

VARO 110 S

track
180-6530138S



| |
|----------------|
| Project / Type |
| Notes |
| Count / Date |



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 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 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;



General

| |
|-------------------------------|
| Ceiling , Track |
| tilt max 90° |
| rotation 355° |
| black , RAL 9005 ¹ |
| IP20 |
| 3220 lm |

LED

| |
|---|
| 4000 K |
| CRI ≥ 90 |
| L85 / 50000 h |
| initial MacAdam ≤ 3 SDCM |
| R _g : 100 , R _f : 92 , R _{f(1-5)} : 91 |
| MR 0.78 |
| MDER 0.71 |

Optical

| |
|----------------|
| spot |
| beam angle 14° |

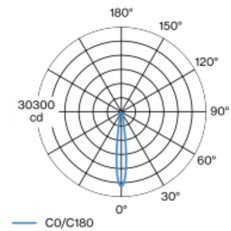
Electrical

| |
|------------------------------|
| DALI-2 |
| 220-240 V |
| system 23.4 W |
| system 138 lm/W ² |
| PC2 |

Physical

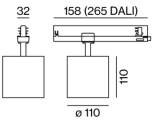
| |
|-----------------|
| diameter 110 mm |
| height 110 mm |

Light distribution



| spot 14° | | |
|----------|----------|-------|
| h (m) | EO° (lx) | ø (m) |
| 1 | 26500 | 0.25 |
| 2 | 6600 | 0.50 |
| 3 | 2900 | 0.75 |
| 4 | 1700 | 1.00 |
| 5 | 1100 | 1.25 |

Product drawing



¹ RAL code
² 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 | 0.975 | 0.944 | 0.913 | 0.883 | 0.854 |
| 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.

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 |

