

## Indoor Distribution Test Report

### Spectrum Lighting Inc.

994 Jefferson Street  
Fall River, MA 02721  
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### Spectrum Lighting Photometric Lab

Luminaire

C0614LM120L35KWDNL

6" Round x 12" High Cylinder Luminaire

Test Number

SP-R23-M

Test Date

9/10/2025

The results contained in this report pertain only to this IES file.

## Summary of Results

### Power

Input Watts	96.67 W
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### Lumen Output

Output Lumens	10476
Efficacy	108.37 lm/W

### Luminous Dimensions

0° - 180° Size	-0.5
90° - 270° Size	-0.5
Height	0

### Spacing Criterion

Two luminaires, plane 0°	0.95
Two luminaires, plane 90°	0.94
Four luminaires	0.99

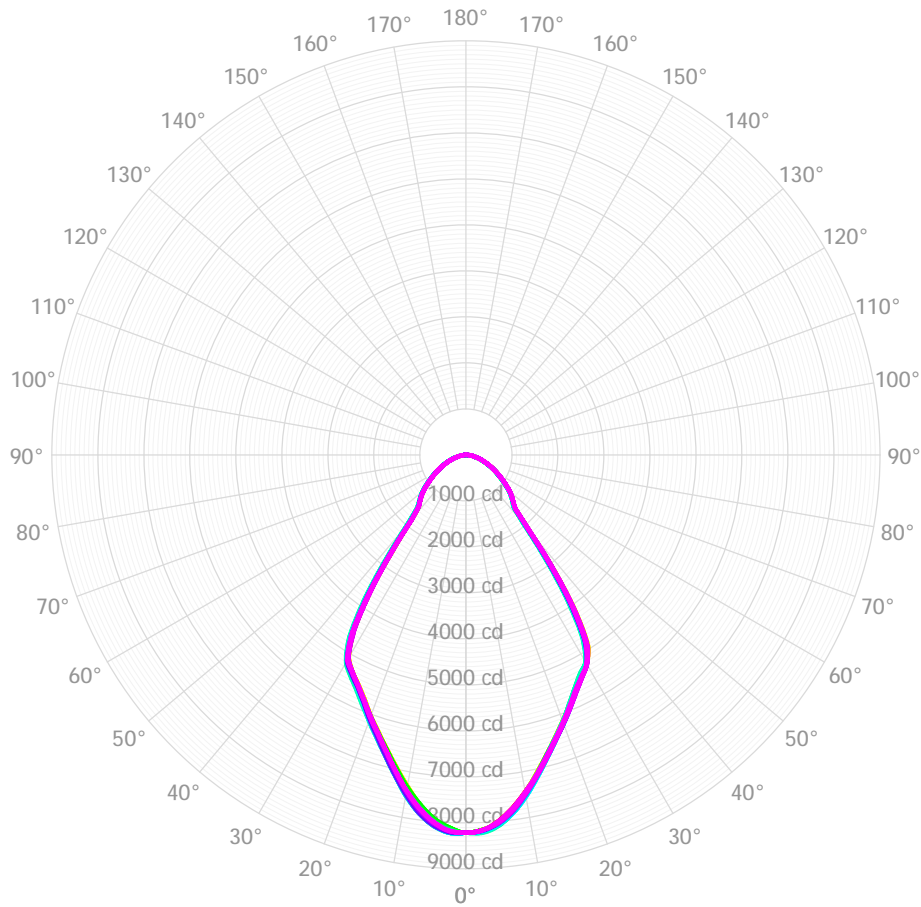
### Full Beam Angle

0° - 180°	69°
90° - 270°	68°

## IES File Header Contents

Keyword	Value
TEST	SP-R23-M
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/10/2025
ISSUEDATE	9/10/2025
LUMCAT	C0614LM120L35KWDNL
LUMINAIRE	6" Round x 12" High Cylinder Luminaire
DISTRIBUTION	Beam Angle 68.7
OTHER	CCT 3417 CRI 81.3 R9 3.9
OTHER	Total Luminaire wattage is approximate
OTHER	This report is prepared by Spectrum Lighting scaled from 137L
_CRI	80+
_CCTMULT	30K x 0.95, 40K x 1.02, 30HK x 0.744, 35HK x 0.73, 40HK x 0.74
_LAMPMULT	100L x 0.88, 137L x 1.15

### Candela Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	757.53	7.23%	90.00° - 100.00°	1.82	0.02%
10.00° - 20.00°	1893.69	18.08%	100.00° - 110.00°	1.74	0.02%
20.00° - 30.00°	2588.74	24.71%	100.00° - 120.00°	3.77	0.04%
30.00° - 40.00°	2301.51	21.97%	120.00° - 130.00°	2.10	0.02%
40.00° - 50.00°	1135.05	10.83%	130.00° - 140.00°	2.15	0.02%
50.00° - 60.00°	872.04	8.32%	140.00° - 150.00°	2.09	0.02%
60.00° - 70.00°	563.57	5.38%	150.00° - 160.00°	1.61	0.02%
70.00° - 80.00°	282.53	2.70%	160.00° - 170.00°	1.10	0.01%
80.00° - 90.00°	66.73	0.64%	170.00° - 180.00°	0.38	0.00%
0.00° - 90.00°	10461.38	99.86%	0.00° - 180.00°	10476.40	100.00%

	0.00°	2.50°	5.00°	7.50°	10.00°	12.50°	15.00°	17.50°	20.00°	22.50°	25.00°	27.50°	30.00°	32.50°	35.00°	37.50°	40.00°	42.50°	45.00°
0.00°	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21	8219.21
2.50°	8170.58	8170.66	8170.75	8170.84	8170.93	8171.02	8171.11	8171.19	8171.28	8171.37	8169.76	8168.14	8166.53	8164.92	8163.30	8161.69	8160.07	8158.46	8156.85
5.00°	7996.21	8000.27	8004.33	8008.39	8012.45	8016.51	8020.57	8024.63	8028.70	8032.76	8031.60	8030.44	8029.27	8028.11	8026.95	8025.79	8024.63	8023.47	8022.31
7.50°	7738.96	7746.01	7753.07	7760.12	7767.17	7774.22	7781.27	7788.32	7795.38	7802.43	7799.65	7796.87	7794.09	7791.31	7788.53	7785.75	7782.97	7780.19	7777.41
10.00°	7431.11	7437.59	7444.06	7450.53	7457.00	7463.47	7469.95	7476.42	7482.89	7489.36	7484.73	7480.09	7475.45	7470.82	7466.18	7461.54	7456.91	7452.27	7447.64
12.50°	7107.39	7111.08	7114.77	7118.45	7122.14	7125.82	7129.51	7133.19	7136.88	7140.57	7134.54	7128.52	7122.50	7116.48	7110.45	7104.43	7098.41	7092.39	7086.37
15.00°	6773.80	6776.03	6778.26	6780.49	6782.72	6784.95	6787.18	6789.41	6791.64	6793.87	6789.44	6785.02	6780.59	6776.17	6771.74	6767.32	6762.89	6758.47	6754.04
17.50°	6461.31	6463.81	6466.31	6468.81	6471.32	6473.82	6476.32	6478.82	6481.32	6483.83	6479.19	6474.55	6469.91	6465.27	6460.63	6455.99	6451.35	6446.71	6442.08
20.00°	6171.56	6174.87	6178.18	6181.49	6184.80	6188.11	6191.42	6194.73	6198.04	6201.35	6195.87	6190.39	6184.91	6179.43	6173.96	6168.48	6163.00	6157.52	6152.04
22.50°	5894.12	5898.40	5902.67	5906.95	5911.22	5915.49	5919.77	5924.04	5928.32	5932.59	5926.85	5921.10	5915.36	5909.62	5903.87	5898.13	5892.38	5886.64	5880.90
25.00°	5633.31	5636.39	5639.47	5642.55	5645.63	5648.71	5651.79	5654.87	5657.95	5661.03	5657.53	5654.03	5650.53	5647.03	5643.53	5640.03	5636.53	5633.04	5629.54
27.50°	5434.62	5437.47	5440.31	5443.16	5446.00	5448.84	5451.69	5454.53	5457.38	5460.22	5454.72	5449.22	5443.72	5438.22	5432.72	5427.22	5421.72	5416.22	5410.72
30.00°	5244.89	5246.48	5248.07	5249.66	5251.25	5252.85	5254.44	5256.03	5257.62	5259.22	5254.76	5250.31	5245.86	5241.41	5236.96	5232.51	5228.06	5223.61	5219.16
32.50°	4836.63	4851.26	4865.90	4880.53	4895.16	4909.80	4924.43	4939.06	4953.70	4968.33	4950.15	4931.98	4913.81	4895.64	4877.46	4859.29	4841.11	4822.94	4804.77
35.00°	4048.08	4062.86	4077.64	4092.42	4107.20	4121.98	4136.76	4151.55	4166.33	4181.11	4158.88	4136.65	4114.43	4092.20	4069.98	4047.75	4025.53	4003.30	3981.07
37.50°	3025.77	3037.46	3049.15	3060.84	3072.53	3084.22	3095.91	3107.60	3119.29	3130.98	3111.84	3092.70	3073.56	3054.42	3035.29	3016.15	2997.01	2977.87	2958.73
40.00°	2107.00	2111.05	2115.11	2119.16	2123.21	2127.27	2131.32	2135.37	2139.43	2143.48	2132.69	2121.90	2111.11	2100.32	2089.53	2078.75	2067.96	2057.17	2046.38
42.50°	1617.09	1613.36	1609.64	1605.91	1602.18	1598.45	1594.72	1590.99	1587.27	1583.54	1584.44	1585.35	1586.26	1587.16	1588.07	1588.98	1589.88	1590.79	1591.70
45.00°	1455.32	1455.75	1456.18	1456.61	1457.04	1457.48	1457.91	1458.34	1458.77	1459.20	1457.93	1456.65	1455.38	1454.10	1452.83	1451.55	1450.28	1449.00	1447.73
47.50°	1356.35	1357.33	1358.32	1359.30	1360.28	1361.26	1362.25	1363.23	1364.21	1365.19	1362.97	1360.75	1358.52	1356.30	1354.08	1351.85	1349.63	1347.41	1345.19
50.00°	1244.85	1245.86	1246.87	1247.87	1248.88	1249.88	1250.89	1251.89	1252.90	1253.90	1251.88	1249.85	1247.83	1245.80	1243.78	1241.75	1239.73	1237.70	1235.68
52.50°	1119.99	1121.35	1122.70	1124.06	1125.42	1126.78	1128.14	1129.50	1130.86	1132.22	1129.68	1127.15	1124.62	1122.09	1119.56	1117.03	1114.50	1111.97	1109.44
55.00°	998.99	1000.32	1001.64	1002.97	1004.29	1005.62	1006.95	1008.27	1009.60	1010.92	1008.50	1006.07	1003.65	1001.22	998.80	996.37	993.95	991.52	989.09
57.50°	883.61	884.41	885.20	885.99	886.78	887.58	888.37	889.16	889.96	890.75	888.98	887.20	885.43	883.65	881.88	880.10	878.33	876.55	874.77
60.00°	776.27	777.42	778.57	779.72	780.87	782.02	783.17	784.32	785.47	786.62	784.72	782.82	780.93	779.03	777.13	775.23	773.34	771.44	769.55
62.50°	675.04	676.13	677.22	678.30	679.39	680.48	681.56	682.65	683.74	684.82	682.93	681.04	679.15	677.25	675.36	673.47	671.58	669.68	667.79
65.00°	587.46	588.27	589.08	589.89	590.70	591.50	592.31	593.12	593.93	594.74	593.19	591.65	590.11	588.57	587.03	585.49	583.95	582.40	580.86
67.50°	501.03	501.99	502.96	503.92	504.89	505.86	506.82	507.79	508.75	509.72	507.62	505.52	503.41	501.31	499.21	497.11	495.01	492.91	490.82
70.00°	422.19	422.64	423.09	423.55	424.00	424.45	424.90	425.35	425.80	426.25	424.70	423.16	421.62	420.07	418.53	416.98	415.44	413.89	412.35
72.50°	348.26	348.86	349.45	350.04	350.63	351.23	351.82	352.41	353.00	353.60	352.30	351.01	349.71	348.42	347.12	345.83	344.53	343.24	341.95
75.00°	277.05	277.61	278.17	278.73	279.29	279.84	280.40	280.96	281.52	282.08	280.66	279.24	277.82	276.40	274.98	273.56	272.14	270.72	269.30
77.50°	218.27	218.32	218.37	218.42	218.47	218.51	218.56	218.61	218.66	218.71	217.73	216.75	215.77	214.79	213.80	212.82	211.84	210.86	209.88
80.00°	162.36	162.91	163.46	164.01	164.56	165.11	165.66	166.21	166.77	167.32	166.20	165.09	163.97	162.86	161.74	160.63	159.51	158.40	157.29
82.50°	107.32	108.14	108.96	109.79	110.61	111.44	112.26	113.09	113.91	114.73	113.31	111.88	110.45	109.02	107.60	106.17	104.74	103.32	101.90
85.00°	69.90	69.90	69.89	69.89	69.88	69.88	69.88	69.87	69.87	69.86	69.02	68.17	67.33	66.48	65.64	64.80	63.95	63.11	62.27
87.50°	24.88	25.41	25.94	26.48	27.01	27.54	28.08	28.61	29.14	29.67	28.45	27.23	26.01	24.79	23.57	22.35	21.13	19.91	18.69
90.00°	3.58	3.70	3.83	3.95	4.07	4.20	4.32	4.45	4.57	4.70	4.37	4.03	3.70	3.37	3.04	2.71	2.37	2.04	1.71
92.50°	2.26	2.21	2.16	2.10	2.05	2.00	1.95	1.89	1.84	1.79	1.74	1.68	1.63	1.58	1.53	1.47	1.42	1.37	1.31
95.00°	1.94	1.92	1.89	1.87	1.84	1.81	1.79	1.76	1.74	1.71	1.64	1.57	1.50	1.44	1.37	1.30	1.23	1.16	1.10
97.50°	1.65	1.69	1.72	1.76	1.80	1.83	1.87	1.90	1.94	1.98	1.88	1.79	1.69	1.60	1.50	1.40	1.31	1.21	1.11
100.00°	2.49	2.45	2.42	2.38	2.34	2.31	2.27	2.24	2.20	2.17	2.08	1.99	1.90	1.81	1.72	1.64	1.55	1.46	1.37
102.50°	2.34	2.31	2.29	2.27	2.25	2.23	2.21	2.19	2.17	2.15	2.09	2.02	1.96	1.90	1.84	1.78	1.72	1.66	1.60
105.00°	1.67	1.71	1.74	1.78	1.81	1.84	1.88	1.91	1.95	1.98	1.97	1.95	1.93	1.92	1.90	1.88	1.87	1.85	1.83
107.50°	2.07	2.03	2.00	1.96	1.93	1.89	1.86	1.82	1.78	1.75	1.79	1.83	1.87	1.91	1.95	1.99	2.03	2.07	2.11

### Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	pfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	0	12468	12468	12468	12468	12177	12177	12177	12177	11632	11632	11632	11134	11134	11134	10676	10676	10461
	1	11678	11299	10960	10654	11407	11066	10759	10481	10630	10381	10152	10230	10029	9844	9861	9702	9502
	2	10891	10227	9678	9217	10638	10037	9535	9110	9681	9263	8902	9353	9007	8704	9049	8767	8585
	3	10161	9298	8630	8097	9928	9142	8525	8027	8848	8323	7891	8576	8133	7760	8324	7952	7789
	4	9497	8497	7765	7206	9283	8367	7686	7159	8123	7534	7067	7896	7388	6978	7684	7250	7104
	5	8893	7804	7042	6481	8698	7695	6982	6448	7490	6864	6384	7299	6751	6321	7120	6643	6514
	6	8345	7199	6430	5879	8168	7108	6383	5855	6934	6290	5810	6772	6201	5765	6620	6115	6000
	7	7847	6670	5906	5371	7687	6592	5868	5354	6444	5794	5320	6306	5723	5287	6176	5654	5551
	8	7396	6203	5453	4937	7250	6136	5422	4924	6009	5362	4899	5890	5303	4874	5778	5247	5156
	9	6985	5789	5057	4562	6853	5732	5031	4552	5622	4982	4533	5519	4934	4514	5422	4888	4807
	10	6611	5421	4709	4235	6491	5371	4688	4228	5276	4647	4213	5186	4607	4198	5101	4568	4496

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	271.7 fc	7.5 ft
6.5 ft	194.5 fc	8.9 ft
7.5 ft	146.1 fc	10.2 ft
8.0 ft	128.4 fc	10.9 ft
10.0 ft	82.2 fc	13.7 ft
12.0 ft	57.1 fc	16.4 ft
14.0 ft	41.9 fc	19.1 ft
16.0 ft	32.1 fc	21.9 ft
20.0 ft	20.5 fc	27.3 ft
24.0 ft	14.3 fc	32.8 ft
28.0 ft	10.5 fc	38.3 ft

### Average Luminaire Luminance [cd/m<sup>2</sup>]

	0.00°	45.00°	90.00°
0.00°	450578	450578	450578
45.00°	112827	112239	111039
55.00°	95480	94534	92662
65.00°	76203	75347	73284
75.00°	58682	57040	54360
85.00°	43967	39162	32047

UGR CIE 190:2010

Ceiling reflectance		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall reflectance		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Plane reflectance		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewing C0-180					Viewing C90-270				
2H	2H	26.0	27.2	26.3	27.6	27.9	25.5	26.8	25.9	27.1	27.5
	3H	27.3	28.5	27.7	28.8	29.2	26.9	28.0	27.3	28.3	28.7
	4H	27.8	28.8	28.2	29.2	29.6	27.3	28.4	27.7	28.7	29.1
	6H	28.1	29.1	28.5	29.5	29.8	27.6	28.6	28.0	29.0	29.4
	8H	28.2	29.1	28.6	29.5	29.9	27.7	28.6	28.1	29.0	29.4
	12H	28.2	29.1	28.7	29.5	29.9	27.7	28.6	28.2	29.0	29.4
4H	2H	26.4	27.4	26.8	27.8	28.2	26.0	27.0	26.4	27.4	27.8
	3H	27.9	28.8	28.4	29.2	29.6	27.5	28.4	27.9	28.8	29.2
	4H	28.5	29.3	29.0	29.7	30.2	28.0	28.8	28.5	29.2	29.7
	6H	29.0	29.6	29.4	30.1	30.6	28.4	29.1	28.9	29.5	30.0
	8H	29.1	29.7	29.6	30.2	30.6	28.5	29.1	29.0	29.6	30.1
	12H	29.2	29.7	29.7	30.2	30.7	28.6	29.1	29.1	29.6	30.1
8H	4H	28.7	29.3	29.2	29.8	30.2	28.2	28.8	28.6	29.3	29.7
	6H	29.2	29.7	29.7	30.2	30.7	28.6	29.2	29.2	29.7	30.1
	8H	29.4	29.9	29.9	30.4	30.9	28.8	29.3	29.3	29.8	30.3
	12H	29.6	30.0	30.1	30.5	31.1	28.9	29.3	29.4	29.8	30.4
12H	4H	28.7	29.2	29.2	29.7	30.2	28.2	28.7	28.6	29.2	29.7
	6H	29.3	29.7	29.8	30.2	30.7	28.7	29.1	29.2	29.6	30.1
	8H	29.5	29.9	30.0	30.4	31.0	28.8	29.2	29.4	29.7	30.3

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0