

VARO 110 S

track
180-6531138M



Project / Type _____

Notes _____

Count / Date _____



General

Ceiling , Track _____

tilt max 90° _____

rotation 355° _____

black , RAL 9005 ¹ _____

IP20 _____

4480 lm _____

LED

4000 K _____

CRI ≥ 90 _____

L85 / 50000 h _____

initial MacAdam ≤ 3 SDCM _____

R_g: 100 , R_f: 92 , R_{f(-15)}: 91 _____

MR 0.78 _____

MDER 0.71 _____

Optical

medium _____

beam angle 25° _____

Electrical

DALI-2 _____

220-240 V _____

system 36 W _____

system 124 lm/W² _____

PC2 _____

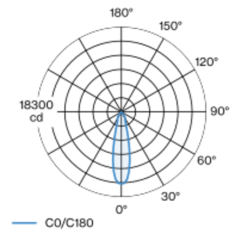
Physical

diameter 110 mm _____

height 110 mm _____

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 4000 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 25° 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;

Light distribution



medium 25°

h (m)	E0° (lx)	ø (m)
1	15500	0.45
2	3900	0.90
3	1700	1.35
4	1000	1.81
5	600	2.26

Product drawing



¹ RAL code
² 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 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.

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

