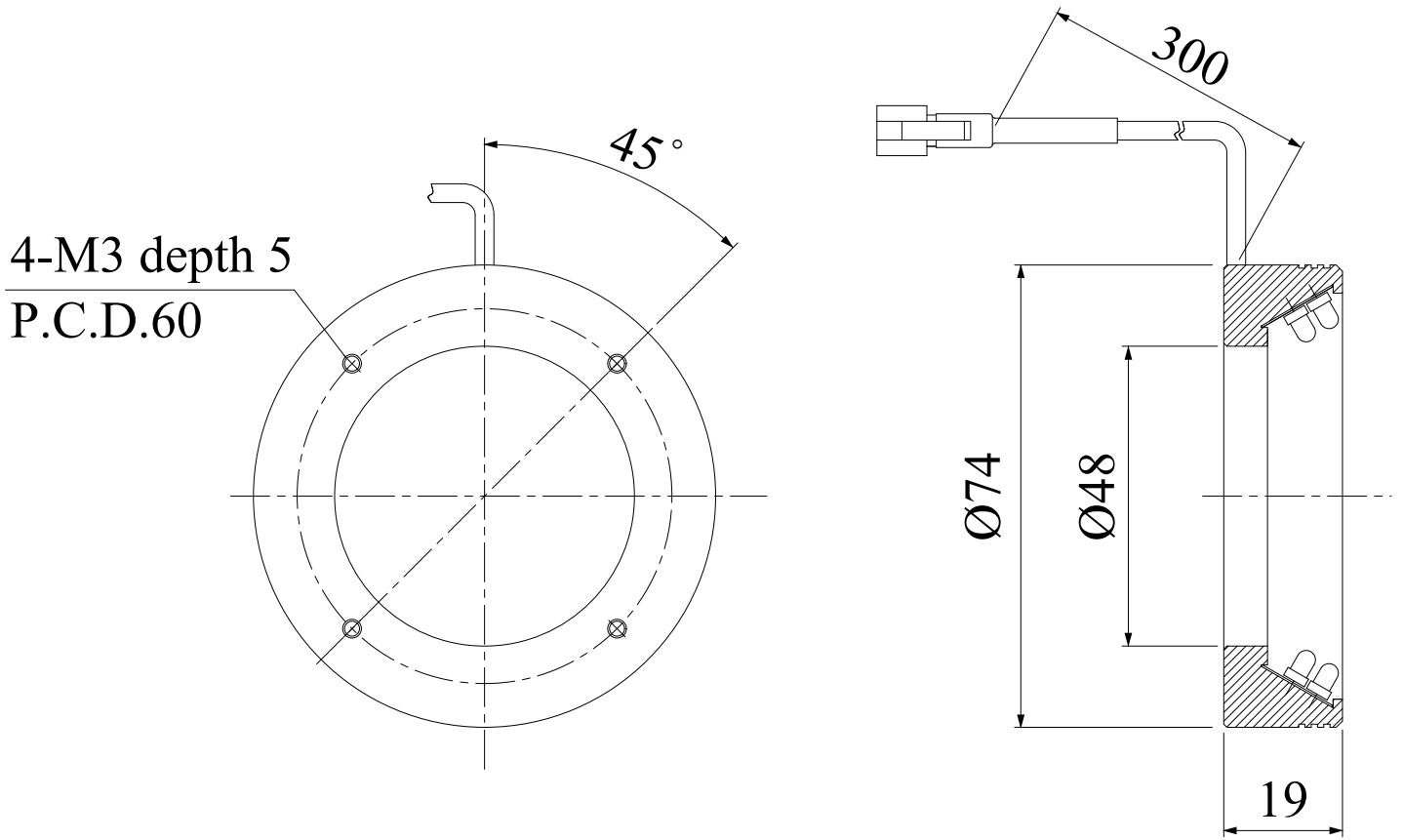
LDR2-74IR850-LA/940-LA

Model	LDR2-74IR850-LA/940-LA
Voltage	12V DC
Power consumption	5.7W
Mass	90g
Connector type	2P (1: + , 2: −)

Third Angle Projection Units: mm



CCS Inc.

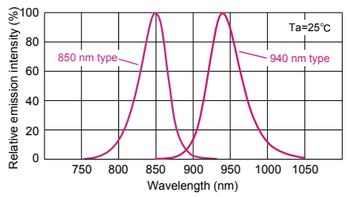
Infrared Lights
IR Series

For imaging by means of the property of higher transmittance than that of visible light

Suitable for checking the presence of substances, inclusions of foreign matter, and character recognition by means of transmittance through varieties of dye inks and solids.

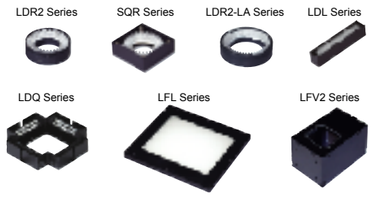
IR Series offers choice of peak wavelengths of 850-nm or 950-nm

850-nm versus 940-nm peak wavelength emission spectrum

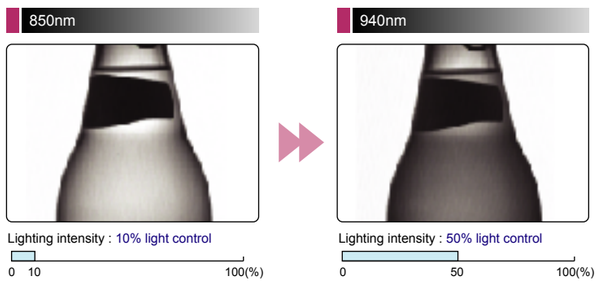


Infrared lighting IR Series are available in the LED peak wavelengths of 850nm and 940nm. A wide product lineup offers optimum lighting solutions best suited to a variety of inspection objects, inspection environments and optical systems.

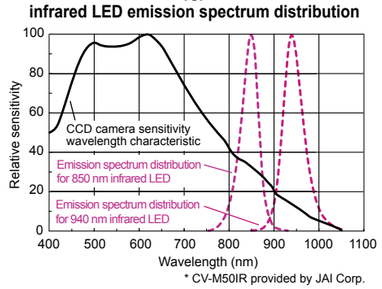
Product line for IR



Imaging with peak wavelength of 850 nm vs. 940 nm



Typical camera* spectral sensitivity characteristic vs. infrared LED emission spectrum distribution



* CV-M50IR provided by JAI Corp.

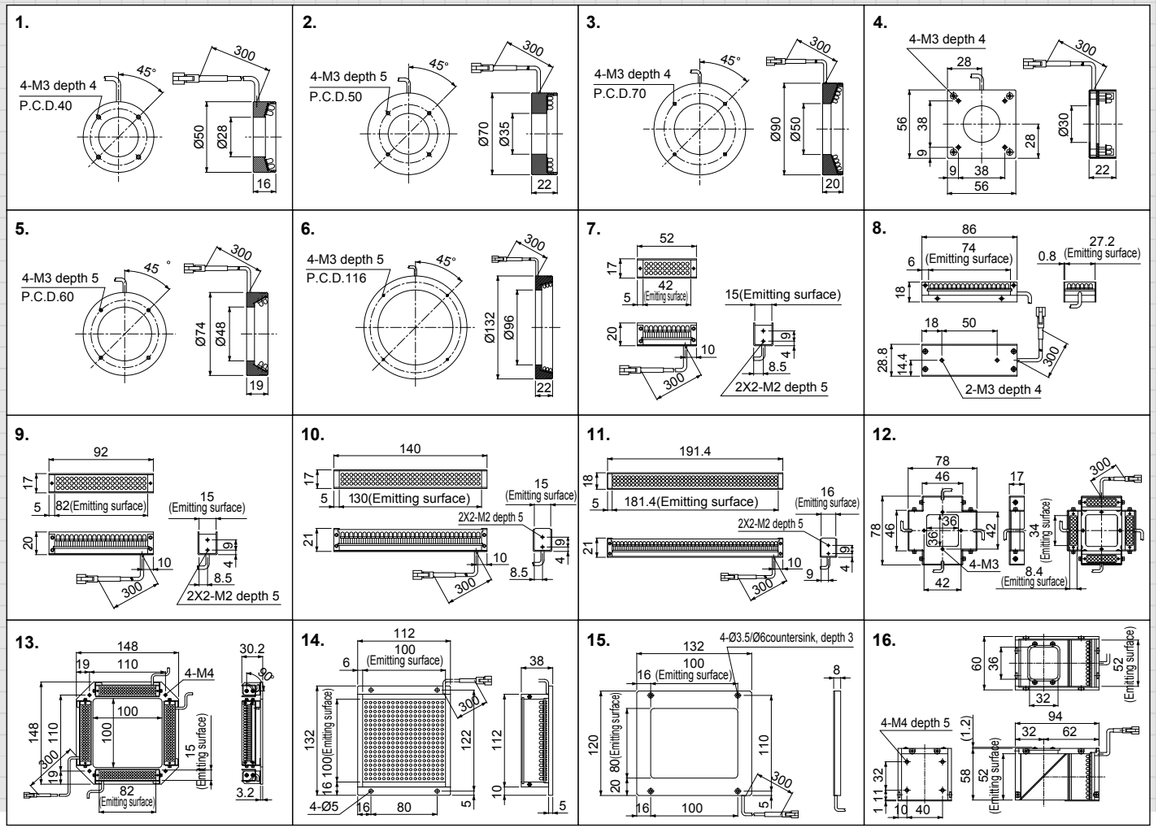
Use a CCD camera sensitive in the near infrared region for use with an infrared light.
A shot image is affected by the distribution of the emission spectrum of the UV light LED and the spectral sensitivity characteristics of a CCD camera.
Optimized combination with an optical system is very important for achieving stable images.

Product Lineup Table

Series	Model Name	Color	Power Consumption	Options	Dimension
LDR2	LDR2-50IR850□	●	12V/3.8W	—	1
	LDR2-50IR940				
	LDR2-70IR850□	●	12V/7.6W	—	2□
	LDR2-70IR940				
	LDR2-90IR850□	●	12V/14W	—	3
	LDR2-90IR940				
SQR	SQR-56IR850□	●	12V/3.8W	—	4□
	SQR-56IR940				
LDR2-LA	LDR2-74IR850-LA□	●	12V/5.7W	—	5□
	LDR2-74IR940-LA				
	LDR2-132IR850-LA□	●	12V/16W	—	6
	LDR2-132IR940-LA				
LDL	LDL-42x15IR850□	●	12V/1.9W	—	7□
	LDL-42x15IR940				
	LDL-74x27IR850□	●	12V/6.9W	—	8
	LDL-74x27IR940				

Series	Model Name	Color	Power Consumption	Options	Dimension
LDL	LDL-82x15IR850□	●	12V/3.8W	—	9
	LDL-82x15IR940				
	LDL-130x15IR850□	●	12V/6.1W	—	10□
	LDL-130x15IR940				
	LDL-180x16IR850□	●	12V/8.4W	—	11□
	LDL-180x16IR940				
LDQ	LDQ-78IR850□	●	12V/6.1W	—	12□
	LDQ-78IR940				
	LDQ-150IR850□	●	12V/16W	—	13□
	LDQ-150IR940				
LDL	LDL-100x100IR850	●	24V/21W	—	14
	LDL-100x100IR940				
LFL	LFL-100IR850□	●	12V/5.3W	—	15□
	LFL-100IR940				
LFV2	LFV2-50IR850□	●	12V/8.4W	—	16
	LFV2-50IR940				

Dimensions (Unit: mm)

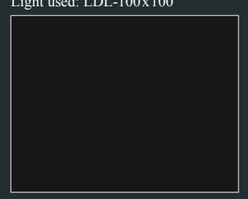


Infrared lighting application examples

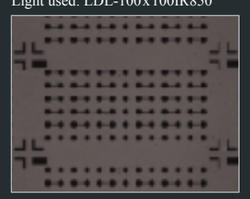
Wafer image

A backlight with visible light does not transmit through wafer.

Light used: LDL-100x100



An IR backlight passes through the wafer material to uniformly silhouette the pattern.
Light used: LDL-100x100IR850



With occluding graphics

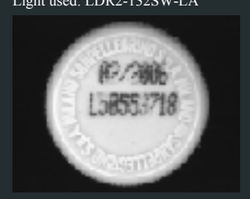
Visible light of any wavelength illuminates the graphics behind the date.
Light used: LDL-74x27-SW

IR light passes through the occluding graphic pigment but not this printed date code enabling reliable OCR/OCV.
Light used: LDL-74x27IR850

Infrared lighting application examples

Printed date code occluding molded surface features

Printed text on the cap absorbs visible light causing it to occlude any surface defects or feature detection in the image.
Light used: LDR2-132SW-LA



IR light passes through the printed text and reflect uniformly from the unbroken surface allowing for defect or feature detection.
Light used: LDR2-132IR940-LA

Foreign matter mixed in beverage container

A visible light from a backlight does not penetrate the plastic bottle.

Light used: LFL-100

An IR backlight penetrates the plastic bottle and silhouettes the foreign object resting at the bottom for reliable detection.
Light used: LFL-100IR940