

PRODUCT DATASHEET HQL LED 13000 lm 90 W/4000 K E40

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



Areas of application

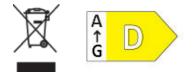
- Streets
- Area lighting
- Pedestrian zones
- Parks
- Outdoor applications only in suitable luminaires

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)



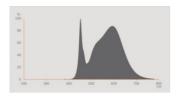
TECHNICAL DATA

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	13000 lm
Nominal useful luminous flux 90°	13000 lm
Luminous efficacy	144 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 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

Capabilities

Dimmable	No
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Certificates & Standards

Energy efficiency class	D
Energy consumption	90.00 kWh/1000h
Type of protection	IP65
Standards	CE
Photobiological safety group acc. to EN62778	RGO

Country-specific categorizations

	0	der reference	HQLLED13000 90W
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LOGISTICAL DATA

Temperature range at storage	-20+80 °C

Energy labelling regulation data acc EU 2019/2015

Lighting technology usedLEDNon-directionalNDLSMains or non-mainsMLSLight source cap-type (or other electric interface)E40Connected light source (CLS)NoContrunable light sourceNoClor-tuneable light sourceNoEnvelopeNoAnti-glare shieldNoCorrelated colour temperature typeSINGLE_VALUEClaim of equivalent powerNoHeight10.00 mmWitch3.82Chromaticity coordinate x0.380Romaticity coordinate y0.40Romaticity coordinate y0.90Romaticity coordinate y0.90		
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 Height 110.00 mm Witch 0.382 Chromaticity coordinate x 0.380 Portorizing index 0.40 Beam angle correspondence SPHERE_360	Lighting technology used	LED
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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	503824
Model number	AC32918

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.

DOWNLOAD DATA

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PDF

DOWNLOAD DATA

User instruction

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075612570	Folding box 1	115 mm x 115 mm x 300 mm	1463.00 g	3.97 dm ³
4058075612587	Shipping box 6	360 mm x 245 mm x 320 mm	9284.00 g	28.22 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.

DISCLAIMER

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