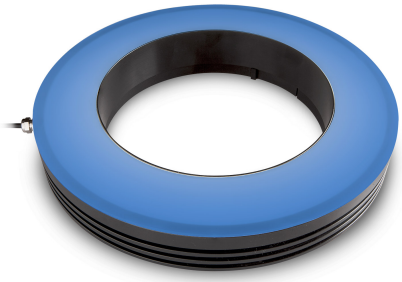
# LTRN096BL | DATASHEET

OPTO ENGINEERING

## Ring LED illuminator, inner diameter 143.0mm, 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) | 207.0 |
| Illumination area inner diameter | (mm) | 157.0 |
| Optimal working distance (min-max) | (mm) | 350-450 |
| Number of LED rows | | 1 |
| Emission angle | (°) | 0 |
| Light color, peak wavelength | | blue, 470 nm |
| Illuminance at min WD[1] | (lux) | 1420 |
| Illuminance at max WD[1] | (lux) | 978 |

### Electrical specifications

| | | |
|---|---|---|
| Supply voltage[2] | (V) | 24 |
| Current | (mA) | 650 |
| Power consumption | (W) | 15.6 |
| Estimated MTBF[3] | (hours) | > 20000 |
| Max pulse voltage[4] | (V) | 24-48 (36 recomended) |
| Max pulse current[5] | (mA) | 1950 |
| Max duty cycle | (%) | 10 |
| Max pulse duration | (ms) | 10 |
| Connector[6] | | Flying leads |
| Cable length | (mm) | 1000 |

### Mechanical specifications

| | | |
|---|---|---|
| Outer diameter | (mm) | 221.0 |
| Inner diameter | (mm) | 143.0 |
| Height | (mm) | 39.6 |
| Mass | (g) | 783 |

### Environment

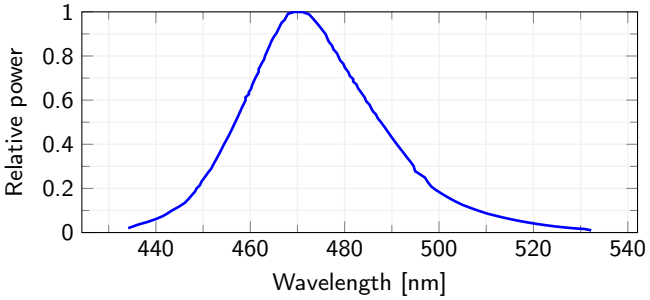
| | | |
|---|---|---|
| Operating temperature | (°C) | 0-45 |
| Operating humidity | (%) | 20-85, non condensing |

### Eye safety

| | |
|---|---|
| Risk group (CEI EN 62471:2010) | Risk group 2 |

[1] ±15%.
[2] Tolerance ±2%.
[3] At 25°C.
[4] Constant voltage power supply.
[5] Constant current power supply.
[6] 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.