hours |
| Controls: 0-10V (Standard)* |
| Mounting: Recessed |



Ordering Information

Example: ZR24-40L-35K-10V

| ZR24 | 40L | | | 10V | |
|---------|----------------------|------------------------------------|----------------------------------|----------------------|-----------------------|
| Product | Lumen Output | Color Temp | Voltage | Control | Options |
| ZR24™ | 40L 44W, 4000 Lumens | 35K 3500 Kelvin 40K 4000 Kelvin | Blank 120-277 Volt (Standard) | 10V 0-10V Dimming 5% | EB Emergency Backup** |

† See www.cree.com/lighting/products/warranty for warranty terms
 * Reference www.cree.com/lighting for recommended dimming controls and wiring diagrams
 ** EB option available Q2 2014



Rev. Date: 01/22/2014



Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high efficacy light with superior color rendering and lifelong color consistency. Cree TrueWhite Technology delivers a no compromise solution to enhance any space.

LUMEN MAINTENANCE FACTORS

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

CONSTRUCTION & MATERIALS

- Durable cold rolled steel housing provides strength and uniformity
- Ultra-thin 3.9" fixture height and lightweight design effectively target a broad range of plenum spaces and allow for easy installations
- Fixture is pre-painted for enhanced smooth finish
- Provided t-bar clips and holes for mounting support wires enable recessed or suspended installation
- Fixture sides and ends are hemmed in for safe, easy handling

OPTICAL SYSTEM

- Unique fixture design creates perfect balance of both horizontal and vertical illumination
- Optimized smooth lens eliminates pixelation and delivers a low-glare, diffused light distribution

ELECTRICAL SYSTEM

- Cree born components including highly efficacious Cree® LED chips along with an integral high-efficiency Cree® driver
- Power Factor = 0.9 nominal
- Input Power: Stays constant over life
- Input Voltage: 120-277V, 50/60Hz
- Battery Backup: Consult factory
- Temperature Rating: Designed to operate in temperatures 0-35° C and below room side and plenum side
- Total Harmonic Distortion: <20%

CONTROLS

- Continuous dimming to 5% with 0-10V controls comes standard*

REGULATORY & VOLUNTARY QUALIFICATIONS

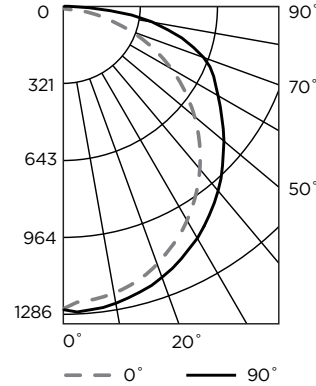
- UL924 (EB option)
- cULus Listed
- Suitable for damp locations
- Designed for Indoor use

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

Photometry

ZR24 BASED ON CESTL REPORT TEST #: 2014-0005

Fixture 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 fixture efficiency of 100%.



Coefficients Of Utilization

| RCC %: | 80 | | | |
|--------|-----|-----|-----|-----|
| RW %: | 70 | 50 | 30 | 10 |
| RCR: 0 | 119 | 119 | 119 | 119 |
| 1 | 110 | 106 | 102 | 73 |
| 2 | 107 | 102 | 97 | 93 |
| 3 | 88 | 76 | 68 | 61 |
| 4 | 80 | 67 | 58 | 51 |
| 5 | 73 | 60 | 50 | 43 |
| 6 | 68 | 54 | 44 | 38 |
| 7 | 63 | 49 | 40 | 33 |
| 8 | 58 | 44 | 36 | 29 |
| 9 | 55 | 41 | 32 | 26 |
| 10 | 51 | 37 | 29 | 24 |

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m²)

| | | Horizontal Angle | | |
|----------------|-----|------------------|------|------|
| | | 0° | 45° | 90° |
| Vertical Angle | 0° | 1269 | 1269 | 1269 |
| | 45° | 813 | 879 | 940 |
| | 55° | 634 | 718 | 809 |
| | 65° | 438 | 558 | 693 |
| | 75° | 231 | 406 | 511 |
| | 85° | 58 | 152 | 195 |

Zonal Lumen Summary

| Zone | Lumens | % Lamp | Luminaire |
|-------|--------|--------|-----------|
| 0-30 | 990 | N/A | 24.4% |
| 0-40 | 1628 | N/A | 40.1% |
| 0-60 | 2949 | N/A | 72.6% |
| 0-90 | 4064 | N/A | 100% |
| 0-180 | 4064 | N/A | 100% |

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

Application Reference

| Open Space | | | | | |
|------------|--------|---------|-----|-------------------|------------|
| Spacing | Lumens | Wattage | LPW | w/ft ² | Average fc |
| 8 x 10 | 4000L | 44W | 90 | 0.66 | 56 |
| 8 x 10 | 4000L | 44W | 90 | 0.55 | 46 |
| 10 x 10 | 4000L | 44W | 90 | 0.44 | 37 |
| 10 x 12 | 4000L | 44W | 90 | 0.35 | 30 |

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