

LPP

MetaBright™ Linear
Pattern Projector
Model:MB-LPP



Metaphase Technologies Pattern Projector is designed to give the most accurate measurements in 3D profiling applications. By utilizing LED Patterns, structured light can illuminate a sample from overhead or at a needed angle. The LED Pattern Projector is built to tilt light on a sample surface to ensure that focus is clear throughout application use.

LED Pattern projector illuminates a variety of patterns at different working distances. Paired with a lens and pattern reticle, the LED pattern projector is ideal for structured light applications. The device intensity can be controlled with a 0 ~ 10V intensity control signal. Optional manual dimmer available.

BENEFITS:

- Use with C-Mount, 2/3" format imaging lenses
- Designed for Structured Light Applications
- Project Patterns with <math><1\mu\text{m}</math> Edge Sharpness
- Built in driver, no special control required, simply provide 24VDC
- 0-10V intensity control signal
- Optional manual dimmer available.
- Versions available: Strobe, DC (Continuous) and versions for use with external controller (ULC-2)
- Patterns include: Crosshair, Stripes, Grid, Edge & Line

APPLICATIONS:

- Pick and Place
- Micro Defects
- Inspection of Black with low diffusion properties
- High Speed QC
- Small Space Apps

DOMINANT WAVELENGTH:

Part #	Color	Power Supply
MB-LPP-W-24	White 5500K	
MB-LPP-R-24	Red 630nm	
MB-LPP-B-24	Blue 470nm	
MB-LPP-G-24	Green 530nm	24 volt power supply available upon request.
MB-LPP-IRN-24	Infrared 850nm	
MB-LPP-IRL-24	Infrared 880nm	
MB-LPP-UVL-24	UV 395nm	
MB-LPP-UVS-24	UV 365nm	
MB-LPP-RGB-24	625nm / 530nm / 470nm (3 die packaging technology)	

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

RATINGS:



Pyramid Imaging
945 East 11th Avenue Tampa, FL 33605
sales@pyramidimaging.com
www.pyramidimaging.com
813-786-3785



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ELECTRICAL & CONTROLS:

Current Consumption	0.2A
Light Intensity	+/-5%
Illuminance	350 Lumens
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

24 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: 4in/ 101.6 mm Width: 2in / 50.8mm
Weight	0.5lbs / 0.226kg
Housing	Aluminum
Finish	Anodized - Black

WIRING DIAGRAM:

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



Focal Lens Selection

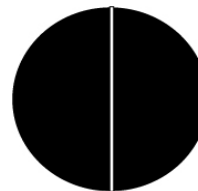
A = Diameter of Area

	60mm	100mm	150mm	200mm	300mm	400mm	500mm
100mm		8	6				
150mm		12	8	6			
200mm	25	16	12	8	6		
300mm		25	16	12	8	6	
400mm		35	25	16	12	8	6
500mm	50	35	25	16	12	8	
600mm		50	35	25	16	12	8
750mm		50	35	25	16	12	12
1000mm			50	35	25	16	16
1500mm			75	50	35	25	25
2000mm				100	50	35	25

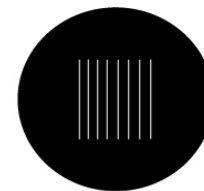
Shaded Cells represent the focal length of lens

W = Working Distance

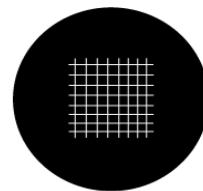
Standard Patterns



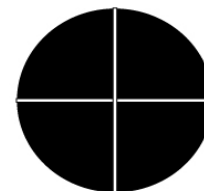
Line Pattern
LPP-LINE



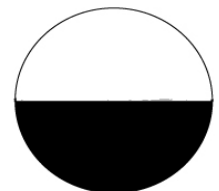
Stripe Pattern
LPP-STRIPES



Grid Pattern
LPP-GRID



Cross Pattern
LPP-Cross



Edge Pattern
LPP-EDGE

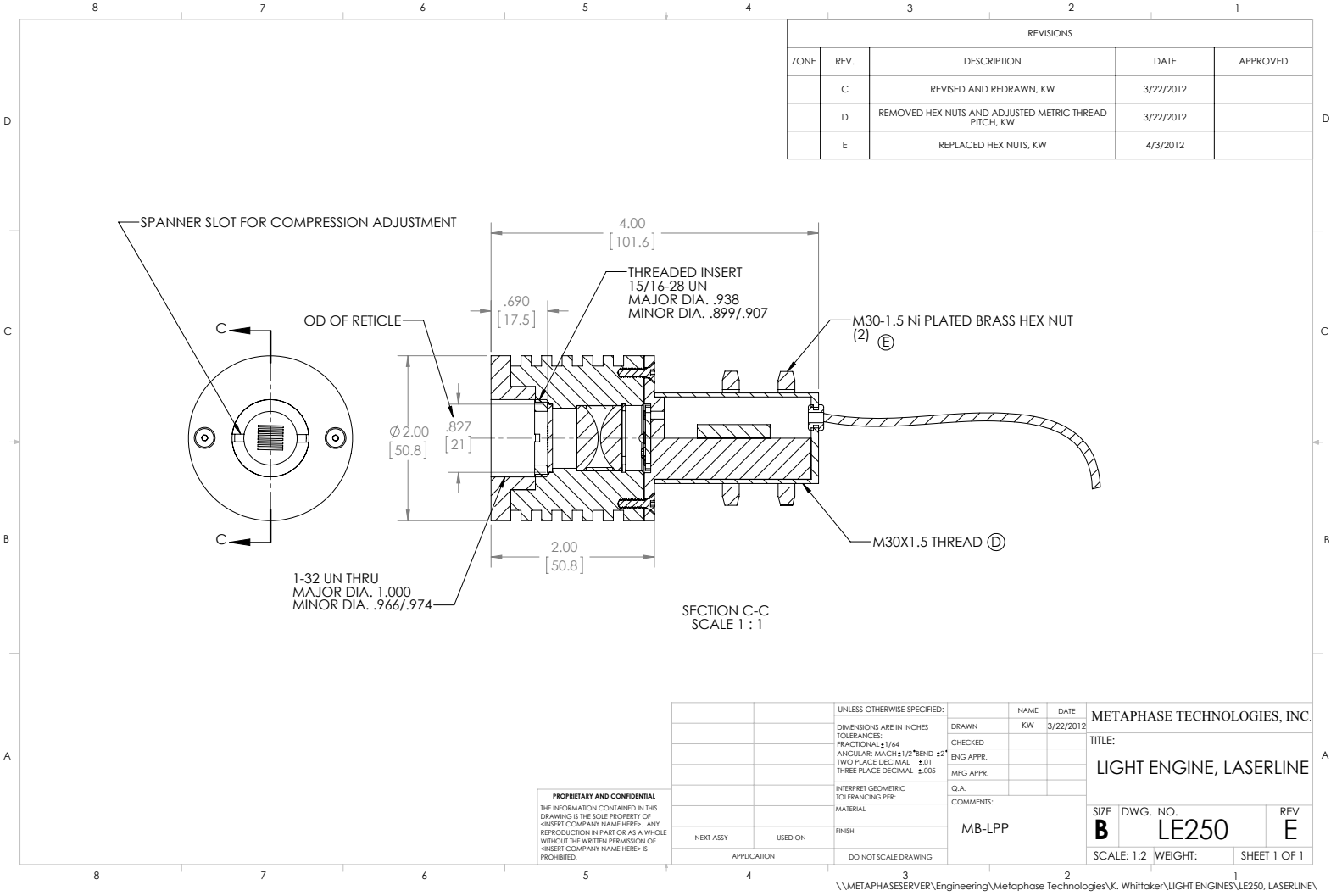




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DRAWING & DETAILS:



UNLESS OTHERWISE SPECIFIED:		NAME	DATE	METAPHASE TECHNOLOGIES, INC.
DIMENSIONS ARE IN INCHES		DRAWN	KW	3/22/2012
TOLERANCES:		CHECKED		
FRACTIONALS: ±1/64		ENG APPR.		
ANGULAR: MACH: ±1/2° BEND ±2°		MFG APPR.		
TWO PLACE DECIMAL: ±0.1		G.A.		
THREE PLACE DECIMAL: ±0.005		COMMENTS:		
INTERPRET GEOMETRIC TOLERANCING PER:				
MATERIAL:				
	FINISH	MB-LPP		
NEXT ASSY	USED ON			
APPLICATION	DO NOT SCALE DRAWING			

SIZE DWG. NO. REV
B LE250 **E**

SCALE: 1:2 WEIGHT: SHEET 1 OF 1

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ORDERING INFORMATION:

- MB-LPP - □ - 24 - □
- W**- White 6000k
 - R**- Red 630nm
 - G**- Green 530nm
 - B**- Blue 470 nm
 - IRN**- Infrared 850nm
 - IRL**- Infrared 880nm
 - UVL**- UV 395nm
 - UVS**- UV 365nm
 - RGB**- 625nm / 530nm / 470nm
- ***BLANK**- 10 ft. Flying Leads
 - T**- M12 Quick Disconnect
 - ILD**- In Line Dimmer
 - ILS**- In Line Strobe (customer provide trigger info)



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Phone: (813) 984-0125
Contact: Sales@pyramidimaging.com
<https://pyramidimaging.com>