

# PRODUCT DATASHEET HQL LED 2700 lm 21.5 W/2700 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)





## **TECHNICAL DATA**

## Electrical data

Nominal wattage	21.5 W
Construction wattage	21.50 W
Nominal voltage	220240 V
Claimed equiv. conventional lamp power	80 W
Nominal current	100 mA
Type of current	AC
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp no. on circuit break. 10 A (B)	66
Max. lamp no. on circuit break. B10 A - CCG without compensation	55
Max. lamp no. on circuit break. B10 A - CCG with compensation	48
Max. lamp no. on circuit break. 16 A (B)	105
Max. lamp no. on circuit break. B16 A - CCG without compensation	88
Max. lamp no. on circuit break. B16 A - CCG with compensation	76
Total harmonic distortion	20 %
Power factor λ	> 0.90

# Photometrical data

Luminous flux	2700 lm
Nominal useful luminous flux 90°	2700 lm
Luminous efficacy	125 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 sdcm
Rated LLMF at 6,000 h	0.80
Flickering metric (Pst LM)	1.0
Stroboscope effect metric (SVM)	0.40



# Light technical data

Beam angle	360 °
Warm-up time (60 %)	< 0.50 s
Starting time	< 0.5 s
Rated beam angle (half peak value)	360.00 °

# **Dimensions & Weight**

Overall length	145.00 mm
Diameter	76.00 mm
Maximum diameter	76 mm
Product weight	340.00 g

# Temperatures & operating conditions

Ambient temperature range	-20+60 °C
Maximum temperature at tc test point	105 °C

# Lifespan

Lifespan	50000 h
Number of switching cycles	100000
Lumen maintenance at end of serv	0.70
Rated lamp survival factor at 6,000	≥ 0.90

# Additional product data

Base (standard designation)	E27
Mercury content	0.0 mg

# Capabilities

Energy efficiency class  Energy consumption  22.00 kWh/1000h  Type of protection  IP65  Standards  CE  Photobiological safety group acc. to EN62778  RG0  Country-specific categorizations  Order reference  HQLLED2700 21,5  LOGISTICAL DATA  Temperature range at storage  -20+80 °C	Capabilities	
Energy efficiency class E Energy consumption 22.00 kWh/1000h Type of protection IP65 Standards CE Photobiological safety group acc. to EN62778 R60  Country-specific categorizations Order reference HQLLED2700 21.5  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) E27  Connected light source (ELS) No Color-tuneable light source No High luminance light source No Arti-glare shield No Correlated colour temperature type SINGLE_VALUE Claim of equivalent power Length 145,00 mm Height 76,00 mm Chromaticity coordinate x Chromaticity coordinate y R9 Colour rendering index O40  Beam angle correspondence SPHERE_560 Survival factor O40	Dimmable	No
Energy consumption 22.00 kWh/1000h Type of protection IP65 Standards CE Photobiological safety group acc. to EN62778 RGO  Country-specific categorizations Order reference HQLLED2700 21,5  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) E27 Connected light source (LLS) 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 Length 145.00 mm Height 76.00 mm Chromaticity coordinate y Chromaticity coordinate o SPHERE_560 Survival factor	Certificates & Standards	
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Beam angle correspondence SPHERE_360 Survival factor 0.90	Chromaticity coordinate y	0.410
Survival factor 0.90	R9 Colour rendering index	0.40
	Beam angle correspondence	SPHERE_360
Displacement factor 0.90	Survival factor	0.90
	Displacement factor	0.90

LED light source replaces a fluorescent light source	No
EPREL ID	503815
Model number	AC32909

## 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<sub>c</sub> point of the lamp is located on the top side of the lamp.
- Use in tight luminaires and luminaires with tight reflectors not recommended.

#### **DOWNLOAD DATA**

	DOWNLOAD DATA
PDF	User instruction

### LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075612396	Folding box 1	105 mm x 105 mm x 195 mm	395.00 g	2.15 dm <sup>3</sup>
4058075612402	Shipping box 6	335 mm x 230 mm x 215 mm	2741.00 g	16.57 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.

## **DISCLAIMER**

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