SYLVANIA Lamps

SubstiTUBE® IPS Natural™ LED T8

TruWave Technology™

TruWave Technology offers the best alternative to natural light by mimicking the natural light spectrum, all while saving energy.

Benefits and Features

- Controls blue wavelengths for lower glare and reduced eye strain to improve readability and supports an improved sleep-wake cycle
- Perfect fit where clean light color rendering is needed for seeing realistic, vivid colors without sacrificing light output
- Properly saturates red to make building spaces and flesh tones accurate and vibrant, without oversaturating which compromises energy efficiencies
- Exceptional color quality without the loss of efficacy typical of most 90+ CRI solutions
- Familiar form factor of shatter-proof nano-plastic with plastic endcaps
- Up to 162 LPW (Lamp efficacy)
- 3000K, 3500K, 4100K, 5000K color temperatures
- Dimmable down to 10% with compatible 0-10V ballast
- CRI 90; R9 >50, average R9-R12 ≥78; IES TM-30-18 R_f >91 & R_g >95 exceptional color quality
- Beam angle: 220°, Light emitting area: 340°

Electrical

- Compatible with instant start and select programmed rapid start electronic T8 ballasts with input voltage of 120-277V and 347V
- Power factor >0.90
- THD <10%

Rated Life

- 70,000 hours (L_{70})*

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.)

*Tested to B50 L_{70} requirement with a ballast factor ≤0.88.

Wattage Comparison

	System Power[1]	Traditional System Power F032T8 (with QHE2x32 ISN)	Energy Savings/ Year[2]
LED13T8L48	32W	55W	42%

1. With QHE2x32 ISN
2. 24 hours a day

Ambient Operating Range

- -4°F to 113°F (-20°C to 45°C)

Max Case Temperature

- 147°F (64°C)

Certifications and Listings

- cULus 1993
- cULus
- ETL
- RoHS
- Lead Free
- FCC*
- NSF**
- DLC Standard

*FCC Title 47 CFR, Part 18, Non-Consumer
**NSF/ANSI Standard 2 - Food Equipment

Installation

- Please refer to the Installation manual included inside the packaging and the applications information listed below for more information.

Ordering Guide

LED	13	T8	/	L48	/	FP	/	DIM	9	XX	TL	/	SUB
LED	Wattage 13 = 13 Watts	Lamp Type T8		Length 48"		FP = Frosted Nano Plastic		DIM = Dimmable	CRI 9 = 90	Color Temperature 30 = 3000K 35 = 3500K 41 = 4100K 50 = 5000K	Natural™ with TruWave Technology™		SubstiTUBE® IPS

Ordering Information

Item Number	Ordering Abbreviation	Power (W)[1]	Length	Lamp Efficacy (LPW)	Typical Lumens (lm)[1]	CCT	CRI	Case Qty	DLC Listed
40891	LED13T8/L48/FP/DIM930TL/SUB	13	4ft	154	2000	3000K	90	25	Yes
40892	LED13T8/L48/FP/DIM935TL/SUB	13	4ft	154	2000	3500K	90	25	Yes
40893	LED13T8/L48/FP/DIM941TL/SUB	13	4ft	162	2100	4100K	90	25	Yes
40894	LED13T8/L48/FP/DIM950TL/SUB	13	4ft	162	2100	5000K	90	25	Yes

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
LED13T8/L48	QHE 2X32T8/UNV ISN	0.26/0.12	32	4200	130	2

Note: For complete system information refer to LED495 – SubstiTUBE System Information.

Application Information

1. Suitable for open and enclosed fix es.
2. Suitable for use in dry and damp en onments; cannot come in direct contact with water.
3. Due to nu ous ballast designs and topologies, this lamp should be tested on existing ballasts before mass quantities are installed.
4. 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.
5. 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.
6. 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.
7. For instant start ballasts, use lamp holders with an in nal shunt or ensure that lamp holders are wired in a shunt configuration.
8. For ogrammed Rapid Start ballasts, use rapid-start lamp holders (non-shunted lamp holders).
9. 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).
10. Maximum mounting distance between tube and ballast is 20
11. Not for use with other LED or escent lamps on the same ballast.
12. Not for use with magnetic ball
13. Ple ead all installation instructions before attempting installation.
14. For detailed warranty information, please s .sylvania.com.

Additional Specifications

- The SubstiTUBE® IPS LED T8 is not affected by switching cycles, occupancy or vacancy sensors, and thus can be installed with the existing instant start ballasts for optimal energy savings
- Optimized nano-plastic optics with medium bi-pin G13 base
- No warm-up time, instant-on with full light output and stable lamp-to-lamp color
- No UV emission