



VALTAVALO® E4 LED TUBE

FLICKER-FREE LIGHT WITH HIGH EFFICIENCY FOR PROFESSIONAL USE

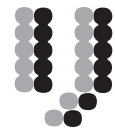
LED tube with traditional glass frame and shatterproof plastic coating

Flicker-free light with even higher efficiency

The E4 LED tube, the latest addition to the Valtavalo® E series, provides flicker-free light with high efficiency. It offers a top performance and cost-effective solution for applications in general operating conditions, for example, in offices and other standard business facilities. Its shatterproof glass frame also makes it ideal in locations where the breakage of a light cannot interfere with the use of space. Due to its 64,000 hr lifetime and competitive pricing it offers great value for money and ensures short return on investment.



Valtavalo E4 generates flicker-free, high quality, white light and imitates perfectly the conventional fluorescent tube.



valtavalo

WHY TO CHOOSE E4

GREAT VALUE FOR MONEY

- Cost-efficient
- Flicker-free light
- High efficiency

PREMIUM QUALITY

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

SAFE LIGHTING

- Complies with safety standard IEC62776
- Shatterproof coating
- Quick and easy to install

IMPROVED WELL-BEING AND PRODUCTIVITY WITH FLICKER-FREE LIGHTING

The flickering of electric lights has been found to have a negative effect on the wellbeing and health of people causing headaches and stress on the brain and making it more difficult to focus on work. Flicker may be visible, but, even if it was invisible to the human eye, it would not go unnoticed by the retina and brain. As a result, flicker-free light plays a significant role in improving wellbeing at work as well as in preventing occupational accidents particularly in industrial fields. The flicker percentage of a typical LED tube is 30 %, whereas the Valtavalo E4 LED tube provides non-flickering, excellent quality light with a flicker percentage of less than 3%.



FIND THE RIGHT PRODUCT FOR YOUR PURPOSE

Valtavallo E4 LED tube

- Lifetime of 64,000 hrs, flicker-free light
- Glass tube with shatterproof coating
- Ideal for general lighting, conditions with operating hours of 8-10 hrs per day and for open fixtures

Valtavallo G5 LED tube

- Lifetime of 125,000 hrs
- Up to 180 lm/W
- Ideal for operating hours up to 24 hrs per day, closed fixtures, high ceilings

Valtavallo High CRI – new product

- High colour rendering combined with high efficacy
- High efficacy: 145 lm/W
- Flicker-free light: flicker percentage < 1 %

Valtavallo Full Spectrum – new product

- Applications requiring accurate or consistent color appearance
- Pure, natural, flicker-free light
- CRI 97-98,5

Valtavallo Dimmable – update

- Lumen output up to 4000 lm
- When conventional lighting control is not enough
- Compatible with trailing Edge dimmers, SwitchDim or DALI control gear

Valtavallo High Temp

- Wide operating temperature range (up to +70°C)
- Especially for demanding conditions
- 5 year warranty even at high temperatures

Valtavallo High Power

- Lumen output up to 5900 lm
- Lifetime of 83,000 hrs
- Especially for high ceilings and for spaces where there is a need for a lot of high quality light



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 Valtavallo LED tube fixtures. Valtavallo LED tubes are compatible with luminaires containing magnetic ballast and also suitable for direct mains operation.



COMPREHENSIVE TESTING GUARANTEES QUALITY

Each LED tube is subjected to rigorous automated testing of 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 the help of the unique serial number on the product.



LONG LIFESPAN

Lifetime of E4 is 64,000 hours ($L_{70B_{50}} / T_a 25^\circ C$) – longer than of other competing LED tubes in the same product segment and compatible with LED tube standard EN62776. It is also 5 times longer than that of a conventional fluorescent tube.

ENVIRONMENTALLY FRIENDLY

E4 LED tubes do not contain mercury, lead or any other toxins. Manufacturing in an energy-efficient production plant in Finland reduces the carbon footprint of our environmentally friendly products. Valtavallo's operations are certified according to the environmental management system standard ISO14001.

SAFE LIGHTING

Valtavallo E4 complies with the safety standard for double-capped LED lamps IEC62776, which safeguards that the change from fluorescent tube to LED tube is carried out safely. The glass tube is shatterproofed with a plastic coating. E4 gives off very little heat and does not emit any UV light.

MADE IN FINLAND

Manufactured in Valtavallo's own factory in Kajaani, Finland according to the international standard EN62776. In the future upgrading the lighting will be as simple as replacing the old tubes with new ones - without having to replace the entire luminaire.

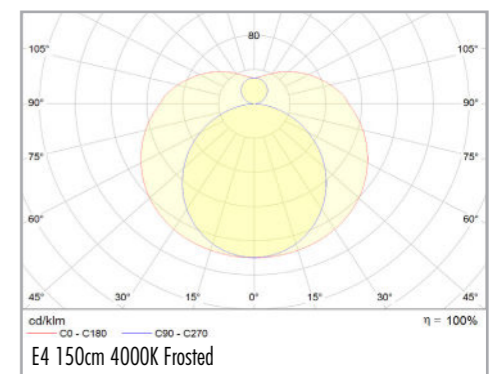
GREAT VALUE FOR MONEY

A cost-effective solution for lighting in general operating conditions: reduced operational costs due to low energy consumption and low maintenance costs.

EXCELLENT LIGHT QUALITY

Flicker-free light has been shown to have a positive impact on the wellbeing and health of people, whereas the flickering of electric lights can cause headache, brain stress and restlessness. E4 LED tube generates non-flickering light with flicker percentage of < 3 %, whereas flicker percentage of a typical LED tube is 30 %.

LIGHT DISTRIBUTION



- Beam angle of 200°
- Low glare
- Uniform white light



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TECHNICAL SPECIFICATIONS

MODEL FROSTED	VV08F045E4-840	VV10F060E4-840	VV19F120E4-840	VV24F150E4-840
Length	45 cm	60 cm	120 cm	150 cm
Power	8 W	10 W	19 W	24 W
Weight	110 g	130 g	210 g	250 g
Energy efficiency class*	D	D	D	D
Rated luminous flux	1 200 lm	1 500 lm	3 000 lm	3 800 lm
Colour temperature	4000 K			
Socket type	G13			
Input voltage	230 V AC, 50/60 Hz			
Power factor	0.9			
Harmonic distortion (THD)	15 %			
Colour rendering index (CRI)	Ra > 80			
Colour consistency	MacAdam 3 SDCM			
Beam angle	200°			
Flicker percentage	3 %			
Flicker (Pst LM)*	0,2			
Stroboscopic effect (SVM)*	0,1			
Average lifespan L ₇₀ B ₅₀ / T ₀ 25 °C	64,000 hours			
Warranty	5 years			
Operating temperature	-20 °C – +40 °C			
Operating humidity	< 90 %			
Protection class	IP 20			
Material	Plastic coated glass, PC-plastic (fire resistance class of plastics UL94-V0)			
Markings	CE			

*The EU Commission Regulation, which entered into force in September 2021, includes new requirements for the flicker (Pst LM) and stroboscopic effect (SVM) of light sources. The directive's requirements are Pst LM ≤ 1.0 and SVM ≤ 0.4. Energy efficiency classes have also been rescaled in the new Energy Regulation. For example, a light source previously classified as A++ is now classified as D.



Valtavallo Ltd is a Finnish company, specialising in ultra-long lifetime LED-lighting solutions with replaceable light sources. In-house R&D and manufacturing in Finland guarantees the best possible quality of the products. Lifetime value and exceptional quality provide a leading cost of ownership lighting solutions to quality-conscious customers.



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