

MB-OBL

The MetaBright™ Flat Dome Omni Light combines the best of our Metabright™ technology with enhanced and ultra-uniform lighting output of our newest Total Internal Reflection (TIR) diffuser. Our lightweight alloy housing comes with welded brackets for secure and easy mounting. These lights are ideal when you need a diffused light source for close inspection but can't fit in a traditional dome light.



FEATURES

- Lightweight alloy housing comes with welded brackets for secure and easy mounting
- Rugged design
- LED thermal management for stable performance
- Strobe and dimming options available
- Flicker free performance and instant start up with Metaphase analog driver technology
- Diffused, even illumination of standard dome lights
- Optional Constant Current Driver with 0-10VDC intensity control, compatible with DDC-3 and ILD-35

WAVELENGTHS

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

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)

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FLAT DOME OMNI LIGHTS							
MODEL*	Overall Width and Length Inches (cm)	Active Area Inches (cm)	Weight lbs / kg	Cable QTY	Cable Length	Cable Description	Maximum Input Current @24VDC (White)
MB-OBL6x6	6.87 x 7.88 (17.45 x 20.01)	6.0 x 6.0 (15.24 x 15.24)	2.8 / 1.28	1	10ft	24 AWG 4 Wire	1.0A max.
MB-OBL6x9	6.38 x 9.38 (16.19 x 23.81)	6.0 x 9.0 (15.24 x 22.86)	4.2 / 1.90				1.5A max.
MB-OBL6x14	6.38 x 14.50 (16.19 x 36.82)	6.0 x 14.0 (15.24 x 35.56)	4.9 / 2.22				2.0A max.
MB-OBL9x9	9.50 x 9.50 (24.13 x 24.13)	9.0 x 9.0 (22.86 x 22.86)	4.7 / 2.13				2.0A max.
MB-OBL14x14	14.38 x 14.38 (36.51 x 36.51)	14.0 x 14.0 (35.56 x 35.56)	10.7 / 4.85			18 AWG 6 Wire	6.5A max.
MB-OBL15x25	16.26 x 27.26 (41.30 x 69.24)	15.26 x 25.38 (38.76 x 64.48)	23.0 / 10.4				10.0A max.
MB-OBL20x20	21.10 x 21.10 (53.59 x 53.59)	20.10 x 20.10 (51.05 x 51.05)	26.0 / 11.8				11.0A max.
MB-OBL20x28	21.16 x 30.59 (53.75 x 77.70)	20.16 x 28.71 (51.21 x 72.92)	32.5 / 14.7				12.0A max.
MB-OBL28x32	28.63 x 32.63 (72.71 x 82.87)	28.0 x 32.0 (71.12 x 81.28)	46.5 / 21.1				13.0A max.

*Custom Sizes available

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PART NUMBER KEY													
MODEL	SIZE	-	WAVELENGTH	-	DRIVER* (most common)	-	POLARIZER	-	CAMERA PORT	-	CABLE LENGTH	-	CONN.** (most Common)
MB-OBL	XXX	-	XXXXX	-	XXX-XXXXXX	-	XXXX	-	X	-	XXX	-	XXXX
MB-OBL	6x6 6x9 6x14 9x9 14x14 15x25 20x20 20x28 28x32		W (White 6000K, Nominal) R (Red 630nm) G (Green 530nm) B (Blue 470nm) IR850 (Infrared 850nm) UV395 (UV Long 395nm) RGB (Red-Green-Blue)		24CV 24-ILZ 24-ILSXXX 24-ILD U¹ XXX=rate in μs Example: 250		POLO Select or leave blank for no polarizer		0 (no hole) 1 (∅2.0" hole) 2 (∅2.25" hole) Select one		5M 10M Length can be customized: ex.7M=7meters Select or leave blank for 3 meters		M12D^{1 2} BC³ Select or leave blank for flying leads
Example 1: MB-OBL14x14-W-24CV-1 Example 2: MB-OBL6x9-B-24-ILD-0-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.

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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	
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).

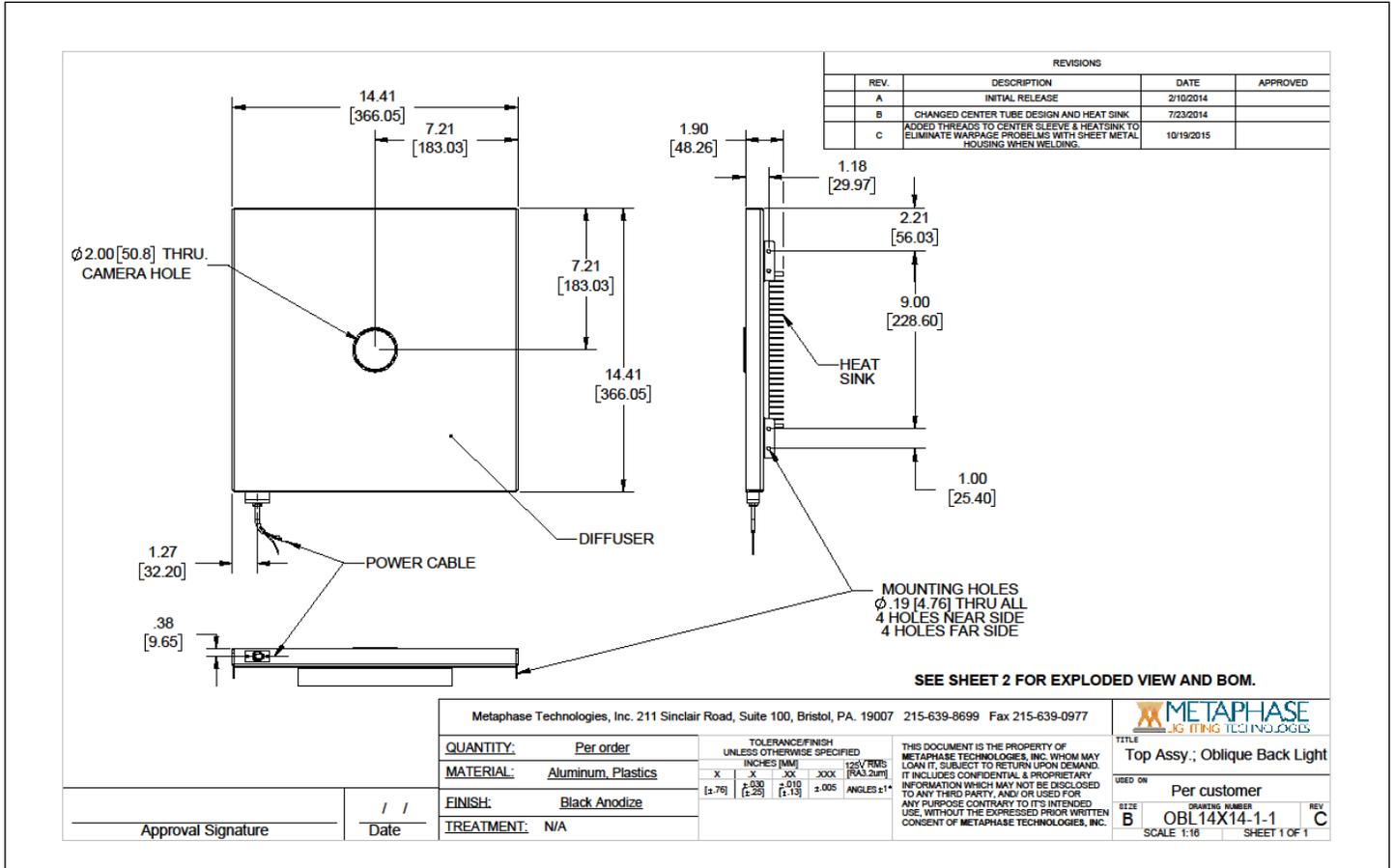
MetaBright™ Flat Dome Omni Lights

PRODUCT DATA SHEET



MB-OBL

Sample Part Number: **MB-OBL14x14-W-24CV-1**



COMPLIANCE



CONTACT US

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