

# MetaBright™ Line Light Model:MB-LL2507





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 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:

Part #	Color	Power Supply
MB-LL2507-W-24	White 5500K	
MB-LL2507-R-24	Red 630nm	
MB-LL2507-B-24	Blue 470nm (Optional 455nm)	
MB-LL2507-G-24	Green 530nm	24 volt power supply available
MB-LL2507-IRN-24 Infrared 850nm		upon request.
MB-LL2507-IRL-24	Infrared 880nm	
MB-LL2507-UVL-24	UV 395nm	
MB-LL2507-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 25A

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: 122.03in/3099.6mm

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

Weight 26lb/11793.4g

Housing Aluminum

Finish Powder Coating - Black

# WIRING DIAGRAM:

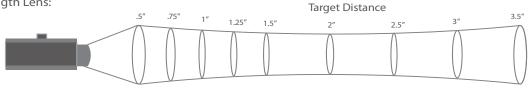
-	PIN#	Function				
-	1	+24VDC				
	2	0-10VDC Intensity Control				
	3	Ground				
	4	Signal Ground				



# **FOCAL LENS:**

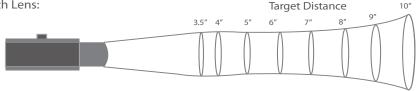
KEY: values in parenthesis are millimeter measurements

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. 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:



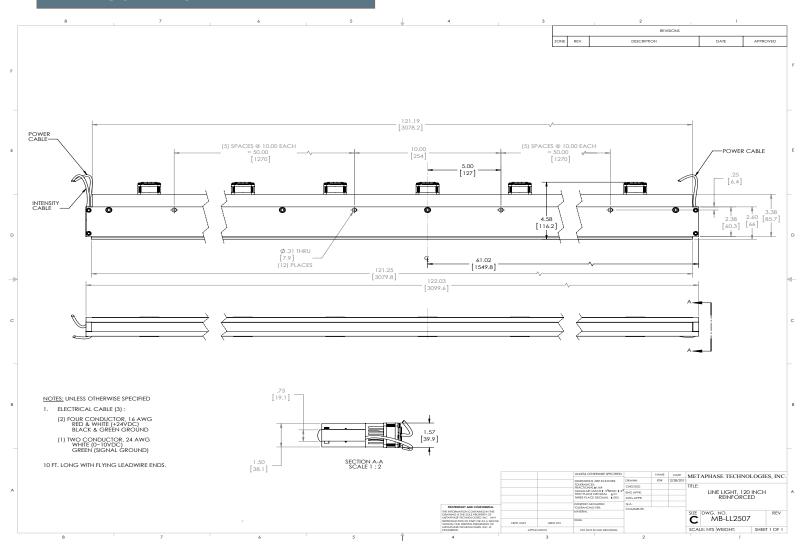
Target Distance	3.5" (89)	4.0" (102)	5.0" (127)	6.0" (162)	7.0" (178)	8.0" (203)	9.0" (229)	10.0" (264)
Intensity (million LUX)*	1.07	1.1	1.1	1.1	1.1	1.09	1.04	.98
Line Width	.2 (5)	.2 (5)	.2 (5)	.35 (8.9)	.4 (10)	.4 (10)	.5 (12.7)	.6 (15.2)



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# **DRAWING & DETAILS:**



#### ORDERING INFORMATION: • MB-LL2507 -24-**Back Line Light Option:** W-White 6000k \*BLANK-10 ft. Flying Leads Replace designator "LL" with R-Red 630nm T-M12 Quick Disconnect G-Green 530nm **ILD**- In Line Dimmer "BLL" on the prefix for units **B**- Blue 470 nm ILS- In Line Strobe (customer provide trigger info) deployed in transmitted imag-(Optional 450nm) **LL** - Long Focal Lens ing applications. IRN-Infrared 850nm **NF**- No Fans ex: MB-BLL106-R-24 **UVL**- (long) 395nm **CP**- Cool Pack Cooling **UVS**- (short) 365nm (compressed air) \* Intensity will be lower for NON-Fan option