FLEX Series

FLX14™, FLX22™, and FLX24™ Specification LED Troffers

Rev. Date: V7 07/12/2023

Product Description

The FLEX Series LED troffer delivers up to 10,000 lumens with enhanced color quality and three different lens designs to fit the aesthetics of any space. The FLEX Series boasts a variety of inner optic accessories which provides greater design flexibility, making it perfect for both new construction and renovation. The slim and lightweight FLEX Series LED troffer boasts an efficacy of up to 159 LPW performance along with a wide variety of control options to meet local energy codes. The FLEX Series broad optionality of lumen packages, control packages, tunable white options, and factory installed accessories make this family highly specifiable.

Performance Summary

Efficacy: Up to 159 LPW

Initial Delivered Lumens: 2,600 - 10,000 lumens

Input Power: 18 - 82 watts

CRI: 80+, 90+

CCT: 3000K, 3500K, 4000K, 5000K, Tunable White (SmartCast* Technology, Lutron T-Series and Lutron Athena)

Input Voltage: 120-277 VAC or 347 VAC

Limited Warranty†: 10 years for luminaire, SmartCast controls, and Lutron VDO, VRF, LDE1 & PSQ0 controls; 5 years for Lutron Athena controls; up to 5 years for SmartCast* accessories; 1 year for luminaire accessories

Limited Warranty Emergency Back Up (EB) Battery: 1 Year on Battery Back Up. Test regularly in accordance with local codes

Controls: 0-10V, SmartCast Wireless with Adjustable CCT option, Lutron Vive, Lutron EcoSystem, DALI, Lutron Athena/Lutron Athena Tunable White Lutron T-Series 2 Channel Tunable White

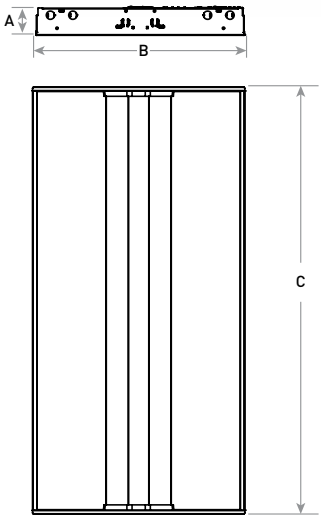
Mounting: Recessed (Designed for use in most ceiling grids including standard 1 ½", 9/16", 15/16", hard ceiling, and surface mounting)

Room-side accessible removable lens

Assembled in the USA by Cree Lighting from US and imported parts

† See http://creelighting.com/warranty for warranty terms. For SmartCast accessories, consult SmartCast spec sheets for details on warranty terms.

10V10, 10V1, LDE1, DALI, AWNR AND PSQ0 CONTROLS



10V10, 10V1, LDE1, DALI & PSQ0 Dimensions

	DIM "A"	DIM "A" w/EB	DIM "B"	DIM "C"	Weight	Weight w/EB
1x4	4.0" (101mm)	4.0" (101mm)	11.7" (298mm)	47.7" (1213mm)	11.0 lbs. (5.0kg)	16.0 lbs. (7.3kg)
2x2	4.0" (101mm)	3.3" (84mm)	23.7" (603mm)	23.8" (604mm)	9.0 lbs. (4.1kg)	14.0 lbs. (6.4kg)
2x4	4.0" (101mm)	3.3" (84mm)	23.7" (603mm)	47.7" (1213mm)	15.0 lbs. (6.8kg)	20.0 lbs. (9.1kg)

Refer to page 5 for lens assembly images and dimensions as well as dimensional information for SmartCast and Lutron Vive controls.

Ordering Information

Example: FLX24-40L-835-ARC-10V1

FLX							
Product	**Size**	**Lumen Package**	**CRI/CCT**	**Lens***	**Control**	**Voltage**	**Options****
FLX	**14** 1x4	**30L** 3,000 Lumens **40L** 4,000 Lumens **50L** 5,000 Lumens **60L** 6,000 Lumens	**830** 80 CRI, 3000K **835** 80 CRI, 3500K **840** 80 CRI, 4000K **850** 80 CRI, 5000K	**CRV** ZR Curve **ARC** FLX Arc **SQ** Square	**10V10** 0-10V 10% Dimming - Available only with 26L-60L lumen packages **10V1** 0-10V 1% Dimming **SC1** SmartCast Wireless Technology with 1% Dimming, Integral Motion and Ambient Sensors - For adjustable CCT functionality, luminaire must be ordered with 9ACK CRI/CCT (26L-60L lumen packages only) - Utilizes a multifunction sensor **VDO+** Lutron Vive Wireless Integral Fixture Control w/Occupancy and Daylight Sensing - Utilizes a multifunction sensor **VRF+** Lutron Vive Wireless Integral Fixture Control (RF only) **LDE1+** Lutron HiLume 1% EcoSystem LED Driver with Soft-on, Fade to Black Dimming Technology **PSQ0+** Lutron T-Series 2 Channel Tunable White - Requires 9ACK CRI/CCT option - Available only with 40L-60L lumen packages **DALI** DALI Dimming to 1% **AWNR+** Lutron Athena Integral Fixture Control (RF only) - Tunable white requires 9ACK CRI/CCT (26L-60L lumen packages only) - Utilizes a DALI2 driver	**UNV** Universal voltage 120-277 Volt **34** 347 Volt - Not available with 10V10 controls	**6PW5W Power Whip** - 6', 5-Wire - Available with UNV voltage only **6PW6W Power Whip** - 6', 6-Wire for use with luminaires w/ EB option - Available with UNV voltage only **CP Chicago Plenum** - Available with UNV voltage only - Not available with EB **EB Emergency Backup** - Available with UNV voltage only - Provides 10W and 90 minutes of emergency operation - GTD and EB cannot be used together **GTD Generator Transfer Device** - Available with UNV voltage only - GTD and EB cannot be used together - Not available with power whip options
	22 2x2	**26L** 2,000 Lumens **30L** 3,000 Lumens **40L** 4,000 Lumens **50L** 5,000 Lumens	**930** 90 CRI, 3000K **935** 90 CRI, 3500K **940** 90 CRI, 4000K **950** 90 CRI, 5000K				
	24 2x4	**30L** 3,000 Lumens **40L** 4,000 Lumens **50L** 5,000 Lumens **60L** 6,000 Lumens **70L** 7,000 Lumens **80L** 8,000 Lumens **100L** 10,000 Lumens	**9ACK** 90 CRI, Adjustable Color 3000K-6500K in 100K increments - Available only with 26L-60L lumen packages (SC1 or AWNR controls) or 40L-60L lumen packages (PSQ0 control) - Available only with SC1, PSQ0 or AWNR controls				

+ More information on Lutron controls can be found at lutron.com.
* Refer to page 5 for lens images.
** Consult factory for other options.

SMARTCAST® TECHNOLOGY

EcoSystem Enabled

US: creelighting.com T (800) 236-6800 F (262) 504-5415
Canada: creelighting-canada.com T (800) 473-1234 F (800) 890-7507

CREE LIGHTING®

Product Specifications

SMARTCAST® TECHNOLOGY

SmartCast® Technology is the most intuitive and easiest to install intelligent light solution on the market. SmartCast® Technology delivers up to 70% energy savings at up to half the cost of other solutions. Luminaires combine best-in-class light with onboard sensors and intelligence to deliver a better light experience. Extreme energy productivity, code compliance and a better light experience without any extra design, installation or setup work.

CONSTRUCTION & MATERIALS

- Durable 22 ga. cold rolled steel housing provides strength and uniformity
- Ultra-thin luminaire height and lightweight design effectively target a broad range of plenum spaces and allow for easy installations
- Luminaire is pre-painted for enhanced matte finish
- Includes integrated hooks for mounting to t-bar, and cable slots for suspended mounting
- Luminaire sides and ends are hemmed in for safe, easy handling
- Room-side accessible/removable lens snaps and locks into end caps for tool-less entry
- Not for installation within 3" (76mm) of insulation
- **Weight:** Refer to tables on pages 1 and 5.

OPTICAL SYSTEM

- Unique luminaire design creates perfect balance of both horizontal and vertical illumination
- Optimized smooth acrylic lens eliminates pixelation and delivers a low-glare, diffused light distribution
- Additional diffuser options available. Refer to Inner Optic Overlay Diffuser Accessories table on page 5 for additional details

ELECTRICAL SYSTEM

- **Power Factor:** >90% at full load
- **Input Power:** Stays constant over life
- **Input Voltage:** 120-277V, 50/60Hz or 347V, 50/60Hz. 347V w/ 9ACK-SC1, LDE1, DALI and PSQ0 are 60Hz only
- **Operating Temperature Range:** 0˚C - + 35˚C (32˚F - + 95˚F)
- **Total Harmonic Distortion:** < 20% at full load

10V DIMMING AND CONTROL

- 10V10 option provides continuous dimming to 10% and 10V1 option provides continuous dimming to 1% with 0-10V DC control protocol
- **Maximum 10V Source Current:** 0.45mA
- For use with Class 2 dimming systems only
- Use only lighting controls with neutral connection or controls intended for use with LED fixtures
- Reference https://cree.widen.net/s/2b8dlcwsvq/cr_-flex_-zr_-cs_-ln_-ls_-ur_-stylus-series-control-options-dimming-specsheet for recommended dimming controls and wiring diagrams

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed (UL1598)
- Suitable for damp locations
- Designed for indoor use only
- Requires minimum 90˚C supply conductors
- Drivers and LEDs are UL Recognized in accordance with UL8750
- Meets NEMA C82.77 standards
- UL924 (EB Option) Maximum mounting height: 15.0'(4.6m)
- EB option meets CA Title 20 Appliance Regulations
- CCEA approved when ordered with CP option. Not available with EB option
- RoHS compliant. Consult factory for additional details
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- DLC and DLC Premium qualified versions available. Please refer to https://qpl.designlights.org/solid-state-lighting for most current information
- Assembled in the USA by Cree Lighting from US and imported parts
- Meets Buy American requirements within ARRA
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

SmartCast® Technology

INTEGRAL MOTION SENSOR

- Passive infrared (PIR)
- **Coverage area:** Please refer to the PIR motion sensor coverage table
- Not intended to be mounted higher than 20 ft.
- **Operation:**
  - Grouped with a wall control: Luminaire will operate in vacancy mode (manual-on/auto-off)
  - Not grouped with a wall control: Luminaire will operate in occupancy mode (auto-on/auto-off)
- Luminaires operate at full intensity until OneButton™ Setup is initiated by the Cree Lighting Configuration Tool

AMBIENT LIGHT SENSOR

- Sensor response matches response of human eye
- Not intended to be mounted higher than 20 ft. (6.1m)
- Luminaires operate at full intensity until OneButton™ Setup is initiated by the Cree Lighting Configuration Tool
- Daylight harvesting calibration performed automatically during OneButton™ Setup

INTEGRAL WIRELESS COMMUNICATION

- 2.4GHz wireless mesh technology with AES 128-bit encryption
- Self assigns to quietest channel during OneButton™ Setup
- **Range:**
  - 30 ft. (9.1m) in typical commercial applications
  - 300 ft. (91.4m) open air without obstructions
- **Network:** 250 devices max.
- **Space:** 100 devices max. per group
- FCC and IC certifications

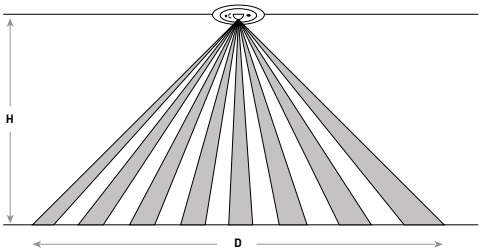
LUMINAIRE

- Energy metering with 4% accuracy
- Luminaires operate at full intensity until OneButton™ Setup is initiated by the Cree Lighting Configuration Tool
- 10 year power fail memory of settings
- **NOTE:** SmartCast luminaires must be installed on unswitched AC power. Constant power is required to maintain all luminaires on the SmartCast network. If wall control or manual dimming is required, a SmartCast wall control dimmer must be used for manual on, off, and dimming.

DEPLOYMENT

- Please refer to the SmartCast® Deployment Guide at https://cree.widen.net/s/mvxtfd2pcz/smartcastr-wireless-deployment-guide

PIR Motion Sensor Coverage



Mounting Height - H (Feet)	Motion Sensor Coverage Diameter - D (Feet)		
	Sensitivity - High (Default)	Sensitivity - Medium	Sensitivity - Low
10	20	10	8
12	26	14	12
14	28	15	13
20	38	Not Recommended	Not Recommended

FLEX Series Ambient Adjusted Lumen Maintenance[1]

Ambient	Initial LMF	25K hr Reported[2] LMF	50K hr Reported[2] LMF	75K hr Estimated[3] LMF	100K hr Estimated[3] LMF
0˚C (32˚F)	1.04	0.99	0.95	0.91	0.87
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	0.85
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	0.93	0.89	0.85	0.81
35˚C (95˚F)	0.98	0.91	0.86	0.82	0.77

[1] Lumen maintenance values at 25˚C (77˚F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors.
[2] In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.
[3] Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

Delivered Lumens & Electrical Data*

Size	Lumen Package	CRI	Control	Initial Delivered Lumens	Wattage		Current (A)					EB/GTD Wattage	EB/GTD Current (A)			
					120-277V	347V**	120V	208V	240V	277V	347V**	120-277V	120V	208V	240V	277V
2x2	26L	80	10V10, 10V1, SC1, VDO, VRF, DALI, LDE1, AWNR	2,600	18	21	0.17	0.10	0.08	0.07	0.06	21	0.19	0.11	0.09	0.08
		90/9ACK	10V10, 10V1, SC1, VDO, VRF, DALI, LDE1, AWNR		21	24	0.19	0.11	0.10	0.09	0.07	24	0.22	0.13	0.11	0.10
1x4, 2x2, 2x4	30L	80	10V10, 10V1, SC1, VDO, VRF, DALI, LDE1, AWNR	3,000	21	24	0.19	0.11	0.09	0.08	0.07	24	0.22	0.12	0.11	0.09
		90/9ACK	10V10, 10V1, SC1, VDO, VRF, DALI, LDE1, AWNR		26	28	0.23	0.13	0.12	0.10	0.09	29	0.26	0.15	0.13	0.11
1x4, 2x2, 2x4	40L	80	10V10, 10V1, SC1, VDO, VRF, DALI, LDE1, AWNR	4,000	27	29	0.24	0.14	0.12	0.10	0.09	30	0.27	0.15	0.13	0.11
		90/9ACK	10V10, 10V1, SC1, VDO, VRF, DALI, LDE1, AWNR, 9ACK-PSQ0		33	36	0.31	0.18	0.16	0.14	0.12	36	0.34	0.19	0.17	0.15
1x4, 2x2, 2x4	50L	80	10V10, 10V1, SC1, VDO, VRF, DALI, LDE1, AWNR	5,000	35	38	0.31	0.18	0.15	0.13	0.12	38	0.34	0.19	0.17	0.14
		90/9ACK	10V10, 10V1, SC1, VDO, VRF, DALI, LDE1, AWNR, 9ACK-PSQ0		41	44	0.35	0.20	0.17	0.15	0.13	44	0.37	0.21	0.18	0.16
1x4, 2x4	60L	80	10V10, 10V1, SC1, VDO, VRF, DALI, LDE1, AWNR	6,000	42	44	0.37	0.21	0.18	0.16	0.14	45	0.39	0.23	0.20	0.17
		90/9ACK	10V10, 10V1, SC1, VDO, VRF, DALI, LDE1, AWNR, 9ACK-PSQ0		49	53	0.43	0.24	0.20	0.18	0.16	52	0.43	0.25	0.24	0.19
2x4	70L	80	10V1, SC1, VDO, VRF, DALI, LDE1, AWNR	7,000	47	49	0.41	0.24	0.20	0.17	0.15	50	0.44	0.25	0.21	0.19
		90	10V1, SC1, VDO, VRF, DALI, LDE1, AWNR		56	59	0.49	0.28	0.24	0.21	0.18	59	0.51	0.30	0.25	0.22
2x4	80L	80	10V1, SC1, VDO, VRF, DALI, LDE1, AWNR	8,000	54	57	0.47	0.27	0.23	0.20	0.18	57	0.49	0.29	0.25	0.21
		90	10V1, SC1, VDO, VRF, DALI, LDE1, AWNR		65	69	0.57	0.33	0.28	0.24	0.21	68	0.60	0.34	0.29	0.25
2x4	100L	80	10V1, SC1, VDO, VRF, DALI, LDE1, AWNR	10,000	67	70	0.58	0.34	0.29	0.25	0.22	69	0.61	0.35	0.30	0.26
		90	10V1, SC1, VDO, VRF, DALI, LDE1, AWNR		78	82	0.68	0.39	0.34	0.29	0.25	81	0.70	0.41	0.35	0.30

* Electrical data at 25°C (77°F). Actual wattage and lumens may differ by +/- 10% when operating between 120-277V or 347V +/- 10%.
** Not available with 10V10 controls.

Delivered Emergency Lumens			
Size	Lumen Package	CRI	Approximate Delivered Emergency Lumens
2x2	26L	80	1,440
		90/ACK	1,240
1x4, 2x2, 2x4	30L	80	1,430
		90/ACK	1,150
1x4, 2x2, 2x4	40L	80	1,480
		90/ACK	1,210
1x4, 2x2, 2x4	50L	80	1,430
		90/ACK	1,220
1x4, 2x4	60L	80	1,430
		90/ACK	1,220
2x4	70L	80	1,490
		90	1,250
2x4	80L	80	1,480
		90	1,230
2x4	100L	80	1,490
		90	1,280

Accessories

Field-Installed

Drywall Grid Adapter
DGA14-WHT 1x4, Single Pack
DGA14-WHT-10PK 1x4, 10-Pack
DGA22-WHT 2x2, Single Pack
DGA22-WHT-10PK 2x2, 10-Pack
DGA24-WHT 2x4, Single Pack
DGA24-WHT-10PK 2x4, 10-Pack

Surface Mount Kit
SMK-FLX14 (1x4)
SMK-FLX22 (2x2)
SMK-FLX24 (2x4)
- Not for use with AWNR control

SmartCast® Technology Configuration Tool
CCT-CWC-1
- One required per project when SC1 control is selected

SmartCast® Technology Face Plates
CFP-1-WH
- Matching face plate, 1-gang, white
CFP-2-WH
- Matching face plate, 2-gang, white

SmartCast® Technology Wireless Dimmer
CSC-CWD-UNVN-WH (neutral wire required)
CSC-CWD-UNV-WH (no neutral required)

SmartCast® Technology Adjustable CCT Wireless Dimmer
CSC-CCD-UNVN-WH (neutral wire required)
CSC-CCD-UNV-WH (no neutral required)
- For use only with luminaires with SmartCast controls and 9ACK
- 3000K-5000K adjustable CCT

SmartCast® Technology Wireless Switch
CSC-CWS-UNVN-WH (neutral wire required)
CSC-CWS-UNV-WH (no neutral required)

SmartCast® 5-Button Wireless Scene Controller
CSC-SC-5B-CWC-WH (w/o text)
CSC-SC-5S-CWC-WH (w/scene text)
CSC-SC-5C-CWC-WH (w/CCT text)
- Available only with 9ACK
CSC-SC-5X-CWC-WH (w/custom text)

SmartCast® Technology Wireless Plug Load Controller
CPLC-JB-CWC

SmartCast® Touchscreen Control
CSC-TS-A-BK

SmartCast® Wireless Gateway with Wi-Fi
CSC-GW-CWC-W
- Required with SmartCast Touchscreen Control

SmartCast® Wall Plug Power Supply
CSC-WPS-120V
- For use with SmartCast Wireless Gateway with Wi-Fi

SmartCast® Ceiling Plug Power Supply
CSC-CPS-120V
- For use with SmartCast Wireless Gateway with Wi-Fi

SmartCast® 10V Zone Controller
CSC-ZC-10V-CWC
- Intelligent sensing and control of 0-10V luminaires

Inner Optic Overlay Diffuser Accessories (for use with ARC Lens only)

Field-Installed

For use with 10V10, 10V1, LDE1, DALI, PSQ0, and AWNR controls

Wavy Inner Optic Diffuser, 10-Pack
FLX-WVD-4 (1x4 & 2x4 luminaires)
FLX-WVD-2 (2x2 luminaires)

Perforated Inner Optic Diffuser, 10-Pack
FLX-PFD-4 (1x4 & 2x4 luminaires)
FLX-PFD-2 (2x2 luminaires)

Diffuse Inner Optic, 10-Pack
FLX-STD-4 (1x4 & 2x4 luminaires)
FLX-STD-2 (2x2 luminaires)

Brushed Metal Inner Optic Diffuser, 10-Pack
FLX-BMD-4 (1x4 & 2x4 luminaires)
FLX-BMD-2 (2x2 luminaires)

Striped Inner Optic Diffuser, 10-Pack
FLX-STRD-4 (1x4 & 2x4 luminaires)
FLX-STRD-2 (2x2 luminaires)

Sample Inner Optic Diffuser Kit
FLX-SMPL-4 (1x4 & 2x4 luminaires)
FLX-SMPL-2 (2x2 luminaires)
- Includes one of each optic overlay diffuse accessory (wavy, 9ACK-PSQ0 perforated, diffuse, brushed metal and striped)

For use with SC1, VDO, and VRF Controls

Wavy Inner Optic Diffuser, 10-Pack
FLX-SCLV-WVD-4 (1x4 & 2x4 luminaires)
FLX-SCLV-WVD-2 (2x2 luminaires)

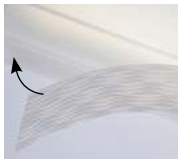
Perforated Inner Optic Diffuser, 10-Pack
FLX-SCLV-PFD-4 (1x4 & 2x4 luminaires)
FLX-SCLV-PFD-2 (2x2 luminaires)

Diffuse Inner Optic, 10-Pack
FLX-SCLV-STD-4 (1x4 & 2x4 luminaires)
FLX-SCLV-STD-2 (2x2 luminaires)

Brushed Metal Inner Optic Diffuser, 10-Pack
FLX-SCLV-BMD-4 (1x4 & 2x4 luminaires)
FLX-SCLV-BMD-2 (2x2 luminaires)

Striped Inner Optic Diffuser, 10-Pack
FLX-SCLV-STRD-4 (1x4 & 2x4 luminaires)
FLX-SCLV-STRD-2 (2x2 luminaires)

Inner Optic Overlay Diffuser Accessories



Brushed Metal

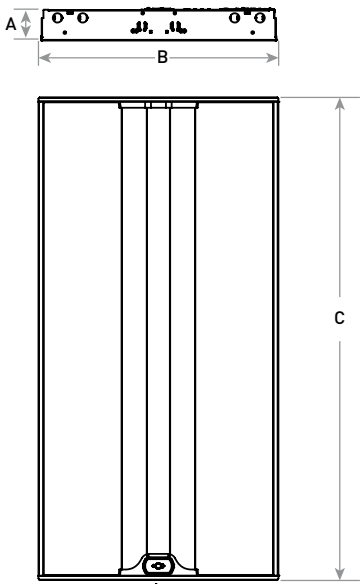
Striped

Perforated

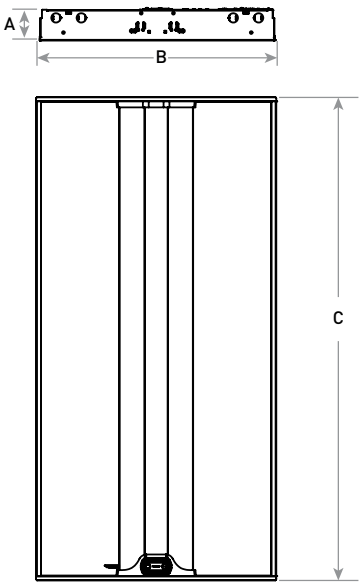
Wavy

Diffuse

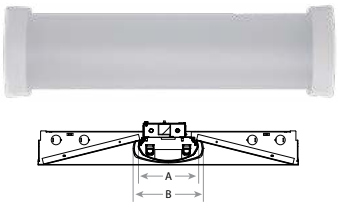
SC1 SMARTCAST® TECHNOLOGY CONTROL



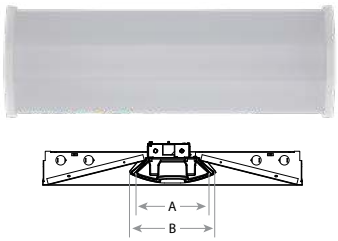
VDO/VRF CONTROLS



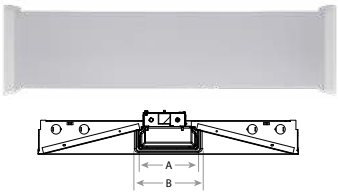
LENS ASSEMBLY



CRV



ARC



SQ

SC1, VDO, VRF, LDE1 Dimensions						
	DIM "A"	DIM "A" w/EB	DIM "B"	DIM "C"	Weight	Weight w/EB
1x4	4.0" (101mm)	4.0" (101mm)	11.7" (298mm)	47.7" (1213mm)	11.0 lbs. (5.0kg)	16.0 lbs. (7.3kg)
2x2	4.0" (101mm)	3.3" (84mm)	23.7" (603mm)	23.8" (604mm)	9.0 lbs. (4.1kg)	14.0 lbs. (6.4kg)
2x4	4.0" (101mm)	3.3" (84mm)	23.7" (603mm)	47.7" (1213mm)	15.0 lbs. (6.8kg)	20.0 lbs. (9.1kg)

Lens Assembly Dimensions		
	Lens Width DIM "A"	Endcap Width DIM "B"
CRV	7.3" (185mm)	7.9" (200mm)
ARC	5.4" (138mm)	6.2" (157mm)
SQ	5.4" (138mm)	6.2" (157mm)

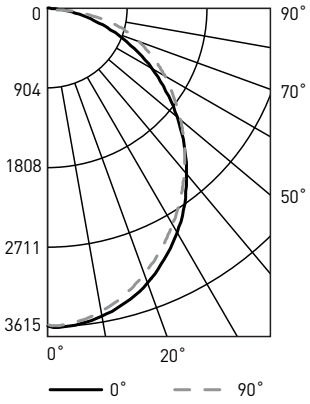
US: creelighting.com T (800) 236-6800 F (262) 504-5415
Canada: creelighting-canada.com T (800) 473-1234 F (800) 890-7507

CREE LIGHTING®

Photometry

FLX24-100L-930-ARC-10V1-UNV BASED ON RESTL REPORT TEST #: PL16330-001A

Luminaire photometry has been conducted in accordance with IES LM-79. IES LM-79 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%.



Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	108	103	99	95
2	98	90	83	77
3	90	79	71	64
4	82	70	61	54
5	76	63	54	47
6	70	56	47	41
7	65	51	42	36
8	60	47	38	32
9	56	43	35	29
10	53	40	32	27

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m²)			
Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	4,495	4,373	4,454
55°	4,145	4,133	4,377
65°	3,739	4,003	4,497
75°	3,110	4,066	4,960
85°	2,061	4,185	5,209

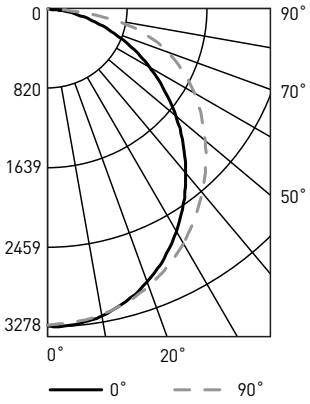
Reference https://creelighting.com/products/indoor/troffers/flex-series for detailed photometric data.

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	2,697	N/A	28.0%
0-40	4,338	N/A	45.0%
0-60	7,468	N/A	77.5%
0-90	9,641	N/A	100%
0-180	9,641	N/A	100%

Photometry

FLX24-100L-930-CRV-10V1-UNV BASED ON RESTL REPORT TEST #: PL16304-001A

Luminaire photometry has been conducted in accordance with IES LM-79. IES LM-79 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%.



Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	108	103	98	94
2	98	89	82	75
3	89	78	69	62
4	81	69	59	52
5	74	61	52	45
6	69	55	46	39
7	64	50	41	35
8	59	45	37	31
9	55	42	33	28
10	52	38	30	25

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m²)			
Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	4,051	4,341	4,714
55°	3,738	4,292	4,892
65°	3,377	4,409	5,313
75°	2,846	4,804	6,064
85°	2,059	5,089	5,578

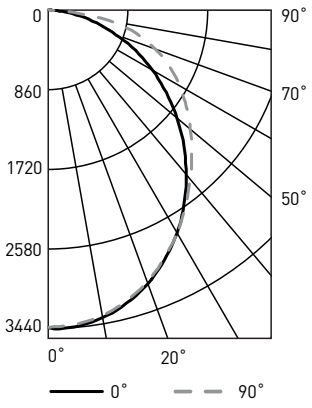
Reference https://creelighting.com/products/indoor/troffers/flex-series for detailed photometric data.

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	2,496	N/A	25.9%
0-40	4,070	N/A	42.3%
0-60	7,216	N/A	74.9%
0-90	9,631	N/A	100%
0-180	9,631	N/A	100%

Photometry

FLX24-100L-930-SQ-10V1-UNV BASED ON RESTL REPORT TEST #: PL16329-001B

Luminaire photometry has been conducted in accordance with IES LM-79. IES LM-79 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%.



Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	108	103	99	95
2	98	89	82	76
3	89	78	70	63
4	82	69	60	53
5	75	62	53	46
6	69	56	47	40
7	64	51	42	35
8	60	46	38	32
9	56	42	34	28
10	52	39	31	26

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m²)				
Vertical Angle	Horizontal Angle			
	0°	45°	90°	
45°	4,246	4,346	4,498	
55°	3,927	4,244	4,604	
65°	3,565	4,284	4,955	
75°	3,011	4,478	5,512	
85°	2,030	4,015	4,278	

Reference https://creelighting.com/products/indoor/troffers/flex-series for detailed photometric data.

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	2,596	N/A	27.0%
0-40	4,192	N/A	43.6%
0-60	7,322	N/A	76.2%
0-90	9,610	N/A	100%
0-180	9,610	N/A	100%

Application Reference

Open Space

Spacing	Lumen Package	CRI	Initial Delivered Lumens	Wattage	LPW	w/ft²	Average fc
8 x 8	26L	80	2,600	18	144	0.27	36
		90/9ACK		21	124	0.32	
	30L	80	3,000	21	143	0.32	42
		90/9ACK		26	115	0.39	
	40L	80	4,000	27	148	0.41	56
		90/9ACK		33	121	0.50	
	50L	80	5,000	35	143	0.53	70
		90/9ACK		41	122	0.62	
8 x 10	26L	80	2,600	18	144	0.23	30
		90/9ACK		21	124	0.26	
	30L	80	3,000	21	143	0.26	35
		90/9ACK		26	115	0.33	
	40L	80	4,000	27	148	0.34	47
		90/9ACK		33	121	0.41	
	50L	80	5,000	35	143	0.44	58
		90/9ACK		41	122	0.51	
10 x 10	26L	80	2,600	18	144	0.18	24
		90/9ACK		21	124	0.21	
	30L	80	3,000	21	143	0.21	28
		90/9ACK		26	115	0.26	
	40L	80	4,000	27	148	0.27	37
		90/9ACK		33	121	0.33	
	50L	80	5,000	35	143	0.35	47
		90/9ACK		41	122	0.41	
10 x 12	26L	80	2,600	18	144	0.14	19
		90/9ACK		21	124	0.17	
	30L	80	3,000	21	143	0.17	22
		90/9ACK		26	115	0.21	
	40L	80	4,000	27	148	0.22	30
		90/9ACK		33	121	0.26	
	50L	80	5,000	35	143	0.28	37
		90/9ACK		41	122	0.33	

10' ceiling: 80/50/20 reflectances; 2.5' workplane, open room. LLF: 1.0 Initial
Open Space: 50' x 40' x 10
Applies to ARC, CRV and SQ lenses.

Application Reference

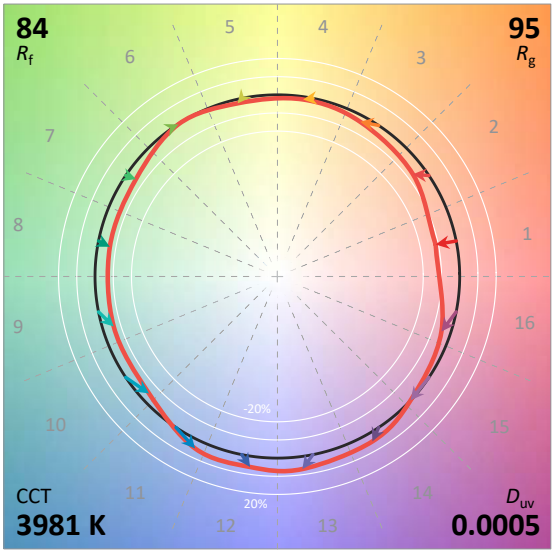
Open Space

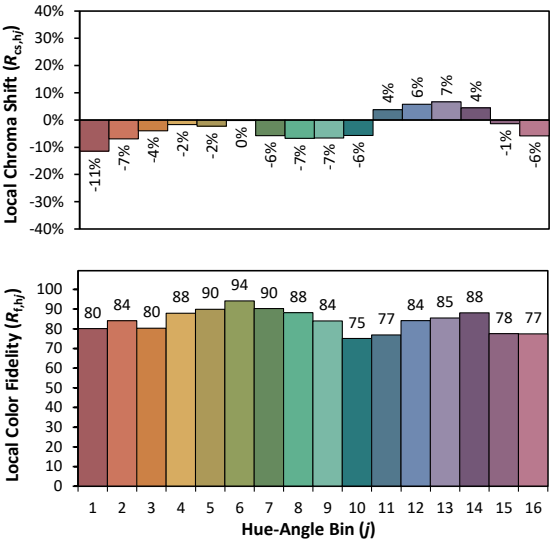
Spacing	Lumen Package	CRI	Initial Delivered Lumens	Wattage	LPW	w/ft²	Average fc
8 x 8	60L	80	6,000	42	143	0.63	56
		90/9ACK		49	122	0.74	
	70L	80	7,000	47	149	0.71	65
		90		56	125	0.84	
	80L	80	8,000	54	148	0.81	74
		90		65	123	0.98	
	100L	80	10,000	67	149	1.01	93
		90		78	128	1.17	
8 x 10	60L	80	6,000	42	143	0.53	46
		90/9ACK		49	122	0.61	
	70L	80	7,000	47	149	0.59	54
		90		56	125	0.70	
	80L	80	8,000	54	148	0.68	61
		90		65	123	0.81	
	100L	80	10,000	67	149	0.84	77
		90		78	128	0.98	
10 x 10	60L	80	6,000	42	143	0.42	37
		90/9ACK		49	122	0.49	
	70L	80	7,000	47	149	0.47	43
		90		56	125	0.56	
	80L	80	8,000	54	148	0.54	49
		90		65	123	0.65	
	100L	80	10,000	67	149	0.67	62
		90		78	128	0.78	
10 x 12	60L	80	6,000	42	143	0.34	29
		90/9ACK		49	122	0.39	
	70L	80	7,000	47	149	0.38	34
		90		56	125	0.45	
	80L	80	8,000	54	148	0.43	39
		90		65	123	0.52	
	100L	80	10,000	67	149	0.54	49
		90		78	128	0.62	

25' ceiling: 80/50/20 reflectances; 2.5' workplane, open room. LLF: 1.0 Initial
Open Space: 50' x 40' x 10
Applies to ARC, CRV and SQ lenses.

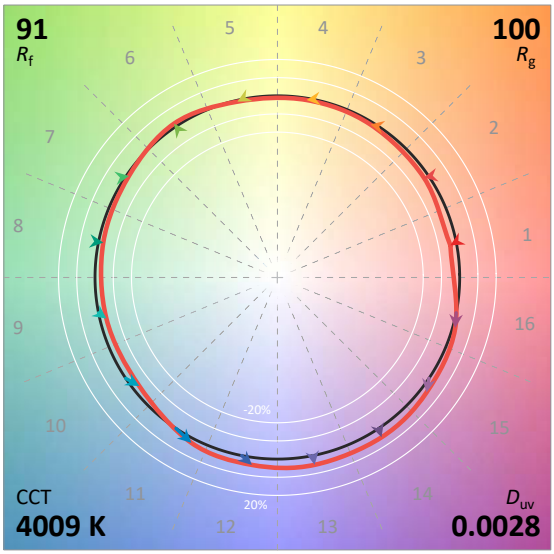
ANSI/IES TM-30-18

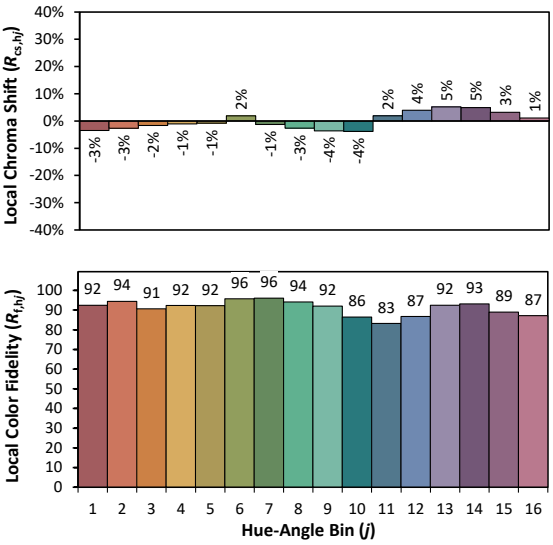
4000K, 80 CRI
Based on RESTL TEST #: PL16472-001





4000K, 90 CRI
Based on RESTL TEST #: PL16468-001





© 2023 Cree Lighting, A company of IDEAL INDUSTRIES. All rights reserved. For informational purposes only.
Content is subject to change. Patent www.creelighting.com/patents. SmartCast® and the SmartCast Technology logo are registered trademarks, and OneButton™, FLX14™, FLX22™, and FLX24™ are trademarks of Cree Lighting, A company of IDEAL INDUSTRIES. Cree® and the Cree Lighting logo are registered trademarks of Cree, Inc. The UL logo is a registered trademark of UL LLC. Lutron, the Lutron logo, EcoSystem, the Lutron EcoSystem Enabled logo, Athena, and Vive are trademarks or registered trademarks of Lutron Electronics Co., Inc. The DLC QPL, DLC QPL Premium and the DLC LUNA Logos are the registered and unregistered trademarks of Efficiency Forward, Inc.

US: creelighting.com T (800) 236-6800 F (262) 504-5415
Canada: creelighting-canada.com T (800) 473-1234 F (800) 890-7507

CREE LIGHTING®
A COMPANY OF *IDEAL INDUSTRIES, INC.*