

## MetaBright™ Line Light Model:MB-LL2407





Metaphase offers the industry's breakthrough performance line lights for imaging, web, and high-speed line scan applications requiring ultra-high intensity and uniformity. Our line lights are built as lean fixtures that can be easily controlled and integrated into visions systems.

Our MetaBright<sup>TM</sup> Line Lights feature an adjustable lens, enhanced cooling options, and low current consumption. Our new computer-operated microflow compressed air thermal control and integrated fan cooling systems allow Metaphase Line Lights to operate cool, a thermal advantage in many applications.

#### **BENEFITS:**

- High Uniformity both laterally and longitudinally
- High Intensity, over 1 million Lux
- Lens Options for various beam widths and working distances
- Cooling Options include convection, fans, compressed air with and without Computer air flow control, etc
- Available in various Light wavelengths including IR, UV and RGB
- Strobe synchronization; Control compatibility for high precision pulse-modulation and 0-10V Intensity Control capability
- Adjustable lens focusing range of mm to meters
- Backlight versions for web backlight & silhouetting applications
- From 1" to 120" (10ft) in length
- Built-in constant current driver(s) consistent illumination output
- 24V version require no special controllers; simply provide 24VDC

## **APPLICATIONS:**

- Road Surface Inspection
- Bottle Inspection
- High Speed Scanning
- Sheet Inspection
- Web Inspection
- Print Inspection

## **RATINGS:**







## DOMINANT WAVELENGTH:

| Color                       | Power Supply   |
|-----------------------------|--|
| White 5500K                 |  |
| Red 630nm                   |  |
| Blue 470nm (Optional 455nm) |  |
| Green 530nm                 | 24 volt power supply available   |
| Infrared 850nm              | upon request.  |
| Infrared 880nm              |  |
| UV 395nm                    |  |
| UV 365nm                    |  |
|                             | White 5500K Red 630nm Blue 470nm (Optional 455nm) Green 530nm Infrared 850nm Infrared 880nm UV 395nm |

10 ft. flying leads come standard on all products. Light features built-in constant current driver. No expensive controller required.



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## **ELECTRICAL & CONTROLS:**

Current Consumption 24A

Light Intensity +/-5%

Illuminance 1.6Million Lux

Operating Temperature -40°F(-45°) to 100°F (37.8°C)

Lifetime Hours 75,000 Hours

#### WIRING DIAGRAM:

WHITE & RED +24VDC

GREEN Signal Ground

BLACK & GREEN Ground

WHITE 0-10VDC Intensity Control

16 AWG 4 WIRES CABLE X 2 w/ 24 AWG 2 WIRES CABLE X 1 When not using intensity control, connect 0-10V control line to +24 (Max Intensity Control = 25V) and intensity control ground to ground

## **HOUSING:**

Dimensions Length: 117.03in/2972.64mm

Width: 1.57in/39.9mm Height: 4.58in/116.2mm

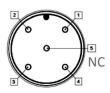
Weight 25lb/11339.8g

Housing Aluminum

Finish Powder Coating - Black

## WIRING DIAGRAM:

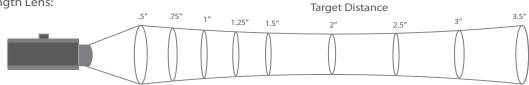
| PIN# | Function                     |
|------|------------------------------|
| 1    | +24VDC                       |
| 2    | 0-10VDC<br>Intensity Control |
| 3    | Ground                       |
| 4    | Signal Ground                |



#### **FOCAL LENS:**

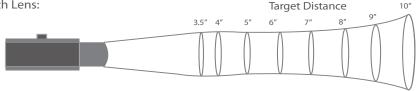
KEY: values in parenthesis are millimeter measurements

Standard Focal Length Lens:



| Target Distance         | 0.5"<br>(13) | 0.75"<br>(19) | 1.00"<br>(25) | 1.25"<br>(32) | 1.50<br>(38) | 2.00"<br>(51) | 2.50"<br>(68) | 3.00"<br>(88) | 3.50"<br>(89) |
|-------------------------|--------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|
| Intensity (million LUX) | .80          | 1.27          | 1. 2 1        | 1. 18         | 1.16         | .90           | . 66          | .47           | .32           |
| Line Width              | 0.4 (10)     | .25 (6.3)     | .2 (5)        | .2 (5)        | .18 (4.6)    | .18 (4.6)     | .18 (4.6)     | .3 (7.6)      | >.3 (10)      |

Longer Focal Length Lens:



| Target Distance          | 3.5"<br>(89) | 4.0"<br>(102) | 5.0"<br>(127) | 6.0"<br>(162) | 7.0"<br>(178) | 8.0"<br>(203) | 9.0"<br>(229) | 10.0"<br>(264) |
|--------------------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| Intensity (million LUX)* | 1.07         | 1.1           | 1.1           | 1.1           | 1.1           | 1.09          | 1.04          | .98            |
| Line Width               | .2 (5)       | .2 (5)        | .2 (5)        | .35 (8.9)     | .4 (10)       | .4 (10)       | .5 (12.7)     | .6 (15.2)      |



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## **DRAWING & DETAILS:**

