

MEDIUM BI-PIN (G13)



SINGLE PIN (Fa8)



RECESSED (R17d)



U BEND BI-PIN (G13)



DIRECT/INDIRECT BI-PIN (G13)



NEPTUN

LED T8 RETROFIT TUBES



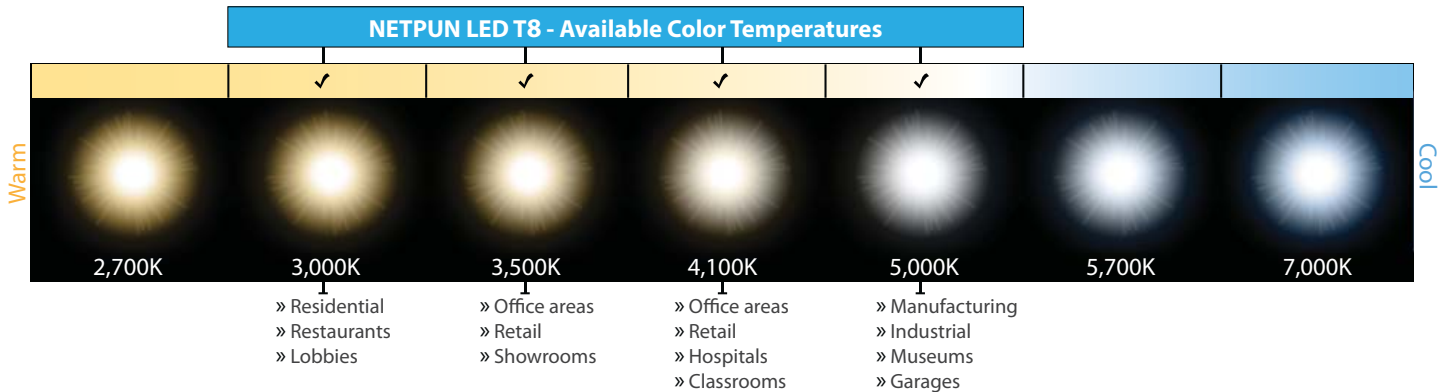
Neptun's high performance LED T8 tubes are designed for the replacement of existing T8 fluorescent lighting systems. The LED-88 series tubes are offered in a variety of color temperatures for flexibility in all types of applications. The frosted lens allows for an evenly illuminated glow thereby resembling existing fluorescent tubes. Very low operating temperature saves on HVAC costs and long life greatly reduces maintenance costs. The self-ballasted design allows for easy installation into most commonly used T8 system fixtures.



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COLOR TEMPERATURE OPTIONS



Neptun's LED T8 Tubes are available in four color temperature options to achieve the perfect light ambience in any application. Color temperature makes all the difference. See the above color chart to help choose the ideal temperature for your application.

RETROFIT

Neptun Makes It Easy...

Retrofitting with Neptun's T8 LEDs is a simple, painless process due to features such as a self-ballasted design and two available wiring configurations. The self-ballasted design allows the tubes to be wired directly into the existing circuit, thereby eliminating the need for additional components. Flexible wiring configurations allow for compatibility with most standard Fluorescent tube fixtures.

5 YEAR WARRANTY

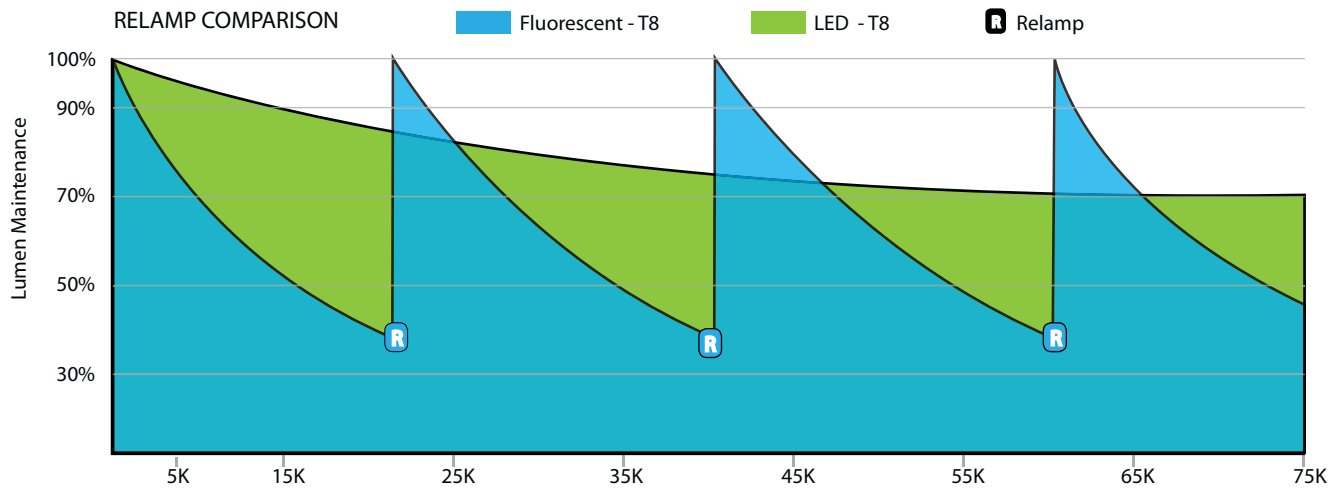


UNIVERSAL VOLTAGE
120-277VAC
NON-DIMMING

ANALOG / TRIAC
0% — 100%
DIMMING @ 120VAC



COMPARISON



The information table below shows total expected savings over typical product life (15 years) as compared to traditional Fluorescent tubes. In addition to savings from reduced energy consumption, customers will drastically save on maintenance costs due to LEDs significantly longer product life.

ANALYSIS

	Fluorescent T8	LED T8
Rated Wattage	32W	20W
Input Wattage	38W	21W
No. of Lamps	600	600
Running Time/Year	4,380 Hrs.	4,380 Hrs.
kWr Rate	\$0.12	\$0.12
Annual (kWh)	99,864	55,188
Annual (kWh) Savings		44,676
Annual Energy Costs	\$11,984	\$6,623
Annual Energy Savings		\$5,361
Annual Labor Cost/Year	\$258	\$0
Labor Savings over Life of LED		\$3,868
Annual Material /Recycle Cost/Year	\$1,314	\$0
Material Savings over Life of LED		\$19,710
Life Cycle Gross Cost Savings		\$103,994
PAY BACK (includes parts & labor)		1.99 YRS.
LBS of CO2 Removed		958,300 lbs.
# Cars Removed from Road		829
Acres of Forest Planted		1,307

** Contact Factory for Complete Savings Analysis

COMPARISON

	Fluorescent T8	LED T8
Rated Wattage	32W	20W
Input Wattage	38W	21W
CRI	60	80
Contains Mercury	Yes	No
Lumen Depreciation	25% @ 2,000Hrs.	5% @ 2,000Hrs.
Life Span	12,000-20,000 Hrs.	70,000 Hrs.
Start Up	1min. Warm Up	InstantOn/Flicker Free
Noise/Light Operation	Humming/Flickering	None
Warranty	None	5 Years

FEATURES & BENEFITS

- Aluminum backing for excellent thermal management
- Frosted polycarbonate lens for even glow. (Glare Free)
- Dimmable operation available for increased savings
- Offered in 2', 4', 5', 6', & 8' lengths & U-Bend Shape
- Offered in 3500K, 4100K, & 5000K color temps
- Eliminates costly recycling of fluorescent tubes
- Very low heat operation to lower HVAC costs
- Self-ballasted design with 120-277VAC range
- Instant on, flicker free, no buzzing
- No radiated EMI interference
- Mercury free design
- 70,000 hr. rated life
- 5 year warranty

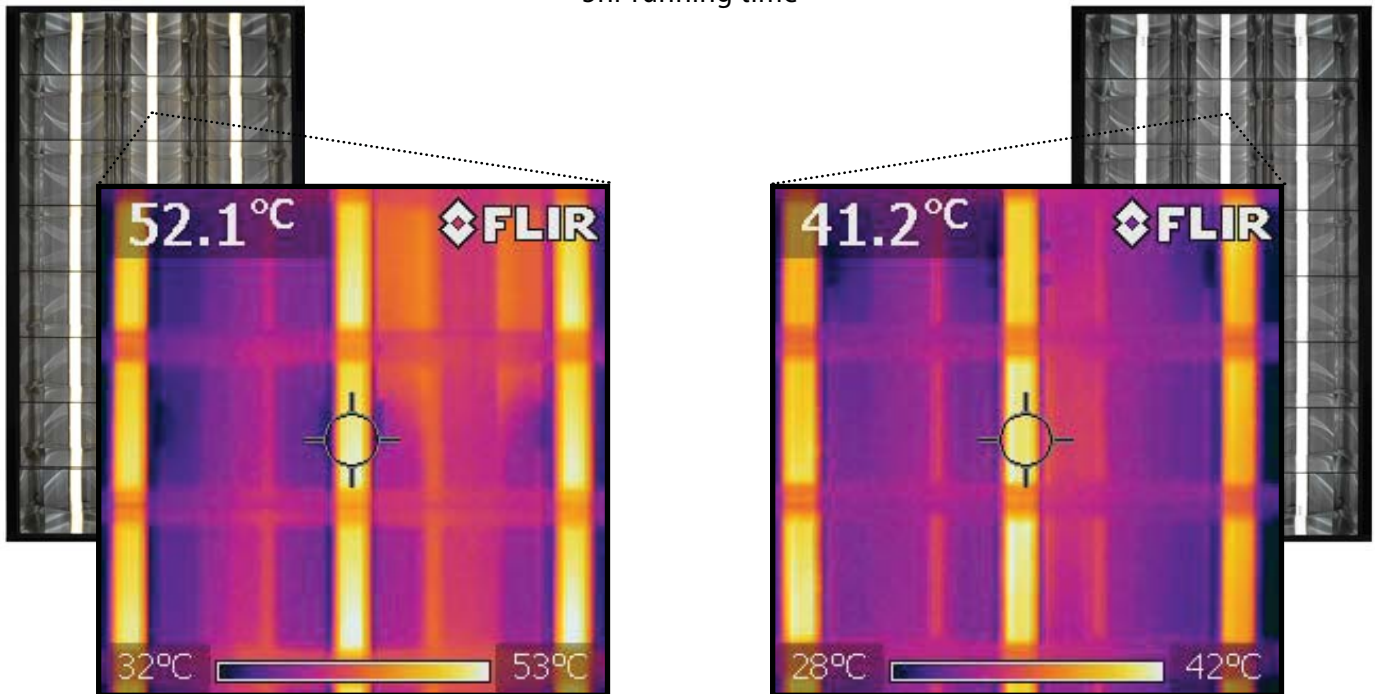
THERMAL ANALYSIS

FLUORESCENT **x**

COMPARISON

LED **✓**

5hr running time



Neptun's LED T8 Tubes operate at a substantially lower temperature in comparison to their Fluorescent counterpart. A lower operating temperature improves product life and contributes toward HVAC savings.

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STANDARD T8 - Bi Pin (G13), Recessed (R17d)

Model No.	Watts	Nominal Length (Inch)	Input Line Current (Amp) @ 120 - 277	Power Factor	THD	Color Temp. CCT (°K)	CRI	Lumens	Lm/W	Base	Beam Angle
LED-88010-UNV	10	24"	0.087-0.037	>0.90	<20%	3500°, 4100°, 5000°	>80	1000-1,050	>90	G13/R17d	120°
LED-88015-UNV	15	36"	0.131-0.056	>0.90	<20%	3500°, 4100°, 5000°	>80	1500-1600	>90	G13/R17d	120°
LED-MF-88018-UNV	18	48"	0.157-0.068	>0.90	<20%	3500°, 4100°, 5000°	>80	1800-1900	>90	G13/R17d	120°
LED-88018-UNV-F/Z	18	48"	0.157-0.068	>0.90	<20%	3500°, 4100°, 5000°	>80	1800-1900	>90	G13/R17d	220°
LED-88020-UNV	20	48"	0.174-0.075	>0.90	<20%	3500°, 4100°, 5000°	>80	2000-2100	>90	G13/R17d	120°
LED-88026-UNV	26	48"	0.227-0.098	>0.90	<20%	3500°, 4100°, 5000°	>80	2600-2800	>90	G13/R17d	120°
LED-88030-UNV	30	72"	0.262-0.113	>0.90	<20%	3500°, 4100°, 5000°	>80	3000-3200	>90	G13/R17d	120°
LED-88039-UNV	39	72"	0.341-0.147	>0.90	<20%	3500°, 4100°, 5000°	>80	3900-4100	>90	G13/R17d	120°
LED-88040-UNV	40	96"	0.349-0.151	>0.90	<20%	3500°, 4100°, 5000°	>80	4000-4200	>90	G13/R17d	120°
LED-88052-UNV	52	96"	0.454-0.197	>0.90	<20%	3500°, 4100°, 5000°	>80	5200-5400	>90	G13/R17d	120°

DIRECT / INDIRECT T8 - Bi-Pin (G13), Single Pin (Fa8) & Recessed (R17d)

Model No.	Watts	Nominal Length (Inch)	Input Line Current (Amp) @ 120 - 277	Power Factor	THD	Color Temp. CCT (°K)	CRI	Lumens	Lm/W	Base	Beam Angle
LED-DI-88010-UNV	10	24"	0.087-0.037	>0.90	<20%	3500°, 4100°, 5000°	>80	1000-1100	>90	G13/R17d	360°
LED-DI-88013-UNV	13	24"	0.113-0.049	>0.90	<20%	3500°, 4100°, 5000°	>80	1300-1400	>90	G13/R17d	360°
LED-DI-88016-UNV	16	24"	0.139-0.060	>0.90	<20%	3500°, 4100°, 5000°	>80	1600-1700	>90	G13/R17d	360°
LED-DI-88020-UNV	20	48"	0.174-0.075	>0.90	<20%	3500°, 4100°, 5000°	>80	2000-2100	>90	G13/R17d	360°
LED-DI-88026-UNV	26	48"	0.227-0.098	>0.90	<20%	3500°, 4100°, 5000°	>80	2600-2800	>90	G13/R17d	360°
LED-DI-88032-UNV	32	48"	0.279-0.121	>0.90	<20%	3500°, 4100°, 5000°	>80	3200-3400	>90	FA8	360°
LED-DI-88016-UNV	16	24"	0.139-0.060	>0.90	<20%	3500°, 4100°, 5000°	>80	1600-1700	>90	FA8	360°
LED-DI-88032-UNV	32	48"	0.279-0.121	>0.90	<20%	3500°, 4100°, 5000°	>80	3200-3400	>90	FA8	360°
LED-DI-88036-UNV	36	60"	0.315-0.136	>0.90	<20%	3500°, 4100°, 5000°	>80	3600-3800	>90	FA8	360°
LED-DI-88038-UNV	38	72"	0.332-0.144	>0.90	<20%	3500°, 4100°, 5000°	>80	3800-4000	>90	FA8	360°
LED-DI-88064-UNV	64	96"	0.559-0.242	>0.90	<20%	3500°, 4100°, 5000°	>80	6400-6600	>90	FA8	360°

U-BEND T8 (1-5/8" & 6" Leg Spacing)

Model No.	Watts	Leg Spacing (Inch)	Input Line Current (Amp) @ 120 - 277	Power Factor	THD	Color Temp. CCT (°K)	CRI	Lumens	Lm/W	Base	Beam Angle
LED-NUBT8-88018-UNV	18	1-5/8"	0.157-0.068	>0.90	<20%	3500°, 4100°, 5000°	>80	1800-1900	>90	G13/R17d	120°
LED-UBT8-88020-UNV	20	6.00"	0.174-0.075	>0.90	<20%	3500°, 4100°, 5000°	>80	2000-2100	>90	G13/R17d	120°
LED-UBT8-88026-UNV	26	6.00"	0.227-0.098	>0.90	<20%	3500°, 4100°, 5000°	>80	2600-2800	>90	G13/R17d	120°

DIMMABLE T8

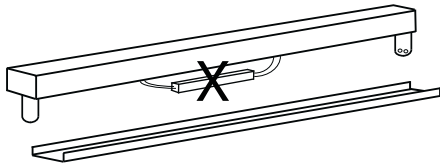
Model No.	Watts	Nominal Length (Inch)	Leg Spacing (Inch)	Input Line Current (Amp) @ 120	Color Temp. CCT (°K)	CRI	Lumens	Lm/W	Base	Beam Angle
LED-88020-120V-ADIM	20	48"	n/a	0.174	3500°, 4100°, 5000°	>80	2000-2100	>90	G13/R17d	120°
LED-88026-120V-ADIM	26	48"	n/a	0.227	3500°, 4100°, 5000°	>80	2600-2800	>90	G13/R17d	120°
LED-NUBT8-88018-120V-ADIM	18	n/a	1-5/8"	0.157	3500°, 4100°, 5000°	>80	1800-1900	>90	G13/R17d	120°
LED-UBT8-88020-120V-ADIM	20	n/a	6.00"	0.174	3500°, 4100°, 5000°	>80	2000-2100	>90	G13/R17d	120°
LED-UBT8-88026-120V-ADIM	26	n/a	6.00"	0.227	3500°, 4100°, 5000°	>80	2600-2800	>90	G13/R17d	120°

- Custom Color Temperatures Available
- Multiple Base Options Available
- Clear Lens Options Available

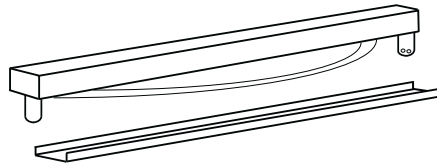
Neptun's high performance LED T8 tubes feature a self-ballasted design to eliminate unnecessary steps in the retrofit process. They are offered in 2 wiring configurations to allow for a simple installation in all types of applications.

INSTRUCTIONS

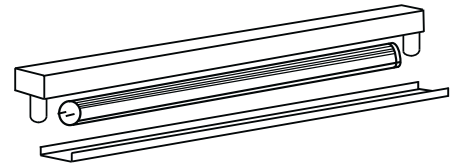
Step 1. Remove Electronic Ballast



Step 2. Connect Wiring



Step 3. Install LED Tube

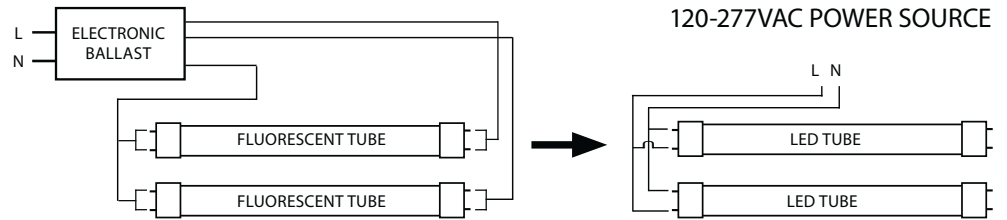


Single Pole (1P) Wiring

Sample Ordering #: LED-88020-UNV-741-1P



1 Pole (1P) wiring can be used in applications with Non-Shunted Sockets

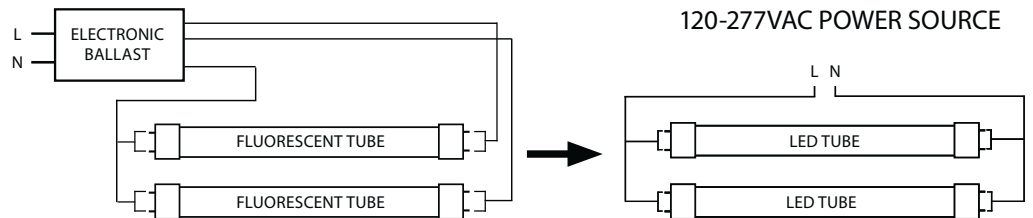


Dual Pole (2P) Wiring

Sample Ordering #: LED-88020-UNV-741-2P

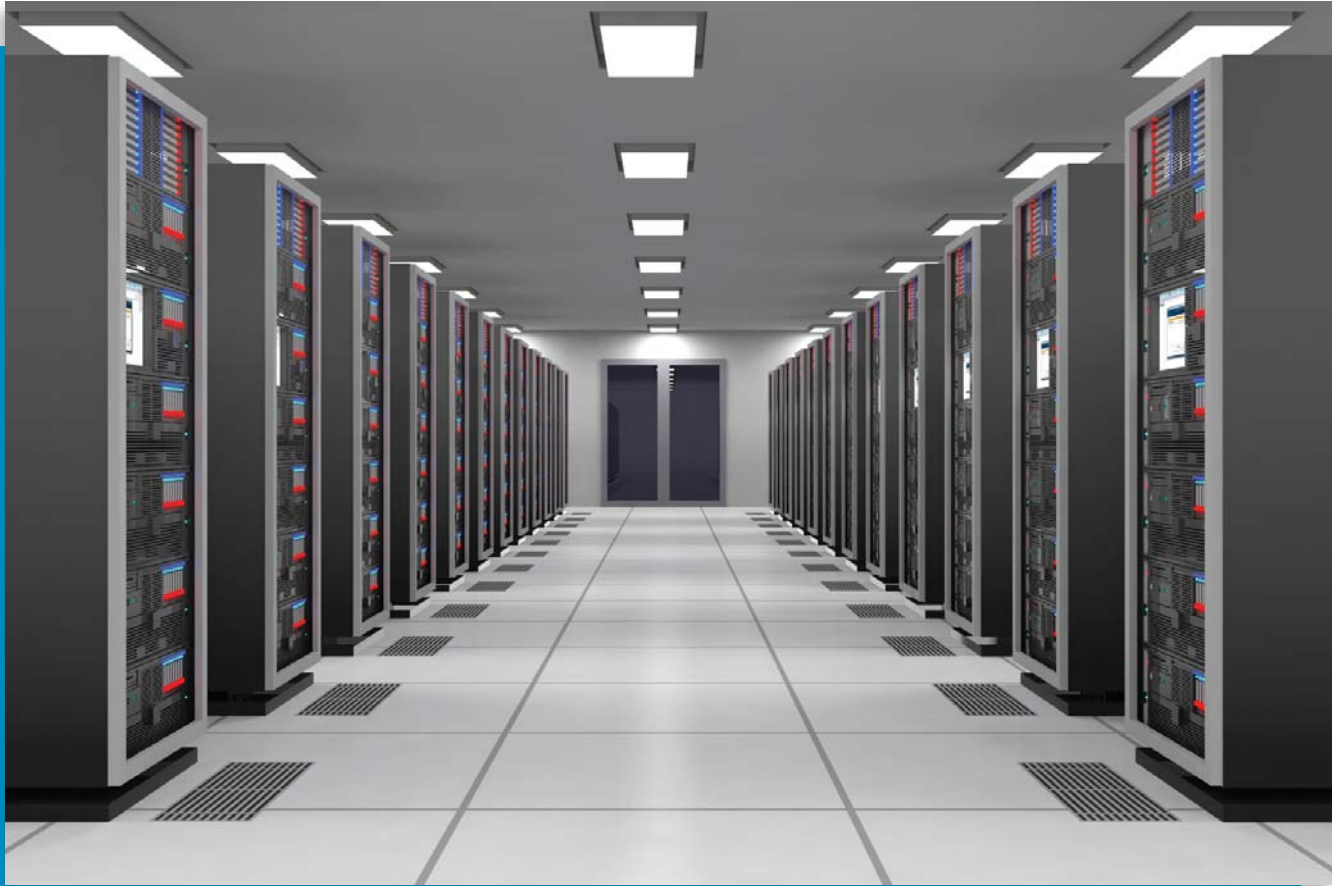


2 Pole (2P) wiring can be used in applications with Non-Shunted or Shunted Sockets



LIGHTING FOR: DATA CENTERS

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NEPTUN LED T8 RETROFIT TUBES

Due to the sensitive electronic equipment in data centers, LED T8 tubes are the ideal replacement for existing fluorescent tubes. The LED lights operate at a significantly lower temperature, resulting in cooler room ambiance. This helps keep HVAC costs down and protects electronics in addition to a 50% savings in energy from light consumption. Our range in color temperatures also allows for a comfortable working environment specific to the needs of the customer.



Neptun Light, Inc.
13950 Business Center Drive
Lake Forest, IL 60045
P: 888-735-8330
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LIGHTING FOR: HOSPITALS

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NEPTUN LED T8 RETROFIT TUBES

Neptun's LED T8 tubes serve as fitting replacements to Fluorescent tubes in hospitals for many reasons. This product offers superior visibility with a higher color rating index. A comfortable work environment is made possible with a range of available color temperatures and a lack of flickering and buzzing. Neptun's T8 tubes are also compatible with sensitive machinery due to the fact that they do not radiate an electromagnetic field.



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LIGHTING FOR: PARKING GARAGE

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NEPTUN LED T8 RETROFIT TUBES

Neptun's T8 tubes are well-suited in parking garage applications because of the amount of security they provide. This security feature can be attributed to the even distribution, bright 5000K color temperature, and high color rendering that Neptun's T8 tubes provide. Labor costs can also be reduced because the long life of these lamps allow for lower frequency in replacements.

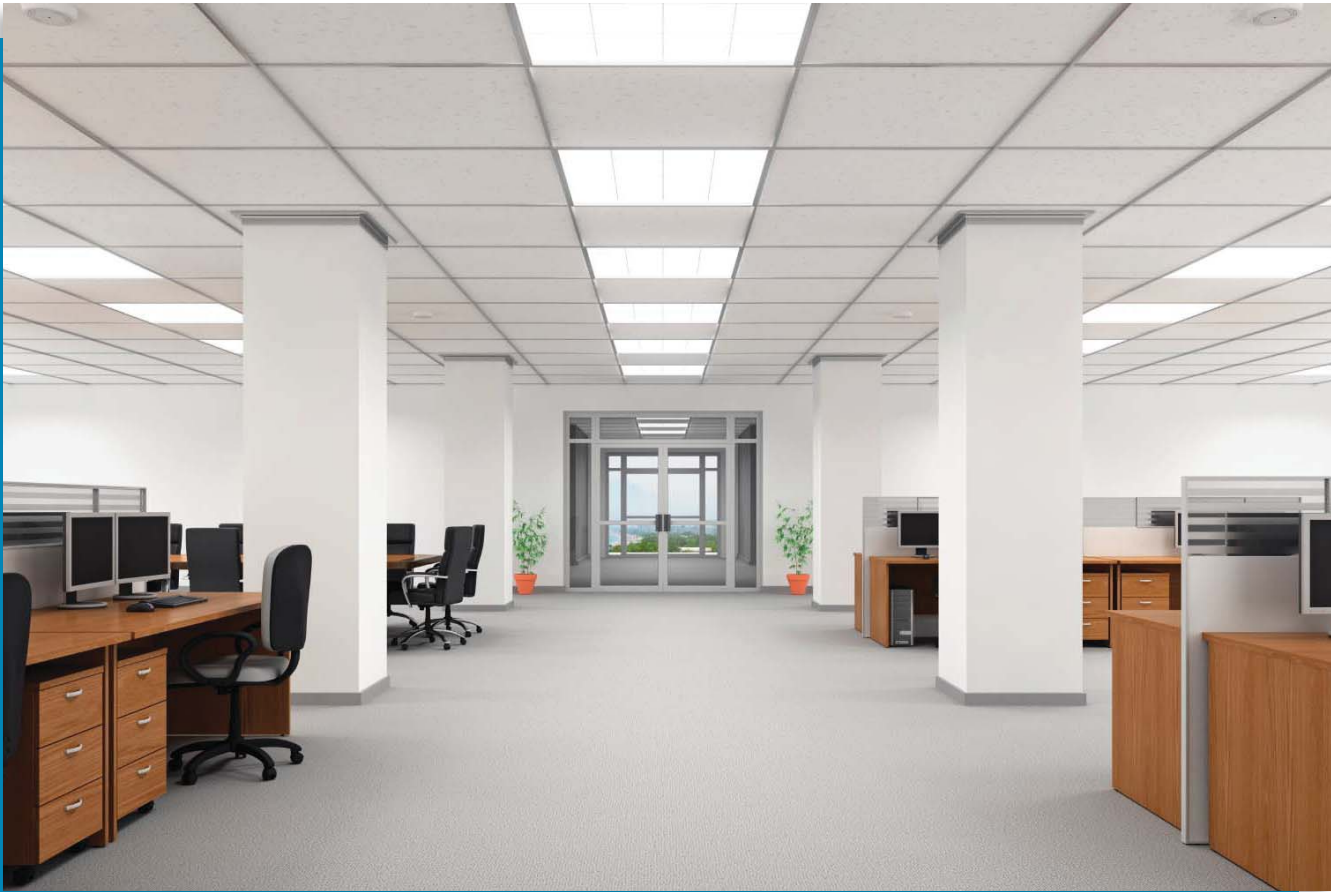


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LIGHTING FOR: OFFICE SPACE

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NEPTUN LED T8 RETROFIT TUBES

Neptun's T8 retrofit tubes are a great alternative over fluorescent tubes in office areas. They are available in multiple color temperatures, creating a comfortable working environment without compromising brightness. Furthermore, they offer an even light distribution with no flickering or noise. Neptun's LED T8 tubes also result in savings from HVAC and power consumption.



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13950 Business Center Drive
Lake Forest, IL 60045
P: 888-735-8330
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LIGHTING FOR: INDUSTRIAL / WAREHOUSE *lightinnovations@work*™



NEPTUN LED T8 RETROFIT TUBES

With the need for optimal visibility being a top concern in warehouses and industrial facilities, Neptun's LED T8 tubes are a prime candidate to replace existing Fluorescent tubes. These tubes are available in a bright, white 5000K color temperature and deliver more initial lumens when compared to traditional fluorescent tubes. Brighter light coupled with a higher color rendering index increase visibility of small, detailed objects. The long lives of these tubes also greatly reduce maintenance costs in addition to substantial energy savings.



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LIGHTING FOR: RETAIL SPACE

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NEPTUN LED T8 RETROFIT TUBES

In retail, Neptun's LED T8 tubes are an ideal fit because they allow the customer to see great visual detail in products such as clothing and produce. This is made possible by the color rendering of over 80 offered by our products, in comparison to the 60 CRI most Fluorescent tubes have. With bright, white light it also makes the product more visually pronounced. Neptun's LED tubes also emit less heat, which is good for sensitive products like cooled produce.



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LIGHTING FOR: CLASSROOMS

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NEPTUN LED T8 RETROFIT TUBES

Neptun's T8 tubes offer a great alternative to fluorescent tubes in classroom environments. They allow for a comfortable environment with an even distribution and no flickering or humming like some Fluorescent tubes. These LED tubes also come in warmer color temperatures to provide less harsh light. Neptun's T8 tubes also result in savings from HVAC and power consumption.



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About Neptun Light

Neptun Light is a leader in the manufacture of energy efficient retrofit products and light fixtures in the fields of LED, Induction, and Solar technology. We boast a highly diversified product portfolio of indoor and outdoor products. Additionally, our products span a wide range of commercial, industrial, government, and utility infrastructure applications. Neptun Light achieves its level of success through timely development of new technology that caters to a constantly evolving marketplace. Among Neptun Light's core values are continuous innovation, high quality products, a focus on energy conservation, and an uncompromised commitment to customer service.



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