PRODUCT DATASHEET
DULUX LED F24 EM & AC MAINS VALUE 12W 840 2G10

DULUX LED F EM & AC MAINS VALUE | LED replacement for flat CFLni with 4-pin 2G10 base for CCG and AC mains operation

Areas of application

– General illumination within ambient temperatures from -20…+45 °C
– Offices
– Walkways and corridors
– Hotels, restaurants

Product benefits

– Easy installation
– Low energy consumption
– Not suitable for operation with electronic control gear
– 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	12 W
Construction wattage	12.00 W
Nominal voltage	220…240 V
Operating mode	CCG, AC Mains
Claimed equiv. conventional lamp power	24 W
Nominal current	53 mA
Type of current	AC
Inrush current	6 A
Suitable for DC input	Yes
Input voltage DC	186…260 V [1]
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	75
Max. lamp number on MCB B10 A - CCG without compensation	30
Max. lamp number on MCB B10 A - CCG with compensation	19
Max. lamp number on MCB B16 A	120
Max. lamp number on MCB B16 A - CCG without compensation	48
Max. lamp number on MCB B16 A - CCG with compensation	30
Total harmonic distortion	≤ 30 %
Power factor λ	> 0.90

[1] Permitted voltage range

Photometrical data

Luminous flux	1500 lm
Nominal useful luminous flux 90°	1500 lm
Luminous efficacy	125 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	0.90
Flickering metric (Pst LM)	1.0
Stroboscope effect metric (SVM)	0.4

EPREL data spectral diagram PROF
LEDr 4000K

Light technical data

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

Dimensions & Weight

Overall length	169.50 mm
Diameter	89.50 mm
Tube diameter	17,0 mm
Maximum diameter	90 mm
Product weight	107.00 g

Temperatures & operating conditions

Ambient temperature range	-20…+45 °C [1]
Maximum temperature at tc test point	65 °C

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

Lifespan

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

Capabilities

Dimmable	No

Certificates & Standards

Energy efficiency class	E [1]
Energy consumption	12.00 kWh/1000h
Type of protection	IP20
Standards	CE / EAC / UKCA
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	DULUX LED F24 E

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)	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	169.50 mm
Height	89.50 mm
Width	89.50 mm
Chromaticity coordinate x	0.381
Chromaticity coordinate y	0.379
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	1404773,2206825
Model number	AC46459,AC71218

Safety advice

– Not suitable for tandem operation.
– The operating temperature range of DULUX LED is restricted. In case of doubt regarding suitability of the application please measure Tc temperature on the product prior to installation.
– All electrical connections must be made by a qualified person.
– Lamp not suitable for emergency operation.
– Do not touch the lamp if broken.
– Must not be used if outer bulb is defective.

DOWNLOAD DATA

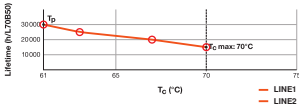|	Documents and certificates	Document name
PDF	User instruction / safety instructions	DULUX LED F EM V
PDF	Extended installation guide	Installation instructions LED TUBE T8, T5 und DULUX LED 2024 10 EN
PDF	Legal information	Informationstext 18 Abs 4 ElektroG
PDF	Declarations of conformity	DULUX LED

	Documents and certificates	Document name
PDF	Declarations of conformity	DULUX LED
PDF	Declarations of conformity UKCA	DULUX LED
PDF	Declarations of conformity UKCA	LEDTUBE

	Photometric and lighting design files	Document name
IES	IES file (IES)	DULUX LED F24 EM V 12W 840 2G10 LEDV
LDT	LDT file (Eulumdat)	DULUX LED F24 EM V 12W 840 2G10 LEDV
	UGR file (UGR table)	DULUX LED F24 EM V 12W 840 2G10 LEDV
	Light distribution curve type cone	DULUX LED F24 EM V 12W 840 2G10 LEDV
	Light distribution curve type polar	DULUX LED F24 EM V 12W 840 2G10 LEDV
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 4000K

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075822474	Folding box 1	27 mm x 92 mm x 190 mm	128.00 g	0.47 dm³
4058075822481	Shipping box 10	192 mm x 143 mm x 204 mm	1382.00 g	5.60 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.

ADDITIONAL CATALOG INFORMATION

DISCLAIMER

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