

# SYLVANIA Lamps

## SubstiTUBE® IPS LED T8

### Application

SubstiTUBE IPS LED T8 lamps are an energy saving alternative, designed to replace traditional fluorescent T8 lamps. These LED T8 lamps contain no mercury, and provide instant light and a uniform light distribution. Engineered to operate on existing instant start and select program rapid start electronic T8 ballasts, these lamps minimize labor and recycling costs.

### Benefits and Features

- DLC listing allows for rebates in areas where applicable, saving on overall project cost
- Greater than 145 system LPW
- CRI >80
- Offered in 10 watts
- Available beam angle: 220°
- Light emitting angle: 340°
- Energy savings up to 44%

### Electrical

- Compatible with instant start and select programmed rapid start electronic T8 ballasts with input voltage of 120-277V and 347V
- 0-10V dimmable with compatible 0-10V dimming ballast
- Power Factor >90%
- THD <20%

### Rated Life

- 50,000 hours (L<sub>70</sub>)

### Warranty

- 5-year limited lamp warranty (24/7 operation)
- Install a new QHE instant start ballast with the SubstiTUBE IPS LED T8 lamp for optimal performance and to take advantage of the QUICK 72SUB+ system warranty. (See website for details.)

### Ambient Operating Range

- -4°F to +104°F (-20°C to +40°C)



### Wattage Comparison

Traditional Source	Traditional System Wattage	LED System Wattage	Energy Savings
4ft 32W T8 w/QHE 2X32T8/UNV ISN-SC	55W	26W	53%

### Certifications and Listings

- cULus 1993
- RoHS
- FCC\*
- Lead Free
- Mercury Free
- DLC Standard
- NSF Listed: NSF/ANSI Standard 2 – Food Equipment

\*FCC Title 47 CFR, Part 18 Non-Consumer

### Installation

- Please refer to the Installation manual included inside the packaging and the applications information listed below for more information (G13 medium bi-pin base).



## Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	

## Ordering Guide

LED	10	T8	L48	FGP	DIM	8	XX	SUB	G10
LED	Wattage 10 = 10 Watts	Lamp Type T8	Length 48"	Frosted Glass, PET coating	DIM = Dimmable	CRI 8 = >80	Color Temperature 35 = 3500K 41 = 4100K 50 = 5000K	SubstiTUBE IPS	Generation 10

## Ordering Information

Item Number	Ordering Abbreviation	Power (W) <sup>1</sup>	Base Type	Replaces	Average Life (hrs)	CCT	Typical Lumens (lm)	CRI	Power Factor	Case Qty	DLC Listed
41402	LED10T8L48FGPDIM835SUBG10	10	G13	F032835ECO	50,000	3500K	1800	>80	>.90	25	Y
41403	LED10T8L48FGPDIM841SUBG10	10	G13	F032841ECO	50,000	4100K	1800	>80	>.90	25	Y
41404	LED10T8L48FGPDIM850SUBG10	10	G13	F032850ECO	50,000	5000K	1800	>80	>.90	25	Y

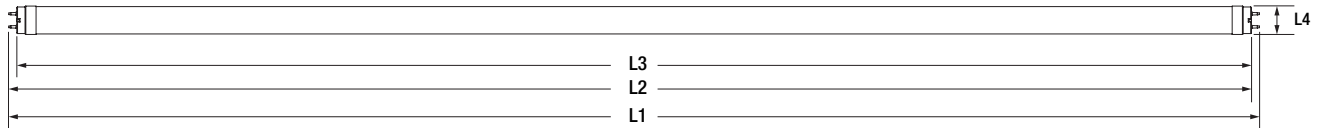
1. Average Lamp Power and Average Lamp Lumens rated on QHE2X32T8/UNV ISN.

## Specifications & Lighting Data

Lamp	Ballast	Current (AMPS)	System Power (W)	System Lumens (lm)	System Efficacy (lm/W)	No of Lamps
LED10T8L48FGPDIM8XXSUBG10	QHE 2X32T8/UNV ISN	0.22/0.10	26	3900	>145	2

Note: System values may slightly differ with dimmable ballasts. For complete system information refer to LED495 - SubstiTUBE System Information.

## Physical Information



Lamp Description	L1 End of Base Pin to End of Opposite Pin End	L2 Base Face to Opposite Base Pin	L3 Base Face to Base Face	L4 Bulb Outside Diameter
LED10T8L48FGPDIM8XXSUBG10	47.725"±0.055" (1212.2mm ±1.4mm)	47.45"±0.05" (1205.25mm±1.25mm)	Max 47.22" (1199.4mm)	1.02"±0.08" (25.9mm±2.0mm)

## Application Information

1. Due to numerous ballast designs and topologies, this lamp should be tested on existing ballasts before mass quantities are installed.
2. Not intended for use with older dedicated voltage (120V or 277V) ballasts. These ballasts have electronic components that degrade over time and may become unsuitable for the new LED T8 lamp.
3. All installation, inspection, and maintenance of lighting fixtures should be done with the power to the fixture turned off. Lamps should be installed and operated in compliance with the National Electrical Code (NEC), Underwriters Laboratories Inc. (UL) requirements, and all applicable codes and regulations.
4. Insert and align tubes properly in lamp holders. Partial insertion results in a poor or intermittent electrical contact that can result in short lamp life and arcing. Arcing at the lamp holder can result in localized overheating.
5. For instant start ballasts, use lamp holders with an internal shunt or ensure that lamp holders are wired in a shunt configuration.
6. For Programmed Rapid Start ballasts, use rapid-start lamp holders (non-shunted lamp holders).
7. De-lamp is not allowed for ISH ballasts. For approved ISN and ISL ballasts, de-lamp is allowed for only 1 lamp so long as the ballast factor remains below 1.20 (for example, 4 lamp ballast can de-lamp to 3 lamps).
8. Suitable for use in dry and damp environments.
9. Maximum mounting distance between tube and ballast is 20 feet.
10. Not for use with other LED or fluorescent lamps on the same ballast.
11. Not for use with magnetic ballasts.
12. Please read all installation instructions before attempting installation.
13. For detailed warranty information, please see [www.ledvanceUS.com](http://www.ledvanceUS.com).

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