

MINO 60 direct / indirect mid lumen ceiling /

suspended system
046-5013618Z



Project / Type _____

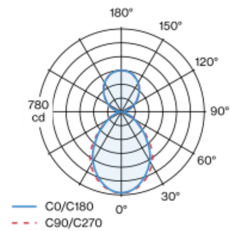
Notes _____

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 black 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 4000 K; binning initial MacAdam ≤ 3 SDCM; CRI ≥ 80 ; 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 ≤ 19 ; direct/indirect illumination characteristic; indirect light component with integrated PC boards for maximum, homogeneous ceiling illumination; degree of protection IP20; PC1; 220-240 V; 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 _____

black , RAL 9005 ¹ _____

IP20 _____

indirect 987 lm _____

direct 1470 lm _____

total 2460 lm _____

2810 lm/m _____

LED

4000 K _____

CRI ≥ 80 _____

L90 / 50000 h _____

initial MacAdam ≤ 3 SDCM _____

MR 0.72 _____

MDER 0.65 _____

Optical

Microprismatic _____

microprismatic _____

UGR ≤ 19 _____

PstLM ≤ 1.0 ² _____

SVM ≤ 0.4 ² _____

Electrical

non DIM _____

220-240 V _____

system 17.9 W _____

system 137 lm/W³ _____

PC1 _____

20 W/m _____

Physical

length 872 mm _____

width 60 mm _____

height 80 mm _____

2.4 kg _____

¹ RAL code ² Value of containing product at full load (undimmed)
³ 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 ^a	Room Surface Maintenance Factor	
MF	Maintenance Factor		LLMF	Lamp Lumens Maintenance Factor	
LMF ^a	Luminaire Maintenance Factor		LSF	Lamp Survival Factor	

^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



[046-5013618Z] 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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02.05.2025

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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

