PRODUCT DATASHEET
LED TUBE T8 UNIVERSAL P 600 mm 7.5W 840

LED TUBE T8 UNIVERSAL P | LED tubes for electronic control gear (ECG), electromagnetic control gear (CCG) and AC mains, shatterproof

PERFOR-
MANCE
CLASS

Areas of application

- General illumination within ambient temperatures from -20…+45 °C
- Illumination of production areas
- Traffic zones and corridors
- Supermarkets and department stores
- Industry

Product benefits

- No bending thanks to glass technology
- Quick, simple and safe replacement without rewiring
- Energy savings of up to 66 % (compared to T8 fluorescent lamp)
- Very high resistance to switching loads
- High luminous flux for sophisticated lighting tasks
- Also suitable for operation at low temperatures

Product features

- LED replacement for classic T8 fluorescent lamps with G13 socket for use in CCG, ECG luminaires or on AC mains
- Compatible with conventional and many common electronic control gears (see also compatibility list) and line voltage
- Low flicker according to EU 2019-2020 (SVM ≤ 0.4 / PstLM ≤ 1)
- Lamp tube made of glass with splinter protection

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- For especially uniform illumination
- Mercury-free and RoHS compliant
- Type of protection: IP20
- Lifetime up to 60,000 h

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TECHNICAL DATA

Electrical data

Nominal wattage	7.5 W
Construction wattage	7.50 W
Nominal voltage	220…240 V
Operating mode	ECG, CCG, AC Mains [1)]
Nominal current	38 mA
Type of current	AC
Inrush current	7 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	190
Max. lamp number on MCB B10 A - CCG without compensation	190
Max. lamp number on MCB B10 A - CCG with compensation	37
Max. lamp number on MCB B16 A	305
Max. lamp number on MCB B16 A - CCG without compensation	305
Max. lamp number on MCB B16 A - CCG with compensation	62
Total harmonic distortion	< 30 %
Power factor λ	0.80

1) Check ECG compatibility at ledvance.com/compatibility

Photometrical data

Luminous flux	1100 lm
Luminous efficacy	146 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Cool White
Color temperature	4000 K
Color rendering index Ra	80
Light color	840
Standard deviation of color matching	≤5 sdcm
Rated LLMF at 6,000 h	0.90
Flickering metric (Pst LM)	1.0
Stroboscope effect metric (SVM)	≤0.4

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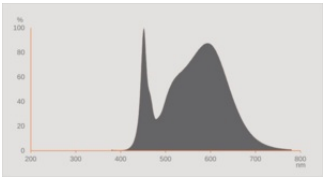

EPREL data spectral diagram PROF LEDr 4000K

Light technical data

Beam angle	190 °
Warm-up time (60 %)	‹ 0.50 s
Starting time	< 0.5 s

Dimensions & Weight

Overall length	603.00 mm
Length with base excl. base pins/connection	600.00 mm
Diameter	27.80 mm
Tube diameter	25,5 mm
Maximum diameter	28 mm
Product weight	153.00 g

Temperatures & operating conditions

Ambient temperature range	-20…+45 °C [1)]
Maximum temperature at tc test point	60 °C
Performance temp. acc. to IEC 62717	50 °C [2)]

1) Temperature surrounding the lamp - for enclosed luminaires: temperature inside of the luminaire

2) In operation with CCG/AC. Tp: 55°C in ECG operation. / Tp rated. Tp point coincides with Tc point - marked on device

Lifespan

Lifespan L70/B50 at 25 °C	60000 h
Lifespan L80/B50 at 25 °C	60000 h

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Number of switching cycles	200000
Lumen maintenance at end of service lifetime	0.70
Rated lamp survival factor at 6,000 h	≥ 0.90

Additional product data

Base (standard designation)	G13
Mercury content	0.0 mg
Mercury-free	Yes
Product remark	The declared values in the data sheet refer to the operation of the LED tube on AC mains operation 230VAC 50Hz

Capabilities

Dimmable	No

Certificates & Standards

Energy efficiency class	D [1)]
Energy consumption	8.00 kWh/1000h
Type of protection	IP20
Standards	CE
Photobiological safety group acc. to EN62778	RG0

1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (lowest efficiency)

Country-specific categorizations

Order reference	LEDTUBE T8 UN P

LOGISTICAL DATA

Temperature range at storage	-20…+80 °C

Energy labelling regulation data acc EU 2019/2015

Lighting technology used	LED
Non-directional or directional	NDLS
Mains or non-mains	MLS
Light source cap-type (or other electric interface)	G13
Connected light source (CLS)	No
Color-tuneable light source	No
Envelope	No
High luminance light source	No

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Anti-glare shield	No
Correlated colour temperature type	SINGLE_VALUE
Claim of equivalent power	No
Length	603.00 mm
Height	27.80 mm
Width	27.80 mm
Chromaticity coordinate x	0.3818
Chromaticity coordinate y	0.3797
R9 Colour rendering index	>0
Beam angle correspondence	SPHERE_360
Survival factor	>0.9
Displacement factor	0.8
LED light source replaces a fluorescent light source	No
EPREL ID	1317786
Model number	AC42590,AC42590

Safety advice

- Operation in outdoor applications in suitable damp-proof luminaires possible according to data sheet and installation instruction.
- The operating temperature range of LED tube is restricted. In case of doubt regarding suitability of the application please measure Tc temperature on the product prior to installation.
- For operation of LED TUBE T8 UN with a conventional control gear, the existing starter must be exchanged with the including LED starter in the LED tube packaging.
- All electrical connections must be made by a qualified person.
- Not suitable for emergency lighting.

DOWNLOAD DATA

	Documents and certificates	Document name
PDF	User instruction / safety instructions	LEDTUBE T8 UNIVERSAL Ledvance
PDF	Addon technical information	LED TUBE T8 UNIVERSAL T8 HF T5 HF Gen 11 ballast compatibility 2023
PDF	Legal information	Informationstext 18 Abs 4 ElektroG
PDF	Declarations of conformity	LED TUBES T8 HF/UN
PDF	Declarations of conformity UKCA	LED TUBES T8 HF/UN UKCA

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	Photometric and lighting design files	Document name
	IES file (IES)	LEDTUBE T8 UN P 600 7.5W 840 LEDV
	LDT file (Eulumdat)	LEDTUBE T8 UN P 600 7.5W 840 LEDV
	UGR file (UGR table)	LEDTUBE T8 UN P 600 7.5W 840 LEDV
	Light distribution curve type polar	LEDTUBE T8 UN P 600 7.5W 840 LEDV
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 4000K

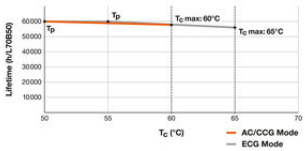
	Tender texts	Document name
	Tender documents	LED TUBE T8 UNIVERSAL P 600 mm 7.5W 840-EN

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854026157	Sleeve 1	695 mm x 29 mm x 29 mm	171.00 g	0.58 dm^3
4099854026164	Shipping box 10	742 mm x 210 mm x 115 mm	2142.00 g	17.92 dm^3

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

ADDITIONAL CATALOG INFORMATION



References / Links

– For current information see www.ledvance.com/ledtube

Legal advice

– When used to replace a T8 fluorescent lamp the total energy efficiency and light distribution depends on the design of the lighting system.

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DISCLAIMER

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