

## High power LED pattern projector, white, 5700 K



### KEY ADVANTAGES

**High efficiency LEDs for sharp edges, superior homogeneity and contrast**

**Built-in driver for continuous and strobe operations**

**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**

**Compact version** available



**LTPRUP series** features high-power LED pattern projectors designed for inline or offline applications including quality control, 3D reconstruction, dimensional measurement, planarity control, robot guidance and alignment applications.

### SPECIFICATIONS

#### Lighting specifications

|                                      |                     |               |
|--------------------------------------|---------------------|---------------|
| Active area diameter                 | (mm)                | 17.6          |
| Light color, peak wavelength         |                     | white, 5700 K |
| Spectral FWHM                        | (nm)                | -             |
| Illuminance, continuous <sup>1</sup> | (klux)              | -             |
| Irradiance, continuous <sup>1</sup>  | (W/m <sup>2</sup> ) | -             |
| Illuminance, strobe <sup>1</sup>     | (klux)              | 3123          |
| Irradiance, strobe <sup>1</sup>      | (W/m <sup>2</sup> ) | 10750         |

#### Electrical specifications

|                                      |      |                          |
|--------------------------------------|------|--------------------------|
| Operating mode                       |      | Strobe                   |
| Power supply mode                    |      | Constant current driving |
| Supply voltage <sup>2</sup>          |      | -                        |
| Current <sup>2</sup>                 |      | -                        |
| Power consumption <sup>2</sup>       |      | -                        |
| Peak power consumption <sup>3</sup>  | (W)  | 43.2                     |
| Max led forward current <sup>3</sup> | (A)  | 3                        |
| Min pulse duration                   | (μs) | -                        |
| Max pulse duration                   | (ms) | 10                       |
| Max duty cycle                       | (%)  | 10                       |
| Typical pulse delay                  | (%)  | -                        |
| Typical jitter                       | (%)  | -                        |

#### I/O interface

|                |                                     |
|----------------|-------------------------------------|
| Connector      | 1x M12 straight plug male connector |
| Included cable | not included                        |

#### Mechanical specifications

|                        |      |      |
|------------------------|------|------|
| Mount                  |      | C    |
| Phase adj availability |      | Yes  |
| Length                 | (mm) | 67.5 |
| Width                  | (mm) | 45.0 |
| Height                 | (mm) | 45.0 |
| Mass                   | (g)  | 199  |

#### 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 1 |
|--------------------------------|--|--------------|

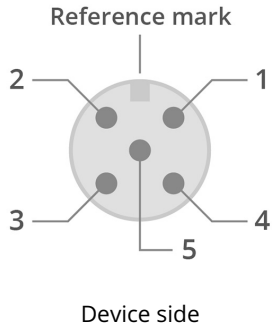
<sup>1</sup> At pattern emitting surface.

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

<sup>3</sup> Strobe mode.

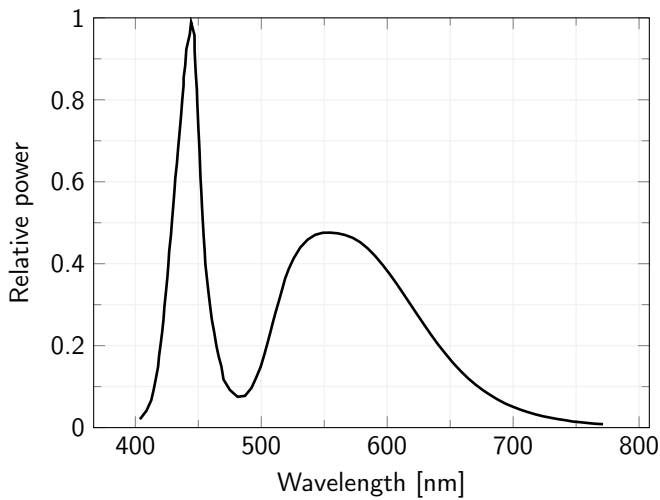
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**CONNECTOR PINOUT**

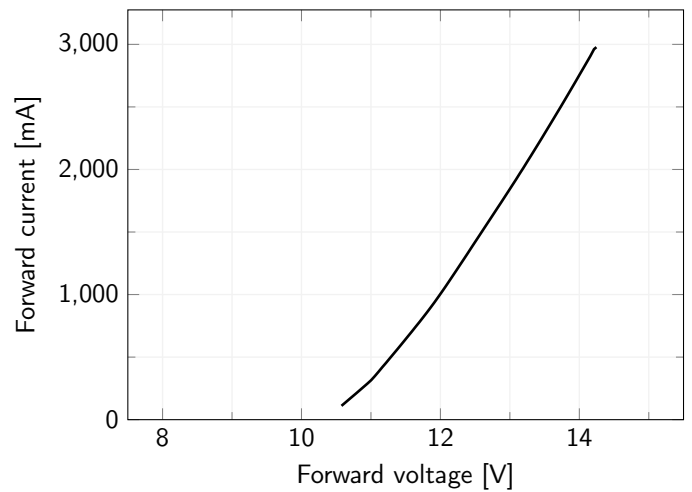


| Pin | Function       |
|-----|----------------|
| 1   | LED anode      |
| 2   | LED cathode    |
| 3   | NTC first end  |
| 4   | NTC second end |
| 5   | Not connected  |

**LED color spectrum**



**Voltage current characteristics**



**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.

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