

Spotlight

FR-SL205

Unlike fluorescent spotlights, these LED illuminators have a long lifetime and will not degrade over time. These efficient lights consume only 11 watts of power and are six times brighter than a 60-watt incandescent. Metaphase's LED spotlight provides low cost, washdown illumination. These illuminators are available in a variety of beam angles and optimal working distances and are encased in a rugged waterproof housing that can stand up to high pressure washdown environments. The standard spotlight has a $\pm 16^\circ$ (Medium) beam angle (i.e. 1.1m coverage at 4.0m working distance). Other beam angles include $\pm 12^\circ$ (Narrow) and $\pm 25^\circ$ (Wide).



FEATURES

- Homogenous light output that provides high intensity illumination
- Rugged design, IP67 washdown rated housing
- LED thermal management for stable performance
- Swivel bracket allows for precise positioning
- Flicker free performance and instant start up with Metaphase analog driver technology
- Available in $\pm 12^\circ$, $\pm 16^\circ$ or $\pm 25^\circ$ beam angles
- An ideal light with many applications including, Spot lighting, Area illumination, Packaging transportation
- 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 (or IRN)	Infrared / 850nm
IR880 (or IRL)	Infrared / 880nm
IR940	Infrared / 940nm
UV365 (or UVS)	Ultraviolet Short / 365nm

GENERAL SPECIFICATIONS

Power Source:	24VDC $\pm 5\%$
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)

Spotlight

FR-SL205

Washdown LED Spotlight							
MODEL	Dimensions Length x Diameter Inches (cm)	Lens Diameter Inches (cm)	Weight lbs (grams)	Cable QTY	Cable Length	Cable Description	Maximum Input Current @24VDC
FR-SL205	3.16" x Ø3.15" (8.0cm x Ø8.0cm)	Ø1.77" (Ø4.5cm)	1.2 (550)	1	10ft	24 AWG 4 Wire	.65A
FR-FD205 [Special Order, FDA approved]	1.42" x Ø3.15" (3.6cm x Ø8.0cm)	Ø1.77" (Ø4.5cm)	.40 (180) [no heatsink]				.65A

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)

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 BCP-508-2 connector to interface with the ULC-2 "LED Output"

**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).

FR-SL205

Model Number Key						
Model	Color (Wavelength)	Option	Connector	Beam Angle	Custom Option	
FR-SL205	XXX	XXX	XX	X	XXX	
FR-SL205	W (White 6000K, Nominal) R (Red 630nm) G (Green 530nm) B (Blue 470nm) IR850 (or IRN) (Infrared 850nm) IR880 (or IRL) (Infrared 880nm) IR940 (Infrared 940nm) UV365 (or UVS) (UV Short 365nm) UV395 (or UVL) (UV Long 395nm) Choose one	24 (+24VDC) U (ULC-2 Controller) KEY (Keyence Controller) ILD (In-Line Dimmer) ILS (In-Line Strobe) Choose one	T (M12 Conn.) BC (Barrel Conn.) Choose "T" or leave blank	N ($\pm 12^\circ$) M ($\pm 16^\circ$) W ($\pm 25^\circ$) Choose one or leave blank for M, $\pm 16^\circ$ beam angle	XXX Customizable per order (ie. Customer's initials) XXM Custom cable length (ie. 12M for 12 meters) Choose all that apply	

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.

Washdown LED Spotlight

PRODUCT DATA SHEET



FR-SL205

Sample Model Number: **FR-SL205-W-24**

Technical drawing showing side, front, and rear views of the FR-SL205 Washdown LED Spotlight. Dimensions include: 3.16 [80.19] (side view), 4.59 [116.60] (total height), 3.00 [76.20] (height to lens), 3.75 [95.19] (front diameter), 2.00 [50.80] (mounting hole diameter), 1.00 [25.40] (mounting hole offset), 360° PIVOT ADJUSTMENTS, MOUNTING BRACKET, MOUNTING HOLES 3X Ø .22 [5.56], WATER PROOF STRAIN RELIEF, HEAT SINK, POWER CABLE, and DIRECTION OF LIGHT.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	5/25/2013	
B	CHANGED SCREW SPECS.- SHEET 2 ITEM 15	7/15/2013	
C	ADDED SEAM GASKET AND LENS SEALANT	01/03/2017	
D	ADDED CORRECT LENS SEALANT AND DELETED OLD ORING	2/1/2017	
F	ASSEMBLY PROCEDURE UPDATED	6/26/2017	
G	BRACKET PART NUMBER CLARIFICATION	12/27/2017	
H	BOM LINK AND PART NUMBER UPDATES	2/23/2018	

Metaphase Technologies, Inc. 211 Sinclair Road, Suite 100, Bristol, PA. 19007 215-639-8699 Fax 215-639-0977

SEE SHEET 2 FOR EXPLODED VIEW AND BOM

Approval Signature _____ / / Date _____

QUANTITY:	Per order	TOLERANCE/FINISH UNLESS OTHERWISE SPECIFIED	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.	TITLE	METAPHASE LIGHTING TECHNOLOGIES	
MATERIAL:	Per BOM			INCHES [MM]	Top Assy - FRSL Light	
FINISH:	Black Anodized	X .XX .XX .XXX [0.0015]	ANGLES ±1°	USED ON	Per customer	
TREATMENT:	N/A	±.030 [±.76] ±.010 [±.25] ±.005 [±.13]		SIZE	B	QUANTITY NUMBER
			SCALE 1:2 SHEET 1 OF 1			

COMPLIANCE



IP67

CONTACT US

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