

ZR24™

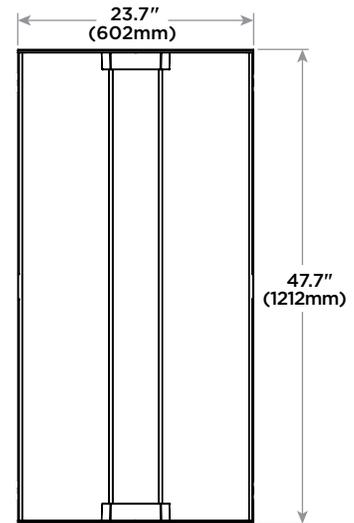
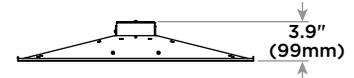
2'x4' LED Troffer

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 Dimming to 5%*
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	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: 03/26/2014



ZR24™
2'x4' LED Troffer

Product Specifications

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

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 DC control protocol*

REGULATORY & VOLUNTARY QUALIFICATIONS

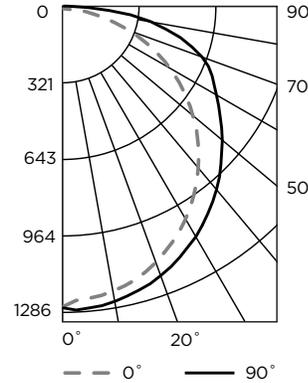
- UL924 (EB option)
- cULus Listed
- Suitable for damp locations
- Designed for Indoor use
- Product qualified on the DesignLights Consortium ("DLC") Qualified Products List ("QPL")

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

Photometry

ZR24-40L-40K BASED ON CESTL REPORT TEST #: PLO2844-001

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 - Zonal Cavity Method

RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	107	102	97	93
2	97	88	80	74
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	45°	1642	1772	1899
	55°	1580	1788	2014
	65°	1480	1885	2341
	75°	1276	2240	2819
	85°	952	2498	3203

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/ft2	Average fc
8 x 8	3200	35	91	0.53	45
	4000	44	91	0.66	56
8 x 10	3200	35	91	0.44	37
	4000	44	91	0.55	46
10 x 10	3200	35	91	0.35	30
	4000	44	91	0.44	37
10 x 12	3200	35	91	0.28	24
	4000	44	91	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'

