

TUBO 60

suspended

058-32186380



Project / Type

Notes

Count / Date



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 4000 K; binning initial MacAdam ≤ 3 SDCM; CRI ≥ 80 ; 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;



General

Ceiling | Suspended

black | RAL 9005 ¹

IP20

7170 lm

3050 lm/m

LED

4000 K

CRI ≥ 80

L90 / 50000 h

initial MacAdam ≤ 3 SDCM

MR 0.72 | MDER 0.65

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 54 W

system 133 lm/W ³

23 W/m

Physical

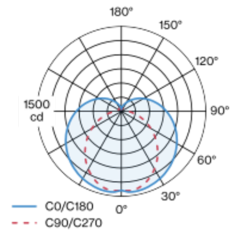
cable 1500 mm

length 2375 mm | width 60 mm | height 60 mm

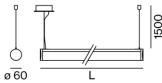
2.8 kg

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

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 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 |

