



LEMNIS TUBE LIGHTS

TL2 Series



One of the Best LED Tubes in the World

Superior Performance

High CRI >94
SP Ratio up to 2.2
High Efficacy 110 lm/W

Long Lifetime

50,000 Hrs L85B15

Range of CCT

Nice warm light 3500K,
4000K and clear cool light
5000K, 6500K

Energy Savings

Energy Efficient with up to
70% energy savings

Environment Friendly

Contains no environment
hazardous substance
Ultraviolet Free
Recyclable glass housing

Lemnis TL2 Series LED tubes feature a frosted or painted glass design with an exceptionally high CRI of >94 . It is available in lengths of 600, 1200, and 1500 mm. Lemnis TL2 Series LED tubes are perfect for new installations and direct replacement of traditional T8 fluorescent tubes.

PRODUCT CODES

TL2 600 3500K - 2R3KEB

TL2 600 4000K - 2R4KEB

TL2 600 5000K - 2R2KEB

TL2 1200 3500K - 2R3MEB

TL2 1200 4000K - 2R4MEB

TL2 1200 5000K - 2R2MEB

TL2 1200 6500K - 2RCMEB

TL2 1500 3500K - 2R3NEB

TL2 1500 4000K - 2R4NEB

TL2 1500 5000K - 2R2NEB

Disclaimer: The pictures of LED tube lights may not be representative of the actual product. Lemnis reserves the right to make amendments and changes to the specifications as and when necessary.

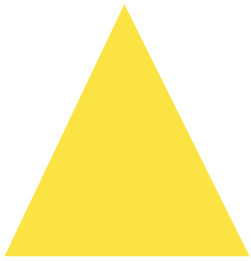
TL2 v1.0

Product Specification

TL2 Series	Model	LEMNIS TL2 600	LEMNIS TL2 1200	LEMNIS TL2 1500
	Product Name	2R3KEB / 2R4KEB / 2R2KEB	2R3MEB / 2R4MEB / 2R2MEB / 2RCMEB	2R3NEB / 2R4NEB / 2R2NEB
	Correlated Colour Temperature	3500K / 4000K / 5000K	3500K / 4000K / 5000K / 6500K	3500K / 4000K / 5000K
Electrical Spec	Rated Power (W)	9	18	22.5
	Rated voltage (Vac)	230	230	230
	Voltage range (Vac)	198~264	198~264	198~264
	Rated Current (mA, @230Vac)	44	88	109
	Power consumption (W, @230Vac)	9.0	18.0	22.5
	Frequency (Hz)	50 / 60	50 / 60	50 / 60
	Power Factor (w and w/o EM)	0.9	0.9	0.9
	Protection against over voltage	Yes (by fuse)	Yes (by fuse)	Yes (by fuse)
Optical Spec	Lumen output (lm)	910 / 970 / 1025	1820/1930/2050/2050	2330/2450/2550
	Colour rendering index (CRI)	>94	>94	>94
	Efficacy (lm/W, @5000K CCT)	>110	>110	>110
	Beam Angle (°)	165	165	165
	Dimmable	no	no	no
	SP Ratio	1.8/1.9/2.0	1.8/1.9/2.0/2.2	1.8/1.9/2.0
	EVE*	1460/1620/1780	2910/3225/3570/3945	3730/4,095/4440
Environmental Specs	Operating temperature(°C)	-20°C to 40°C	-20°C to 40°C	-20°C to 40°C
	Storage temperature (°C)	-30°C to 55°C	-30°C to 55°C	-30°C to 55°C
	Operating Humidity (%)	10 % to 80 %	10 % to 80 %	10 % to 80 %
	Life span (h) L85B15	50,000	50,000	50,000
Mechanical Specs	Housing + heatsink material	Painted glass tube + aluminium	Painted glass tube + aluminium	Painted glass tube + aluminium
	IP rating	IP20	IP20	IP20
	Length (mm), length limit per IEC standard	600	1,200	1,500
	Diameter (mm)	NA	NA	NA
	Weight (Kg)	0.2	0.39	0.47
	Lamp Base	G13	G13	G13
	Standards and Approbations	Safety requirements - general	EN61347-1 EN60598-1	EN61347-1 EN60598-1
Particular requirements - AC/DC converter for LED		EN61347-2-13	EN61347-2-13	EN61347-2-13
Safety requirements - LED module		EN62031	EN62031	EN62031
Safety -Photobiological		EN62471	EN62471	EN62471
Safety - Double capped fluorescent lamp		EN61195	EN61195	EN61195
EMC - RFI		CISPR-15	CISPR-15	CISPR-15
EMC - Immunity		EN61547	EN61547	EN61547
CE Certification		CE	CE	CE
RoHS		Yes	Yes	Yes
Approbation marking		CE, RoHS, recycle bin, TISI, C-Tick	CE, RoHS, recycle bin, TISI, C-Tick	CE, RoHS, recycle bin, TISI, C-Tick

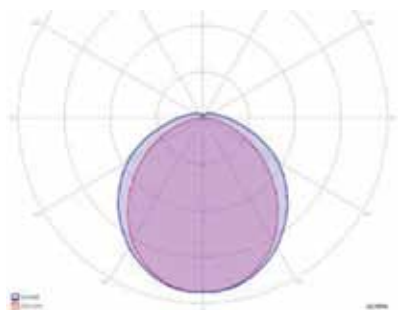
*Enhanced Visual Efficiency (EVE) is based on recommendation IES TM 24-13 which is calculated as follows: Photopic lumen x S/P Ratio^0.8

Isolux Table (TL2 1200 5000K)

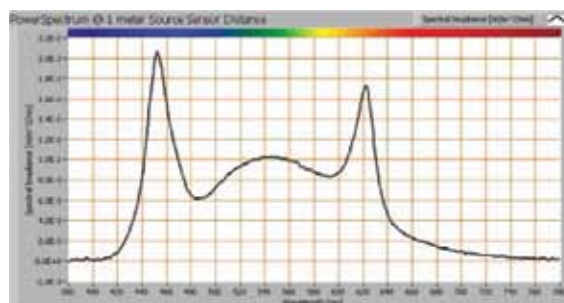
m.	50%		C0-180: 120° C90-270: 101°	E (lux)	Luminaire Efficacy	
	C0-180	C90-270			102 (lumen per watt)	Half-peak diam C ₀₋₁₈₀
0.25	0.86	0.61		10501	3.45 x diameter (m)	
0.5	1.73	1.22		2625	Half-peak diam C ₉₀₋₂₇₀	
1	3.45	2.44		656	2.44 x diameter (m)	
1.5	5.18	3.66		292	Illuminance	
3	10.35	7.31		73	656 / distance ² (lux)	
4	13.8	9.75		41	Total Output	
5	17.25	12.19		26	2123 (lumen)	

E (lux) values are not accurate, when within 5 x 1036 mm (maximal luminous size, eventually diagonally measured)= 5180 mm. Within this distance from the lamp, the measured lux values will be less than the computed values in this overview as the measurements are then within the near field of the lamp.

Polar Curve (TL2 1200 5000K)



Spectral Power Distribution (TL2 1200 5000K)



LOGISTICS INFORMATION

Lemnis TL2 600

Type	Single box	Carton Box	Pallet A	20 ft Container	40 ft Container
Quantity	9	36	1152	13824	32256
Dimensions (mm)	670x107x107	730 x 270 x 250	1540 x 1142 x 1125	5898 x 2352 x 2393	12032 x 2352 x 2340
Gross Weight (Kg)	2.2	9.6	350	4205	9812

Lemnis TL2 1200

Type	Carton Box	Pallet A	Pallet B	20 ft Container	40 ft Container
Quantity	25	375	500	7000	14000
Dimensions (mm)	1290 x 223 x 277	1370 x 1142 x 956	1370 x 1142 x 1233	5898 x 2352 x 2393	12032 x 2352 x 2340
Gross Weight (Kg)	13.3	350	308	4402	8805

Lemnis TL2 1500

Type	Carton Box	Pallet A	Pallet B	20 ft Container	40 ft Container
Quantity	25	375	500	5250	12250
Dimensions (mm)	1600 x 223 x 277	1680 x 1142 x 956	1680 x 1142 x 1233	5898 x 2352 x 2393	12032 x 2352 x 2340
Gross Weight (Kg)	15	275	350	3744	8736

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