

MINO 60 direct / indirect mid lumen ceiling /

suspended system
046-5014517H



Project / Type _____

Notes _____

Count / Date _____



Luminaire housing made of extruded aluminium profile; angular design; for continuous lighting systems; light tight final end caps made of aluminium (available as an accessory); no visible screws; surface white powder coated; for suspended mounting (1500 mm cable suspension as an accessory); with integrated toolless suspension height adjustment on the luminaire; spring clip attachment to the luminaire; freely positionable; LED light inset consisting of highly reflective lacquered aluminium for improved thermal management; light colour 3000 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; direct/indirect illumination characteristic; indirect light component with integrated PC boards for maximum, homogeneous ceiling illumination; degree of protection IP20; PC1 220-240V; photobiological safety according to IEC 62471 risk group RG 0 - no Risk; internal wiring in light halogen free; incl. converter, non dimmable; accessories are listed separately; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

Light distribution



Product drawing



General

Ceiling , Suspended _____

white , RAL9010 ¹ _____

2670 lm/m _____

IP20 _____

indirect 1160 lm _____

direct 1980 lm _____

total 3140 lm _____

LED

3000 K _____

CRI ≥ 80 _____

L90 / 50000 h _____

photobio. safety RG 0 - no Risk _____

initial MacAdam ≤ 3 SDCM _____

MR 0.56 _____

MDER 0.51 _____

Optical

High Performance Opal _____

opal (lambertsch) _____

PstLM ≤ 1.0 ² _____

SVM ≤ 0.4 ² _____

Electrical

non DIM _____

system 23.8 W _____

PC1 220-240V _____

system 132 lm/W³ _____

20 W/m _____

Physical

length 1172 mm _____

width 60 mm _____

height 80 mm _____

3.2 kg _____

¹ RAL code ² Value of containing product at full load (undimmed)
³ incl. optical losses and the efficiency of the operating device (converter)

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 ^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 |

Mounting accessories

END CAPS

| TYPE | COLOUR | L-W-H (MM) | ARTICLE NUMBER(S) |
|--------|-----------------|------------|-------------------|
| 1 pair | traffic white | 60-40-4 | 046-5010017 |
| 1 pair | jet black | 60-40-4 | 046-5010018 |
| 1 pair | white aluminium | 60-40-4 | 046-501001G |
| 1 pair | special colours | 60-40-4 | 046-501001X |



Mounting accessories

LINEAR CONNECTOR

| TYPE | ARTICLE NUMBER(S) |
|-----------|-------------------|
| 1 piece | 005-40046 |
| 10 pieces | 005-40046.10 |



OPAL COVER LINEAR CONNECTOR

| ARTICLE NUMBER(S) |
|-------------------|
| 006-14000 |



Mounting accessories

CABLE SUSPENSION

| ARTICLE NUMBER(S) |
|-------------------|
| 005-2122110 |



CABLE RAIL

| Ø (MM) | ARTICLE NUMBER(S) |
|--------|-------------------|
| 1200 | 005-2491110 |



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Electrical accessories

THROUGH WIRE

| TYPE | ARTICLE NUMBER(S) |
|-------------------------|-------------------|
| 3 x 1,5 mm² 10 pieces | 004-90003 |
| 5 x 1,5 mm² 10 pieces | 004-90005 |



Electrical accessories

CANOPY / FEEDER CABLE

| TYPE | COLOUR | L-W-H (MM) | ARTICLE NUMBER(S) |
|-------------|---------------|------------|-------------------|
| 3 x 1,5 mm² | traffic white | 90-90-22 | 005-2212317 |
| 3 x 1,5 mm² | jet black | 90-90-22 | 005-2212318 |
| 5 x 1,5 mm² | pure white | 90-90-22 | 005-2212417 |
| 5 x 1,5 mm² | jet black | 90-90-22 | 005-2212418 |

