

CATALOG #	TYPE	
JOB NAME	WATTAGE	VOLTAGE

# Lighting for Patient Spaces

## OR / Clean Room 7" Downlight • LED

Up to 90,000 Hour Life • Type IC • Wet Location

LM-80 Qualified • LM-79 Certified Photometry



MRR-07850-2000L  
MRR-07850-1500L



Available -  
See  
Options



### Specifications

#### Delivered System Performance\*

- Lumen Series: **MUST SPECIFY**
- 2000L: 2000 nominal lumens (25W).
- 1500L: 1500 nominal lumens (20W).
- Distribution: MFL standard.
- Optional: -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

- All aluminum heat sink, components and housing maximize cool operation and long life while minimizing maintenance.

#### LED Power Supply - INTERNAL

- Suitable for outdoor / indoor use: -30°C (-22°F) to 60°C (140°F).
- 120-277V / 50-60Hz standard. Load insensitive.
- 0-10V CCR dimming standard. (100-10%)**
- Optional remote SmartSupply™ driver instead, see Option -SS for restrictions and details.

#### Trim / Lens Assembly

- Rustproof 100% aluminum grooveless, smooth, self-flanged white trim.

- Kirlin BioGard™ antimicrobial white finish continuously inhibits growth of bacteria on the coating of the trim.
- Regressed tempered prismatic spread lens.
- IP65 5X Sealed and Gasketed**
- (1) Silicone seal between trim and lens seals lens to trim, (2) closed cell gasketing between trim and housing flange seals trim to housing, (3) closed cell gasketing on trim flange seals flange to ceiling (4) closed cell gasketing on bottom pan seals housing to ceiling and (5) neoprene O-rings on stainless steel fasteners seal fasteners to trim.
- Meets ASTM E283 restricted airflow of 2 CFM maximum.

#### Acrylic Enameled Aluminum Housing

- Rustproof and corrosion resistant: Exceeds 1000 hour ASTM 5% salt spray test.
- Shallow depth fits restricted plenums.
- Cool operation: Extends life of all components.
- Fully sustainable: Entire luminaire, including light engine, is modular, easily visible, serviced through aperture. Built-in plaster flange.
- Air tight housing and junction box. Meets/ exceeds ASTM E283 restricted airflow (2

#### Outlet Box

- UL listed J-box with insulated removable cover. Prewired 14 GA (NEC) with ½" and ¾" knockouts.

#### Installation

- Recesses indoor/outdoor in covered locations.
- Accommodates ceilings up to 1-1/8" thick.
- Compatible with fire rated enclosures (by others).
- 27" galvanized 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.
- Through-branch conductors (4 #12 AWG 90°C) for Type IC Listing.

#### IEC & FCC Compliance

- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

#### FIVE YEAR Limited Warranty

- Complete standard fixture.

MUST SPECIFY		OPTIONAL	Ordering Example: <b>MRR-07850-2000L-120-30K-NFL</b>
Product Number	Voltage	Options	
MRR-07850-2000L MRR-07850-1500L	-120 (120 volts) -277 (277 volts) -97 (Specify other)	See "Options" below	

### Options

#### Input Power: SPECIFY

- 120 120V (50-60Hz) input for thermal protector.
- 277 277V (50-60Hz) input for thermal protector.
- 97 Specify other voltage. Consult factory.

#### LED Power Supply

- D1 0-10V 1.0% dimming instead.
- D2† 0-10V 0.1% dimming instead.
- D3† DALI 1.0% dimming instead.
- D4† DALI 0.1% dimming instead.
- D5† DMX512A 0% dimming instead.
- EI REMOTE emergency inverter for 100% of rated lumens. Run time: 90+ minutes. 120 or 277V, 60Hz input only. Specify voltage. Not for use with Option -FS.

† Consult factory for use with -2000L lumen series.

- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes. CEC Compliant.

#### Color (CCT and CRI)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K instead.
- 50K Color temperature 5000°K instead.
- HC 90+ CRI instead. Consult factory.

#### Optics

- NFL Narrow flood distribution.
- SPT Spot distribution.
- WFL Wide flood distribution.

#### Lens and Trim

- I3 Clear poly lens below lens. Photometric distribution is unaffected.

- 17 Prismatic high strength acrylic lens instead.
- 23 Frosted microprismatic lens instead.
- CF Custom color filter (Rosco). Specify.
- GE Green acrylic filter mounted in lens assembly.
- NS NSF approved fixture.
- WA White acrylic (flat) diffuser instead; will produce wide flood distribution.

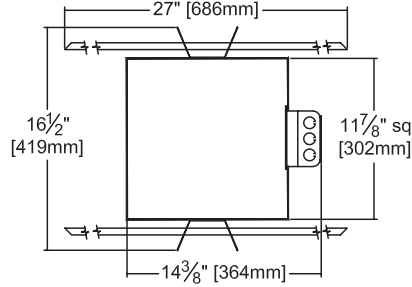
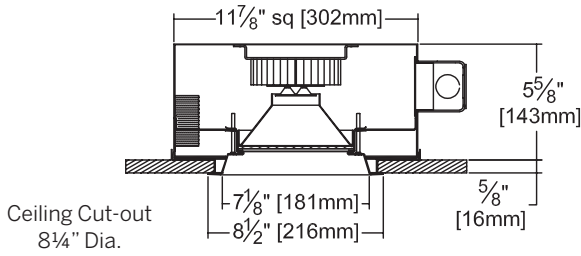
#### Other

- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.

Projected L70** for Kirlin Luminaires	
In Open Plenum	90,000 hours
In Insulation (Type IC)	60,000 hours

\*\*Hours at 70% lumen maintenance

Dimensions



Detailed Photometry - Installed Fixture

Photometric testing done in accordance with IESNA LM-79

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

▲ Cone of Light Key

Dia. (in ft.) shown is where FC value is half the FC at nadir.

Dist. Distance (Ft.) from fixture  
FC Footcandles at nadir (0°)  
Dia. Circle of light at 50% of FC

-1500L STANDARD (MFL)

Lumens: 1721  
Beam: ~45°  
SC: 0.8  
LPW: 83  
Effic: 85.1%  
ITL Test: 87190

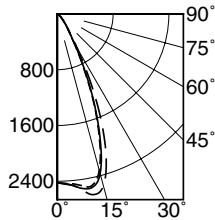


Total System Watts 20.8

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	2421	2421	2421	2421	2421
5	2446	2449	2467	2478	2469
10	2322	2445	2552	2481	2371
15	978	1116	1234	1147	1018
20	251	266	280	274	263
25	89	91	91	95	94
30	34	34	34	35	35
35	13	13	13	13	13
40	2	2	2	2	2
45	0	0	0	0	0
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	67.3	4.9
8	37.8	6.6
10	24.2	8.2
12	16.8	9.9
14	12.4	11.5
16	9.5	13.2



-1500L Option -SPT

Lumens: 1744  
Beam: ~19°  
SC: 0.3  
LPW: 83  
Effic: 86.3%  
ITL Test: 85865

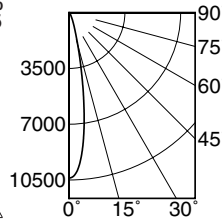


Total System Watts 21.0

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	10374	10374	10374	10374	10374
5	8968	8968	8968	8968	8968
10	2093	2093	2093	2093	2093
15	469	469	469	469	469
20	143	143	143	143	143
25	53	53	53	53	53
30	21	21	21	21	21
35	8	8	8	8	8
40	2	2	2	2	2
45	0	0	0	0	0
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	288.2	2.0
8	162.1	2.7
10	103.7	3.4
12	72.0	4.1
14	52.9	4.8
16	40.5	5.4



-1500L Option -NFL

Lumens: 1553  
Beam: ~33°  
SC: 0.6  
LPW: 74  
Effic: 76.8%  
ITL Test: 87936

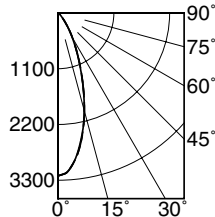


Total System Watts 20.9

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	3213	3213	3213	3213	3213
5	3035	3041	3039	3038	3032
10	2002	1982	2002	1989	1991
15	912	902	909	908	903
20	316	307	313	318	311
25	76	75	77	78	78
30	30	30	30	30	30
35	11	11	11	12	11
40	2	2	2	2	3
45	0	0	0	0	0
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	89.3	3.5
8	50.2	4.7
10	32.1	5.9
12	22.3	7.1
14	16.4	8.2
16	12.6	9.4



-1500L Option -WFL

Lumens: 1514  
Beam: ~58°  
SC: 1.1  
LPW: 71  
Efficiency: 74.9%  
ITL Test: 85867

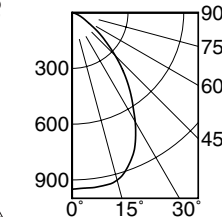


Total System Watts 21.2

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	950	950	950	950	950
5	947	947	947	947	947
10	933	933	933	933	933
15	797	797	797	797	797
20	556	556	556	556	556
25	328	328	328	328	328
30	143	143	143	143	143
35	54	54	54	54	54
40	13	13	13	13	13
45	0	0	0	0	0
90	0	0	0	0	0

Cone of Light ▲

Dist.	FC	Dia.
6	26.4	6.6
8	14.8	8.8
10	9.5	11.0
12	6.6	13.2
14	4.8	15.4
16	3.7	17.6



LM-80 Qualified • LM-79 Certified Photometry

\* LED manufacturers maintain a tolerance of ±7% on flux (lumens) and power (electrical) measurements. Kirlin photometrics are actual test data from Independent Testing Laboratories (ITL) where photometry was measured from 2022 lumen (-1500L) light engines (within the established tolerance).

LUMEN SERIES	LUMEN FACTOR	WATTAGE FACTOR	LPW FACTOR
-2000L	1.257	1.369	0.92
-1500L	1.000	1.000	1.00

LIMITED WARRANTY: CATALOGUED KIRLIN LED FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR THREE YEARS FROM DATE OF PURCHASE. INSTALLATION, E.G., IN NORMAL USE. Manufacturer at the option will replace or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture to the office of manufacturer within three 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 supplied to the buyer in place of all other warranties, expressed or implied. 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.