

SmartLED™ MRI Lighting Systems

Regress Lensed Downlight • Specular Trim

Up to 90,000 Hour Life (L70) • Type IC
LM-80 Qualified • LM-79 Certified Photometry



Use With:

- SmartSupply™ LPS-1220A
- SmartFilter™ RFI-3100D

Specifications

Delivered System Performance*

- Standard MFL distribution: 1329 delivered lumens / 63 LPW / 0.8 SC.
- -NFL: 1341 lumens / 63 LPW / 0.5 SC.
- -WFL: 1252 lumens / 60 LPW / 1.3 SC. (or see Options -27K, -30K or -41K).
- Up to 85 CRI and 90,000 hour life (L70**). For 90+ CRI, see Option -HC.
- Fully sustainable: removable for servicing.

Thermal Management System

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

SmartSupply™ (Remote Power Supply) Required - Order Separately

- Digitally controlled. Drives up to 12-15W luminaires, with 6 configurable channels. Maximum 100 ft. cable length from SmartSupply™ to fixture.
- 100-1% full range dimming in up to 3 zones.
- LPS-1220A: Compatible with 0-10V DC dimming controls. See vendor qualified list in the Owner's Manual (760412-00-00).
- Suitable for dry, non-plenum locations only with ambient temperature range of -20°C

(-4°F) to 40°C (104°F). 115 - 277V isolated circuit only; maximum input voltage 290V; 50-60 Hz.

- For more information, see specification sheet for LPS-1220A.

SmartFilter™ (RFI / EMI Filter) Required - Order Separately

- Protects up to 3 SmartSupply channels.
- For more information see specification sheet for RFI-3100D.

SmartPower™ Battery Backup

- EMI-21220 for emergency power.
- See specification sheet, order separately.
- Trim Assembly
- Seamless tapered low brightness clear aluminum self-flanged trim.
- Regressed tempered prismatic spread lens.

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 design available, see Option -AT.

Outlet Box

- Prewired. 100% aluminum. U.L. listed.

Use of SmartSupply™ and SmartFilter™ REQUIRED or Kirlin warranty is null and void

- Accessible 1/2" knockouts.

Installation

- Requires minimum 18 AWG twisted pair shielded wire from SmartSupply™ to fixtures.
- Recesses in ceilings up to 1 1/4" thick or see Option -79.
- Aluminum 27" hanger bars with adjustable mounting brackets (2) supplied.

UL, C-UL (Canada) Listings

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

CE, FCC Compliance

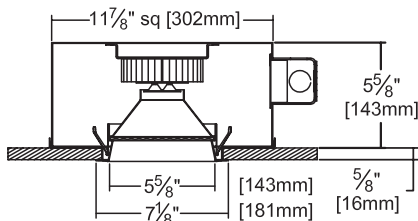
- Meets IEC/EN 60601-1-2 electromagnetic compatibility standard for medical electrical equipment.
- FCC Part 15 certified for EMI/RFI emissions.

5 Year

FIVE YEAR Limited Warranty

- Complete standard fixture.

Performance at a Glance

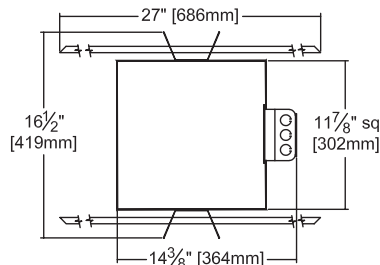


Ceiling Cut-out
6 3/4" Dia.



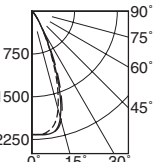
L70** for Kirlin Luminaires	
In Open Plenum	90,000 hours
In Insulation (Type IC)	60,000 hours

**Hours at 70% lumen maintenance



STANDARD (MFL) DISTRIBUTION

Lumens: 1329
Beam: ~43°
SC: 0.8
LPW: 63
Effic: 93.7%
ITL Test: 79860



Complete photometry for standard and optional distributions on next page



THE KIRLIN COMPANY

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*See note next page

SmartLED™ MRI Lighting Systems
Luminaires • SmartSupply • SmartFilter

CATALOG NUMBER

MRR-06215

DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS, TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE. THE KIRLIN COMPANY EXPECTS PHOTOMETRIC PERFORMANCE TO IMPROVE SIGNIFICANTLY AND FREQUENTLY AS LED SOURCE TECHNOLOGY IMPROVES.

Detailed Photometry - Installed Fixture

Photometric testing done in accordance with IESNA LM-79-08

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

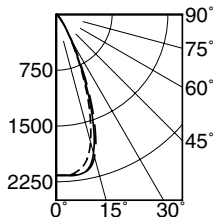
STANDARD (MFL)

Lumens: 1329
Beam: ~43°
SC: 0.8
LPW: 63
Effic: 93.7%
ITL Test: 79860



Cone of Light ▲

Dist.	FC	Dia.
6	60.1	4.5
8	33.8	6.0
10	21.6	7.5
12	15.0	9.1
14	11.0	10.6
16	8.4	12.1



Total System Watts 21.2

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	2163	2163	2163	2163	2163
5	2163	2164	2167	2169	2177
10	1774	1869	1983	1960	1930
15	741	796	864	835	787
20	201	218	212	218	208
25	60	60	58	62	62
30	23	24	24	24	23
35	10	10	10	10	10
40	2	2	2	2	1
45	0	0	0	0	0
90	0	0	0	0	0

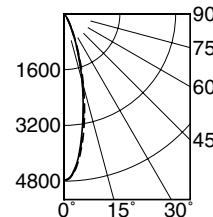
Option -NFL

Lumens: 1341
Beam: ~28°
SC: 0.5
LPW: 63
Effic: 94.5%
ITL Test: 79859



Cone of Light ▲

Dist.	FC	Dia.
6	132.4	2.7
8	74.5	3.6
10	47.7	4.5
12	33.1	5.4
14	24.3	6.3
16	18.6	7.2



Total System Watts 21.2

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	4765	4765	4765	4765	4765
5	4342	4326	4305	4274	4273
10	2147	2102	2026	1986	1993
15	626	581	546	545	570
20	151	132	121	127	132
25	34	32	33	31	31
30	11	11	13	13	11
35	6	5	5	5	5
40	1	1	1	1	1
45	0	0	0	0	0
90	0	0	0	0	0

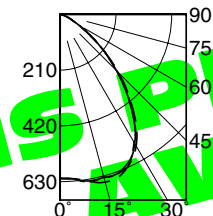
Option -WFL

Lumens: 1252
Beam: ~66°
SC: 1.3
LPW: 60
Efficiency: 77.2%
ITL Test: 83253



Cone of Light ▲

Dist.	FC	Dia.
6	17.2	3.8
8	10.1	5.0
10	6.3	6.2
12	4.2	7.5
14	3.2	8.8
16	2.4	10.0



Total System Watts 20.8

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	618	618	618	618	618
5	624	626	632	622	622
10	637	647	654	646	635
15	619	618	620	615	612
20	485	494	491	491	484
25	303	309	312	307	300
30	134	141	142	135	135
35	45	46	46	46	46
40	10	10	10	10	10
45	0	0	0	0	0
90	0	0	0	0	0

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 1418 lumen (20W) and 1622 lumen (20W -WFL) light engines (within the established tolerance).

▲ Cone of Light Key
(Dia. (in ft.) shown is where FC value is half the FC at nadir.)

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

Options

Color Temperature (CCT)

- 27K Color temperature 2700°K instead.
- 30K Color temperature 3000°K instead.
- 41K Color temperature 4100°K. Consult factory.
- HC 90+ CRI instead. Use with Option -27K or -30K only. Reduces output by ~15%.

Optics

- NFL Narrow flood distribution. (0.5 SC)
- WFL Wide flood distribution. (1.3 SC)

Trims

- 32 White oversize trim ring. Specify O.D.
- 45 Gasket between trim flange and ceiling.
- 46 Gasket between trim and lens.
- 94 Custom color/finish. Specify. Consult factory.

Other

- 79 Extension collar for up to 2" thick ceilings.
- 99 Special modification. Consult factory.
- AT Air tight medical grade sealed housing with Type IC. Meets ASTM E283 restricted airflow of 2 CFM maximum.

3 Steps To "Artifact-Free" Imaging

1. Use complete Kirlin SmartLED™ MRI system: Luminaires, RFI-3100D SmartFilter™, LPS-1220A SmartSupply™
2. Use a minimum #18 AWG twisted, shielded pair wire
3. Use a 0-10V wall box dimmer that is approved for use with SmartSupply™ (consult Owner's Manual); wall dimmers must be located outside of room shield and must not be filtered through RFI-3100D SmartFilter™

SUBMITTAL DATA

JOB NAME

TYPE

WATTAGE

CATALOG NUMBER

VOLTAGE

APPROVAL STAMP

