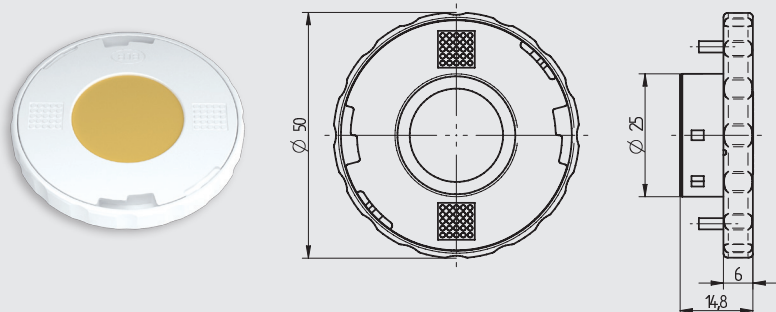


pkg. wt. part no.  
1 28 g 32.120.0008.00

### Spot/Downlight LED lamp for applications in Shop, Office and Hospitality-areas

Twist and Lock System  
Body of aluminium works as heatsink  
Not suitable for power supply voltage, power supply by external ballast  
Tc-point (Marking at rim of aluminium base): max. 65 ° C

- Flat Design
- More flexibility with reflector design
- With integrated reflector-interface for easy insertion of reflector
- Fasten and release aid: grip pins and recessed grip
- Guided insertion of LED lamp
- Glass lens as protection against contact
- Easy exchange of LED lamp - Late-Stage-Finishing
- Beam angle: 113°



#### Specific technical data

	Min.	Typical	Max.
Operational current $I_f$ (mA)		700 mA	
Colour rendering index CRI	>80		
Colour temperature at Tc 25 °C		2.880 K	
Luminous flux at Tc 25 °C	2.780 lm	3.100 lm	3.400 lm
Module efficiency at Tc 25 °C	108 lm/W	120 lm/W	132 lm/W
Operational voltage $U_f$ (V) at Tc 25 °C	33,6 V	36,65 V	40 V
Power consumption (W) at Tc 25 °C	23,5 W	25,7 W	
Colour temperature at Tc 50 °C		2.880 K	
Luminous flux at Tc 50 °C	2.640 lm	2.930 lm	3.230 lm
Module efficiency at Tc 50 °C	105 lm/W	116 lm/W	128 lm/W
Operational voltage $U_f$ (V) at Tc 50 °C	33 V	36 V	39,5 V
Power consumption (W) at Tc 50 °C	23,1 W	25,2 W	
Energy efficiency at Tc 50 °C		A+	

Tolerances of optical and electrical data:  $\pm 10\%$

\* Warranty conditions of BJB GmbH & Co KG as stated on page 100 of the LED

Applications catalogue (Issue No.1 - 2014) and as available via the Internet under [www.bjb.com/warranty-conditions.html](http://www.bjb.com/warranty-conditions.html) are valid.

Applicable with:

pkg. wt. part no.  
240 9.4 g 28.720.1001.90

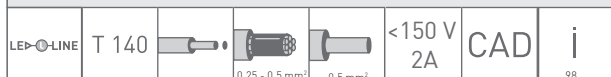
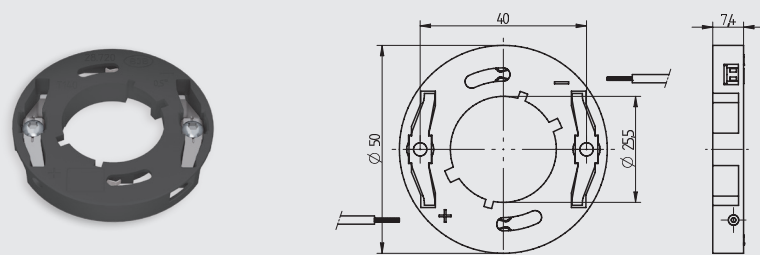
### Lampholder for Spot/Downlight LED lamp

Screw fixing: for standard M3 screws  
Max. torque for screw fixing 0,3 Nm

Housing: solid PPS for constant force transmission

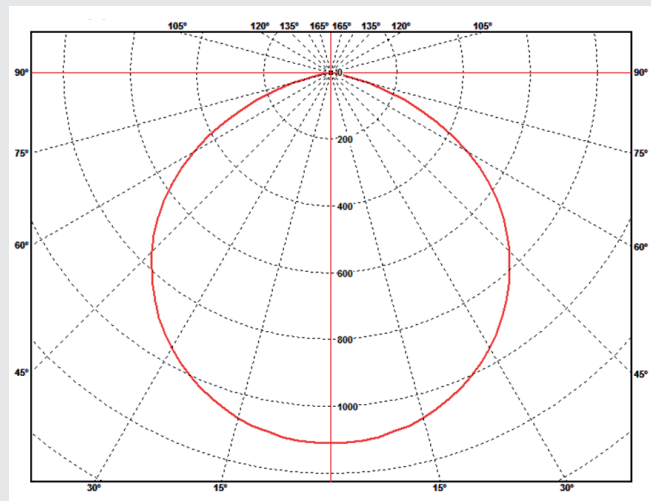
- Twist and Lock System
- Strip length: 8<sup>+1</sup> mm
- Optimised heat management: CrNi leaf springs provide permanent contact pressure between LED lamp and heat sink

See page 43 of the LED Application catalogue

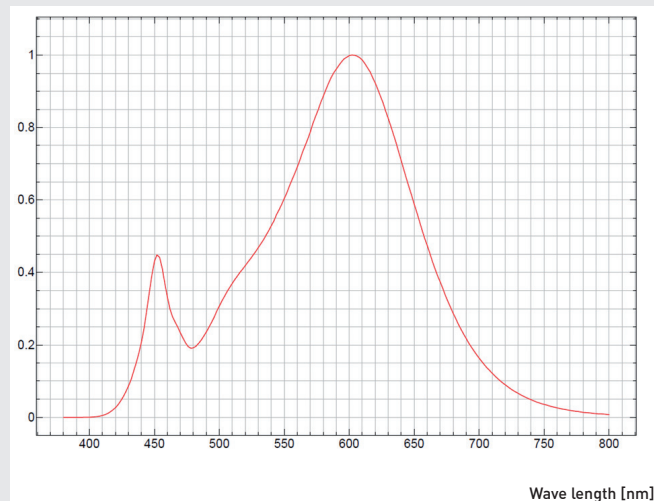




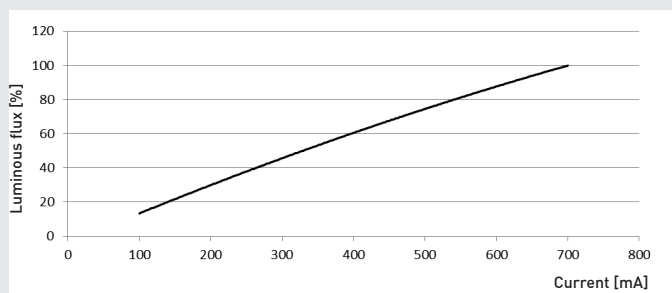
Light distribution



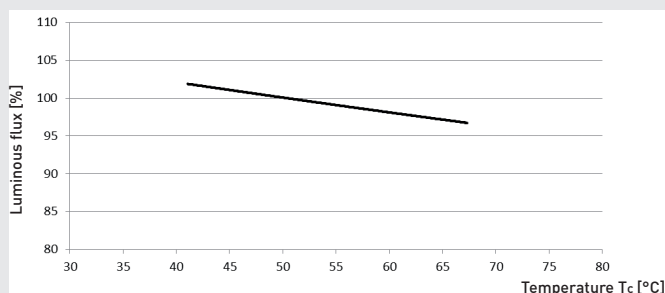
Spectral intensity



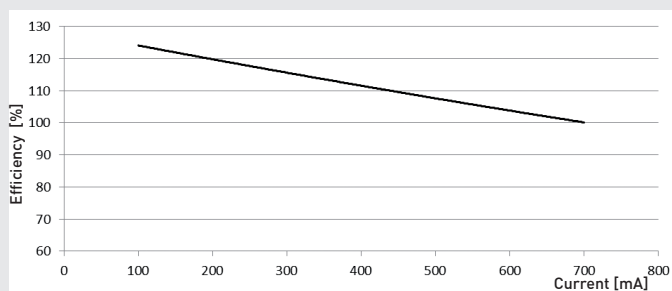
Relative luminous flux based on operational current



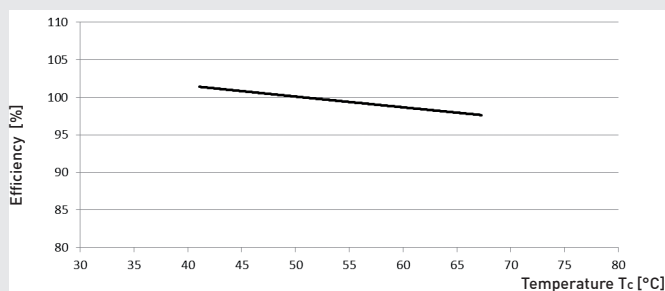
Relative luminous flux based on Tc



Efficiency / leading power



Efficiency / temperature



# LED - Lighting and connection technology

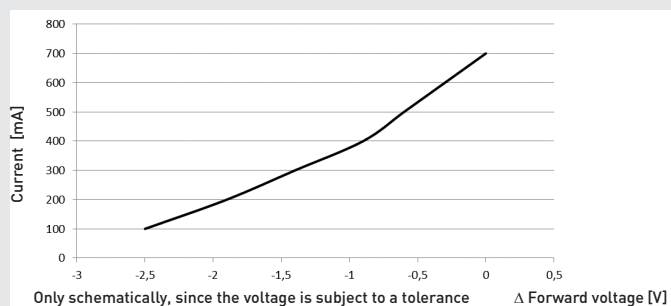
Spot/Downlight System GH36d-4



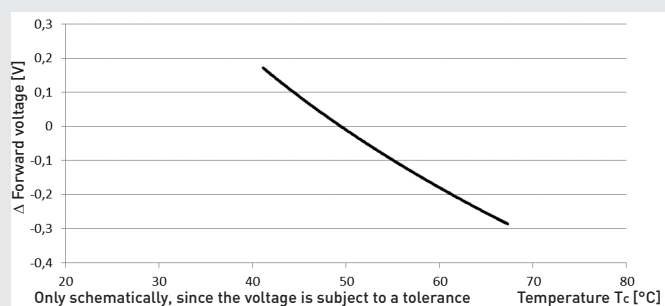
32.130  
28.720



Electrical current / voltage characteristics



Voltage / temperature



## LED - Lighting and connection technology



32.120  
28.720

### General information for Spot/Downlight System GH36d-4



#### **EOS/ESD safety guidelines**

Some components of the BJB /// OEM – Line Modular System might be harmed by electrostatic discharge (ESD) and electrical overstress (EOS) and may only be installed in the factory and on site if appropriate EOS/ESD protection measures have been taken.

Modules like the Spot/Downlight System with enclosed housing, where no contact to the LED module is possible do not need special measures for protection of electrostatic discharge (ESD).

#### **Assembly instructions**

Twist and Lock System with lampholder **28.720.1001.90**.

The selected heat sink should have a flat, smooth surface to the lamp. The heatsink should be free of foreign matter and oils / fats etc. This prevents heat dissipation of the lamp. The heatsink must be selected according to the specified heat dissipation by the key used in each case. Avoid additional mechanical stress of the lamp, do not exceed the max. weight of the reflector 30 g. The reflector must not touch the housing to avoid lifting off the lamp. Before an installation or removal of the luminaire the power supply has to be switched off. A replacement with power supply might harm the luminaire and /or the control gear.

#### **Attention should be paid to:**

Do not cover the lamp with paper, fabric or other easily inflammable material.

Keep the lamp apart from water and intense humidity.

Avoid additional mechanical stress.

Do not touch the lamp during or shortly after use – Risk of burns!

Do not look directly into the lamp.

Before working on the lamp or luminaire always disconnect from the mains!

#### **Screw fixing**

The lampholder is fixed with two corrosion-protected steel M3 screws with a torque of 0,3 Nm. The screw head must not protrude beyond the surface version. The distance between the screw holes can be found on the catalog page.

#### **Note to chemical reactions**

Chemical substances may harm the LED module. This could lead to reduced luminous flux, colour shift or total failure of the module caused by corrosion of electrical connections. Avoid corrosive atmosphere during usage and storage.

#### **Life span and lumen maintenance**

The light output of an LED module decreases over the life-time, this is characterized with the L value.

L70 means that the LED module will give 70 % of its initial luminous flux. This value is always related to the number of operation hours and therefore defines the lifetime of an LED module. As the L value is a statistical value and the lumen maintenance may vary over the delivered LED modules.

#### **Thermal design, tc point, ambient temperature and life-time**

The rated life of a LED module depends to a large extent on the temperature. If the permissible temperature limits are exceeded, the life of the LED module will be greatly reduced or the module may be destroyed.

The temperature at tc reference point is crucial for the light output and life-time of a LED module.

#### **Electrical supply**

LED modules from BJB are not protected against overvoltages, overcurrents, overloads or short-circuit currents. Safe and reliable operation can only be guaranteed in conjunction with a LED control gear which complies with the relevant standards.

BJB LED Module must be supplied by a constant current LED control gear. Operation with a constant voltage LED control gear will lead to an irreversible damage of the module. Wrong polarity can damage the LED module. If LED modules are wired in parallel connection and a wire breaks or a complete module fails then the current passing through the other module increases. This may reduce its life considerably. In addition there can be slight differences in light output caused by tolerances.

#### **Wiring and cross section for lampholder **28.720****

For solid conductors with a cross section of 0.5 to 0.75 mm<sup>2</sup> or conductors with tinned wire ends and a cross section of 0.25 to 0.5 mm<sup>2</sup>