

## MB-LE110

The MetaBright™ LED Light Engine was designed for direct fiber coupling of up to 8mm fiber bundles and features advanced optical and thermal control technology as well as a built-in 24-volt constant current driver in one small compact package. LED Light Engines are typically used with optical fiber ring lights and backlights.



### FEATURES

- Low power, high intensity spotlight source
- Optional mounting bracket available
- LED thermal management for stable performance
- Through-the-camera-lens illumination
- Flicker free performance and instant start up with Metaphase analog driver technology
- Built-in Constant Current Driver with 0-10VDC intensity control, compatible with DDC-3 and ILD-35 Dimmers

### WAVELENGTHS

Order ID	Description / nanometers
<b>W</b>	White (6000K), Nominal
<b>R</b>	Red / 630nm
<b>G</b>	Green / 530nm
<b>B</b>	Blue / 470nm
<b>IR850</b>	Infrared / 850nm
<b>IR05</b>	Infrared / 1050nm
<b>IR20</b>	Infrared / 1200nm
<b>IR30</b>	Infrared / 1300nm
<b>IR45</b>	Infrared / 1450nm
<b>IR55</b>	Infrared / 1550nm
<b>IR65</b>	Infrared / 1650nm

### GENERAL SPECIFICATIONS

<b>Power Source:</b>	24VDC ±5%
<b>Cable (Standard):</b>	10-foot cable with flying leads
<b>Housing:</b>	Black Anodized Aluminum
<b>Ambient Temp:</b>	-20°C to 40°C
<b>Lifetime Expectancy:</b>	75,000 hours (except UV)

**MB-LE110**

LED Light Engine							
MODEL	Length Inches (mm)	Lens Diameter Inches (mm)	Weight lbs (grams)	Cable QTY	Cable Length	Cable Description	Typical Input Current
MB-LE110	2.63 (66.7)	.25 (.64)	0.7 (320)	1	10ft	24 AWG 4 conductors	<.1 amps

Wiring (4 conductors, flying leads)**	
Wire Color	Function
RED	+24VDC
WHITE	0-10VDC INTENSITY CONTROL
BLACK	GROUND (24V RTN)
GREEN	SIGNAL GROUND

Wiring (4 conductors, without Intensity Control)	
Wire Color	Function
RED	+24VDC
WHITE	+24VDC
BLACK	GROUND (24V RTN)
GREEN	GROUND (24V RTN)

M12 (5 position male)**	
Pin #	Function
1	+24VDC
2	0-10VDC Intensity Control
3	GROUND (24V RTN)
4	SIGNAL GROUND
5	No Connection

The M12 connector option is not recommended for lights rated more than 4 amps

Wiring with ULC-2	
Wire Color	Function
RED, WHITE (+)	LED INPUT
BLACK, GREEN (-)	

Terminated within a 2 position ULC-2 output connector  
(Phoenix Contact P/N: BCP-508-2)

\*\*Note: The 0-10VDC Intensity Control input can accept voltages from 0-24VDC where the light will operate at full intensity in the 10-24VDC range. The light is proportionally dimmer for any Intensity Control voltage less than 10VDC and the light is OFF at approximately 0V or not connected (floating).

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PART NUMBER KEY								
MODEL	-	WAVELENGTH	-	DRIVER* (most common)	-	CABLE LENGTH	-	CONN.** (most common)
MB-LE110	-	XXXXX	-	XXXXXXXX	-	XXX	-	XXXX
<b>MB-LE110</b>		<b>W</b> (White 6000K, Nominal) <b>R</b> (Red 630nm) <b>G</b> (Green 530nm) <b>B</b> (Blue 470nm) <b>IR850</b> (Infrared 850nm) <b>IR05</b> (Infrared 1050nm) <b>IR20</b> (Infrared 1200nm) <b>IR30</b> (Infrared 1300nm) <b>IR45</b> (Infrared 1450nm) <b>IR55</b> (Infrared 1550nm) <b>IR65</b> (Infrared 1650nm)		<b>24Z</b> <b>24NZ</b> <b>24-ILD</b> <b>U</b> <sup>1</sup>		<b>5M</b> <b>10M</b>  Length can be customized: ex. 7M=7meters  Select or leave blank for 3 meters		<b>M12D</b> <sup>1 2</sup>  Select or leave blank for flying leads
Example 1: <b>MB-LE110-W-24Z</b> Example 2: <b>MB-LE110-IR30-24-ILD</b>				<sup>1</sup> Not available in lights exceeding 4A input current <sup>2</sup> Default cable length for an M12D connector is 19 inches				

Contact Metaphase Technologies or your local representative for options such as custom diffusers, lenses, polarizers, IP-rated enclosures for harsh environments, higher intensity, custom wavelengths, higher uniformity, etc. Not all options are available for all lights.

**MB-LE110**

Sample Part Number: **MB-LE110-W-24Z**

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
D	REVISED RELEASE	5/27/2016	

  
  

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FINISH: Black Anodize	TREATMENT: N/A	
Approval Signature _____	Date // /	TITLE: Top Assembly LE110 USED ON: Per customer SIZE: B DRAWING NUMBER: LE110 SCALE: 1:1 SHEET 1 OF 1

**MB-LE110**

**Mounting Options:**

Please contact your local Metaphase representative to learn more about mounting options for the MB-LE110.

**MB-LE110 Mounting Bracket**



**COMPLIANCE**



**CONTACT US**

Contact Metaphase Technologies at **215-639-8699** or your local representative for additional details, options and customizations.

# Contact us for further information

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