

TUBO 60

surface

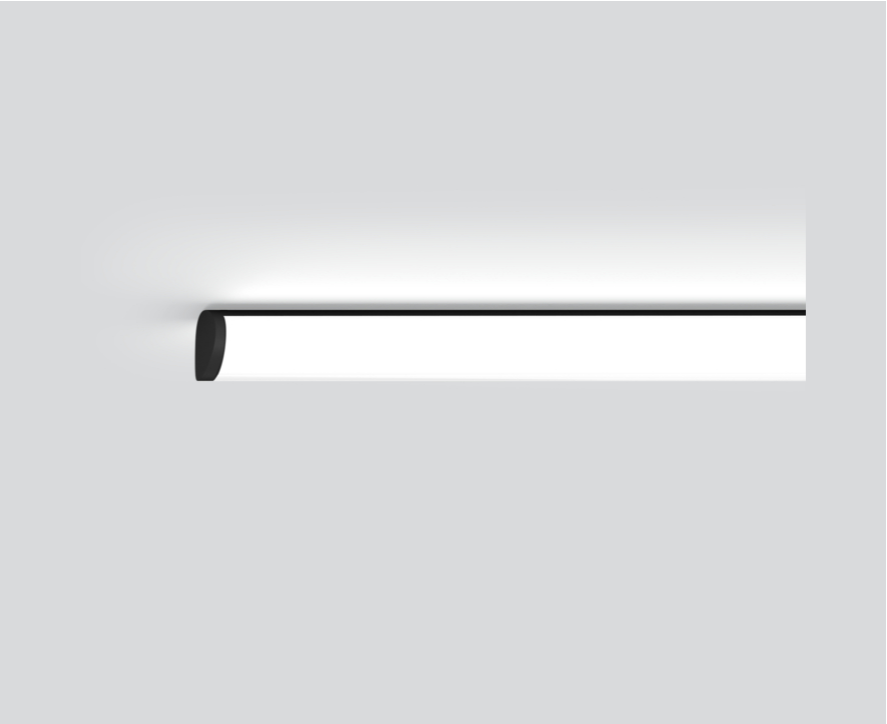
058-31140380



Project / Type

Notes

Count / Date



RG0
IEC 62471

220-240V

X-PERT

X-PERT

General

Ceiling / Wall , Surface

black , RAL9005 ¹

2320 lm/m

IP20

2740 lm

LED

3000 K

CRI ≥ 90

L90 / 50000 h

photobio. safety RG 0 - no Risk

initial MacAdam ≤ 3 SDCM

R_g: 99 , R_f: 91 , R₍₁₋₁₅₎: 89

MR 0.61

MDER 0.55

Optical

High Performance Opal

opal (lambertsch)

PstLM ≤ 1.0 ²

SVM ≤ 0.4 ²

Electrical

DALI-2

system 27.9 W

PC1 220-240V

system 98 lm/W³

1 DALI Addr.

24 W/m

Physical

length 1210 mm

width 60 mm

height 60 mm

3.4 kg

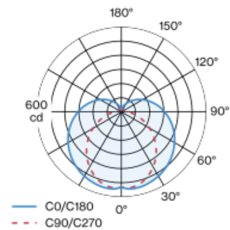
¹ RAL code ² Value of containing product at full load (undimmed)
³ incl. optical losses and the efficiency of the operating device (converter)

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 3000 K; binning initial MacAdam ≤ 3 SDCM; CRI ≥ 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 220-240V; photobiological safety according to IEC 62471 risk group RG 0 - no Risk; 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 Faktor	

^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	18
B13	24
B16	30
B20	37
C10	31
C13	40
C16	51
C20	62

