

# PRODUCT DATASHEET HQL LED FILAMENT P 4000LM 21.6W 840 E27

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



#### 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	21.6 W
Construction wattage	21.60 W
Nominal voltage	220240 V
Operating mode	CCG, AC Mains
Claimed equiv. conventional lamp power	80 W
Nominal current	96 mA
Type of current	AC
Inrush current	7.32 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	25
Max. lamp number on MCB B10 A - CCG without compensation	25
Max. lamp number on MCB B10 A - CCG with compensation	10
Max. lamp number on MCB B16 A	32
Max. lamp number on MCB B16 A - CCG without compensation	41
Max. lamp number on MCB B16 A - CCG with compensation	17
Total harmonic distortion	< 20 %
Power factor $\lambda$	> 0.90
Surge capability (L-N)	4 kV

## Photometrical data

Luminous flux	4000 lm
Nominal useful luminous flux 90°	4000 lm
Luminous efficacy	185 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



EPREL data spectral diagram PROF LEDr 4000K

# Light technical data

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

# Dimensions & Weight

Overall length	226.00 mm
Diameter	90.00 mm
Maximum diameter	90 mm
Product weight	157.00 g

## Temperatures & operating conditions

Ambient temperature range	-20+60 °C <sup>1)</sup>
Maximum temperature at tc test point	81 °C

<sup>1)</sup> 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)	E27
Mercury content	0.0 mg
Mercury-free	Yes
Product remark	Available from September 2025

# Capabilities

Dimmable	No

## Certificates & Standards

Energy efficiency class	B 1)
Energy consumption	22.00 kWh/1000h
Type of protection	IP65
Standards	CE / UKCA / EAC / ENEC
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 4

#### LOGISTICAL DATA

Temperature range at storage	-20+80 °C
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# 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	226.00 mm
Height	90.00 mm
Width	90.00 mm

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Chromaticity coordinate x	0.382
Chromaticity coordinate y	0,38
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	2295940
Model number	AC69406

#### 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  $\rm t_{C}$  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.

Document name

- All electrical connections must be made by a qualified person.

Documents and certificates

#### DOWNLOAD DATA

PDF	User instruction / safety instructions			
PDF	Legal information	Informationstext 18 Abs 4 ElektroG		
PDF	Declarations of conformity	FIL P lamp		
PDF	Declarations of conformity UKCA	FIL P lamp		
	Photometric and lighting design files	Document name		
	Photometric and lighting design files  IES file (IES)	Document name  HQL LED FIL P 4000LM 21.6W 840 E27		
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Photometric and lighting design files Document name	
Spectral power distribution	EPREL data spectral diagram PROF LEDr 4000K

#### LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854470004	Folding box 1	102 mm x 102 mm x 249 mm	248.00 g	2.59 dm <sup>3</sup>
4099854470011	Shipping box	322 mm x 221 mm x 275 mm	1830.00 g	19.57 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.

#### References / Links

- For Guarantee see www.ledvance.com/guarantee

#### **DISCLAIMER**

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

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