



# INDUSTRIAL MACHINE VISION LIGHTS

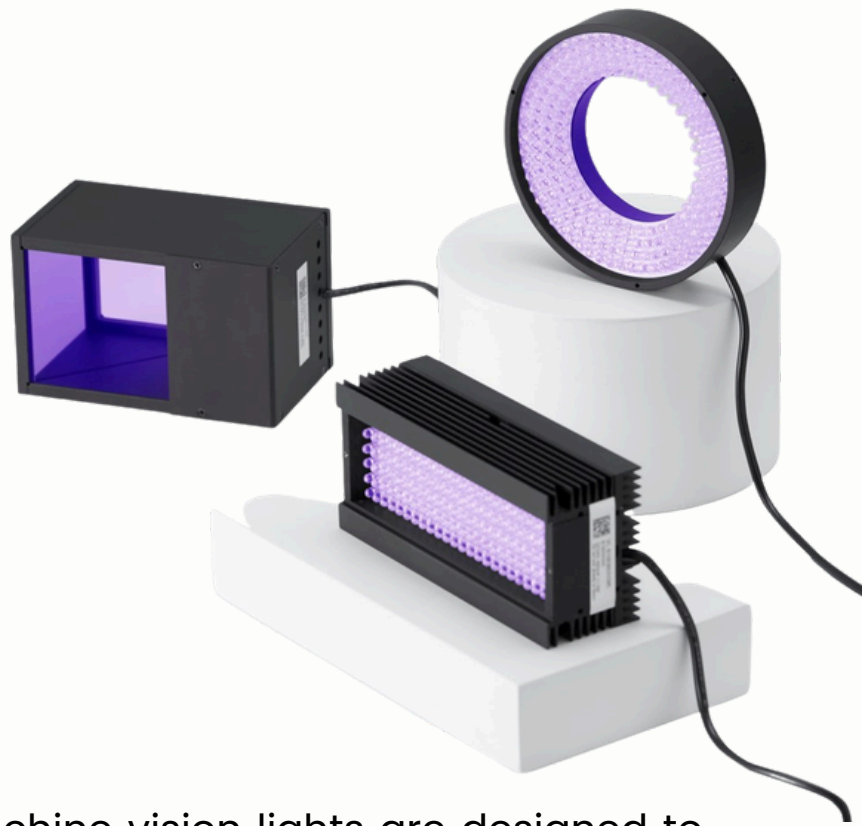


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# "Illuminate the Path to Precision: Unleash the Power of Industrial Machine Vision Lights"



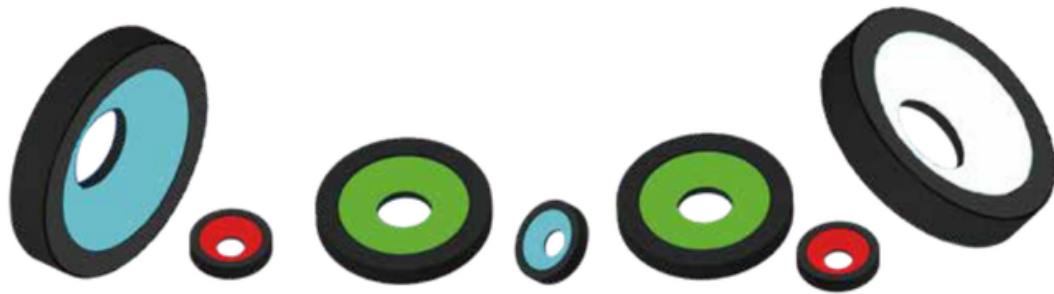
Our cutting-edge industrial machine vision lights are designed to illuminate the smallest details, ensuring flawless results and maximum efficiency.

With our extensive range of specialized lights, including line scan, ring, and high-intensity options, you can:

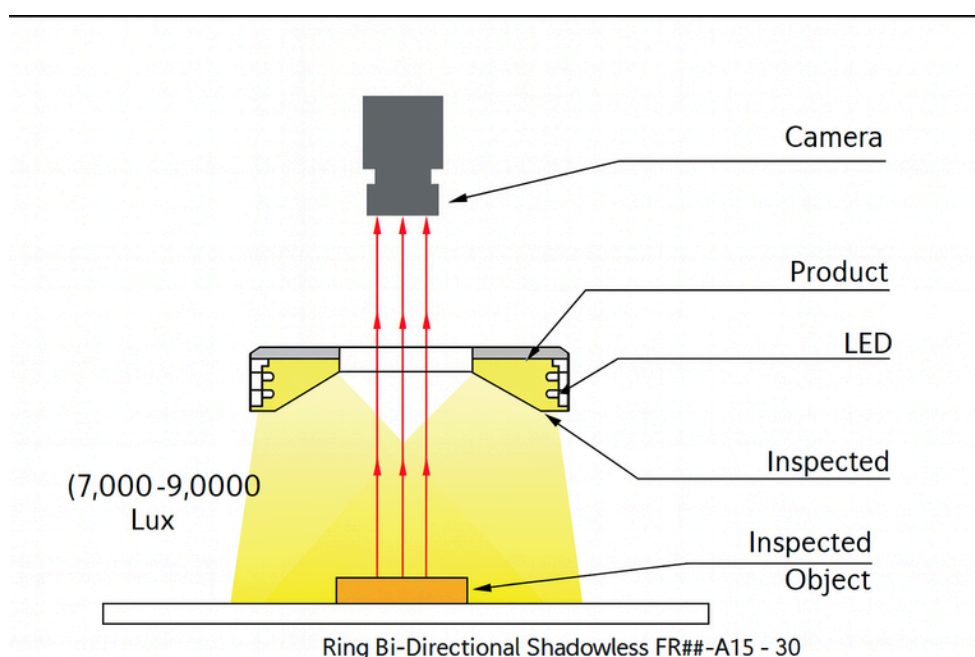
- Enhance image quality and accuracy
- Boost production speed and reliability
- Reduce errors and defects
- Improve overall product quality

# BI-DIRECTIONAL SHADOWLESS HIGH-ANGLE RING LIGHTS

## PS-FR SERIES

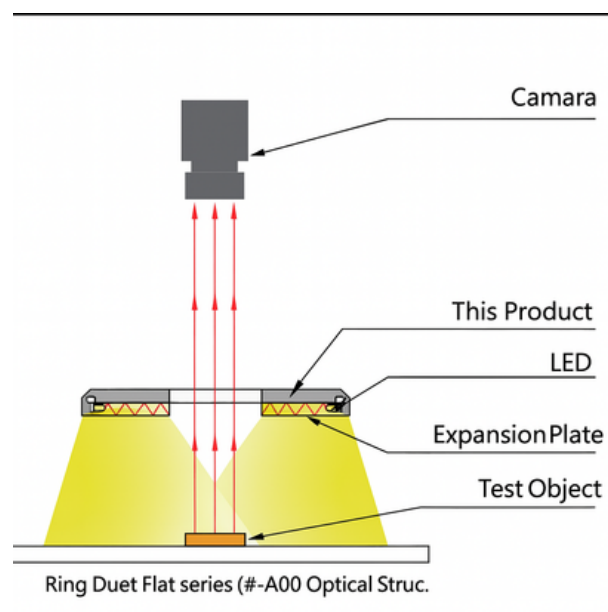


Bi-Directional Shadowless High-Angle Ring Lights are advanced illumination solutions designed for machine vision applications that require uniform lighting with minimal shadow interference. These lights feature LED arrays positioned to emit light from multiple high-angle directions, ensuring even illumination across complex or reflective surfaces. The bi-directional design significantly reduces shadows and glare, enhancing edge detection, surface inspection, and defect identification. Ideal for inspecting glossy, curved, or irregular objects, these lights improve image clarity and contrast, enabling more accurate and reliable machine vision processing in tasks such as OCR, label inspection, and component alignment.



# When and how to use Bi-Directional Shadowless High-Angle Ring Lights

Bi-Directional Shadowless High-Angle Ring Lights are designed to provide uniform, glare-free illumination in machine vision applications where traditional lighting falls short. These lights are especially effective for inspecting reflective, uneven, or textured surfaces, where shadows and hotspots can obscure critical details. By emitting light from two opposing high-angle directions, they minimise shadows and eliminate glare, ensuring consistent illumination across complex geometries. This makes them ideal for tasks such as surface defect inspection, engraving detection, label and code reading, and the examination of objects with varying heights or recessed features. Easy to integrate with vision systems, these lights enhance image clarity, improve edge detection, and boost the accuracy of automated inspection processes.



## BI-DIRECTIONAL SHADOWLESS HIGH-ANGLE RING LIGHTS PS-FR Series

### FEATURES

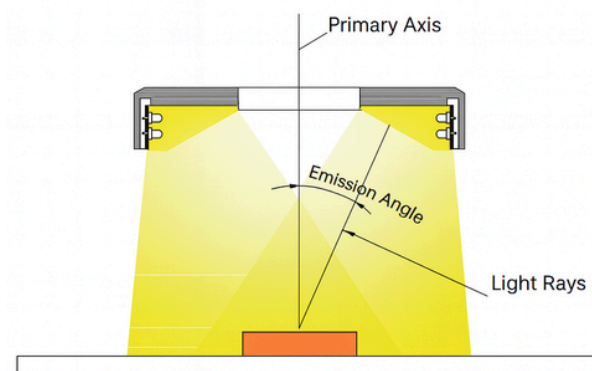
- Surface light emission, high uniformity, suitable for relatively large working distances
- Various sizes can be combined with the same shaft and customised
- Uniform surface illumination, no bright spots
- Reflow soldering process, easy installation, compact design

### APPLICATIONS

- Surface defect detection of cigarette packs
- General appearance inspection and microscopic illumination
- Detection of capacitor and IC component markings and appearance
- Ideal light source for detecting surface scratches, prints, cracks, and edges
- Detection of highly reflective surfaces

# BI-DIRECTIONAL SHADOWLESS HIGH-ANGLE RING LIGHTS PS-FR SERIES

Angle Diagram



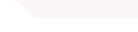
Angle is thetwistangle of the linear light source  
between light rays and main axis.

## TECHNICAL INDEX

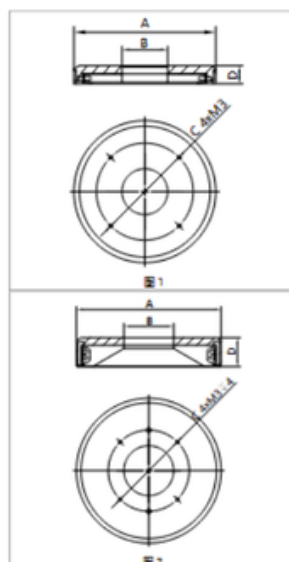
|                                  |                                                                                                                       |                  |                 |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------|-----------------|
| <b>Color<br/>(Wavelength)</b>    | Red: 620-630nm                                                                                                        | Green: 525-530nm | Blue: 465-470nm |
|                                  | White Color<br>Temperature<br>6600-7000K                                                                              | UV: 365-395nm    | IR: 850/940nm   |
| <b>Operating<br/>environment</b> | Temperature: 0 to 50 C, Humidity: 20% to 85% RH                                                                       |                  |                 |
| <b>Lifetime</b>                  | 100,000 Hours theoretical service time (Depends on the operating environment, not a guarantee.                        |                  |                 |
| <b>Compatible<br/>Controller</b> | Analog Controller, Digital Controller, Constant Current Controller                                                    |                  |                 |
| <b>Optional<br/>Accessory</b>    | Light sources and Lens Adapter.                                                                                       |                  |                 |
|                                  | Diffusion Plate, Polarizing Plate (Optical Transmittance: 60%, 70%, 80%, 90%)                                         |                  |                 |
|                                  | Extension Cable: 1m/2m/5m/10m/15m (Two kinds of materials of the shell of wire; PVC of hardness; silicon of softness) |                  |                 |
| <b>Warranty</b>                  | One year warranty, technical support (Buyers pay for the freight)                                                     |                  |                 |

# BI-DIRECTIONAL SHADOWLESS HIGH-ANGLE RING LIGHTS

## PS-FR SERIES

| Model        | Color                                                                               | Angle                      | Power(W)                                            |                             | Dimensions(mm) |     |     |      |
|--------------|-------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------|-----------------------------|----------------|-----|-----|------|
|              |                                                                                     |                            | Power<br>(Green,<br>Blue,<br>White,<br>Ultraviolet) | Power<br>(Red/Infra<br>red) | A              | B   | C   | D    |
| PS-FR60-A00  |    | 0° (Vertical Illumination) | 2.4W                                                | 1.5W                        | 60             | 18  | 38  | 15   |
| PS-FR100-A00 |    | 0° (Vertical Illumination) | 3.2W                                                | 2.4W                        | 105            | 33  | 70  | 13   |
| PS-FR130-A00 |    | 0° (Vertical Illumination) | 3.5W                                                | 3.3W                        | 130            | 43  | 70  | 13   |
| PS-FR150-A00 |    | 0° (Vertical Illumination) | 4.4W                                                | 3.7W                        | 150            | 54  | 80  | 13   |
| PS-FR200-A00 |    | 0° (Vertical Illumination) | 8.7W                                                | 5.2W                        | 200            | 70  | 100 | 13   |
| PS-FR260-A00 |   | 0° (Vertical Illumination) | 8.7W                                                | 5.2W                        | 263            | 120 | 150 | 13.5 |
| PS-FR60-A15  |  | 15-30°                     | 6.5W                                                | 4.8W                        | 60             | 18  | 38  | 15.5 |
| PS-FR60-A30  |  | 15-30°                     | 2.3W                                                | 1.7W                        | 60             | 18  | 38  | 15   |
| PS-FR74-A30  |  | 15-30°                     | 8.5W                                                | 6.2W                        | 74             | 20  | 36  | 18   |
| PS-FR100-A25 |  | 15-30°                     | 3.8W                                                | 4.8W                        | 100            | 30  | 70  | 19.5 |
| PS-FR130-A30 |  | 15-30°                     | 12.4W                                               | 10.3W                       | 130            | 43  | 70  | 19   |
| PS-FR150-A30 |  | 15-30°                     | 9.2W                                                | 6.9W                        | 151            | 54  | 80  | 28.5 |

## TECHNICAL DRAWING



## CONTACT DETAILS

You can also contact us over email / phone, we will be happy to support you.

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