



# MetaLight™ Line Light Model:LL404



**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 MetaLight™ Line Lights feature an adjustable lens, enhanced cooling options, and low current consumption.

## BENEFITS:

- High Uniformity both laterally and longitudinally
- Lens Options for various beam widths and working distances
- 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) provides consistent illumination output
- 24V version require no special controllers; simply provide 24VDC

## APPLICATIONS:

- Road Surface Inspection
- Bottle Inspection
- High Speed Scanning
- Geometry Measurement
- Detection of Holes
- Sheet Inspection
- Web Inspection
- Print Inspection
- Fabrics Inspection
- Solar Cells

## RATINGS:



## DOMINANT WAVELENGTH:

| Part #       | Color                       | Power Supply                                 |
|--------------|-----------------------------|--|
| LL404-W-24   | White 5500K                 |  |
| LL404-R-24   | Red 630nm                   |  |
| LL404-B-24   | Blue 470nm (Optional 455nm) |  |
| LL404-G-24   | Green 530nm                 | 24 volt power supply available upon request. |
| LL404-IRN-24 | Infrared 850nm              |  |

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



# MetaLight™ Line Light

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### ELECTRICAL & CONTROLS:

|                       |                               |
|-----------------------|-------------------------------|
| Current Consumption   | 0.75A - 1.0A                  |
| Light Intensity       | +/-5%                         |
| Illuminance           | 220,000 Lux                   |
| Operating Temperature | -40°F(-45°) to 100°F (37.8°C) |
| Lifetime Hours        | 75,000 Hours                  |

### WIRING DIAGRAM:

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

18 AWG 4 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: 16in / 406.4mm<br>Width: 1in / 25.4mm<br>Height: 2.95in / 74.88mm |
| Weight     | 1.25lb/ 566.99g   |
| Housing    | Aluminum  |
| Finish     | Powder Coating - Black  |

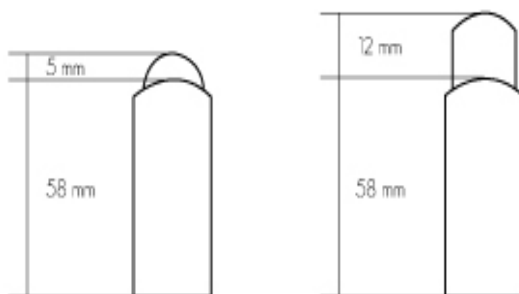
### WIRING DIAGRAM:

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



### FOCAL LENS:

#### MetaLight Line Light Lens Options



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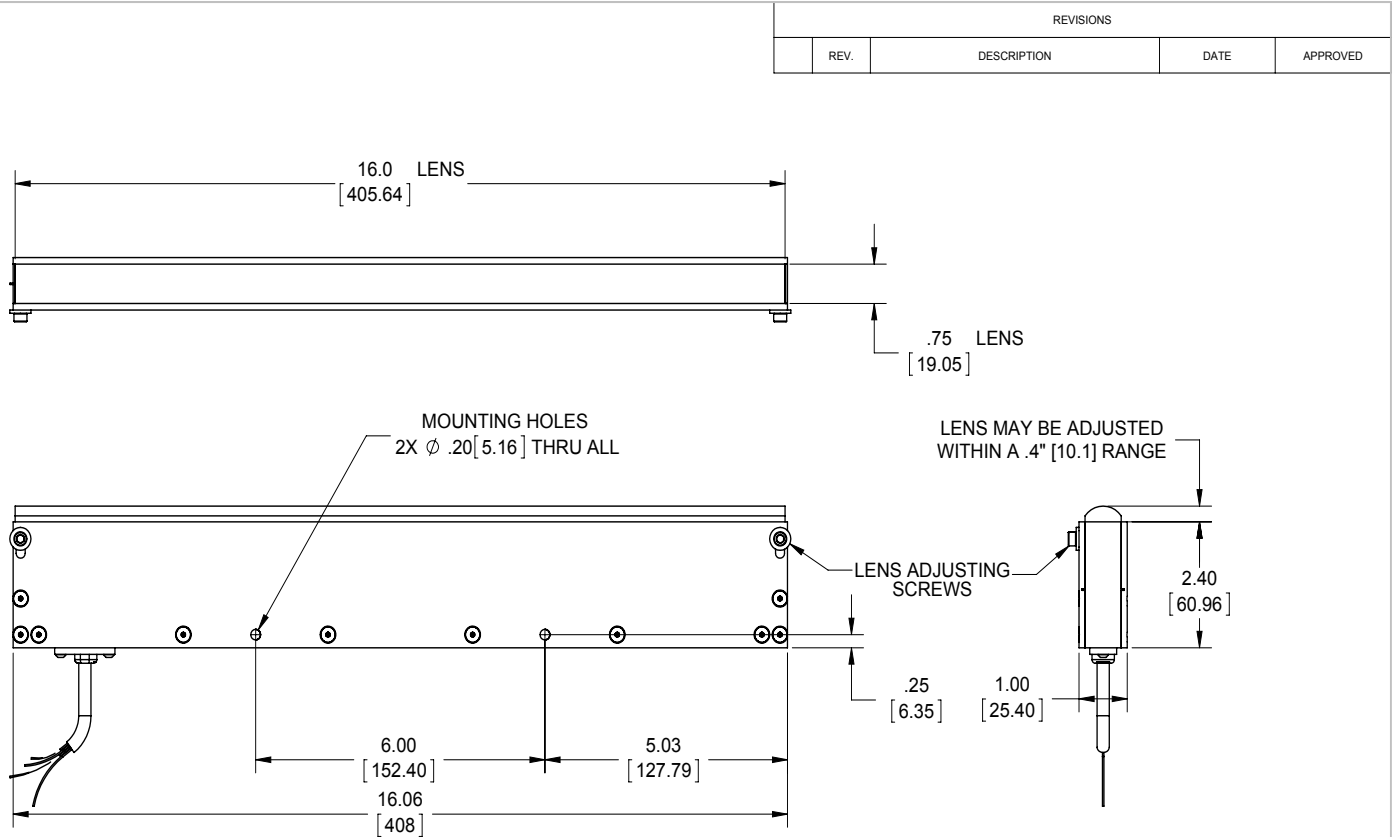


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## DRAWING & DETAILS:



| REVISIONS |             |      |          |
|-----------|-------------|------|----------|
| REV.      | DESCRIPTION | DATE | APPROVED |

|   |   |  |                           |
|---|---|--|---------------------------|
| Metaphase Technologies, Inc. 3412 Progress Drive, Unit C, Bensalem, PA. 19020 215-639-8699 Fax 215-639-0977 |   |  |                           |
| QUANTITY: Per order   | TOLERANCE/FINISH<br>UNLESS OTHERWISE SPECIFIED  | THIS DOCUMENT IS THE PROPERTY OF METAPHASE TECHNOLOGIES, INC. WHOM MAY LOAN IT, SUBJECT TO RETURN UPON DEMAND. IT INCLUDES CONFIDENTIAL & PROPRIETARY INFORMATION WHICH MAY NOT BE DISCLOSED TO ANY THIRD PARTY, AND/OR USED FOR ANY PURPOSE CONTRARY TO ITS INTENDED USE, WITHOUT THE EXPRESSED PRIOR WRITTEN CONSENT OF METAPHASE TECHNOLOGIES, INC. |                           |
| MATERIAL: See BOM   | INCHES(MM) 125V RMS [RA3.2um]                   | TITLE<br>Top Assy.; 16" Light  |                           |
| FINISH: Black Anodize   | X .XX .XXX [±.76] [±.25] [±.13] ±.005 ANGLES±1° | USED ON<br>Per customer  |                           |
| TREATMENT: N/A  |   | SIZE<br>B  | DRAWING NUMBER<br>LL404-1 |
| Approval Signature<br><i>The T.H.L.</i>   | Date<br>01/11/2013                              | SCALE<br>1:2   | REV<br>A<br>SHEET 1 OF 2  |

## ORDERING INFORMATION:

• LL404 -  - 24 -

**Back Line Light Option:**  
Replace designator "LL" with "BLL" on the prefix for units deployed in transmitted imaging applications.  
ex: BLL404-R-24

**W**- White 6000k  
**R**- Red 630nm  
**G**- Green 530nm  
**B**- Blue 470 nm  
(Optional 450nm)  
**IRN**- Infrared 850nm

\***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

\* Intensity will be lower for NON-Fan option

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