

# LTBP096180-R | DATASHEET

# High Power strobed LED backlight, 96 x 180 mm illumination area, red





#### **SPECIFICATIONS**

## **Lightning specifications**

| 0 0.                         |                     |             |
|------------------------------|---------------------|-------------|
| Modules                      |                     | 2x5         |
| Illumination area width      | (mm)                | 96          |
| Illumination area height     | (mm)                | 180         |
| Number of LEDs               |                     | 480         |
| Light color, peak wavelength |                     | red, 625 nm |
| Spectral FWHM                | (nm)                | 20          |
| Illuminance <sup>1</sup>     | (klux)              | n.a.        |
| Irradiance <sup>1</sup>      | (W/m <sup>2</sup> ) | -           |
| Diffuser                     |                     | yes         |
| Collimation film             |                     | no          |
|                              |                     |             |

# **Electrical specifications**

| Power supply mode              |         | Strobe only, constant current driving |
|--------------------------------|---------|---------------------------------------|
| Peak power consumption         | (W)     | 168.0                                 |
| Max pulse current <sup>2</sup> | (A)     | 8.4                                   |
| Typical pulse voltage          | (V)     | 20.0                                  |
| Max pulse duration             | (ms)    | 1                                     |
| Max duty cycle                 | (%)     | 1.5                                   |
| Max continuous current         | (mA)    | 50                                    |
| Estimated MTBF <sup>3</sup>    | (hours) | > 50000                               |
| Connector                      |         | M8                                    |
| Included cable                 |         | CBLT003                               |

#### **KEY ADVANTAGES**

#### **Excellent uniformity**

Test report with measured uniformity

# Ultra high-power light output and strobe mode operation

For inspection and measurement of fast moving objects and an extended LED lifetime

#### Suitable for frequent cleaning

Thanks to the optical grade and scratch resistant protective cover

#### Wide selection and modular design

Size options range from 48 x 36 to 288 x 216 mm available in red, white, green, blue and infrared

Compact design with reduced thickness (26 mm)

Special continuous alignment mode

**Optional integrated collimation film** 

**The LTBP series** offers high power LED backlights designed to provide exceptional illumination performances and excellent uniformity.

# **Mechanical specifications**

| Length          | (mm) | 108.0               |
|-----------------|------|---------------------|
| Width           | (mm) | 200.0               |
| Height          | (mm) | 26.0                |
| Mass            | (g)  | 1231                |
| Clamping system | 2    | x M6 threaded holes |

#### **Environment**

| Operating temperature       | (°C) | 0-40                  |
|-----------------------------|------|-----------------------|
| Storage temperature         | (°C) | 0-50                  |
| Operating relative humidity | (%)  | 20-85, non condensing |
| IP rating                   |      | IP40                  |
| Installation                |      | Indoor use only       |

## Eye safety

| Risk group (CEI EN 62471:2010)                      | Exempt               |       |
|---|----------------------|-------|
| <sup>1</sup> Minimum value, at max driving current, | on emitting surface. | Where |

- Minimum value, at max driving current, on emitting surface. Where n.a. is reported data is available upon request.
- Models where two currents are listed (such as LTBP240180-R) feature two separate channels.
- <sup>3</sup> At 25°C



# **CONNECTOR PINOUT**



| Function | Cable color |
|----------|-------------|
| LED +    | Brown       |
| LED +    | White       |
| LED -    | Blue        |
| LED -    | Black       |

## **COMPATIBLE PRODUCTS**

Full list of compatible products available here.



A wide selection of innovative machine vision components.

# **LED** color spectrum 1 8.0 Relative power 0.6 0.4 0.2 0 400 450 500 550 700 600 650 Wavelength [nm]



