

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

C0614LM137L35KWDNL

6" Round x 12" High Cylinder Luminaire

Test Number

SP-R23

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	11905
Efficacy	123.15 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

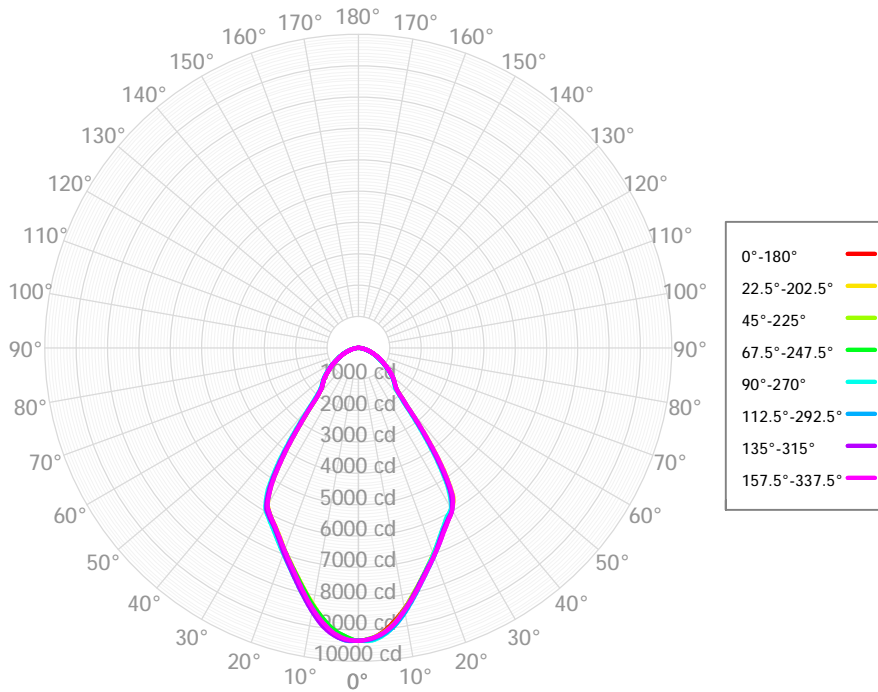
Full Beam Angle

0° - 180°	69°
90° - 270°	68°

IES File Header Contents

Keyword	Value
TEST	SP-R23
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/10/2025
ISSUEDATE	9/10/2025
LUMCAT	C0614LM137L35KWDNL
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
_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 0.77, 120L x 0.88

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	860.83	7.23%	90.00° - 100.00°	2.07	0.02%
10.00° - 20.00°	2151.92	18.08%	100.00° - 110.00°	1.97	0.02%
20.00° - 30.00°	2941.75	24.71%	110.00° - 120.00°	4.29	0.04%
30.00° - 40.00°	2615.36	21.97%	120.00° - 130.00°	2.38	0.02%
40.00° - 50.00°	1289.83	10.83%	130.00° - 140.00°	2.45	0.02%
50.00° - 60.00°	990.96	8.32%	140.00° - 150.00°	2.37	0.02%
60.00° - 70.00°	640.42	5.38%	150.00° - 160.00°	1.83	0.02%
70.00° - 80.00°	321.06	2.70%	160.00° - 170.00°	1.25	0.01%
80.00° - 90.00°	75.83	0.64%	170.00° - 180.00°	0.43	0.00%
0.00° - 90.00°	11887.93	99.86%	0.00° - 180.00°	11905.00	100.00%

Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°	112.50°	135.00°	157.50°	180.00°	202.50°	225.00°	247.50°	270.00°	292.50°	315.00°	337.50°	360.00°
0.00°	9340.01	9340.01	9340.01	9340.01	9340.01	9340.01	9340.01	9340.01	9340.01	9340.01	9340.01	9340.01	9340.01	9340.01	9340.01	9340.01	9340.01
2.50°	9284.75	9285.65	9269.14	9276.10	9347.74	9343.16	9330.91	9294.69	9296.51	9248.80	9229.71	9213.61	9303.92	9313.42	9290.06	9278.62	9284.75
5.00°	9086.60	9128.13	9116.26	9163.86	9207.45	9175.91	9193.31	9116.40	9096.80	9035.66	9052.26	9016.50	9142.90	9176.93	9133.40	9133.51	9086.60
7.50°	8794.27	8866.39	8837.96	8901.69	8927.96	8899.08	8925.81	8810.44	8795.81	8704.27	8742.43	8694.06	8866.64	8931.19	8863.69	8871.11	8794.27
10.00°	8444.45	8510.64	8463.22	8523.83	8559.18	8519.26	8529.73	8429.40	8422.22	8303.24	8353.94	8332.14	8505.75	8573.96	8490.27	8509.01	8444.45
12.50°	8076.58	8114.28	8052.68	8118.69	8111.34	8077.20	8106.32	8004.40	7992.46	7904.07	7949.77	7927.54	8113.37	8164.94	8087.60	8126.31	8076.58
15.00°	7697.50	7720.30	7675.05	7698.45	7698.12	7666.26	7692.66	7582.71	7581.62	7521.83	7573.79	7539.39	7699.79	7764.04	7697.76	7748.48	7697.50
17.50°	7342.39	7367.98	7320.53	7349.58	7333.51	7302.65	7307.68	7206.16	7230.09	7174.60	7218.34	7195.74	7325.49	7400.15	7354.09	7389.47	7342.39
20.00°	7013.14	7046.98	6990.96	7024.11	7006.07	6942.66	6962.15	6871.38	6913.03	6860.51	6899.21	6874.00	6993.51	7071.92	7054.77	7063.54	7013.14
22.50°	6697.86	6741.58	6682.83	6699.88	6660.21	6600.51	6616.31	6554.97	6578.03	6531.13	6577.71	6565.05	6691.22	6753.17	6719.59	6760.12	6697.86
25.00°	6401.48	6432.98	6397.20	6378.10	6358.74	6319.43	6332.97	6284.37	6299.81	6267.19	6308.77	6291.03	6405.63	6438.90	6411.78	6467.00	6401.48
27.50°	6175.71	6204.79	6148.55	6148.99	6096.42	6075.52	6117.52	6053.70	6070.44	6049.32	6082.97	6062.08	6168.12	6198.18	6180.16	6214.14	6175.71
30.00°	5960.10	5976.38	5930.86	5933.32	5910.78	5805.83	5883.06	5792.47	5864.73	5774.81	5865.49	5805.34	5927.81	5980.55	5969.53	5986.21	5960.10
32.50°	5496.17	5645.83	5459.96	5554.62	5349.85	5170.20	5259.98	5112.06	5281.78	5129.44	5278.54	5162.04	5384.32	5572.74	5465.66	5610.93	5496.17
35.00°	4600.09	4751.26	4523.95	4580.56	4345.21	4118.85	4223.01	4044.22	4188.92	4055.04	4218.88	4108.06	4406.14	4613.82	4507.85	4708.07	4600.09
37.50°	3438.37	3557.93	3362.20	3417.46	3171.47	2983.98	3056.44	2908.36	3005.36	2886.30	3028.31	2971.51	3256.60	3439.28	3353.04	3553.83	3438.37
40.00°	2394.32	2435.77	2325.43	2342.64	2178.84	2106.14	2091.89	2043.13	2068.74	2044.70	2072.46	2090.64	2272.09	2381.51	2332.68	2449.54	2394.32
42.50°	1837.61	1799.47	1808.74	1775.99	1741.16	1735.29	1731.56	1716.63	1712.95	1717.30	1724.18	1723.28	1792.16	1789.65	1818.83	1814.36	1837.61
45.00°	1653.77	1658.18	1645.15	1649.18	1627.57	1605.88	1609.78	1590.22	1600.47	1592.77	1608.75	1594.47	1636.18	1654.92	1647.82	1669.37	1653.77
47.50°	1541.31	1551.36	1528.62	1530.51	1512.12	1487.51	1492.37	1473.22	1487.64	1473.79	1493.30	1482.50	1520.17	1544.28	1537.37	1553.37	1541.31
50.00°	1414.61	1424.89	1404.18	1410.10	1385.36	1352.01	1365.10	1337.16	1358.66	1335.82	1360.23	1354.19	1393.75	1417.32	1410.52	1433.69	1414.61
52.50°	1272.71	1286.61	1260.72	1264.83	1239.23	1210.68	1216.17	1198.41	1212.12	1198.03	1213.66	1210.59	1251.32	1273.03	1269.81	1285.80	1272.71
55.00°	1135.22	1148.78	1123.98	1126.92	1101.71	1072.80	1084.21	1059.29	1079.71	1062.82	1082.61	1075.53	1113.67	1135.73	1130.28	1153.56	1135.22
57.50°	1004.10	1012.21	994.07	994.41	973.30	948.95	955.99	936.40	952.07	934.97	952.30	948.17	985.25	1005.72	993.88	1017.78	1004.10
60.00°	882.13	893.88	874.48	876.10	856.28	830.18	837.38	815.32	832.61	816.17	841.55	831.05	866.52	885.41	879.22	896.75	882.13
62.50°	767.09	778.21	758.85	766.36	742.05	719.66	725.81	712.16	721.92	707.40	724.56	721.04	752.69	770.55	763.98	779.32	767.09
65.00°	667.57	675.84	660.07	662.19	642.00	620.32	627.75	613.26	622.69	613.31	627.83	623.91	653.04	668.12	662.21	678.43	667.57
67.50°	569.35	579.22	557.74	562.73	541.77	526.18	526.77	512.03	525.87	514.56	533.42	523.89	551.56	570.70	561.62	582.82	569.35
70.00°	479.76	484.37	468.58	472.27	452.89	440.63	444.31	426.69	440.65	434.78	445.91	441.55	464.72	478.40	472.51	488.40	479.76
72.50°	395.75	401.81	388.57	388.69	368.80	351.64	360.85	344.42	358.75	348.41	364.37	357.60	387.14	397.25	395.20	408.48	395.75
75.00°	314.83	320.54	306.02	306.60	291.65	276.90	285.14	270.08	283.30	273.85	287.02	281.26	304.88	318.44	310.70	326.40	314.83
77.50°	248.03	248.54	238.50	241.26	225.52	214.62	220.92	208.96	216.97	217.26	223.15	225.10	240.51	249.98	243.95	253.82	248.03
80.00°	184.50	190.13	178.73	181.05	163.05	148.82	154.97	141.80	151.52	144.19	159.54	160.16	174.73	188.92	182.45	192.43	184.50
82.50°	121.95	130.38	115.78	120.20	106.33	98.20	99.22	90.17	97.60	95.89	103.23	101.97	114.35	127.77	121.20	130.05	121.95
85.00°	79.43	79.39	70.75	70.87	57.90	48.41	52.69	45.44	51.34	48.12	57.92	55.88	71.02	78.17	72.55	79.66	79.43
87.50°	28.27	33.72	21.24	27.24	17.50	5.69	11.39	5.55	13.51	6.16	14.88	7.49	18.10	32.10	25.15	33.83	28.27
90.00°	4.06	5.34	1.94	3.71	1.65	1.74	1.57	1.43	2.13	1.57	1.72	1.72	2.78	4.69	2.13	4.42	4.06
92.50°	2.57	2.03	1.50	2.15	1.74	1.45	1.46	1.65	2.13	1.48	2.22	1.54	1.75	1.86	1.55	2.03	2.57
95.00°	2.21	1.94	1.24	2.37	1.62	1.64	1.31	1.62	2.39	1.88	1.88	1.80	1.79	1.59	1.61	1.77	2.21
97.50°	1.87	2.24	1.27	2.26	1.56	1.81	1.22	1.54	1.92	2.07	1.60	1.98	1.79	1.48	1.52	1.87	1.87
100.00°	2.83	2.46	1.56	2.17	1.49	1.67	1.20	1.45	1.63	1.71	1.39	1.82	2.04	1.53	1.23	2.04	2.83
102.50°	2.65	2.44	1.81	2.15	1.42	1.55	1.40	1.70	1.44	1.90	1.35	1.76	1.94	1.77	1.44	2.04	2.65
105.00°	1.90	2.26	2.08	1.95	1.51	1.43	1.56	1.93	1.43	2.24	1.52	1.74	1.63	2.04	1.73	2.05	1.90
107.50°	2.35	1.99	2.39	1.69	1.58	1.56	1.70	1.95	1.48	1.78	1.91	1.82	1.86	2.32	2.26	2.07	2.35

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	pfc	20%	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%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
RCR	0	14169	14169	14169	14169	13837	13837	13837	13837	13218	13218	13218	12652	12652	12652	12132	12132	12132	11888
	1	13271	12840	12454	12107	12962	12576	12227	11910	12080	11796	11537	11625	11397	11186	11205	11025	10856	10797
	2	12376	11621	10998	10474	12089	11406	10835	10352	11001	10526	10116	10628	10236	9891	10283	9962	9676	9756
	3	11547	10566	9806	9201	11282	10388	9687	9122	10055	9458	8967	9746	9242	8818	9459	9036	8675	8851
	4	10792	9656	8824	8189	10549	9508	8734	8135	9230	8561	8031	8972	8396	7929	8732	8239	7830	8073
	5	10105	8868	8003	7364	9884	8744	7934	7327	8511	7800	7255	8294	7672	7184	8091	7549	7114	7402
	6	9483	8181	7307	6680	9282	8077	7253	6654	7880	7148	6602	7696	7047	6551	7523	6949	6501	6819
	7	8917	7579	6712	6103	8735	7491	6668	6084	7323	6584	6046	7165	6503	6008	7018	6425	5972	6309
	8	8404	7049	6196	5610	8239	6973	6161	5596	6829	6093	5567	6693	6027	5539	6566	5963	5511	5860
	9	7937	6579	5746	5184	7787	6513	5718	5173	6389	5661	5151	6272	5607	5130	6161	5554	5108	5462
	10	7512	6160	5351	4813	7376	6104	5327	4804	5995	5280	4787	5893	5235	4770	5796	5191	4754	5109

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	308.8 fc	7.5 ft
6.5 ft	221.1 fc	8.9 ft
7.5 ft	166.0 fc	10.2 ft
8.0 ft	145.9 fc	10.9 ft
10.0 ft	93.4 fc	13.7 ft
12.0 ft	64.9 fc	16.4 ft
14.0 ft	47.7 fc	19.1 ft
16.0 ft	36.5 fc	21.9 ft
20.0 ft	23.4 fc	27.3 ft
24.0 ft	16.2 fc	32.8 ft
28.0 ft	11.9 fc	38.3 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	512020	512020	512020
45.00°	128212	127544	126181
55.00°	108500	107425	105298
65.00°	86594	85621	83278
75.00°	66684	64818	61773
85.00°	49963	44502	36417

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	26.4	27.7	26.8	28.0	28.3	26.0	27.3	26.4	27.6	27.9
	3H	27.8	28.9	28.1	29.2	29.6	27.3	28.5	27.7	28.8	29.2
	4H	28.2	29.3	28.6	29.6	30.0	27.8	28.8	28.2	29.2	29.6
	6H	28.5	29.5	29.0	29.9	30.3	28.1	29.0	28.5	29.4	29.8
	8H	28.6	29.6	29.1	29.9	30.4	28.1	29.1	28.6	29.5	29.9
	12H	28.7	29.6	29.1	30.0	30.4	28.2	29.0	28.6	29.4	29.9
4H	2H	26.8	27.9	27.2	28.2	28.6	26.4	27.5	26.8	27.8	28.2
	3H	28.4	29.3	28.8	29.7	30.1	27.9	28.8	28.3	29.2	29.6
	4H	29.0	29.8	29.4	30.2	30.6	28.5	29.2	28.9	29.7	30.1
	6H	29.4	30.1	29.9	30.5	31.0	28.9	29.5	29.3	30.0	30.5
	8H	29.5	30.2	30.0	30.6	31.1	29.0	29.6	29.4	30.0	30.5
	12H	29.6	30.2	30.1	30.7	31.1	29.0	29.6	29.5	30.1	30.5
8H	4H	29.1	29.8	29.6	30.2	30.7	28.6	29.2	29.1	29.7	30.2
	6H	29.7	30.2	30.2	30.7	31.2	29.1	29.6	29.6	30.1	30.6
	8H	29.9	30.3	30.4	30.8	31.3	29.2	29.7	29.8	30.2	30.7
	12H	30.0	30.4	30.5	30.9	31.5	29.3	29.7	29.9	30.2	30.8
12H	4H	29.1	29.7	29.6	30.2	30.7	28.6	29.2	29.1	29.6	30.1
	6H	29.7	30.2	30.2	30.6	31.2	29.1	29.6	29.6	30.0	30.6
	8H	29.9	30.3	30.4	30.8	31.4	29.3	29.7	29.8	30.2	30.8

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0