

## PRODUCT DATASHEET

### HQL LED 2000 lm 16 W/4000 K E27

HQL LED PRO | LED replacement for HID lamps for outdoor application



#### Areas of application

- Streets
- Area lighting
- Pedestrian zones
- Parks
- Outdoor applications only in suitable luminaires

#### Product benefits

- Saves up to 78 % energy when used as replacement for mercury vapor lamps (HQL)
- Low maintenance costs thanks to long lifetime
- Instant 100 % light, no warm-up time

#### Product features

- Replacement for HQL: Suitable for operation with conventional control gear (CCG) for HQL or 230 V mains
- Replacement for other HID: Suitable for operation with line voltage without control gear
- Power factor: 0.9
- Type of protection: IP65
- High surge protection: up to 6 kV (L-N)



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**TECHNICAL DATA****Electrical data**

|                                                          |             |
|----------------------------------------------------------|-------------|
| Nominal wattage                                          | 16 W        |
| Construction wattage                                     | 16.00 W     |
| Nominal voltage                                          | 220...240 V |
| Claimed equiv. conventional lamp power                   | 50 W        |
| Nominal current                                          | 75 mA       |
| Type of current                                          | AC          |
| Inrush current                                           | 2.3 A       |
| Operating frequency                                      | 50/60 Hz    |
| Mains frequency                                          | 50/60 Hz    |
| Max. lamp number on MCB B10 A                            | 80          |
| Max. lamp number on MCB B10 A - CCG without compensation | 80          |
| Max. lamp number on MCB B16 A                            | 128         |
| Max. lamp number on MCB B16 A - CCG without compensation | 128         |
| Total harmonic distortion                                | 20 %        |
| Power factor $\lambda$                                   | 0.90        |

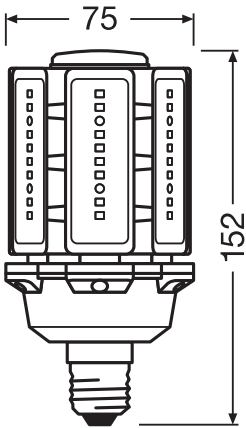
**Photometrical data**

|                                         |            |
|-----------------------------------------|------------|
| Luminous flux                           | 2000 lm    |
| Nominal useful luminous flux 90°        | 2000 lm    |
| Luminous efficacy                       | 125 lm/W   |
| Lumen main.fact.at end of nom.life time | 0.70       |
| Light color (designation)               | Cool White |
| Color temperature                       | 4000 K     |
| Color rendering index Ra                | ≥80        |
| Light color                             | 840        |
| Standard deviation of color matching    | ≤6 sdcn    |
| Rated LLMF at 6,000 h                   | 0.80       |

**Light technical data**

|                     |          |
|---------------------|----------|
| Beam angle          | 360 °    |
| Warm-up time (60 %) | < 0.50 s |
| Starting time       | < 0.5 s  |

**Dimensions & Weight**



|                  |           |
|------------------|-----------|
| Overall length   | 153.00 mm |
| Diameter         | 75,0 mm   |
| Maximum diameter | 75 mm     |
| Product weight   | 460.00 g  |

Temperatures & operating conditions

|                                      |              |
|--------------------------------------|--------------|
| Ambient temperature range            | -20...+60 °C |
| Maximum temperature at tc test point | 85 °C        |

Lifespan

|                                              |        |
|----------------------------------------------|--------|
| Number of switching cycles                   | 100000 |
| Lumen maintenance at end of service lifetime | 0.70   |
| Rated lamp survival factor at 6,000 h        | ≥ 0.90 |

Additional product data

|                             |        |
|-----------------------------|--------|
| Base (standard designation) | E27    |
| Mercury content             | 0.0 mg |
| Mercury-free                | Yes    |

Capabilities

|          |    |
|----------|----|
| Dimmable | No |
|----------|----|

Certificates & Standards

|                         |                 |
|-------------------------|-----------------|
| Energy efficiency class | A++ 1)          |
| Energy consumption      | 16.00 kWh/1000h |

|                                              |      |
|----------------------------------------------|------|
| Type of protection                           | IP65 |
| Standards                                    | CE   |
| Photobiological safety group acc. to EN62778 | RG1  |

1) Energy efficiency class (EEC) on a scale of A++ (highest efficiency) to E (lowest efficiency)

### Country-specific categorizations

|                 |                 |
|-----------------|-----------------|
| Order reference | HQLLED2000 16W/ |
|-----------------|-----------------|

### Energy labelling regulation data acc EU 2019/2015

|                                                     |           |
|-----------------------------------------------------|-----------|
| Light source cap-type (or other electric interface) | E27       |
| Length                                              | 153.00 mm |
| Height                                              | 75,0 mm   |
| Width                                               | 75,0 mm   |

### Safety advice

- The bulb may be larger and heavier than the replaced bulb. Before installation it must be checked, if the luminaire and especially the holder is capable of carrying the weight of the lamp. If possible, please install the safety rope included in the package containing the lamp for the types 90 W lamps.
- Not suitable for operation with ignitors.
- Operation on the capacitor can lead to a reduction of the power factor of the system.
- When installed horizontally, the  $t_c$  point of the lamp is located on the top side of the lamp.
- Use in tight luminaires and luminaires with tight reflectors not recommended.
- All electrical connections must be made by a qualified person.

### DOWNLOAD DATA

| Photometric and lighting design files                                              |                     | Document name                      |
|------------------------------------------------------------------------------------|---------------------|------------------------------------|
|  | IES file (IES)      | AC21048_HQLLED2000 16W 230V PROE27 |
|  | LDT file (Eulumdat) | AC21048_HQLLED2000 16W 230V PROE27 |

### LOGISTICAL DATA

| Product code  | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume               |
|---------------|------------------------------|--------------------------------------|--------------|----------------------|
| 4058075362963 | Folding box<br>1             | 82 mm x 82 mm x 176 mm               | 518.00 g     | 1.18 dm <sup>3</sup> |
| 4058075362970 | Shipping box<br>6            | 255 mm x 175 mm x 201 mm             | 3351.00 g    | 8.97 dm <sup>3</sup> |

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

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## DISCLAIMER

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.