

# SQUADRO double-sided wallwasher

trim

049-2020137S



Project / Type

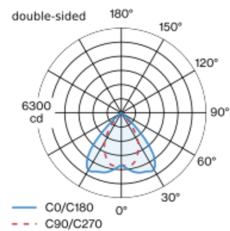
Notes

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 4000 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 220-240V; 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 , RAL9016 <sup>1</sup>

IP20

9780 lm

## LED

4000 K

CRI  $\geq 90$

L80 / 50000 h

initial MacAdam  $\leq 2$  SDCM

R<sub>g</sub>: 100 , R<sub>f</sub>: 92 , R<sub>f(1-5)</sub>: 91

MR 0.78

MDER 0.71

## Optical

shelf floor washer

PstLM  $\leq 1.0$  <sup>2</sup>

SVM  $\leq 0.4$  <sup>2</sup>

## Electrical

DALI-2

system 71 W

PC2 220-240V

system 138 lm/W<sup>3</sup>

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> Value of containing product at full load (undimmed)  
<sup>3</sup> incl. optical losses and the efficiency of the operating device (converter)

## 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       |

