











Replaces the following:

T8 fluorescent T12 fluorescent



TOTALtUBE can be used with:

- ×Instant Start ballasts
- *Rapid Start ballasts
- *Progam Start ballasts
- Some dimming ballasts



*Double Sided 120-277V AC





The RemPhos:

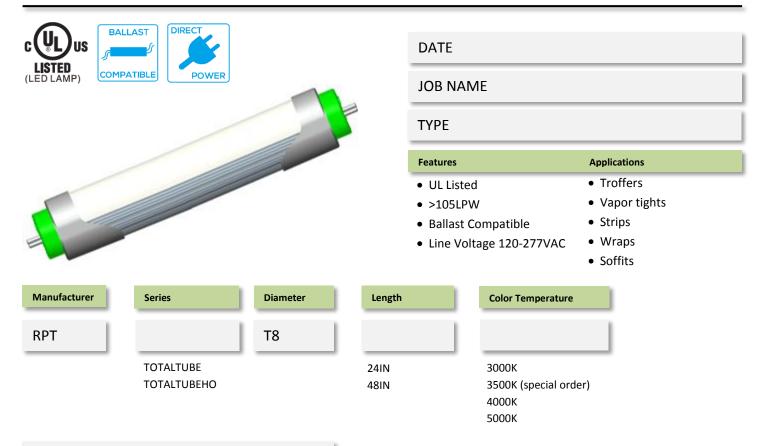
TOTALtUBE®

One LED tube. Fits all.®

RemPhos "TOTALtUBE® T8 Lamps

The "Total Tube" Universal LED T8® lamps by RemPhos Technologies offer an economical and efficient alternative to upgrade to long lasting LED lighting, while retaining the original fixture. The TOTALtUBE® series replaces fluorescent 24in and 48in T8/T12 lamps. Light is emitted 180 degrees so that the original fixture will be illuminated perfectly uniformly. Extremely efficient >100LPW, the TOTALtUBE® can be used as a direct retrofit for fluorescent lamps since it is compatible with Instant Start, Rapid Start, and Program Start ballasts. TOTALtUBE® can also be connected directly to line voltage 120-277VAC double ended power (shunted or non-shunted tombstones). UL Listed. Multiple lumen output and CCTs are available.





Ordering Example: RPT-TOTALTUBE-T8-24IN-3000K

Details

Application Features: The TOTALtUBE® lamps easily replace older bulb technologies. The lamps are perfect for new construction or retrofits. These LED lamps are designed to safely and quickly replace most existing fluorescent tubes.

Construction: UV protected and flame retardant plastic, anodized aluminum

Finish: Silver bottom, Diffused lens

Electrical: 89% efficient internal driver, LM80 LEDs

Optics: Patent-pending optical system delivers perfectly uniform light from the integral LED lamp. You will be unable to tell the difference between this LED lamp and traditional fluorescent.

Approvals: cUL, DLC, FCC, RoHs

Manufactured: China - 5 Year Warranty

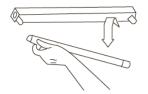
Installation

1

Turn off power



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Remove fluorescent tube

3

Install TOTALtUBE



4

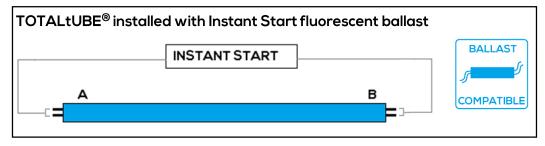
Turn on power

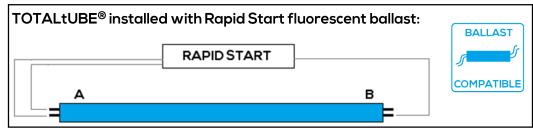


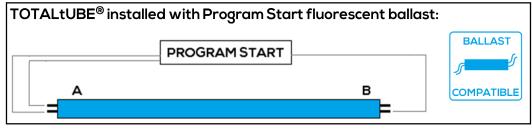
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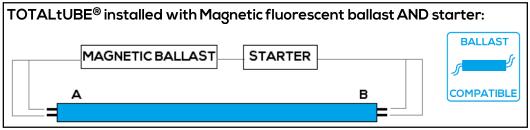
PROPER USAGE:

The RemPhos TOTALtUBE® is compatible with most fluorescent ballasts. <u>TOTALtUBE® will not operate on magnetic ballasts without a starter.</u> Magnetic ballasts with a starter are compatible.



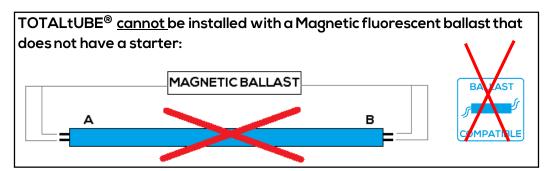






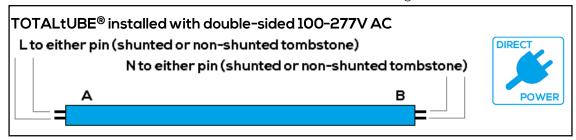
Wiring diagrams above are for reference only. Wiring does not need to be modified when switching between fluorescent and LED. TOTALtUBE is 100% Plug & Play.

IMPROPER USAGE:





 ${\sf TOTALtUBE}^{\circledR}\ can\ also\ operate\ on\ 100-277V\ AC\ line\ voltage\ with\ double\ ended\ input.$



Have a dimming ballast?

Please contact us to obtain a sample of our TOTALtUBE so that you can perform a test installation to gauge dimming performance. Dimming characteristics vary greatly between ballast and wall dimmer combinations.



WATTAGE AND LUMEN OUTPUT INFORMATION:

TOTALtUBE® wattage and lumen output is dependent on the type and manufacturer of fluorescent ballast. The following is a reference table for average values of the TOTALtUBE® operating at line voltage and on fluorescent ballasts.

Definitions:

TOTALtUBE® wattage: this is the wattage that the LED tube receives from the fluorescent ballast. System wattage: this is the total wattage including the power consumed by the fluorescent ballast.

Part #	Ballast Type	Ballast Factor	TOTALtUBE® Wattage	System Wattage*	TOTALtUBE® Lumens
RPT-TOTALTUBE- 48IN	Line Voltage (120-277VAC)	NA	15W	15W	1900LM
	Instant Start	Normal 0.88	15W	17.5W	1900LM
	Instant Start	Low 0.78	13W	15.5W	1680LM
	Instant Start	High 1.18	20W	23.5W	2150LM
	Program Rapid Start	Very low 0.71	12W	14W	1300LM
	Rapid Start	Normal	15W	17.5W	1900LM
	Program Start HO	High	20W	23.5W	2150LM
RPT-TOTALTUBE- 24IN	Line Voltage (120-277VAC)	NA	15W	15W	1900LM
	Instant Start	Normal 0.88	15W	17.5W	1900LM
	Instant Start	Low 0.78	13W	15.5W	1680LM
	Instant Start	High 1.18	20W	23.5W	2150LM
	Program Rapid Start	Very low 0.71	12W	14W	1300LM
	Rapid Start	Normal	15W	17.5W	1900LM
	Program Start HO	High	20W	23.5W	2150LM
RPT-TOTALTUBE HO-48IN	Line Voltage (120-277VAC)	NA	18W	18W	2200LM
	Instant Start	Normal 0.88	18W	20W	2200LM
	Instant Start	Low 0.78	15W	17.5W	1650LM
	Instant Start	High 1.18	23W	26.8W	2400LM
	Program Rapid Start	Very low 0.71	14W	16W	1500LM
	Rapid Start	Normal	18W	20W	2200LM
	Program Start HO	High	23W	26.8W	2400LM

^{*}Wattage is calculated by measuring the average system wattage for a single LED tube including ballast. Average system wattage was measured at 120V and 277V with multiple ballasts from Philips, Sylvania, OSRAM, GE, Keystone, Sunpark, Howard,

See table with actual test results for more detailed information on performance with specific ballasts.

DLC Qualified Products:

Part #	ССТ	DLC?
RPT-TOTALTUBE-48IN	2700/3000/3500/4000/5000K	YES
RPT-TOTALTUBE-24IN	2700/3000/3500/4000/5000K	YES
RPT-TOTALTUBEHO-48IN	2700/3000/3500/4000/5000K	YES



