

# PRODUCT DATASHEET HQL LED 11700 lm 90 W/2700 K E40

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

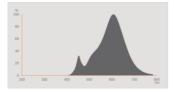
Nominal wattage	90 W
Construction wattage	90.00 W
Nominal voltage	220240 V
Claimed equiv. conventional lamp power	250 W
Nominal current	410 mA
Type of current	AC
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp no. on circuit break. 10 A (B)	13
Max. lamp no. on circuit break. B10 A - CCG without compensation	11
Max. lamp no. on circuit break. B10 A - CCG with compensation	10
Max. lamp no. on circuit break. 16 A (B)	21
Max. lamp no. on circuit break. B16 A - CCG without compensation	18
Max. lamp no. on circuit break. B16 A - CCG with compensation	16
Total harmonic distortion	20 %
Power factor λ	> 0.90

## Photometrical data

Luminous flux	11700 lm
Nominal useful luminous flux 90°	11700 lm
Luminous efficacy	130 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	270.00 mm
Diameter	110.00 mm
Maximum diameter	110 mm
Product weight	1380.00 g

# Temperatures & operating conditions

Ambient temperature range	-20+50 °C
Maximum temperature at tc test point	95 °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)	E40
Mercury content	0.0 mg

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## **Capabilities**

Capabilities			
Dimmable	No		
Certificates & Standards			
Energy efficiency class	E		
Energy consumption	90.00 kWh/1000h		
Type of protection	IP65		
Standards	CE		
Photobiological safety group acc. to EN62778	RG0		
Country-specific categorizations			
Order reference	HQLLED11700 90W		
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	270.00 mm		
Height	110.00 mm		
Width	110.00 mm		
Chromaticity coordinate x	0.458		
Chromaticity coordinate y	0.410		
R9 Colour rendering index	0.40		
Beam angle correspondence	SPHERE_360		
Survival factor	0.90		

0.90

Displacement factor

LED light source replaces a fluorescent light source	No
EPREL ID	503823
Model number	AC32917

## 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
POF	User instruction

## LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075612556	Folding box 1	115 mm x 115 mm x 300 mm	1463.00 g	3.97 dm <sup>3</sup>
4058075612563	Shipping box 6	360 mm x 245 mm x 320 mm	9284.00 g	28.22 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.

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