

# LENO opal

semi-recessed / surface system

051-8112537H 051-8920068



Project / Type

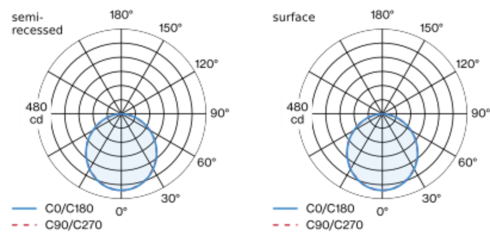
Notes

Count / Date

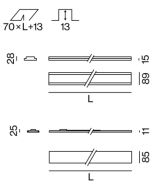


Low profile recessed mounted luminaire, 15 mm visible height or low profile surface mounted luminaire, 28 mm total height; converter integrated into luminaire housing; suitable for wall or ceiling mounting; suitable for installation in primed or exposed concrete, in plasterboard constructions and in plastered walls or ceilings; for continuous lighting systems; surface black powder coated; fall-safe light inset made of extruded aluminium profile, can be inserted in the canal without tools by magnetic holders; side coupled light directed downward through LGP (LIGHT GUIDING PRISM) body and high efficiency reflector; HPO (High Performance Opal) cover for uniform illumination; flush cover; light colour 3000 K; binning initial MacAdam  $\leq 3$  SDCM; CRI  $\geq 80$ ; min. 90% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; degree of protection from below IP40 (from above IP20); PC1; 220-240 V; internal wiring in light halogen free; incl. DALI-2 converter; accessories are listed separately; light source not replaceable; control gear replaceable by an authorized professional;

## Light distribution



## Product drawing



## General

Ceiling / Wall | Semi-Recessed<sup>1</sup>-Surface<sup>2</sup>

black | RAL 9005<sup>3</sup>

front IP40<sup>1</sup>-IP20<sup>2</sup> | back IP20

1220 lm

2000 lm/m

jet black

## LED

3000 K

CRI  $\geq 80$

L90 / 50000 h

initial MacAdam  $\leq 3$  SDCM

MR 0.54 | MDER 0.49

## Optical

High Performance Opal | opal (lambertsch)

$P_{stLM} \leq 1.0^{1\ 2\ 4}$  |  $SVM \leq 0.4^{1\ 2\ 4}$

## Electrical

DALI-2 | 1 DALI Addr.

PC1 | 220-240 V

system 10.8 W

system 113 lm/W<sup>5</sup>

18 W/m

## Physical

length 613 mm | width 89 mm | height 28 mm

1.8 kg

## Cutout

length 626 mm | width 70 mm

min. ceiling thickness 12.5 mm

recessed depth 13 mm

<sup>1</sup> semi-recessed <sup>2</sup> surface <sup>3</sup> RAL code  
<sup>4</sup> Value of containing product at full load (undimmed)  
<sup>5</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               | 0.98                         | 0.95   | 0.93  | 0.91   | 0.9    |
| 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 Factor                          |        |        |

<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                            | 18                 |
| B13                            | 24                 |
| B16                            | 30                 |
| B20                            | 37                 |
| C10                            | 31                 |
| C13                            | 40                 |
| C16                            | 51                 |
| C20                            | 62                 |

## Components

### INSTALLATION CHANNEL semi-recessed / surface

|           |            |                   |
|-----------|------------|-------------------|
| COLOUR    | L-W-H (MM) | ARTICLE NUMBER(S) |
| jet black | 613-89-28  | 051-8920068       |



## Mounting accessories

### END CAPS MOUNTING HOUSING

|        |                   |
|--------|-------------------|
| TYPE   | ARTICLE NUMBER(S) |
| 1 pair | 051-8996210       |



### END CAPS semi-recessed

|            |                   |
|------------|-------------------|
| COLOUR     | ARTICLE NUMBER(S) |
| pure white | 051-8992217       |
| jet black  | 051-8992218       |



## Mounting accessories

### LINEAR CONNECTOR semi-recessed / surface

|          |                   |
|----------|-------------------|
| TYPE     | ARTICLE NUMBER(S) |
| 1 pair   | 051-8992110       |
| 10 pairs | 051-8992110.10    |



### POWER FEEDER CONNECTOR

|                 |                   |
|-----------------|-------------------|
| TYPE            | ARTICLE NUMBER(S) |
| 220-240 V   13A | 051-8992330       |





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CONCRETE MOUNTING HOUSING

| TYPE      | L-W-H (MM) | ARTICLE NUMBER(S) |
|-----------|------------|-------------------|
| end       | 616-67-28  | 051-8960060       |
| start/end | 1224-67-28 | 051-8960120       |
| middle    | 1221-67-28 | 051-8961120       |
| start/end | 1833-67-28 | 051-8960180       |
| middle    | 1830-67-28 | 051-8961180       |
| start/end | 2441-67-28 | 051-8960240       |
| middle    | 2438-67-28 | 051-8961240       |



Other accessories

DISMOUNTING TOOL

| TYPE       | ARTICLE NUMBER(S) |
|------------|-------------------|
| vacuum cup | 086-30000         |

