

# BO 45

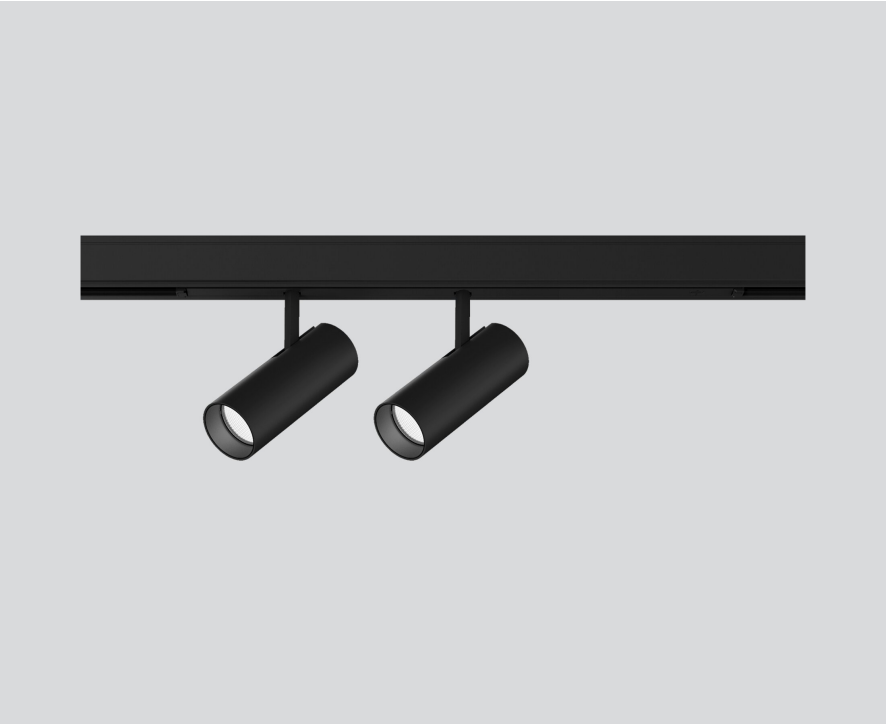
intrack 2 lamps  
180-7240738S



Project / Type

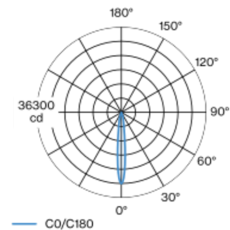
Notes

Count / Date



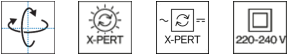
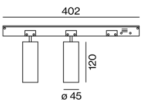
Tracked spotlight in die-cast aluminium with 3-phase adapter; classic style in elegant design for discerning requirements; 2 lamps; cylindrical spotlight heads; surface jet black powder coated; spotlight head 360° rotatable and 90° tiltable; converter integrated in the power track adapter; passive cooling 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  $\leq 2$  SDCM; CRI  $\geq 90$ ; min. 80% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; high quality, aluminium, vapour deposition coated reflector with faceted lens design; precise radiation characteristic with 12° beam; good glare control through recessed light point level; optical attachment available as accessory; accessories are listed separately; degree of protection IP20; PC2; 220-240 V; adapter for toolless insertion or movement on a variety of 3-phase power tracks; adapter flush with the power track; incl. DALI-2 converter; flicker-free visual comfort through analogue current control (minimum value 1%); light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

## Light distribution



| spot 12° |                      |       |
|----------|----------------------|-------|
| h (m)    | EO <sup>1</sup> (lx) | ø (m) |
| 1        | 15200                | 0.21  |
| 2        | 3800                 | 0.42  |
| 3        | 1700                 | 0.63  |
| 4        | 900                  | 0.84  |
| 5        | 600                  | 1.06  |

## Product drawing



## General

Ceiling | Track

tilt max 90°

rotation 360°

jet black | RAL 9005

IP20

2400 lm

## LED

3500 K

CRI  $\geq 90$

L80 / 50000 h

initial MacAdam  $\leq 2$  SDCM

R<sub>g</sub>: 99 | R<sub>f</sub>: 90 | R<sub>t(1-15)</sub>: 89

MR 0.7 | MDER 0.64

## Optical

spot | beam angle 12°

PstLM  $\leq 1.0$ <sup>1 2 3 4</sup> | SVM  $\leq 0.4$ <sup>1 2 3 4</sup>

## Electrical

DALI-2 | 1 DALI Addr.

PC2 | 220-240 V

system 29.9 W

system 80 lm/W<sup>5</sup>

## Physical

diameter 45 mm | height 120 mm

0.5 kg

<sup>1</sup> oval lens BO 45 007-1965880 <sup>2</sup> soft lens BO 45 007-1965980  
<sup>3</sup> wallwasher lens BO 45 007-1965780  
<sup>4</sup> Value of containing product at full load (undimmed)  
<sup>5</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               | 0.964                        | 0.923  | 0.884             | 0.847                           | 0.811  |
| 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                            | 17                 |
| B13                            | 22                 |
| B16                            | 28                 |
| C10                            | 22                 |
| C13                            | 27                 |
| C16                            | 35                 |

## Optical accessories

### HONEYCOMB LOUVER

| TYPE  | COLOUR    | Ø (MM) | ARTICLE NUMBER(S) |
|---|-----------|--------|-------------------|
| for BO 45   JUST 45   MOVE IN 45   TARO 45   TULA micro | jet black | 42     | 007-1965188       |



## Optical accessories

### OVAL LENS

| TYPE                                | Ø (MM) | ARTICLE NUMBER(S) |
|-------------------------------------|--------|-------------------|
| for BO 45   MOVE IN 45   TULA micro | 42     | 007-1965880       |



### SOFT LENS

| TYPE                                      | Ø (MM) | ARTICLE NUMBER(S) |
|---|--------|-------------------|
| for ARY   BO 45   MOVE IN 45   TULA micro | 42     | 007-1965980       |



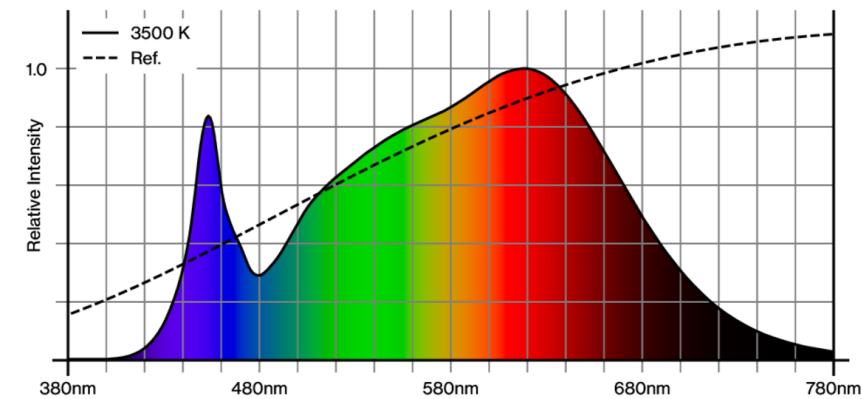
### WALLWASHER LENS

| TYPE                                      | Ø (MM) | ARTICLE NUMBER(S) |
|---|--------|-------------------|
| for ARY   BO 45   MOVE IN 45   TULA micro | 42     | 007-1965780       |

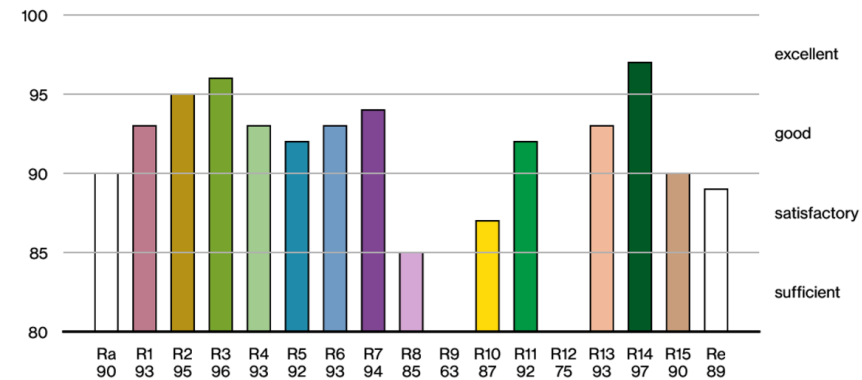




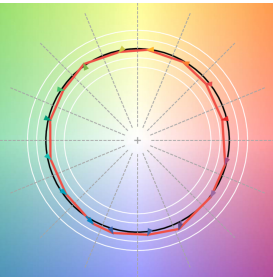
Colour rendering



CRI/R<sub>a</sub> ≥ 92 R<sub>e</sub> ≥ 89 (3500 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.