MetaBright[™] **Dome Lights**

PRODUCT DATA SHEET



MB-DL

Pyramid Imaging These special illuminators provide intense, evenly diffused illumination. The Diffused Dome Light is ideal for inspection of

reflective, specular, rough or topographic surfaces. Optical grade reflector coating returns 99.9% of light for optimum diffused output. Current dome lights range in size from 1.4 inches (36mm) to 44 inches (1106mm) ID. The Diffused Dome Light is available with a wide variety of LED colors such as white, red, green, blue, IR, UV (365nm and 395nm), and RGB.



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-35-24-L

WAVELENGTHS								
Order ID	Description / nanometers							
W	White (6000K), Nominal							
R	Red / 630nm							
G	Green / 530nm							
В	Blue / 470nm							
IR850	Infrared / 850nm							
UV365	Ultraviolet Short / 365nm							
UV395	Ultraviolet Long / 395nm							
RGB	Red-Green-Blue							

GENERAL SPECIFICATIONS

Power Source: Cable (Standard): Housing: Ambient Temp: Lifetime Expectancy:

24VDC ±5% 10-foot cable with flying leads **Black Anodized Aluminum** -20°C to 40°C 75,000 hours (except UV)



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Single Color DOME LIGHTS								
MODEL	Dimensions: OD x ID x H Inches (cm)	Camera opening diameter at top of dome Inches (cm)	Weight Ibs (Kg)	Cable QTY	Cable Length	Standard Cable Description	Typical Current @24VDC (White)	
MB-DL101	3.00 x 1.40 x 1.77 (7.62 x 3.56 x 4.49)	Ø .75 (1.90)	.67 (.30)				0.2A	
MB-DL206	4.00 x 1.86 x 2.11 (10.16 x 4.71 x 5.36)	Ø .75 (1.90)	0.82 (.37)			24 AWG	0.3A	
MB-DL306	7.40 x 4.00 x 3.12 (18.80 x 10.16 x 79.17)	Ø .74 (1.88)	1.85 (.48)			4 Conductor	0.6A	
MB-DL406	11.53 x 7.00 x 5.19 (29.28 x 17.78 x 13.18)	Ø .74 (1.88)	3.5 (1.58)	_			1.0A	
MB-DL606	18.90 x 12.00 x 8.29 (48.01 x 30.48 x 21.05)	Ø 2.0 (5.08)	10.6 (4.8)	1	10ft	18 AWG	1.3A	
MB-DL706	25.08 x 17.5 x 10.76 (63.70 x 44.45 x 27.34)	Ø 2.0 (5.08)	17.0 (7.7)			4 Conductor	1.9A	
MB-DL906	36.00 x 27.50 x 16.54 (91.44 x 69.85 x 42.01)	Ø 2.1 (5.33)	34.5 (15.6)			16 AWG	3.5A	
MB-DL1006	43.00 x 34.56 x 20.77 (109.2 x 87.78 x 52.76)	Ø 1.8 (4.57)	42.0 (19.0)			4 Conductor	6.0A	
MB-DL1206	52.00 x 43.56 x 24.47 (132.1 x 110.6 x 62.16)	Ø 1.8 (4.57)	57.0 (25.9)			18 AWG 6 Conductor	8.6A	

*Custom sizes and configurations available



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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 (+)						
BLACK, GREEN (-)	LED INPUT					
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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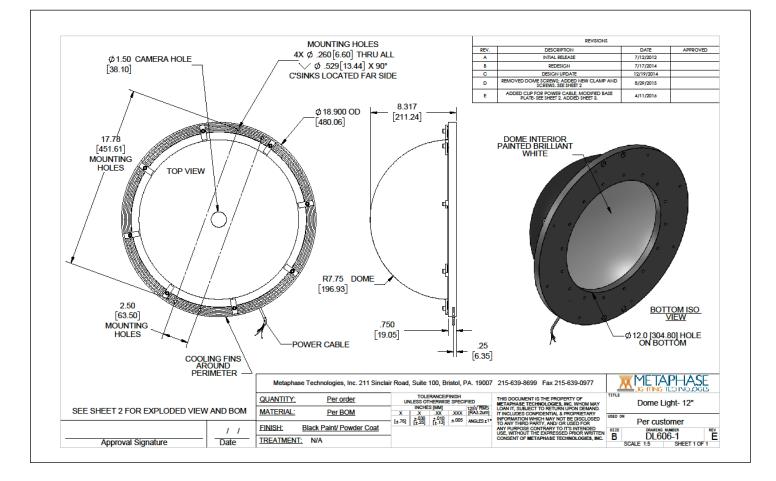
PART N	UMBER KEY								
MODEL	SIZE (inside diameter)	-	WAVELENGTH	-	DRIVER* (most common)	-	CABLE LENGTH	-	CONN.** (most common)
MB-DL	ХХХ	-	XXXXX	-	xxxxxxx	-	ххх	-	хххх
MB-DL	101 (Ø1.40") 206 (Ø1.86") 306 (Ø4.00") 406 (Ø7.00") 606 (Ø12.0") 706 (Ø17.5") 906 (Ø27.5") 1006 (Ø34.56") 1206 (Ø43.56")		W (White 6000K, Nominal) R (Red 630nm) G (Green 530nm) B (Blue 470nm) IR850 (Infrared 850nm) UV365 (UV Short 365nm) UV395 (UV Long 395nm) RGB (Red-Green-Blue)		24Z 24NZ 24-ILSXXX 24-ILD U ¹ XXX=rate in μs Example: 250		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-DL306-W-24Z ¹ Not available in lights exceeding 4A input ² Default cable length for an M12D connector is ³ Default cable length for a Barrel Connector			or is 19 inches						

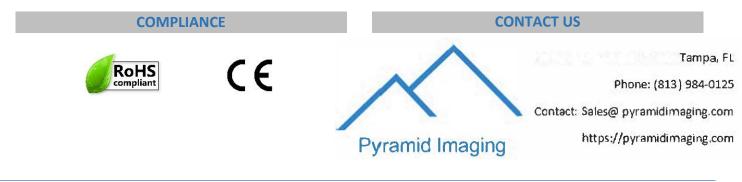
Contact Metaphase Technologies or your local representative for options such as custom diffusers, lenses, polarizers, IP-rated enclosures for harsh environments, higher intensity, custom wavelengths, higher uniformity, etc. Not all options are available for all lights.



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Sample Model Number: MB-DL606-W-24Z





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