

CATALOG #	TYPE	
JOB NAME	WATTAGE	VOLTAGE

SmartLED™ MRI Lighting System

6" Open Appearance Downlight

Up to 60,000 Hour Life • Type IC

LM-80 Qualified • LM-79 Certified Photometry

Specifications

Delivered System Performance

- Lumen Series: **MUST SPECIFY**
- 5000L: 5000 nominal lumens (55W)
- 4000L: 4000 nominal lumens (42W)
- 2500L: 2500 nominal lumens (35W)
- Distribution: MFL standard; optional: -SPT, -NFL, or -WFL
- Color temperature: 3500°K standard; optional: -27K, -30K, -41K, or -50K
- CRI: 80+ standard; optional: -HC (90+)
- 60,000 hour life (L70)
- Fully sustainable: removable for servicing

Thermal Management System

- Aluminum heat sink and components for cool operation, long life, and low maintenance

SmartLED™ MRI Lighting System Required

- Kirlin remote driver modules, cabinet, and RFI filters required for operation
- Components ordered separately, see below for driver information and [MRI-CABNT](#) for additional components
- The [MRI Configurator](#) can help determine the necessary components
- SmartLED driver modules provide 0-10V dimming to 0.38%

SmartLED™ Emergency Backup System

- [EMI-21220](#) or [EMI-03120](#) available for emergency power
- See specification sheet; order separately

Trim and Lens Assembly

- Clear specular aluminum self-flanged, low glare cone with lens above
- Optional colors and finishes available

Acrylic Enamelled Aluminum Housing

- Rustproof and corrosion resistant: exceeds 1000 hour ASTM 5% salt spray test; all components fully sustainable
- Shallow depth for restricted plenums
- Cool operation extends component life
- Modular design; visible and fully serviceable through aperture
- Built-in plaster flange

Outlet Box (Aluminum)

- UL listed J-box; prewired with ½" knockouts

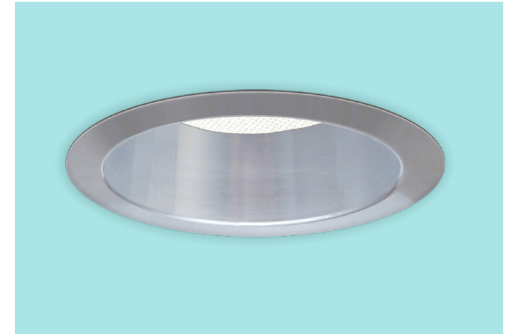
Installation & Hardware

- Requires minimum 18 AWG twisted pair shielded wire from SmartLED™ MRI Lighting System to fixtures
- Recesses in ceilings up to 1-1/8" thick or see Option -79
- Aluminum 27" hanger bars with adjustable mounting brackets (2) supplied.

UL, C-UL (Canada) Listings

- Wet, damp or dry locations, covered ceilings
- Type IC: for direct contact with insulation

MRR-06420



IEC & FCC Compliance

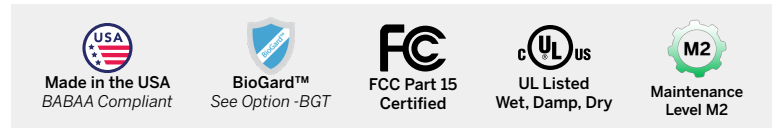
- FCC Part 15 certified for EMI/RFI emissions

FIVE YEAR Limited Warranty

- Complete fixture, must be installed with all SmartLED™ components

Maintenance and Future-Proofing

- M2 maintenance level standard- non-ferromagnetic phillips head screwdriver, and/or a basic wrench needed
- Lighthead, driver replaceable through the aperture of the fixture with quick-connections, no soldering required
- Backed by Kirlin's [25-Year Legacy Support Guarantee](#)



Available Maintenance Levels

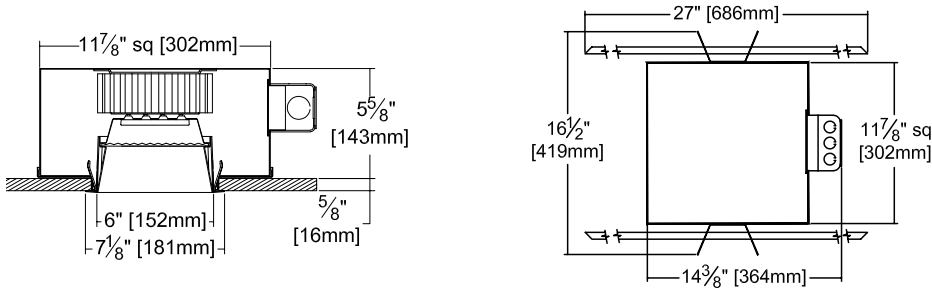
Level	Option	Tools Required to Service LED Module and Driver
	MRI	<ul style="list-style-type: none"> ⊗ • Non-ferromagnetic phillips head screwdriver, and/or a basic wrench needed

Options and Ordering Configuration

(Example: MRR-06420-2500L-30K-NFL)

Must Specify		Optional			
Model	Lumens	CCT & CRI	Beam	Trim & Lens Options	Other Options
MRR-06420					
	-5000L -4000L -2500L	(Blank): 35K, 80+ CRI 80+ CRI -27K: 2700°K -30K: 3000°K -35K: 3500°K -41K: 4000°K -50K: 5000°K 90+ CRI -27K-HC: 2700°K -30K-HC: 3000°K -35K-HC: 3500°K -41K-HC: 4000°K -50K-HC: 5000°K	(Blank): MFL -SPT -NFL -MFL -WFL	(Blank): Clear specular aluminum self-flanged downlight cone with lens above Trim Finishes -30T: All white acrylic enameled cone -30F: White acrylic enameled cone flange -70T: SofTex™ semi-specular clear self-flanged cone -BGT: BioGard anti-microbial white -BKBG: BioGard anti-microbial black -94: Custom color; consult factory -94BG: BioGard anti-microbial custom color finish Other Trim Features -32: White trim extender, specify OD -45: Gasket between trim flange and ceiling -46: Gasket between trim and lens Lens Options -WA: White acrylic (flat) diffuser instead; will produce wide flood distribution	(Blank): None Mounting -79: Extension collar; ceilings up to 2" thick Other Options -99: Special modification; consult factory

Dimensions



Ceiling Cut-out
6 1/2" Dia.

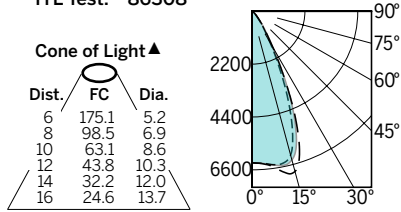
Photometry - Installed Complete Fixture

LM-79 IES Certified Photometry from Independent Lab

-5000L STANDARD -MFL

Lumens: 4746
 Beam: ~46°
 SC: 0.9
 LPW: 82
 Efficiency: 79.8%
 ITL Test: 86308

Total System Watts 57.9

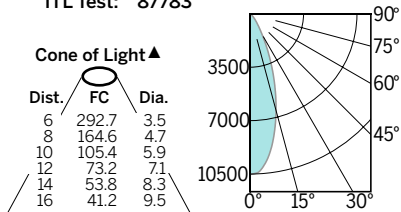


	CANDLEPOWER DISTRIBUTION				
	0.0	22.5	45.0	67.5	90.0
0	6305	6305	6305	6305	6305
5	6365	6377	6394	6382	6375
15	6196	6520	6904	6702	6406
25	2889	3126	3440	3492	3430
35	781	778	855	873	902
45	219	226	256	246	237
55	57	62	60	65	59
65	3	4	2	5	4
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

-5000L Option -NFL

Lumens: 4892
 Beam: ~33°
 SC: 0.6
 LPW: 86
 Efficiency: 82.3%
 ITL Test: 87783

Total System Watts 57.2

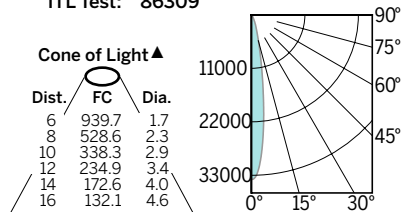


	CANDLEPOWER DISTRIBUTION				
	0.0	22.5	45.0	67.5	90.0
0	10537	10537	10537	10537	10537
5	10025	10025	10025	10025	10025
15	6555	6555	6555	6555	6555
25	2825	2825	2825	2825	2825
35	876	876	876	876	876
45	278	278	278	278	278
55	70	70	70	70	70
65	2	2	2	2	2
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

-5000L Option -SPT

Lumens: 4893
 Beam: ~16°
 SC: 0.3
 LPW: 84
 Efficiency: 82.3%
 ITL Test: 86309

Total System Watts 58.0



	CANDLEPOWER DISTRIBUTION				
	0.0	22.5	45.0	67.5	90.0
0	33830	33830	33830	33830	33830
5	26433	26433	26433	26433	26433
15	5614	5614	5614	5614	5614
25	1537	1537	1537	1537	1537
35	420	420	420	420	420
45	141	141	141	141	141
55	39	39	39	39	39
65	1	1	1	1	1
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

▲ Cone of Light Key
 Dist. Distance (Ft.) from fixture
 Dia. (in ft.) shown is where FC value is half the FC at nadir.
 FC Footcandles at nadir (0°)
 Dia. Circle of light at 50% of FC

See following page for -4000 and -2500L performance

LIMITED WARRANTY: KIRLIN LIGHTING FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALLATION, MAINTENANCE, AND REPAIR MUST BE PERFORMED BY AN AUTHORIZED SERVICE PROVIDER. THE WARRANTY DOES NOT COVER DAMAGE TO THE FIXTURE CAUSED BY IMPROPER INSTALLATION, MAINTENANCE, OR REPAIR. THE WARRANTY IS VOID IF THE FIXTURE IS USED IN A MANNER NOT INTENDED BY THE MANUFACTURER. THE WARRANTY IS VOID IF THE FIXTURE IS USED IN A MANNER NOT INTENDED BY THE MANUFACTURER. THE WARRANTY IS VOID IF THE FIXTURE IS USED IN A MANNER NOT INTENDED BY THE MANUFACTURER.

Detailed Photometry - Installed Fixture

Photometry from I.T.L., Boulder, CO

MRR-06420-4000L PERFORMANCE

-4000L STANDARD -MFL

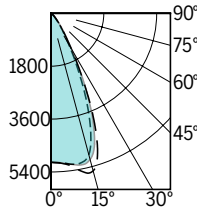
Lumens: 3816
Beam: ~46°
SC: 0.9
LPW: 88
Efficiency: 80.0%
ITL Test: 88277

Total System Watts 43.3

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	5069	5069	5069	5069	5069
5	5117	5127	5141	5131	5126
15	4982	5242	5551	5388	5150
25	2323	2513	2766	2808	2758
35	628	626	687	702	725
45	176	182	206	198	191
55	46	50	48	52	47
65	2	3	2	4	3
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	140.8	5.2
8	79.2	6.9
10	50.7	8.6
12	35.2	10.3
14	25.9	12.0
16	19.8	13.7



MRR-06420-2500L PERFORMANCE

-2500L STANDARD -MFL

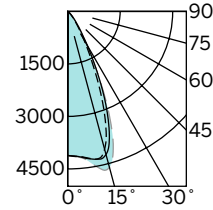
Lumens: 3058
LPW: 87
Beam: ~46°
SC: 0.8
ITL Test: 87761

Total System Watts 35.0

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	4115	4115	4115	4115	4115
5	4158	4177	4190	4176	4173
15	4075	4342	4613	4455	4231
25	1760	1960	2207	2249	2165
35	457	495	534	562	575
45	124	129	156	165	147
55	28	26	34	32	31
65	1	1	1	1	2
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	114.3	1.8
8	64.3	2.4
10	41.2	3.0
12	28.6	3.6
14	21.0	4.2
16	16.1	4.8



-4000L Option -NFL

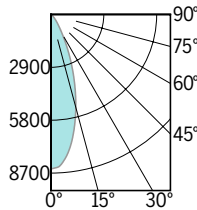
Lumens: 3933
Beam: ~33°
SC: 0.6
LPW: 92
Efficiency: 82.5%
ITL Test: 88275

Total System Watts 42.7

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	8472	8472	8472	8472	8472
5	8060	8060	8060	8060	8060
15	5270	5270	5270	5270	5270
25	2271	2271	2271	2271	2271
35	704	704	704	704	704
45	224	224	224	224	224
55	56	56	56	56	56
65	2	2	2	2	2
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	235.3	3.5
8	132.4	4.7
10	84.7	5.9
12	58.8	7.1
14	43.2	8.3
16	33.1	9.5



-2500L Option -NFL

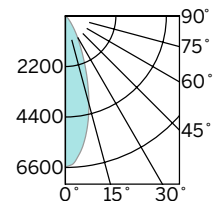
Lumens: 2922
LPW: 84
Beam: ~32°
SC: 0.6
ITL Test: 88093

Total System Watts 34.9

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	6236	6436	6436	6436	6436
5	6031	6031	6031	6031	6031
15	3869	3869	3869	3869	3869
25	1628	1628	1628	1628	1628
35	564	564	564	564	564
45	181	181	181	181	181
55	41	41	41	41	41
65	1	1	1	1	1
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	178.8	3.4
8	100.6	4.6
10	64.4	5.7
12	44.7	6.9
14	32.8	8.0
16	25.1	9.2



-4000L Option -SPT

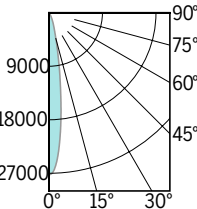
Lumens: 3934
Beam: ~16°
SC: 0.3
LPW: 91
Efficiency: 82.5%
ITL Test: 88276

Total System Watts 43.3

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	27199	27199	27199	27199	27199
5	21252	21252	21252	21252	21252
15	4514	4514	4514	4514	4514
25	1236	1236	1236	1236	1236
35	338	338	338	338	338
45	113	113	113	113	113
55	31	31	31	31	31
65	1	1	1	1	1
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	755.5	1.7
8	425.0	2.3
10	272.0	2.9
12	188.9	3.4
14	138.8	4.0
16	106.2	4.6



-2500L Option -SPT

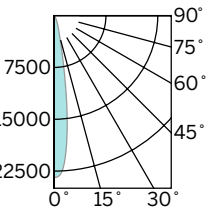
Lumens: 3168
LPW: 91
Beam: ~17°
SC: 0.3
ITL Test: 87762

Total System Watts 35.0

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	23404	23404	23404	23404	23404
5	19682	19682	19682	19682	19682
15	3163	3163	3163	3163	3163
25	915	915	915	915	915
35	247	247	247	247	247
45	72	72	72	72	72
55	18	18	18	18	18
65	1	1	1	1	1
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	650.1	1.8
8	365.7	2.4
10	234.0	3.0
12	162.5	3.6
14	119.4	4.2
16	91.4	4.8



▲ Cone of Light Key
Dist. (in ft.) shown is where FC value is half the FC at nadir.
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

LED manufacturers maintain a tolerance of +/-7% on flux (lumens) and power (electrical) measurements.

LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALLER TO N.E.C. IN NORMAL USE. Manufacturer at his option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the office of manufacturer within five years of original shipment. Liability of manufacturer is limited to the foregoing, and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is void where prohibited by law. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair, or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.

SmartLED™ MRI Driver Modules

Fully Digital Controlled Power Source for LED Luminaires

Mounted in Kirlin's [MRI-CABNT](#)

Drivers wired in series



Lumens	Driver Module	Maximum Capacity	Fixture Load Examples
-2500L	DVR-1400A	Qty 1: 2500L Luminaire	• Qty 1: MRR-06420-2500L
	DVR-1400B	Up to Qty 2: 2500L Luminaires, wired in series	• Qty 1: MRR-06420-2500L • Qty 2: MRR-06420-2500L • Qty 1: MRR-06420-2500L and Qty 1: MRR-06420-2500L
-4000L	DVR-1050A	Qty 1: 4000L Luminaire	• Qty 1: MRR-06420-4000L
	DVR-1050C*	Qty 2: 4000L Luminaires, 1 per LED output	• Qty 2: MRR-06420-4000L • Qty 1: MRR-06420-4000L and Qty 1: MRR-06420-4000L
-5000L	DVR-1400B	Qty 1: 5000L Luminaire	• Qty 1: MRR-06420-5000L

* 100W DVR-XXXXC driver modules have 2 LED outputs each.

LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR FIVE YEARS FROM DATE OF PURCHASE. INSTALL TO N.E.C. IN NORMAL USE. Manufacturer at his option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices of manufacturer within five years of original shipment. Liability of manufacturer is limited to the foregoing, and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is void where prohibited by law. Kirlin Lighting, Inc. does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abnormal use, abuse of the fixture, improper installation, or repair, or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.