

# MINO 60 mid lumen

surface

046-41L511GG



Project / Type

Notes

Count / Date



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; micro prismatic PMMA diffuser incl. diffuser film for homogeneous illumination and reduced luminance; UGR  $\leq 19$ ; VDU compatible workplace luminaire according to DIN EN 12464-1; luminance above 65°  $\leq 3000$  cd/m<sup>2</sup>; 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



### General

Ceiling | Surface

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

IP20

1670 lm

1130 lm/m

### LED

4000 K

CRI  $\geq 90$

L90 / 50000 h

initial MacAdam  $\leq 3$  SDCM

R<sub>g</sub>: 99 | R<sub>f</sub>: 92 | R<sub>f(1-15)</sub>: 90

MR 0.81 | MDER 0.74

### Optical

Microprismatic | microprismatic

UGR  $\leq 19$  |  $\geq 65^\circ$   $< 3000$  cd/m<sup>2</sup>

### Electrical

non DIM

PC1 | 220-240 V

system 16.6 W

system 101 lm/W <sup>2</sup>

11 W/m

### Physical

length 1480 mm | width 60 mm | height 80 mm

4 kg

<sup>1</sup> RAL code  
<sup>2</sup> 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 Factor	

<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	15
B13	19
B16	24
B20	30
C10	25
C13	32
C16	40
C20	49

