

MB-DL

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 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, compatible with DDC-3 and ILD-35 Dimmers

WAVELENGTHS

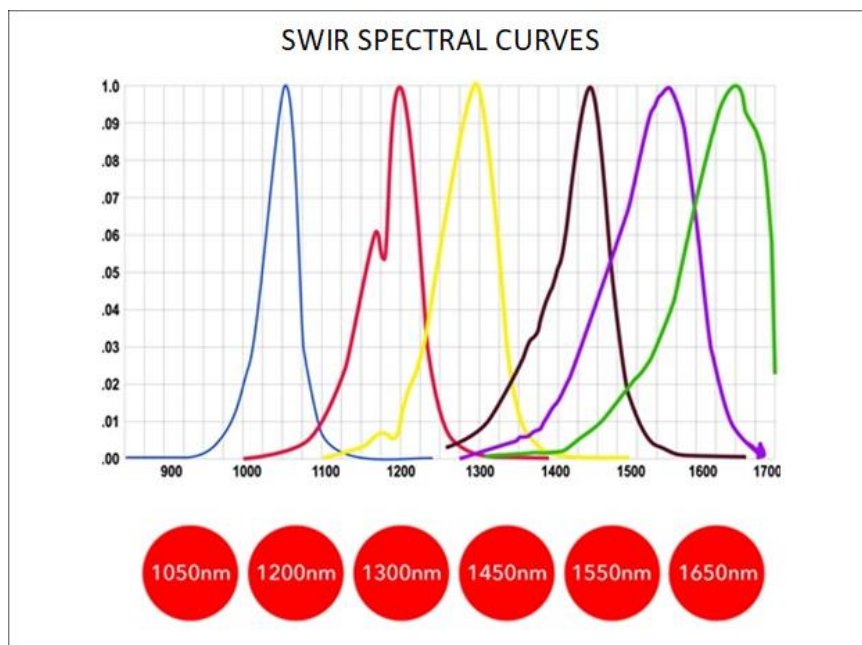
Order ID	Description / nanometers
W	White (6000K), Nominal
IR05	Infrared / 1050nm
IR20	Infrared / 1200nm
IR30	Infrared / 1300nm
IR45	Infrared / 1450nm
IR55	Infrared / 1550nm
IR65	Infrared / 1650nm

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

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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
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)			16 AWG 4 Conductor	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)				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	8.6A max.



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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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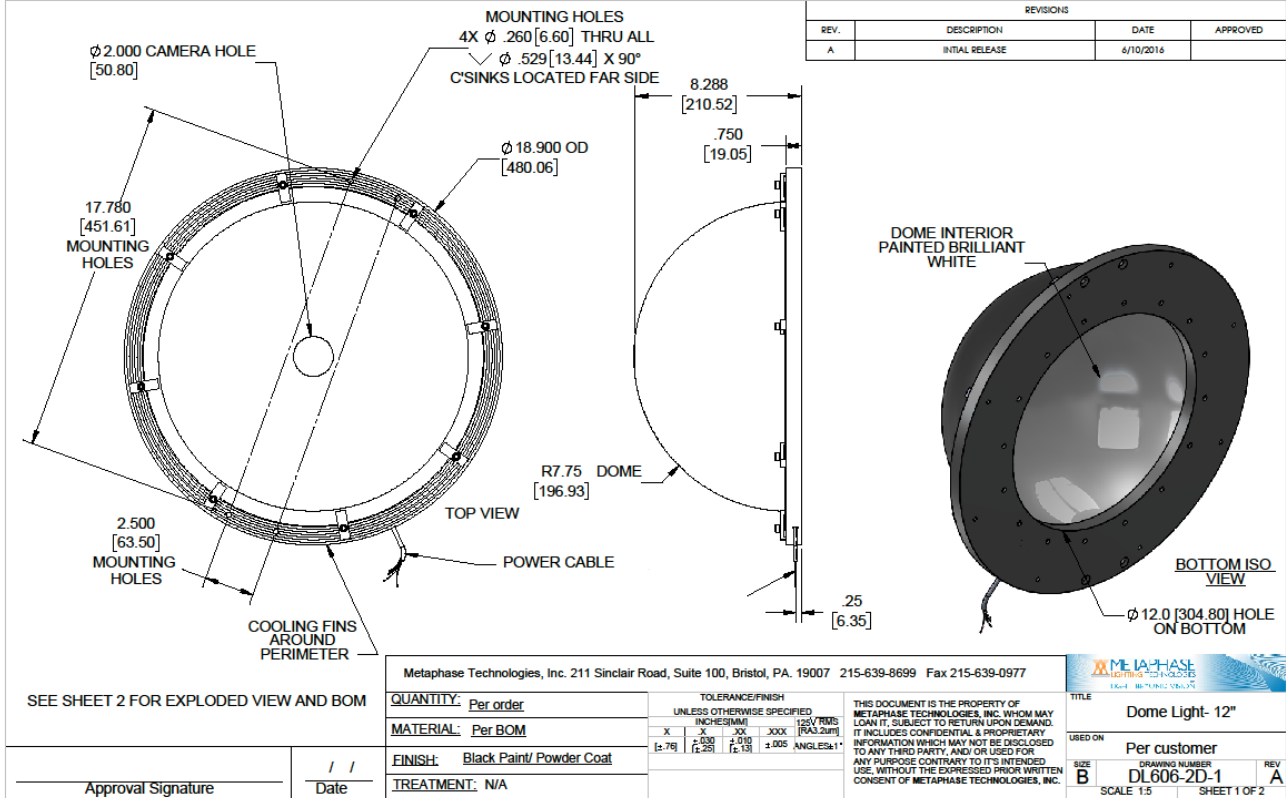
PART NUMBER KEY									
MODEL	SIZE (inside diameter)	-	WAVELENGTH	-	DRIVER* (most common)	-	CABLE LENGTH	-	CONN.** (most common)
MB-DL	XXXX	-	XXXX	-	XXXXXXXX	-	XXX	-	XXXX
(no entry)	101 (Ø1.40")		W (White 6000K, Nominal)		24Z		5M		M12D^{1 2}
MB-DL	206 (Ø1.86")		IR05 (Infrared 1050nm)		24Z-ILT		10M		BC^{1 3}
MB-DL	306 (Ø4.00")		IR20 (Infrared 1200nm)		24-ILSXXX				
MB-DL	406 (Ø7.00")		IR30 (Infrared 1300nm)		24-ILD				
MB-DL	606 (Ø12.0")		IR45 (Infrared 1450nm)		U¹				
MB-DL	706 (Ø17.5")		IR55 (Infrared 1550nm)						
MB-DL	906 (Ø27.5")		IR65 (Infrared 1650nm)						
MB-DL	1006 (Ø34.56")								
MB-DL	1206 (Ø43.56")								
			Select one IR wavelength with or without white.		XXX=rate in µs Example: 250		Length can be customized: ex.7M=7meters Select or leave blank for 3 meters		Select or leave blank for flying leads
Example 1: MB-DL606-IR20-24Z Example 2: MB-DL906-WIR55-24-ILD					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](#)

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Sample Part Number: **MB-DL606-IR20-24Z**



COMPLIANCE



CONTACT US

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