

# VARO 110 S

track  
180-6531117F



Project / Type \_\_\_\_\_

Notes \_\_\_\_\_

Count / Date \_\_\_\_\_



<b>General</b>
Ceiling , Track
tilt max 90°
rotation 355°
white , RAL 9016 <sup>1</sup>
IP20
4550 lm

<b>LED</b>
4000 K
CRI ≥ 90
L85 / 50000 h
initial MacAdam ≤ 3 SDCM
R <sub>g</sub> : 100 , R <sub>f</sub> : 92 , R <sub>f(1-5)</sub> : 91
MR 0.78
MDER 0.71

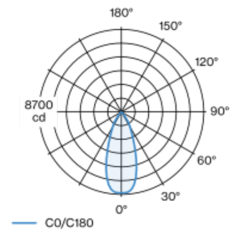
<b>Optical</b>
flood
beam angle 40°

<b>Electrical</b>
non DIM
220-240 V
system 36 W
system 126 lm/W <sup>2</sup>
PC2

<b>Physical</b>
diameter 110 mm
height 110 mm

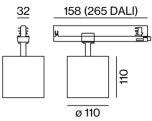
Track light made of die-cast aluminium; surface white powder coated; 355° rotatable and 90° tiltable; integrated converter in the plastic adapter; passive cooling of the LEDs through improved heat sink geometry; with COB (Chip on Board) technology for maximum efficiency; no appearance of multiple shadows; 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 40° 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. converter, non dimmable; 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



flood 40°			
h (m)	E0° (lx)	ø (m)	
1	8540	0.73	
2	2130	1.46	
3	950	2.18	
4	530	2.91	
5	340	3.64	

## Product drawing



<sup>1</sup> RAL code  
<sup>2</sup> incl. consideration of optical losses, internal control unit losses & operating device efficiency

## Installation instructions



## Lighting calculator



# VARO 110 S

track  
180-6531117F



Project / Type

Notes

Count / Date

## 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 <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 Factor

<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.

## 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

