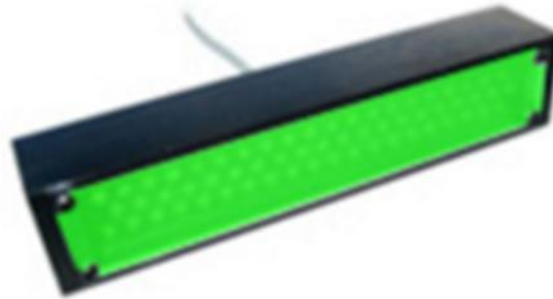


### LFL

Metaphase Linear Front Lights feature high density LED array placement and proprietary Metaphase thermal management technology to assure maximum LED lifetime and lowest cost of ownership. Our Front Lights are designed for longer working distances and feature rugged housings such as those found in industrial robotics work envelopes. Our Linear Front Lights are available in MetaLight (LFL) and high power MetaBright™ (MB-LFL) versions.



### FEATURES

- Homogenous light output that provides high intensity illumination
- Shock and vibration resistant
- LED thermal management for stable performance
- Industry proven for virtually any lighting application
- Flicker free performance and instant start up with Metaphase analog driver technology
- Economical, low cost
- An ideal light for many applications
- Available in MetaLight (LFL) without intensity control and in high power MetaBright™ (MB-LFL) versions
- MetaBright™ (MB-LFL) versions have a built-in Constant Current Driver with 0 – 10VDC intensity control, compatible with DDC-3 and ILD-35 Dimmers

### WAVELENGTHS

Order ID	Description / nanometers
<b>W</b>	White (6000K), Nominal
<b>R</b>	Red / 630nm
<b>G</b>	Green / 530nm
<b>B</b>	Blue / 470nm
<b>IR850</b>	Infrared / 850nm
<b>IR880</b>	Infrared / 880nm
<b>UV365</b>	Ultraviolet Short / 365nm
<b>UV395</b>	Ultraviolet Long / 395nm

### GENERAL SPECIFICATIONS

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

LFL

Linear Front Lights							
MODEL	Dimensions W x L x H Inches (cm)	Active Area W x L Inches (cm)	Weight lbs (grams)	Cable QTY	Cable Length	Cable AWG/ Conductors	Max Input Current @24VDC
LFL1x4	.87 x 4.33 x .98 (2.21 x 11.0 x 2.49)	.63 x 4.11 (1.6 x 10.44)	.32 (145)	1	10ft	24/4	.20A
LFL1x6	.87 x 6.63 x .98 (2.21 x 16.3 x 2.49)	.67 x 6.43 (1.70 x 16.32)	.42 (191)				.24A
LFL201	1.25 x 6.05 x 1.13 (3.18 x 15.4 x 2.86)	1.0 x 5.65 (2.54 x 14.35)	.56 (253)				.30A
LFL301	1.25 x 11.3 x 1.13 (3.18 x 28.7 x 2.86)	1.18 x 11.0 (2.98 x 27.9)	1.0 (467)				.45A
LFL401	1.25 x 16.3 x 1.13 (3.18 x 41.4 x 2.86)	1.18 x 16.0 (2.98 x 40.6)	1.2 (561)				.62A
LFL501	1.25 x 21.0 x 1.13 (3.18 x 53.5 x 2.86)	1.16 x 20.65 (2.95 x 52.4)	1.4 (626)				.75A
LFL601	1.25 x 26.32 x 1.13 (3.18 x 66.8 x 2.86)	1.18 x 26.0 (2.98 x 66.0)	1.6 (740)				.86A
Inquire about larger sizes listed below							
LFL701							
LFL801							

LFL

Wiring (4 conductor with Intensity Control)**	
Wire Color	Function
RED	+24VDC
WHITE	0-10VDC INTENSITY CONTROL
BLACK	GROUND (24V RTN)
GREEN	SIGNAL GROUND

Wiring (4 conductor 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).

LFL

PART NUMBER KEY											
MODEL	SIZE	-	WAVELENGTH	-	DRIVER* (most common)	-	DIFFUSER	-	CABLE LENGTH	-	CONN.** (most Common)
LFL	XXX	-	XXXXX	-	XXXXX	-	XX	-	XXX	-	XXXX
<b>LFL</b>	<b>1x4</b> <b>1x6</b> <b>201</b> <b>301</b> <b>401</b> <b>501</b> <b>601</b> <b>701</b> <b>801</b>		<b>W</b> (White 6000K, Nominal) <b>R</b> (Red 630nm) <b>G</b> (Green 530nm) <b>B</b> (Blue 470nm) <b>IR850</b> (Infrared 850nm) <b>IR880</b> (Infrared 880nm) <b>UV365</b> (UV Short 365nm) <b>UV395</b> (UV Long 395nm)		<b>24CV</b> <b>24-ILZ</b> <b>24-ILD</b> <b>U<sup>1</sup></b>		<b>CC</b> (Clear Cover) <b>D2</b> (Single Matte) <b>D3</b> (TIR/SLK) <b>D4</b> (Milky White) <b>D5</b> (Double Matte)		<b>5M</b> <b>10M</b>  Length can be customized: ex.7M=7meters  Select or leave blank for 3 meters		<b>M12D<sup>1 2</sup></b> <b>BC<sup>1 3</sup></b>  Select or leave blank for flying leads
Example 1: <b>LFL201-R-24CV-D2-M12D</b> Example 2: <b>LFL601-W-24-ILZ-D4</b>					<sup>1</sup> Not available in lights exceeding 4A input current <sup>2</sup> Default cable length for an M12D connector is 19 inches <sup>3</sup> 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)

\*\*\*(Link to Connector Key)

**LFL**

Sample Model Number: **LFL301-W-24CV-D3**

**REVISIONS**

REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	4/5/2016	

LENS-OPTIONS INCLUDE:  
 Option1: TIR Material  
 Option2: P95 Single Side Matte Material  
 Option3: Clear Cast Acrylic Material

1.18 LENS [29.85]  
 11.00 LENS [279.40]  
 11.30 [287.02]

1.13 [28.58]  
 BLACK ANODIZED HOUSING  
 5.65 [143.51]  
 POWER CABLE

0.36 [9.14]  
 1.13 [28.58]  
 1.25 [31.75]  
 52 [13.21]  
 56 [14.22]

Ø .13 [3.30] ± .33 [8.26]  
 #M4X0.7 ± .25 [6.35]  
 2 HOLES NEAR SIDE  
 2 HOLE FAR SIDE

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

SEE SHEET 2 FOR EXPLODED VIEW AND BOM.

QUANTITY:	Per order	TOLERANCE/FINISH UNLESS OTHERWISE SPECIFIED	THIS DOCUMENT IS THE PROPERTY OF METAPHASE TECHNOLOGIES, INC. WHO 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.	TITLE	Top Assembly, 1" x 10" Light
MATERIAL:	Aluminum/ Plastic	INCHES (MM)		USED ON	Per customer
FINISH:	Black anodize	1000 (25.4)		SIZE	LFL301-1
TREATMENT:	N/A	±.005 (0.127)		SCALE	1:4

Approval Signature: \_\_\_\_\_ Date: / /

SCALE 1:4 SHEET 1 OF 1

**COMPLIANCE**



**CONTACT US**

Contact Metaphase Technologies at **215-639-8699** or your local representative for additional details, options and customizations.