

# VARO 110 S

track  
180-6530238S



Project / Type

Notes

Count / Date



## General

Ceiling , Track

tilt max 90°

rotation 355°

black , RAL 9005 <sup>1</sup>

IP20

3210 lm

## LED

3500 K

CRI ≥ 90

L85 / 50000 h

initial MacAdam ≤ 3 SDCM

R<sub>g</sub>: 97 , R<sub>f</sub>: 90 , R<sub>(1-15)</sub>: 93

MR 0.73

MDER 0.66

## Optical

spot

beam angle 14°

## Electrical

DALI-2

220-240 V

system 23.4 W

system 137 lm/W<sup>2</sup>

PC2

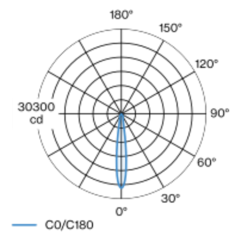
## Physical

diameter 110 mm

height 110 mm

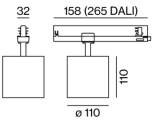
Track light made of die-cast aluminium; surface black powder coated; 355° rotatable and 90° tiltable; integrated converter in the plastic adapter; passive cooling of the LEDs through improved heat sink geometry; with COB (Chip on Board) technology for maximum efficiency; no appearance of multiple shadows; light colour 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 14° 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



spot 14°			
h (m)	E0° (lx)	ø (m)	
1	26400	0.25	
2	6600	0.50	
3	2900	0.75	
4	1700	1.00	
5	1100	1.25	

## Product drawing



<sup>1</sup> RAL code

<sup>2</sup> 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



# VARO 110 S

track  
180-6530238S



Project / Type

Notes

Count / Date

## 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 <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 Faktor

<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

