SubstiTUBE® IPS LED T8

Compatible LED T8 for use with instant start and select programmed rapid start electronic T8 ballasts

SubstiTUBE IPS LED T8 lamps are an energy saving alternative, designed to replace traditional fluorescent T8 lamps. These LED T8 lamps contain no mercury, provide instant light and a uniform light distribution.

Engineered to operate on existing instant start and select programmed rapid start electronic T8 ballasts, these lamps minimize labor and recycling costs. Because the SubstiTUBE IPS LED T8 is not affected by switching cycles, the use of occupancy or vacancy sensors can be installed with the existing instant start ballasts for optimal energy savings.

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.)

Key Features & Benefits

- Shatterproof Frosted Nano Plastic lamps do not break in the manner of glass LED or fluorescent lamps
- NSF Listed: NSF/ANSI Standard 2 – Food Equipment
- 4ft 13W – Dimmable down to 10% with compatible 0-10V ballast
- CCT: 3000K, 3500K, 4100K, 5000K
- Beam angle: 220° for glass and 160° for frosted plastic
  Light emitting area: 340° for all
- THD <20%, power factor >0.90
- Compatible with instant start and select programmed rapid start electronic T8 ballasts with input voltage of 120-277V and 347V
- Long life: up to 60,000 hour life (L_{70})
- G13 medium bi-pin base
- 5 year limited lamp warranty (24/7 operation)
- No warm-up time, instant-on with full light output and stable lamp to lamp color
- No UV emission
- Suitable for dry and damp locations (cannot come in direct contact with water)
- Maximize energy savings with occupancy sensors
- Suitable for open and enclosed fixtures
- Glass lamps are suitable for use with tube guards
- BAA (Buy American Act) COTS compliant models available

Product Offering

Length	Color Temperature	CRI
48in.	3000K, 3500K, 4100K, 5000K	up to 83
36in.	3000K, 3500K, 4100K, 5000K	up to 83
24in.	3000K, 3500K, 4100K, 5000K	up to 83

Selected models*

Application Information

Applications

- Cove lighting
- Display case
- Food prep and service
- General illumination
- Grocery
- Parking garage

Specifications and Certifications

*BAA COTS T8: Available in the United States including Puerto Rico and the District of Columbia (not available in the US Virgin Islands).

SYLVANIA

Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	

Specifications

Energy Data

Ambient Operating Temperature: -4°F to 113°F (-20°C to 45°C)
EMI/RFI: FCC Title 47 CFR, Part 18, Non-Consumer
Max Case Temperature: LED8/L24/FP = 140°F (60°C)
LED11/L36/FP = 149°F (65°C)
LED13T8/L48 = 167°F (75°C)
LED13/L48/FP/DIM = 140°F (60°C)
LED15/L48/FP = 185°F (85°C)

Lighting Data

Lumen Output: See specification table (output is dependent on operating ballast)
Lumens per Watt: Up to 162
Correlated Color Temperature (CCT): 3000K, 3500K, 4100K, 5000K
Color Rendering Index (CRI): Up to 83

Ordering Information

Item Number	Ordering Abbreviation	Length	Lens Material*	Lamp Power (W)[1]	Lamp Lumens (lm)[1]	Color Temp.	CRI	Life (L_{70}) Hours	Beam Angle (°)	Package Quantity	DLC (Y/N)
75508	LED13T8/L48/DIM/830/SUB/G8	4ft	Glass	13	2000	3000K	82	60,000	220	25	Y
75509	LED13T8/L48/DIM/835/SUB/G8	4ft	Glass	13	2000	3500K	82	60,000	220	25	Y
75510	LED13T8/L48/DIM/841/SUB/G8	4ft	Glass	13	2100	4100K	82	60,000	220	25	Y
75511	LED13T8/L48/DIM/850/SUB/G8	4ft	Glass	13	2100	5000K	82	60,000	220	25	Y
40591	LED13T8/L48/FP/DIM/830/SUB/G8	4ft	Nano Plastic	13	2100	3000K	83	50,000	160	25	Y
40592	LED13T8/L48/FP/DIM/835/SUB/G8	4ft	Nano Plastic	13	2100	3500K	83	50,000	160	25	Y
40593	LED13T8/L48/FP/DIM/841/SUB/G8	4ft	Nano Plastic	13	2200	4100K	83	50,000	160	25	Y
40594	LED13T8/L48/FP/DIM/850/SUB/G8	4ft	Nano Plastic	13	2200	5000K	83	50,000	160	25	Y
75524	LED15T8/L48/FP/830/SUB/G8	4ft	Nano Plastic	15	2100	3000K	83	50,000	160	25	Y
75525	LED15T8/L48/FP/835/SUB/G8	4ft	Nano Plastic	15	2100	3500K	83	50,000	160	25	Y
75526	LED15T8/L48/FP/841/SUB/G8	4ft	Nano Plastic	15	2200	4100K	83	50,000	160	25	Y
75527	LED15T8/L48/FP/850/SUB/G8	4ft	Nano Plastic	15	2200	5000K	83	50,000	160	25	Y
40491	LED8T8/L24/FP/830/SUB/G8	2ft	Nano Plastic	8	1250	3000K	83	50,000	160	25	Y
40492	LED8T8/L24/FP/835/SUB/G8	2ft	Nano Plastic	8	1250	3500K	83	50,000	160	25	Y
40493	LED8T8/L24/FP/841/SUB/G8	2ft	Nano Plastic	8	1250	4100K	83	50,000	160	25	Y
40494	LED8T8/L24/FP/850/SUB/G8	2ft	Nano Plastic	8	1250	5000K	83	50,000	160	25	Y
40495	LED11T8/L36/FP/830/SUB/G8	3ft	Nano Plastic	11	1625	3000K	83	50,000	160	25	Y
40496	LED11T8/L36/FP/835/SUB/G8	3ft	Nano Plastic	11	1625	3500K	83	50,000	160	25	Y
40497	LED11T8/L36/FP/841/SUB/G8	3ft	Nano Plastic	11	1625	4100K	83	50,000	160	25	Y
40498	LED11T8/L36/FP/850/SUB/G8	3ft	Nano Plastic	11	1625	5000K	83	50,000	160	25	Y
40568	LED13T8/L48/FP/DIM/830/SUB/G8/BAA	4ft	Nano Plastic	13	2100	3000K	83	50,000	160	25	Y
40569	LED13T8/L48/FP/DIM/835/SUB/G8/BAA	4ft	Nano Plastic	13	2100	3500K	83	50,000	160	25	Y
40570	LED13T8/L48/FP/DIM/841/SUB/G8/BAA	4ft	Nano Plastic	13	2200	4100K	83	50,000	160	25	Y
40571	LED13T8/L48/FP/DIM/850/SUB/G8/BAA	4ft	Nano Plastic	13	2200	5000K	83	50,000	160	25	Y
40507	LED15T8/L48/FP/830/SUB/G8/BAA	4ft	Nano Plastic	15	2100	3000K	83	50,000	160	25	Y
40508	LED15T8/L48/FP/835/SUB/G8/BAA	4ft	Nano Plastic	15	2100	3500K	83	50,000	160	25	Y
40358	LED15T8/L48/FP/841/SUB/G8/BAA	4ft	Nano Plastic	15	2200	4100K	83	50,000	160	25	Y
40509	LED15T8/L48/FP/850/SUB/G8/BAA	4ft	Nano Plastic	15	2200	5000K	83	50,000	160	25	Y
40564	LED8T8/L24/FP/830/SUB/G8/BAA	2ft	Nano Plastic	8	1250	3000K	83	50,000	160	25	Y
40565	LED8T8/L24/FP/835/SUB/G8/BAA	2ft	Nano Plastic	8	1250	3500K	83	50,000	160	25	Y
40566	LED8T8/L24/FP/841/SUB/G8/BAA	2ft	Nano Plastic	8	1250	4100K	83	50,000	160	25	Y
40567	LED8T8/L24/FP/850/SUB/G8/BAA	2ft	Nano Plastic	8	1250	5000K	83	50,000	160	25	Y
40513	LED11T8/L36/FP/830/SUB/G8/BAA	3ft	Nano Plastic	11	1625	3000K	83	50,000	160	25	Y
40514	LED11T8/L36/FP/835/SUB/G8/BAA	3ft	Nano Plastic	11	1625	3500K	83	50,000	160	25	Y
40515	LED11T8/L36/FP/841/SUB/G8/BAA	3ft	Nano Plastic	11	1625	4100K	83	50,000	160	25	Y
40516	LED11T8/L36/FP/850/SUB/G8/BAA	3ft	Nano Plastic	11	1625	5000K	83	50,000	160	25	Y

* Frosted
1. Average Lamp Power and Average Lamp Lumens rated on QHE2x32T8/UNV ISN.

Ordering Guide

LED	15	T8 /	L	48 /	DIM/FP /	8	41 /	SUB /	G8 /	BAA
LED	Wattage (ISN ballast)	Lamp Type	Length	48 Inches	DIM = frosted glass dimmable FP = Frosted Nano Plastic, non-dimmable	CRI = 83	Color Temperature 41 = 4100K 30 = 3000K 35 = 3500K 50 = 5000K	SubstiTUBE® IPS (Compatible LED T8 for use with instant start and select programmed rapid start T8 electronic ballasts)	Generation	BAA (Buy American Act)

Application Information

Application Notes

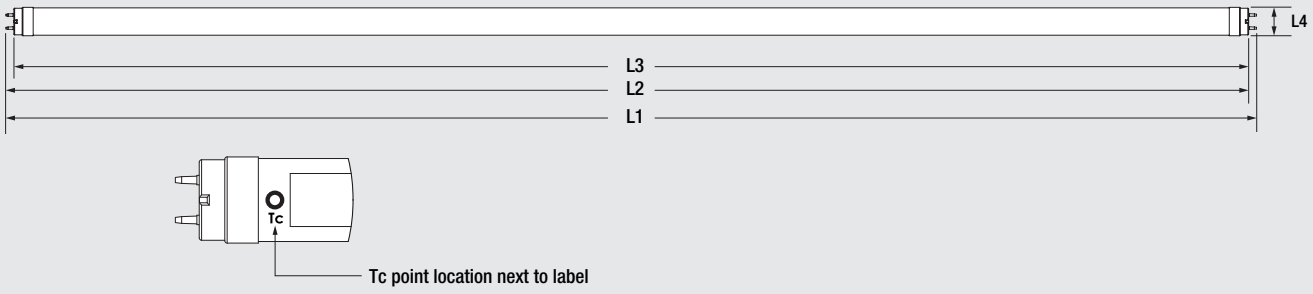
1. Due to numerous ballast designs and topologies, this lamp should be tested on existing ballasts before mass quantities are installed.
2. Not intended for use with older dedicated voltage (120V or 277V) ballasts. These ballasts have electronic components that degrade over time and may become unsuitable 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. Operating temperature range between -4°F and 113°F (-20°C and 45°C).
9. Suitable for use in dry and damp environments.
10. Maximum mounting distance between tube and ballast is 20 feet.
11. Not for use with other LED or fluorescent lamps on the same ballast.
12. Not for use with magnetic ballasts.
13. Please read all installation instructions before attempting installation.
14. For detailed warranty information, please see www.sylvania.com.

Specifications & Lighting Data

Lamp	Ballast	Current (AMPS)	System Power (W)	System Lumens (lm)	System Efficacy (lm/W)	No. of Lamps
LED8T8/L24/FP	QHE 2X32T8/UNV ISN	0.17/0.08	20	2400	120	2
LED11T8/L36/FP	QHE 2X32T8/UNV ISN	0.22/0.10	26	3300	127	2
LED13T8/L48/DIM	QHE 2X32T8/UNV ISN	0.26/0.12	32	4200	130	2
LED13T8/L48/FP/DIM	QHE 2X32T8/UNV ISN	0.26/0.12	32	4400	138	2
LED15T8/L48/FP	QHE 2X32T8/UNV ISN	0.30/0.13	35	4400	126	2

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

Assembly Diagram



Product Description	L1 End of Base Pin to End of Opposite Pin End	L2 Base Face to End of Opposite Base Pin	L3 Base Face to Base Face	L4 Bulb Outside Diameter
LED8T8/L24/FP (2ft)	23.72" ± 0.055" (602.6mm ± 1.4mm)	23.45" ± 0.05" (595.65mm ± 1.25mm)	max 23.22" (589.8mm)	1.02" ± 0.08" (25.9mm ± 2.0mm)
LED11T8/L36/FP (3ft)	35.72" ± 0.055" (907.4mm ± 1.4mm)	35.45" ± 0.05" (900.45mm ± 1.25mm)	max 35.22" (894.6mm)	1.02" ± 0.08" (25.9mm ± 2.0mm)
LED13T8/L48/DIM (4ft)	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)
LED15T8/L48/FP (4ft)	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)

Warranty

SubstiTUBE® IPS LED T8 lamps are covered by the LED T8 Lamp Limited Warranty and the QUICK 72SUB+ System Warranty, a comprehensive system warranty.
For additional details, please visit www.sylvania.com/warranty.

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