

# DATA SHEET: LED HYBRID TUBE Clear/Frosted, UL Type A & B

The PATRIOT LED HYBRID TUBE serves as a special energy efficient replacement for all traditional fluorescent T8 lamps. Designed to operate on all existing rapid-start, instant-programmed-start, and emergency fixture ballasts and some magnetic ballast or simply no ballast at all.

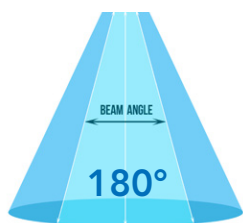
Our LED HYBRID TUBES are backed with our industry-leading 100,000-hour rated lamp life and 10-year warranty. See Ordering Model table below for our BAA compliant products. Contact us for pricing or more information.

## PRODUCT BENEFITS

- Compatible with or without a ballast.
- Compatible with shunted or non-shunted sockets.
- Replacement “plug and play” tube or retrofit kit.
- Suitable for damp or dry environments.
- Minimize labor and recycling costs.
- Stable lumen output.
- Mercury free and virtually no UV or IR light.
- Non-dimmable.
- Compatible with over 90% of North American electronic ballasts.
- Rated Life: 100,000 hrs.
- Limited Warranty: 5 year (10 year optional).

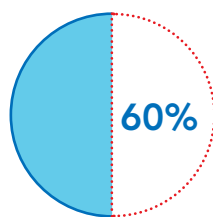


### BEAM ANGLE



Patriot LED Light Distribution

### CAN DECREASE ENERGY USAGE BY



vs. Similar Fluorescent Lamps

### WARRANTY



Our Industry-Leading 10-Year Limited Warranty Guarantees Unsurpassed Quality

## TECHNICAL DATA

- CCT: 3500K, 4000K, 5000K.
- Color Rendering Index (CRI): >80.
- Operation Temperature: -30°C to 40°C.
- Efficiency with ballast: >130LPW.
- Efficiency without ballast: >135LPW.
- Universal voltage: 120V-277V applications.
- Input Frequency: 50/60Hz.
- High power factor: .90
- LED: SMT 2835 chips.
- Housing: Aluminum.

## ORDERING MODEL

PATRIOT TUBE	TUBE TYPE	INTERNAL DRIVER	LENGTH	WATTAGE	INPUT TYPE	CCT
PT	T8	IL	T2= 2FT T3= 3FT T4= 4FT	10W 12W 15W 18W 20W	BC	3500K 4000K 5000K
Product Code: example						
PT -T8ILT2 -12W -BC 3500K						





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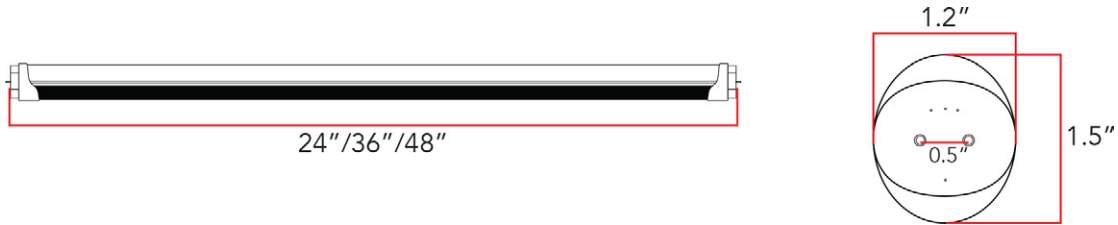
## PRODUCT SPECIFICATION

Product No.	BAA/TAA Option*	Length	Input Voltage	Color Temp (K)	Rated Lumens	Rated Efficacy	CRI	Beam Angle	Rated Life (Hours)	Operating Temp. (°F)	Power Factor
<b>10W PATRIOT LED HYBRID TUBE</b>											
PT-T8ILT2-10W-BC	Yes	2FT	120V -277V, 50/60 Hz	3500K/4000K/5000K	1650	>140	>80	180°	100,000	-30°C to 40°C	>.90
<b>12W PATRIOT LED HYBRID TUBE</b>											
PT-T8ILT2-12W-BC	Yes	2FT	120V -277V, 50/60 Hz	3500K/4000K/5000K	1800	>140	>80	180°	100,000	-30°C to 40°C	>.90
PT-T8ILT3-12W-BC	Yes	3FT	120V -277V, 50/60 Hz	3500K/4000K/5000K	1800	>140	>80	180°	100,000	-30°C to 40°C	>.90
PT-T8ILT4-12W-BC	Yes	4FT	120V -277V, 50/60 Hz	3500K/4000K/5000K	1800	>140	>80	180°	100,000	-30°C to 40°C	>.90
<b>15W PATRIOT LED HYBRID TUBE</b>											
PT-T8ILT2-15W-BC	Yes	2FT	120V -277V, 50/60 Hz	3500K/4000K/5000K	2250	>140	>80	180°	100,000	-30°C to 40°C	>.90
PT-T8ILT3-15W-BC	Yes	3FT	120V -277V, 50/60 Hz	3500K/4000K/5000K	2250	>140	>80	180°	100,000	-30°C to 40°C	>.90
PT-T8ILT4-15W-BC	Yes	4FT	120V -277V, 50/60 Hz	3500K/4000K/5000K	2250	>140	>80	180°	100,000	-30°C to 40°C	>.90
<b>18W PATRIOT LED HYBRID TUBE</b>											
PT-T8ILT4-18W-BC	Yes	4FT	120V -277V, 50/60 Hz	3500K/4000K/5000K	2700	>140	>80	180°	100,000	-30°C to 40°C	>.90
<b>20W PATRIOT LED HYBRID TUBE</b>											
PT-T8ILT4-20W-BC	Yes	4FT	120V -277V, 50/60 Hz	3500K/4000K/5000K	3000	>140	>80	180°	100,000	-30°C to 40°C	>.90
<b>UBEND 15W PATRIOT LED HYBRID TUBE</b>											
PT-T8ILT4U-15W-BC	Yes	4FT	120V -277V, 50/60 Hz	3500K/4000K/5000K	2140	>140	>80	180°	100,000	-30°C to 40°C	>.90

## PHYSICAL DATA

Product No.	Housing	Material Usage	Lens	Environment	Certification	DIMS & Case Quantity	Weight
PT-T8ILT2-10W-BC	Aluminium	RoHS Compliant; no mercury	Frosted/Clear	Dry & Damp	UL,NSF,DLC V4.2 and Lighting Facts	126×22×25 30PCS	0.069CBM//10.2KG
PT-T8ILT2-12W-BC	Aluminium	RoHS Compliant; no mercury	Frosted/Clear	Dry & Damp	UL,NSF,DLC V4.2 and Lighting Facts	66×22×25 30PCS	0.040CBM//10.2KG
PT-T8ILT3-12W-BC	Aluminium	RoHS Compliant; no mercury	Frosted/Clear	Dry & Damp	UL,NSF,DLC V4.2 and Lighting Facts	66×22×25 30PCS	0.040CBM//10.2KG
PT-T8ILT4-12W-BC	Aluminium	RoHS Compliant; no mercury	Frosted/Clear	Dry & Damp	UL,NSF,DLC V4.2 and Lighting Facts	66×22×25 30PCS	0.040CBM//10.2KG
PT-T8ILT2-15W-BC	Aluminium	RoHS Compliant; no mercury	Frosted/Clear	Dry & Damp	UL,NSF,DLC V4.2 and Lighting Facts	96×22×25 30PCS	0.040CBM//10.2KG
PT-T8ILT3-15W-BC	Aluminium	RoHS Compliant; no mercury	Frosted/Clear	Dry & Damp	UL,NSF,DLC V4.2 and Lighting Facts	96×22×25 30PCS	0.040CBM//10.2KG
PT-T8ILT4-15W-BC	Aluminium	RoHS Compliant; no mercury	Frosted/Clear	Dry & Damp	UL,NSF,DLC V4.2 and Lighting Facts	96×22×25 30PCS	0.040CBM//10.2KG
PT-T8ILT4-18W-BC	Aluminium	RoHS Compliant; no mercury	Frosted/Clear	Dry & Damp	UL,NSF,DLC V4.2 and Lighting Facts	126×22×25 30PCS	0.069CBM//10.2KG
PT-T8ILT4-20W-BC	Aluminium	RoHS Compliant; no mercury	Frosted/Clear	Dry & Damp	UL,NSF,DLC V4.2 and Lighting Facts	126×22×25 30PCS	0.069CBM//10.2KG
PT-T8ILT2U-15W-BC	Aluminium	RoHS Compliant; no mercury	Frosted/Clear	Dry & Damp	UL,NSF,DLC V4.2 and Lighting Facts	61×40×23 10PCS	0.086CBM//13.0KG

## DIMENSIONS



## INSTALLATION

### Direct Replacement Procedure:

1. Turn OFF power to the fixture at the breaker panel before installation.
2. Open the diffuser from the light fixture.
3. Remove the fluorescent tubes (A) and dispose of these properly as they may contain mercury.
4. Put LED tube (B) into the lighting fixture and ensure the pins are firmly seated in lamp holders.
5. Install the LED tubes and close the diffuser.
6. Switch ON power to the fixture at the breaker panel.

### Retrot Procedure:

1. Turn OFF power to the fixture at the breaker panel before installation.
2. Open the diffuser from the light fixture.
3. Remove the fluorescent tubes and dispose of these properly as they may contain mercury.
4. Cut wires and remove (A).
5. Make new wire connection to the branch circuit as shown on diagram (B) below.
6. Replace the cover over the wiring channel.
7. Install the LED tubes and close the diffuser.
8. Switch ON power to the fixture at the breaker panel.

