

# PRODUCT DATASHEET

## NAV 70 LED FILAMENT V 5400LM 35W 727 E27

NAV LED FILAMENT V | LED replacement for NAV lamps in design-oriented outdoor applications



### Areas of application

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

### Product benefits

- Same design as traditional NAV lamps with clear, tubular full glass bulb
- Full use of reflector of existing luminaire thanks to 360 degree beam angle
- Saves up to 78 % energy when used as replacement for sodium vapor lamps (NAV)
- Instant 100 % light, no warm-up time
- Similar light distribution as traditional NAV lamps

### Product features

- Suitable for operation with conventional control gear (CCG) or 230 V AC mains
- Very high efficiency of up to 190 lm/W
- Power factor: 0.9
- Type of protection: IP65
- Surge protection: up to 2 kV (L-N)



## TECHNICAL DATA

### Electrical data

Nominal wattage	35 W
Construction wattage	35.00 W
Nominal voltage	220...240 V
Operating mode	CCG, AC Mains
Claimed equiv. conventional lamp power	70 W
Nominal current	155 mA
Type of current	AC
Inrush current	11.1 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	11
Max. lamp number on MCB B10 A - CCG without compensation	16
Max. lamp number on MCB B10 A - CCG with compensation	6
Max. lamp number on MCB B16 A	14
Max. lamp number on MCB B16 A - CCG without compensation	20
Max. lamp number on MCB B16 A - CCG with compensation	8
Total harmonic distortion	12 %
Power factor $\lambda$	> 0.90
Surge capability (L-N)	2 kV

### Photometrical data

Luminous flux	5400 lm
Nominal useful luminous flux 90°	5400 lm
Luminous efficacy	154 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	70
Light color	727
Standard deviation of color matching	≤6 sdc <sub>m</sub>
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 2700K

**Light technical data**

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

**Dimensions & Weight**



Overall length	210.00 mm
Diameter	38.00 mm
Maximum diameter	38 mm
Product weight	120.00 g

**Temperatures & operating conditions**

Ambient temperature range	-20...+50 °C <sup>1)</sup>
Maximum temperature at tc test point	90 °C

<sup>1)</sup> Temperature surrounding the lamp - for enclosed luminaires: temperature inside of the luminaire

**Lifespan**

Lifespan L70/B50 at 25 °C	25000 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

## Capabilities

Dimmable	No
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## Certificates &amp; Standards

Energy efficiency class	D <sup>1)</sup>
Energy consumption	35.00 kWh/1000h
Type of protection	IP65
Standards	CE / EAC / UKCA
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	NAV 70 LED FIL
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## 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	210.00 mm
Height	38.00 mm
Width	38.00 mm


Chromaticity coordinate x	0,463
Chromaticity coordinate y	0,42
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	1371177
Model number	AC46362,AC46362,AC46362

### 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  $t_c$  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 50 °C inside of the luminaire. Use in tight luminaires and luminaires with tight reflectors not recommended.
- All electrical connections must be made by a qualified person.

### DOWNLOAD DATA

Documents and certificates	Document name
 User instruction / safety instructions	NAV LED FILAMENT V
 Legal information	Informationstext 18 Abs 4 ElektroG
 Declarations of conformity	HID LED FILAMENT
 Declarations of conformity UKCA	HID LED FILAMENT
Photometric and lighting design files	Document name
 IES file (IES)	NAV 70 LED FIL V 5400LM 35W 727 E27LEDV
 LDT file (Eulumdat)	NAV 70 LED FIL V 5400LM 35W 727 E27LEDV
 UGR file (UGR table)	NAV 70 LED FIL V 5400LM 35W 727 E27LEDV
 Light distribution curve type polar	NAV 70 LED FIL V 5400LM 35W 727 E27LEDV

Photometric and lighting design files		Document name
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 2700K

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Tender texts		Document name
	Tender documents	NAV LED FILAMENT V 5400LM 35W 727 E27-en

**LOGISTICAL DATA**

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854072017	Folding box 1	44 mm x 44 mm x 296 mm	170.00 g	0.57 dm <sup>3</sup>
4099854072024	Shipping box 6	314 mm x 152 mm x 117 mm	1080.00 g	5.58 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.