

MINO 60 mid lumen

surface

046-41L411GH



Project / Type

Notes

Count / Date



General

Ceiling , Surface

grey , RAL 9006 ¹

IP20

1530 lm

1310 lm/m

LED

4000 K

CRI \geq 90

L90 / 50000 h

initial MacAdam \leq 3 SDCM

R_g: 99 , R_r: 92 , R₍₁₋₁₅₎: 90

MR 0.81

MDER 0.74

Optical

High Performance Opal

opal (lambertsch)

PstLM \leq 1.0 ²

SVM \leq 0.4 ²

Electrical

non DIM

220-240 V

system 13.3 W

system 115 lm/W³

PC1

11 W/m

Physical

length 1180 mm

width 60 mm

height 80 mm

3.1 kg

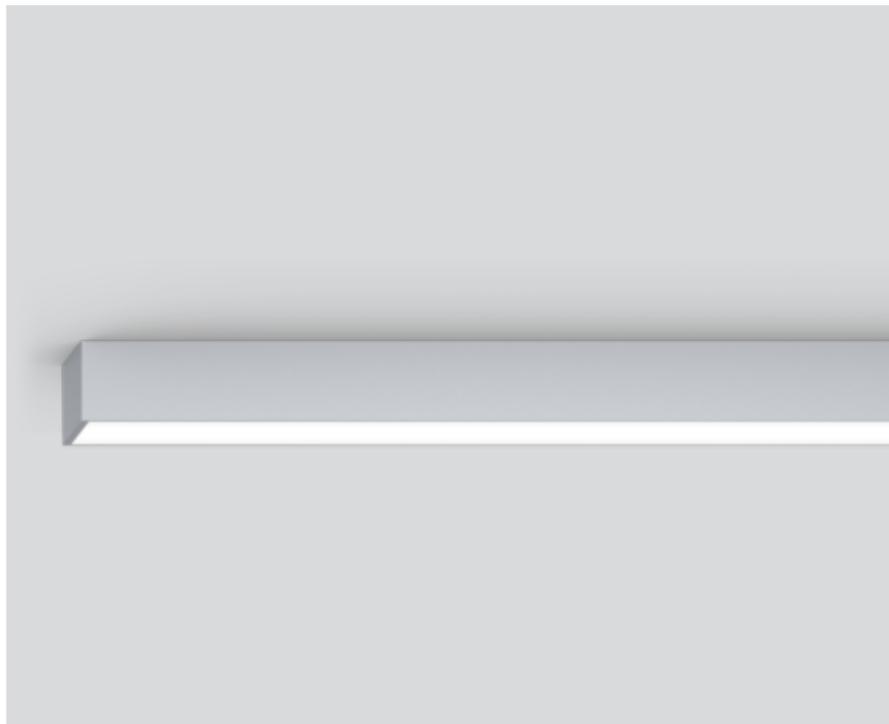
¹ RAL code ² Value of containing product at full load (undimmed)

³ FIXTURE: incl. consideration of optical losses & internal control unit losses SYSTEM: incl. consideration of optical losses, internal control unit losses & operating device efficiency.

Installation instructions

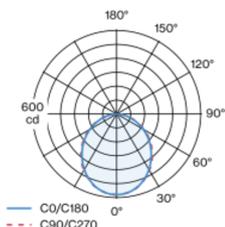


Lighting calculator

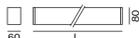


Luminaire housing made of extruded aluminium profile; light tight final end caps made of aluminium; no visible screws; angular design; surface grey powder coated; suitable for wall or ceiling mounting; lighting profile (end cover pre-assembled) available in advance for installation; remaining lamp components mounted without tools; LED light inset consisting of highly reflective lacquered aluminium for improved thermal management; light colour 4000 K; binning initial MacAdam \leq 3 SDCM; CRI \geq 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. converter, non dimmable; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

Light distribution



Product drawing



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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	9
B13	13
B16	15
B20	18
C10	18
C13	26
C16	30
C20	36