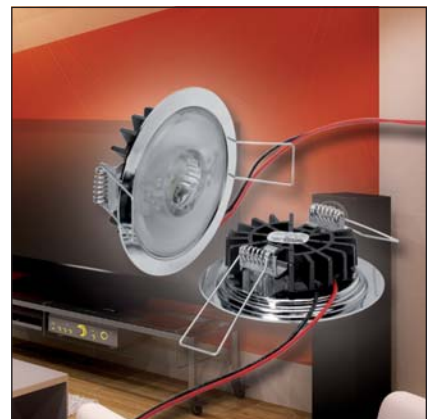




A New Lighting Experience



- replacement for low-voltage halogen incandescent lamps
- more than 50% energy savings
- different colour temperatures

## LEDSpots for General and Furniture Lighting

### An all-round solution

- for easy installation with plug-in connector

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# LEDSpots for General and Furniture Lighting

## Technical notes LEDSpot

For cut-out: Ø 56 mm  
 Number of LEDs: 1 LED with heat sink for optimal thermal management  
 Metal frame: steel

Lead: Cu tinned, stranded conductors 0,5 mm<sup>2</sup>, PVC insulation, length: 100 mm, with connector  
 Snap-in clips for easy installation  
 Degree of protection: IP40  
 Unit: 40 pcs.



## Electrical characteristics

at ambient temperature  $t_a = 25\text{ °C}$

Ty	Ref. No.	Voltage DC (V)						Power (W)					
		350 mA		500 mA		700 mA		350 mA		500 mA		700 mA	
		typ.	max.	typ.	max.	typ.	max.	typ.	max.	typ.	max.	typ.	max.
XP-E	<b>All XP-E types</b>	3.20	3.90	3.30	4.00	3.40	4.10	1.12	1.365	1.65	2.00	2.38	2.87

**Use of external LED constant current driver with max. 700 mA required.**

## Optical characteristics

at junction temperature  $t_j = 25\text{ °C}$

Type	Description	LED Spot version	LED type	Colour	Correlated colour temperature K	Luminous flux (lm) at						Radiation angle* °
						350 mA		500 mA		700 mA		
						min.	typ.	min.	typ.	min.	typ.	

**With half-frosted lens ☉**

LCH-004	XP-E 3000K Min. Q2 LENS HAL	<b>A</b>	XP-E	warm white	2720-3040	74.3	82.5	96.6	107.2	126.3	140.2	100
LCH-004	XP-E 3000K Min. Q2 LENS HAL	<b>B</b>	XP-E	warm white	2720-3040	74.3	82.5	96.6	107.2	126.3	140.2	60
LCH-004	XP-E 6300K Min. R2 LENS HAL	<b>C</b>	XP-E	cool white	5650-6950	96.9	107.1	126.0	139.2	164.7	182.1	100
LCH-004	XP-E 6300K Min. R2 LENS HAL	<b>D</b>	XP-E	cool white	5650-6950	96.9	107.1	126.0	139.2	164.7	182.1	60

\* On account of the complex manufacturing process of the modules the above values only represent statistical variables. The values do not necessarily correspond exactly to the actual parameters of every single product which can vary from the typical specification.

## Frame colour (selectable)

Frame colour	Ref. No. A* (warm white)	Ref. No. B** (warm white)	Ref. No. C* (cool white)	Ref. No. D** (cool white)
silver	<b>545873</b>	<b>546834</b>	<b>545875</b>	<b>546835</b>
matt silver	<b>545818</b>	<b>546830</b>	<b>545820</b>	<b>546831</b>
gold	<b>545874</b>	<b>546836</b>	<b>545876</b>	<b>546837</b>
white	<b>545819</b>	<b>546832</b>	<b>545821</b>	<b>546833</b>

\* Radiation angle: 100°

\*\* Radiation angle: 60°

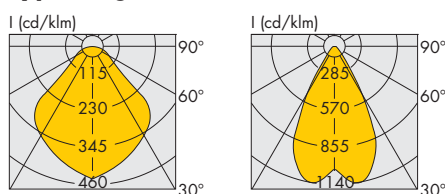
## Operating service life

at ambient temperature  $t_a = 25\text{ °C}$

Current mA	Operating service life* (lumen maintenance at 70%)
350	50.000 hrs.
500	50.000 hrs.
700	40.000 hrs.

\* Operating service life was determined with a clearance of at least 60 mm over the heat sink.

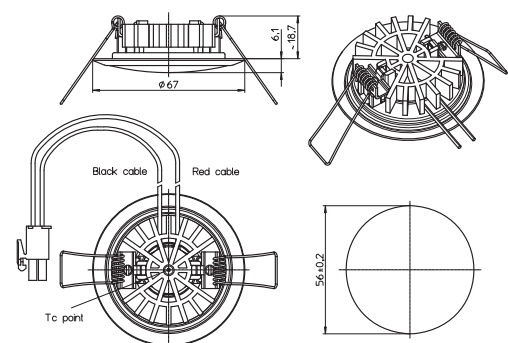
## Typical light distribution curve



Radiation angle: 100°

Radiation angle: 60°

## Mechanical dimensions LEDSpot



The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

# LEDSpots for General and Furniture Lighting

## Assembly and safety information

Installation and maintenance must always be performed by a qualified fitter in accordance with relevant legislation. The following instructions must be strictly observed. Vossloh-Schwabe Deutschland GmbH accepts no liability for any possible inaccuracies during installation, any non-compliance with these instructions or for any possible omissions in this publication.

In addition, Vossloh-Schwabe Deutschland GmbH reserves the right to make modifications at any time and without prior notification. This data sheet is an integral part of the equipment and its safety devices and should therefore be kept in a safe place for easy reference. The equipment must always be disconnected from the mains prior to undertaking any maintenance work. The safety instructions on the type plate of the components must be strictly observed.

- Safe operation only possible by the use of external constant current sources.
- Power supply units must be used for operation, in which the following protective measures are ensured:
  - Short-circuit protection
  - Overload protection
  - Overheating protection
  - SELV equiv. (Safety Extra Low Voltage)
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- The maximum output of the power supply must be observed.
- ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules.
- The modules are not protected against dust or moisture. When LED modules are operated in unduly moist or dusty environments, care must be taken to ensure each module is built into a protective casing in compliance with the correct IP classification or provided with corrosion protection. Damage caused by moisture and/or corrosion will not be recognised as a material or manufacturing defect.
- Under no circumstances may downlights ever be covered by insulation material or similar.
- For optimal load of used constant current driver the LED modules can only be connected in series. The quantity of LED modules is limited by the sum of forward voltage and the capacity of used constant current driver. Under no circumstances may the sum of the forward bias exceed 60 V DC.
- A parallel connection of the modules is not allowed.
- warranted.
- Tests have shown the following chemicals to be harmful to LEDs used on the modules. It is recommended not to use the under-mentioned chemicals anywhere in an LED system. The fumes from even small amounts of these chemicals may damage the LEDs.
  - Chemicals that might outgas aromatic hydrocarbons (e.g., toluene, benzene, xylene)
  - Methyl acetate or ethyl acetate (i.e., nail polish remover)
  - Cyanoacrylates (i.e., "Superglue")
  - Glycol ethers (including Radio Shack®, Precision Electronics Cleaner – dipropylene glycol monomethyl ether)
  - Formaldehyde or butadiene (including Ashland PLIOBOND® adhesive)
  - Dymax 984-LVUF conformal coating
  - Loctite Sumo glue
  - Gorilla glue
  - Clorox bleach
  - Clorox Clean-Up cleaner spray
  - Loctite 384 adhesive
  - Loctite 7387 activator
  - Loctite 242 threadlocker

Detailed information of handling of Cree LEDs can be found on [www.cree.com](http://www.cree.com).

- Photobiological safety of lamps and lamp systems; German version EN 62471:2008  
General lighting: exempt group

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