

# LT2PRUP-B | DATASHEET

OPTO ENGINEERING

## High power LED pattern projector, blue, 465 nm



### KEY ADVANTAGES

High efficiency LEDs for sharp edges, superior homogeneity and contrast

Built-in driver for continuous and strobe operations

Extreme brightness for high-speed quality control

5 PIN M12 Connector with PNP/NPN/analogue dimming input

Compatible with **standard C-mount lenses up to 1.1"**

**Automatic shutdown** in case of overheating

**Interchangeable projection patterns**



**LTPRUP series** features ultra-high power LED pattern projectors designed for fast image acquisition in high-speed applications, including planarity control of opaque products, robot guidance for fast pick and place and 3D profiling.

### SPECIFICATIONS

#### Lighting specifications

Active area diameter	(mm)	17.6
Light color, peak wavelength		blue, 465 nm
Spectral FWHM	(nm)	30
Illuminance, continuous <sup>1</sup>	(klux)	467
Irradiance, continuous <sup>1</sup>	(W/m <sup>2</sup> )	18000
Illuminance, strobe <sup>1</sup>	(klux)	555
Irradiance, strobe <sup>1</sup>	(W/m <sup>2</sup> )	30700

#### Electrical specifications

Operating mode		Continuous and strobe
Supply voltage <sup>2</sup>		24
Current <sup>2</sup>		2.6
Power consumption <sup>2</sup>		62.4
Peak power consumption <sup>3</sup>	(W)	115.2
Max led forward current <sup>3</sup>	(A)	3
Min pulse duration	(μs)	2
Max pulse duration	(ms)	10
Max duty cycle	(%)	10
Typical pulse delay	(%)	400
Typical jitter	(%)	100
I/O interface	PNP logic input, NPN logic input, analog dimming input	
Connector	1x M12 straight plug male connector	
Included cable	not included	

#### Mechanical specifications

Mount		C
Phase adj availability		Yes
Length	(mm)	118.5
Width	(mm)	77.3
Height	(mm)	77.3
Mass	(g)	530

#### Environment

Operating temperature	(°C)	0-40
Storage temperature	(°C)	0-50
Operating relative humidity	(%)	20-85, non condensing
Installation		Indoor use only
IP rating		IP30

#### Eye safety

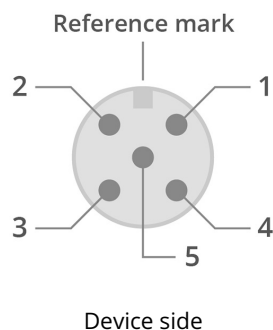
Risk group (CEI EN 62471:2010)	Risk group 3
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<sup>1</sup> At pattern emitting surface.

<sup>2</sup> Continuous mode, using the integrated electronic driver.

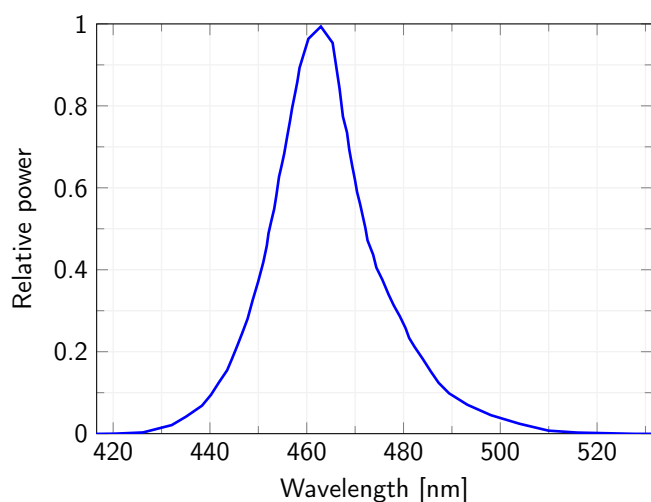
<sup>3</sup> Strobe mode.

## CONNECTOR PINOUT

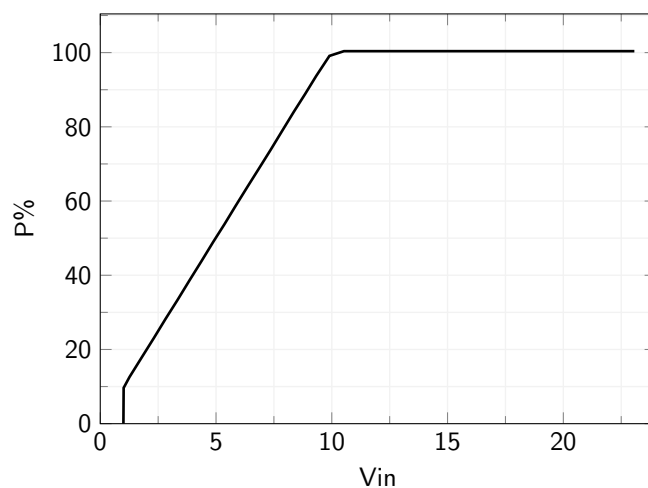


Pin	Function
1	+24Vdc
2	NPN
3	GND
4	PNP
5	Analog dimming (0-10V)

## LED color spectrum



## Analog input specification



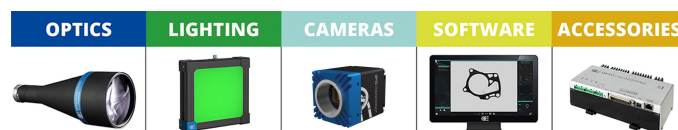
## RECOMMENDED ACCESSORIES

Opto-Engineering® suggests the following accessories to power the camera:

- **CBLTM12-5P-2M**, Illumination cable PVC black, Side 1 M12 female connector 5 poles, Side 2 cable end - 2 m
- **CBLTM12-5P-5M**, Illumination cable PVC black, Side 1 M12 female connector 5 poles, Side 2 cable end - 5 m
- **CBLTM12-5P-10M**, Illumination cable PVC black, Side 1 M12 female connector 5 poles, Side 2 cable end - 10 m

## COMPATIBLE PRODUCTS

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



A wide selection of innovative machine vision components.