

VARO 110 S

track
180-6531038F



Project / Type

Notes

Count / Date



Track light made of die-cast aluminium; surface jet 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 3000 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. 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;



General

Ceiling | Track

tilt max 90°

rotation 355°

jet black | RAL 9005

IP20

4480 lm

LED

3000 K

CRI ≥ 90

L85 / 50000 h

initial MacAdam ≤ 3 SDCM

R_g: 99 | R_f: 92 | R_{t(1-15)}: 93

MR 0.61 | MDER 0.55

Optical

flood | beam angle 40°

Electrical

DALI-2 | 1 DALI Addr.

PC2 | 220-240 V

system 36 W

system 124 lm/W ¹

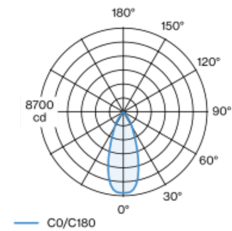
Physical

diameter 110 mm | height 110 mm

0.64 kg

¹ incl. consideration of optical losses, internal control unit losses & operating device efficiency

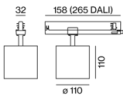
Light distribution



flood 40°

h (m)	EO° (lx)	ø (m)
1	8410	0.73
2	2100	1.46
3	930	2.18
4	530	2.91
5	340	3.64

Product drawing



Installation instructions



Lighting calculator



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Maintenance Factors

Operating Time [h]	10 000	20 000	30 000	40 000	50 000
LLMF	0.977	0.95	0.923	0.897	0.872
LSF	1	1	1	1	1

MF

MF

LMF^a

LMF × RSMF × LLMF × LSF

Maintenance Factor

Luminaire Maintenance Factor

RSMF^a

LLMF

LSF

Room Surface Maintenance Factor

Lamp Lumens Maintenance Factor

Lamp Survival Factor

^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.



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Optical accessories

HONEYCOMB LOUVER

Ø (MM)

106

ARTICLE NUMBER(S)

080-6501118



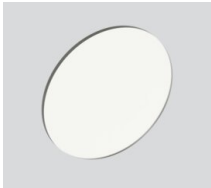
WIDE FLOOD LENS

Ø (MM)

106

ARTICLE NUMBER(S)

080-6502110W



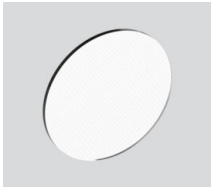
OVAL LENS

Ø (MM)

106

ARTICLE NUMBER(S)

080-6502210



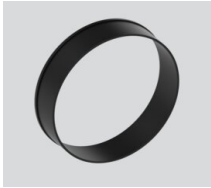
SNOOT short

Ø (MM)

97

ARTICLE NUMBER(S)

080-6503118



SNOOT medium

Ø (MM)

97

ARTICLE NUMBER(S)

080-6503218



SNOOT angle

Ø (MM)

97

ARTICLE NUMBER(S)

080-6503318



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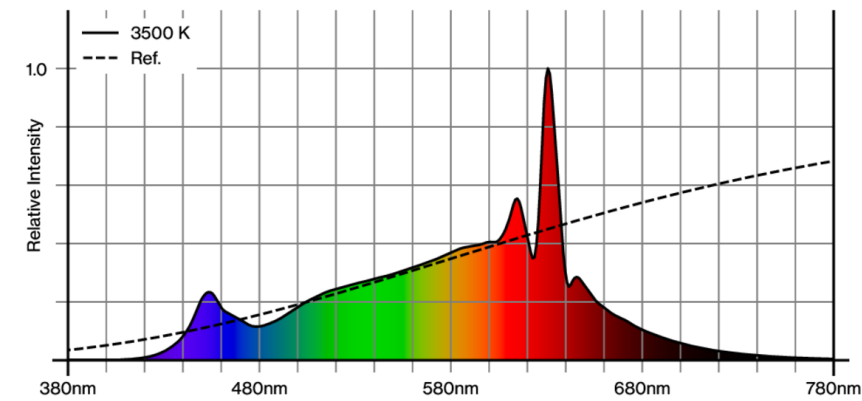


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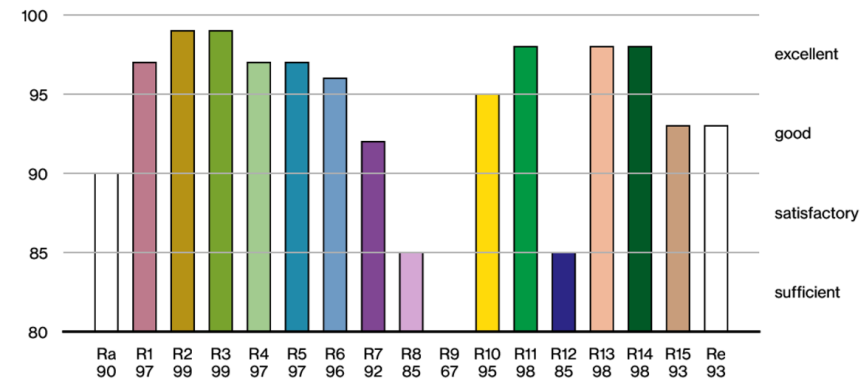
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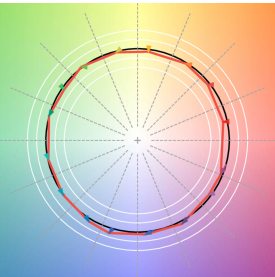
Colour rendering



CRI/R_a ≥ 95 R_e ≥ 93 (3000 K)



TM30 colour vector graphic



The black line represents the black body reference. The red line indicates the results of the test light source. The deviation from the test light source to the reference is shown and is marked by arrows. The shorter the arrows, the higher the color rendering.

