

MINO 60 high lumen

surface

046-41M313GH



Project / Type

Notes

Count / Date



General

Ceiling , Surface

grey , RAL 9006 ¹

IP20

1930 lm

2210 lm/m

LED

4000 K

CRI ≥ 90

L90 / 50000 h

initial MacAdam ≤ 3 SDCM

R_g: 99 , R_r: 92 , R_{t(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

220-240 V

system 17.5 W

system 110 lm/W³

PC1

1 DALI Addr.

20 W/m

Physical

length 880 mm

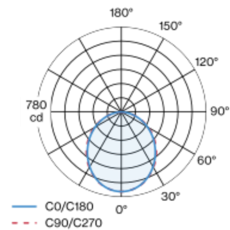
width 60 mm

height 80 mm

2.44 kg

Luminaire housing made of extruded aluminium profile; light tight final end caps made of aluminium; no visible screws; angular design; surface grey powder coated; suitable for wall or ceiling mounting; lighting profile (end cover pre-assembled) available in advance for installation; remaining lamp components mounted without tools; LED light inset consisting of highly reflective lacquered aluminium for improved thermal management; 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; HPO (High Performance Opal) cover for uniform illumination; degree of protection IP20; PC1; 220-240 V; internal wiring in light halogen free; incl. DALI-2 converter; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

Light distribution



Product drawing



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 | 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 | 23 |
| B16 | 28 |
| B20 | 35 |
| C10 | 30 |
| C13 | 38 |
| C16 | 46 |
| C20 | 58 |

