NorthLux™ 95 CRI T8 LED Tube for Art & Studio

PN 4024.50 | 4024.65

NorthLux™ products by Waveform Lighting replicate the consistency and quality of light coming in through a north-facing window. With a 95 CRI rating, colors and hues will appear just as they do under natural daylight, giving you the confidence to work on your projects during evening hours or where supplemental lighting is necessary.

The T8 LED tube light is 48 inches (4 ft) in length, and fits in virtually all 4-ft fluorescent lamp fixtures, making installation quick and easy. The lamps' built-in TriplePlay™ technology automatically detects and adjusts to the fixture's wiring configuration, allowing it to work with or without fluorescent ballasts.

MECHANICAL DIMENSIONS
(1:1 SCALE)

PRODUCT FEATURES

- Available in 5000 K (noon sun) and 6500 K (noon sky)
- 95+ CRI and R9 > 90
- 1800 lumens (F32T8 fluorescent lamp equivalent)
- Compatible with electronic ballasts and direct-wire (ballast bypass)
- Fully flicker-free light output (when installed in ballast-bypass fixtures)
- Not compatible with dimmers
- ETL listed (4008503), damp location rated

ELECTRICAL SPECIFICATIONS

Input type options:	With electronic ballast
	Direct-wire, single-ended
	Direct-wire, double-ended
Input voltage:	120-240V AC, 50-60 Hz
Power consumption:	18 watts
Power factor:	0.9

MECHANICAL SPECIFICATIONS

Length:	48 in (1200 mm)
Bulb diameter:	1.1 in (28 mm)
Base:	G13 bi-pin

FLICKER METRICS (Direct-Wire Only)

Flicker (%):	<2%
Flicker index:	<0.02
Flicker frequency:	0 Hz

For reference, incandescent bulbs typically exhibit 12% flicker, a flicker index value of 0.03, and a flicker frequency of 120 Hz. Flicker performance when used with an electrical ballast will depend on the ballast's flicker characteristics.

PHOTOMETRIC SPECIFICATIONS

	CCT Range	Duv	CIE (x,y)
5000 K:	±150K	0.0015 ±0.0015	(0.3455, 0.3548)
6500 K:	±250K	0.0025 ±0.0015	(0.3134, 0.3283)

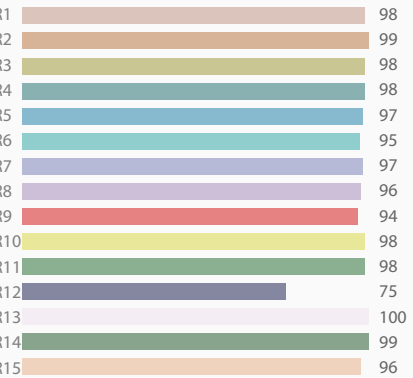
Light Output:	1800 lm
Beam angle:	320°
CRI Ra:	95+
CRI R9:	90+
CRI R13:	90+
TM-30-15 Rf/ Rg*:	90+/100

*For additional detail on TM-30-15 metrics for this product, please see our separate test report documentation.

LIFETIME INFORMATION

Warranty period:	60 months (5 years)
Lifetime (L90):	36,000 hours

EXTENDED CRI VALUES (TYPICAL)



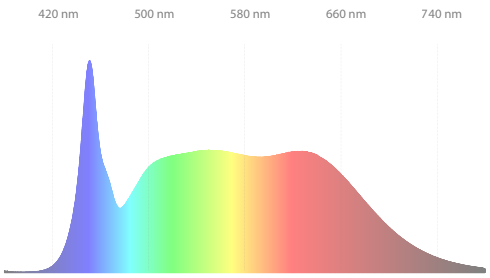
COMPATIBLE FIXTURES

PN 4501, 4502, third-party 4-ft fluorescent fixtures*

*See left panel for details.

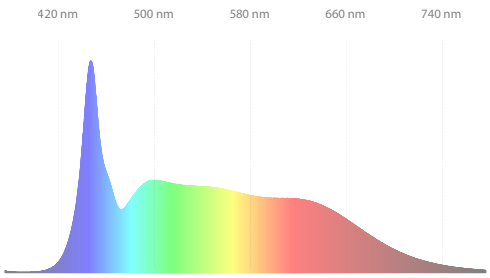
5000 K SPECTRUM

M/P ratio: 0.89



6500 K SPECTRUM

M/P ratio: 1.06



PART NUMBERS AND ORDERING

5000K | 4-pack:	4024.50.4P
5000K | 24-pack:	4024.50.24P
6500K | 4-pack:	4024.65.4P
6500K | 24-pack:	4024.65.24P

CERTIFICATIONS

Intertek 4008503

Light-Emitting Diode (LED) Retrofit Luminaire Conversion Kits (UL-1598C), Retrofit Kits For Luminaire Converesion (CAN/CSA-C22.2 No. 250.1), Self-Ballasted Lamps and Lamp Adapters (UL-1993)

RoHS

CAUTION: DO NOT USE WITH DIMMERS. SUITABLE FOR DAMP LOCATIONS. DIRECT REPLACEMENT FOR F32T8 LAMPS ONLY.

FIXTURE & BALLAST COMPATIBILITY

This lamp is designed for use in 4-ft fluorescent fixtures only. Our lamps feature TriplePlay™ technology, which allows them to be used in virtually all commonly seen fixture wiring configurations detailed below. For additional details, please reference the product installation manual.

CONFIGURATION #1 - WITH BALLAST

The most convenient option, the "with ballast" configuration keeps the T8 fluorescent ballast connected in the fixture, and the LED lamps are installed directly without any rewiring or modifications to the fixture.

The ballast used in the fixture must be listed in our approved ballast list for safety and reliability. Note that magnetic ballasts and T12 ballasts are not compatible.

CONFIGURATION #2 - DIRECT-WIRE, SINGLE-ENDED

The direct-wire (aka ballast-bypass) method bypasses the fluorescent ballast completely, such that line voltage is connected directly to the lamps. The direct-wire, single-ended method connects the live and neutral wires to just one end of the lamp. This configuration requires the use of non-shunted lampholders

Waveform Lighting's LED-ready T8 fixtures (PN 4501 / 4502) are pre-configured for direct-wire, single-ended LED T8 lamp installations, and are a great, pre-tested and compatible option when new fixtures are required.

CONFIGURATION #3 - DIRECT-WIRE, DOUBLE-ENDED

This method also bypasses the fluorescent ballast, but line voltage is connected via both ends of the lamps. This configuration requires the use of shunted lampholders.

NORTHLUX LIGHTING

NorthLux Lighting is a division of Waveform Lighting, LLC.

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