

# Direct M

IP20 2500lm 930 36D DA2 WH

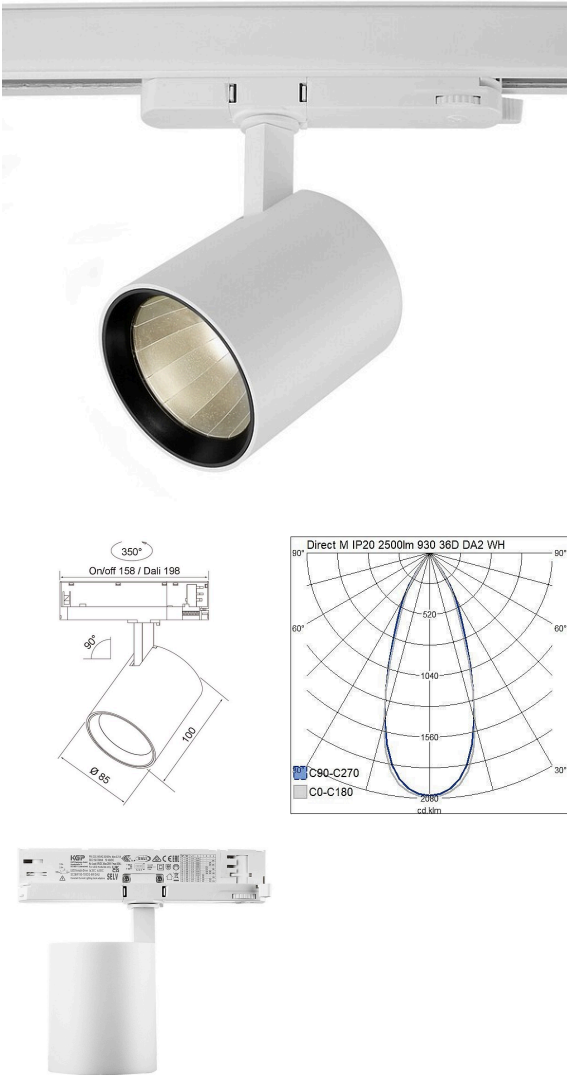
Spotlight

Direct M is an energy-efficient and adjustable spotlight with a long lifespan. Its compact size, high-quality light, and excellent color rendering make it an excellent choice for public spaces. Applications include stores, shops, hotels and restaurants. Direct is installed on a track, making its installation easy and flexible. The luminaire has an almost invisible driver integrated directly into the track adapter. The Direct M model is particularly well-suited for store lighting. Its light output and adjustability offer numerous options for illuminating store spaces; the luminaire is easy to move and redirect as needed. Adjusting the direction of the light provides options for illuminating different spaces; the luminaire is easy to move and direct as needed.

Direct M Spotlight 20W 3000K 2500lm Beam angle Medium beam 20-40°; Dim DALI-2; Dim programmable; IP20; IK02; Protection cl. II; L70B50 100000h; LED not exchangeable; Lamp included; CRI>90; SDCM3; Ending; 5x0.75mm²; Housing al; Colour wh; Cover Glass transparent; C16 max. 128

Stocked: Yes

| IP20 2500lm 930 36D DA2 WH |         |      |                |
|----------------------------|---------|------|----------------|
| PRODUCT CODE               | CODE    | KG   | PRODUCT FAMILY |
| 4146990                    | 4146990 | 0.51 | Direct M       |



## IP20 2500lm 930 36D DA2 WH

EC001744 Downlight / spot luminaire / floodlight

| Mounting                                                                         |                      |
|----------------------------------------------------------------------------------|----------------------|
| Suitable for surface mounting                                                    | No                   |
| Suitable for recessed mounting                                                   | No                   |
| Suitable for wall mounting                                                       | No                   |
| Suitable for suspended mounting                                                  | No                   |
| Suitable for ceiling mounting                                                    | No                   |
| Suitable for traverse mounting                                                   | No                   |
| Suitable for pedestal/floor mounting                                             | No                   |
| Suitable for light-track mounting                                                | Yes                  |
| Suitable for clamp-mounting                                                      | No                   |
| Suitable for low voltage cable system                                            | No                   |
| Degree of protection (IP)                                                        | IP20                 |
| Degree of protection (IP), rear side                                             | IP20                 |
| Degree of protection (IP), front side                                            | IP20                 |
| Impact strength                                                                  | IK02                 |
| Emergency function monitoring system                                             | None                 |
| Type of wiring                                                                   | Ending               |
| Number of poles                                                                  | 5                    |
| Conductor cross section (mm <sup>2</sup> )                                       | 0.75 mm <sup>2</sup> |
| Connectable conductor cross section (min) (mm <sup>2</sup> )                     | 1.5 mm <sup>2</sup>  |
| Connectable conductor cross section (max) (mm <sup>2</sup> )                     | 2.5 mm <sup>2</sup>  |
| Connection type                                                                  | Busbar adapter       |
| Luminaire with limited surface temperature, class "D" in acc. with EN 60598-2-24 | No                   |
| Max. number of luminaires per miniature circuit breaker B16                      | 80                   |
| Max. number of luminaires per miniature circuit breaker C16                      | 128                  |
| Fit for workplace acc. EN 12464-1                                                | No                   |
| Luminaire may be covered with thermally insulating material                      | -                    |

| Structure                                                                    |                         |
|------------------------------------------------------------------------------|-------------------------|
| Adjustability                                                                | Rotating and swivelling |
| Lamp type                                                                    | LED not exchangeable    |
| Light source included                                                        | Yes                     |
| Suitable for number of lamps                                                 | 1                       |
| Lamp holder                                                                  | Other                   |
| Housing material                                                             | Aluminium               |
| Surface protection                                                           | Powder coating          |
| Housing colour                                                               | White                   |
| Cover material                                                               | Glass transparent       |
| Surface brushed                                                              | No                      |
| Control gear included                                                        | Yes                     |
| Exchangeable control gear                                                    | No                      |
| Reflector                                                                    | Matt                    |
| Reflector colour                                                             | Silver                  |
| Energy efficiency class of light source according to EU regulation 2019/2015 | D                       |
| Containing product according to 2019/2020/EU                                 | Yes                     |
| Emergency power supply system                                                | None                    |
| Emergency power supply integrated                                            | No                      |
| Filament test according to IEC 60695-2-11                                    | 650 °C - 30 s           |

| Dimming and control                       |     |
|-------------------------------------------|-----|
| With movement sensor                      | No  |
| With presence indicator                   | No  |
| With light sensor                         | No  |
| Dimmable                                  | Yes |
| Dimming 0-10 V                            | No  |
| Dimming 1-10 V                            | No  |
| Dimming DALI-2                            | Yes |
| Dimming DALI                              | Yes |
| Dimming DMX                               | No  |
| Dimming DSI                               | No  |
| Dimming potentiometer (integrated)        | No  |
| Dimming LineSwitch                        | No  |
| Dimming manufacturer's proprietary system | No  |
| Dimming mains voltage modulation          | No  |
| Dimming trailing edge                     | No  |
| Dimming leading edge                      | No  |
| Dimming programmable                      | Yes |
| Dimming RF                                | No  |
| Dimming Sine Wave Reduction               | No  |
| Dimming Touch and Dim                     | No  |
| Dimming Zigbee                            | No  |
| Dimming with push-button                  | No  |
| No dimming function                       | No  |
| Constant luminous flux control            | No  |
| IFTTT support available                   | No  |
| Compatible with Apple HomeKit             | No  |
| Bluetooth operated                        | No  |
| Compatible with Google Assistant          | No  |
| Compatible with Casambi                   | No  |
| Compatible with Amazon Alexa              | No  |

| Electrotechnical data                   |                                                      |
|-----------------------------------------|------------------------------------------------------|
| Voltage type                            | AC/DC                                                |
| Nominal voltage (min) (V)               | 220 V                                                |
| Nominal voltage (max) (V)               | 240 V                                                |
| Nominal current (min) (mA)              | 500 mA                                               |
| Nominal current (max) (mA)              | 500 mA                                               |
| Type of control gear                    | LED<br>operating<br>device<br>current-<br>controlled |
| Total harmonic distortion (THD) (%)     | 20 %                                                 |
| Total harmonic distortion               | 20 THD                                               |
| Protection class according to IEC 61140 | II                                                   |
| Suitable for lamp power (min) (W)       | 20 W                                                 |
| Suitable for lamp power (max) (W)       | 20 W                                                 |
| Maximum system power (W)                | 20 W                                                 |
| Luminaire efficacy (min) (lm/W)         | 125 lm/W                                             |
| Luminaire efficacy (max) (lm/W)         | 125 lm/W                                             |
| Power factor                            | 0.9                                                  |
| Luminaire efficacy (lm/W)               | 125 lm/W                                             |

| Photometric data                                          |                       |
|-----------------------------------------------------------|-----------------------|
| Light distributor                                         | Reflector             |
| Light sharing                                             | Symmetric             |
| Beam angle                                                | Medium<br>beam 20-40° |
| Light outlet                                              | Direct                |
| Colour of light (alphanumeric)                            | White                 |
| Colour temperature (min) (K)                              | 3000 K                |
| Colour temperature (max) (K)                              | 3000 K                |
| Colour temperature switchable                             | No                    |
| Colour rendering index (CRI/Ra)                           | 90-100                |
| Luminous flux (min) (lm)                                  | 2500 lm               |
| Luminous flux (max) (lm)                                  | 2500 lm               |
| Effective luminous flux (lm)                              | 2500 lm               |
| Rated luminous flux according to IEC 62722-2-1 (min) (lm) | 2500 lm               |
| Rated luminous flux according to IEC 62722-2-1 (max) (lm) | 2500 lm               |
| Lumen setting adjustable                                  | No                    |
| Flickering value Pst LM                                   | 1                     |
| Beam angle adjustable                                     | No                    |
| Stroboscope effect value SVM                              | 0.4                   |
| Photobiological safety according to EN 62471              | RG0                   |
| Colour consistency (McAdam ellipse)                       | SDCM3                 |
| Unified Glare Rating (UGR)                                | 21                    |

| Lifetime and capacity                                                           |          |
|---------------------------------------------------------------------------------|----------|
| Rated life time L70/B50 at 25 °C (h)                                            | 100000 h |
| Rated life time L80/B50 at 25 °C                                                | 100000 h |
| Lumen maintenance at median useful life of 35,000 hrs at 25 °C ambient (tq) (%) | 95 %     |
| Lumen maintenance at median useful life of 50,000 hrs at 25 °C ambient (tq) (%) | 90 %     |
| Lumen maintenance at median useful life of 100,000 hr at 25 °C ambient (tq)     | 80 %     |
| Failure rate at median useful life of 35,000 hrs at 25 °C ambient (tq) (%)      | 5 %      |
| Failure rate at median useful life of 50,000 hrs at 25 °C ambient (tq) (%)      | 5 %      |
| Failure rate at median useful life of 100,000 hrs at 25 °C ambient (tq)         | 10 %     |
| Rated ambient temperature acc. IEC62722-2-1 (min) (°C)                          | 0 °C     |
| Rated ambient temperature acc. IEC62722-2-1 (max) (°C)                          | 25 °C    |

| Measurements                   |         |
|--------------------------------|---------|
| Length (mm)                    | 85 mm   |
| Width (mm)                     | 85 mm   |
| Height/depth (mm)              | 100 mm  |
| Outer diameter (mm)            | 85 mm   |
| Installation height (min) (mm) | 3000 mm |
| Installation height (max) (mm) | 6000 mm |