

# MINO 60 high lumen

ceiling offset  
046-47M461GH



Project / Type

Notes

Count / Date



### General

Ceiling , Surface

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

IP20

Ball impact resistant DIN 18032-3

2600 lm

2220 lm/m

### LED

4000 K

CRI ≥ 80

L90 / 50000 h

initial MacAdam ≤ 3 SDCM

MR 0.72

MDER 0.65

### 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 23.3 W

system 112 lm/W<sup>3</sup>

PC1

20 W/m

### Physical

length 1175 mm

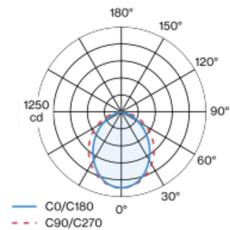
width 60 mm

height 90 mm

3.1 kg

Luminaire housing made of extruded aluminium profile; light-tight end caps in aluminium; angular design; surface grey powder coated; luminaire, ball proof version to DIN 18032-3 and DIN 57710 part 13 / VDE 0710 part 13; not suitable for indoor tennis centers (or halls with comparable ball sizes); LED light inset consisting of highly reflective lacquered aluminium for improved thermal management; light colour 4000 K; binning initial MacAdam ≤ 3 SDCM; CRI ≥ 80; 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; 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



# MINO 60 high lumen

ceiling offset  
046-47M461GH



Project / Type

Notes

Count / Date

## 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

MF

Maintenance Factor

LMF<sup>a</sup>

Luminaire Maintenance Factor

RSMF<sup>a</sup>

Room Surface Maintenance Factor

LLMF

Lamp Lumens 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	22
B13	29
B16	36
B20	45
C10	37
C13	48
C16	61
C20	76