# Ultra High CRI T8 LED Tube for Home & Residential

Waveform Lighting's ultra high CRI technology is now available for your home in a 4-ft T8 LED tube form factor. Our T8 tubes are configured to work as a retrofit in virtually any existing 4-ft fluorescent fixture, and feature 3-in-1 retrofit compatibility, giving unprecedented flexibility in installation method.

In addition to featuring 95 CRI, each of our T8 LED tubes emits 1800 lumens, which is approximately equal in brightness to a 40W fluorescent lamp. Simply put, with this lamp you are getting higher quality lumens without having to compromise on brightness.

# **FEATURES**

- Available in 4000K or 6500K
- 95+ CRI and R9 > 90
- 4-ft length; T8 shape with G13 bi-pin
- 1800 lumens to replace 40W fluorescent
- Conforms to UL safety standards
- UL Type A compatible (with ballast)
- UL Type B compatible (ballast bypass, single OR double ended)
- No mercury, instant-on
- No IR or UV
- 50K hour lifetime and 5-year warranty
- For indoor use only





# PHOTOMETRIC SPECIFICATIONS

Light output:	1800 lumens	CRI Ra:	95+
Luminous efficacy:	100 lm/W	CRI R9:	90+
Light distribution:	320 degrees	TM-30-15 R <sub>f</sub> / R <sub>g</sub> :	90+/100
Lifetime (L70):	50,000 hours		

Download full photometric reports at https://www.waveformlighting.com/photometrics

#### **ELECTRICAL SPECIFICATIONS**

Lamp base:	G13 Bi-pin
Power:	18 W
Input voltage:	120 – 277V AC
Input frequency:	50 – 60 Hz
Power factor:	0.9
Dimmer compatible?	No

#### **MECHANICAL SPECIFICATIONS**

Length:	48 in (1200 mm)
Diameter:	1.1 in (28 mm)
Lamp material:	NSF Shatterproof Glass

#### INSTALLATION INSTRUCTIONS

Unlike incandescent and halogen lamps, fluorescent bulbs require a separate device called a ballast to operate. Most fluorescent fixtures have a ballast device installed inside. Some fluorescent fixtures which already have been retrofitted with LED lamps may already have the ballast removed or bypassed.

Our T8 LED lamps are designed to be plug-and-play ready with 3-in-1 compatibility. This means that our lamps will work in any T8 fluorescent fixture, regardless of whether or not the fixture has been rewired for LED compatibility. The three installation methods are shown below:

Method	Description	Wiring Diagram	Pros	Cons
With ballast (UL Type A)	Keeps fluorescent ballast in fixture, simply install in place of old fluorescent bulb.	BALLAST CAC INPUT	Very quick & easy installation Less electrical knowledge required Fluorescent tubes can still be used in fixture	LED lamp operation depends on ballast reliability; ballast failure may require rewiring in future     Lower overall system efficiency due to ballast inefficiencies
Ballast bypass, single ended (UL Type B)	Replaces or bypasses the fluorescent ballast, and directly connects line voltage to just <b>one end</b> of the LED tube.	L B AC INPUT	Higher system efficiency due to elimination of fluorescent ballast     Works with non-shunted tombstones only	Requires replacement of ballast and comfort with electrical work     Fluorescent tubes no longer compatible with fixture
Without ballast, double ended (UL Type B)	Replaces or bypasses the fluorescent ballast, and directly connects line voltage to <b>both ends</b> of the LED tube.	LJ (N  LJ (N  AC INPUT	Higher system efficiency due to elimination of fluorescent ballast     Works with shunted and non-shunted tombstones	Requires replacement of ballast and comfort with electrical work     Fluorescent tubes no longer compatible with fixture

ALWAYS OBSERVE ELECTRICAL SAFETY PRECAUTIONS. WHEN IN DOUBT, SEEK A QUALIFIED ELECTRICIAN'S ASSISTANCE.

### **MECHANICAL DRAWING & DIMENSIONS (in mm)**

# 0.51 in 1.10 in 13 mm 28 mm

#### PART NUMBERS AND ORDERING

4000K:	4020.40	
6500K:	4020.65	