

LED luminaire help and troubleshooting

The following checks are recommended to be carried out when troubleshooting any suspected faulty fitting.

All checks, apart from checking the presence of the mains supply, should be carried out with the luminaire mains supply disconnected.

Basic troubleshooting

If a fitting is not functioning, following checks are recommended:

1. Ensure that the LED driver used is compatible with the LED load (if in doubt use Helvar LED calculator available on the Helvar.com site or contact Helvar representative)
 - a. Voltage (ensure that given LED load forward voltage range is within ballast output voltage range)
 - b. Current
 - c. Wattage
2. Check supply voltage presence at driver
3. Check LED load wiring connections and polarity
4. Ensure that the LED load is not defective

Possible problems and their usual causes

No light output from LED

- Ensure that correct mains supply voltage is present at the driver
- Check LED load connections
- Check LED polarity
- If NTC is used, ensure that the NTC parameters are correct
- Defect LED driver

LED light flickers

- Ensure that the used LED load is in accordance with the specified in the LED driver datasheet
 - LED forward voltage is according to limits given in LED driver datasheet
 - Correct current selected
- Defect LED driver
- Check mains power

Light output from LED is momentarily brighter than normal?

- Ensure that LED load thermal pads are isolated from possibly earthed cooling fins
 - LED load thermal pad earth connection is against EN60598-1 in SELV luminaires

Abnormal LED operation with drivers equipped with NTC function

- LED load runs at low level and shuts off after few minutes
- LEDs only flash after mains connection
- Ensure that NTC value is correct
- Wrong connection of LED load to driver has damaged the LED driver

Short LED load lifetime

- Ensure proper cooling for the LED load used
- Check parameters of used LED driver, ensure that the driver is not under- or overpowered
- Ensure proper LED load driving current

LED load glows after power off

- Applicable to situations where switch control operation is used.
- Ensure that LED load thermal pads are insulated from possibly earthed cooling fins
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