MetaBright™
Linear Backlights

PRODUCT DATA SHEET

METAPHASE
LIGHTING TECHNOLOGIES

MB-LBL

The MetaBright™ Linear Backlight provides uniform lighting (±5%) using High Density Precision Chip Technology (HDPCT) with the super bright LEDs.

FEATURES

- High density LED array provides maximum intensity area within ±5%
- High aspect ratio backlight
- Flicker free performance and instant start up with Metaphase analog driver technology
- Available in multiple versions including continuous, in-line strobe (ILS), current controlled (ULC-2), etc.
- Flicker free performance and instant start up with Metaphase analog driver technology
- Optional Constant Current driver with 0-10VDC intensity control (Z option)

WAVELENGTHS	
Order ID	Description / nanometers
W	White (6000K), Nominal
R	Red / 630nm
G	Green / 530nm
B	Blue / 470nm
IR850	Infrared / 850nm
IR940	Infrared / 940nm
UV395	Ultraviolet Long / 395nm

GENERAL SPECIFICATIONS	
Power Source:	24VDC ±5%
Cable (Standard):	10-foot cable with flying leads
Housing:	Black Anodized Aluminum
Ambient Temp:	-20°C to 40°C
Lifetime Expectancy:	75,000 hours (except UV)

METAPHASE
215-639-8699

Pyramid Imaging

MB-LBL

LINEAR BACKLIGHTS							
MODEL	All models: H =.71 inches (1.8cm) **Width and Length** Inches (cm)	Active Area Inches (cm)	Weight lbs / grams	Cable QTY	Cable Length	Cable Description	Maximum Input Current @24VDC
MB-LBL201	2.50 x 8.22 (6.35 x 20.88)	1.20 x 6.00 (3.05 x 15.24)	.63 / 286	1	10ft	24 AWG 4 Conductor	0..40 amps
MB-LBL211	2.50 x 8.80 (6.35 x 22.35)	1.20 x 8.00 (3.05 x 20.32)	1.0 / 454				0.45 amps
MB-LBL311	2.50 x 14.25 (6.35 x 36.20)	1.20 x 13.00 (3.05 x 33.02)	1.2 / 544				0.60 amps

Wiring (4 conductors, flying leads)**	
Wire Color	Function
RED	+24VDC
WHITE	0-10VDC INTENSITY CONTROL
BLACK	GROUND (24V RTN)
GREEN	SIGNAL GROUND

Wiring (4 conductors, without Intensity Control)	
Wire Color	Function
RED	+24VDC
WHITE	+24VDC
BLACK	GROUND (24V RTN)
GREEN	GROUND (24V RTN)

M12 (5 position male)**	
Pin #	Function
1	+24VDC
2	0-10VDC Intensity Control
3	GROUND (24V RTN)
4	SIGNAL GROUND
5	No Connection
The M12 connector option is not recommended for lights rated more than 4 amps	

Wiring with ULC-2	
Wire Color	Function
RED, WHITE (+)	LED INPUT
BLACK, GREEN (-)	
Terminated within a 2 position ULC-2 output connector (Phoenix Contact P/N: BCP-508-2)	

**Note: The 0-10VDC Intensity Control input can accept voltages from 0-24VDC where the light will operate at full intensity in the 10-24VDC range. The light is proportionally dimmer for any Intensity Control voltage less than 10VDC and the light is OFF at approximately 0V or not connected (floating).

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PART NUMBER KEY									
MODEL	SIZE	-	WAVELENGTH	-	DRIVER* (most common)	-	CABLE LENGTH	-	CONN.** (most common)
MB-LBL	XXX	-	XXXXX	-	XXXXXXX	-	XXX	-	XXXX
MB-LBL	**201** **211** **311** **76x279 (mm)**		**W** (White 6000K, Nominal) **R** (Red 630nm) **G** (Green 530nm) **B** (Blue 470nm) **IR850** (Infrared 850nm) **IR940** (Infrared 940nm) **UV395** (UV Long 395nm)		**24CV** **24Z** **24-ILZ** **24-ILSXXX** **24-ILD** **U**[1] XXX=rate in μs Example: 250		**5M** **10M** Length can be customized: ex.7M=7meters Select or leave blank for 3 meters		**M12D**[1][2] **BC**[1][3] Select or leave blank for flying leads

Example 1: **MB-LBL201-G-24CV** Example 2: **MB-LBL311-R-24Z-M12D**	[1]Not available in lights exceeding 4A input current [2]Default cable length for an M12D connector is 19 inches [3]Default cable length for a Barrel Connector is 10 feet

Contact Metaphase Technologies or your local representative for options such as custom diffusers, lenses, polarizers, IP-rated enclosures for harsh environments, higher intensity, custom wavelengths, higher uniformity, etc. Not all options are available for all lights.

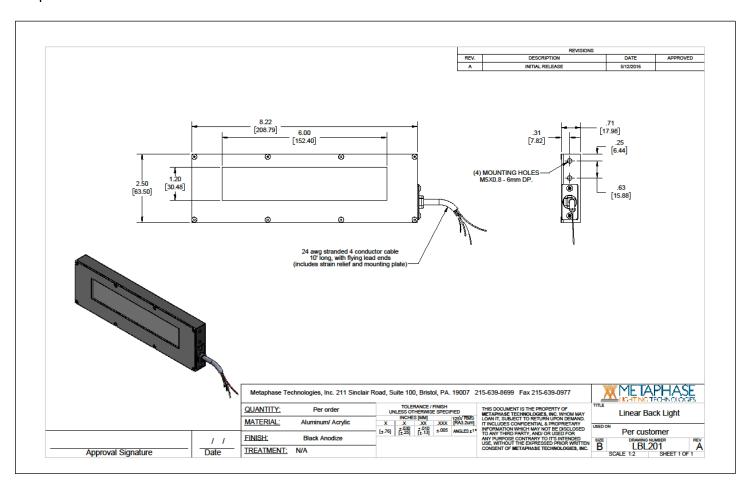Link to *Driver Options Key / **Connector Options Key

METAPHASE
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www.metaphase-tech.com

MB-LBL

Sample Model Number: **MB-LBL201-W-24Z**

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	5/12/2016	

8.22 [208.79]
6.00 [152.40]
2.50 [63.50]
1.20 [30.48]

.31 [7.82]
.71 [17.98]
.25 [6.44]
.63 [15.88]

(4) MOUNTING HOLES M5X0.8 - 6mm DP.

24 awg stranded 4 conductor cable 10' long, with flying lead ends (includes strain relief and mounting plate)

Metaphase Technologies, Inc. 211 Sinclair Road, Suite 100, Bristol, PA. 19007 215-639-8699 Fax 215-639-0977

QUANTITY:	Per order
MATERIAL:	Aluminum/ Acrylic
FINISH:	Black Anodize
TREATMENT:	N/A

TOLERANCE / FINISH UNLESS OTHERWISE SPECIFIED
INCHES [MM]
X [±.76] X [±.030 ±.25] XX [±.010 ±.13] XXX ±.005 ANGLES ±1°
125V RMS [RA3.2um]

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TITLE: Linear Back Light
USED ON: Per customer
SIZE: B
DRAWING NUMBER: LBL201
REV: A
SCALE 1:2 SHEET 1 OF 1

Approval Signature   Date

COMPLIANCE

RoHS compliant

CE

CONTACT US

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