

AR22™

2'x2' Architectural LED Troffer

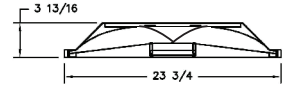
Product Description

The AR22™ architectural LED troffer delivers up to 3200 lumens of exceptional 90+ CRI light while achieving 100 lumens per watt. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology with a unique optical design. The AR22™ troffer is fully-luminous, is available in neutral or cool color temperatures, and has step, 0-10V or Lutron EcoSystem® Enabled dimming options. Its sleek, lightweight design makes the AR22™ troffer perfect for use in commercial new construction or renovated spaces.

Performance Summary

Utilizes Cree TrueWhite® Technology
Active Color Management
Assembled in the U.S.
Efficacy: 100 LPW
Delivered Light Output: 3200 lumens
Input Power: 32 watts
CRI: 90
CCT: 3500K, 4000K
Input Voltage: 120-277 VAC
Limited Warranty: 10-years†
Lifetime: Designed to last 75,000 hours
Controls: Step level to 50%, 0-10V dimming or Lutron EcoSystem® Enabled to 5%
Mounting: Recessed

AR22™



Ordering Information

Example: AR22-32L-35K-S

AR22	Lumen Output		Color Temp	Voltage	Control	Options
AR22	32L 32W	3200 lumens - 100 LPW	35K 3500K 40K 4000K	Blank 120-277 Volt (Standard)	S Step dimming to 50% 10V 0-10V dimming to 5% LES Lutron EcoSystem® Enabled to 5%	EB14 ² Emergency Backup - 1400 lumens

1. Reference www.cree.com/lighting for recommended dimming control options. 2. Not available with LES option. Suggested MSRP for the adder over the standard AR Series fixture for the Lutron EcoSystem® Enabled feature is \$49. †See www.cree.com/lighting/products/warranty for warranty terms.

Rev. Date 7/01/2013

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.

LUMEN MAINTENANCE FACTORS

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

CONSTRUCTION & MATERIALS

- Durable cold rolled steel housing provides strength and uniformity. Heavy-duty ends attach to housing with interlocking tabs.
- Quick access plate for convenient power connection.
- Steel-hinged door frames in flush steel, gasketed to prevent light leakage.
- All metal parts pretreated with a phosphate bonding process and post-painted with high temperature baked white enamel for superior quality and versatility.

OPTICAL SYSTEM

- Utilizing highly-diffused performance optics for soft, glare-free light.
- Channeled inner reflector and high-performance lens optics work together to optimize light distribution, balancing the delivery of high illuminance levels on horizontal surfaces with an ideal amount of light on walls and vertical surfaces. This fully-luminous effect helps to eliminate distractions in the ceiling.
- Room-side access lens.

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 0-35° C
- **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

- UL924 (EB14 option).
- cULus Listed.
- Suitable for damp locations.
- Designed for Indoor use.

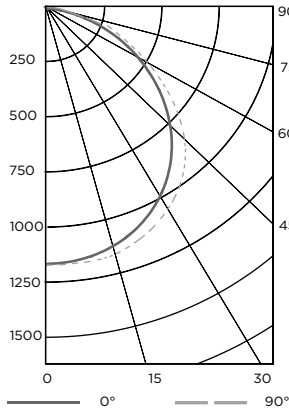
*Reference www.cree.com/lighting for recommended dimming controls and wiring diagrams.

Photometry

AR22-3200L PHOTOMETRY BASED ON CESTL REPORT

TEST #: 2013-0078

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%.



Average Luminance Table (cd/m2)

Vertical Angle	Horizontal Angle		
	0°	45°	90°
0°	1254	1254	1254
45°	807	807	790
55°	589	578	560
65°	376	354	342
75°	182	164	154
85°	38	29	27

Coefficients Of Utilization

RCC %:	80			
	70	50	30	0
RW %:	119	119	119	119
RCR: 0	109	105	101	97
1	100	92	86	80
2	91	81	73	67
3	84	72	64	57
4	77	65	56	50
5	71	58	50	43
6	66	53	44	38
7	62	48	40	34
8	58	45	36	31
9	54	41	33	28
10				

Effective Floor Cavity Reflectance: 20%

Zonal Lumen Summary

Zone	Lumens	Luminaire
0-30	977	29.6%
0-40	1,596	48.4%
0-60	2,730	82.7%
0-90	3,300	100%
0-180	3,300	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	3200L	32W	100	0.55	44
8 x 10	3200L	32W	100	0.44	37
10 x 10	3200L	32W	100	0.35	31
10 x 12	3200L	32W	100	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'.

