

TUBO 60

surface

058-31181380



Project / Type

Notes

Count / Date



General

Ceiling / Wall , Surface

black , RAL 9005 ¹

IP20

5870 lm

2500 lm/m

LED

4000 K

CRI \geq 90

L90 / 50000 h

initial MacAdam \leq 3 SDCM

R_g: 99 , R_r: 92 , R_{t(1-15)}: 90

MR 0.81

MDER 0.74

Optical

High Performance Opal

opal (lambertsch)

PstLM \leq 1.0 ²

SVM \leq 0.4 ²

Electrical

DALI-2

220-240 V

system 54 W

system 109 lm/W³

PC1

1 DALI Addr.

23 W/m

Physical

length 2375 mm

width 60 mm

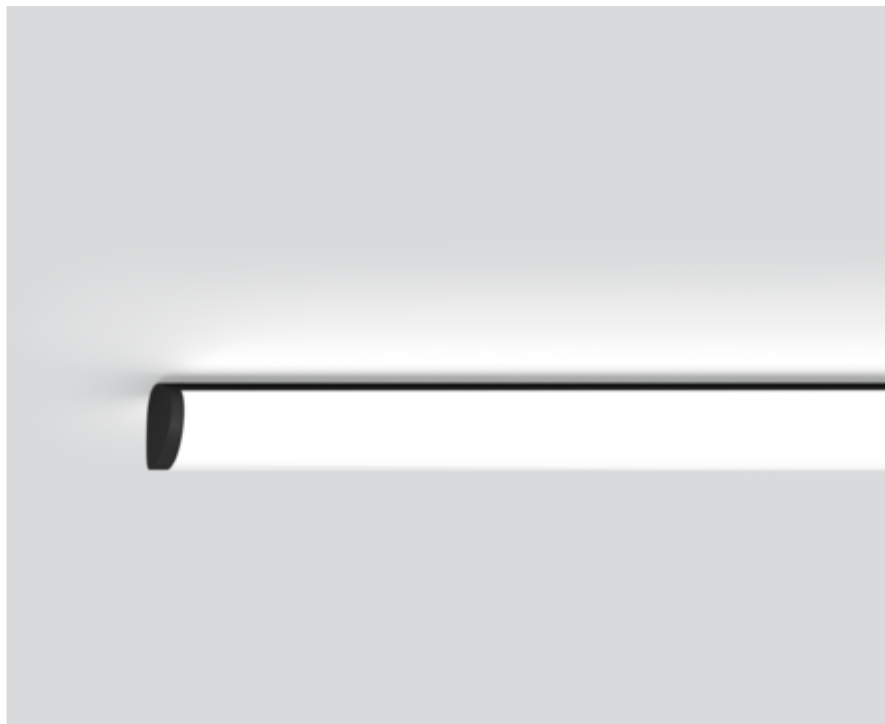
height 60 mm

2.9 kg

¹ RAL code ² Value of containing product at full load (undimmed)

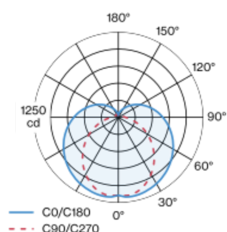
³ incl. consideration of optical losses, internal control unit losses & operating device efficiency

Installation instructions



Carrier profile made of extruded aluminium profile; light-tight end caps in aluminium; converter integrated into luminaire housing; surface black powder coated; suitable for wall or ceiling mounting; easy installation using ceiling clips; light control via high quality lens system for maximum, homogeneous illumination; light colour 4000 K; binning initial MacAdam \leq 3 SDCM; CRI \geq 90; min. 90% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; cylindrical cover made of satin PMMA for uniform illumination; with gentle ceiling illumination; degree of protection IP20; PC1; incl. DALI-2 converter; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

Light distribution



Product drawing



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Maintenance Factors

Operating Time [h]	10 000	20 000	30 000	40 000	50 000
LLMF	0.98	0.96	0.94	0.92	0.9
LSF	1	1	1	1	1
MF	LMF × RSMF × LLMF × LSF		RSMF ^a	Room Surface Maintenance Factor	
MF	Maintenance Factor		LLMF	Lamp Lumens Maintenance Factor	
LMF ^a	Luminaire Maintenance Factor		LSF	Lamp Survival Factor	

^a According to "CIE 97, Maintenance of indoor electric lighting systems", 2005, ISBN 3-900-734-34-8. The values must be determined by the planner.

Circuit Breaker Types

Automatic Circuit Breaker Type	Number of Fixtures
B10	12
B13	16
B16	20
B20	25
C10	20
C13	27
C16	34
C20	41

