

CATALOG #	TYPE
JOB NAME	VOLTAGE

Surgical Suite Clean Room LED 8" Downlight

Up to 60,000 Hour Life • Wet Location

MRR-08855-5000L
MRR-08855-3500L
MRR-08855-2500L



Available -
See
Options

**LEVEL 3
INFECTION
PROTECTION**

Specifications

Delivered System Performance*

- Lumen Series: **MUST SPECIFY**
 - 5000L: 5000 nominal lumens (55W).
 - 3500L: 3500 nominal lumens (42W)
 - 2500L: 2500 nominal lumens (35W).
- 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 Protection: SPECIFY VOLTAGE

- Thermal protector for insulation detection per UL/NEC. Must specify input voltage.

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%)

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 LED light engine, is modular, easily visible and serviced through aperture.
- Built-in plaster flange.
- Sealed housing and junction box.

Outlet Box

- UL listed J-box with insulated removable

cover. Prewired 14 GA (NEC) with ½" and ¾" knockouts.

Installation

- Recess indoor or outdoor.
- Accommodates ceilings up to 1-1/8" thick or see Option -79.
- 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.
- Through-branch conductors (4 #12 AWG 90°C).

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: MRR-08855-5000L-120-30K-NFL
Product Number	Voltage	Options	
MRR-08855-5000L MRR-08855-3500L MRR-08855-2500L	-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.
- ECO Digital driver for Lutron EcoSystem controls. Dims to 1% or consult factory.

- EI REMOTE emergency inverter for 50% of rated lumens (-5000L or -3500L). Not available for -2500L. Run time: 90+ minutes. 120 or 277V, 60Hz input only. Specify voltage. Not for use with Option -FS.
- EM INTERNAL emergency battery pack. Delivers 500 lumens. Run time: 90+ minutes.
- ERH REMOTE emergency battery pack. Delivers 1000 lumens. Run time: 90+ minutes. CEC Compliant.

Color Temperature (CCT)

- 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.
- WFL Wide flood distribution.

Lens and Trim

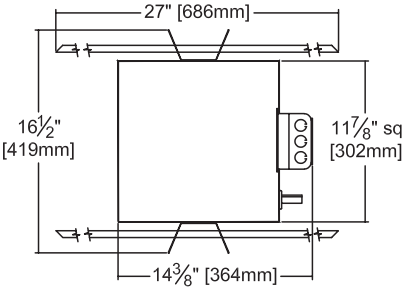
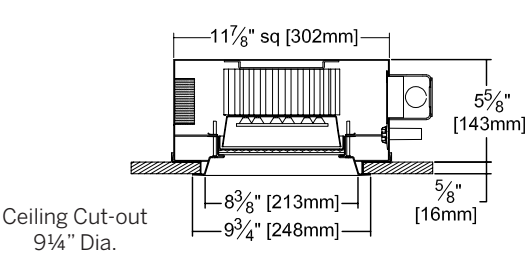
- 17 Prismatic high strength acrylic lens instead.
- 23 Frosted microprismatic lens instead.
- 94 Custom color/finish. Specify. Consult factory.
- CF Custom color filter (Rosco). Specify.
- GE Green acrylic filter mounted in lens assembly.
- NS NSF approved fixture.
- WA White acrylic (flat) diffuser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

Other

- 79 Extension collar for up to 2" thick ceilings.
- 99 Special modification. Consult factory.
- FS Single in-line fuse. Not for use with Option -EI.

¹ Marked Spacings Caution: Install with minimum spacings as follows: 2 feet between centers of adjacent fixtures; 1/2" between fixture top and overhead building member; 1 foot between fixture center and side wall.

Dimensions



Detailed Photometry - Installed Fixture

Photometric testing done in accordance with IESNA LM-79

Photometry from UL Verification Services, Allentown, PA

-5000L STANDARD (MFL)

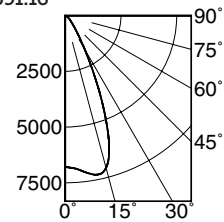
Lumens: 5310
Beam: ~46°
SC: 0.8
LPW: 94
Efficiency: 89.3%
UL Test: 11356591.16



Total System Watts 56.7

Cone of Light ▲

Dist.	FC	Dia.
6	188.0	5.1
8	106.0	6.7
10	67.8	8.4
12	47.1	10.1
14	34.6	11.8
16	26.5	13.5



CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	6783	6783	6783	6783	6783
5	6936	6936	6936	6936	6936
15	7069	7069	7069	7069	7069
25	3370	3370	3370	3370	3370
35	927	927	927	927	927
45	359	359	359	359	359
55	172	172	172	172	172
65	78	78	78	78	78
75	24	24	24	24	24
85	5	5	5	5	5
90	1	1	1	1	1

-5000L Option -NFL

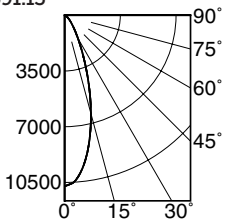
Lumens: 5298
Beam: ~32°
SC: 0.6
LPW: 89
Efficiency: 89.1%
UL Test: 11356591.15



Total System Watts 59.6

Cone of Light ▲

Dist.	FC	Dia.
6	298.0	3.4
8	168.0	4.5
10	107.0	5.7
12	74.6	6.8
14	54.8	7.9
16	42.0	9.1



CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	10740	10740	10740	10740	10740
5	10130	10130	10130	10130	10130
15	6389	6389	6389	6389	6389
25	2708	2708	2708	2708	2708
35	1068	1068	1068	1068	1068
45	477	477	477	477	477
55	210	210	210	210	210
65	83	83	83	83	83
75	30	30	30	30	30
85	6	6	6	6	6
90	0	0	0	0	0

-5000L Option -WFL

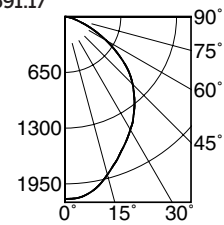
Lumens: 4416
Beam: ~57°
SC: 1.1
LPW: 74
Efficiency: 74.3%
UL Test: 11356591.17



Total System Watts 59.4

Cone of Light ▲

Dist.	FC	Dia.
6	59.0	6.5
8	33.2	8.7
10	21.2	10.8
12	14.8	13.0
14	10.8	15.2
16	8.3	17.3



CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	2125	2125	2125	2125	2125
5	2112	2112	2112	2112	2112
15	1907	1907	1907	1907	1907
25	1645	1645	1645	1645	1645
35	1394	1394	1394	1394	1394
45	1115	1115	1115	1115	1115
55	749	749	749	749	749
65	367	367	367	367	367
75	115	115	115	115	115
85	25	25	25	25	25
90	1	1	1	1	1

See following page for
-3500L and -2500L
performance

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 UL Verification Services (UL) where photometry was measured from 5946 lumen (-5000L) light engines (within the established tolerance).

▲ 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

SUBMITTAL DATA

APPROVAL STAMP

JOB NAME

TYPE

VOLTAGE

CATALOG NUMBER



Detailed Photometry - Installed Fixture

Photometry from UL Verification Services, Allentown, PA

MRR-08855-3500L PERFORMANCE

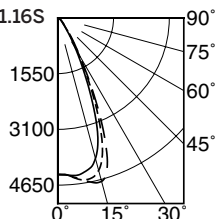
-3500L STANDARD (MFL)

Lumens: 4259
Beam: ~46°
SC: 0.8
LPW: 101
Efficiency: 89.3%
UL Test: 11356591.16S



Cone of Light ▲

Dist.	FC	Dia.
6	151.0	5.1
8	85.0	6.7
10	54.4	8.4
12	37.8	10.1
14	27.8	11.8
16	21.3	13.5



Total System Watts 42.4

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	5440	5440	5440	5440	5440
5	5563	5563	5563	5563	5563
15	5670	5670	5670	5670	5670
25	2703	2703	2703	2703	2703
35	743	743	743	743	743
45	288	288	288	288	288
55	138	138	138	138	138
65	62	62	62	62	62
75	19	19	19	19	19
85	4	4	4	4	4
90	1	1	1	1	1

MRR-08855-2500L PERFORMANCE

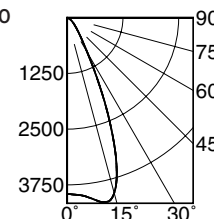
-2500L STANDARD (MFL)

Lumens: 3030
Beam: ~45°
SC: 0.8
LPW: 82
Efficiency: 81.5%
UL Test: 1259190



Cone of Light ▲

Dist.	FC	Dia.
6	110.0	4.9
8	61.7	6.6
10	39.5	8.2
12	27.4	9.9
14	20.2	11.5
16	15.4	13.1



Total System Watts 36.9

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	3951	3951	3951	3951	3951
5	4006	4006	4006	4006	4006
15	4072	4072	4072	4072	4072
25	1801	1801	1801	1801	1801
35	526	526	526	526	526
45	237	237	237	237	237
55	116	116	116	116	116
65	51	51	51	51	51
75	17	17	17	17	17
85	3	3	3	3	3
90	0	0	0	0	0

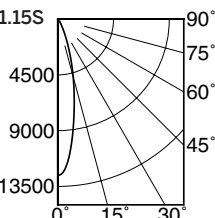
-3500L Options -NFL

Lumens: 4249
Beam: ~32°
SC: 0.6
LPW: 95
Efficiency: 89.1%
UL Test: 11356591.15S



Cone of Light ▲

Dist.	FC	Dia.
6	239.0	3.4
8	135.0	4.5
10	86.2	5.7
12	59.8	6.8
14	44.0	7.9
16	33.7	9.1



Total System Watts 44.6

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	8615	8615	8615	8615	8615
5	8123	8123	8123	8123	8123
15	5124	5124	5124	5124	5124
25	2172	2172	2172	2172	2172
35	857	857	857	857	857
45	382	382	382	382	382
55	168	168	168	168	168
65	66	66	66	66	66
75	24	24	24	24	24
85	5	5	5	5	5
90	0	0	0	0	0

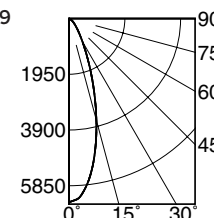
-2500L Option -NFL

Lumens: 3010
Beam: ~31°
SC: 0.6
LPW: 83
Efficiency: 81.0%
UL Test: 1264619



Cone of Light ▲

Dist.	FC	Dia.
6	179.0	3.3
8	100.0	4.4
10	64.3	5.5
12	44.6	6.6
14	32.8	7.7
16	25.1	8.8



Total System Watts 36.5

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	6426	6426	6426	6426	6426
5	6033	6033	6033	6033	6033
15	3679	3679	3679	3679	3679
25	1514	1514	1514	1514	1514
35	587	587	587	587	587
45	260	260	260	260	260
55	111	111	111	111	111
65	46	46	46	46	46
75	18	18	18	18	18
85	5	5	5	5	5
90	2	2	2	2	2

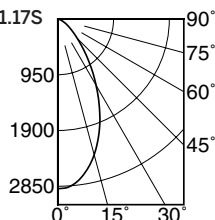
-3500L Options -WFL

Lumens: 3541
Beam: ~57°
SC: 1.1
LPW: 80
Efficiency: 74.3%
UL Test: 11356591.17S



Cone of Light ▲

Dist.	FC	Dia.
6	47.3	6.5
8	26.6	8.7
10	17.0	10.8
12	11.8	13.0
14	8.7	15.2
16	6.7	17.3



Total System Watts 44.4

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	1704	1704	1704	1704	1704
5	1634	1634	1634	1634	1634
15	1529	1529	1529	1529	1529
25	1319	1319	1319	1319	1319
35	1118	1118	1118	1118	1118
45	894	894	894	894	894
55	601	601	601	601	601
65	294	294	294	294	294
75	92	92	92	92	92
85	20	20	20	20	20
90	1	1	1	1	1

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 UL Verification Services (UL) where photometry was measured from 4768 lumen (-3500L) and 3717 lumen (-2500L) light engines (within the established tolerance).

▲ 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

THE KIRLIN COMPANY

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