

# VARO 110

track  
080-6120618S



Project / Type

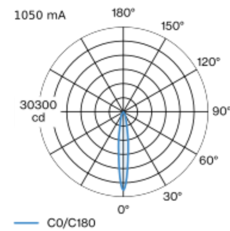
Notes

Count / Date



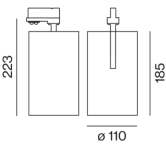
Track light made of die-cast aluminium; surface jet black powder coated; 355° rotatable and 90° tiltable; converter integrated into spotlight head; passive cooling of the LEDs through improved heat sink geometry; with COB (Chip on Board) technology for maximum efficiency; no appearance of multiple shadows; light colour 4000 K; binning initial MacAdam ≤ 3 SDCM; CRI ≥ 90; min. 80% 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 attachment available as accessory; accessories are listed separately; degree of protection IP20; PC1; 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



	spot 14°	1050 mA
h (m)	EO° (lx)	ø (m)
1	27900	0.25
2	7000	0.50
3	3100	0.75
4	1700	1.00
5	1100	1.25

## Product drawing



### General

Ceiling | Track

tilt max 90°

rotation 355°

jet black | RAL 9005 <sup>1</sup>

IP20

3950 lm

### LED

4000 K

CRI ≥ 90

L80 / 50000 h

initial MacAdam ≤ 3 SDCM

R<sub>g</sub>: 97 | R<sub>f</sub>: 90 | R<sub>t(1-15)</sub>: 89

MR 0.81 | MDER 0.74

### Optical

spot | beam angle 14°

PstLM ≤ 1.0<sup>2 3</sup> | SVM ≤ 0.4<sup>2 3</sup>

### Electrical

non DIM

PC1 | 220-240 V

system 42 W

system 94 lm/W <sup>4</sup>

### Physical

diameter 110 mm | height 185 mm

1 kg

<sup>1</sup> RAL code <sup>2</sup> 1050 mA  
<sup>3</sup> Value of containing product at full load (undimmed)  
<sup>4</sup> 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	0.96	0.92	0.88	0.85	0.81
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.

### Circuit Breaker Types

Automatic Circuit Breaker Type	Number of Fixtures
B10	11
B13	15
B16	19
B20	23
C10	19
C13	25
C16	32
C20	39

### Optical accessories

#### SNOOT WITH HONEYCOMB LOUVER

TYPE	Ø (MM)	ARTICLE NUMBER(S)
VARO 110	106	006-93130

