

SWIR LED ILLUMINATION

Wavelengths from 1050nm to 1650nm are now offered in the Metaphase Dome Light. Short-wave infrared technology provides the necessary contrast to illuminate test objects that visible and ultraviolet light cannot provide.

The SWIR Dome light provides intense, evenly diffused illumination that is ideal for highly reflective, specular objects.



Available Wavelengths



FEATURES

- High intensity, uniform, non-directional illumination for area scan
- Ideal illumination for highly reflective surfaces and textured test objects
- Enclosed workspace blocks interference of ambient light sources
- Internal optical grade coating reflects 99% of light for optimum performance
- Built-in Constant Current Driver with 0 – 10VDC intensity control, compatible with DDC-3 and ILD-35-24-L

WAVELENGTH (nanometers)

W	White 6000K, Nominal
SWIR	1050nm
SWIR	1200nm
SWIR	1300nm
SWIR	1450nm
SWIR	1550nm
SWIR	1650nm

SPECIFICATIONS

Power Source:	24VDC ±5%
Cable (Standard):	10 ft. (3 m) with flying leads
Housing:	Black Anodized Aluminum
Ambient Temperature:	-20°C to 40°C

SWIR (Short-Wave Infrared)

SWIR DOME LIGHTS							
MODEL	Dimensions: OD x ID x H Inches (cm)	Camera opening diameter at top of dome Inches (cm)	Weight lbs (Kg)	Cable QTY	Cable Length	Cable Description	Max. Current @24VDC
MB-DL101	3.00 x 1.40 x 1.77 (7.62 x 3.56 x 4.49)	∅ .75 (1.90)	.67 (.30)	1	10ft	24AWG 4 Conductor	0.4A max.
MB-DL206	4.00 x 1.86 x 2.11 (10.16 x 4.71 x 5.36)	∅ .75 (1.90)	0.82 (.37)				0.6A max.
MB-DL306	7.40 x 4.00 x 3.12 (18.80 x 10.16 x 79.17)	∅ .74 (1.88)	1.85 (.48)				1.0A max.
MB-DL406	11.53 x 7.00 x 5.19 (29.28 x 17.78 x 13.18)	∅ 1.0 (2.54)	3.5 (1.58)			18 AWG 4 Conductor	2.1A max.
MB-DL606	18.90 x 12.00 x 8.29 (48.01 x 30.48 x 21.05)	∅ 2.0 (5.08)	10.6 (4.8)				3.2A max.
MB-DL706	25.08 x 17.5 x 10.76 (63.70 x 44.45 x 27.34)	∅ 2.0 (5.08)	17.0 (7.7)				4.0A max.
MB-DL906	36.00 x 27.50 x 16.54 (91.44 x 69.85 x 42.01)	∅ 2.1 (5.33)	34.5 (15.6)				3.5A max.
MB-DL1006	43.00 x 34.56 x 20.77 (10.92 x 87.78 x 52.76)	∅ 1.8 (4.57)	42.0 (19.0)			16 AWG 4 Conductor	6.0A max.
MB-DL1206	52.00 x 43.56 x 24.47 (132.1 x 110.6 x 62.16)	∅ 1.8 (4.57)	57.0 (25.9)				18 AWG 6 Conductor

SWIR (Short-Wave Infrared)

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	

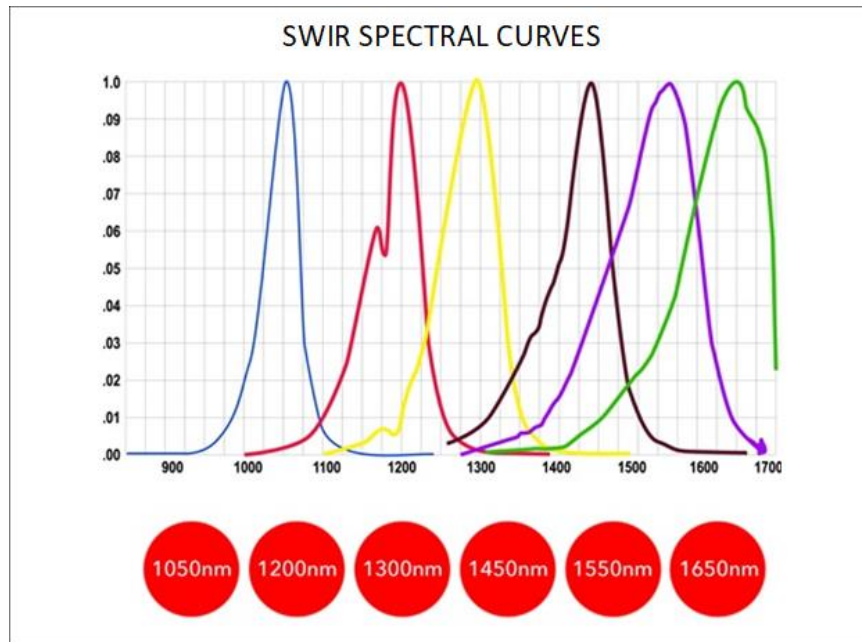
Wiring with ULC-2	
Wire Color	Function
RED, WHITE (+)	LED INPUT
BLACK, GREEN (-)	
Terminated within a 2 position ULC-2 output connector (Phoenix Contact P/N: BCP-508-2)	

**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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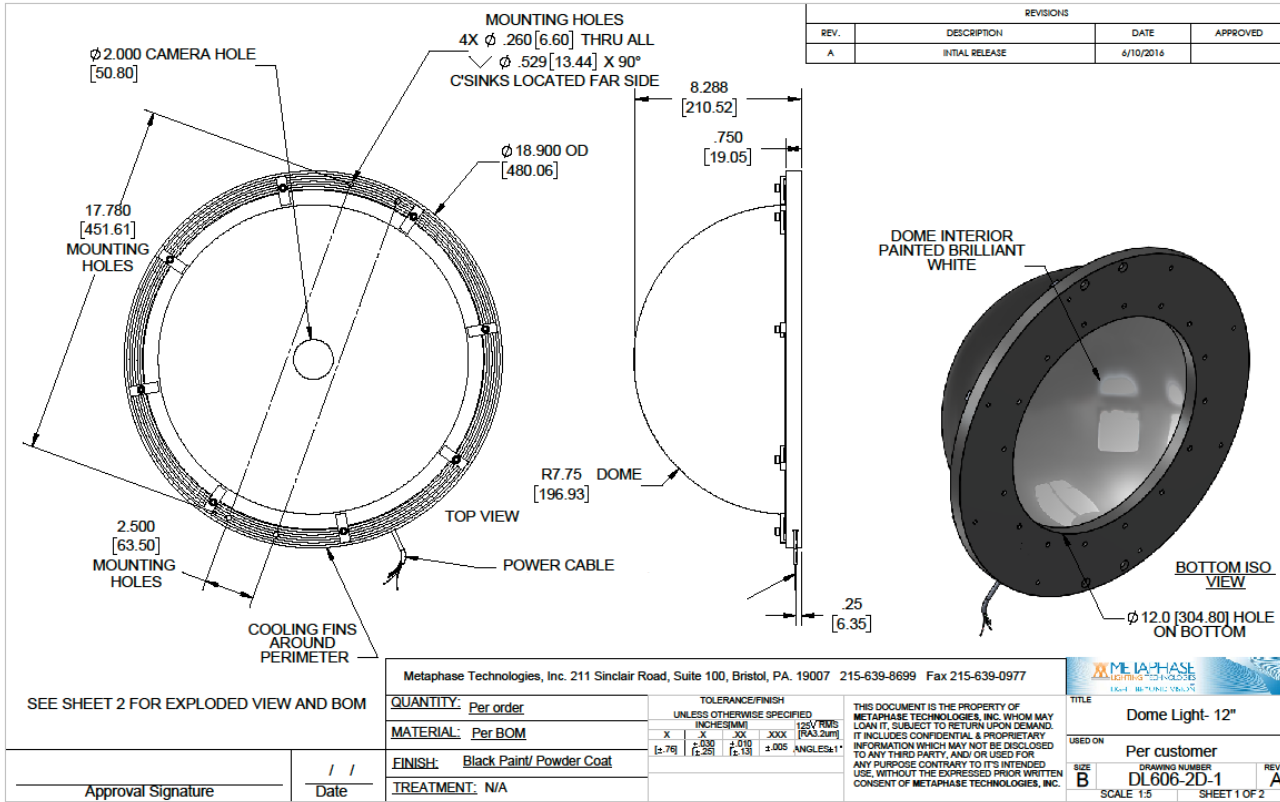
MODEL NUMBER KEY							
MODEL	SIZE (active area)	-	WAVELENGTH	-	OPTION 1	-	OPTION 2
MB-DL	XXXX	-	XXXXXX	-	XXX	-	X-XXX
MB-DL	101 (ø1.40") 206 (ø1.86") 306 (ø4.00") 406 (ø7.00") 606 (ø12.0") 706 (ø17.5") 906 (ø27.5") 1006 (ø34.56") 1206 (ø43.56")		W (White, 6000K, Nominal) IR1050 (1050nm) IR1200 (1200nm) IR1300 (1300nm) IR1450 (1450nm) IR1550 (1550nm) IR1650 (1650nm)		24 (+24VDC, standard)		T (M12 Connector)
			Choose one IR wavelength		U (ULC-2 interface) KEY (Keyence Controller) ILD (In Line Dimmer) ILS (In Line Strobe)		XXX (Custom code)

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.



SWIR (Short-Wave Infrared)

Sample Model Number: **MB-DL606-IR1300-24-T**



COMPLIANCE



CONTACT US

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