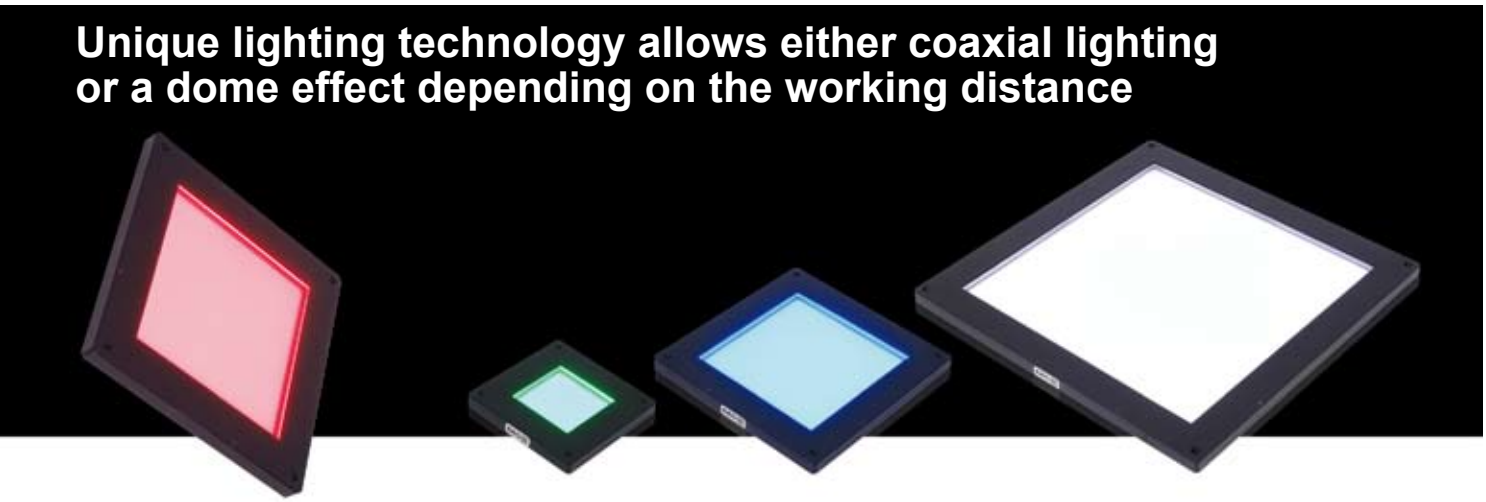
Indirect Lighting

Flat-Dome Lights

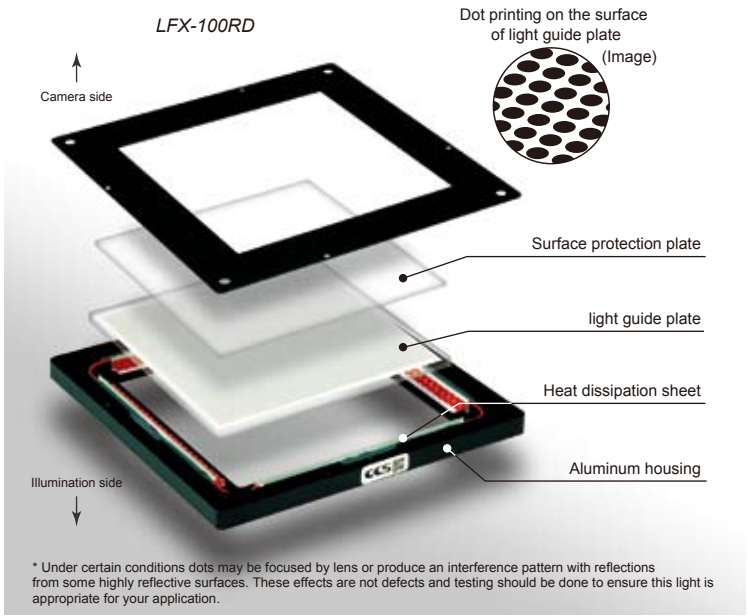
LFX Series

Unique lighting technology allows either coaxial lighting or a dome effect depending on the working distance



Unique lighting technology achieves uniform omni directional diffused light

The special dotted-pattern reproduces the characteristics of a coaxial light or a dome light.

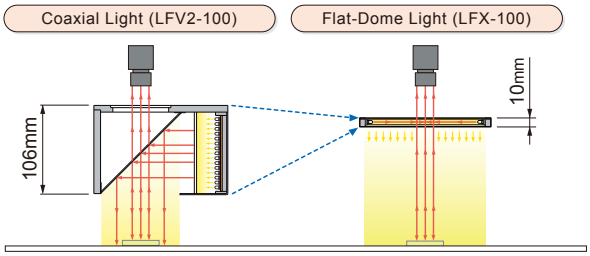


* Under certain conditions dots may be focused by lens or produce an interference pattern with reflections from some highly reflective surfaces. These effects are not defects and testing should be done to ensure this light is appropriate for your application.

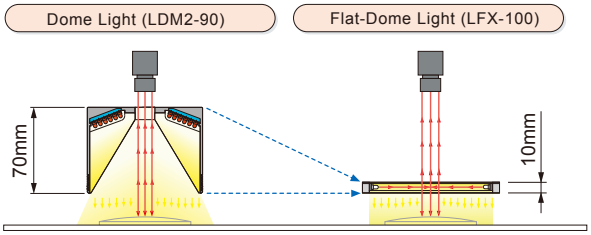
The LFX Series is a completely new type of light product enabled by CCS's cutting research and development capabilities. The pattern of dots on the surface of the light guiding diffuser plate controls light diffusion and transmission making uniform, omni-directional light possible.

Lightweight, thin design enables installation in constrained spaces

The LFX-100 requires 96-mm less installation height than the comparable standard LFV2-100 coaxial light with the same light-emitting surface.



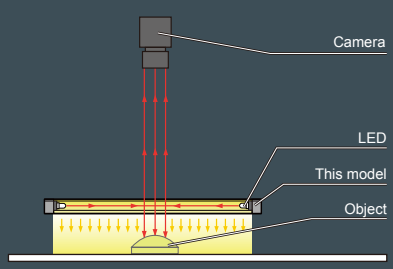
The LFX 100 requires 60-mm less installation height than the comparable standard LDM2-90 dome light with the same field of view.



Compared to coaxial lights and dome lights, the flat-dome lights have achieved lightweight and compact design. The flat-dome lights are designed to require thickness of only 10 mm.

Illumination structure of LFX-100

LEDs mounted in the rim emit light through the light guiding diffuser plate and exit the surface as uniform omni directional diffused light .



Examples of Flat-Dome Light Images

Printed characters on food packaging film

Ambient light image

When the light is too small or is too far away it behaves like a coaxial light, creating a uniform reflection only where the surface has sufficiently low curvature.

Light used: LFX-50RD

When an LFX flat dome is used very close to the part and is sufficiently large it eliminates shadows and uniformly illuminates the surface even on curved highly reflective objects.

Light used: LFX-100RD

Direct Number : A direct number is a 7-digit number assigned to a CCS product. You can easily access the web page providing information on any desired product by simply entering the direct number in the space provided on the CCS website pages for machine vision. (Refer to the back cover of this brochure.)

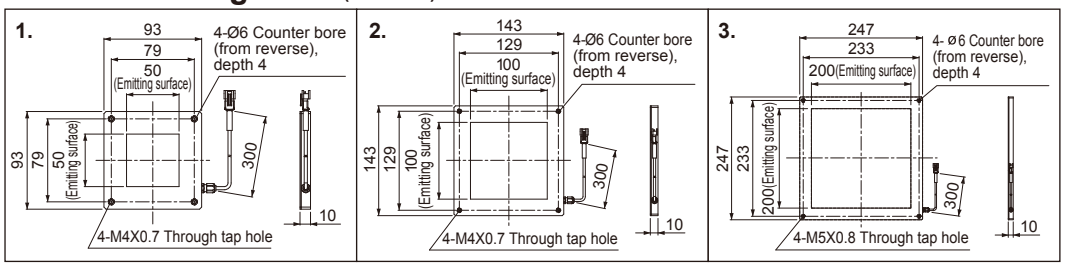
Product Lineup Table

Series	Direct Number	Model Name	Color	Power Consumption	Option	Dimension
LFX	1002059	LFX-50RD	●	24V / 2.4W	—	1
	1002060	LFX-50SW	○	24V / 3.3W		
	1002057	LFX-50BL	●			
	1002058	LFX-50GR	●			
	1002050	LFX-100RD	●	24V / 4.8W	—	2
	1002051	LFX-100SW	○	24V / 6.5W		
	1002048	LFX-100BL	●			
	1002049	LFX-100GR	●			
	1002055	LFX-200RD	●	24V / 9.6W	—	3
	1002056	LFX-200SW	○	24V / 13W		
	1002052	LFX-200BL	●			
	1002053	LFX-200GR	●			

*Red (RD) LFX Lights cannot be used in combination with CCS Strobe Control Unit (PTU2 Series, etc.).

Existing Flat-Dome Light LFX series will be discontinued at the April 15, 2013. LFX2 series is recommended as replacement.

Dimension Diagrams (Unit: mm)



Examples of Flat-Dome Light Images

Cans lid print and features

Ambient light image

With the LFX at distance of 10 mm from the light to the object the shadows from the non planar features on the lid a minimized and all but disappear.

Light used: LFX-100RD

With the LFX at distance of 85 mm from the light to the object, the light is able to highlight the significantly raised pull-tab.

Light used: LFX-100RD

With the LFX at distance of 295 mm from the light to the object, the more collimated light shows the smaller ridges in the can surface clearly.

Light used: LFX-100RD

If you register as a CCS member, you can download all materials (such as PDF or DXF drawings and operation manuals) from our website. You can also request us to select the appropriate Light Unit, borrowing demonstration units and to quote the product's price. Please go ahead and register as a member today. (Refer to back cover of this brochure.)