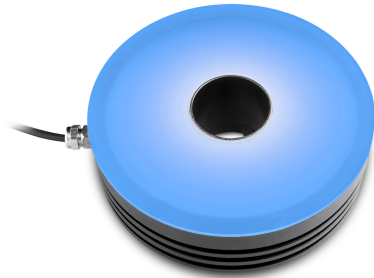




# LTRN023BL | DATASHEET

Ring LED illuminator, inner diameter 28.0mm, straight type, blue, 470 nm



### KEY ADVANTAGES

#### Mechanically fitting Opto Engineering® optics

Each lens integrates specific mechanical interfaces.

#### Specific illumination geometry

Illumination path matches Opto Engineering lenses viewing angle and numerical aperture.

#### High performance to price ratio

Cost-effective, without quality compromises.

**LTRNST series** are LED ring illuminators specifically designed for a wide range of Opto Engineering products. Especially the stray type models perfectly fit Opto Engineering® telecentric lenses.

### SPECIFICATIONS

#### Lighting specifications

|                                    |       |              |
|------------------------------------|-------|--------------|
| Illumination area outer diameter   | (mm)  | 90.0         |
| Illumination area inner diameter   | (mm)  | 40.0         |
| Optimal working distance (min-max) | (mm)  | 55-85        |
| Number of LED rows                 |       | 1            |
| Emission angle                     | (°)   | 0            |
| Light color, peak wavelength       |       | blue, 470 nm |
| Illuminance at min WD <sup>1</sup> | (lux) | 8750         |
| Illuminance at max WD <sup>1</sup> | (lux) | 5160         |

#### Electrical specifications

|                                |         |                        |
|--------------------------------|---------|------------------------|
| Supply voltage <sup>2</sup>    | (V)     | 24                     |
| Current                        | (mA)    | 220                    |
| Power consumption              | (W)     | 5.3                    |
| Estimated MTBF <sup>3</sup>    | (hours) | > 20000                |
| Max pulse voltage <sup>4</sup> | (V)     | 24-48 (36 recommended) |
| Max pulse current <sup>5</sup> | (mA)    | 660                    |
| Max duty cycle                 | (%)     | 10                     |
| Max pulse duration             | (ms)    | 10                     |
| Connector <sup>6</sup>         |         | Flying leads           |
| Cable length                   | (mm)    | 1000                   |

#### Mechanical specifications

|                |      |       |
|----------------|------|-------|
| Outer diameter | (mm) | 104.0 |
| Inner diameter | (mm) | 28.0  |
| Height         | (mm) | 39.6  |
| Mass           | (g)  | 283   |

#### Environment

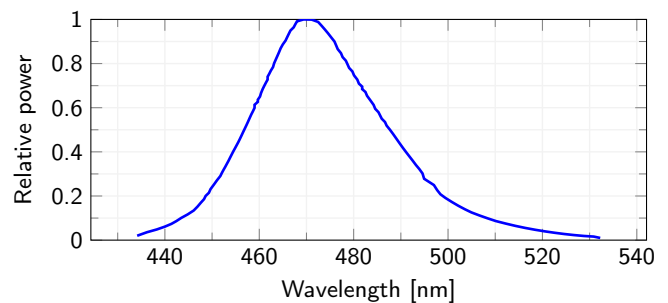
|                       |      |                       |
|-----------------------|------|-----------------------|
| Operating temperature | (°C) | 0-45                  |
| Operating humidity    | (%)  | 20-85, non condensing |

#### Eye safety

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

- <sup>1</sup> ±15%.
- <sup>2</sup> Tolerance ±2%.
- <sup>3</sup> At 25°C.
- <sup>4</sup> Constant voltage power supply.
- <sup>5</sup> Constant current power supply.
- <sup>6</sup> Red Cable is V+, white cable is V-.

LED color spectrum



### COMPATIBLE PRODUCTS

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



A wide selection of innovative machine vision components.

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.