

# PRODUCT DATASHEET

## LED PAR16 50 36° Energy efficiency class A S 2W 827 GU10

LED LAMPS ENERGY EFFICIENCY REFLECTOR S | LED reflector lamps PAR16, ENERGY EFFICIENCY CLASS A



SUPERIOR  
CLASS

### Areas of application

- Domestic applications
- General illumination
- Outdoor use in suitable outdoor luminaires only

### Product benefits

- Design, dimensions, luminous flux comparable to a halogen lamp
- Low energy consumption
- Instant 100 % light, no warm-up time
- Low flickering

### Product features

- LED alternative to high voltage halogen lamps
- Very long lifetime of up to 50,000 h
- Luminous efficacy: up to 180 lm/W
- Very high number of switching cycles up to 100,000



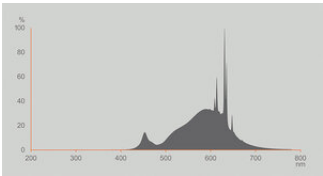
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**TECHNICAL DATA****Electrical data**

|                                        |             |
|----------------------------------------|-------------|
| Nominal wattage                        | 2 W         |
| Construction wattage                   | 2.00 W      |
| Nominal voltage                        | 220...240 V |
| Operating mode                         | AC Mains    |
| Claimed equiv. conventional lamp power | 50 W        |
| Nominal current                        | 19 mA       |
| Type of current                        | AC          |
| Inrush current                         | 5.85 A      |
| Operating frequency                    | 50/60 Hz    |
| Mains frequency                        | 50/60 Hz    |
| Max. lamp number on MCB B10 A          | 37          |
| Max. lamp number on MCB B16 A          | 44          |
| Total harmonic distortion              | 200 %       |
| Power factor $\lambda$                 | $\geq 0.40$ |

**Photometrical data**

|                                         |                           |
|-----------------------------------------|---------------------------|
| Luminous intensity                      | 600 cd                    |
| Luminous flux                           | 360 lm                    |
| Nominal useful luminous flux 90°        | 360 lm                    |
| Luminous efficacy                       | 180 lm/W                  |
| Lumen main.fact.at end of nom.life time | 0.98                      |
| Light color (designation)               | Warm White                |
| Color temperature                       | 2700 K                    |
| Color rendering index Ra                | 80                        |
| Light color                             | 827                       |
| Standard deviation of color matching    | $\leq 6$ sdc <sub>m</sub> |
| Rated peak intensity                    | 600 cd                    |
| Rated LLMF at 6,000 h                   | 0.80                      |
| Flickering metric (Pst LM)              | <1.0                      |
| Stroboscope effect metric (SVM)         | <0.4                      |



LED PAR165036 EELA GU10

Light technical data

|                     |          |
|---------------------|----------|
| Beam angle          | 36 °     |
| Warm-up time (60 %) | < 0.50 s |
| Starting time       | < 0.5 s  |

Dimensions & Weight

|                  |          |
|------------------|----------|
| Overall length   | 54.00 mm |
| Diameter         | 50.00 mm |
| Maximum diameter | 50 mm    |
| Product weight   | 49.00 g  |

Temperatures & operating conditions

|                                      |              |
|--------------------------------------|--------------|
| Ambient temperature range            | -20...+40 °C |
| Maximum temperature at tc test point | 83,2 °C      |

Lifespan

|                                              |         |
|----------------------------------------------|---------|
| Lifespan L70/B50 at 25 °C                    | 50000 h |
| Number of switching cycles                   | 100000  |
| Lumen maintenance at end of service lifetime | 0.98    |
| Rated lamp survival factor at 6,000 h        | ≥ 0.90  |

Additional product data

|                             |        |
|-----------------------------|--------|
| Base (standard designation) | GU10   |
| Mercury content             | 0.0 mg |

|                |                                                                                                                                                                                                                                                                                                                                              |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mercury-free   | Yes                                                                                                                                                                                                                                                                                                                                          |
| Product remark | All technical parameters apply to the entire lamp / Due to the complex production process for light-emitting diodes, the typical values shown for the technical LED parameters are purely statistical values that do not necessarily match the actual technical parameters of each individual product, which can vary from the typical value |

### Capabilities

|          |    |
|----------|----|
| Dimmable | No |
|----------|----|

### Certificates & Standards

|                                              |                 |
|----------------------------------------------|-----------------|
| Energy efficiency class                      | A <sup>1)</sup> |
| Energy consumption                           | 2.00 kWh/1000h  |
| Type of protection                           | IP20            |
| Standards                                    | CE / UKCA / EAC |
| 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 | LED PAR165036 E |
|-----------------|-----------------|

### 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                      | DLS          |
| Mains or non-mains                                  | MLS          |
| Light source cap-type (or other electric interface) | GU10         |
| 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                           | Yes          |
| Length                                              | 54.00 mm     |
| Height                                              | 50.00 mm     |

|                                                      |                |
|------------------------------------------------------|----------------|
| Width                                                | 50.00 mm       |
| Chromaticity coordinate x                            | 0.463          |
| Chromaticity coordinate y                            | 0.420          |
| R9 Colour rendering index                            | 1              |
| Beam angle correspondence                            | NARROW_CONE_90 |
| Survival factor                                      | 0.9            |
| Displacement factor                                  | ≥0.7           |
| LED light source replaces a fluorescent light source | No             |
| EPREL ID                                             | 1382162        |
| Model number                                         | AC45940        |

### Safety advice

- Do not touch the lamp if broken.
- Must not be used if outer bulb is defective.

### DOWNLOAD DATA

| Documents and certificates                                                         |                                     | Document name               |
|------------------------------------------------------------------------------------|-------------------------------------|-----------------------------|
|  | Declarations of conformity          | LED SPOT PAR16 50           |
| Photometric and lighting design files                                              |                                     | Document name               |
|  | IES file (IES)                      | PAR16 50 827 Energy Label A |
|  | LDT file (Eulumdat)                 | PAR16 50 827 Energy Label A |
|  | Light distribution curve type polar | PAR16 50 827 Energy Label A |
|  | Spectral power distribution         | LED PAR165036 EELA GU10     |

### LOGISTICAL DATA

| Product code  | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume               |
|---------------|------------------------------|--------------------------------------|--------------|----------------------|
| 4099854071690 | Folding box<br>1             | 49 mm x 49 mm x 95 mm                | 59.00 g      | 0.23 dm <sup>3</sup> |
| 4099854071706 | Shipping box<br>6            | 168 mm x 111 mm x 71 mm              | 429.00 g     | 1.32 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.

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### References / Links

- For further products and actual information concerning LED lamps see [www.ledvance.com/ledlamps](http://www.ledvance.com/ledlamps)
  - For Guarantee see [www.ledvance.com/guarantee](http://www.ledvance.com/guarantee)
  - Further information see [www.ledvance.com/low-voltage-ledlamps](http://www.ledvance.com/low-voltage-ledlamps)
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