

Medical MRI Operating Room Troffers

2x2 and 2x4 Surface & Recessed LED Luminaires

- For use in MRI Featured Advanced Surgical Suites
- IP65 Rating
- Non-Ferrous Construction
- One fixture suitable for Lay-in or Hard lid installations
- Row Mounting Available
- Mil-461 Compliant with purchase of filters



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ORDERING GUIDE

Series	Installation Type	Material	Size	Source	CCT	Voltage	Mounting	Options
ML-MRI								
ML-MRI	OR: Recessed (Suitable for Flange & Grid) OS: Surface	5: White AM Alum Hsg. & White AM Alum Door	2x2: 2' x 2' Housing 2x4: 2' x 4' Housing	2/LEDR 3/LEDR 4/LEDR 2/LEDR 3/LEDR	80 CRI: 830 = 3000K CCT 835 = 3500K CCT 840 = 4000K CCT 850 = 5000K CCT 90 CRI: 935 = 3500K CCT 940 = 4000K CCT 950 = 5000K CCT	UNV: 120V-277V* *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.	IND Individual CRM Continuous Row Mount <i>CRM suitable for hardlid ceilings only.</i>	FC: Fuse & Holder (One Supplied Per Circuit) EM10: 10W Integral LED EM (Specify Input Voltage) FROST: Flat Frosted Lens PxL: Programmed to User Specified Lumen Value.∞∞ PxW: Programmed to User Specified Wattage Value.∞∞ 10KV: 10KV Parallel Surge Protection (One Supplied Per Circuit) ASY: Asymmetric Distribution Lens REQUIRED ACCESSORIES ORDERED SEPARATELY: MRIF3: Three circuit filter for 3 fixtures MRIF6: Entrance filter for 6 fixtures MRIF9: Entrance filter for 9 fixtures

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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: Extruded closed cell Nitrile gasketing located at interface of door and housing. Silicone seal between lens and door frame

LENS: Standard Lens Provided is a Symmetric P12 Acrylic. See options for Frosted or Asymmetric distribution Lensing.

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. Entrance filters 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. Recessed housings have (4) swing out toggle arms that are used to draw the fixture in to the ceiling for hard lid installation without the need for a yoke hanger. The toggle arm adjuster bolts are accessible from the room side of the luminaire and the actual toggles can be used as means of establishing a seismic support for lay in ceiling installations.

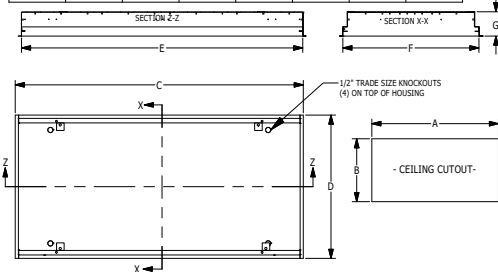
CRM: Continuous Row Mounting (CRM) option provides a means of securing luminaires to each other end to end in straight rows only. While all recessed luminaires are suitable for thru wiring, the CRM option is only available for Hard lid installation. CRM fixtures come with flanges on 2 of the 4 sides so that the luminaires can mount to each other without the appearance of a larger gap between the two fixtures. Endcaps are factory installed based upon customer provided row configuration information and the Ceiling cutouts can be determined as shown on the CRM installation instructions that can be found on our website.

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

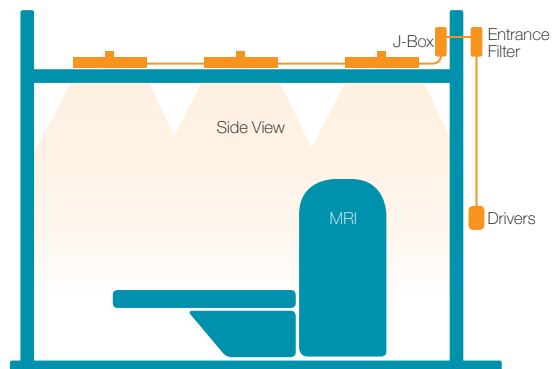
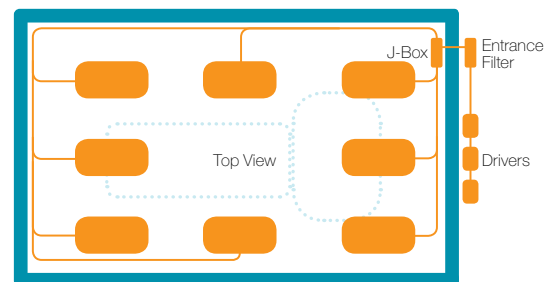
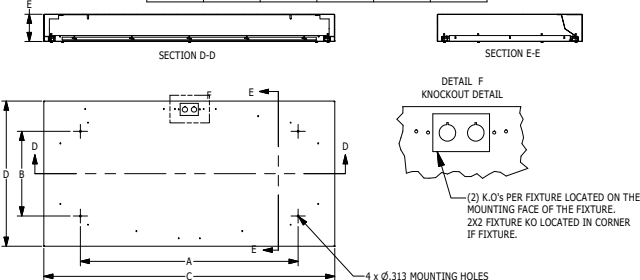
LISTINGS: Military Standard 461F compliant for conducted and radiated emissions. IP65 rated for dust and water ingress. Suitable for 1700 PSI high pressure hosedowns. ETL listed per UL_1598 for wet locations. Chicago Plenum Rated. Certified ISO-14644-1 for class 5 through class 9 cleanspaces. Certified 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.

PRODUCT DRAWINGS

"R" HOUSING REFERENCE DIMENSIONS							
SIZE	A	B	C	D	E	F	G
1X4	47.00"	11.00"	47.63"	11.69"	46.50"	10.50"	4.00"
2X2	23.00"	23.00"	23.63"	23.69"	22.50"	22.50"	4.00"
2X4	47.00"	23.00"	47.63"	23.69"	46.50"	22.50"	4.00"



"S" REFERENCE DIMENSIONS					
SIZE	DIM A	DIM B	DIM C	DIM D	DIM E
1X4	43.00"	4.75"	4.50"	12.00"	4.50"
2X2	12.00"	14.00"	24.08"	24.00"	4.50"
2X4	36.00"	14.00"	48.08"	24.00"	4.50"



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ENERGY DATA

INSET MRI-FGRS-LED TROFFER (APPROX ¹ LUMENS DELIVERED)										
ENCLOSURE SIZE	LIGHT PACKAGE	STANDARD DIMMING	80 CRI (3000K - 5000K)				90 CRI (3500K, 4000K)			
			LUMENS ¹	WATTS ²	EFFICACY ³	MAX AMB TEMP ⁴	LUMENS ¹	WATTS ²	EFFICACY ³	MAX AMB TEMP ⁴
2X2	2LED	0-10V 1%	3,400	35	97	40°C (104°F)	2,822	32	88	40°C (104°F)
2X2	3LED	0-10V 1%	5,100	53	96	40°C (104°F)	4,233	48	88	40°C (104°F)
2X2	4LED	0-10V 1%	6,800	68	100	40°C (104°F)	5,644	62	91	40°C (104°F)
2X2	EM10	NA	960-1000	4	NA	40°C (104°F)	880-910	4	NA	40°C (104°F)
2X4	2LED	0-10V 1%	7,100	68	104	40°C (104°F)	5,800	62	94	40°C (104°F)
2X4	3LED	0-10V 5%	10,600	103	103	40°C (104°F)	8,800	94	94	40°C (104°F)
2X4	EM10	NA	1040-1080	4	NA	40°C (104°F)	950-980	4	NA	40°C (104°F)

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

PHOTOMETRICS

ML-MRI-OR-X-2X4-3/LED835-UNV

Report No: 103055287CHI-001
 Total Lumens: 10,607
 Wattage: 103.2
 Efficacy: 102.8 (Lumens Per Watt)
 Fixture Size: 2'x4'
 Key:
 - - - - - 0
 ······ 45
 ———— 90

