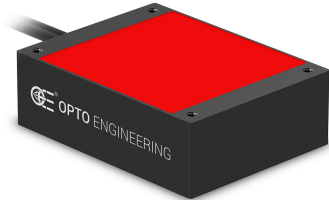




LT3BC050050-R | DATASHEET

High-power LED backlights with integrated driver



KEY ADVANTAGES

High-power light output

Built-in driver for continuous and strobe operations

Industry standard 5 PIN M12 Connector

with PNP/NPN/analog dimming input

Optional collimating, polarizing and protective filters

Compact & robust design with reduced thickness (24 mm) and thin edges

Automatic shutdown in case of overheating

The LT3BC series features high-performance LED backlights designed to provide high-power light output, excellent uniformity and contrast thanks to high-efficiency LEDs.

SPECIFICATIONS

Lighting specifications

| | | |
|--------------------------------------|---------------------|-------------|
| Illumination area height | (mm) | 50 |
| Illumination area width | (mm) | 50 |
| Number of LEDs | | 36 |
| Light color, peak wavelength | | red, 625 nm |
| Spectral FWHM | (nm) | 20 |
| Illuminance, continuous ¹ | (klux) | 27 |
| Irradiance, continuous ¹ | (W/m ²) | 116 |
| Illuminance, boosted ¹ | (klux) | 54 |
| Irradiance, boosted ¹ | (W/m ²) | 239 |
| Illuminance, strobe ¹ | (klux) | 231 |
| Irradiance, strobe ¹ | (W/m ²) | 980 |
| Diffuser | | yes |
| Collimation film | | optional |

Mechanical specifications

| | | |
|-----------------|------|----------------------|
| Height | (mm) | 58.0 |
| Width | (mm) | 76.0 |
| Thickness | (mm) | 24.0 |
| Mass | (g) | 184 |
| Clamping system | | 4x M4 threaded holes |

Environment

| | | |
|-----------------------------|------|-----------------------|
| Operating temperature | (°C) | 0-40 |
| Storage temperature | (°C) | 0-50 |
| Operating relative humidity | (%) | 20-85, non condensing |
| Installation | | Indoor use only |
| IP rating | | IP54 |

Electrical specifications

| | | |
|--------------------------------|------|-----------------------|
| Operating mode | | Continuous and strobe |
| Supply voltage | (V) | 24 |
| Current, continuous | (mA) | 100 |
| Power consumption, continuous | (W) | 2.4 |
| Current, boosted | (mA) | 200 |
| Power consumption, boosted | (W) | 4.8 |
| Peak current, strobe | (mA) | 800 |
| Peak power consumption, strobe | (W) | 19.2 |
| Min pulse duration | (µs) | 3 |
| Max pulse duration | (ms) | 10 |
| Max duty cycle | (%) | 10 |
| Typical pulse delay | (ns) | 300 |
| Typical jitter | (ns) | 10 |

| | |
|----------------|--|
| I/O interface | PNP logic input, NPN logic input, analog dimming input |
| Connector | 1x M12 straight plug male connector |
| Included cable | not included |

Eye safety

| | |
|--------------------------------|--------|
| Risk group (CEI EN 62471:2010) | Exempt |
|--------------------------------|--------|

¹ At emitting surface.

All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only. Data are reported by design, actual lens performance may vary due to manufacturing tolerances.

CONNECTOR PINOUT



| Pin | Function |
|-----|--------------------------|
| 1 | +24Vdc |
| 2 | NPN |
| 3 | GND |
| 4 | PNP |
| 5 | Analogue dimming (0-10V) |

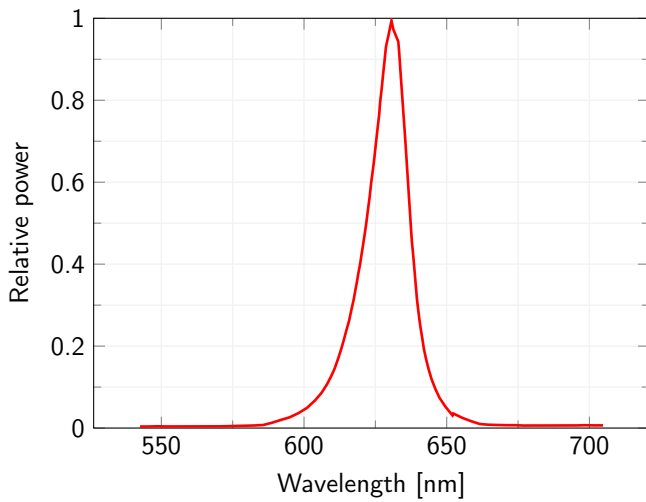
COMPATIBLE PRODUCTS

Full list of compatible products available [here](#).



A wide selection of innovative machine vision components.

LED color spectrum



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