

# BO 45 semi-recessed

049-613051XV 002-90729



Project / Type

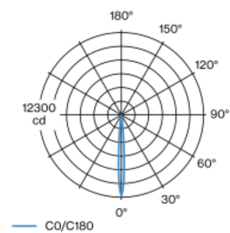
Notes

Count / Date



Cylindrical spotlight in aluminium; surface special colours powder coated; 350° rotatable and 90° tiltable; recessed version with trim; suitable for ceiling thickness of 2-25 mm; passive cooling of the LEDs through improved heat sink geometry; with high power LED for maximum efficiency; no appearance of multiple shadows; light colour 3000 K; binning initial MacAdam  $\leq 3$  SDCM; CRI  $\geq 90$ ; min. 85% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; incl. high quality lens system; precise radiation characteristic with 8° 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; incl. DALI-2 converter; flicker-free visual comfort through analogue current control (minimum value 1%); external converter for ceiling insertion, through-wiring suitable; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

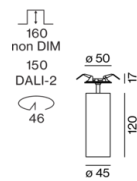
## Light distribution



super spot 8°

h (m)	EO° (lx)	ø (m)
1	12100	0.14
2	3000	0.28
3	1300	0.41
4	800	0.55
5	500	0.69

## Product drawing



## General

Ceiling | Semi-Recessed

tilt max 90°

rotation 350°

special colours

IP20

346 lm

fixture 50 lm/W <sup>1</sup>

## LED

3000 K

CRI  $\geq 90$

L85 / 50000 h

initial MacAdam  $\leq 3$  SDCM

R<sub>g</sub>: 98 | R<sub>r</sub>: 91 | R<sub>(1-15)</sub>: 89

MR 0.6 | MDER 0.55

## Optical

super spot | beam angle 8°

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

## Electrical

DALI-2 | 1 DALI Addr.

PC2 | 220-240 V

system 9.3 W | fixture 6.9 W

11 Vf | 600 mA

## Physical

diameter 45 mm | height 149 mm

0.41 kg

## Cutout

diameter 46 mm

min. ceiling thickness 2 mm | max. ceiling thickness 25 mm

recessed depth 150 mm

<sup>1</sup> incl. consideration of optical losses & internal control unit losses  
<sup>2</sup> Value of containing product at full load (undimmed)

## Installation instructions



## Lighting calculator



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## Maintenance Factors

Operating Time [h]	10 000	20 000	30 000	40 000	50 000
LLMF	0.98	0.95	0.92	0.89	0.86
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	36
B13	47
B16	58
C10	36
C13	78
C16	58

## Components

### POWER SUPPLY

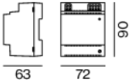
L-W-H (MM)	ARTICLE NUMBER(S)
197-29-21	002-90729



## Optional electrical accessories

### DIN RAIL POWER SUPPLY

L-W-H (MM)	ARTICLE NUMBER(S)
72-90-63	005-6520210



### DIN RAIL LED DRIVER

L-W-H (MM)	ARTICLE NUMBER(S)
36-88-59	005-6121030



## 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



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## 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

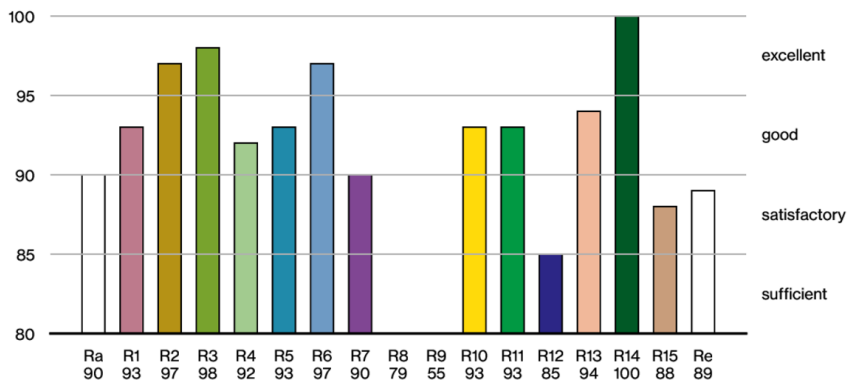
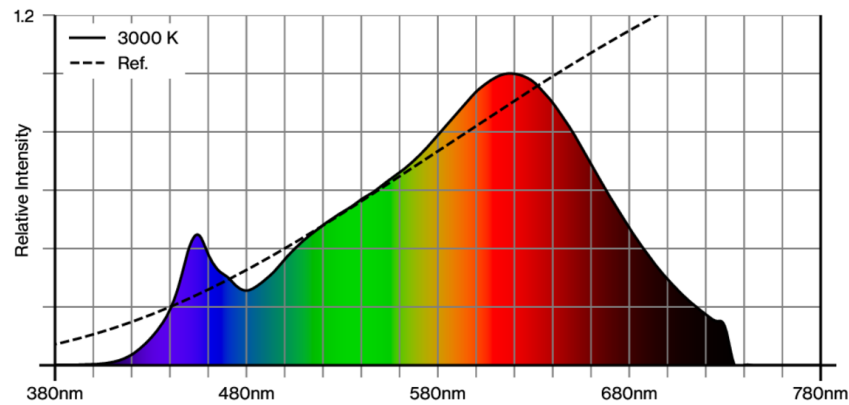


### WALLWASHER LENS

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



## Colour rendering



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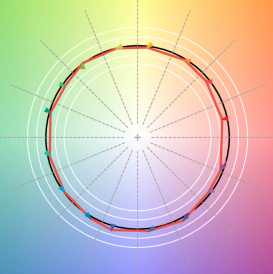


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## TM30 colour vector graphic



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.

