SubstiTUBE® IPS LED T8

Compatible LED T8 for use with instant start and select programmed rapid start (parallel wiring) electronic T8 ballasts



Key Features & Benefits

- Available in 2, 3 and 4ft
- CCT: 3000K, 3500K, 4100K, 5000K
- Beam angle: 150°
- Compatible with instant start and select programmed rapid start (parallel-wiring) electronic T8 ballasts with input voltage of 120-277V and 347V
- THD <20%, power factor >0.90
- G13 medium bi-pin base
- Long life: 50,000 hour life (L_{70})
- 6 year limited system warranty with purchase of new QHE IS ballast (16/7 operation)
- 5 year limited lamp warranty (24/7 operation)
- Reduces energy consumption up to 35%
- No warm-up time, instant-on with full light output and stable lamp to lamp color
- Glass free, vibration and impact resistant
- No UV emission
- Suitable for dry and damp locations (cannot come in direct contact with water)
- Maximize energy savings with occupancy sensors

OSRAM SubstiTUBE IPS LED T8 lamps are an energy saving alternative, designed to replace traditional fluorescent T8 lamps. These shatter-resistant 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.)

Product Offering

Length	Color Temperature	CRI
24in., 36in. and 48in.	3000K, 3500K, 4100K, 5000K	82

Application Information

Applications

- Cove lighting
- Display case
- General illumination
- Parking garage
- Tunnels

Specifications and Certifications

Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	

Specifications

Energy Data

Ambient Operating Temperature: -4°F to 122°F (-20°C to 50°C)
EMI/RFI: FCC Title 47 CFR, Part 18, Non-Consumer

Lighting Data

Lumen Output: See specification table (output is dependent on operating ballast)
Lumens per Watt: Up to 127
Correlated Color Temperature (CCT): 3000K, 3500K, 4100K, 5000K
Color Rendering Index (CRI): 82
R9: Up to 21

Ordering Information

Item Number	Ordering Abbreviation	Length	Lamp Power (W)[1]	Lamp Lumens (lm)[1]	Color Temp.	CRI	Beam Angle (°)	Package Quantity	DLC (Y/N)
75181	LED15T8/L48/F/830/SUB/G5	4ft	15.5	2200	3000K	82	150	10	Y
75182	LED15T8/L48/F/835/SUB/G5	4ft	15.5	2200	3500K	82	150	10	Y
75183	LED15T8/L48/F/841/SUB/G5	4ft	15.5	2200	4100K	82	150	10	Y
75184	LED15T8/L48/F/850/SUB/G5	4ft	15.5	2200	5000K	82	150	10	Y
75084	LED12T8/L48/F/830/SUB/G5	4ft	12	1600	3000K	82	150	10	Y
75085	LED12T8/L48/F/835/SUB/G5	4ft	12	1600	3500K	82	150	10	Y
75086	LED12T8/L48/F/841/SUB/G5	4ft	12	1600	4100K	82	150	10	Y
75087	LED12T8/L48/F/850/SUB/G5	4ft	12	1600	5000K	82	150	10	Y
75150	LED12T8/L36/F/830/SUB/G5	3ft	12.5	1600	3000K	82	150	10	N/A
75151	LED12T8/L36/F/835/SUB/G5	3ft	12.5	1600	3500K	82	150	10	N/A
75152	LED12T8/L36/F/841/SUB/G5	3ft	12.5	1600	4100K	82	150	10	N/A
75153	LED12T8/L36/F/850/SUB/G5	3ft	12.5	1600	5000K	82	150	10	N/A
75146	LED08T8/L24/F/830/SUB/G5	2ft	8.5	1100	3000K	82	150	10	*
75147	LED08T8/L24/F/835/SUB/G5	2ft	8.5	1100	3500K	82	150	10	*
75148	LED08T8/L24/F/841/SUB/G5	2ft	8.5	1100	4100K	82	150	10	*
75149	LED08T8/L24/F/850/SUB/G5	2ft	8.5	1100	5000K	82	150	10	*

[1]Lamp Power and Lamp Lumens rated on QHE1x32T8/UNV ISN
*Lamps are in DLC approval process.
Please contact OSRAM SYLVANIA for additional information.

Ordering Guide

LED	15	T8	/	L	48	/	F	/	8	41	/	SUB	/	G5
LED	Wattage (ISN ballast)	Lamp Type		Length	48 Inches 24 Inches 36 Inches Overall Length		Frosted		CRI 82	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 - parallel wiring -T8 electronic ballasts)		Generation

Application Information

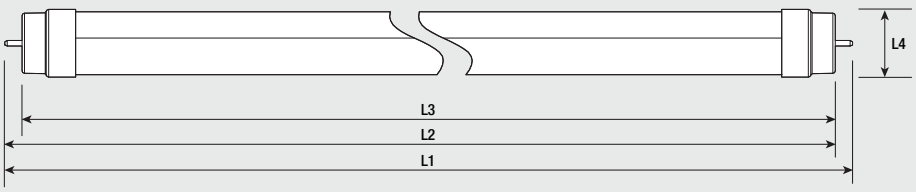
Application Notes

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. Operating temperature range between -4°F and 122°F (-20°C and 50°C).
7. Suitable for use in dry and damp environments.
8. Maximum mounting distance between tube and ballast is 20 feet.
9. NSF certified Food Zone (Non-Contact), Splash Zone and Non-Food Zone.
10. Please read all installation instructions before attempting installation.
11. For detailed warranty information, please see www.osram-americas.com

Specifications & Lighting Data

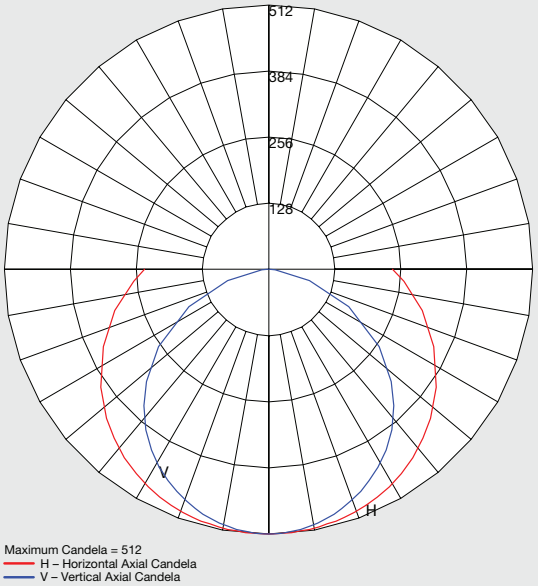
Lamp	Ballast	Current (AMPS)	System Power (W)	System Lumens (lm)	System Efficacy (lm/W)	No. of Lamps
LED15T8/L48	QHE1X32T8/UNV ISL	0.13 / 0.06	15.0	1,900	127	1
	QHE2X32T8/UNV ISL	0.26 / 0.12	30.0	3,800	127	2
	QHE3X32T8/UNV ISL	0.38 / 0.17	45.0	5,700	127	3
	QHE4X32T8/UNV ISL	0.51 / 0.23	60.0	7,600	127	4
	QHE1X32T8/UNV ISN	0.15 / 0.07	18.0	2,200	122	1
	QHE2X32T8/UNV ISN	0.30 / 0.13	36.0	4,400	122	2
	QHE3X32T8/UNV ISN	0.43 / 0.19	52.5	6,400	122	3
	QHE4X32T8/UNV ISN	0.57 / 0.26	69.5	8,500	122	4
	QHE1X32T8/UNV ISH	0.20 / 0.09	23.0	2,800	122	1
	QHE2X32T8/UNV ISH	0.40 / 0.19	47.5	5,800	122	2
	QHE3X32T8/UNV ISH	0.57 / 0.27	66.5	8,100	122	3
	QHE4X32T8/UNV ISH	0.77 / 0.34	91.0	11,000	121	4
LED12T8/L48	QHE1X32T8/UNV ISL	0.11 / 0.05	12.5	1,400	112	1
	QHE2X32T8/UNV ISL	0.22 / 0.10	26.0	2,900	112	2
	QHE3X32T8/UNV ISL	0.34 / 0.15	40.0	4,500	113	3
	QHE4X32T8/UNV ISL	0.44 / 0.20	52.0	5,800	112	4
	QHE1X32T8/UNV ISN	0.12 / 0.06	14.5	1,600	110	1
	QHE2X32T8/UNV ISN	0.25 / 0.11	29.0	3,200	110	2
	QHE3X32T8/UNV ISN	0.36 / 0.16	42.0	4,600	110	3
	QHE4X32T8/UNV ISN	0.48 / 0.21	56.5	6,200	110	4
	QHE1X32T8/UNV ISH	0.15 / 0.07	17.5	1,800	103	1
	QHE2X32T8/UNV ISH	0.30 / 0.13	35.0	3,600	103	2
	QHE3X32T8/UNV ISH	0.90 / 0.19	51.5	5,300	103	3
	QHE4X32T8/UNV ISH	0.60 / 0.27	70.0	7,200	103	4
LED12T8/L36	QHE1X32T8/UNV ISL	0.11 / 0.05	12.0	1350	113	1
	QHE2X32T8/UNV ISL	0.22 / 0.10	25.5	2900	114	2
	QHE3X32T8/UNV ISL	0.34 / 0.15	39.5	4500	114	3
	QHE4X32T8/UNV ISL	0.44 / 0.20	51.5	5850	114	4
	QHE1X32T8/UNV ISN	0.13 / 0.06	14.5	1650	114	1
	QHE2X32T8/UNV ISN	0.24 / 0.11	28.0	3200	114	2
	QHE3X32T8/UNV ISN	0.35 / 0.16	41.0	4650	113	3
	QHE4X32T8/UNV ISN	0.48 / 0.21	56.0	6300	113	4
	QHE1X32T8/UNV ISH	0.15 / 0.07	17.0	1800	106	1
	QHE2X32T8/UNV ISH	0.30 / 0.14	34.0	3600	106	2
	QHE3X32T8/UNV ISH	0.34 / 0.16	51.0	5400	106	3
LED08T8/L24	QHE1X32T8/UNV ISL	0.08 / 0.04	9.5	1050	111	1
	QHE2X32T8/UNV ISL	0.16 / 0.08	19.0	2100	111	2
	QHE3X32T8/UNV ISL	0.24 / 0.11	28.5	3150	111	3
	QHE4X32T8/UNV ISL	0.32 / 0.14	38.0	4200	111	4
	QHE1X32T8/UNV ISN	0.09 / 0.04	10.0	1100	110	1
	QHE2X32T8/UNV ISN	0.17 / 0.08	20.0	2200	110	2
	QHE3X32T8/UNV ISN	0.26 / 0.11	30.0	3300	110	3
	QHE4X32T8/UNV ISN	0.34 / 0.16	39.5	4350	110	4
	QHE1X32T8/UNV ISH	0.11 / 0.05	12.5	1350	108	1
	QHE2X32T8/UNV ISH	0.21 / 0.10	24.5	2600	106	2
	QHE3X32T8/UNV ISH	0.29 / 0.14	34.0	3600	106	3

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
LED15T8L48 (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)

Photometric Information



Total Lumen Distribution

Zone	Lumens
0-30	404
0-40	671
0-60	1256
0-90	1930
60-90	902
0-180	2382

Photometric information for LED15T8L48F/835/SUB/G5

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.osram-americas.com/warranty

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