PRODUCT DATASHEET
NAV LED 12000 lm 65 W/4000 K E40

NAV® LED | LED replacement for high-pressure sodium vapor lamps in outdoor applications

Areas of application

- Streets
- Area lighting
- Pedestrian zones
- Parks

Product benefits

- Direct retrofit for traditional high-pressure sodium vapor lamps (NAV): operation on CCG, compensation capacitor and ignitor without rewiring
- Saves up to 52 % energy when used as replacement for NAV lamps
- Additional cost savings thanks to compatibility with CCG with power reduction (“night-time switching”)
- Low maintenance costs and cost savings thanks to long lifetime
- Similar light distribution as traditional NAV lamps

Product features

- Very high efficiency of up to 185 lm/W
- System power Factor: > 0.7
- Type of protection: IP40
- High surge protection: up to 4 kV (L-N)
- Long lifetime of up to 50,000h (L70B50)

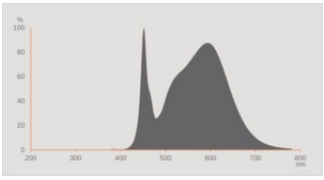
TECHNICAL DATA

Electrical data

Nominal wattage	65 W
Construction wattage	65.00 W
Nominal voltage	85…110 V
Operating mode	Conventional control gear (CCG), Conventional control gear (CCG) and ignitor
Claimed equiv. conventional lamp power	150 W
Nominal current	1.38 A
Type of current	AC
Inrush current	35 A
Operating frequency	50 Hz
Mains frequency	50 Hz
Max. lamp number on MCB B10 A - CCG without compensation	5
Max. lamp number on MCB B10 A - CCG with compensation	13
Max. lamp number on MCB B16 A - CCG without compensation	8
Max. lamp number on MCB B16 A - CCG with compensation	20
Total harmonic distortion	< 40 %
Power factor λ	0.70

Photometrical data

Luminous flux	12000 lm
Nominal useful luminous flux 90°	12000 lm
Luminous efficacy	184 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
Flickering metric (Pst LM)	<1
Stroboscope effect metric (SVM)	≤0.4

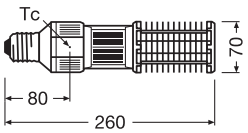


EPREL data spectral diagram PROF LEDr 4000K

Light technical data

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

Dimensions & Weight



Overall length	260.00 mm
Diameter	70.00 mm
Maximum diameter	70 mm
Product weight	610.00 g

Temperatures & operating conditions

Ambient temperature range	-20…+50 °C
Maximum temperature at tc test point	95 °C

Lifespan

Lifespan L70/B50 at 25 °C	50000 h
Number of switching cycles	100000
Lumen maintenance at end of service lifetime	0.70
Rated lamp survival factor at 6,000 h	≥ 9.00

Additional product data

Base (standard designation)	E40
Mercury content	0.0 mg
Mercury-free	Yes

Capabilities

Dimmable	No

Certificates & Standards

Energy efficiency class	C [1)]
Energy consumption	72.00 kWh/1000h
Type of protection	IP40
Standards	CE / EAC
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 150 LED 65W

Energy labelling regulation data acc EU 2019/2015

Lighting technology used	LED
Non-directional or directional	NDLS
Mains or non-mains	NMLS
Light source cap-type (or other electric interface)	E40
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	260.00 mm
Height	70.00 mm
Width	70.00 mm
Chromaticity coordinate x	0.381
Chromaticity coordinate y	0.379
R9 Colour rendering index	0.00
Beam angle correspondence	SPHERE_360

Survival factor	0.90
Displacement factor	0.70
LED light source replaces a fluorescent light source	No
EPREL ID	503808
Model number	AC33066

Safety advice

- Outdoor applications only in suitable luminaires (lamp type of protection IP40).
- The compliance with the required luminous intensity for the application has to be checked before the installation. The total energy efficiency and light distribution depends on the lighting system design.
- Not suitable for operation with 230 V line voltage.
- The operation on a CCG with power tapping may lead to a reduction of the power factor of the system during the time of power reduction. The removal of the compensation capacitor may lead to a reduction of the power factor of the system.
- Only suitable for temperatures of up to 50 °C inside of the luminaire. Use in tight luminaires and luminaires with tight reflectors not recommended.

DOWNLOAD DATA

	Documents and certificates	Document name
PDF	User instruction / safety instructions	NAV LED
PDF	Extended installation guide	OSRAM NAV LED User Instruction

	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
4058075453821	Folding box 1	85 mm x 85 mm x 267 mm	680.00 g	1.93 dm^3
4058075453838	Shipping box 10	442 mm x 187 mm x 292 mm	7070.00 g	24.13 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.