

MB-DT



These special illuminators provide intense, evenly diffused illumination. The Diffused Tube 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.



**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**

<b>Power Source:</b>	24VDC ±5%
<b>Cable (Standard):</b>	10-foot cable with flying leads
<b>Housing:</b>	Black Anodized Aluminum
<b>Ambient Temp:</b>	-20°C to 40°C

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Diffused Tube Lights								
MODEL*	Outer Dimensions: W x L x H Inches (cm)	Bottom Opening (Active Area) W x L Inches (cm)	Camera Slot Length Inches (cm)	Weight lbs (Kg)	Cable QTY	Cable Length	Standard Cable Description	Typical Current @24VDC (White)
MB-DT216	10.84 x 11.00 x 5.13 (27.53 x 28.00 x 13.02)	6.84 x 10.00 (17.37 x 25.40)	3.75 (9.52)	2.8 (1.27)	1	10ft	24 AWG 4 Conductor	1.1A
MB-DT306	10.84 x 17.75 x 5.13 (27.53 x 45.08 x 13.02)	6.84 x 16.75 (17.37 x 42.54)	10.0 (25.40)	4.5 (2.04)			18 AWG 4 Conductor	2.0A
MB-DT406	10.84 x 28.90 x 5.13 (27.53 x 73.41 x 13.02)	6.84 x 27.90 (17.37 x 70.87)	21.16 (53.73)	7.3 (3.31)			18 AWG	3.5A
MB-DT506	10.84 x 38.50 x 5.13 (27.53 x 97.79 x 13.02)	6.84 x 37.50 (17.37 x 95.25)	33.60 (85.34)	9.8 (4.44)			6 Conductor	5.0A

\*Custom sizes and configurations available

**MB-DT**

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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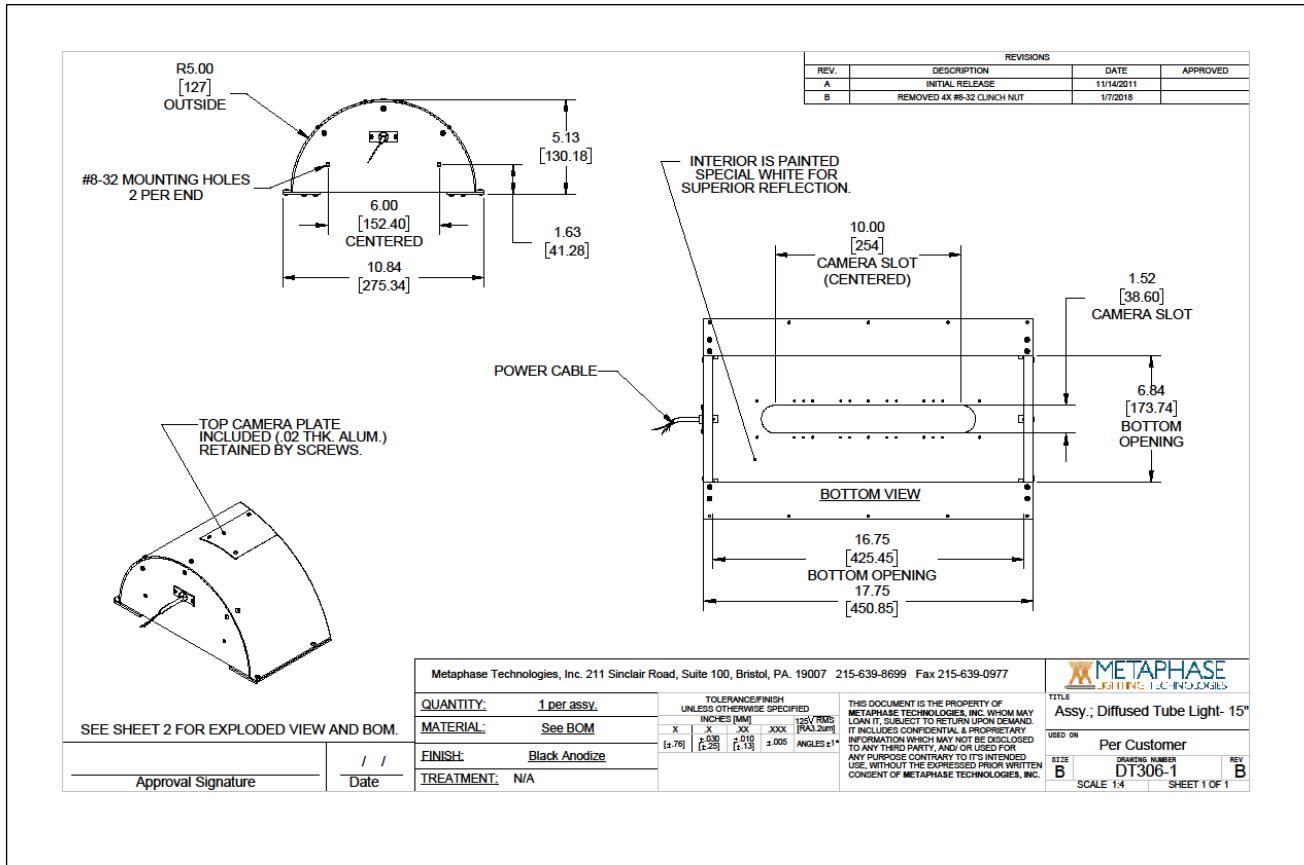
PART NUMBER KEY									
MODEL	SIZE (active area length)	-	WAVELENGTH	-	DRIVER* (most common)	-	CABLE LENGTH	-	CONN.** (most common)
MB-DT	XXX	-	XXXXX	-	XXXXXXX	-	XXX	-	XXXX
<b>MB-DT</b>	<b>216</b> (5x10") <b>306</b> (5x15") <b>406</b> (5x25") <b>506</b> (5x35")		<b>W</b> (White 6000K, Nominal) <b>IR05</b> (Infrared 1050nm) <b>IR20</b> (Infrared 1200nm) <b>IR30</b> (Infrared 1300nm) <b>IR45</b> (Infrared 1450nm) <b>IR55</b> (Infrared 1550nm) <b>IR65</b> (Infrared 1650nm)		<b>24Z</b> <b>24Z-TRG</b> <b>24-ILSXXX</b> <b>24-ILD</b> <b>U<sup>1</sup></b>		<b>5M</b> <b>10M</b>  Length can be customized: ex.7M=7meters  Select or leave blank for 3 meters		<b>M12D<sup>1 2</sup></b>  Select or leave blank for flying leads
Example 1: <b>MB-DT306-WIR20-24Z</b> Example 2: <b>MB-DT506-IR55-24-ILD</b>					<sup>1</sup> Not available in lights exceeding 4A input current <sup>2</sup> Default cable length for an M12D connector 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.

Link to [\\*Driver Options Key](#) / [\\*\\*Connector Options Key](#)

### MB-DT

Sample Part Number: **MB-DT306-WIR20-24Z**



### COMPLIANCE



### CONTACT US

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