

## LTBP096144-R-CO | DATASHEET

# High Power strobed LED backlight, 96 x 144 mm illumination area, red, with collimation film in both directions











### **SPECIFICATIONS**

### **Lightning specifications**

| <b>.</b>                     |                     |             |
|------------------------------|---------------------|-------------|
| Modules                      |                     | 2x4         |
| Illumination area width      | (mm)                | 96          |
| Illumination area height     | (mm)                | 144         |
| Number of LEDs               |                     | 384         |
| Light color, peak wavelength |                     | red, 620 nm |
| Spectral FWHM                | (nm)                | 20          |
| Illuminance <sup>1</sup>     | (klux)              | 70          |
| Irradiance <sup>1</sup>      | (W/m <sup>2</sup> ) | -           |
| Diffuser                     |                     | yes         |
| Collimation film             |                     | yes         |
|                              |                     |             |

### **Electrical specifications**

| Power supply mode              |         | Strobe only, constant current driving |
|--------------------------------|---------|---------------------------------------|
| Peak power consumption         | (W)     | 345.6                                 |
| Max pulse current <sup>2</sup> | (A)     | 14.4                                  |
| Typical pulse voltage          | (V)     | 24.0                                  |
| Max pulse duration             | (ms)    | 1                                     |
| Max duty cycle                 | (%)     | 1.5                                   |
| Max continuous current         | (mA)    | 40                                    |
| 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 LFD 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) | 164.0                |
| Height          | (mm) | 26.0                 |
| Mass            | (g)  | 1000                 |
| Clamping system |      | 4x 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       |

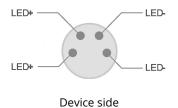
### Eye safety

| Risk group (CEI EN 62471:2010)    | Exempt |
|-----------------------------------|--------|
| 11131 group (CEI EIV 0247 1.2010) | Exempt |

- <sup>1</sup> 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.

# 1 0.8 0.6 0.6 0.4 0.2 0.2 0.580 600 620 640 660 Wavelength [nm]

