



MB-DL

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
B	Blue / 470nm
IR850	Infrared / 850nm
UV365	Ultraviolet Short / 365nm
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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Single Color 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	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)	∅ .75 (1.90)	.67 (.30)	1	10ft	24 AWG 4 Conductor	0.2A
MB-DL206	4.00 x 1.86 x 2.11 (10.16 x 4.71 x 5.36)	∅ .75 (1.90)	0.82 (.37)				0.3A
MB-DL306	7.40 x 4.00 x 3.12 (18.80 x 10.16 x 79.17)	∅ .74 (1.88)	1.85 (.48)				0.6A
MB-DL406	11.53 x 7.00 x 5.19 (29.28 x 17.78 x 13.18)	∅ .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)	∅ 2.0 (5.08)	10.6 (4.8)			18 AWG 4 Conductor	1.3A
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)			1.9A	
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
MB-DL1006	43.00 x 34.56 x 20.77 (109.2 x 87.78 x 52.76)	∅ 1.8 (4.57)	42.0 (19.0)			6.0A	
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

*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 (+)	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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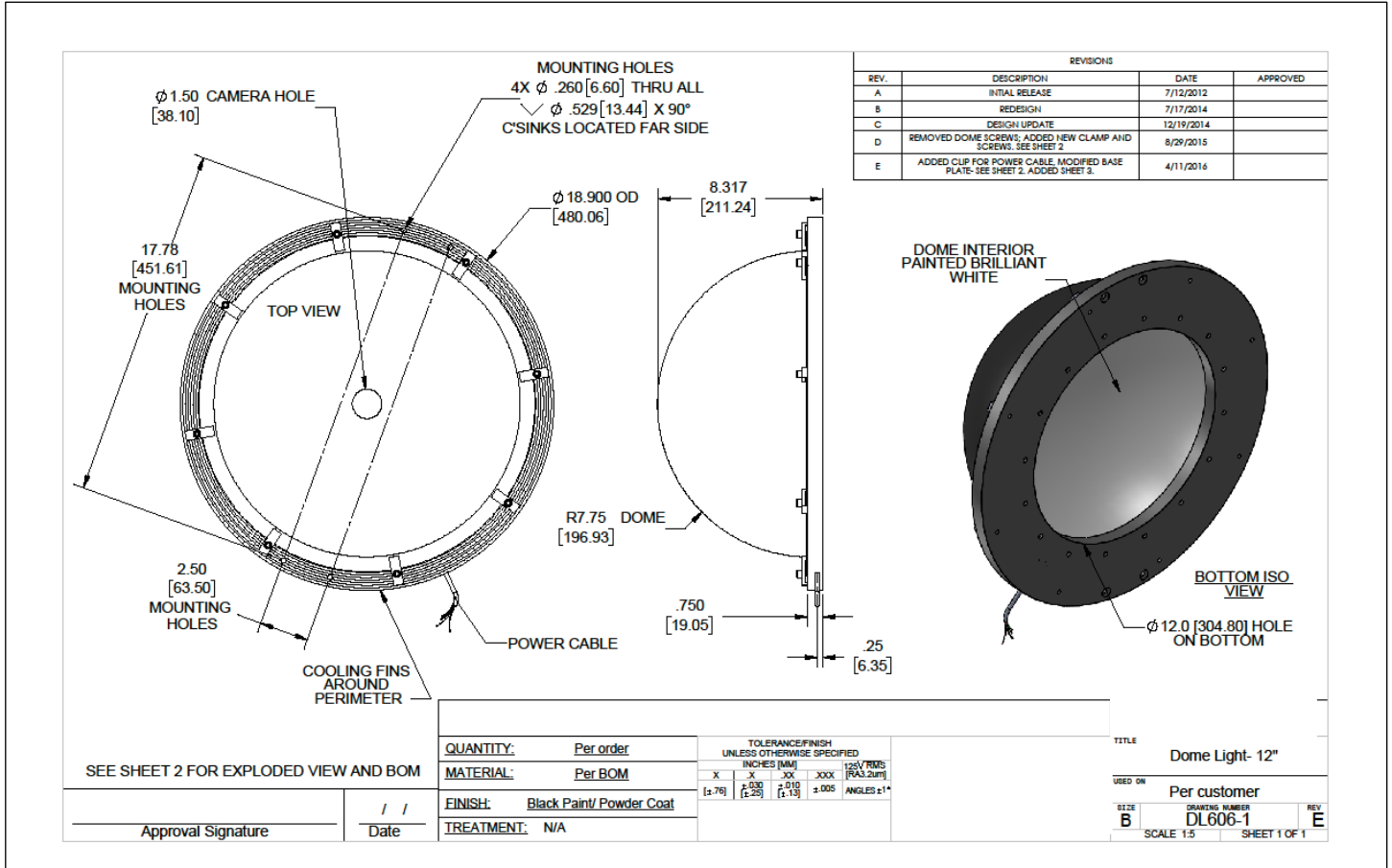
PART NUMBER KEY									
MODEL	SIZE (inside diameter)	-	WAVELENGTH	-	DRIVER* (most common)	-	CABLE LENGTH	-	CONN.** (most common)
MB-DL	XXX	-	XXXXX	-	XXXXXXXX	-	XXX	-	XXXX
MB-DL	101 (∅1.40") 206 (∅1.86") 306 (∅4.00") 406 (∅7.00") 606 (∅12.0") 706 (∅17.5") 906 (∅27.5") 1006 (∅34.56") 1206 (∅43.56")		W (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 U¹		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 Example 2: MB-DL1006-B-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.



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



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