

VARO 110 S

track
180-6531238W



Project / Type _____

Notes _____

Count / Date _____



General

Ceiling , Track
tilt max 90°
rotation 355°
black , RAL 9005 ¹
IP20
4460 lm

LED

3500 K
CRI ≥ 90
L85 / 50000 h
initial MacAdam ≤ 3 SDCM
R_g: 97 , R_f: 90 , R₍₁₋₁₅₎: 93
MR 0.73
MDER 0.66

Optical

wide flood
beam angle 66°
PstLM ≤ 1.0 ²
SVM ≤ 0.4 ²

Track light made of die-cast aluminium; surface black powder coated; 355° rotatable and 90° tiltable; integrated converter in the plastic adapter; passive cooling of the LEDs through improved heat sink geometry; with COB (Chip on Board) technology for maximum efficiency; no appearance of multiple shadows; light colour 3500 K; binning initial MacAdam ≤ 3 SDCM; CRI ≥ 90; min. 85% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; including high quality aluminium reflector with spherical reflector; high gloss anodised; neutral colour reflection through absolute freedom from interference colour; for brilliant object staging; precise radiation characteristic with 66° beam; installed and exchanged without tools; optical attachments available as accessories; optical attachments can be combined; accessories are listed separately; degree of protection IP20; PC2; 220-240 V; incl. DALI-2 converter; adapter for toolless insertion or movement on a variety of 3-phase power tracks; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

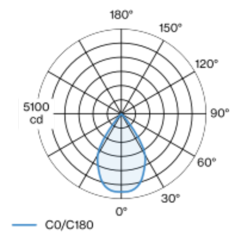
Electrical

DALI-2
220-240 V
system 36 W
system 124 lm/W³
PC2
1 DALI Addr.

Physical

diameter 110 mm
height 110 mm

Light distribution



wide flood 66°

h (m)	E0° (lx)	ø (m)
1	4670	1.30
2	1170	2.60
3	520	3.89
4	290	5.19
5	190	6.49

Product drawing



¹ RAL code ² Value of containing product at full load (undimmed)
³ 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	0.977	0.95	0.923	0.897	0.872
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
B13	42
B16	53
B20	66
C13	71
C16	90
C20	110

Optical accessories

HONEYCOMB LOUVER

Ø (MM)	ARTICLE NUMBER(S)
106	080-6501118



WIDE FLOOD LENS

Ø (MM)	ARTICLE NUMBER(S)
106	080-6502110W



OVAL LENS

Ø (MM)	ARTICLE NUMBER(S)
106	080-6502210



SNOOT

TYPE	Ø (MM)	ARTICLE NUMBER(S)
short	97	080-6503118
medium	97	080-6503218
angle	97	080-6503318

