

VARO 110

track
080-6120617F



Project / Type

Notes

Count / Date



General

Ceiling , Track

tilt max 90°

rotation 355°

white , RAL9016 ¹

IP20

4050 lm

LED

4000 K

CRI ≥ 90

L80 / 50000 h

initial MacAdam ≤ 3 SDCM

R_g: 97 , R_f: 90 , R_{t(1-5)}: 89

MR 0.81

MDER 0.74

Optical

flood

beam angle 33°

PstLM ≤ 1.0 ²

SVM ≤ 0.4 ²

Electrical

non DIM

system 42 W

PC1 220-240V

system 96 lm/W³

Physical

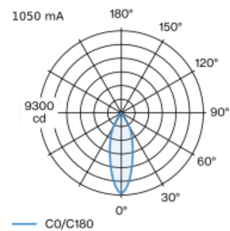
diameter 110 mm

height 185 mm

1 kg

Track light made of die-cast aluminium; surface white 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 33° beam; installed and exchanged without tools; optical attachment available as accessory; accessories are listed separately; degree of protection IP20; PC1 220-240V; 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;

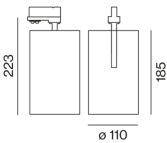
Light distribution



flood 33° 1050 mA

h (m)	EO° (lx)	ø (m)
1	9170	0.59
2	2290	1.18
3	1020	1.77
4	570	2.37
5	370	2.96

Product drawing



¹ RAL code ² Value of containing product at full load (undimmed)
³ incl. optical losses and the efficiency of the operating device (converter)

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 ^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
B10	11
B13	15
B16	19
B20	23
C10	19
C13	25
C16	32
C20	39

Optical accessories

SNOOT WITH HONEYCOMB LOUVER

Ø (MM)	ARTICLE NUMBER(S)
106	006-93130

