

TUBE LIGHTS | TL3F Spectral Enhanced Series



OVERVIEW

Ellipz TL3F Series LED tubes feature a 1200mm length of painted glass design with an exceptionally high luminous flux 2300 lumen and good color sensation with CRI >90, and available in both 5000K and 6500K CCT. Lemnis TL3F Series LED tubes are perfect for new installations to substitute traditional T8 fluorescent tubes.



KEY PRODUCT BENEFITS

- CRI>90
- High S/P ratio up to 2.2
- Extremely energy efficient at >105 lm/W
- Low heat generation
- Guarantee of 50,000 lifetime hours / L85B15



KEY FINANCIAL BENEFITS

- ROI is less than 1 year for 24/7 applications
- Leasing program where you can get free product in exchange for sharing your savings.
- Lower net expenses



ENVIRONMENTAL SENSIBILITY

- Energy savings over 70%
- Contains no hazardous substances
- Ultraviolet Free
- Recycling program for replaced bulbs

INNOVATION

We are an innovation company first, and a lighting company second. Since 2005, we have been perfecting LED technology, manufacturing, and successfully installing our products worldwide, first as Lemnis Lighting and now as Ellipz Lighting.

ELLIPZ LUMINAIRES

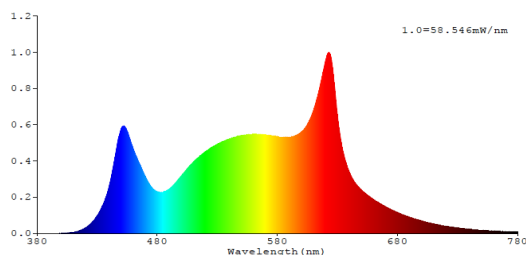
We combine knowledge of visual perception with the newest LED and lighting technologies. The light sources in Ellipz luminaires are red and single-phosphor cyan LEDs. With this proprietary concept, an optimal light spectrum is developed so that excellent vision is obtained with little energy. The basic principle is that a higher S/P ratio for maximum energy savings results in lighting with high Equivalent Visual Efficiency (EVE).

BETTER VISIBILITY WITH LESS ENERGY

Ellipz Lighting has developed a pioneering concept in LED lighting for the illumination of parking areas, outdoor areas and public spaces. Based on our patented technology we create light that perfectly matches the sensitivity of the human eye for optimal functioning while indoor and during nighttime conditions.

PRODUCT SPECS | TL3F Spectral Enhanced Series

* Equivalent Visual Efficiency (EVE) is based on IES TM 24-13 recommendation which is calculated as follows: $EVE = \text{Photopic lumen} \times (\text{S/P Ratio})^{0.8}$



TL3F | 1200 mm
 5000K (23P2ME8)
 6500K (23P CME80)

Electrical Specs

Rated Power (W)	21.5
Rated voltage (Vac)	220-240
Voltage range (Vac)	198~264
Rated Current (mA, @230Vac/50Hz)	95
Power Consumption (W, @230Vac)	21.5
Frequency (Hz)	50/60
THD (% , @230Vac/50Hz)	<13%
Power Factor	0.96
Protection against over voltage	YES (by fuse)

Optical Specs

Lumen output (lm)	2300/2300
Color Rendering Index (CRI)	94
Efficacy (lm/W, @5000K CCT)	>105
Beam Angle (°)	120°
S/P Ratio	2.0/2.2
EVE = lm x (SP) ^{0.80} (according to TM24-13)	4000/4320
Dimmable	NO

Environmental Specs

Operating Temperature [°C]	-20°C to 40°C
Storage Temperature [°C]	-30°C to 55°C
Operating Humidity [%]	10 % to 80 %
Life Span (h) L85B15	50,000

Mechanical Specs

Housing + heatsink material	Painted glass tube + aluminium
IP Rating	IP20
Length (mm), length limit per IEC standard	1,200
Diameter (mm)	26
Weight (Kg)	0.39
Lamp Base	G13

Compliance

Certification	CE (LVD, EMC, IEC62471)
RoHS	Yes

LOGISTICS DATA | TL3F Spectral Enhanced Series

Type	Single Box	Carton box	*Pallet A	Pallet B	20ft Container	40ft Container
Quantity	-	25	375	500	7000	14000
Dimensions (mm)	-	1290x223x277	1370x1142x956	1370x1142x1233	5898x2352x2393	12032x2352x2340
Gross Weight (Kg)	-	13.3	242	308	4402	8805

*The A-type Pallet is suitable for upper layer if case of pallet stacking is required.