

# T8 Series

4' Linear LED Lamp

## Product Description

The Cree® linear LED T8 lamp delivers 2100 lumens of enhanced spectrum 90 CRI light while achieving 100 lumens per watt at the system level. The innovative oval-shaped design allows more uplight than standard 180-degree LED tubes, thereby providing a more uniform light output. The unique end caps which twist and lock make the upgrade from fluorescent lamps to energy-saving LED lamps easy. The T8 lamp is available in neutral or cool color temperatures and operates using existing fluorescent T8 electronic instant start, programmed/rapid start and dimmable fluorescent ballasts. The T8 lamp is easy to install and fits into linear fluorescent fixtures, making it a perfect upgrade solution where energy savings and long life are critical.

## Performance Summary

Upgrades existing T8 fluorescent lamps

Utilizes Cree TrueWhite® Technology

**Efficacy:** 100 LPW at system level

**Lamp Delivered Light Output :** 2100 lumens per LED lamp\*

**Target System Delivered Light Output (2 Lamps):** 4200 lumens\*

**Input Power:** 21 watts\*\*

**CRI:** 90

**CCT:** 3500K, 4000K

**Input Voltage:** 120-347 VAC, determined by fluorescent ballast

**Lifetime:** Designed to last 50,000 hours

**Controls:** Dimmable (ballast dependent)

**Mounting:** Linear fluorescent fixtures

**Limited Warranty†:** 5 years



4' LED Lamp  
MOL- 48" (1219mm)

## Ordering Information

Example: LEDT8-48-21L-40K-B10

Product	Lumen Output	Color Temperature	Voltage	Control	Options
LEDT8-48	21L 21W, 2100 lumens - 100 LPW	35K 3500 Kelvin 40K 4000 Kelvin	Blank 120-347 Volt Ballast Dependent	Blank Dimmable	B10 10 single boxed lamps T24 24 Tray pack lamps in master carton (Bulk Pack)

\* Nominal ballast factor

\*\* Varies by ballast

† See [www.cree.com/lighting/products/warranty](http://www.cree.com/lighting/products/warranty) for warranty terms



Rev. Date: 06/10/2014



## T8 Series

### 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](http://www.cree.com/lighting) for detailed lumen maintenance factors

#### CONSTRUCTION & MATERIALS

- Lightweight aluminum heat sink housing provides strength and durability
- Shatterproof Design

#### OPTICAL SYSTEM

- Specialized lens design for optimal light distribution and smooth visual effect
- Measured and designed to achieve optimal light performance in existing fluorescent troffers

#### ELECTRICAL SYSTEM

- Integral, high-efficiency driver and power supply to remodulate current to LEDs
- Utilizes existing fluorescent ballast
- Power Factor:** = 0.9 nominal
- Input Power:** Ballast dependent
- Input Voltage:** 120-277V, 347V, 50/60Hz
- Battery Backup:** Operates on fluorescent emergency ballasts. See installation instructions for more details
- Temperature Rating:** Designed to operate in temperatures 0 °C to 35 °C
- Total Harmonic Distortion:** < 20%
- Not for use with T12 magnetic or electronic ballasts
- Not for use with T8 magnetic or HO ballasts
- Not for use or to be wired to "mains voltage"

#### CONTROLS

- Dimmable (ballast dependent)

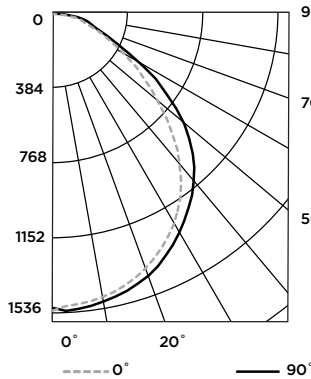
#### REGULATORY & VOLUNTARY QUALIFICATIONS

- UL Listed to UL 1993, UL 8750, CSA C22.2 No. 1993-12 & CSA C22.2 No. 250.13-12
- DLC qualified
- Suitable for damp locations
- Designed for indoor use

### Photometry

#### (2) LEDT8-48-21L-35K INSTALLED IN A 2X4 RECESSED TROFFER BASED ON CESTL REPORT TEST #: CESTL-PLO3149-001

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	110	105	101	98
2	100	93	86	81
3	92	82	74	68
4	85	73	65	59
5	78	66	57	51
6	72	59	51	45
7	67	54	46	40
8	63	49	41	36
9	59	45	37	32
10	55	42	34	29

Effective Floor Cavity Reflectance: 20%

#### Average Luminance Table (cd/m2)

Horizontal Angle		0°	45°	90°
Vertical Angle	45°	2056	1876	1757
	55°	1780	1608	1420
	65°	1227	1137	1111
	75°	1116	723	963
	85°	1531	1061	1079

#### Zonal Lumen Summary

Zone	Lumens	% Lamp	Luminaire
0-30	117.8	N/A	31.0%
0-40	1920.1	N/A	50.6%
0-60	3210.0	N/A	84.6%
0-90	3795.4	N/A	100%
0-180	3795.4	N/A	100%

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

Product Number	Case UPC	Description	Lamp Type	Watts	CCT	Lamps per Pack	CRI	Lumens	Rated Life (Hrs)
LEDT8-48-21L-35K-B10	10810048029553	Linear LED T8 Replacement Lamp	T8	21W	3500K	10	90	2100	50,000
LEDT8-48-21L-40K-B10	10810048029546	Linear LED T8 Replacement Lamp	T8	21W	4000K	10	90	2100	50,000
LEDT8-48-21L-35K-T24	10810048029577	Linear LED T8 Replacement Lamp	T8	21W	3500K	24	90	2100	50,000
LEDT8-48-21L-40K-T24	10810048029560	Linear LED T8 Replacement Lamp	T8	21W	4000K	24	90	2100	50,000