BL-CL

Collimated Back Light

Model: BL-CL

The Collimated Backlight Series is a high performance, uniform, and collimated light source for high precision silhouetting and transmissive applications. Using precision optics, the light is collimated in both the X and Y dimensions. The light exits at a low divergence angle making it perfect for applications requiring high precision measurements when used with a telecentric lens. Using a full array LED layout with more LEDs per square inch to provide greater intensity and uniformity. The Collimated Backlight Series is available with a wide variety of LED colors: White, Red, Green, Blue, IR, and RGB with independent color control. Active areas ranging from 1 inch x 1 inch (25 mm x 25mm) to 12 inches x 12 inches (305 mm x 305 mm). Custom sizes up to 3 feet x 3 feet (1 m x 1 m) are available.

FEATURES

- High density LED array makes our backlights the brightest and most stable backlights
- Exclusive optical lens provides high uniformity (±5% to ±10%), shadow-free backlight illumination
- Patent pending thermal management design draws heat directly from the die ensuring long life
- Metaphase Technologies has the largest selection of Backlights in the vision industry.
- Options include 0 -10VDC intensity control (-Z option),
- Can be operated in either DC mode or in strobe operating using your preferred controller/driver

SPECIFICATIONS

Power source	24VDC
Collimation	Collimated in both X and Y dimensions
Housing:	Aluminum
Operating Temperature:	-30°C to 60°C
Illuminance:	60,000 Lux (consult Metaphase for possible higher intensity)
Uniformity:	±5%
Lifetime Hours:	75,000
Intensity Control:	0-10VDC and ILD dimming control optional

WAVELENGTH (nanometers)

W	White 6000K
R	Red 630 nm
G	Green 530 nm
B	Blue 470 nm
IR	Infrared 850

SPECIFICATIONS (continued)

Model	Active Area (Inches)	Active Area (mm)
BL-1x1-CL-	1x1	25 x 25
BL-2x2-CL-	2x2	51 x 51
BL-3x3-CL-	2x4	51 x 102
BL-4x4-CL-	4x4	102 x 102
BL-5x5-CL-	5x5	127 x 127
BL-12x12-CL-	12x12	305 x 305

APPLICATIONS

- High precision measurements and telecentric applications
- Absence/presence of objects
- Defect detection in glass/plastic containers
- Object tracking (fish in aquarium)
- PCB (printed circuit board) assembly through-hole lead detection
- Web inspection (pin-holes in web)
- Bottle cap inspection
- Bolt/bolt thread inspection
- Glass sheet defect detection
- Sub-pixel dimensional inspection

DRIVERS/OPTIONS

- **24V** – for use with a standard 24V constant voltage power supply **[24]**
- **ULC-2** – for use with constant current controllers such as our ULC-2 Universal Controller **[U]**
- **ILS** – configure for strobing applications with power boost for increased intensity for rising and falling edge triggers **[ILS]**
- **Keyence** – compatible with Keyence light controllers such as the Keyence CA-DC21e **[KEY]**
- **Baumer** – compatible with Baumer VeriSens cameras
- **Cognex** – compatible with Cognex cameras
- Versions also available for 3rd party controllers such as: Gardasoft, Triniti, Opteon, Visics, etc.
- 0-10VDC intensity control **[-Z]**

COMPLIANCE

RoHS compliant

CE

CONTACT US

Contact your Metaphase Technologies representative at 215-639-8669 or your local representative for additional details, options, and customizations.