

VARO 110 S

180-6530138W



Project / Type

Notes

Count / Date



General

Ceiling , Track

tilt max 90°

rotation 355°

black , RAL9005 ¹

IP20

3190 lm

LED

4000 K

CRI ≥ 90

initial MacAdam ≤ 3 SDCM

R_g: 100 , R_r: 92 , R₍₁₋₁₅₎: 91

MR 0.78

MDER 0.71

Optical

wide flood

beam angle 66°

PstLM ≤ 1.0 ²

SVM ≤ 0.4 ²

Electrical

DALI-2

23.4 W

PC2 220-240V

136 lm/W

1 DALI Addr.

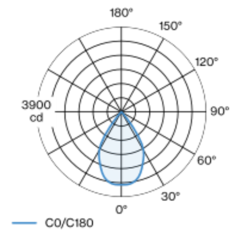
Physical

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 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 220-240V; 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;

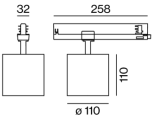
Light distribution



wide flood 66°

h (m)	E0° (lx)	ø (m)
1	3340	1.30
2	840	2.60
3	370	3.89
4	210	5.19
5	130	6.49

Product drawing



¹ RAL code ² Value of containing product at full load (undimmed)

Installation instructions



Lighting calculator



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Maintenance Factors

Operating Time [h]	10 000	20 000	30 000	40 000	50 000
LLMF	0.975	0.944	0.913	0.883	0.854
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

