

# PRODUCT DATASHEET LED TUBE T8 EM ULTRA OUTPUT HIGH TEMPERATURE 1200 mm 14W 840

LED TUBE T8 EM ULTRA OUTPUT HIGH TEMPERATURE | High performance LED tubes for electromagnetic control gear (CCG) and AC mains, for applications with high ambient temperature



#### Areas of application

- General illumination within ambient temperatures from -20...+80  $^{\circ}\text{C}$
- Illumination of production areas
- Industry

#### Product benefits

- Suitable for high ambient temperatures of more than +80 °C
- Very high resistance to switching loads
- High luminous flux for sophisticated lighting tasks
- Quick, simple and safe replacement without rewiring
- Energy savings of up to 62 % (compared to T8 fluorescent lamp)
- Instant-on light, therefore ideally suitable in combination with sensor technology
- Also suitable for operation at low temperatures

#### Product features

- LED replacement for classic T8 fluorescent lamps with G13 socket for use in CCG luminaires or on AC mains
- Very broad ambient temperature range: -20...+80 °C
- Low flicker according to EU 2019-2020 (SVM  $\leq$  0.4 / PstLM  $\leq$  1)





TEMPERATURE 1200 mm 14W 840

- Lifetime at 25 °C ambient temperature up to 75,000 h
- Lifetime at 80 °C ambient temperature up to 17,500h
- Type of protection: IP20
- ENEC 10 VDE mark
- Mercury-free and RoHS compliant

# TECHNICAL DATA

#### Electrical data

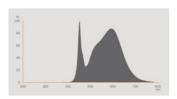
Nominal wattage	14 W
Construction wattage	14.00 W
Nominal voltage	220240 V
Operating mode	CCG, AC Mains
Nominal current	66 mA
Type of current	AC
Inrush current	9.88 A
Suitable for DC input	Yes
Input voltage DC	186260 V
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz <sup>1)</sup>
Max. lamp number on MCB B10 A	4
Max. lamp number on MCB B10 A - CCG without compensation	40
Max. lamp number on MCB B10 A - CCG with compensation	2
Max. lamp number on MCB B16 A	6
Max. lamp number on MCB B16 A - CCG without compensation	65
Max. lamp number on MCB B16 A - CCG with compensation	3
Total harmonic distortion	14 %
Power factor $\lambda$	0.90

<sup>1)</sup> DC 0Hz

# Photometrical data

Luminous flux	2600 lm
Luminous efficacy	185 lm/W
Lumen main.fact.at end of nom.life time	0.96
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	0.80
Flickering metric (Pst LM)	1

Stroboscope effect metric (SVM)	0.4
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EPREL data spectral diagram PROF LEDr 4000K

# Light technical data

Beam angle	120°
Warm-up time (60 %)	< 0.50 s
Starting time	< 0.5 s

# Dimensions & Weight



Overall length	1213.00 mm
Length with base excl. base pins/connection	1200.00 mm
Diameter	28.00 mm
Product weight	365.00 g

# Temperatures & operating conditions

Ambient temperature range	-20+80 °C <sup>1)</sup>
Maximum temperature at tc test point	95 °C

<sup>1)</sup> Temperature surrounding the lamp - for enclosed luminaires: temperature inside of the luminaire

# Lifespan

Lifespan L70/B50 at 25 °C	75000 h
Number of switching cycles	200000
Lumen maintenance at end of service lifetime	0.96

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Rated lamp survival factor at 6,000 h	≥ 0.90		
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Additional product data			
Base (standard designation)	G13		
Mercury content	0.0 mg		
Mercury-free	Yes		
Capabilities			
Dimmable	No		
Certificates & Standards			
Energy efficiency class	B 1)		
Energy consumption	14.00 kWh/1000h		
Type of protection	IP20		
Standards	CE / UKCA / VDE / ENEC / EAC		
Photobiological safety group acc. to EN62778  1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations	West efficiency)		
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1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations  Order reference  LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used	LEDTUBE T8 EM U  -20+80 °C		
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations  Order reference  LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional	west efficiency)  LEDTUBE T8 EM U  -20+80 °C  LED  NDLS		
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations  Order reference  LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains	LEDTUBE T8 EM U  -20+80 °C  LED  NDLS  MLS		
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1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations  Order reference  LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source	LEDTUBE T8 EM U  -20+80 °C  LED  NDLS  MLS  G13  No  No		
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations  Order reference  LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source  Envelope	LEDTUBE T8 EM U  -20+80 °C  LED  NDLS  MLS  G13  No		
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1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations  Order reference  LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source  Envelope  High luminance light source  Anti-glare shield	LEDTUBE T8 EM U  -20+80 °C  LED  NDLS  MLS  G13  No  No  No  No  No  No  No  No  No  N		
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations  Order reference  LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source  Envelope  High luminance light source	west efficiency)  LEDTUBE T8 EM U  -20+80 °C  LED  NDLS  MLS  G13  No  No  No  No  No  No		

No

Claim of equivalent power

Length	1213.00 mm
Height	28.00 mm
Width	28.00 mm
Chromaticity coordinate x	0.3818
Chromaticity coordinate y	0.3797
R9 Colour rendering index	1
Beam angle correspondence	SPHERE_360
Survival factor	0.9
Displacement factor	0.9
LED light source replaces a fluorescent light source	No
EPREL ID	1879596
Model number	AC59258,AC59258

#### **EQUIPMENT / ACCESSORIES**

- Replacement starter for LED tubes

#### Safety advice

- Before installation it is recommended to be checked, if the luminaire and especially the holders are in good condition and capable of carrying the weight of the lamp.
- Only suitable for temperatures of up to 80  $^{\circ}\text{C}$  inside of the luminaire.
- Not suitable for operation with electronic control gear.
- Operation in outdoor applications in suitable damp-proof luminaires possible according to data sheet and installation instruction.
- Not suitable for emergency lighting.
- Disconnect mains before installation.

#### DOWNLOAD DATA

	Documents and certificates	Document name	
PDF	User instruction / safety instructions	LEDTUBE T8 EM UO HT s	
PDF	Extended installation guide	Notes on the operation of LEDVANCE LED tubes in compensated luminaires	
PDF	Extended installation guide	LEDVANCE Luminaire conversion checklist	
PDF	Legal information	Informationstext 18 Abs 4 ElektroG	

	Documents and certification	ates	Document name
PDF	Declarations of conform	nity	LED tube
PDF	Declarations of conform	nity UKCA	LED tubes
	Photometric and lighting	g design files	Document name
	IES file (IES)		LEDTUBE T8 EM UO HT S 1200 14W 840
	LDT file (Eulumdat)		LEDTUBE T8 EM UO HT S 1200 14W 840
	UGR file (UGR table)		LEDTUBE T8 EM UO HT S 1200 14W 840
	Light distribution curve type cone		LEDTUBE T8 EM UO HT S 1200 14W 840
	Light distribution curve type polar		LEDTUBE T8 EM UO HT S 1200 14W 840
	Spectral power distribution		EPREL data spectral diagram PROF LEDr 4000K
	Tender texts	Document na	ame
	Tender documents	LED TUBE T8	8 EM ULTRA OUTPUT HIGH TEMPERATURE S 1200 mm 14W 840-EN

# LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854258572	Sleeve 1	1,255 mm x 29 mm x 29 mm	394.00 g	1.06 dm <sup>3</sup>
4099854258589	Shipping box 10	1,290 mm x 170 mm x 95 mm	4561.00 g	20.83 dm <sup>3</sup>

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.

### 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.

# DISCLAIMER

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.