

# MINO 60 direct / indirect high lumen ceiling /

suspended system

046-5024538Z



|                |
|----------------|
| Project / Type |
| Notes          |
| Count / Date   |



## General

|                               |
|-------------------------------|
| Ceiling , Suspended           |
| black , RAL 9005 <sup>1</sup> |
| IP20                          |
| indirect 1690 lm              |
| direct 2400 lm                |
| total 4090 lm                 |
| 3490 lm/m                     |

## LED

|                          |
|--------------------------|
| 3000 K                   |
| CRI ≥ 80                 |
| L90 / 50000 h            |
| initial MacAdam ≤ 3 SDCM |
| MR 0.56                  |
| MDER 0.51                |

## Optical

|                          |
|--------------------------|
| Microprismatic           |
| microprismatic           |
| UGR < 19                 |
| PstLM ≤ 1.0 <sup>2</sup> |
| SVM ≤ 0.4 <sup>2</sup>   |

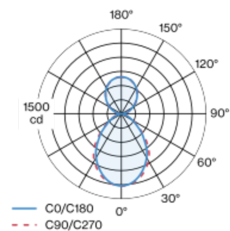
## Electrical

|                              |
|------------------------------|
| DALI-2                       |
| 220-240 V                    |
| system 34 W                  |
| system 120 lm/W <sup>3</sup> |
| PC1                          |
| 1 DALI Addr.                 |
| 29 W/m                       |

## Physical

|                |
|----------------|
| length 1172 mm |
| width 60 mm    |
| height 80 mm   |
| 3.2 kg         |

## 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                            | 18                 |
| B13                            | 23                 |
| B16                            | 28                 |
| B20                            | 35                 |
| C10                            | 30                 |
| C13                            | 38                 |
| C16                            | 46                 |
| C20                            | 58                 |

## 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       |



[046-5024538Z] The technical data represent rated values for an ambient temperature of 25°C. The data values for the luminous flux are initially subject to a tolerance of +/- 10%, those for the electrical connected load are initially subject to a tolerance of +/- 10%, and those for the colour temperature are initially subject to a tolerance of +/- 150 K. No liability is assumed for typographical or printing errors. The general terms and conditions of XAL GmbH apply.  
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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       |

