

# SQUADRO double-sided wallwasher

trim  
049-2020037S



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

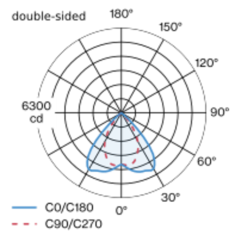
Notes \_\_\_\_\_

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

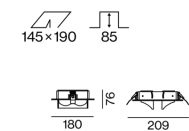


Recessed ceiling spotlight in die cast aluminium with 2x2-lamp design; surface white powder coated; with wrap around edge; suitable for ceiling thickness of 2-25 mm; installation without tools using snap spring closure; heat sink integrated into luminaire geometry for optimum thermal management and passive cooling of LEDs; with COB (Chip on Board) technology for maximum efficiency; light colour 3000 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; aisle spotlight shelf floor washer with special, multi-free-form, facet effect surface reflectors for high precision light control; precise shelf and aisle zone lighting, optimum longitudinal glare control for high viewing comfort in the aisle zone; adjustable light modules (tiltable  $+20^\circ$  to  $-10^\circ$ ); degree of protection IP20; IP 40 protection glass available as an accessory; accessories are listed separately; PC2; 220-240 V; incl. DALI-2 converter; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

## Light distribution



## Product drawing



## General

Ceiling , Recessed \_\_\_\_\_

tilt min  $-10^\circ$  \_\_\_\_\_

tilt max  $20^\circ$  \_\_\_\_\_

white , RAL 9016 <sup>1</sup> \_\_\_\_\_

IP20 \_\_\_\_\_

9640 lm \_\_\_\_\_

## LED

3000 K \_\_\_\_\_

CRI  $\geq 90$  \_\_\_\_\_

L80 / 50000 h \_\_\_\_\_

initial MacAdam  $\leq 2$  SDCM \_\_\_\_\_

R<sub>g</sub>: 98 , R<sub>f</sub>: 91 , R<sub>(1-15)</sub>: 93 \_\_\_\_\_

MR 0.54 \_\_\_\_\_

MDER 0.49 \_\_\_\_\_

## Optical

shelf floor washer \_\_\_\_\_

PstLM  $\leq 1.0^2$  <sup>3</sup> \_\_\_\_\_

SVM  $\leq 0.4^2$  <sup>3</sup> \_\_\_\_\_

## Electrical

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

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

system 71 W \_\_\_\_\_

system 136 lm/W<sup>4</sup> \_\_\_\_\_

PC2 \_\_\_\_\_

1 DALI Addr. \_\_\_\_\_

## Physical

length 180 mm \_\_\_\_\_

width 209 mm \_\_\_\_\_

height 76 mm \_\_\_\_\_

## Cutout

length 145 mm \_\_\_\_\_

width 190 mm \_\_\_\_\_

min. ceiling thickness 2 mm \_\_\_\_\_

max. ceiling thickness 25 mm \_\_\_\_\_

recessed depth 85 mm \_\_\_\_\_

<sup>1</sup> RAL code <sup>2</sup> double-sided

<sup>3</sup> Value of containing product at full load (undimmed)

<sup>4</sup> incl. consideration of optical losses, internal control unit losses & operating device efficiency

## Installation instructions



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## Maintenance Factors

Operating Time [h]	10 000	20 000	30 000	40 000	50 000
LLMF	0.977	0.94	0.905	0.871	0.838
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.

## Circuit Breaker Types

Automatic Circuit Breaker Type	Number of Fixtures
B10	6
B13	8
B16	10
B20	12
C10	10
C13	13
C16	16
C20	20

## Optical accessories

### IP40 PROTECTION GLASS

TYPE	ARTICLE NUMBER(S)
2 x 2 lamps / double-sided	049-2920010

