

# Medical MRI Operating Room Troffers: ML-MRIOS-LED

1x4, 2x2 and 2x4 LED Surface Luminaires

- **For use in MRI Featured Advanced Surgical Suites**
- **IP65 Rating**
- **Non-Ferrous Construction**
- **MIL-461 Compliant with purchase of filters**
- **B.A.A. Compliant & Made in the USA by a Family Owned US Corporation**



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## ORDERING GUIDE

Series	Material	Size	Row Qty.	LED Type	CCT	Voltage	Mounting	Optics	Options
<b>ML-MRIOS</b>	<b>5</b>			<b>LEDR</b>		<b>UNV</b>	<b>IND</b>		

Series	Material	Size	Light Source			Voltage	Mounting	Optics	Options
			Row Qty.	LED Type	CCT/Dim Type				
ML-MRIOS	5 White Alum Hsg. & White AM Alum Door	1x4 1' x 4' Housing	1	LEDR	83 CRI:	UNV-120V-277V*	IND Individual	<b>ASY</b> Diffusing Optics Assembly With Linear Prismatic Asymmetric Distribution <b>SYM</b> P12 Prismatic Lens <b>FROST</b> 0.125" Flat Diffusing Frost Acrylic <b>LBW</b> 0.125" Flat Diffused Acrylic with Linear Batwing Distribution <b>GH85</b> 0.125" Flat Diffused Acrylic with Glare Suppression Distribution <b>AB20</b> 0.125" Flat Diffused 20 Degree Asymmetric Distribution	<b>FC</b> Fuse & Holder (One Supplied Per Circuit) <b>EM10</b> 10W Integral LED EM (Specify Input Voltage) <b>PxL*</b> Programmed to User Specified Lumen Value. <b>PxW*</b> Programmed to User Specified Wattage Value. <b>10KV</b> 10KV Parallel Surge Protection (One Supplied Per Circuit) Note*: Specify Value in Ordering Notes Below
			2		830 3000K				
			2		835 3500K				
			3		840 4000K				
			4		850 5000K				
			2		90+ CRI:				
		2x2 2' x 2' Housing	2	935 3500K					
			3	940 4000K					
			4	950 5000K					
			2x4 2' x 4' Housing	2					
				3					

Note: Voltage listed above is the Remote Driver input voltage. The output voltage or fixture voltage is determined by the drive but less than 60Vdc

Note\*: SYM option is standard and will be provided when no other option is selected

Ordering Notes, if Applicable

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## SPECIFICATIONS

**HOUSING:** One piece, seam welded, hole free .040" 3003 aluminum construction. Complete construction is non-magnetic.

**DOOR FRAME:** .040" 3003 aluminum one piece inset door frame hinged to housing with two stainless steel cables. Secured by captive stainless steel screws.

**GASKETS:** Closed cell 100% pure neoprene gasket with vulcanized corners making a one-piece oil and solvent resistant gasket system. Four .312" dia. mounting holes and a removable gasketed wiring access plate with supply entry via 1/2" trade size flattened knockouts.

**OPTICS:** Standard "SYM" lens provided is a 12 Prismatic Acrylic Lens. ASY Lens option provides a linear prismatic lense with 20 degree beam distribution with frosted overlay. Both SYM & ASY options are installed with the smooth side of the lens facing the room for easy clean-ability. Other optics options are available.

**LEDS:** Commercially available in a wide variety of Color Temperature (CCT), FLUX, and CRI. Highly efficient and consistent color maintained to 3 SDMC for color critical applications. B50/L70 and compliant with Zhaga recognized hole patterns. Consult factory for LED options or configurations not listed below.

**ELECTRICAL:** Constant current static low voltage DC provided from included remote driver. Driver is designed to operate without affecting the measurement equipment. Drivers are 0-10v dimming standard and are supplied with the fixtures in an remote enclosure. Proprietary MRI Entrance filters comply with MIL-461 for conducted emissions and must be purchased separately.

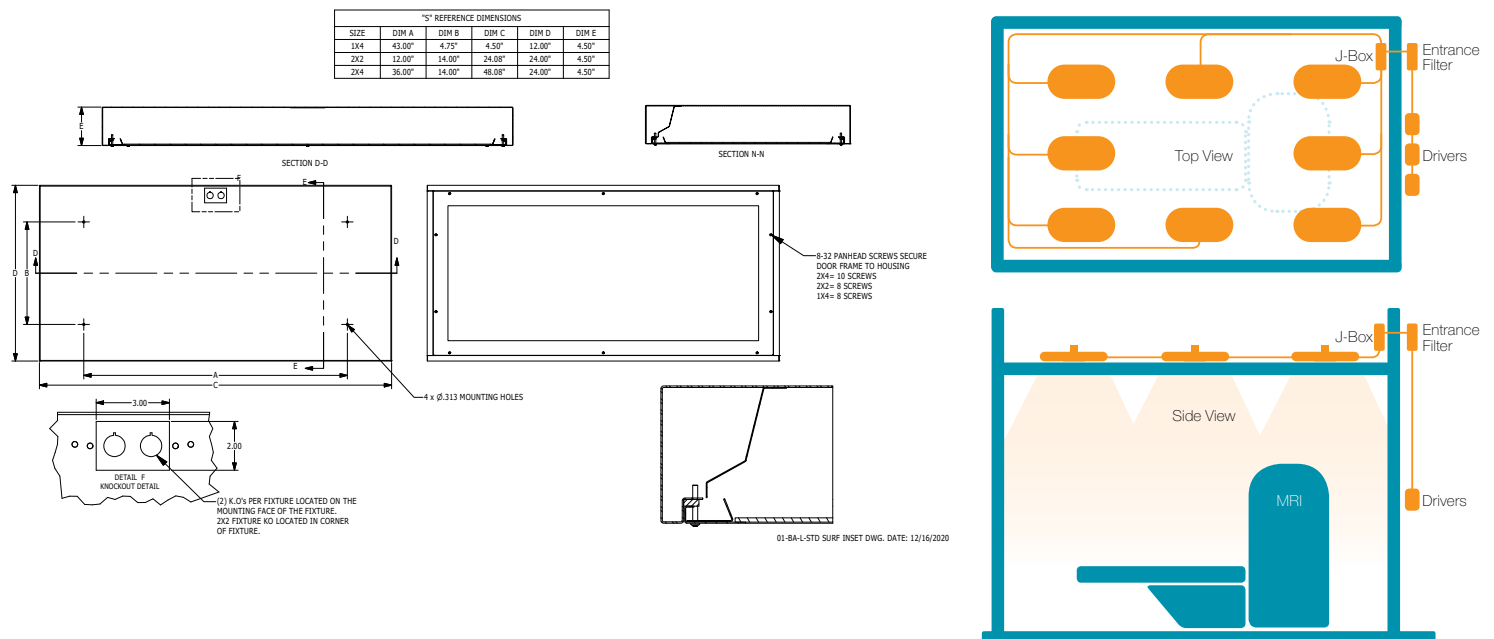
**REFLECTOR:** Die formed non-ferrous metal with high reflectance white polyester powder coat finish. Typical reflectivity 92%.

**INSTALLATION:** Fixtures are supplied with .875" flattened knockouts for supply entry. Suitable for surface installation onto covered ceilings only.

**DOOR FINISH:** White Dupont Alesta using Agion silver ion antimicrobial powder coat finish standard.

**LISTINGS:** Military Standard 461F compliant for conducted and radiated emissions. IP65 rated for dust and water ingress. Suitable for 1700 PSI high pressure hosesdowns. ETL listed per UL\_1598 for wet locations. Certified ISO-14644-1 for class 5 through class 9 cleanspaces. Certified Fed Std 209E for Class 100 through Class 100,000 cleanspaces. Drivers and LEDs are covered by a 5 year warranty, the remaining fixture is covered by a 10 year warranty. This product is Buy American Act (B.A.A.) compliant.

## PRODUCT DRAWINGS



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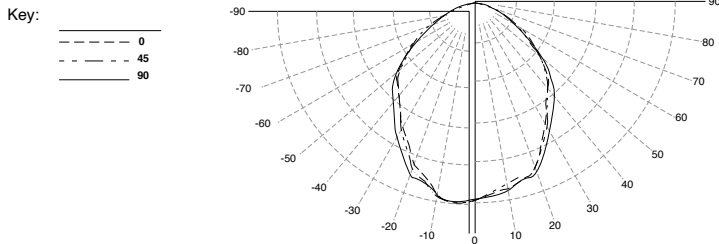
## ENERGY DATA

INSET MRI-FGRS-LED TROFFER (APPROX <sup>1</sup> LUMENS DELIVERED)										
ENCLOSURE SIZE	LIGHT PACKAGE	80 CRI (3000K - 5000K)				90 CRI (3500K, 4000K)				STANDARD DIMMING
		LUMENS	WATTS <sup>2</sup>	EFFICACY <sup>3</sup>	MAX AMB TEMP <sup>4</sup>	LUMENS	WATTS <sup>2</sup>	EFFICACY <sup>3</sup>	MAX AMB TEMP <sup>4</sup>	
1X4	1LEDR	3,034	29	105	45°C (113°F)	2,924	29	101	45°C (113°F)	0-10V 1%
1X4	2LEDR	6,067	55	110	45°C (113°F)	5,848	56	105	45°C (113°F)	0-10V 1%
1X4	EM10	1050-1130	4	NA	40°C (104°F)	790-1050	4	NA	40°C (104°F)	NA
2X2	2LEDR	2,986	29	103	45°C (113°F)	2,881	29	99	45°C (113°F)	0-10V 1%
2X2	3LEDR	4,479	42	107	45°C (113°F)	4,321	42	103	45°C (113°F)	0-10V 1%
2X2	4LEDR	5,972	55	109	45°C (113°F)	5,761	56	103	45°C (113°F)	0-10V 1%
2X2	EM10	1030-1170	4	NA	40°C (104°F)	800-1040	4	NA	40°C (104°F)	NA
2X4	2LEDR	6,718	55	122	45°C (113°F)	6,428	56	115	45°C (113°F)	0-10V 1%
2X4	3LEDR	10,077	83	122	45°C (113°F)	9,642	83	116	45°C (113°F)	0-10V 1%
2X4	EM10	1221-1340	4	NA	40°C (104°F)	950-1160	4	NA	40°C (104°F)	NA

- <sup>1</sup> DELIVERED LUMEN DATA IS EXTRAPOLATED FROM MEASURED DATA @25C WITH NO EXTRA OPTIONS. VARIANCES WILL OCCUR WHEN OPTIONS ARE CHOSEN
- <sup>2</sup> WATTAGE IS MEASURED WITH 4000K SELECTION @ 120vAC AND T<sub>ambient</sub> = 25C. WATTAGES MAY VARY WITH ALTERNATE CONFIGURATIONS
- <sup>3</sup> EFFICACY CALCULATED USING 4000K CCT DATA.
- <sup>4</sup> MAX AMBIENT TEMP RATING, NON-IC INSTALLATION TEMP RATING MAY VARY WITH SPECIFIED DRIVERS OR ANY NON STANDARD SELECTION
- <sup>5</sup> 90 MINUTE 10W EMERGENCY DRIVER; LUMENS CALCULATED BASED ON FIXTURE EFFICACY.

## PHOTOMETRICS

### ASYMMETRIC



### SYMMETRIC

