

# MINO 60 high lumen

suspended

046-42M311GH



Project / Type
Notes
Count / Date



## General

Ceiling , Suspended
grey , RAL 9006 <sup>1</sup>
IP20
1930 lm
2210 lm/m

## LED

4000 K
CRI ≥ 90
L90 / 50000 h
initial MacAdam ≤ 3 SDCM
R <sub>g</sub> : 99 , R <sub>r</sub> : 92 , R <sub>t(1-15)</sub> : 90
MR 0.81
MDER 0.74

## Optical

High Performance Opal
opal (lambertsch)
PstLM ≤ 1.0 <sup>2</sup>
SVM ≤ 0.4 <sup>2</sup>

## Electrical

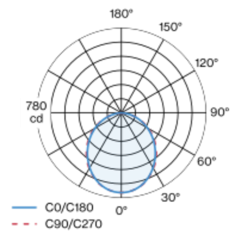
non DIM
220-240 V
system 17.5 W
system 110 lm/W <sup>3</sup>
PC1
20 W/m

## Physical

cable 1500 mm
length 880 mm
width 60 mm
height 80 mm
2.7 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; suspended luminaire with 1500mm cable suspension; with integrated toolless suspension height adjustment on the luminaire; spring clip attachment to the luminaire; freely positionable; incl. feed (white); 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. converter, non dimmable; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

## Light distribution



## Product drawing



<sup>1</sup> RAL code <sup>2</sup> Value of containing product at full load (undimmed)  
<sup>3</sup> 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



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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 <sup>a</sup>	Room Surface Maintenance Factor	
MF	Maintenance Factor		LLMF	Lamp Lumens Maintenance Factor	
LMF <sup>a</sup>	Luminaire Maintenance Factor		LSF	Lamp Survival Faktor	

<sup>a</sup> 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

