



# MetaBright™ Line Light Model:MB-LL1307



**Vision Light Tech**  
creating optical solutions



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™ Line Lights feature an adjustable lens and low current consumption.

## BENEFITS:

- High Uniformity both laterally and longitudinally
- High Intensity, over 1 million Lux
- Lens Options for various beam widths and working distances
- 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:



Buy American

## DOMINANT WAVELENGTH:

| Part #           | Color                       | Power Supply                                 |
|------------------|-----------------------------|--|
| MB-LL1307-W-24   | White 5500K                 |  |
| MB-LL1307-R-24   | Red 630nm                   |  |
| MB-LL1307-B-24   | Blue 470nm (Optional 455nm) |  |
| MB-LL1307-G-24   | Green 530nm                 | 24 volt power supply available upon request. |
| MB-LL1307-IRN-24 | Infrared 850nm              |  |
| MB-LL1307-IRL-24 | Infrared 880nm              |  |
| MB-LL1307-UVL-24 | UV 395nm                    |  |
| MB-LL1307-UVS-24 | UV 365nm                    |  |

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

### Vision Light Tech B.V.

Protonenlaan 22, 5405 NE UDEN, P.O. Box 345, 5400 AH UDEN, The Netherlands

Phone: +31 (0)413 26 00 67, Fax +31 (0)413 26 09 38, E-mail: inquiry@vlt.nl, Website: www.vlt.nl

Trade register No. 17150044, VAT No. NL8112.30.946.B01



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### ELECTRICAL & CONTROLS:

|                       |                               |
|-----------------------|-------------------------------|
| Current Consumption   | 13 A                          |
| Light Intensity       | +/-5%                         |
| Illuminance           | 1.6Million Lux                |
| Operating Temperature | -40°F(-45°) to 100°F (37.8°C) |
| Lifetime Hours        | 75,000 Hours                  |

### HOUSING:

|            |   |
|------------|---|
| Dimensions | Length: 62.03in/1575.6mm<br>Width: 1.5in/38.1mm<br>Height: 4.58in/116.2mm |
| Weight     | 14lb/ 6350.29 g   |
| Housing    | Aluminum  |
| Finish     | Powder Coating - Black  |

### WIRING DIAGRAM:

|               |                           |
|---------------|---------------------------|
| WHITE & RED   | +24VDC                    |
| GREEN         | Signal Ground             |
| BLACK & GREEN | Ground                    |
| WHITE         | 0-10VDC Intensity Control |

16 AWG 4 WIRES CABLE X 1 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

### WIRING DIAGRAM:

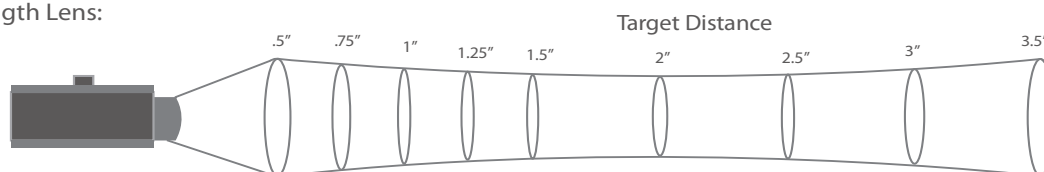
| PIN # | Function                  |
|-------|---------------------------|
| 1     | +24VDC                    |
| 2     | 0-10VDC Intensity Control |
| 3     | Ground                    |
| 4     | Signal Ground             |



### FOCAL LENS:

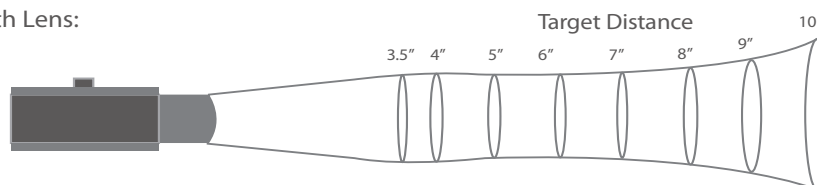
KEY: values in parenthesis are millimeter measurements

#### Standard Focal Length Lens:



| Target Distance         | 0.5" (13) | 0.75" (19) | 1.00" (25) | 1.25" (32) | 1.50" (38) | 2.00" (51) | 2.50" (68) | 3.00" (88) | 3.50" (89) |
|-------------------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|
| Intensity (million LUX) | .80       | 1.27       | 1.21       | 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" (89) | 4.0" (102) | 5.0" (127) | 6.0" (162) | 7.0" (178) | 8.0" (203) | 9.0" (229) | 10.0" (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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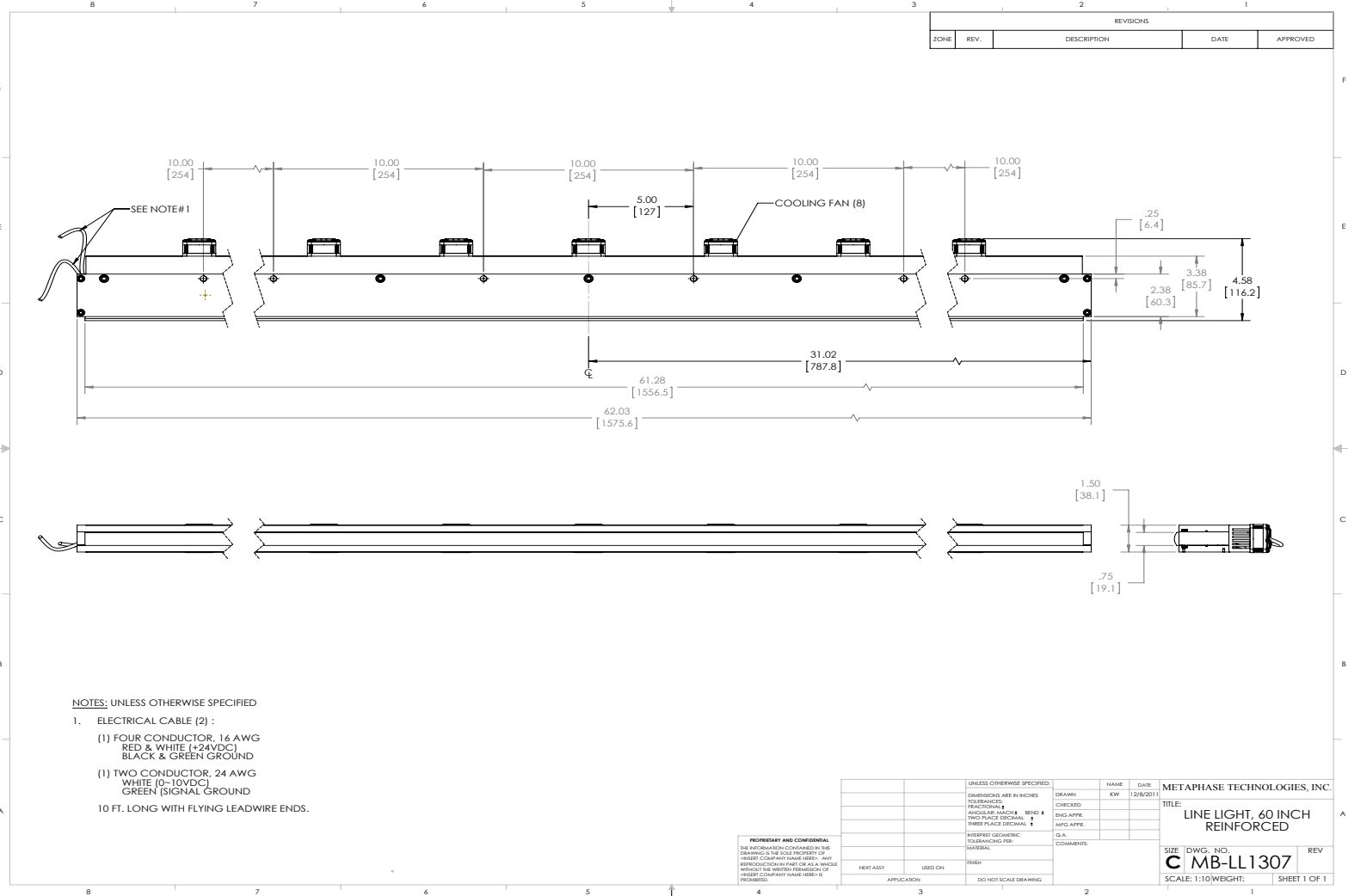
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### DRAWING & DETAILS:



### ORDERING INFORMATION:

• MB - LL 1307 - □ - 24 - □

**Back Line Light Option:**  
Replace designator "LL" with "BLL" on the prefix for units deployed in transmitted imaging applications.  
ex: MB-BLL106-R-24

**W**- White 6000k  
**R**- Red 630nm  
**G**- Green 530nm  
**B**- Blue 470 nm (Optional 450nm)  
**IRN**- Infrared 850nm  
**UVL**- (long) 395nm  
**UVS**- (short) 365nm

\***BLANK**- 10 ft. Flying Leads  
**T**- M12 Quick Disconnect  
**ILD**- In Line Dimmer  
**ILS**- In Line Strobe (customer provide trigger info)  
**LL** - Long Focal Lens  
**NF**- No Fans

\* Intensity will be lower for NON-Fan option

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