

TUBO 60

suspended

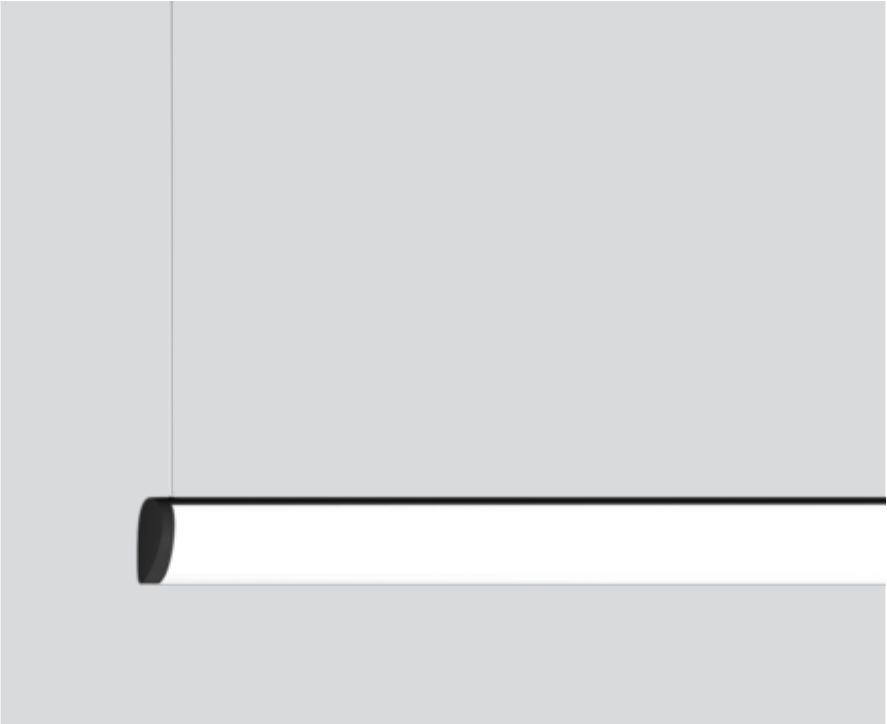
058-32151380



Project / Type

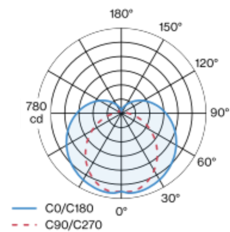
Notes

Count / Date

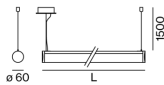


Carrier profile made of extruded aluminium profile; light-tight end caps in aluminium; converter integrated into luminaire housing; surface jet black powder coated; suspended luminaire with 1500mm cable suspension; with integrated toolless suspension height adjustment on the luminaire; freely positioned attachment to the luminaire; incl. feed (black); canopy for through wiring; light control via high quality lens system for maximum, homogeneous illumination; light colour 4000 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; incl. DALI-2 converter; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

Light distribution



Product drawing



General

Ceiling | Suspended

jet black | RAL 9005 ¹

IP20

3670 lm

2490 lm/m

LED

4000 K

CRI ≥ 90

L90 / 50000 h

initial MacAdam ≤ 3 SDCM

R_g: 99 | R_f: 92 | R_{f(1-15)}: 90

MR 0.81 | MDER 0.74

Optical

High Performance Opal | opal (lambertsch)

PstLM ≤ 1.0 ² | SVM ≤ 0.4 ²

Electrical

DALI-2 | 1 DALI Addr.

PC1 | 220-240 V

system 34 W

system 108 lm/W ³

23 W/m

Physical

cable 1500 mm

length 1500 mm | width 60 mm | height 60 mm

2.63 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



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

MF

Maintenance Factor

LMF^a

Luminaire Maintenance Factor

RSMF^a

Room Surface Maintenance Factor

LLMF

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

