

MEDMASTER ENVELA® Luminaires for MRI/Imaging Suites

ME11MRI SERIES

PRODUCT FEATURES:

- » Ceiling mount – 1'x1'
- » Non-ferrous construction safe for sensitive MRI equipment
- » Dimmable LED with same output as 32-watt CFL
- » Tool-less access for relamping and maintenance



PROJECT INFORMATION

Job Name _____

Fixture Type _____

Catalog Number _____

Approved by _____

SPECIFICATIONS

HOUSING: .032" aluminum. One-piece seam welded construction. Black TGIC polyester powder coat – 5-stage pre-treatment. Salt spray test: 1,000 hours.

HOUSING FLANGE: .050" aluminum standard 4-piece construction, spot-welded to housing. Mitered and welded corners.

REFLECTOR/LENS ASSEMBLY: .032" aluminum. One-piece seam-welded construction. Tool-free lamp access. White high reflectance (94%) low gloss TGIC polyester powder coat – 5-stage pre-treatment. Salt spray test: 1,000 hours. Antimicrobial white high reflectance low gloss finish on exposed surfaces.

LAMP SHIELDING: Fully gasketed, sealed luminous shield of impact resistant DR acrylic. See Ordering Information for lens options.

INSTALLATION: Designed for 1" and Slot-T grid.

ELECTRICAL: Replaceable high-brightness ANSI 3000K, 3500K or 4000K LED array. 80 CRI minimum standard, 90 CRI available on 3000K lamp. Luminaire input 24V DC from remote-mounted, 120-240V AC, high power factor power supply (MRIPS-312, ordered separately). Dimming capability controlled through compatible 0-10V dimmer (supplied by others). Dimming capability range 10% to 100%. MRI room EMI filter required (supplied by others).

PHOTOMETRICS: Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For additional photometric data, please go to www.kenall.com.

WARRANTY: One (1) year warranty against defects in materials and workmanship. Five (5) year warranty on LED lamps and driver for defects resulting in a fixture lumen depreciation of 30% or greater.

LISTINGS: UL and CUL Listed for Wet Location. UL certified IP64 per IEC 60598. NSF2 Splash/Non-Food Zone.



ORDERING INFORMATION (Ex: ME11MRI-G-24L35K-24VDC-FA)

Model	Mounting	Lamp Type	Voltage	Lens Type
ME11MRI			24VDC	
	Mounting Option	Lamp Type	Voltage	Lens Type
	G Grid (1")	24L30K 24 Watt 3000K LED	24VDC 24 Volts DC	FA Frost DR Acrylic
	ST Slot-T	24L30KH 24 Watt 3000K LED (90 CRI)	(MRIPS-312	CAP Clear DR Acrylic with Internal Perforation
		24L35K 24 Watt 3500K LED	Power Supply	
		24L40K 24 Watt 4000K LED	required—ordered separately)	

MRI LUMINAIRE CONNECTION PER POWER SUPPLY		
Luminaire Number	Amps/Luminaire	Max Luminaires/Power Supply/Room
ME11MRI	1.4	8



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P: 800-4-Kenall

F: 262-891-9701

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MEDMASTER ENVELA®

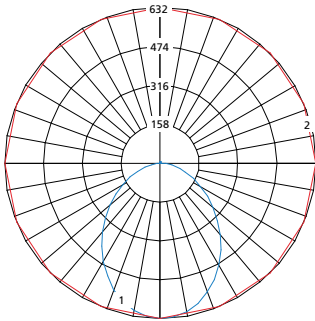
ME11MRI SERIES – TECHNICAL DATA

PERFORMANCE

Lamp Type	Initial Delivered Lumens		Input Power (W)	Drive Current (mA)	Estd. L70 LED Life (Hrs)
	@ 25°C (lm)	Efficacy (lm/W)			
24L30K	1458	42	34	700	100,000
24L30KH	1274	37	34	700	100,000
24L35K	1560	45	34	700	100,000
24L40K	1778	52	34	700	100,000

Displayed information is for selected luminaires only. Additional wattages and color temperatures are also available. Consult IES files at www.kenall.com.

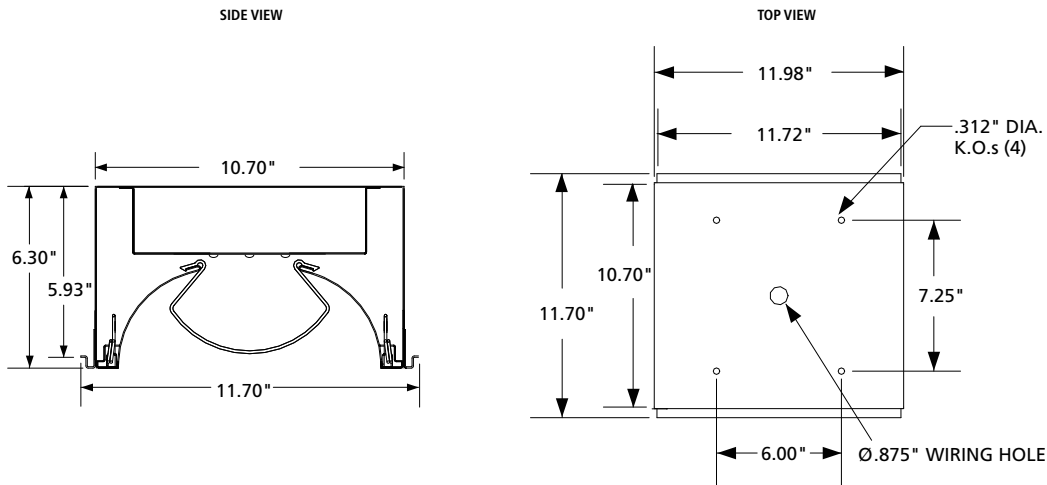
Model: ME11MRI-G-24L30K-24VDC-FA



Maximum Candela = 632 Located At Horizontal Angle = 0, Vertical Angle = 0

- 1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

DIMENSIONAL DATA



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ME11MRI SERIES



IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed, including the following:

THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED. DISCONNECT POWER TO ALL CIRCUITS BEFORE WIRING FIXTURE. INSTALL IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL CODES. DO NOT CONNECT TO AN UNGROUNDED SUPPLY. READ ALL FIXTURE MARKINGS AND LABELS TO ENSURE CORRECT INSTALLATION OF FIXTURE. SUPPLEMENTAL INSTRUCTIONS MAY BE LOCATED ON THE FIXTURE, IN ADDITION TO THIS INSTRUCTION SHEET, REGARDING ORIENTATION, OR MOUNTING RESTRICTIONS.

SAVE THESE INSTRUCTIONS

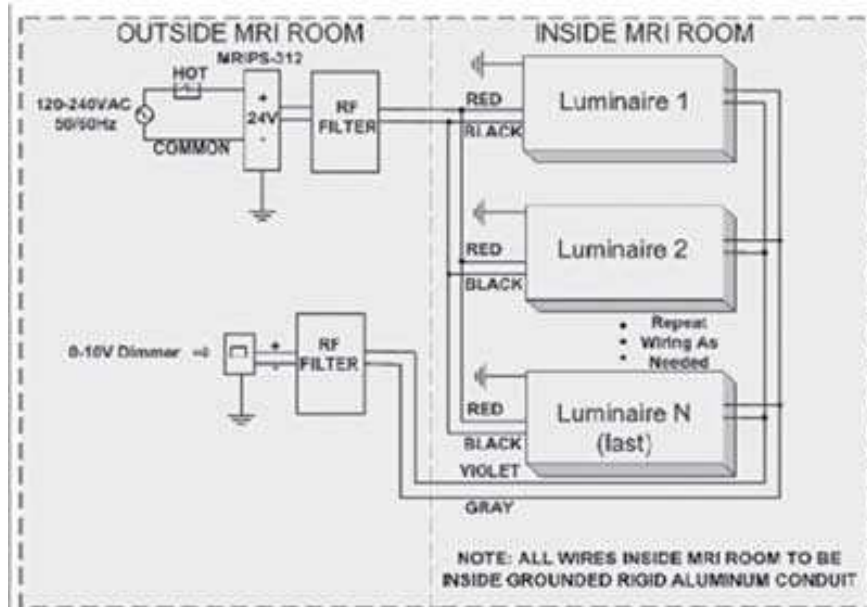
INSTALLATION INSTRUCTIONS

ELECTRICAL CONNECTION

1. Mount and wire the MRIPS-312 external power supply per the procedures provided in the supplementary instruction sheet. Run conduit and DC wiring to an MRI room EMI filter sized to the load of the power supply (supplied by others). Make sure wiring is completely enclosed in grounded aluminum conduit. Any gaps, regardless of size, must be closed or wrapped in copper foil tape.
2. If a 0-10V dimmer is to be connected, install at this time. Dimmer must be installed outside the shielded MRI environment with an intermediate MRI room EMI filter to the luminaires. Kenall recommends using a Leviton® IllumaTech™ IP710 series dimmer or Grafik Eye GRX-TVI control interface. Contact Kenall for suitability of using an alternate sink-type 0-10V dimmer.

WARNING: ALL DC POWER AND DIMMING SIGNAL WIRING MUST BE RUN THROUGH SEPARATE EMI FILTERS.

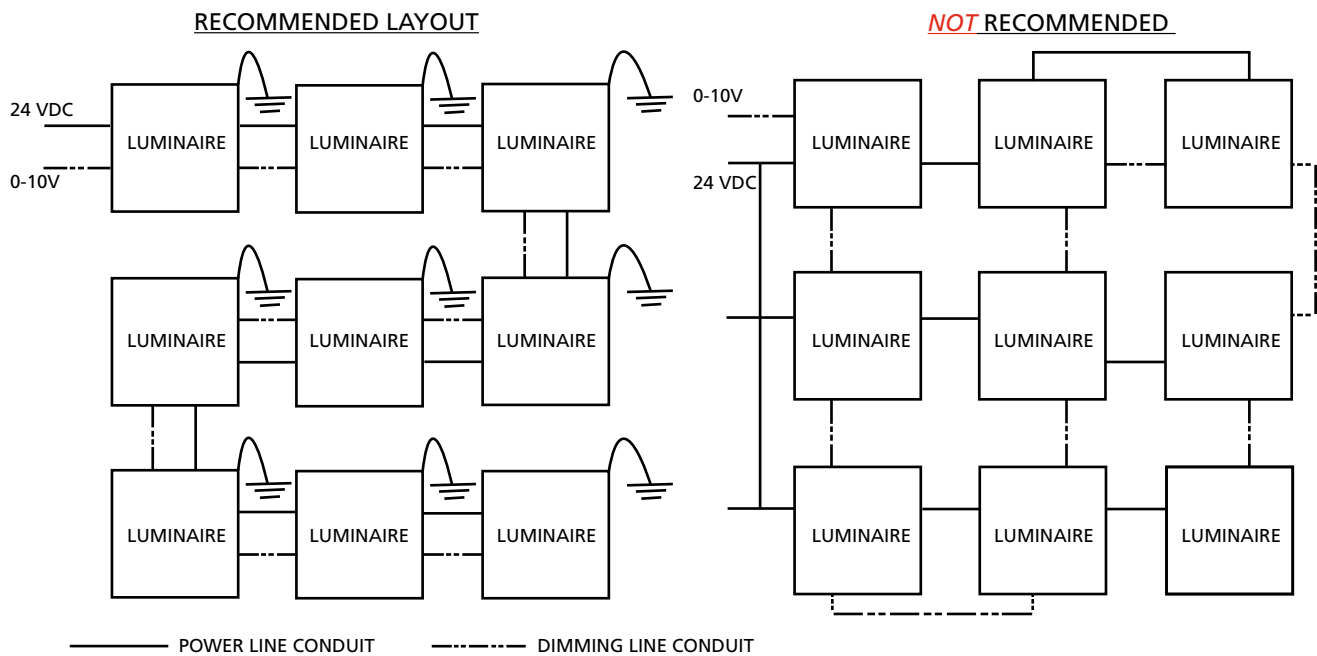
3. Remove junction box cover and make conduit connections to the appropriate 1/2" knockout(s).



NOTE: 24VDC and Dimming Wires to be run through same conduit.



4. Run the 24VDC supply from the EMI filter to the luminaire(s) using at least 18 AWG wires rated at least 90C. See Figure 4. Class 1 wiring is required. Make sure wiring is completely enclosed in grounded aluminum conduit. Any gaps, regardless of size, must be closed or wrapped in copper foil tape. Special attention should be paid to the wiring entry point into the shielded space.
5. Run the dimming signal (if applicable) from the dimmer EMI filter to the luminaire(s) using at least 18AWG wires. Make sure wiring is completely enclosed in grounded aluminum conduit. Any gaps, regardless of size, must be closed or wrapped in copper foil tape. Special attention should be paid to the wiring entry point into the shielded space.
6. Using at least an 18 AWG wire, ground the last housing in the sequence to the shielded ceiling. This can be done by fastening the wire the copper ground wire in the luminaire’s junction box.
7. Make DC supply and (optional) dimmer control connections within each luminaire. Cap gray and violet leads if dimmer is not connected. See Figure 4.
8. Replace junction box cover and seal both covers using supplied copper foil tape.



Wiring from fixture to fixture and grounding the final fixture is recommended.



CUSTOMER SERVICE

For technical assistance, call 1-800-4KENALL (1-800-453-6255).

WARRANTY

When installed to these instructions, this product is warranted by Kenall to be free of defects in workmanship and materials for a period of one year from the date of invoice. The DC power supply contained in the external power supply carries a three year warranty from the date of invoice. The warranty is void if all power and dimming signal wiring is not completely shielded in grounded aluminum conduit and installed with a suitable MRI room filter (by others).

Kenall reserves the right to issue credit, repair, or replace the defective merchandise, at its discretion, upon notification and confirmation by its local representative of the defect. Kenall also reserves the right to test and examine the defective product if the defect is questionable and to deny the warranty herein for any product altered, improperly installed, installed in applications for which it is not intended. This includes operation in ambient temperatures above stated limits for any length of time. Failure by electrical surge shall not be covered under warranty.

Kenall assumes no responsibility for labor or freight costs incurred in connection with the installation, removal, or replacement of products determined to be defective or any other consequential or incidental damages arising from the use of the product. Kenall's entire liability on any claim of loss or damage resulting from a defective product is limited to the replacement price of the product. The foregoing warranty is exclusive of all other warranties and no other warranties of any kind are expressed or implied.



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CUSTOMER ACKNOWLEDGEMENT

Customer acknowledges that these Installation Instructions are part of the product specification, and that the attached Installation Registration Form will be provided to the installer to sign and return to Kenall after installation is complete. This signed release is required by Kenall before order will be released into production.

Signature: _____

Date: _____

Print Name: _____

Company Name: _____

IMPORTANT SAFEGUARDS

To prevent MRI machine interference, all DC power and dimming signal wiring must be completely shielded within grounded aluminum conduit and a suitable MRI room EMI filter must be installed on each line.

When using electrical equipment, basic safety precautions should always be followed, including the following:
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SAVE THESE INSTRUCTIONS

- Disconnect power to all circuits before wiring system.
- Install in accordance with all national, state, and local codes.
- Do not connect to an ungrounded supply.
- Wiring connections must be made internal to the enclosure.
- Failure to install unit on a mechanically-sound surface may result in personal injury, physical damage, or potential fire hazard.
- Use installation procedures appropriate for an environment involving MRI and sensitive electronic equipment.
- Read all markings and labels to ensure correct installation of the power supply. Supplemental instructions may be located on the enclosure, in addition to this instruction sheet, regarding orientation, or mounting restrictions.
- Read instructions provided with the MedMaster™ MRIPS-312 external power supply for proper installation and electrical connection to the lighting system.



**CUSTOMER ACKNOWLEDGEMENT
MRI INSTALLATION REGISTRATION FORM**

Customer acknowledges that the attached Installation Registration Form will be provided to the installer to sign and return to Kenall after installation is complete. For warranty purposes, please fill out this form and return to Kenall by fax at (847) 360-1781.

I certify that the lighting installation for the listed MRI suite location is completed per the provided installation instructions and to the best of my abilities.

Please check off items to denote status:

- Installation instruction sheets for MRIPS-312 power supply and individual luminaire(s) read and followed.
- MRIPS-312 power supply and EMI filters are located outside the shielded enclosure.
- All DC supply wiring is completely enclosed within grounded aluminum conduit. Installation has no ungrounded/unshielded portions of conduit or openings of any size or shape.
- All dimming signal wiring is completely enclosed within grounded aluminum conduit. Installation has no ungrounded/unshielded portions of conduit or openings of any size or shape. Check here if dimming is not applicable:
- MRI Room EMI filters for the 24VDC supply are of the type intended for MRI suites and are sized to the electrical load.
- DC supply power and dimming signal are NOT running through the same EMI filter. Check here if dimming is not applicable:
- Lighting system fully tested (including dimming operation, if applicable) while MRI machine is in idle and scan operation mode.

If any of these steps cannot be completed or you need technical assistance, please contact Kenall Technical Support at 1-800-4KENALL (1-800-453-6255).

Electrical Contractor

Installation Site

Name: _____

Name: _____

City/State: _____

City/State: _____

Phone: _____

FAX FORM TO (847) 360-1781

Installation Date: _____

(Do not write below line)

Kenall Received By: _____ Received Date: _____



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