

TUBO 60

suspended

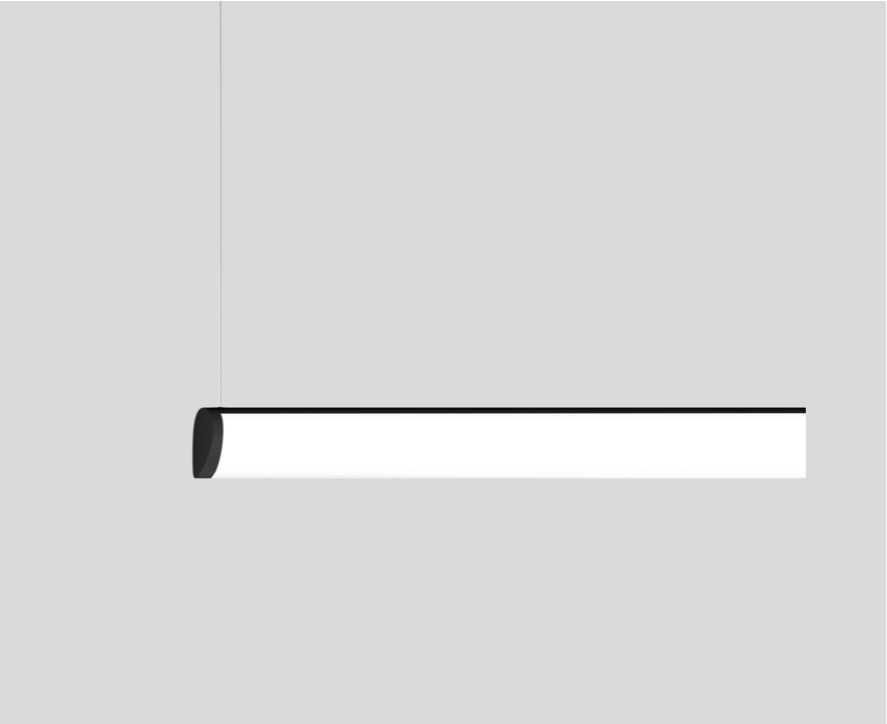
058-32150380



Project / Type

Notes

Count / Date



RG0
IEC 62471

220-240V

X-PERT

X-PERT

General

Ceiling , Suspended

black , RAL9005 ¹

2310 lm/m

IP20

3400 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 (lambersch)

PstLM ≤ 1.0 ²

SVM ≤ 0.4 ²

Carrier profile made of extruded aluminium profile; light-tight end caps in aluminium; converter integrated into luminaire housing; surface black powder coated; suspended luminaire with 1500mm cable suspension; with integrated toolless suspension height adjustment on the luminaire; freely positioned attachment to the luminaire; incl. feed (black); canopy for through wiring; 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;

Electrical

DALI-2

system 34 W

PC1 220-240V

system 100 lm/W³

1 DALI Addr.

23 W/m

Physical

cable 1500 mm

length 1500 mm

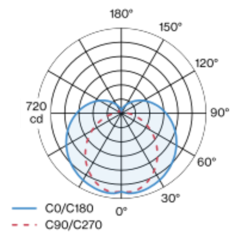
width 60 mm

height 60 mm

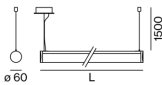
3.7 kg

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

Light distribution



Product drawing



Installation instructions



Lighting calculator



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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	15
B13	19
B16	24
B20	30
B25	37
C10	24
C13	32
C16	40
C20	49
C25	62

