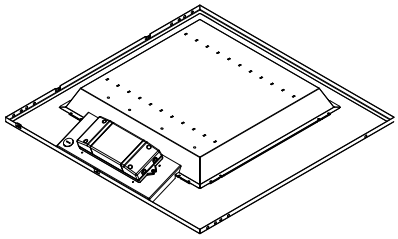
LR22 Series

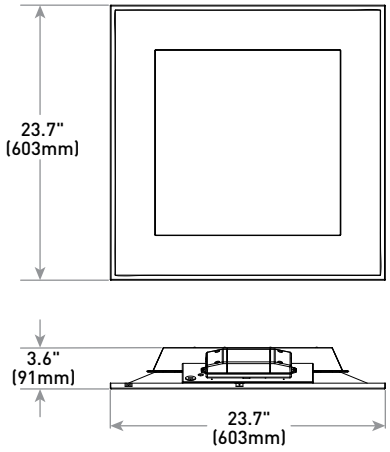
LR22™ 2' x 2' Architectural LED Troffer

Product Description

The architecturally designed recessed flat panel of the LR22 LED troffer blends seamlessly into any ceiling and offers soft, smooth, fully-luminous light, creating a quiet ceiling that keeps spaces bright and vibrant. The innovatively thin < 3.6" (91mm) depth of the LR22 LED troffer easily accommodates narrow plenums and is ideal for both retrofit and new construction. The LR22 LED troffer delivers up to 3400 lumens of exceptional 90 CRI light while achieving an efficacious 100 lumens per watt. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology. Delivering 0-10V continuous dimming on every luminaire allows for further energy savings when utilized for even faster payback.

Applications: Office, shops, education, petroleum





Performance Summary

Utilizes Cree TrueWhite® Technology
Efficacy: 100 LPW
Initial Delivered Lumens: 3,400 lumens
Input Power: 34 watts
CRI: 90 CRI
CCT: 3500K, 4000K
Input Voltage: 120-277 VAC
Limited Warranty†: 10 years on luminaire
Limited Warranty Emergency Back Up (EB) Battery: 1 Year Battery Back Up. Test regularly in accordance with local codes
Controls: 0-10V dimming to 5%
Mounting: Recessed*

† See http://lighting.cree.com/warranty for warranty terms

* Acceptable for use with standard 9/16 T-Bar or larger when installed per installation instructions. Consult factory for non-standard grid applications

Accessories

Field-Installed	
6' Flexible Power Whip PW-18/4-06-9T-SS **Drywall Grid Adapter** DGA-22WHT	**Wireless 0-10V Dimming/Switching Interface with Cree SmartCast® Technology** CIF-10V - For use with luminaires with 10V controls when integral SmartCast isn't available **Cree SmartCast® Technology Configuration Tool** CCT-CWC-1 - One required per project when CIF-10V is selected

Ordering Information

Example: LR22-34L-40K-10V

LR22	34L			10V	
Product	**Initial Delivered Lumens**	**CCT**	**Voltage**	**Control**	**Options**
LR22	**34L** 34W, 3,400 lumens – 100 LPW	**35K** 3500K **40K** 4000K	**Blank** 120-277 Volt	**10V** 0-10V Dimming to 5%	**EB14 Emergency Backup** - 1,400 lumens - Available on US versions only - Provides 90 minutes of emergency operation

Rev. Date: V3 12/22/2016

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

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

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.

CONSTRUCTION & MATERIALS

- Durable 20 ga. galvanized steel housing provides strength and uniformity
- Ultra-thin 3.6" (91mm) luminaire height and lightweight design effectively target a broad range of plenum spaces and allow for easy installations
- Luminaire is powder coated for a soft textured finish
- Includes t-bar clips and holes for mounting support wires (by others)
- Luminaire sides and ends are hemmed in for safe, easy handling
- Includes lens gasket to prevent ingress of insects
- Not for installation within 3" (76mm) of insulation

OPTICAL SYSTEM

- Recessed flat polycarbonate panel design delivers more surface area light creating a soft highly diffused light source
- 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

ELECTRICAL SYSTEM

- Integral, high-efficiency driver
- **Power Factor:** = 0.9 nominal
- **Input Power:** Stays constant over life
- **Input Voltage:** 120-277V, 50/60Hz
- **Operating Temperature Range:** 0˚C - + 30˚C (32˚F - + 86˚F)
- **Total Harmonic Distortion:** < 20%
- **10V Source Current:** 2.00mA

CONTROLS

- Continuous dimming to 5% with 0-10V DC control protocol
- For use with Class 2 dimming systems only. Reference www.creelink.com/exLink.asp?7098214OZ58R34I26620963 for recommended dimming controls and wiring diagrams

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for damp locations
- Designed for indoor use
- UL924 (EB14 option)
- DLC qualified. Please refer to www.designlights.org/QPL for most current information
- RoHS compliant. Consult factory for additional details
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions

Electrical Data*

Initial Delivered Lumens	System Watts 120-277V	Total Current			
		120V	208V	240V	277V
34L	35	0.29	0.17	0.15	0.13
34L w/EB14 Option	39	0.33	0.19	0.16	0.14

* Electrical data at 25˚C (77˚F). Actual wattage may differ by +/- 10% when operating between 120-277V +/-10%

Recommended LR Series Lumen Maintenance Factors (LMF)[1]

Ambient	Initial LMF	25K hr Projected[2] LMF	50K hr Projected[2] LMF	75K hr Projected[2] LMF	100K hr Calculated[3] LMF
0˚C (32˚F)	1.05	0.99	0.96	0.92	0.88
5˚C (41˚F)	1.04	0.99	0.95	0.91	0.87
10˚C (50˚F)	1.03	0.98	0.94	0.90	0.86
15˚C (59˚F)	1.02	0.97	0.93	0.89	0.86
20˚C (68˚F)	1.01	0.96	0.92	0.88	0.85
25˚C (77˚F)	1.00	0.95	0.91	0.87	0.84
30˚C (86˚F)	0.99	0.94	0.90	0.86	0.83

[1] Lumen maintenance values at 25˚C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
[2] In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)
[3] In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

Application Reference

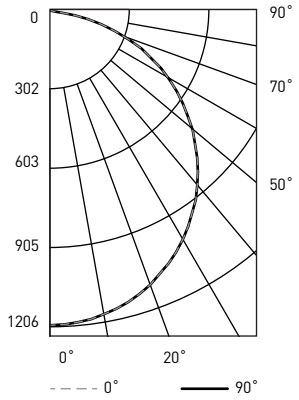
Open Space

Spacing	Initial Delivered Lumens	Lumens	Wattage	LPW	w/ft²	Average fc
8 x 8	34L	3,400	34	100	0.51	48
8 x 10	34L	3,400	34	100	0.43	40
10 x 10	34L	3,400	34	100	0.34	32
10 x 12	34L	3,400	34	100	0.27	26

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

Photometry

LR22-34L-40K-10V BASED ON RESTL REPORT TEST #: PL05176-001
Luminaire 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 luminaire efficiency of 100%.



Coefficients Of Utilization				
RCC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	109	104	100	97
2	99	91	84	79
3	90	80	72	65
4	83	71	62	55
5	76	63	54	48
6	70	57	48	42
7	65	52	43	37
8	61	47	39	33
9	57	43	35	29
10	53	40	32	27

Effective Floor Cavity Reflectance: 20%

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	933	N/A	27.7%
0-40	1,527	N/A	45.3%
0-60	2,696	N/A	80.0%
0-90	3,371	N/A	100%

Average Luminance Table (cd/m²)				
	Horizontal Angle			
Vertical Angle		0°	45°	90°
	45°	3,441	3,456	3,449
	55°	3,297	3,320	3,311
	65°	3,070	3,101	3,091
	75°	2,342	2,584	2,385
	85°	491	611	579

Reference http://lighting.cree.com/products/indoor/troffers/lr-series for detailed photometric data