

MB-CO

Dome lights are ideal for providing even illumination of curved, specular or rough surfaces. Coaxial lights provide diffused on-axis illumination. Using the coaxial light with a dome light allows for complete, uniform, and diffused lighting by filling the void created by the dome's camera viewing port. The Metaphase CODL (Co-Axial Dome Light) conveniently packages these units together to make integration of the DAL with the Dome light simple and easy. The Dome and Coaxial portions of the MB-CODL have separate intensity control lines.



FEATURES

- High intensity and uniform, non-directional illumination across the entire lighting hemisphere
- Ideal for highly reflective surfaces and textured or topographic objects
- LED thermal management for stable performance
- Provides cloudy day illumination, minimizing shadows and glare
- Flicker free performance and instant start up with Metaphase analog driver technology
- Enclosed workspace blocks interference of ambient light
- Optical grade reflector coating reflects 99.9% of light for optimum diffused output
- Built-in Constant Current Driver with 0-10VDC Intensity control for both the Co-axial and Dome zones
- Compatible with DDC-3 and ILD-35 Dimmers
- External Constant Current driver (ULC-2) versions available

WAVELENGTHS

Order ID	Description / nanometers
W	White (6000K), Nominal
R	Red / 630nm
G	Green / 530nm
B	Blue / 470nm
IR850	Infrared / 850nm
UV365	Ultraviolet Short / 365nm

GENERAL SPECIFICATIONS

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

MB-CO

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)

Wiring (6 conductors, flying leads)**	
Wire Color	Function
RED, BROWN	+24VDC
YELLOW	SIGNAL GROUND
BLACK, BLUE	GROUND (24V RTN)
ORANGE	0-10VDC INTENSITY CONTROL

When not using Intensity Control, connect the 0-10V control line to +24VDC and connect Signal Ground to Ground (24V RTN)

Wiring (6 conductors, without Intensity Control)	
Wire Color	Function
RED	+24VDC
BROWN	+24VDC
ORANGE	+24VDC
BLACK	GROUND (24V RTN)
BLUE	GROUND (24V RTN)
YELLOW	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 (4 conductor)	
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).

MB-CO

PART NUMBER KEY									
MODEL	SIZE (inside diameter)	-	WAVELENGTH	-	DRIVER* (most common)	-	CABLE LENGTH	-	CONN.** (most common)
MB-CO	XXX	-	XXXXX	-	XXXXXXX	-	XXX	-	XXXX
MB-CO	1DL2 (Ø1.86") 1DL3 (Ø4.00") 2DL3 (Ø4.00") 2DL4 (Ø7.00") 2DL6 (Ø12.0") 2DL7 (Ø17.5") 2DL9 (Ø27.5") 2DL10 (Ø34.56") 2DL12 (Ø43.56")		W (White 6000K, Nominal) R (Red 630nm) G (Green 530nm) B (Blue 470nm) IR850 (Infrared 850nm) UV365 (UV Short 365nm)		24Z 24NZ 24-ILSXXX 24-ILD U¹		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-CO1DL3-W-24Z Example 2: MB-CO2DL7-W-U					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				

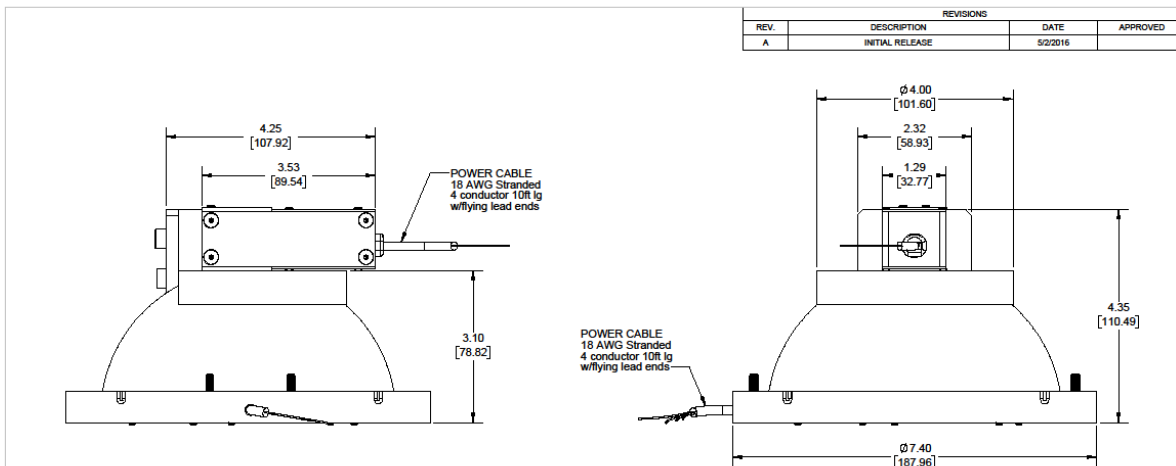
Contact Metaphase Technologies or your local representative for options such as custom diffusers, lenses, polarizers, IP-rated enclosures for harsh environments, higher intensity, custom wavelengths, higher uniformity, etc. Not all options are available for all lights.

[Link to *Driver Options Key / **Connector Options Key](#)

MB-CO

Sample Model Number: **MB-CO1DL3-W-24Z**


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	5/2/2016	



SEE SHEET 2 FOR MOUNTING
SEE SHEET 3 FOR EXPLODED VIEW AND BILL OF MATERIAL
SEE SHEET 4 FOR SECTIONAL VIEW

Metaphase Technologies, Inc. 211 Sinclair Road, Suite 100, Bristol, PA. 19007 215-639-8699 Fax 215-639-0977		THIS DOCUMENT IS THE PROPERTY OF METAPHASE TECHNOLOGIES, INC. WHOM 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.												
QUANTITY: Per order	TOLERANCE/FINISH UNLESS OTHERWISE SPECIFIED													
MATERIAL: See BOM	<table border="1" style="font-size: x-small;"> <tr> <th>INCHES [MM]</th> <th>FRACTIONS</th> <th>DECIMALS</th> <th>ANGLES ±1°</th> </tr> <tr> <td>X</td> <td>X</td> <td>.XX .XXX</td> <td>[R3.2UM]</td> </tr> <tr> <td>[±.75]</td> <td>[±.25]</td> <td>[±.010 [±.15]</td> <td>±.005</td> </tr> </table>		INCHES [MM]	FRACTIONS	DECIMALS	ANGLES ±1°	X	X	.XX .XXX	[R3.2UM]	[±.75]	[±.25]	[±.010 [±.15]	±.005
INCHES [MM]	FRACTIONS		DECIMALS	ANGLES ±1°										
X	X	.XX .XXX	[R3.2UM]											
[±.75]	[±.25]	[±.010 [±.15]	±.005											
FINISH: As supplied														
TREATMENT: N/A														

Approval Signature	/ /	Date	
--------------------	-----	------	--

	
TITLE: Top Assy.; Combo	
USED ON: Per customer	DRAWING NUMBER: DL306 - DAL101-1
SCALE: 1:1	REV: A SHEET 1 OF 3

COMPLIANCE



CONTACT US

For more information please contact:

BOCK OPTRONICS INC.
14 Steinway Blvd., Unit 7
Toronto, Ontario M9W 6M6

Tel: (416) 674-2804
sales@bockoptronics.ca
www.bockoptronics.ca

