PRODUCT DATASHEET
ST8U-EM 8 W/4000 K 300 mm

SubstiTUBE U-Shape | U-shaped LED tubes for electromagnetic control gears (CCG)

Areas of application

– Street and city lighting
– Industry

Product benefits

– Quick, simple and safe replacement without rewiring
– Energy savings of up to 65 % (compared to T8 fluorescent lamp on CCG)
– Operation directly on 230 V AC mains possible
– Instant-on light, therefore ideally suitable in combination with sensor technology
– Very high resistance to switching loads
– Also suitable for operation at low temperatures

Product features

– Double-capped LED alternative to classic T8 U-shaped fluorescent lamps in CCG luminaires
– Uniform illumination
– Mercury-free and RoHS compliant
– High luminous efficacy: up to 137 lm/W
– Lifetime up to 50,000 h
– Type of protection: IP20

TECHNICAL DATA

Electrical data

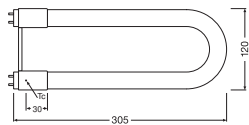|	
Nominal wattage	8 W
Construction wattage	8.00 W
Nominal voltage	220…240 V
Operating mode	AC, Conventional control gear (CCG)
Nominal current	37 mA
Type of current	AC
Inrush current	15.0 A
Operating frequency	50…60 Hz
Mains frequency	50…60 Hz
Max. lamp number on MCB B10 A	130
Max. lamp number on MCB B10 A - CCG without compensation	130
Max. lamp number on MCB B10 A - CCG with compensation	22
Max. lamp number on MCB B16 A	210
Max. lamp number on MCB B16 A - CCG without compensation	210
Max. lamp number on MCB B16 A - CCG with compensation	35
Total harmonic distortion	12 %
Power factor λ	> 0.90

Photometrical data

Luminous flux	1100 lm
Luminous efficacy	137 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	≤6 sdcm
Rated LLMF at 6,000 h	0.80

Light technical data

Beam angle	130 °
Warm-up time (60 %)	‹ 0.50 s
Starting time	< 0.5 s

Dimensions & Weight

Overall length	305.00 mm
Diameter	120 mm
Maximum diameter	120 mm
Product weight	139.00 g

Temperatures & operating conditions

Ambient temperature range	-20…+45 °C
Maximum temperature at tc test point	75 °C

Lifespan

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)	2G13
Mercury content	0.0 mg
Mercury-free	Yes

Capabilities

Dimmable	No

Certificates & Standards

Energy efficiency class	A++ [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 E (lowest efficiency)

Country-specific categorizations

Order reference	ST8-USHP0.3M 8W

Energy labelling regulation data acc EU 2019/2015

Light source cap-type (or other electric interface)	2G13
Length	305.00 mm
Height	120 mm
Width	120 mm

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.

DOWNLOAD DATA

	Documents and certificates	Document name
PDF	Declarations of conformity	EC Declaration of Conformity Substi TUBE U_Shape_8W

	Photometric and lighting design files	Document name
IES	IES file (IES)	AC17989_ST8-U-Shape-0,3m-8W-840-EM
LDT	LDT file (Eulumdat)	AC17989_ST8-U-Shape-0,3m-8W-840-EM

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075390164	Folding box 1	322 mm x 126 mm x 32 mm	232.00 g	1.30 dm³
4058075390171	Shipping box 10	347 mm x 177 mm x 285 mm	2.63 g	17.50 dm³

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.

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.