

# 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

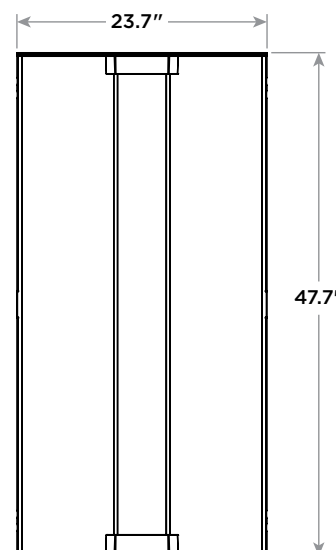
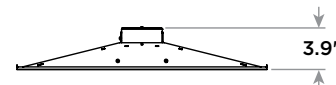
**Input Voltage:** 120-277 VAC

**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](http://www.cree.com/lighting/products/warranty) for warranty terms

\* Reference [www.cree.com/lighting](http://www.cree.com/lighting) for recommended dimming controls and wiring diagrams

\*\* EB option available Q2 2014



Rev. Date: 01/30/2014



US: [www.cree.com/lighting](http://www.cree.com/lighting) T (800) 236-6800 F (262) 504-5415

Canada: [www.cree.com/canada](http://www.cree.com/canada) T (800) 473-1234 F (800) 890-7507

## ZR24™ LED Troffer

### 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](http://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

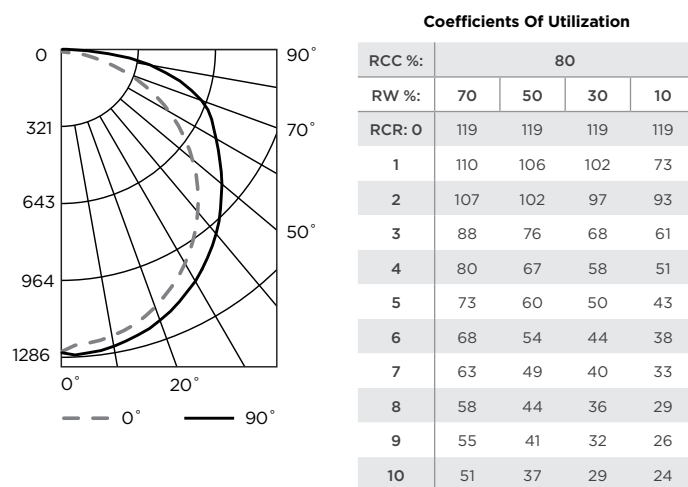
- UL924 (EB option)
- cULus Listed
- Suitable for damp locations
- Designed for Indoor use

\*Reference [www.cree.com/lighting](http://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%.



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

### Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft²	Average fc
8 x 8	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'

# 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

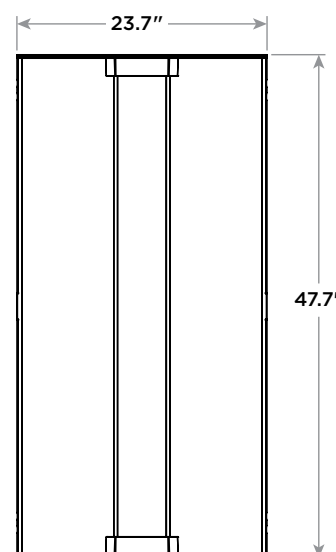
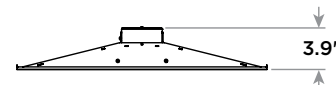
**Input Voltage:** 120-277 VAC

**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](http://www.cree.com/lighting/products/warranty) for warranty terms

\* Reference [www.cree.com/lighting](http://www.cree.com/lighting) for recommended dimming controls and wiring diagrams

\*\* EB option available Q2 2014



Rev. Date: 01/30/2014



US: [www.cree.com/lighting](http://www.cree.com/lighting) T (800) 236-6800 F (262) 504-5415

Canada: [www.cree.com/canada](http://www.cree.com/canada) T (800) 473-1234 F (800) 890-7507

## ZR24™ LED Troffer

### 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](http://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

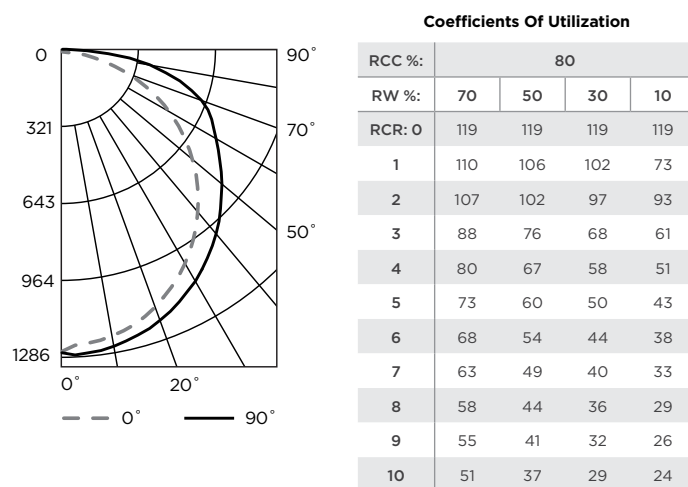
- UL924 (EB option)
- cULus Listed
- Suitable for damp locations
- Designed for Indoor use

\*Reference [www.cree.com/lighting](http://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%.



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

### Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft²	Average fc
8 x 8	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'