

# PRODUCT DATASHEET NAV 50 LED FILAMENT VALUE 3600LM 21W 727 E27

NAV LED FILAMENT VALUE | 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)



21W 727 E27



## TECHNICAL DATA

#### Electrical data

Nominal wattage	21 W
Construction wattage	21.00 W
Nominal voltage	220240 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 $\lambda$	> 0.90
Surge capability (L-N)	2 kV

## Photometrical data

Luminous intensity	Not relevant
Luminous flux	3600 lm
Nominal useful luminous flux 90°	3600 lm
Luminous efficacy	171 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 sdcm
Rated LLMF at 6,000 h	0.80
Flickering metric (Pst LM)	1

Stroboscope effect metric (SVM)	0,4
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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	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 <sup>1)</sup>
Maximum temperature at tc test point	80 °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

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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	C 1)	
Energy consumption	21.00 kWh/1000h	
Type of protection	IP65	
Standards	CE / EAC / UKCA	
Photobiological safety group acc. to EN62778	RG1	
Order reference	NAV 50 LED FIL	
Order reference  LOGISTICAL DATA	NAV 50 LED FIL	
	NAV 50 LED FIL  -20+80 °C	
LOGISTICAL DATA		
LOGISTICAL DATA  Temperature range at storage		
LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015	-20+80 °C	
LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used	-20+80 °C	
LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional	-20+80 °C  LED  NDLS	
LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains	-20+80 °C  LED  NDLS  MLS	
LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)	-20+80 °C  LED  NDLS  MLS  E27	
LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)	-20+80 °C  LED  NDLS  MLS  E27  No	
LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source	-20+80 °C  LED  NDLS  MLS  E27  No  No	
LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source  Envelope	-20+80 °C  LED  NDLS  MLS  E27  No  No  No	
Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source  Envelope  High luminance light source	-20+80 °C  LED  NDLS  MLS  E27  No  No  No  No	
LOGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source  Envelope  High luminance light source  Anti-glare shield	-20+80 °C  LED  NDLS  MLS  E27  No  No  No  No  No	
Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source  Envelope  High luminance light source  Anti-glare shield  Correlated colour temperature type	-20+80 °C  LED  NDLS  MLS  E27  No  No  No  No  Single_Value	

Height	38.00 mm
Width	38.00 mm
Chromaticity coordinate x	0.458
Chromaticity coordinate y	0.41
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	1371175
Model number	AC46360,AC46360,AC46360

## 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  $t_{\rm C}$  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 file (IES)	NAV 50 LED FIL V 3600LM 21W 727 E27LEDV
LDT file (Eulumdat)	NAV 50 LED FIL V 3600LM 21W 727 E27LEDV

Photometric and lighting design file	s Document name
UGR file (UGR table)	NAV 50 LED FIL V 3600LM 21W 727 E27LEDV
Light distribution curve type polar	NAV 50 LED FIL V 3600LM 21W 727 E27LEDV
Spectral power distribution	EPREL data spectral diagram PROF LEDr 2700K
Tender texts	Document name
Tender documents	NAV LED FILAMENT V 3600LM 21W 727 E27-en

#### LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854071973	Folding box 1	44 mm x 44 mm x 256 mm	123.00 g	0.50 dm <sup>3</sup>
4099854071980	Shipping box	274 mm x 152 mm x 117 mm	820.00 g	4.87 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.