

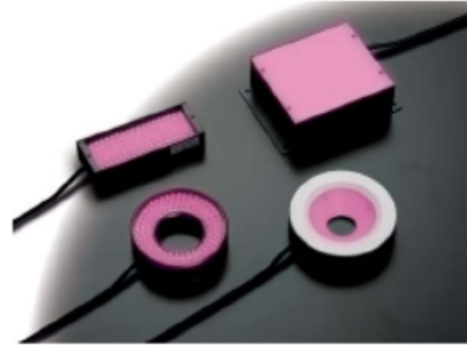
IR Illumination

IR Series

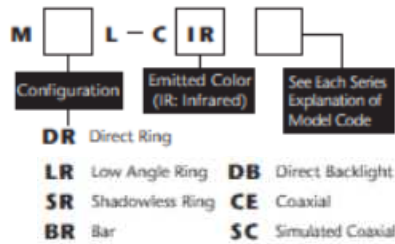


- Provides image recognition at high contrast especially for items that are difficult to view in visible light
- Lighting is also effective for materials that chemically react to visible light rays or allow IR wavelength transmission

Highly effective when used with an infrared lens and camera.
 Approximately 1.7 times higher reflecting rate for 500nm and 850 nm gold (Au).
 The peak wavelength is 850nm. (MCEL-CIR8-940 is 940nm)



Explanation of Model Code



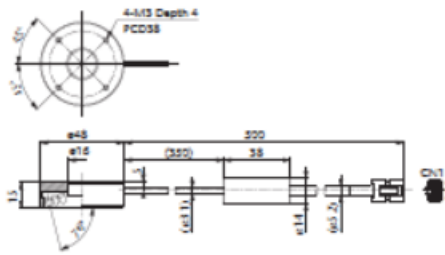
Model	Emitted Color	Maximum Rated Current IFM (A)	Dimension (mm)		Lighting Angle	Window Size (mm)	Optical Path Length Extension (mm)	Weight (g)	LED Controller
★ MDRL-CIR16	● Infrared	0.27	Internal Diameter ø16	External Diameter ø48	76°		—	65	MLEK-A080
MDRL-CIR31	● Infrared	0.42	Internal Diameter ø31	External Diameter ø66	75°		—	130	MLEK-A080
★ MLRL-CIR25	● Infrared	0.16	Internal Diameter ø25	External Diameter ø50	30°		—	70	MLEK-A080
★ MLRL-CIR46	● Infrared	0.18	Internal Diameter ø46	External Diameter ø75	0°		—	80	MLEK-A080
★ MLRL-CIR48	● Infrared	0.33	Internal Diameter ø48	External Diameter ø74	30°		—	110	MLEK-A080
MSRL-CIR20	● Infrared	0.36	Internal Diameter ø20	External Diameter ø74	—		—	140	MLEK-A080
MBRL-CIR7530	● Infrared	0.40	Lighting Area Dimensions 75x30		—		—	120	MLEK-A080
MDBL-CIR70	● Infrared	0.53	Lighting Surface Dimensions 70x70		—		—	190	MLEK-A080
★ MDBL-CIR100	● Infrared	1.35	Lighting Surface Dimensions 100x100		—		—	290	MLEK-A230
MCEL-CIR8-2	● Infrared	0.06	Tip External Diameter ø8		—		—	35	MLEK-A080
★ MCEL-CIR8-940	● Infrared	0.06	Tip External Diameter ø8		—		—	35	MLEK-A080
★ MSCL-CIR24	● Infrared	0.09	Box Height 24		—	18x18	6.8	110	MLEK-A080
★ MSCL-CIR39	● Infrared	0.16	Box Height 39		—	ø28	1.2	160	MLEK-A080
★ MSCL-CIR56-B	● Infrared	0.33	Box Height 56		—	ø28	1.2	320	MLEK-A080
★ MSCL-CIR105-B	● Infrared	2.14	Box Height 105		—	77x77	1.2	920	MLEK-A230

* LED Controller on P.152~156

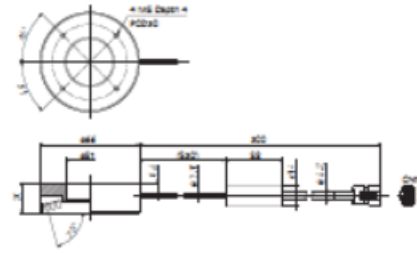
* In case of a plurality of LED illuminations used, please check the "Selection Criteria LED Controller" on P.99.

★Made to order products.

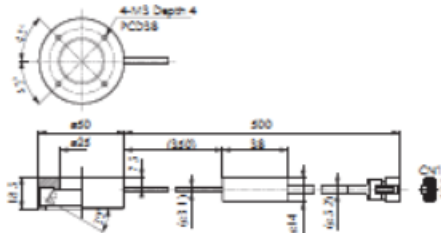
MDRL-CIR16



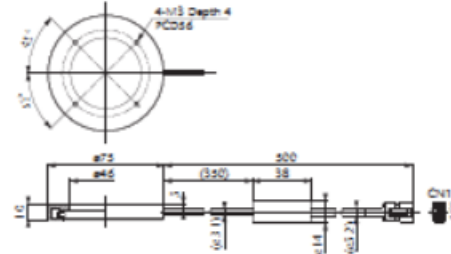
MDRL-CIR31



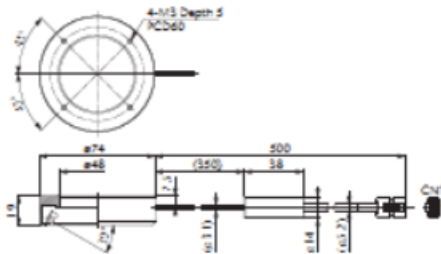
MLRL-CIR25



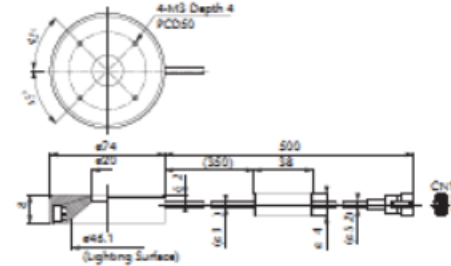
MLRL-CIR46



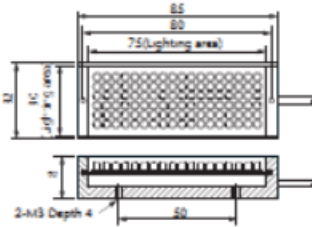
MLRL-CIR48



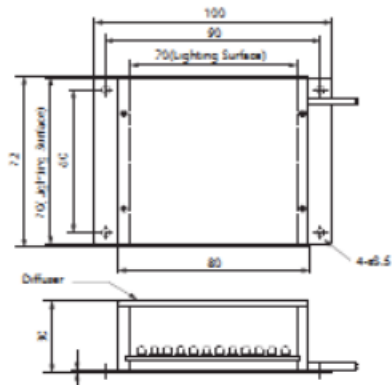
MSRL-CIR20



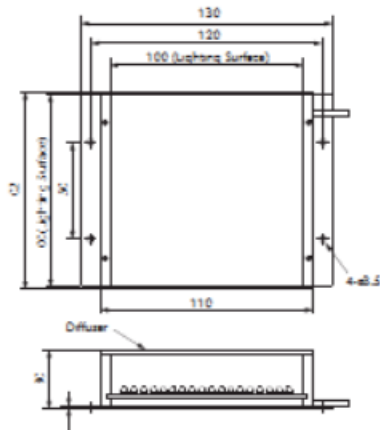
MBRL-CIR7530



MDBL-CIR70



MDBL-CIR100

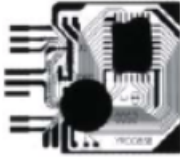


Sample Images

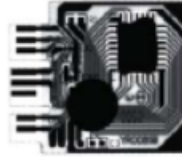
1. Substrate Pattern Recognition

(For IR, only the pattern is recognized clearly)

With an IR backlight LED
(MDBL-CIR70)



With a white backlight LED
(MDBL-CW70)



2. Cheese Package Recognition

(For IR, specific patterns can be made invisible)

With an IR direct ring LED
(MDRL-CIR31)

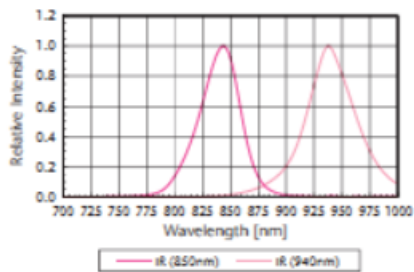


With a white, direct LED
(MDRL-CW31)



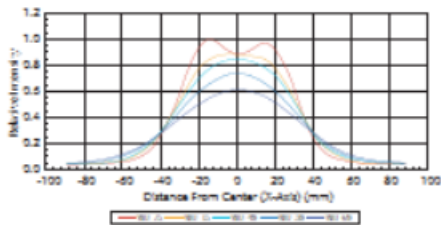
LED Spectral Characteristics

IR Series

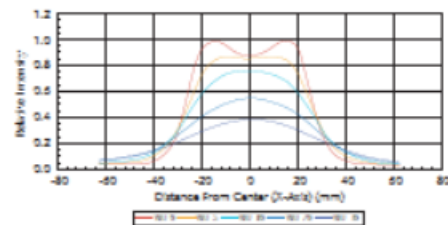


Light Distribution Characteristics

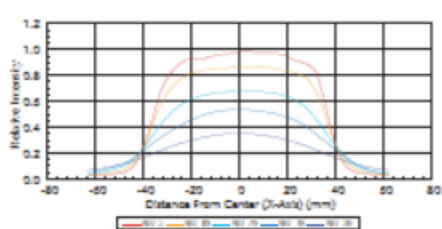
MDRL-CIR31



MSRL-CIR20



MBRL-CIR7530



MDBL-CIR70

