PRODUCT DATASHEET
NAV 50 LED FILAMENT V 4000LM 21W 740 E27

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

VALUE CLASS

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)

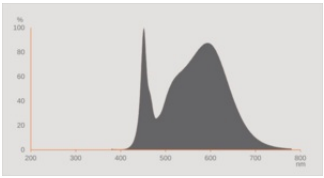
TECHNICAL DATA

Electrical data

Nominal wattage	21 W
Construction wattage	21.00 W
Nominal voltage	220…240 V
Operating mode	CCG, AC Mains
Claimed equiv. conventional lamp power	50 W
Nominal current	90 mA
Type of current	AC
Inrush current	6.3 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	22
Max. lamp number on MCB B10 A - CCG without compensation	27
Max. lamp number on MCB B10 A - CCG with compensation	8
Max. lamp number on MCB B16 A	27
Max. lamp number on MCB B16 A - CCG without compensation	34
Max. lamp number on MCB B16 A - CCG with compensation	13
Total harmonic distortion	15 %
Power factor λ	> 0.90
Surge capability (L-N)	2 kV

Photometrical data

Luminous flux	4000 lm
Nominal useful luminous flux 90°	4000 lm
Luminous efficacy	190 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	70
Light color	740
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	170.00 mm
Diameter	38.00 mm
Maximum diameter	38 mm
Product weight	80.00 g

Temperatures & operating conditions

Ambient temperature range	-20…+50 °C [1)]
Maximum temperature at tc test point	80 °C

1) 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

Certificates & Standards

Energy efficiency class	B [1)]
Energy consumption	21.00 kWh/1000h
Type of protection	IP65
Standards	CE / EAC / UKCA
Photobiological safety group acc. to EN62778	RG1

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

Country-specific categorizations

Order reference	NAV 50 LED FIL

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)	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	170.00 mm
Height	38.00 mm
Width	38.00 mm

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	1371176
Model number	AC46361,AC46361,AC46361

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
PDF	User instruction / safety instructions	NAV LED FILAMENT V
PDF	Legal information	Informationstext 18 Abs 4 ElektroG
PDF	Declarations of conformity	HID LED FILAMENT
PDF	Declarations of conformity UKCA	HID LED FILAMENT

	Photometric and lighting design files	Document name
IES	IES file (IES)	NAV 50 LED FIL V 4000LM 21W 740 E27LEDV
LDT	LDT file (Eulumdat)	NAV 50 LED FIL V 4000LM 21W 740 E27LEDV
	UGR file (UGR table)	NAV 50 LED FIL V 4000LM 21W 740 E27LEDV
	Light distribution curve type polar	NAV 50 LED FIL V 4000LM 21W 740 E27LEDV

	Photometric and lighting design files	Document name
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 4000K

	Tender texts	Document name
	Tender documents	NAV LED FILAMENT V 4000LM 21W 740 E27-en

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854071997	Folding box 1	44 mm x 44 mm x 256 mm	123.00 g	0.50 dm^3
4099854072000	Shipping box 6	274 mm x 152 mm x 117 mm	860.00 g	4.87 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.