



# MetaBright™ Line Light Model:MB-LL1807



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, enhanced cooling options, and low current consumption. Our new computer-operated micro-flow 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:

Part #	Color	Power Supply
MB-LL1807-W-24	White 5500K	
MB-LL1807-R-24	Red 630nm	
MB-LL1807-B-24	Blue 470nm (Optional 455nm)	
MB-LL1807-G-24	Green 530nm	24 volt power supply available upon request.
MB-LL1807-IRN-24	Infrared 850nm	
MB-LL1807-IRL-24	Infrared 880nm	
MB-LL1807-UVL-24	UV 395nm	
MB-LL1807-UVS-24	UV 365nm	

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	18A
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: 87.03in/2210.6mm Width: 1.57in/39.9mm Height: 4.58in/116.2mm
Weight	19lb/ 8618.26g
Housing	Aluminum
Finish	Powder Coating - Black

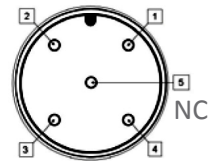
### WIRING DIAGRAM:

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

16 AWG 4 WIRES CABLE X 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

### WIRING DIAGRAM:

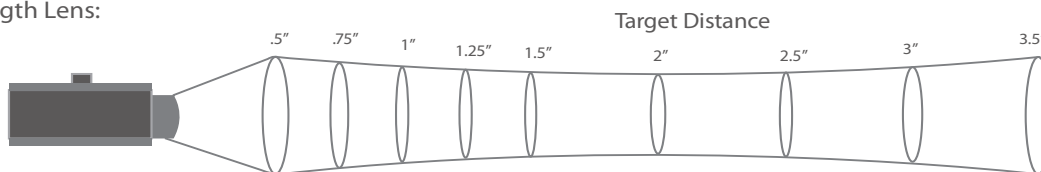
PIN #	Function
1	+24VDC
2	0-10VDC Intensity Control
3	Ground
4	Signal Ground



### FOCAL LENS:

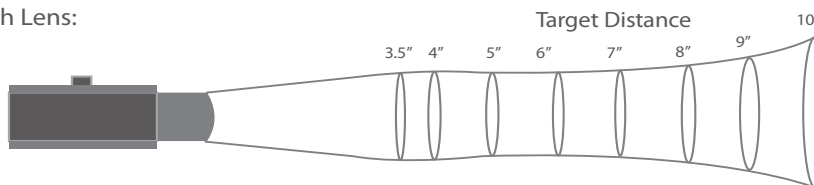
KEY: values in parenthesis are millimeter measurements

#### 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)

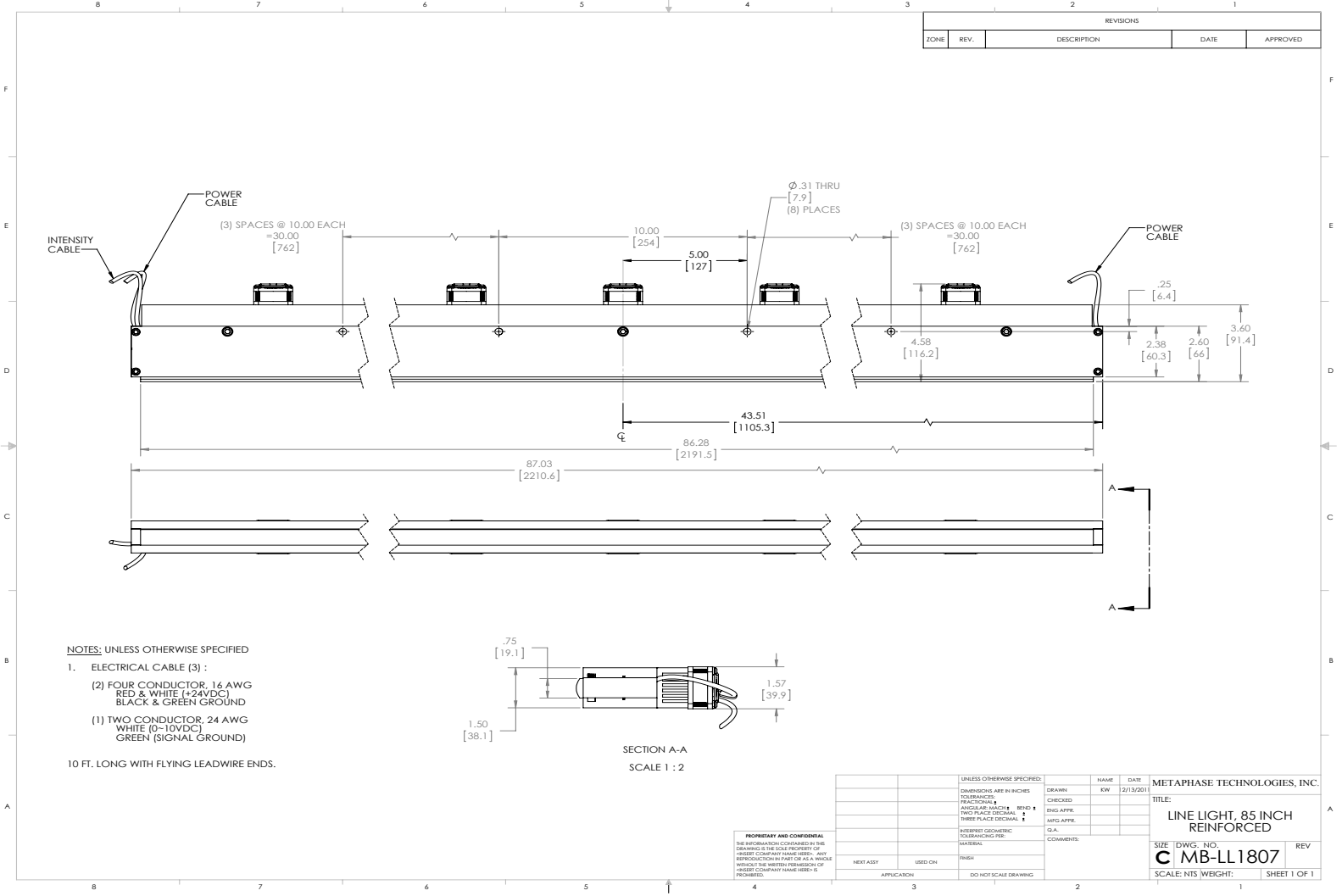


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### DRAWING & DETAILS:



### ORDERING INFORMATION:

• MB - LL 1807 - □ - 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
- CP**- Cool Pack Cooling (compressed air)

\* Intensity will be lower for NON-Fan option