

PRODUCT DATASHEET

NAV LED 8100 lm 50 W/2700 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)



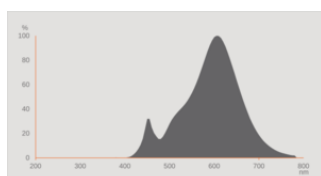
TECHNICAL DATA

Electrical data

| | |
|--|------------|
| Nominal wattage | 50 W |
| Construction wattage | 50.00 W |
| Nominal voltage | 85...110 V |
| Claimed equiv. conventional lamp power | 100 W |
| Nominal current | 950 mA |
| Type of current | AC |
| Inrush current | 35 A |
| Operating frequency | 50 Hz |
| Mains frequency | 50 Hz |
| Max. lamp no. on circuit break. B10 A - CCG without compensation | 3 |
| Max. lamp no. on circuit break. B10 A - CCG with compensation | 8 |
| Max. lamp no. on circuit break. B16 A - CCG without compensation | 5 |
| Max. lamp no. on circuit break. B16 A - CCG with compensation | 13 |
| Total harmonic distortion | < 55 % |
| Power factor λ | 0.70 |

Photometrical data

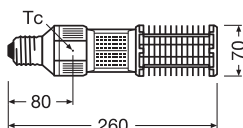
| | |
|---|---------------|
| Luminous flux | 8100 lm |
| Nominal useful luminous flux 90° | 8100 lm |
| Luminous efficacy | 162 lm/W |
| Lumen main.fact.at end of nom.life time | 0.70 |
| Light color (designation) | Warm White |
| Color temperature | 2700 K |
| Color rendering index Ra | 70 |
| Light color | 727 |
| Standard deviation of color matching | ≤ 6 sdcM |



Light technical data

| | |
|------------------------------------|----------|
| Beam angle | 360 ° |
| Warm-up time (60 %) | 0.50 s |
| Starting time | < 0.5 s |
| Rated beam angle (half peak value) | 360.00 ° |

Dimensions & Weight



| | |
|------------------|-----------|
| Overall length | 260.00 mm |
| Diameter | 70.00 mm |
| Maximum diameter | 70 mm |
| Product weight | 605.00 g |

Temperatures & operating conditions

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

Lifespan

| | |
|-------------------------------------|---------|
| Lifespan | 50000 h |
| Number of switching cycles | 100000 |
| Lumen maintenance at end of serv | 0.70 |
| Rated lamp survival factor at 6,000 | ≥ 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 | D ¹⁾ |
| Energy consumption | 55.00 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 100 LED 50W |
|-----------------|-----------------|

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 | 0.457 |
| Chromaticity coordinate y | 0.410 |
| Beam angle correspondence | SPHERE_360 |
| Survival factor | 0.90 |
| Displacement factor | 0.70 |
| LED light source replaces a fluorescent light source | No |
| EPREL ID | 503805 |
| Model number | AC33063 |

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

| DOWNLOAD DATA | |
|--|--------------------|
|  | User instruction |
|  | Installation guide |

LOGISTICAL DATA

| Product code | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume |
|---------------|------------------------------|--------------------------------------|--------------|-----------------------|
| 4058075453760 | Folding box 1 | 85 mm x 85 mm x 267 mm | 675.00 g | 1.93 dm ³ |
| 4058075453777 | Shipping box 10 | 442 mm x 187 mm x 292 mm | 7020.00 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.