

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-35-24-L

WAVELENGTHS

| Order ID | Description / nanometers |
|----------------|---------------------------|
| W | White (6000K), Nominal |
| R | Red / 630nm |
| G | Green / 530nm |
| B | Blue / 470nm |
| IR850 (or IRN) | Infrared / 850nm |
| IR880 (or IRL) | Infrared / 880nm |
| IR940 | Infrared / 940nm |
| UV365 (or UVS) | Ultraviolet Short / 365nm |
| UV395 (or UVL) | 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) |

MetaBright™ Flat Dome Omni Lights

PRODUCT DATA SHEET



MB-OBL

| 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-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

| MODEL NUMBER KEY | | | | | | | |
|------------------|---|--|---|--|---|--|--|
| MODEL | SIZE | COLOR (Wavelength) | Camera Hole Diameter | VOLTAGE | Connector | CUSTOM OPTION | |
| MB-OBL | XXxXX | XXX | X | XXX | XX | XXX | |
| MB-OBL | 6x6 6x9 6x14 9x9 14x14 15x25 20x28 28x32 Choose one | W (White 6000K, Nominal) R (Red 630nm) G (Green 530nm) B (Blue 470nm) IR850 (or IRN) (Infrared 850nm) IR880 (or IRL) (Infrared 880nm) IR940 (Infrared 940nm) UV365 (or UVS) (UV Short 365nm) UV395 (or UVL) (UV Long 395nm) Choose one | 0 (No Hole) 1 (2.0") 2 (2.25") Choose one | 24 (+24VDC) U (ULC-2 Controller) KEY (Keyence Controller) ILD (In Line Dimmer) ILS (In Line Strobe) Choose one | T (M12 Conn.) M8 (M8 Conn.) Choose one or leave blank | XXX Customizable per order (ie. Customer's initials) XXM Custom cable length (ie. 12M for 12 meters) Z (Intensity Ctrl) Choose all that apply | |

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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).

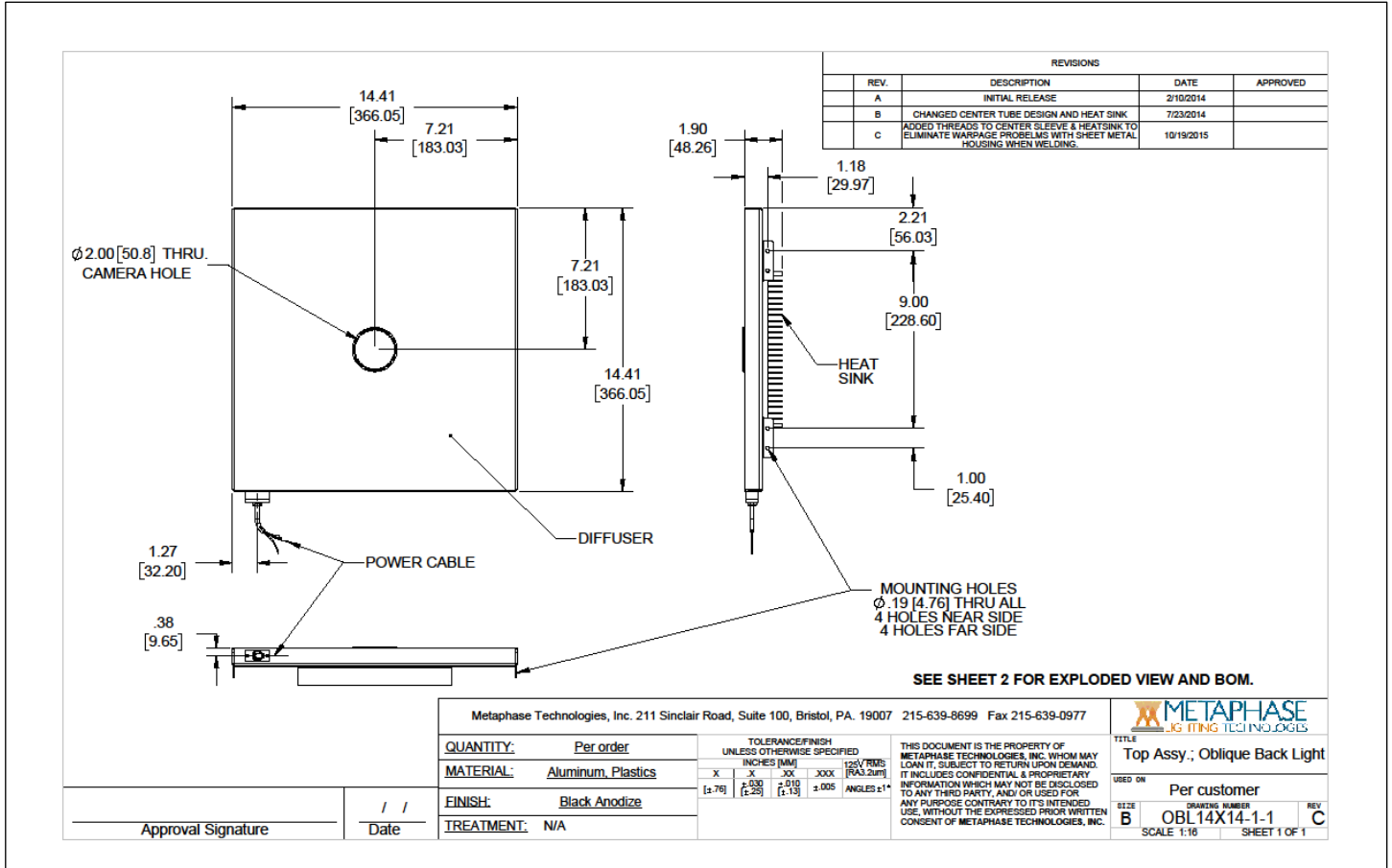
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Sample Model Number: **MB-OBL14x14-W-1-24-Z**



COMPLIANCE



CONTACT US

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