

TUBO 60

surface

058-31120380



Project / Type

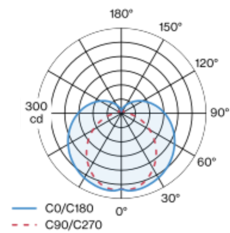
Notes

Count / Date



Carrier profile made of extruded aluminium profile; light-tight end caps in aluminium; converter integrated into luminaire housing; surface black powder coated; 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; incl. DALI-2 converter; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

Light distribution



Product drawing



General

Ceiling / Wall | Surface

black | RAL 9005¹

IP20

1370 lm

2300 lm/m

LED

3000 K

CRI ≥ 90

L90 / 50000 h

initial MacAdam ≤ 3 SDCM

R_g: 99 | R_f: 91 | R_{f(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 | 1 DALI Addr.

PC1 | 220-240 V

system 13.9 W

system 99 lm/W³

23 W/m

Physical

length 625 mm | width 60 mm | height 60 mm

0.9 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



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

