PRODUCT DATASHEET
HQL LED P 4000LM 29W 840 E27

HQL LED 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

- 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	29 W
Construction wattage	29.00 W
Nominal voltage	220...240 V
Operating mode	CCG, AC Mains
Claimed equiv. conventional lamp power	80 W
Nominal current	135 mA
Type of current	AC
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp no. on circuit break. 10 A (B)	48
Max. lamp no. on circuit break. B10 A - CCG without compensation	40
Max. lamp no. on circuit break. B10 A - CCG with compensation	35
Max. lamp no. on circuit break. 16 A (B)	76
Max. lamp no. on circuit break. B16 A - CCG without compensation	64
Max. lamp no. on circuit break. B16 A - CCG with compensation	56
Total harmonic distortion	20 %
Power factor λ	> 0.90

Photometrical data

Luminous intensity	Not relevant
Luminous flux	4000 lm
Nominal useful luminous flux 90°	4000 lm
Luminous efficacy	137 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
Stroboscope effect metric (SVM)	0.4

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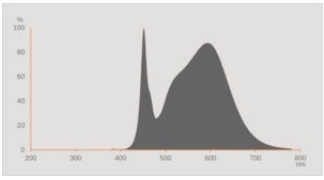
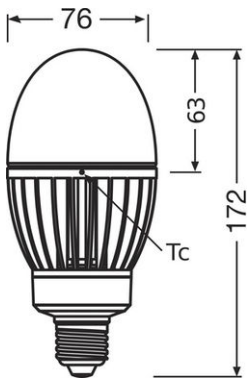


Light technical data

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

Dimensions & Weight



Overall length	172.00 mm
Diameter	76.00 mm
Product weight	380.00 g

Temperatures & operating conditions

Ambient temperature range	-40…+60 °C
Maximum temperature at tc test point	105 °C

Lifespan

Lifespan L70/B50 at 25 °C	60000 h
Number of switching cycles	100000
Lumen maintenance at end of service lifetime	0.70

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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	D [1)]
Energy consumption	29.00 kWh/1000h
Type of protection	IP65
Standards	CE / EAC / UKCA
Photobiological safety group acc. to EN62778	RG0

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

Country-specific categorizations

Order reference	HQL LED P 4000L

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 (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	172.00 mm
Height	76.00 mm
Width	76.00 mm
Chromaticity coordinate x	0.382

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Chromaticity coordinate y	0.380
R9 Colour rendering index	0.00
Beam angle correspondence	SPHERE_360
Survival factor	0.9
Displacement factor	0.9
LED light source replaces a fluorescent light source	No
EPREL ID	1157790
Model number	AC41492

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

	Documents and certificates
PDF	User instruction
PDF	Declarations Of Conformity CE
PDF	Declarations Of Conformity UKCA

	Photometric and lighting design files
IES	IES file (IES)
LDT	LDT file (Eulumdat)
	UGR file (UGR table)
	LDC typ polar
	Spectral power distribution

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LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854040702	Folding box 1	105 mm x 105 mm x 225 mm	440.00 g	2.48 dm^3
4099854040719	Shipping box 6	335 mm x 230 mm x 245 mm	3036.00 g	18.88 dm^3

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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