

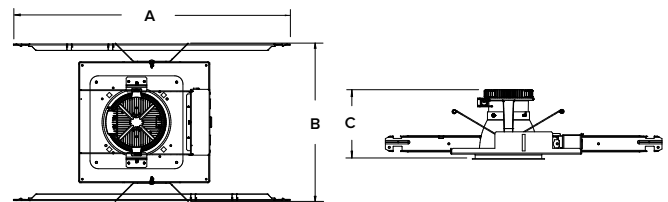
LTR-6RD (MRI)

6" ROUND COMPLEX ENVIRONMENT DOWNLIGHT
MRI

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

FEATURES

- 6" round architectural LED downlight delivering 600 – 6000 lumens
- Standard with non-ferromagnetic construction, options/accessories and remote power supply as required for MRI applications
- Five beam distributions and wall wash assist in targeted illumination of patient, equipment and diagnostic related tasks
- 50° cutoff to source and source image provides a low glare, calming environment for patients with enhanced visual acuity necessary for clinical staff
- Options for color temperature range from 2700K– 5000K in 80+ or 90+ CRI support a wide array of procedural related tasks
- Aluminum anodized reflectors are available in a wide array of colors and finishes



Typical Dimensions and Weights			
Lumen Package	"A" Length Inches (mm)	"B" Width Inches (mm)	"C" Height Inches (mm)
06L - 15L	24.0 (610)	15.34 (390)	5.90 (150)
20L - 30L	24.0 (610)	15.34 (390)	6.68 (170)
35L - 45L	24.0 (610)	15.34 (390)	7.86 (200)
50L - 60L	24.0 (610)	15.34 (390)	9.04 (230)

See DIMENSIONS section for complete details

SPECIFICATIONS

CONSTRUCTION

- Non-ferromagnetic platform has pre-installed bar hangers for simple installation
- Light engine connections use plenum rated (CMP) cable
- Remote Driver Enclosure (RDE) houses remote power supply required for MRI applications

OPTICS

- Visually pleasing 50° cutoff to source and source image
- The light distribution is free of distracting bright spots or pixelation and the perimeter has a smooth transition
- Optical grade silicone lens is integral to the light engine to ensure precise beam control
- High purity aluminum reflector enables reliable and consistent finish and color
- Large selection of anodized finishes and colors
- Painted cones and flange options available

ELECTRICAL

- Chip-on-board LED with 2 SDCM
- Multiple CCTs, 80+ or 90+ CRI
- Long LED life: L90 at >55,000 hours (TM-21)

Remote Driver Cabinet (RDE)

- Universal voltage 120V–277V driver
- UL Class 2, inherent short circuit and overload protection
- Flicker free 0–10V dimming to 1%

INSTALLATION

- Accommodates ceiling thickness up to 2" (See DIMENSIONS section for details)
- Non-ferromagnetic adjustable mounting brackets and bar hangers included
- Light Engine fully serviceable from above or below the ceiling
- Remote driver cabinet requires MRI EMI lighting filters provided by others. (See ADDITIONAL INFORMATION section for details)

CERTIFICATIONS

- CSA certified
- Suitable for wet location (under covered ceiling)
- SL and ML Trim options comply with MIL-STD-461G for electromagnetic compatibility
- SL and ML Trim options comply with IEC / EN 6061-1-2:2020 for basic safety and performance for electromagnetic compatibility with medical electrical equipment and systems

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	600–6000
Wattage Range	8–61**
Efficacy Range (LPW)	80–119*
Reported Life (Hours)	L90 / >55,000

*Based on 35K, 80 CRI
**Wattage per trim

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ORDERING GUIDE

Example: LTR-6RD-H-MRI / LTR-6RD-T-MRI-SL35K8MD-SS / RDE-LTR-SL10LDM1-1

CATALOG #	
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HOUSING

LTR-6RD-H	MRI
Aperture/Shape/Function	Housing Type
LTR-6RD-H 6" Round Downlight New Construction Housing	MRI MRI / Scanning (Non-ferromagnetic)

TRIM

Aperture/Shape/Function	Lumen Package	CCT	CRI	Distribution	Reflector Finish	Reflector Color	Flange Color Options	Reflector Options
LTR-6RD-T-MRI 6" Round Non-ferromagnetic Downlight Light Engine /Trim Assembly	SL Standard Lumen ML Medium Lumen HL High Lumen ⁸ VL Very High Lumen ⁸	27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K ¹	8 80+ CRI 9 90+ CRI	VNR Very Narrow (0.3 SC/18°) NR Narrow (0.5 SC/29°) MD Medium (0.6 SC/37°) WD Wide (0.9 SC/59°) XW Extra Wide (1.1 SC/76°) WW Single Wall Wash ²	Finish not applicable with painted reflectors (WC or BC) S Specular SS Semi- Specular MFC American Matte™ VS Softglow® VSS SoftSheen™	Standard Clear CG Champagne Gold BL Black LW Light Wheat PW Pewter WC Painted White Cone and Flange BC Painted Black Cone and Flange	Standard matches reflector color WT White Flange ³ BT Black Flange ³	AM Antimicrobial Coating ⁴
LTR-6RW-T-MRI 6" Round Non-ferromagnetic Wall Wash Light Engine/ Trim Assembly ²								

REMOTE DRIVER CABINET ^{5, 6, 7}

RDE-LTR	Lumen Package	Lumen Output	Driver Options	Number of Drivers
Remote Driver Cabinet				
RDE-LTR Remote Driver Cabinet for use with LTR MRI Downlights	SL Standard Lumen ML Medium Lumen HL High Lumen VL Very High Lumen	06L 600 10L 1000 15L 1500 20L 2000 25L 2500 30L 3000 35L 3500 40L 4000 45L 4500 50L 5000 55L 5500 60L 6000	DM1 0-10V Dimming to 1%	1 1 Driver 2 2 Drivers 3 3 Drivers 4 4 Drivers 5 5 Drivers 6 6 Drivers 7 7 Drivers 8 8 Drivers

Notes:

- 1 5000K available in 80+ CRI only.
- 2 Wall wash trim requires WW distribution option.
- 3 WT not needed for WC, BT not needed for BC.
- 4 AM available with WC or Specular Clear (S or SWT). Consult factory for other colors.
- 5 For cabinet dimensions and mounting details see DIMENSIONS section.
- 6 Cabinet contains power supply only. Filters not included and must be supplied by others.
- 7 For driver and input power information see ADDITIONAL INFORMATION section.
- 8 HL and VL options not available with MIL461G or IEC.

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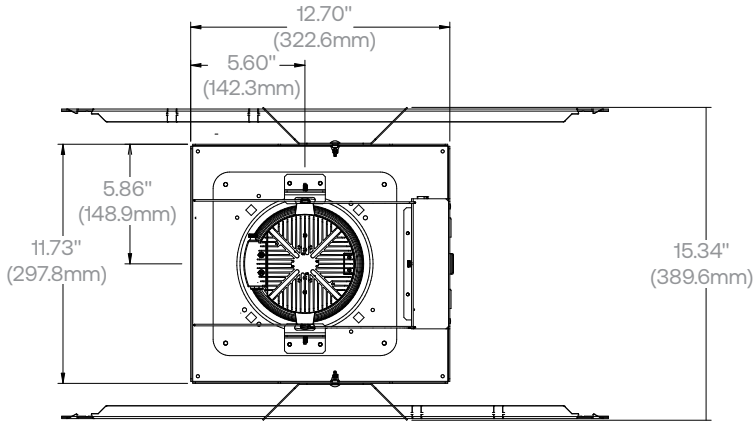
PERFORMANCE DATA TABLE (3500K, 80CRI)

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
06L	600	Very Narrow	806	7.8	103
		Narrow	717	7.8	92
		Medium	746	7.8	96
		Wide	691	7.8	89
		Extra Wide	665	7.8	85
		Wall Wash	711	7.8	91
10L	1000	Very Narrow	1288	12.0	107
		Narrow	1146	12.0	96
		Medium	1192	12.0	99
		Wide	1104	12.0	92
		Extra Wide	1063	12.0	89
		Wall Wash	1136	12.0	95
15L	1500	Very Narrow	1851	18.7	99
		Narrow	1623	18.7	87
		Medium	1712	18.7	92
		Wide	1586	18.7	85
		Extra Wide	1527	18.7	82
		Wall Wash	1631	18.7	87
20L	2000	Very Narrow	2355	22.6	104
		Narrow	2263	22.7	100
		Medium	2265	22.6	100
		Wide	2180	22.7	96
		Extra Wide	2139	22.7	94
		Wall Wash	2211	22.8	97
25L	2500	Very Narrow	3093	27.7	112
		Narrow	2751	27.7	99
		Medium	2860	27.7	103
		Wide	2650	27.7	96
		Extra Wide	2551	27.7	92
		Wall Wash	2726	27.7	98
30L	3000	Very Narrow	3686	34.3	107
		Narrow	3278	34.3	96
		Medium	3409	34.3	99
		Wide	3158	34.3	92
		Extra Wide	3040	34.3	89
		Wall Wash	3248	34.3	95
35L	3500	Very Narrow	4477	43.0	104
		Narrow	3942	43.0	93
		Medium	4140	43.0	96
		Wide	3836	43.0	89
		Extra Wide	3693	43.0	86
		Wall Wash	3946	43.0	92
40L	4000	Very Narrow	5117	51.6	99
		Narrow	4552	51.6	88
		Medium	4733	51.6	92
		Wide	4385	51.6	85
		Extra Wide	4221	51.6	82
		Wall Wash	4510	51.6	87
45L	4500	Very Narrow	5371	55.1	98
		Narrow	4775	55.1	87
		Medium	4967	55.1	90
		Wide	4602	55.1	84
		Extra Wide	4430	55.1	80
		Wall Wash	4734	55.1	86
50L	5000	Very Narrow	5740	48.7	118
		Narrow	5105	48.7	105
		Medium	5308	48.7	109
		Wide	4918	48.7	101
		Extra Wide	4734	48.7	97
		Wall Wash	5059	48.7	104
55L	5500	Very Narrow	6365	53.9	119
		Narrow	5662	53.9	105
		Medium	5887	53.9	109
		Wide	5454	53.9	101
		Extra Wide	5250	53.9	97
		Wall Wash	5610	53.9	104
60L	6000	Very Narrow	7090	60.7	117
		Narrow	6299	60.7	104
		Medium	6557	60.7	108
		Wide	6075	60.7	100
		Extra Wide	5848	60.7	96
		Wall Wash	6249	60.7	103

LTR-6RD (MRI)

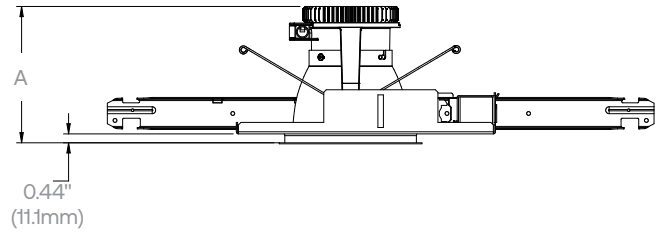
6" ROUND COMPLEX ENVIRONMENT DOWNLIGHT
MRI

DIMENSIONS



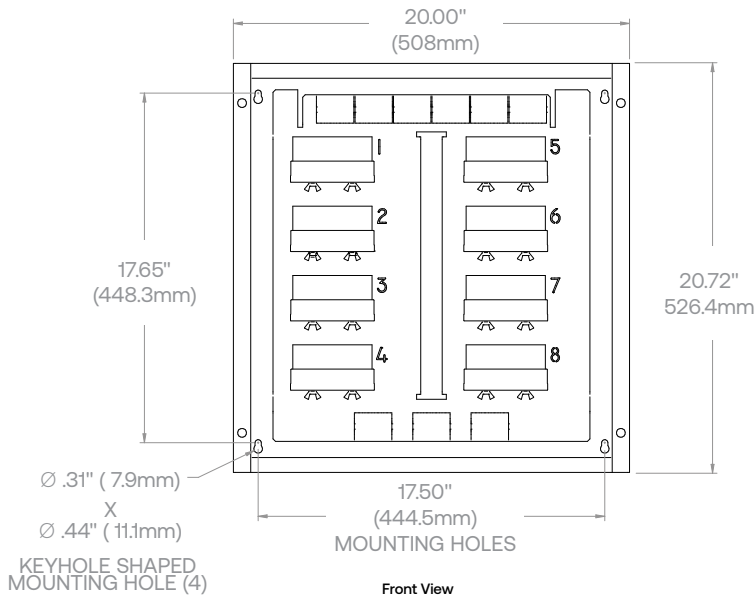
Top View

LTR-6RD-H MRI New Construction

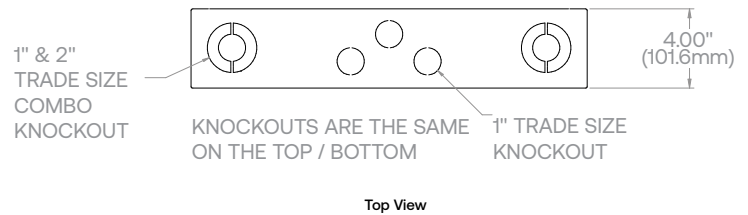


Lumen Package	"A"
06L-15L	5.90" (149.9mm)
20L-30L	6.68" (169.7mm)
35L-45L	7.86" (199.6mm)
50L-60L	9.04" (229.6mm)

Dimensional Data	
Aperture Opening	Ø 5.75" (146.1 mm)
Overall Flange	Ø 7.00" (177.8mm)
Ceiling Cutout	Ø 6.50" (165.1mm)
Ceiling Thickness	0.50" to 2.00" (12.7 mm to 50.8 mm)



Front View



Top View

RDE-LTR Remote Driver Cabinet

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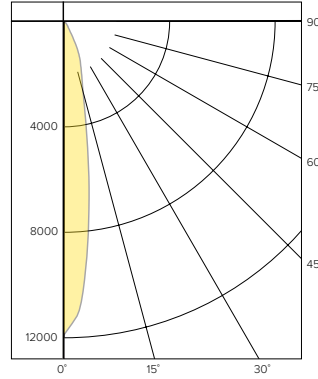
PHOTOMETRY

LTR-6RD-H-MRI / LTR-6RD-T-MRI-ML35K8VNR-SS / RDE-LTR-ML20LDM1-1

LUMINAIRE DATA

Test No.	19.00588
Description	2000 lm, Very Narrow, 3500K, 80 CRI
Delivered Lumens	2355
Watts	22.6W
Efficacy	104
Mounting	Recessed
Spacing Criterion	0.3
Beam Angle (FWHM)	18

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	11881
5	9399
15	2776
25	1236
35	255
45	74
55	0
65	0
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	6247
55°	0
65°	0
75°	0
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

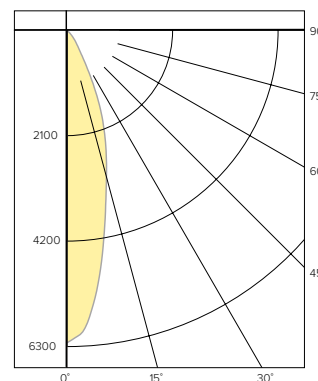
Zone	Lumens	% Luminaire
0-40	2290	97.2
0-60	2355	100.0
0-90	2355	100.0
0-180	2355	100.0

LTR-6RD-H-MRI / LTR-6RD-T-MRI-ML35K8NR-SS / RDE-LTR-ML20LDM1-1

LUMINAIRE DATA

Test No.	20.01439
Description	2000 lm, Narrow, 3500K, 80 CRI
Delivered Lumens	2263
Watts	22.1W
Efficacy	103.0
Mounting	Recessed
Spacing Criterion	0.5
Beam Angle (FWHM)	29

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	6222
5	5603
15	3035
25	1354
35	348
45	83
55	5
65	2
75	1
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	6712
55°	498
65°	271
75°	221
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

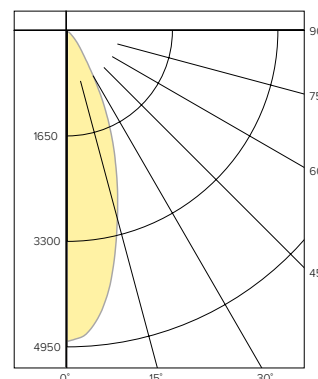
Zone	Lumens	% Luminaire
0-40	2185	96.6
0-60	2260	99.9
0-90	2263	100.0
0-180	2263	100.0

LTR-6RD-H-MRI/ LTR-6RD-T-MRI-ML35K8MD-SS / RDE-LTR-ML20LDM1-1

LUMINAIRE DATA

Test No.	19.00587
Description	2000 lm, Medium, 3500K, 80 CRI
Delivered Lumens	2265
Watts	22.6W
Efficacy	100.0
Mounting	Recessed
Spacing Criterion	0.6
Beam Angle (FWHM)	37

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	4851
5	4619
15	3007
25	1450
35	386
45	99
55	6
65	2
75	1
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	8357
55°	624
65°	282
75°	231
85°	0

*Candela/Square Meter

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	2171	95.9
0-60	2262	99.9
0-90	2265	100.0
0-180	2265	100.0

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PHOTOMETRY CONTINUED

LTR-6RD-H-MRI / LTR-6RD-T-MRI-ML35K8WD-SS / RDE-LTR-ML20LDM1-1

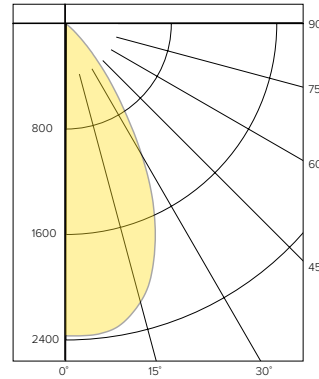
LUMINAIRE DATA

Test No.	19.00585
Description	2000 lm, Wide, 3500K, 80 CRI
Delivered Lumens	2180
Watts	22.6W
Efficacy	96.1
Mounting	Recessed
Spacing Criterion	0.9
Beam Angle (FWHM)	59

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	2014	92.4
0-60	2176	99.8
0-90	2180	100.0
0-180	2180	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	2368
5	2371
15	2189
25	1591
35	726
45	177
55	10
65	3
75	1
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	14942
55°	1041
65°	424
75°	231
85°	0

*Candela/Square Meter

LTR-6RD-H-MRI / LTR-6RD-T-MRI-ML35K8XW-SS / RDE-LTR-ML20LDM1-1

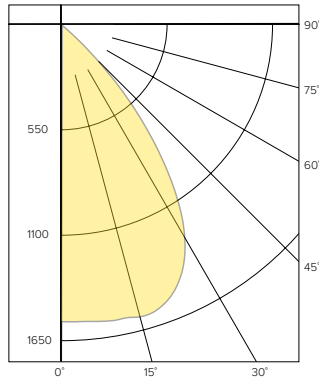
LUMINAIRE DATA

Test No.	19.00586
Description	2000 lm, Extra Wide, 3500K, 80 CRI
Delivered Lumens	2139
Watts	22.7W
Efficacy	94.4
Mounting	Recessed
Spacing Criterion	1.1
Beam Angle (FWHM)	76

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1875	87.7
0-60	2134	99.8
0-90	2139	100.0
0-180	2139	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1547
5	1552
15	1576
25	1461
35	1007
45	301
55	9
65	3
75	1
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	25409
55°	937
65°	424
75°	231
85°	0

*Candela/Square Meter

LTR-6RD-H-MRI / LTR-6RW-T-MRI-ML35K8WW-SS / RDE-LTR-ML20LDM1-1

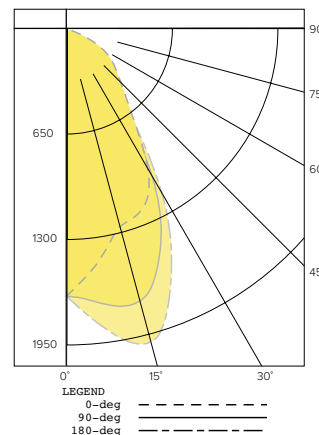
LUMINAIRE DATA

Test No.	19.00862
Description	2000 lm, Single Wall Wash, 3500K, 80 CRI
Delivered Lumens	2211
Watts	22.8W
Efficacy	96.9
Mounting	Recessed

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1842	83.3
0-60	2143	96.9
0-90	2211	100.0
0-180	2211	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1776
5	1639
15	1362
25	1260
35	828
45	520
55	374
65	212
75	62
85	7
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	43896
55°	38921
65°	29943
75°	14299
85°	4794

*Candela/Square Meter

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PHOTOMETRY CONTINUED

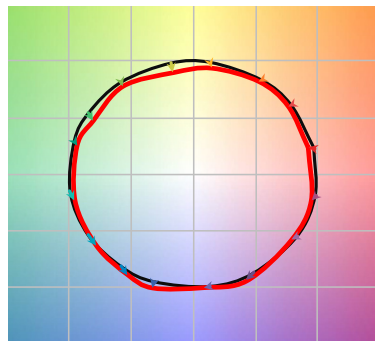
LUMEN MULTIPLIER

Option	27K8	30K8	35K8	40K8	50K8	27K9	30K9	35K9	40K9
Multiplier	0.94	0.98	1.00	1.01	1.02	0.81	0.84	0.85	0.85

Photometrics are published below at a nominal 3500 Kelvin, 80+ CRI. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

TM-30 DATA

COLOR VECTOR GRAPHIC
3500K, 90 CRI



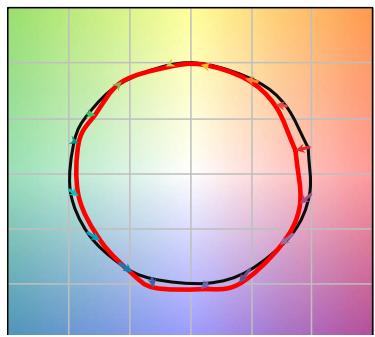
— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC
3500K, 90 CRI



TEST RESULTS - 3500K		
Value	80+ CRI	90+ CRI
R_f	84	88
R_g	95	95
CCT (K)	3411	3419
D_{uv}	0.0015	0.0042
x	0.4120	0.4147
y	0.3974	0.4052
CIE R_a	84	93
CIE R_g	11	62

COLOR VECTOR GRAPHIC
3500K, 80 CRI



— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC
3500K, 80 CRI



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ADDITIONAL INFORMATION

Dimming Compatibility

For more details and recommended dimmer list, see Dimming Compatibility Information on currentlighting.com/lifeshield.

Remote Driver Cabinet (RDE)

WARNING: The Remote Driver Enclosure contains electronic devices and ferrous parts that could damage or interfere with the function of the MRI equipment if placed inside the MRI shield.

DO NOT PLACE THE REMOTE DRIVER ENCLOSURE INSIDE THE MRI RF SHIELD!

DO NOT ATTACH the Remote Driver Enclosure to the MRI RF shield!

See RDE Remote Driver Cabinet Installation instructions on currentlighting.com/lifeshield for complete details.

REMOTE DRIVER CABINET (RDE) ELECTRICAL DATA	
Input Voltage	120-277 V
Input Frequency	50/60 Hz
Power Factor	≥0.90
THD	<20%

UL Class 2, inherent short circuit and overload protection with 0–10V dimming to 1%

EMI FILTERS

An appropriately rated MRI EMI filter (supplied by others) is REQUIRED to be used on each driver/luminaire circuit to prevent interference and degradation of the MRI image. The EMI Filters should be rated for the DC voltage and current output of each of the driver/luminaire circuits. Use the MRI Trim Electrical Data table for determining the MRI EMI filter ratings needed.

Some suggested MRI EMI Lighting Filters are:

TE Corcom 1-1609091-3, 1-1609091-4, and 1-1609091-5

Astrodyne TDI 059 Series MRI EMI Filters

ETS-Lindgren MRI EMI Filters

MRI TRIM ELECTRICAL DATA				
Volts DC	Amps	Lumen Output	Cat. Logic	Optical Dist.
34	0.165	600 (06L)	SL	VNR
34	0.280	1000 (10L)		
34	0.420	1500 (15L)		
34	0.550	2000 (20L)	ML	NR
34	0.700	2500 (25L)		
34	0.870	3000 (30L)		
34	1.050	3500 (35L)	HL	WD
34	1.250	4000 (40L)		
34	1.330	4500 (45L)		
51.1	0.850	5000 (50L)	VL	XW
51.1	0.940	5500 (55L)		
51.1	1.250	6000 (60L)		