

# VARO 110 S

180-6531237M



Project / Type \_\_\_\_\_

Notes \_\_\_\_\_

Count / Date \_\_\_\_\_



**General**

Ceiling , Track \_\_\_\_\_

tilt max 90° \_\_\_\_\_

rotation 355° \_\_\_\_\_

white , RAL9016 <sup>1</sup> \_\_\_\_\_

IP20 \_\_\_\_\_

4470 lm \_\_\_\_\_

**LED**

3500 K \_\_\_\_\_

CRI ≥ 90 \_\_\_\_\_

initial MacAdam ≤ 3 SDCM \_\_\_\_\_

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

MR 0.73 \_\_\_\_\_

MDER 0.66 \_\_\_\_\_

**Optical**

medium \_\_\_\_\_

beam angle 25° \_\_\_\_\_

**Electrical**

DALI-2 \_\_\_\_\_

36 W \_\_\_\_\_

PC2 220-240V \_\_\_\_\_

124 lm/W \_\_\_\_\_

**Physical**

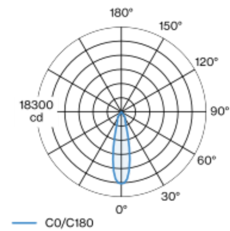
diameter 110 mm \_\_\_\_\_

height 110 mm \_\_\_\_\_

<sup>1</sup> RAL code

Track light made of die-cast aluminium; surface white 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 25° 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 220-240V; 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



medium 25°

| h (m) | EO° (lx) | ø (m) |
|-------|----------|-------|
| 1     | 15500    | 0.45  |
| 2     | 3900     | 0.90  |
| 3     | 1700     | 1.35  |
| 4     | 1000     | 1.81  |
| 5     | 600      | 2.26  |

## Product drawing



## Installation instructions



## Lighting calculator



[180-6531237M] The technical data represent rated values for an ambient temperature of 25°C. The data values for the luminous flux are initially subject to a tolerance of +/- 10%, those for the electrical connected load are initially subject to a tolerance of +/- 10%, and those for the colour temperature are initially subject to a tolerance of +/- 150 K. No liability is assumed for typographical or printing errors. The general terms and conditions of XAL GmbH apply.  
© XAL GmbH · Auer-Welsbach-Gasse 36 · 8055 Graz · Austria · www.xal.com

# VARO 110 S

180-6531237M



Project / Type

Notes

Count / Date

## 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                 | 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       |

