

SPIO 20 downlight

trim

048-1610418F 002-90783



Project / Type

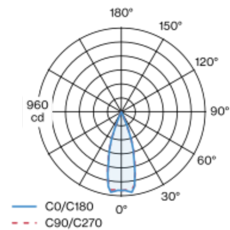
Notes

Count / Date

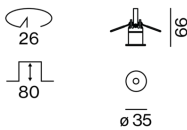


Round recessed spotlight in aluminium; surface black powder coated; with trim; suitable for ceiling thickness of 2-25 mm; installation without tools using snap spring closure; passive cooling of the LEDs through improved heat sink geometry; light colour 2700 K; binning initial MacAdam ≤ 3 SDCM; CRI ≥ 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 34° beam; no multiple shadows; uncluttered ceiling look through recessed lighting level; reduced light-emitting surface (only $\varnothing 10$ mm); degree of protection IP20; PC2; 220-240 V; incl. converter, non dimmable; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

Light distribution



Product drawing



General

Ceiling | Recessed

rotation 360°

black | RAL 9005 ¹

IP20

289 lm

fixture 44 lm/W ²

LED

2700 K

CRI ≥ 90

L85 / 50000 h

initial MacAdam ≤ 3 SDCM

R_g: 104 | R_f: 88 | R_(f-15): 89

MR 0.5 | MDER 0.46

Optical

flood | beam angle 34°

UGR ≤ 10

PstLM ≤ 1.0 ³ | SVM ≤ 0.4 ³

Electrical

non DIM

PC2 | 220-240 V

system 8.7 W | fixture 6.5 W

12 Vf | 600 mA

Physical

trim

diameter 35 mm | height 66 mm

0.2 kg

Cutout

diameter 26 mm

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

recessed depth 80 mm

¹ RAL code
² incl. consideration of optical losses & internal control unit losses
³ 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 | 1 | 1 | 0.99 | 0.97 | 0.96 |
| LSF | 1 | 1 | 1 | 1 | 1 |
| MF | LMF × RSMF × LLMF × LSF | | RSMF ^a | Room Surface Maintenance Factor | |
| MF | Maintenance Factor | | LLMF | Lamp Lumens Maintenance Factor | |
| LMF ^a | Luminaire Maintenance Factor | | LSF | Lamp Survival Factor | |

^a 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 | 31 |
| B13 | 40 |
| B16 | 50 |
| B20 | 62 |
| C10 | 52 |
| C13 | 67 |
| C16 | 85 |
| C20 | 104 |

Components

POWER SUPPLY

| | |
|------------|-------------------|
| L-W-H (MM) | ARTICLE NUMBER(S) |
| 147-44-22 | 002-90783 |



Optional electrical accessories

DIN RAIL POWER SUPPLY

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



DIN RAIL LED DRIVER

| | | |
|-------------------------|------------|-------------------|
| TYPE | L-W-H (MM) | ARTICLE NUMBER(S) |
| 200 - 1050 mA 2 x 42W | 36-88-59 | 005-6121030 |

