

## PRODUCT DATASHEET

### DULUX LED F36 EM & AC MAINS 20W 830 2G10

OSRAM DULUX LED F EM & AC MAINS | LED replacement for CFLni with 4-pin 2G10 base for CCG



#### Areas of application

- Supermarkets and department stores
- Walkways and corridors
- Hotels, restaurants

#### Product benefits

- Easy installation
- Low energy consumption
- Easy relamping thanks to compact design
- Operation directly on 230 V AC mains possible

#### Product features

- LED replacement for conventional compact fluorescent lamps for use in CCG luminaires or on AC mains
- Lifetime up to 30,000 h
- Single-ended four-pin plug-in 2G10 base
- Type of protection: IP20
- Mercury-free lamps



## TECHNICAL DATA

## Electrical data

Nominal wattage	20 W
Construction wattage	20.00 W
Nominal voltage	220...240 V
Operating mode	Conventional control gear (CCG), AC
Claimed equiv. conventional lamp power	36 W
Nominal current	90 mA
Type of current	AC
Inrush current	9 A
Suitable for DC input	Yes
Input voltage DC	186...260 V <sup>1)</sup>
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	50
Max. lamp number on MCB B10 A - CCG without compensation	20
Max. lamp number on MCB B10 A - CCG with compensation	15
Max. lamp number on MCB B16 A	80
Max. lamp number on MCB B16 A - CCG without compensation	32
Max. lamp number on MCB B16 A - CCG with compensation	24
Total harmonic distortion	≤ 30 %
Power factor $\lambda$	> 0.90

1) Permitted voltage range

## Photometrical data

Luminous flux	2250 lm
Nominal useful luminous flux 90°	2250 lm
Luminous efficacy	112 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Warm White
Color temperature	3000 K
Color rendering index Ra	80
Light color	830
Standard deviation of color matching	≤6 sdcn
Rated LLMF at 6,000 h	0.90

Flickering metric (Pst LM)	1.0
Stroboscope effect metric (SVM)	0.4

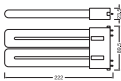


EPREL data spectral diagram PROF  
LEDr 3000K

Light technical data

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

Dimensions & Weight



Overall length	222.00 mm
Diameter	89.50 mm
Tube diameter	17,0 mm
Maximum diameter	90 mm
Product weight	181.00 g

Temperatures & operating conditions

Ambient temperature range	-20...+45 °C <sup>1)</sup>
Maximum temperature at tc test point	70 °C

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

Lifespan

Lifespan L70/B50 at 25 °C	30000 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)	2G10
Mercury content	0.0 mg
Mercury-free	Yes
Design / version	Frosted

#### Capabilities

Dimmable	No
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#### Certificates & Standards

Energy efficiency class	E <sup>1)</sup>
Energy consumption	20.00 kWh/1000h
Type of protection	IP20
Standards	CE / EAC / UKCA
Photobiological safety group acc. to EN62778	RG0

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

#### Country-specific categorizations

Order reference	DULUX LED F36 E
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#### LOGISTICAL DATA

Temperature range at storage	-20...+80 °C
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#### 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)	2G10
Connected light source (CLS)	No
Color-tuneable light source	No
Envelope	No
High luminance light source	No
Anti-glare shield	No







Correlated colour temperature type	SINGLE_VALUE
Standby power	0 W
Claim of equivalent power	No
Length	222.00 mm
Height	89.50 mm
Width	89.50 mm
Chromaticity coordinate x	0.433
Chromaticity coordinate y	0.403
R9 Colour rendering index	1
Beam angle correspondence	SPHERE_360
Survival factor	0.90
Displacement factor	0.90
LED light source replaces a fluorescent light source	No
EPREL ID	604668,1412847,2206817
Model number	AC35202,AC47848,AC71223

### Safety advice

- Not suitable for tandem operation.
- Not suitable for operation with electronic control gear.
- The operating temperature range of DULUX LED is restricted. In case of doubt regarding suitability of the application please measure T<sub>c</sub> temperature on the product prior to installation.
- All electrical connections must be made by a qualified person.
- Not suitable for emergency lighting.
- Do not touch the lamp if broken.
- Must not be used if outer bulb is defective.

### DOWNLOAD DATA

Documents and certificates		Document name
	User instruction / safety instructions	DULUX LED F EM
	Legal information	Informationstext 18 Abs 4 ElektroG
	Declarations of conformity	DULUX LED
	Declarations of conformity	DULUX LED
	Declarations of conformity UKCA	DULUX LED

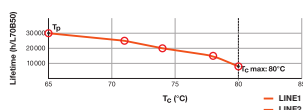
Documents and certificates		Document name
	Declarations of conformity UKCA	DULUX LED
	Declarations of conformity UKCA	LEDTUBE
Photometric and lighting design files		Document name
	IES file (IES)	DULUX F36LED 20W830 230VEM2G10
	LDT file (Eulumdat)	DULUX F36LED 20W830 230VEM2G10
	Light distribution curve type polar	DULUX F36LED 20W830 230VEM2G10
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 3000K

## LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075559295	Folding box 1	27 mm x 92 mm x 276 mm	217.00 g	0.69 dm <sup>3</sup>
4058075559301	Shipping box 10	288 mm x 288 mm x 106 mm	2389.00 g	8.79 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.

## ADDITIONAL CATALOG INFORMATION



## DISCLAIMER

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