

# PRODUCT DATASHEET

## HQL LED FILAMENT P 5400LM 29.1W 827 E40

HQL LED FILAMENT P | LED replacement for HQL lamps in demanding outdoor applications



PERFOR-  
MANCE  
CLASS

### Areas of application

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

### Product benefits

- Same design as traditional HQL lamps with frosted, ellipsoid full glass bulb
- Saves up to 82 % energy when used as replacement for mercury vapor lamps (HQL)
- Full use of reflector of existing luminaire thanks to 360 degree beam angle
- Very light weight product
- 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
- Very high efficiency of 185 lm/W
- Power factor: 0.9
- Type of protection: IP65



- High surge protection: up to 4 kV (L-N)
- Very wide ambient temperature range of -20...+60 °C

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

|  |               |
|--|---------------|
| Nominal wattage  | 29.1 W        |
| Construction wattage                                     | 29.10 W       |
| Nominal voltage  | 220...240 V   |
| Operating mode   | CCG, AC Mains |
| Claimed equiv. conventional lamp power                   | 250 W         |
| Nominal current  | 140 mA        |
| Type of current  | AC            |
| Inrush current   | 41.2 A        |
| Operating frequency                                      | 50/60 Hz      |
| Mains frequency  | 50/60 Hz      |
| Max. lamp number on MCB B10 A                            | 19            |
| Max. lamp number on MCB B10 A - CCG without compensation | 30            |
| Max. lamp number on MCB B10 A - CCG with compensation    | 12            |
| Max. lamp number on MCB B16 A                            | 31            |
| Max. lamp number on MCB B16 A - CCG without compensation | 48            |
| Max. lamp number on MCB B16 A - CCG with compensation    | 20            |
| Total harmonic distortion                                | < 20 %        |
| Power factor $\lambda$                                   | > 0.90        |
| Surge capability (L-N)                                   | 4 kV          |

**Photometrical data**

|   |            |
|---|------------|
| Luminous flux                           | 5400 lm    |
| Nominal useful luminous flux 90°        | 5400 lm    |
| Luminous efficacy                       | 185 lm/W   |
| Lumen main.fact.at end of nom.life time | 0.70       |
| Light color (designation)               | Warm White |
| Color temperature                       | 2700 K     |
| Color rendering index Ra                | 80         |
| Light color                             | 827        |
| Standard deviation of color matching    | ≤6 sdcn    |
| Rated LLMF at 6,000 h                   | 0.80       |
| Flickering metric (Pst LM)              | 1          |
| Stroboscope effect metric (SVM)         | 0,4        |



EPREL data spectral diagram PROF  
LEDr 2700K

Light technical data

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

Dimensions & Weight



|                  |           |
|------------------|-----------|
| Overall length   | 214.00 mm |
| Diameter         | 90.00 mm  |
| Maximum diameter | 90 mm     |
| Product weight   | 185.00 g  |

Temperatures & operating conditions

|                                      |                            |
|--------------------------------------|----------------------------|
| Ambient temperature range            | -20...+60 °C <sup>1)</sup> |
| Maximum temperature at tc test point | 85 °C                      |

1) Temperature surrounding the lamp - for enclosed luminaires: temperature inside of the luminaire

Lifespan

|  |         |
|--|---------|
| Lifespan L70/B50 at 25 °C                    | 60000 h |
| 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) | E40                           |
| Mercury content             | 0.0 mg                        |
| Mercury-free                | Yes                           |
| Product remark              | Available from September 2025 |

### Capabilities

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

### Certificates & Standards

|  |                 |
|--|-----------------|
| Energy efficiency class                      | B <sup>1)</sup> |
| Energy consumption                           | 30.00 kWh/1000h |
| Type of protection                           | IP65            |
| Standards                                    | CE / UKCA / EAC |
| Photobiological safety group acc. to EN62778 | RG1             |

<sup>1)</sup> Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (lowest efficiency)

### Country-specific categorizations

|                 |                 |
|-----------------|-----------------|
| Order reference | HQL LED FIL P 5 |
|-----------------|-----------------|

### LOGISTICAL DATA

|                              |              |
|------------------------------|--------------|
| Temperature range at storage | -20...+80 °C |
|------------------------------|--------------|

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









|   |              |
|---|--------------|
| Lighting technology used                            | LED          |
| Non-directional or directional                      | NDLS         |
| Mains or non-mains                                  | MLS          |
| Light source cap-type (or other electric interface) | E40          |
| Connected light source (CLS)                        | No           |
| Color-tuneable light source                         | No           |
| Envelope  | No           |
| High luminance light source                         | No           |
| Anti-glare shield                                   | No           |
| Correlated colour temperature type                  | SINGLE_VALUE |
| Claim of equivalent power                           | No           |
| Length  | 214.00 mm    |
| Height  | 90.00 mm     |
| Width   | 90.00 mm     |


|  |            |
|--|------------|
| Chromaticity coordinate x                            | 0.458      |
| Chromaticity coordinate y                            | 0.41       |
| R9 Colour rendering index                            | 1          |
| Beam angle correspondence                            | SPHERE_360 |
| Survival factor                                      | 0.9        |
| Displacement factor                                  | 0.9        |
| LED light source replaces a fluorescent light source | No         |
| EPREL ID   | 2295934    |
| Model number   | AC69409    |

### Safety advice

- 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.
- Only suitable for temperatures of up to 60 °C inside of the luminaire. Use in tight luminaires and luminaires with tight reflectors not recommended.
- All electrical connections must be made by a qualified person.

### DOWNLOAD DATA

| Documents and certificates   |  | Document name                      |
|--|--|------------------------------------|
|  | User instruction / safety instructions |                                    |
|  | Legal information                      | Informationstext 18 Abs 4 ElektroG |
|  | Declarations of conformity             | FIL P lamp                         |
|  | Declarations of conformity UKCA        | FIL P lamp                         |
| Photometric and lighting design files  |  | Document name                      |
|  | IES file (IES)                         | HQL LED FIL P 5400LM 29.1W 827 E40 |
|  | LDT file (Eulumdat)                    | HQL LED FIL P 5400LM 29.1W 827 E40 |
|  | UGR file (UGR table)                   | HQL LED FIL P 5400LM 29.1W 827 E40 |
|  | Light distribution curve type polar    | HQL LED FIL P 5400LM 29.1W 827 E40 |

| Photometric and lighting design files   |                             | Document name                               |
|---|-----------------------------|---|
|  | Spectral power distribution | EPREL data spectral diagram PROF LEDr 2700K |

LOGISTICAL DATA

| Product code  | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume    |
|---------------|------------------------------|--------------------------------------|--------------|-----------|
| 4099854470066 | Folding box<br>1             | 102 mm x 102 mm x 239 mm             | 278.00 g     | 2.49 dm³  |
| 4099854470073 | Shipping box<br>6            | 322 mm x 221 mm x 265 mm             | 2003.00 g    | 18.86 dm³ |

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.

References / Links

– For Guarantee see [www.ledvance.com/guarantee](http://www.ledvance.com/guarantee)

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