

# MINO 60 high lumen

suspended

046-42M513GH



Project / Type

Notes

Count / Date



### General

Ceiling , Suspended

grey , RAL 9006 <sup>1</sup>

IP20

3220 lm

2190 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

DALI-2

220-240 V

system 29.1 W

system 111 lm/W<sup>3</sup>

PC1

1 DALI Addr.

20 W/m

### Physical

cabl 1500 mm

length 1480 mm

width 60 mm

height 80 mm

4 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. DALI-2 converter; 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	7
B13	10
B16	12
B20	14
C10	10
C13	20
C16	24
C20	28

