

SubstiTUBE® LED T5HE Lamps

Energy saving replacement for fluorescent T5 standard output lamps



- SYLVANIA SubstiTUBE linear LED T5HE lamps are a lightweight, energy saving alternative to replace traditional fluorescent T5 standard output lamps
- Reduced energy usage saves operational costs resulting in attractive payback time
- Easiest way to upgrade to LED technology
- The full product family offering in multiple lengths and color temperatures covers a wide variety of applications

Application Information

Applications

- Cove lighting
- Education space lighting
- General illumination
- Office lighting
- Retail space lighting

Application Notes

1. Due to numerous ballast designs and topologies, this lamp should be tested on existing ballasts before mass quantities are installed.
2. 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.
3. 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.
4. Operating temperature range between -4°F and 113°F (-20°C and 45°C).
5. Suitable for use in dry and damp environments.
6. Maximum mounting distance between tube and ballast is 20 feet.
7. Due to the programmed rapid start coil-heat circuitry, start times of lamps within a fixture may vary, but all reach maximum lumen output in less than one second.
8. Please read all installation instructions before attempting inspection, service or installation.
9. This product cannot be used with High Output Ballasts.
10. For detailed warranty information, please see www.sylvania.com.
11. For High Output applications refer to SYLVANIA SubstiTUBE® T5HO products and documentation.

Key Features & Benefits

- CCT:3000K, 3500K, 4100K & 5000K
- Available in 2 feet, 3 feet & 4 feet
- Operates on programmed rapid start T5 electronic ballasts with input voltage of 120-277V
- Long life: 50,000 hour life (L₇₀)
- 5 year limited lamp warranty (24/7 operation)
- Suitable for open fixtures
- Beam angle: 180°
- Power factor > 0.9
- CRI: 83
- G5 Miniature bipin base
- DLC listed for rebates
- Long life lowers maintenance costs
- Certified to NSF standards for food preparation and handling applications
- No UV emission
- No warm-up time, instant-on with full light output and stable lamp to lamp color
- Optimized glass optical design to mimic traditional fluorescent T5 lamp
- Suitable for dry and damp locations (cannot come in direct contact with water)
- Maximize energy savings with occupancy sensors

Product Offering

Lamp Type	Color Temperature	CRI
LED T5HE	3000K, 3500K, 4100K, 5000K	83

Specifications and Certifications



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: 167°F (75°C)

Lighting Data

Lumen Output: Up to 2100 lumens

Lumens per Watt: Up to 128 LPW

Correlated Color Temperature (CCT): 3000K, 3500K, 4100K, 5000K

Color Rendering Index (CRI): 83

Ordering Information

Item Number	Ordering Abbreviation	Length (feet)	Lamp Power (W) ¹	Lamp Lumens (lm) ¹	Color Temp.	CRI	Beam Angle (°)	Package Quantity	DLC ²
40088	LED7T5HE/L24/FG/830/SUB	2	7	1000	3000	83	180	25	N/A
40089	LED7T5HE/L24/FG/835/SUB	2	7	1000	3500	83	180	25	N/A
40090	LED7T5HE/L24/FG/841/SUB	2	7	1000	4100	83	180	25	N/A
40091	LED7T5HE/L24/FG/850/SUB	2	7	1000	5000	83	180	25	N/A
40092	LED10T5HE/L36/FG/830/SUB	3	10	1400	3000	83	180	25	N/A
40093	LED10T5HE/L36/FG/835/SUB	3	10	1400	3500	83	180	25	N/A
40094	LED10T5HE/L36/FG/841/SUB	3	10	1500	4100	83	180	25	N/A
40095	LED10T5HE/L36/FG/850/SUB	3	10	1500	5000	83	180	25	N/A
40107	LED13T5HE/L48/FG/830/SUB	4	13	2000	3000	83	180	25	Y
40108	LED13T5HE/L48/FG/835/SUB	4	13	2000	3500	83	180	25	Y
40109	LED13T5HE/L48/FG/841/SUB	4	13	2100	4100	83	180	25	Y
40110	LED13T5HE/L48/FG/850/SUB	4	13	2100	5000	83	180	25	Y

¹Lamp Power and Lamp Lumens rated on QHE 2x28T5/UNV PSN.

System power for LED13T5HE/L48/FG/8xx/SUB lamps is 16W.

²DLC does not have T5 2ft & 3ft product category.

Please contact your SYLVANIA product sales representative for additional information.

Ordering Guide

LED	13	T5	HE	/	L	48	/	FG	/	8	41	/	SUB
LED	Wattage	Lamp Type		/	Length	48 Inches	/	Frosted Glass	/	CRI 83	Color Temperature 41 = 4100K 30 = 3000K 35 = 3500K 50 = 5000K	/	SubstiTUBE® (Compatible LED T5HE for use with select programmed rapid start – T5 electronic ballasts)

Specifications & Lighting Data

Lamp	Ballast	Current (AMPS)	System Power (W)	System Lumens (lm)	System Efficacy (lm/W)	No. of Lamps
LED7T5HE/L24/FG/8XX/SUB	QHE2X28T5/UNV PSN	0.14/0.06	17	2000	118	2
LED10T5HE/L36/FG/8XX/SUB	QHE2X28T5/UNV PSN	0.19/0.08	23	3000	130	2
LED13T5HE/L48/FG/8XX/SUB	QHE2X28T5/UNV PSN	0.27/0.12	32	4200	131	2

Lamp Dimensions

Model	(A) Max. Overall Length (in/mm)	(B) MIN (in/mm)	(B) MAX (in/mm)	(C) MIN (in/mm)	(C) MAX (in/mm)	(D) MAX (in/mm)
LED7T5HE/L24/FG/8XX/SUB	22.17/563	21.54/547	21.61/549	21.8/553	21.89/556	0.67/17
LED10T5HE/L36/FG/8XX/SUB	33.98/863	33.35/847	33.43/849	33.61/853	33.71/856	0.67/17
LED13T5HE/L48/FG/8XX/SUB	45.80/1163	45.16/1147	45.24/1149	45.42/1153	45.52/1156	0.67/17



For XX:
30 = 3000K
35 = 3500K
40 = 4000K
50 = 5000K

Warranty

SubstiTUBE® LED T5HE lamps are covered by a 5 year limited warranty (24/7 operation).
For additional details, please visit www.sylvania.com/warranty.

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