

Even, diffused side lighting

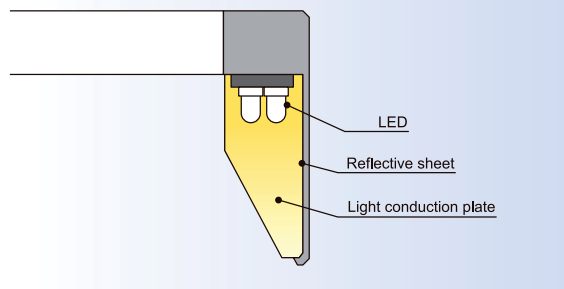
Low-angle, diffuse illumination enables characters and defects to be uniformly illuminated with no LED glare.



Diffused Lighting from Four Sides of the Square Case

Light emitted from vertically arranged LEDs is passed through a light conduction plate to uniformly illuminate the workpiece from a low angle.

Cross-sectional View of an FPR-series Light



Selectable lighting colors for optimal images

White, blue, and green colors are supported along with red. By selecting the illumination color to match the material and color of the work, a higher level of detection precision is possible.

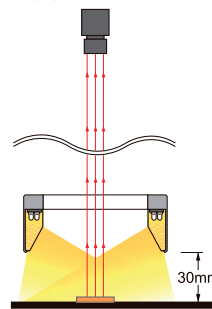


Even diffuse light enables optimal imaging

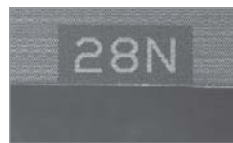
When used at a low angle, the dark field of view brings out the edges, engravings, scratches, and other indentations on the workpieces for imaging. From a high angle, comparatively uniform illuminance allows observation of the workpiece in the bright field of view. The FPR Series can be used in a wide variety of lighting applications.

Inspection of engraved letters on metal surface (Lighting: FPR-136)

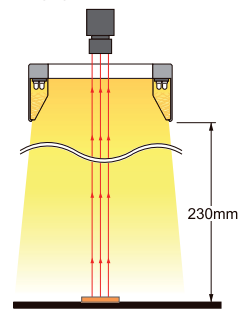
Imaging with LWD 30mm



Illumination from a low angle highlights the engraved letters white.



Imaging with LWD 230mm

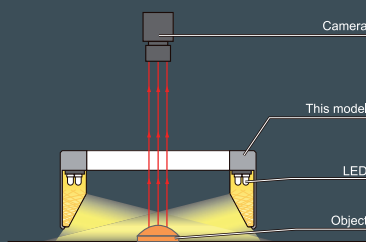


With diffuse light illuminated from LWD 230mm, the entire area is imaged in bright field.



Illumination structure of FPR-100RD2

The object is illuminated from a low angle by uniform diffuse light through the light conduction plate.



Examples of low-angle Ring Light images

Imagery of Engraved Characters on a Pearskin Finish Metallic Surface

Room lighting image.



When photographed from a low angle, the engraved characters appear white in a dark field of view.

Light used: FPR-100RD2



From a high angle, you can detect large bumps and indentations on the surface as dark areas in a bright field of view.

Light used: FPR-100RD2



Product Lineup Table

Series	Direct Number	Model Name	Color	Power Consumption	Option	Dimension
FPR	1005544	FPR-100RD2	●	24V / 6.1W	—	1
	1004200	FPR-100SW2	○	24V / 7.6W		
	1006135	FPR-100BL2	●			
	1000084	FPR-100-BL	TBD	24V / 8.2W		
	1006138	FPR-100GR2	●	24V / 7.6W		
	1000085	FPR-100-GR	TBD	24V / 8.2W	—	2
	1005545	FPR-136RD2	●	24V / 9.1W		
	1004201	FPR-136SW2	○	24V / 12W		
	1006136	FPR-136BL2	●			
	1000094	FPR-136-BL	TBD	24V / 13W		
	—	FPR-136GR2	●	24V / 12W		
	1000095	FPR-136-GR	TBD	24V / 13W	—	3
	1005546	FPR-180RD2	●	24V / 13W		
	1004202	FPR-180SW2	○	24V / 16W		
	1006137	FPR-180BL2	●			
1000103	FPR-180-BL	TBD	24V / 17W			
—	FPR-180GR2	●	24V / 16W			
1000104	FPR-180-GR	TBD	24V / 17W			

Products with the "TBD" mark are scheduled to be discontinued.
Refer to the discontinued product information on the CCS website for specific discontinuation schedules.

Dimension Diagrams (Unit: mm)

