

# PRODUCT DATASHEET LED TUBE T8 EM FOOD 1200 mm 11.6W 833

LED TUBE T8 EM FOOD | LED tubes for electromagnetic control gear (CCG) and AC mains, shatterproof, for food presentation



#### Areas of application

- Food presentation in e.g. butchers, bakeries, supermarkets or meat processors
- Suitable for ambient temperatures of -20 to +50 °C

#### Product benefits

- Food looks fresh and appetizing without unduly "beautifying" it
- Quick, simple and safe replacement of fluorescent lamps without rewiring the CCG
- Energy savings of up to 74 % (compared to T8 fluorescent lamp)
- Shatter protection thanks to special PET coating
- Support the implementation of the HACCP concepts from production through to presentation
- No bending thanks to glass tube
- Also suitable for operation at low temperatures

#### Product features

- Specially tailored spectral distribution (comparable to T8 FL NATURA 76)
- LED replacement for classic T8 fluorescent lamps with G13 socket for use in CCG luminaires or on AC mains
- Lamp tube made of glass with splinter protection e.g. for food industry applications
- ENEC 10 VDE mark
- Type of protection: IP20



- Mercury-free and RoHS compliant

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## TECHNICAL DATA

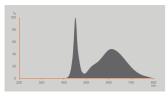
## Electrical data

Nominal wattage	11.6 W
Construction wattage	11.60 W
Nominal voltage	220240 V
Operating mode	CCG, AC Mains
Nominal current	55 mA
Type of current	AC
Inrush current	6.12 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz <sup>1)</sup>
Max. lamp number on MCB B10 A	98
Max. lamp number on MCB B10 A - CCG without compensation	98
Max. lamp number on MCB B10 A - CCG with compensation	13
Max. lamp number on MCB B16 A	122
Max. lamp number on MCB B16 A - CCG without compensation	122
Max. lamp number on MCB B16 A - CCG with compensation	16
Total harmonic distortion	< 20 %
Power factor $\lambda$	> 0.90

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

## Photometrical data

Luminous flux	1100 lm
Luminous efficacy	94 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	NATURA
Color temperature	3300 K
Color rendering index Ra	80
Light color	833
Standard deviation of color matching	≤6 sdcm
Rated LLMF at 6,000 h	0.80



Spectral graph LEDTUBE T8 FOOD

# Light technical data

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

## Dimensions & Weight



Overall length	1212.00 mm
Length with base excl. base pins/connection	1200.00 mm
Diameter	26.70 mm
Product weight	183.00 g

# Temperatures & operating conditions

Ambient temperature range	-20+50 °C <sup>1)</sup>
Maximum temperature at tc test point	65 °C

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

## Lifespan

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Lifespan L70/B50 at 25 °C	60000 h
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
Capabilities	
Dimmable	No
Certificates & Standards	
Energy consumption	12.00 kWh/1000h
Type of protection	IP20
Standards	CE / UKCA / VDE / ENEC / EAC
Photobiological safety group acc. to EN62778	RG0
Country-specific categorizations	
Order reference	LEDTUBE T8 EM F
LOGISTICAL DATA	
Temperature range at storage	-20+80 °C
Temperature range at storage	-20+80 °C
Temperature range at storage  Energy labelling regulation data acc EU 2019/2015	
Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used	LED
Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional	LED NDLS
Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains	LED NDLS MLS
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)	LED NDLS MLS G13
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)	LED NDLS MLS G13 No
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)	LED NDLS MLS G13
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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	LED NDLS MLS G13 No
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	LED NDLS MLS G13 No No No
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	LED NDLS MLS G13 No No No No
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	LED NDLS MLS G13 No No No No No No
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  Standby power	LED NDLS MLS G13 No No No No No O W
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  Standby power  Claim of equivalent power	LED NDLS MLS G13 No
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  Standby power  Claim of equivalent power  Length	LED  NDLS  MLS  G13  No  No  No  No  No  No  No  No  No  N
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  Standby power  Claim of equivalent power  Length  Height	LED  NDLS  MLS  G13  No  No  No  No  No  No  No  No  1212.00 mm  26.70 mm

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R9 Colour rendering index

Beam angle correspondence	SPHERE_360
Survival factor	0.9
Displacement factor	0.9
LED light source replaces a fluorescent light source	No

#### **EQUIPMENT / ACCESSORIES**

- Suitable for operation with low-loss and conventional control gears

#### Safety advice

- 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

DOWNLOAD DATA				
	Documents and certificates	Document name		
PDF	User instruction / safety instructions	LEDTUBE T8 EM FOOD P		
PDF	Extended installation guide	Notes on the operation of LEDVANCE LED tubes in compensated luminaires		
PDF	Extended installation guide	LEDVANCE Luminaire conversion checklist		
PDF	On-Pack-Info	ELR - exempt lamps		
PDF	Legal information	Informationstext 18 Abs 4 ElektroG		
PDF	Declarations of conformity	LEDTUBE T8 EM FOOD P		
PDF	Declarations of conformity UKCA	LEDTUBE T8 EM FOOD P		
	D			
	Photometric and lighting design files	Document name		
	IES file (IES)	LEDTUBE T8 EM FOOD P 1200 11.6W 833 LEDV		
	LDT file (Eulumdat)	LEDTUBE T8 EM FOOD P 1200 11.6W 833 LEDV		

Photometric and lighting design files	Document name
Light distribution curve type polar	LEDTUBE T8 EM FOOD P 1200 11.6W 833 LEDV
Spectral power distribution	Spectral graph LEDTUBE T8 FOOD
Tender texts Documer	nt name

Tender texts	Document name
Tender documents	LED TUBE T8 EM FOOD P 1200 mm 11.6W 833-EN

#### LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854045004	Sleeve 1	1,305 mm x 29 mm x 29 mm	212.00 g	1.10 dm <sup>3</sup>
4099854045011	Shipping box 10	1,335 mm x 180 mm x 95 mm	2660.00 g	22.83 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.