



|                |
|----------------|
| Project / Type |
| Notes          |
| Count / Date   |



## General

|  |
|--|
| Ceiling , Track  |
| tilt max 310°  |
| rotation 360°  |
| black , RAL 9005 <sup>1</sup>  |
| IP20   |
| 957 <sup>2</sup> , 979 <sup>3</sup> , 1030 <sup>4</sup> , 1050 <sup>5</sup> , 1090 <sup>6</sup> , 1090 <sup>7</sup> lm |

## LED

|  |
|--|
| 4000 K   |
| CRI ≥ 90   |
| L85 / 50000 h  |
| initial MacAdam ≤ 2 SDCM   |
| R <sub>g</sub> : 94 , R <sub>f</sub> : 87 , R <sub>(f-l-15)</sub> : 90 |
| MR 0.86  |
| MDER 0.78  |

## Optical

|   |
|---|
| wide flood <sup>2</sup> , medium <sup>3</sup> , flood <sup>4</sup> , flood <sup>5</sup> , super spot <sup>6</sup> , spot <sup>7</sup> |
| beam angle 64° <sup>2</sup> , 30° <sup>3</sup> , 38° <sup>4</sup> , 40° <sup>5</sup> , 10° <sup>6</sup> , 19° <sup>7</sup>            |
| PstLM ≤ 1.0 <sup>6 2 7 5 4 3 8</sup>  |
| SVM ≤ 0.4 <sup>6 2 7 5 4 3 8</sup>  |

## Electrical

|  |
|--|
| DIM POT  |
| 220-240 V  |
| system 14.7 W  |
| system 65 <sup>2</sup> , 67 <sup>3</sup> , 70 <sup>4</sup> , 71 <sup>5</sup> , 74 <sup>6</sup> , 74 <sup>7</sup> lm/W <sup>9</sup> |
| PC1  |

## Physical

|                    |
|--------------------|
| diameter 70 mm     |
| height 98 mm       |
| 0.92 kg            |
| tool-free fixation |

<sup>1</sup> RAL code <sup>2</sup> 64 degrees <sup>3</sup> 30 degrees <sup>4</sup> 38 degrees  
<sup>5</sup> 40 degrees <sup>6</sup> 10 degrees <sup>7</sup> 19 degrees

<sup>8</sup> Value of containing product at full load (undimmed)

<sup>9</sup> FIXTURE: incl. consideration of optical losses & internal control unit losses SYSTEM: incl. consideration of optical losses, internal control unit losses & operating device efficiency.

## Installation instructions



## Lighting calculator



Track light made of die-cast aluminium; surface black powder coated; 360° rotatable and 310° tiltable; converter installed in aluminium spotlight housing; passive cooling of the LEDs through improved heat sink geometry; with COB (Chip on Board) technology for maximum efficiency; no appearance of multiple shadows; light colour 4000 K; binning initial MacAdam ≤ 2 SDCM; CRI ≥ 90; min. 85% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; incl. exchangeable additional lenses; precise radiation characteristics with different beam angles; optical filter available as accessory; degree of protection IP20; PC1; 220-240 V; adapter for toolless insertion or movement on a variety of 3-phase power tracks; adapter fixation without tools by means of knurled screw; incl. converter, dimmable with integrated potentiometer; point outlet, either in surface mounted housing or recessed housing, available as an accessory; accessories are listed separately; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;



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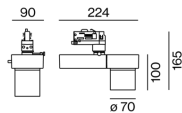
Notes \_\_\_\_\_

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Light distribution



Product drawing



super spot 10°

| h (m) | E0° (lx) | ø (m) |
|-------|----------|-------|
| 1     | 25600    | 0.18  |
| 2     | 6400     | 0.36  |
| 3     | 2800     | 0.53  |
| 4     | 1600     | 0.71  |
| 5     | 1000     | 0.89  |

spot 19°

| h (m) | E0° (lx) | ø (m) |
|-------|----------|-------|
| 1     | 6650     | 0.33  |
| 2     | 1660     | 0.65  |
| 3     | 740      | 0.98  |
| 4     | 420      | 1.31  |
| 5     | 270      | 1.63  |

medium 30°

| h (m) | E0° (lx) | ø (m) |
|-------|----------|-------|
| 1     | 2220     | 0.54  |
| 2     | 560      | 1.08  |
| 3     | 250      | 1.63  |
| 4     | 140      | 2.17  |
| 5     | 90       | 2.71  |

flood 38°

| h (m) | E0° (lx) | ø (m) |
|-------|----------|-------|
| 1     | 1830     | 0.69  |
| 2     | 460      | 1.37  |
| 3     | 200      | 2.06  |
| 4     | 110      | 2.75  |
| 5     | 70       | 3.43  |

flood 40°

| h (m) | E0° (lx) | ø (m) |
|-------|----------|-------|
| 1     | 1870     | 0.72  |
| 2     | 470      | 1.44  |
| 3     | 210      | 2.16  |
| 4     | 120      | 2.88  |
| 5     | 70       | 3.60  |

wide flood 64°

| h (m) | E0° (lx) | ø (m) |
|-------|----------|-------|
| 1     | 790      | 1.24  |
| 2     | 198      | 2.48  |
| 3     | 88       | 3.72  |
| 4     | 49       | 4.96  |
| 5     | 32       | 6.19  |



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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 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                            | 31                 |
| B13                            | 40                 |
| B16                            | 50                 |
| B20                            | 62                 |
| B25                            | 78                 |
| C10                            | 52                 |
| C13                            | 67                 |
| C16                            | 85                 |
| C20                            | 104                |
| C25                            | 130                |

Mounting accessories

RECESSED HOUSING

| TYPE         | COLOUR        | Ø (MM) | ARTICLE NUMBER(S) |
|--------------|---------------|--------|-------------------|
| point outlet | traffic white | 151    | 186-072277        |
| point outlet | jet black     | 151    | 186-072278        |



SURFACE HOUSING

| TYPE         | COLOUR        | Ø (MM) | ARTICLE NUMBER(S) |
|--------------|---------------|--------|-------------------|
| point outlet | traffic white | 120    | 186-072287        |
| point outlet | jet black     | 120    | 186-072288        |



Optical accessories

OVAL FILTER

| TYPE     | ARTICLE NUMBER(S) |
|----------|-------------------|
| 60 x 15° | 080-5900020       |

