



VALTAVALO® E3 LED TUBE

PROFESSIONAL QUALITY LED TUBE FOR GENERAL LIGHTING CONDITIONS

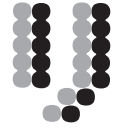
LIFETIME OF 64,000 HOURS - THE BEST IN THE PROFESSIONAL CLASS

Cost-efficient choice for professionals

Valtavalo® E3 LED tube provides significant savings compared to conventional fluorescent tube - with it's 64,000 hr lifetime and competitive pricing it ensures short return on investment. It offers a cost-effective solution for general lighting, for example, in offices and other standard business facilities. E3 ensures a quick and easy way to upgrade the existing lighting system to the latest LED technology without having to replace the entire luminaires.



Valtavalo E3 generates uniform, soft, comfortable light and imitates perfectly the conventional fluorescent tube.



valtavalo

WHY TO CHOOSE E3

PREMIUM QUALITY

- 64,000 hrs lifetime
- Fully automated production
- 5-year warranty

UNIQUE DESIGN

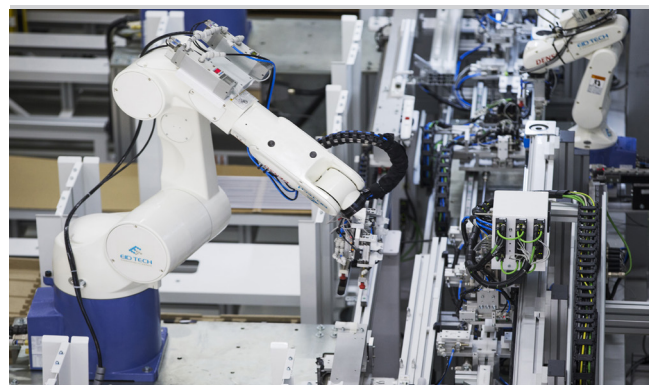
- Designed and made in Finland
- Uniform white light
- Wide 240° light distribution

SIGNIFICANT SAVINGS

- Cost-efficient
- Significant energy savings
- Short payback period

MADE IN FINLAND

E3 LED tubes are designed and manufactured in Finland. They are manufactured in a completely new dedicated, automated production line in Valtavalo's own factory. In order to ensure uniform quality and reliability, each LED tube goes through an automatic and multi-stage electric and light property test. Thus, our clients can be assured of the excellence of the products. E3 LED tubes are made according to the LED tube standard EN 62776. Valtavalo operations are also certified according to the quality management standard systems ISO 9001 and ISO 14001.



**LED TUBE QUALITY SEGMENTS:
find the right product
for your purpose**

Consumer quality LED tubes

- Average lifetime of 15,000 - 30,000 hrs
- Low lumen output (approx. 2000 lm / 150 cm)
- Consumer quality retail products

Professional quality LED tubes -> Valtavalo E3

- Average lifetime of 30,000 - 75,000 hrs
- Operating hours 8-10 hrs per day
- Higher lumen output (approx. 3000 lm / 150 cm)
- For general lighting conditions, for open fixtures

Industrial quality LED tubes -> Valtavalo G4

- Average lifetime of 75,000 - 125,000 hrs
- Operating hours up to 24 hrs per day
- Especially for demanding conditions
- Closed fixtures, high ceilings

**QUICK, SIMPLE AND SAFE REPLACEMENT
OF FLUORESCENT TUBES**



Retrofit directly into G13 fixtures with magnetic ballast or fixtures without ballast and with direct contact to the mains. Rebuild and new installations with Valtavalo LED tube fixtures.

SEGMENT-LEADING QUALITY



Uniform premium quality and reliability are ensured by automatic manufacturing and comprehensive testing during manufacturing process. Valtavalo manufacturing process is certified according to the quality management standard ISO 9001.

EXCELLENT LIGHT QUALITY



E3 LED tube produces uniform white light with high colour rendering ($Ra > 80$ and $Ra > 90$) and minimum glare. This uniform, soft, comfortable light is suitable for all environments where people have to be able to see well. Due to wide light distribution (240°) Valtavalo® E3 is ideal for normal ceiling heights.

ENVIRONMENTALLY FRIENDLY



E3 LED tubes do not contain mercury, lead or any other toxins. Manufacturing in an energy-efficient production plant in Finland as well as environmentally friendly products reduce carbon footprint. Valtavalo's operations are certified according to the environmental management system standard ISO 14001.

SAFER LIGHTING



Valtavalo E3 complies with the safety standard for double-capped LED lamps IEC62776. The standard safeguards that the change from fluorescent lamp to LED lamp is carried out safely. E3 generates minimum amount of heat and no UV light.

MADE IN FINLAND



Manufactured in Valtavalo's own production plant in Kajaani, Finland, in a completely new dedicated production line and using the latest automation technology.

GREAT VALUE FOR MONEY



A cost-effective solution for lighting in general operating conditions: reduced operational costs due to low energy consumption and low maintenance costs. A quick and easy way to upgrade the existing lighting system to the latest LED technology without having to replace the entire luminaires.

COMPREHENSIVE TESTING QUARANTEES QUALITY



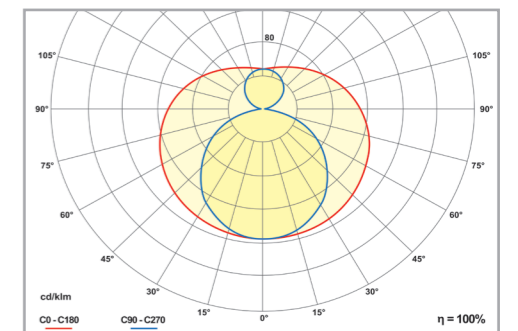
Each LED tube is subjected to an automated test of, among other things, its luminous intensity, colour temperature, colour rendering, spectrum, power factor, harmonic distortion and power consumption. The test data on every item can be traced with unique serial number of the products.

LONG LIFESPAN



Lifetime of E3 is 64,000 hours ($L_{70}B_{50} / T_a 25^\circ C$) - longer than of other competing LED tubes in the product segment and compatible with LED tube standard EN 62776. It is also 5 times longer than of a conventional fluorescent tube. Valtavalo E3 LED tubes come with a 5-year warranty. Under normal conditions (tube ambient temperature $< 30^\circ C$) Valtavalo warranty is not restricted by annual usage hours or the type of luminaires used.

LIGHT DISTRIBUTION



E3 150cm 4000K Frosted

- Ultra wide light distribution
- Beam angle of 240°
 - Low glare
- Uniform white light



VALTAVALLO® E3 LED TUBE

ON A MISSION TO PROVIDE THE MOST COST-EFFICIENT LIGHTING SOLUTIONS ON THE MARKET

TECHNICAL SPECIFICATIONS FOR 4000K

MODEL FROSTED	VV08F045E3-840	VV10F060E3-840	VV15F090E3-840	VV20F120E3-840	VV25F150E3-840
Length	45 cm	60 cm	90 cm	120 cm	150 cm
Power	8 W	10 W	15 W	20 W	25 W
Weight	110 g	130 g	170 g	210 g	250 g
Energy Efficiency Class	A++	A++	A++	A++	A++
Rated Luminous Flux	1 050 lm	1 300 lm	2 000 lm	2 650 lm	3 300 lm
Colour Temperature	4 000 K Available also standard colour temperatures of 3000K, 5000K and 6500K.				
Socket Type	G13				
Input Voltage	230 V AC, 50/60 Hz; 213 V DC, 0 Hz				
Power Factor	0.93				
Harmonic Distortion (THD)	25%				
Colour Rendering Index (CRI)	Ra > 80. Available also Ra > 90.				
Colour Consistency	MacAdam 3 SDCM				
Beam Angle	240°				
Average Lifespan L ₇₀ B ₅₀ / T _a 25 °C	64,000 hours				
Warranty	Unlimited 5-year warranty up to +30°C				
Operating Temperature	-20 °C – +40 °C				
Operating Humidity	< 90%				
Protection Class	IP 20				
Housing & Cover Material	Glass, end caps of fire resistant PC-plastic				
Markings	CE, ENEC, CB/FI				
Additional info	Please contact Valtavallo sales or your local distributor for other colour temperatures or customised solutions.				



Founded in 2008, Valtavallo Ltd. is a Finnish company developing, manufacturing and supplying highest quality, energy-efficient LED lighting products. We improve cost-efficiency and competitiveness of our customers by providing energy-efficient lighting solutions.



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