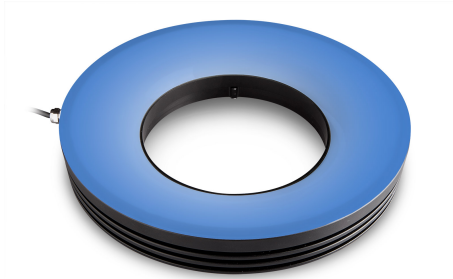


# LTRN210B20 | DATASHEET

OPTO ENGINEERING

Ring LED illuminator, inner diameter 116.0mm, oblique type, blue, 470 nm



## SPECIFICATIONS

### Lighting specifications

Illumination area outer diameter	(mm)	195.6
Illumination area inner diameter	(mm)	116.5
Optimal working distance (Min-Max)	(mm)	55-95
Number of LED rows		1
Emission angle	(°)	20
Light color, peak wavelength		blue, 470 nm
Illuminance at min WD <sup>1</sup>	(lux)	10800
Illuminance at max WD <sup>1</sup>	(lux)	9050

### Electrical specifications

Supply voltage <sup>2</sup>	(V)	24
Current	(mA)	630
Power consumption	(W)	15.2
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)	1890
Max duty Cycle	(%)	10
Max pulse duration	(ms)	10
Connector <sup>6</sup>		Flying leads
Cable length	(mm)	1000

### Mechanical specifications

Outer diameter	(mm)	210.0
Inner diameter	(mm)	116.0
Height	(mm)	40.0
Mass	(g)	650

## 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.

**LTRNOB series** are LED ring illuminators specifically designed for a wide range of Opto Engineering products. Especially the oblique type models perfectly fit Opto Engineering® 360° view optics.

## Environment

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

## Eye safety

Risk group (CEI EN 62471:2010)	Exempt
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<sup>1</sup> ±15%.

<sup>2</sup> Tolerance ±2%.

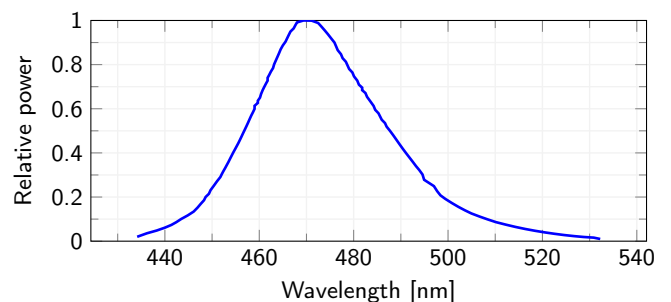
<sup>3</sup> At 25°C.

<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.