

SubstiTUBE® IS LED T8



Compatible LED T8 for use with instant start electronic T8 ballasts



Key Features & Benefits

- Lumen package:
 - Up to 1600 lumens on ISL
 - Up to 2000 lumens on ISN
 - Up to 2500 lumens on ISH
- CCT: 3000K, 3500K, 4100K, 5000K
- Beam angle: 150°
- Compatible with instant start electronic T8 ballasts with input voltage of 120-277V and 347V
- THD <20%, power factor >0.90
- G13 medium bi-pin base; sockets must be shunted
- Long life: 50,000 hour life (L70)
- 5 year warranty (24 hour burn cycle)
- 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 IS LED T8 lamps are an energy saving alternative, designed to replace traditional fluorescent T8 lamps. These shatterproof LED T8 lamps contain no mercury, provide instant light and a uniform light distribution.

Engineered to operate on existing instant start electronic T8 ballasts, these lamps minimize labor and recycling costs.

Because the SubstiTUBE IS LED T8 is not affected by switching cycles, the use of occupancy or vacancy sensors can now be installed with the existing instant start ballasts for optimal energy savings.

Product Offering

Length	Color Temperature	CRI
48in.	3000K, 3500K, 4100K, 5000K	>82

Application Information

Applications

- Cooler/freezer case
- 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 below (output is dependent on operating ballast)

Lumens per Watt: Up to 109

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

Color Rendering Index (CRI): >82

R9: Up to 21

Ordering Information

Item Number	Ordering Abbreviation	Color Temp.	CRI	Beam Angle	Package Quantity	DLC (Y/N)
73312	LED19T8/L48/F/830/SUB	3000K	82	150	9	Y
73313	LED19T8/L48/F/835/SUB	3500K	83	150	9	Y
73314	LED19T8/L48/F/841/SUB	4100K	85	150	9	Y
73315	LED19T8/L48/F/850/SUB	5000K	85	150	9	Y

Specifications & Lighting Data

Ballast	Current (AMPS)	Input Power (W)	Input Lumens (lm)	System Efficacy (lm/W)	No. of Lamps
QHE1x32T8/UNV ISL	0.13/0.06	15	1600	107	1
QHE2x32T8/UNV ISL	0.25/0.11	30	3300	110	2
QHE3x32T8/UNV ISL	0.38/0.17	46/45	4900	107/109	3
QHE4x32T8/UNV ISL	0.50/0.22	60/59	6400	107/109	4
QHE1x32T8/UNV ISN	0.16/0.07	19	2000	105	1
QHE2x32T8/UNV ISN	0.30/0.13	36	3900	108	2
QHE3x32T8/UNV ISN	0.43/0.19	51	5400	106	3
QHE4x32T8/UNV ISN	0.57/0.25	68	7200	106	4
QHE1x32T8/UNV ISH	0.21/0.09	26	2500	96	1
QHE2x32T8/UNV ISH	0.45/0.20	57	5300	93	2
QHE3x32T8/UNV ISH	0.64/0.28	77/76	7500	97/99	3

Preliminary specifications. Please contact OSRAM SYLVANIA for additional information.

Ordering Guide

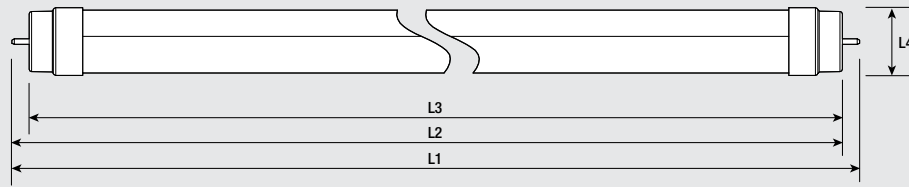
LED	19	T8	/	L	48	/	F	/	8	35	/	SUB
LED	Wattage (ISN ballast)	Lamp Type		Length	48 Inches Overall Length		Frosted Lens		CRI 83	Color Temperature 35 = 3500K		SubstiTUBE® IS (Compatible LED T8 for use with instant start T8 electronic ballasts)

Application Information

Application Notes

1. Operating temperature range between -4°F and 122°F (-20°C and 50°C).
2. Suitable for use in dry and damp environments.
3. Not intended for use with emergency light fixtures or exit lights.
4. Maximum mounting distance between tube and driver is 20 feet.
5. Under certain conditions, after powering the lighting system off, the lamps may restart momentarily then turn off due to residual capacitance; this does not affect product life.
6. Not compatible with QHE4x32T8/UNV ISH ballasts.
7. For detailed warranty information, please see www.osram-america.com

Assembly Diagram



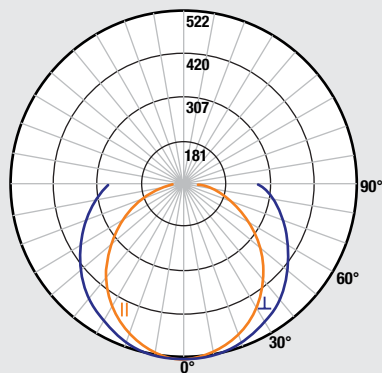
Product Description	L1 End of Base Pin to End of Opposite Pin End	L2 Base Face to End of Opposite Base Pin	L3 Base Face to Base Face	L4 Bulb Outside Diameter
LED19T8L48 (4ft)	47.725" ± 0.055" (1212.2mm ± 1.4mm)	47.45" ± 0.05" (1205.25mm ± 1.25mm)	max 47.22" (1199.4mm)	1.02" ± 0.08" (25.9mm ± 2.0mm)

Photometric Information

Illuminance at a Distance

	Center Beam Illuminance		Beam Width	
	Along	Across ⊥	Along	Across ⊥
2.0 ft	130.4 fc	4.9 ft	11.1 ft	
4.0 ft	32.6 fc	9.8 ft	22.3 ft	
6.0 ft	14.5 fc	14.6 ft	33.4 ft	
8.0 ft	8.2 fc	19.5 ft	44.6 ft	

Polar Chart



Maximum Intensity: 522 cd
 — Across ⊥
 — Along ||

Total Lumen Distribution

Zone	Lumens	% Fixture
0-30	406	21
0-40	664	34
0-60	1192	61
0-90	1710	87
60-90	518	26
0-180	1965	100

Photometric information for LED19T8L48F/835/SUB

Warranty

SubstiTUBE® IS LED T8 lamps are covered by the LED T8 System Limited Warranty, a comprehensive system warranty. For additional details, please visit www.osram-america.com/warranty

OSRAM

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