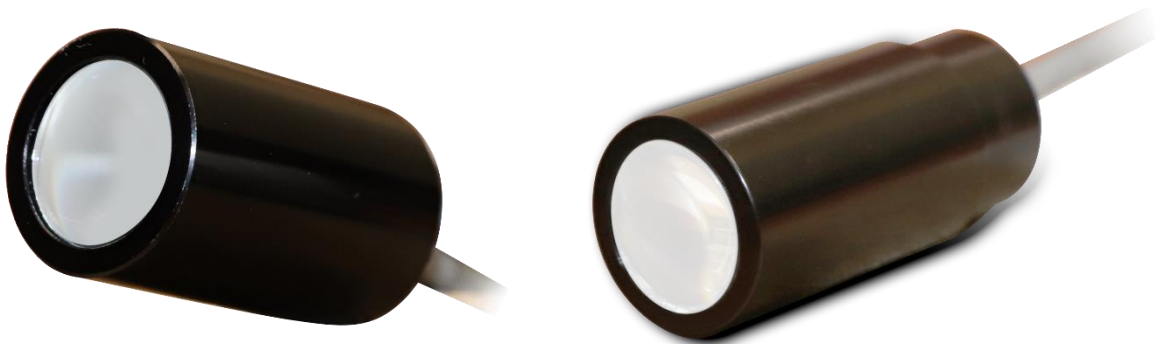


MB-RAL

Our MetaBright™ Round Area Light is an improved design with brighter intensity and a built-in Constant Current driver with intensity control. These lights are manufactured from a solid one-piece machined aluminum housing that includes thermal potting for long life performance in rugged environments.



FEATURES

- Homogenous light output that provides high intensity illumination
- Shock and vibration resistant
- LED thermal management for stable performance
- Industry proven for virtually any lighting application
- Flicker-free performance and instant start up with Metaphase analog driver technology
- Economical, low cost
- An ideal light for many applications
- 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
R	Red / 630nm
G	Green / 530nm
B	Blue / 470nm
IR850	Infrared / 850nm
UV395	Ultraviolet Long / 395nm

*UV365 Ultraviolet Short / 365nm

*Offered in specific models

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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Round Area Front Light							
MODEL	Dimensions L x OD(∅) Inches (mm)	Lens Diameter Inches (mm)	Weight (includes cable) lbs (grams)	Cable QTY	Cable Length	Cable Description	Max Input Current @24VDC
MB-RAL050	3.67 x .90 (93.4 x 22.9)	.67 (17.0)	.34 (154)	1	10ft	24AWG 4 cond.	150mA
MB-RAL055	3.30 x .90 (83.9 x 22.9)	.67 (17.0)	.31 (141)				150mA
MB-RAL105	2.10 x 1.50 (53.3 x 38.1)	1.25 (31.75)	.45 (205)				150mA
MB-RAL155	2.10 x 1.50 (53.3 x 38.1)	1.10 (27.94)	.43 (195)				150mA
MB-RAL205	1.50 x 2.13 (38.1 x 54.0)	1.77 (45.0)	.50 (227)				200mA

Wiring (4 conductor with Intensity Control)**	
Wire Color	Function
RED	+24VDC
WHITE	0-10VDC INTENSITY CONTROL
BLACK	GROUND (24V RTN)
GREEN	SIGNAL GROUND

Wiring (4 conductor without Intensity Control)	
Wire Color	Function
RED	+24VDC
WHITE	+24VDC
BLACK	GROUND (24V RTN)
GREEN	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).

MB-RAL

PART NUMBER KEY													
MODEL	SIZE (outside diameter)	-	WAVELENGTH	-	DRIVER* (most common)	-	POLARIZER	-	DIFFUSER	-	CABLE LENGTH	-	CONN.** (most Common)
MB-RAL	XXX	-	XXXXX	-	XXXXX	-	XXX	-	XX	-	XXX	-	XXXX
MB-RAL	050 (.90") 105 (1.5") 205 (2.1")		W (White 6000K, Nominal) R (Red 630nm) G (Green 530nm) B (Blue 470nm) IR850 (Infrared 850nm) UV395 (UV Long 395nm)		24Z 24-ILSXXX 24-ILD U¹		POLO (0°)		CC (Clear Cover) D2 (Single Matte) D3 (TIR/SLK) D4 (Milky White) D5 (Double Matte)		5M 10M		M12D^{1 2}
	055 (.90") 155 (1.5")		UV365 (UV Short 365nm)		XXX=rate in μs Example: 250		(N/A) Select or leave blank for no polarizer		CC (Clear Cover) Select one		Length can be customized: ex.7M=7meters Select or leave blank for 3 meters		Select or leave blank for flying leads
Example 1: MB-RAL050-W-24Z-D2												¹ Not available in lights exceeding 4A input current	
Example 2: MB-RAL155-UV365-24Z-CC-M12D												² 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.

MB-RAL

Sample Part Number: **MB-RAL155-UV365-24Z-CC**

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	3/6/2019	

SEE SHEET 2 FOR EXPLODED VIEW AND BILL OF MATERIALS		Metaphase Technologies, Inc. 211 Sinclair Road, Suite 100, Bristol, PA. 19007 215-639-8699 Fax 215-639-0977	
QUANTITY:	Per order	TOLERANCE / FINISH UNLESS OTHERWISE SPECIFIED INCHES (MM)	THIS DOCUMENT IS THE PROPERTY OF METAPHASE TECHNOLOGIES, INC. WHOM MAY LOAN IT. SUBJECT TO RETURN UPON DEMAND. IT INCLUDES CONFIDENTIAL & PROPRIETARY INFORMATION WHICH MAY NOT BE DISCLOSED TO ANY THIRD PARTY, AND/OR USED FOR ANY PURPOSE CONTRARY TO ITS INTENDED USE, WITHOUT THE EXPRESSED PRIOR WRITTEN CONSENT OF METAPHASE TECHNOLOGIES, INC.
MATERIAL:	Per BOM	.X .X .XX .XXX (R&S 2UM) ±.000 ±.010 ±.005 ANGLE: ±1° ±.75 ±.25 ±.15	TITLE AREA FRNT LIGHT, 1.1"
FINISH:	Black Anodize		USED ON Per customer
TREATMENT:	N/A		SIZE: B SCALE: 1:1 SHEET 1 OF 1

COMPLIANCE



CONTACT US

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