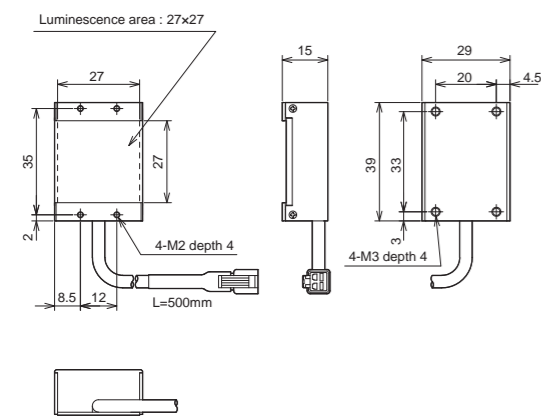


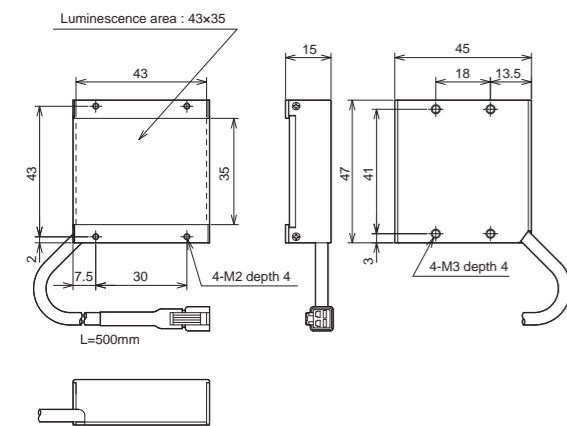
Type	Model	Size	Weight	Color	Input voltage	Power consumption	MSRP (excl. tax)
Diffuse type (compatible with conventional models)	OPF-S27x27W-DF	27x27 mm	35 g	White	12 VDC	2.2 W	¥29,000
	OPF-S43x35W-DF	43x35 mm	50 g			3.7 W	¥36,000
	OPF-S51x51W-DF	51x51 mm	60 g			5.2 W	¥48,000
Convergent type	OPF-S27x27W-PS	27x27 mm	35 g			2.2 W	¥32,000
	OPF-S43x35W-PS	43x35 mm	50 g			3.7 W	¥40,000
	OPF-S51x51W-PS	51x51 mm	60 g			5.2 W	¥52,000
Coming soon	Size: 63 x 60, 77 x 77, 100 x 100, 125 x 125, 150 x 150 Color: Red, Blue						

Dimensions

OPF-S27x27W-□□



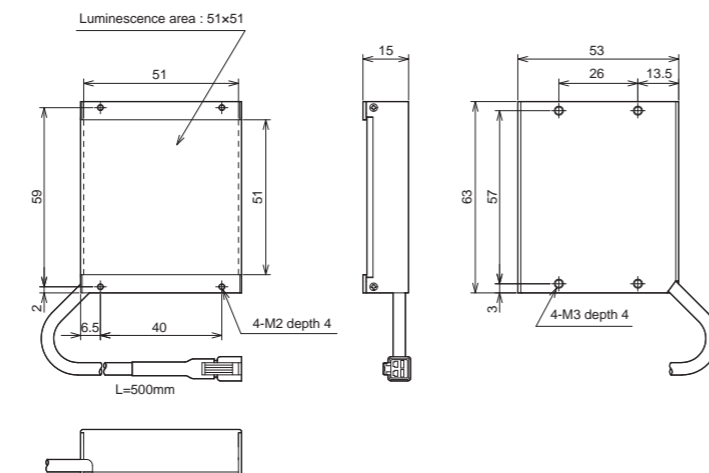
OPF-S43x35W-□□



Specifications

Color	White
Color temperature	5,000 K
Input voltage	12 VDC
LED deterioration	10% reduction in brightness (100% duty, environment of 30°C, after 10,000 hours of operation) *Typical value
Classification	Risk classification based on IEC 62471:2006: Exempt Group
Laws/standards	Compliant with EMC Directive 2004/108/EC and EN 61326-1:2006
Operating temperature/humidity	0 to 40°C/35 to 85%RH
Storage temperature/humidity	-20 to 70°C/35 to 95%RH
Vibration resistance	10 to 55 Hz; double amplitude 1.5 mm; 2 hours in each of the X, Y, and Z directions
Shock resistance	10 G, 3 times in each of the X, Y, and Z directions
Material	Housing: Aluminum alloy/stainless steel Heat-conducting sheet: Silicone rubber
Options	Abrasion-resistant cover, Polarizing plate, Mounting bracket

OPF-S51x51W-□□



- Specifications are subject to change without prior notice.
- Specifications and technical information not mentioned here are written in Instruction Manual. Or visit our website for details.
- All the warnings and cautions to know prior to use are given in Instruction Manual.

**OPTEX FA CO., LTD.**  
 600-8815 Kyoto, Shimogyo, Chudoji Awata 91, Japan  
 TEL. +81-(0)75-325-1314 FAX. +81-(0)75-325-2921  
<http://www.optex-fa.com>



\* FASTUS is a product brand of Optex FA.

Sensor-controlled Backlight

NEW OPF Series

# Selectable Directivity Angle for Clear Edge Extraction

Industry First Convergent type

Diffuse type

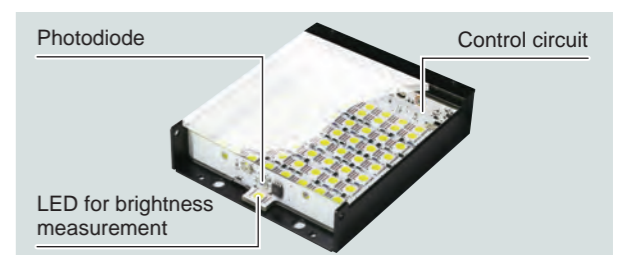


Industry First Lineup includes convergent- and diffuse-type models

Increased brightness (compared to conventional models)  
 Convergent type: 4x brighter  
 Diffuse type: 2.5x brighter



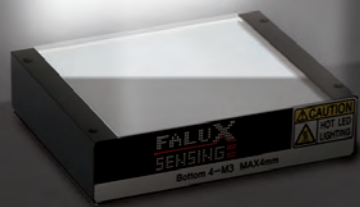
FALUX sensing technology ensures stable long-term brightness



# High-precision edge extraction and foreign object

With both convergent- and diffuse-type models in the lineup, the OPF series lets you select directivity angle to suit the target.

The convergent type, which employs the industry's first prism sheet, enables clear edge extraction of transparent workpieces and ghosting-prone metal workpieces, which were difficult to process using conventional models.



Industry First Convergent Type

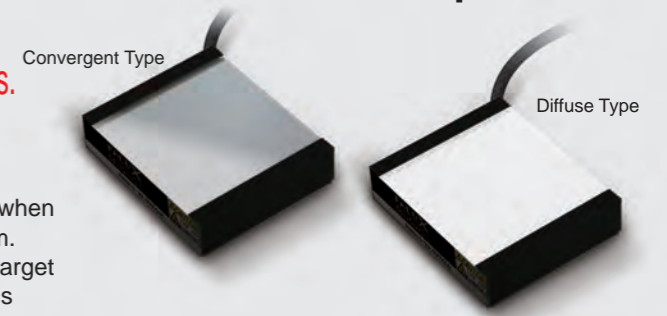


Diffuse Type

# detection with transparent and metal workpieces

Excellent performance with transparent and glossy workpieces.  
Convergent type for edge extraction

Diffuser plate employs a unique prism sheet that enables a narrow directivity angle (half-value angle  $\pm 17^\circ$ ) equivalent to that provided when using a conventional model in conjunction with LC (light control) film. Projecting light with a narrow directivity angle from the back of the target prevents unwanted reflected light and forms a clear silhouette that is unaffected by the surface of the workpiece.



	OPF (Diffuse type)	OPF (Diffuse type) + LC film	OPF (Convergent type)
Measuring dimensions of glossy metal shaft	 X Ghosting on side of shaft and threaded section.	 Δ Using LC film prevents ghosting, but results in a dark image.	 O No ghosting and image is sufficiently bright.
Detecting edges of transparent film	 X Light reflects on the edges of this adhesive film-type smartphone screen protector on a transparent backing, resulting in blurred outlines.	 Δ Using LC film enables edge detection, but the resulting image is not bright enough.	 O Narrow directivity makes edges stand out by reducing reflections on edges of film.

Diffuse type for transmitting light through workpieces that scatter light

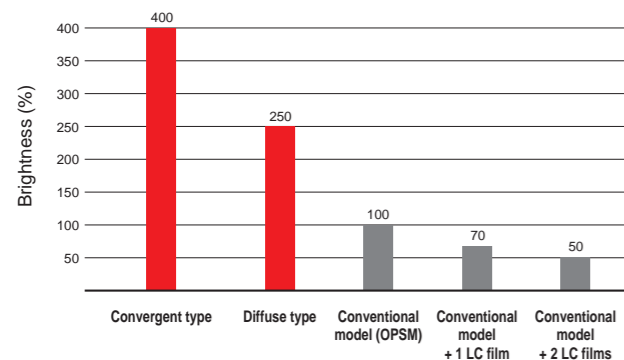
When detecting foreign objects in workpieces that scatter light such as non-woven fabric and cloudy resins, the diffuse type, a high-end model compatible with conventional OPSM backlights, is effective. The light provides 2.5 times the brightness of conventional models and a high degree of uniformity, making it easy to transmit light through workpieces that scatter light and ensuring that shadows of foreign objects stand out.



	OPF (Diffuse type)	OPF (Convergent type)
Detecting foreign objects in cloudy resin containers	 O Black spot stands out clearly.	 X Light is not transmitted through workpiece and black spot cannot be identified.

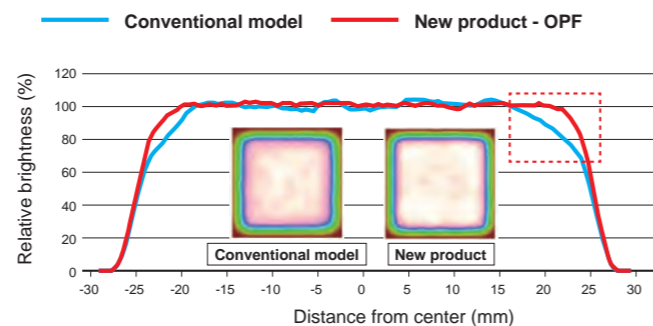
## Up to 4x Brighter

The convergent type employs a prism sheet to concentrate ambient light forwards, achieving 4 times the brightness of conventional models. As this design allows a narrow directivity angle even without the use of LC film, it is possible to avoid the reduction in brightness caused by LC film. The diffuse type achieves 2.5 times the brightness of conventional models.



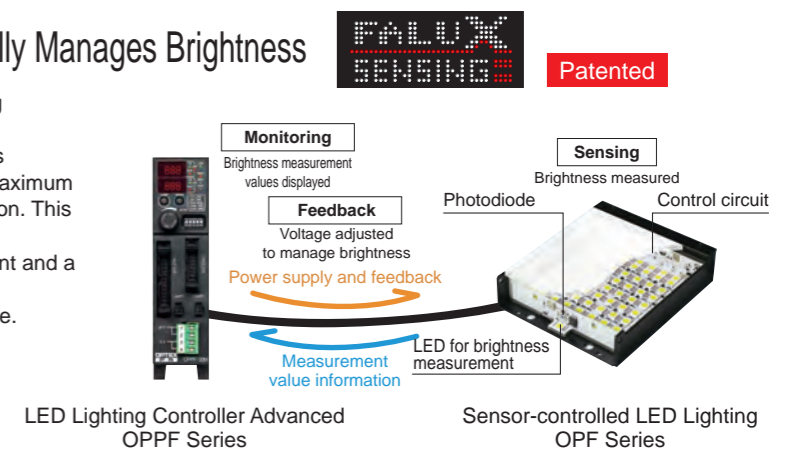
## Corrects Reduced Brightness in Peripheral Areas

The optimized LED array increases uniformity and improves the reduction of brightness in peripheral areas. This provides a larger inspection area than conventional models even when comparing units with a light-emitting area of the same size.



## Sensor-controlled Lighting that Automatically Manages Brightness

The OPF series employs Optex FA's unique FALUX sensing technology. The integrated photodiode monitors brightness and provides feedback on long-term deterioration in brightness to keep maximum brightness level constant even after 50,000 hours of operation. This feature reduces maintenance costs during operation. The OPF series features an LED for brightness measurement and a photodiode built into the housing frame, allowing accurate measurement of brightness unaffected by ambient light noise. The control circuit is mounted on the inner wall of the frame, enabling the unit's compact size.



## FALUX Correction Circuit for Brightness Fluctuation

Employs Optex FA's unique FALUX technology, which corrects reduction in brightness due to increases in temperature. By measuring the internal temperature of the light unit, the correction function works on individual light units.