

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

C0614LM100L30HKNSO
6" Round x 12" High Cylinder Luminaire

Test Number

SP-R11

Test Date

9/10/2025

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

Summary of Results

Power

Input Watts	74.02 W
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Lumen Output

Output Lumens	5861
Efficacy	79.18 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.48
Two luminaires, plane 90°	0.48
Four luminaires	0.57

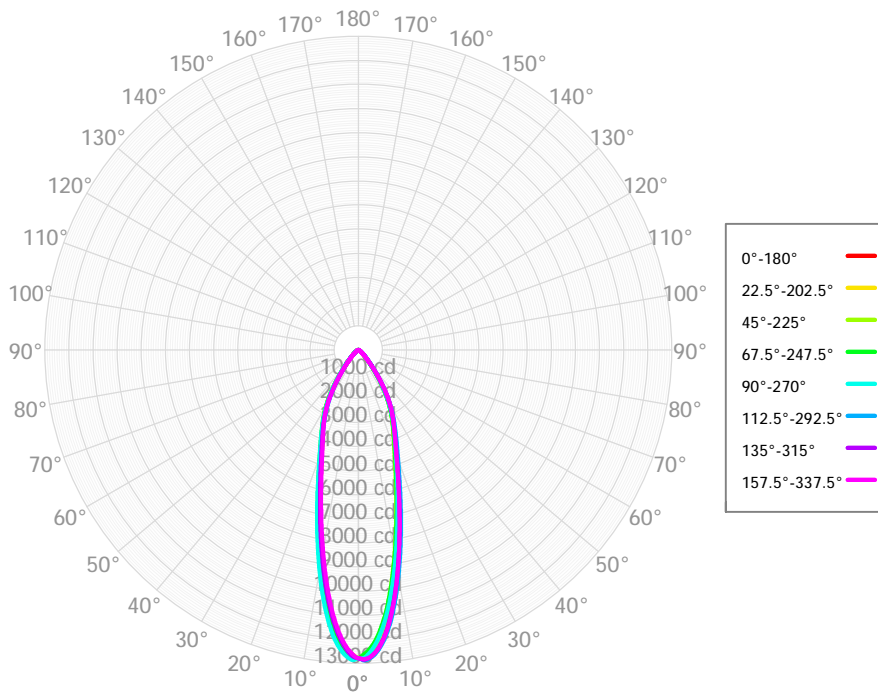
Full Beam Angle

0° - 180°	29°
90° - 270°	30°

IES File Header Contents

Keyword	Value
TEST	SP-R11
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/10/2025
ISSUEDATE	9/10/2025
LUMCAT	C0614LM100L30HKND SO
LUMINAIRE	6" Round x 12" High Cylinder Luminaire
DISTRIBUTION	Beam Angle 29.5
OTHER	CCT 3025 CRI 93.1 R9 64.2
OTHER	Total Luminaire wattage is approximate
OTHER	This report is prepared by Spectrum Lighting
_CRI	90+
_CCTMULT	30K x 1.27, 35K x 1.34, 40K x 1.37, 35HK x 0.98, 40HK x 0.99
_LAMPMULT	120L x 1.14, 137L x 1.31

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	1022.42	17.44%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	1756.95	29.98%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	1585.90	27.06%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	990.38	16.90%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	332.84	5.68%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	117.35	2.00%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	41.82	0.71%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	10.88	0.19%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	2.45	0.04%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	5861.00	100.00%	0.00° - 180.00°	5861.00	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°	12782.23	12782.23	12782.23	12782.23	12782.23	12782.23	12782.23	12782.23	12782.23	12782.23	12782.23	12782.23	12782.23	12782.23	12782.23	12782.23	12782.23
1.00°	12774.81	12729.64	12646.98	12641.01	12778.24	12703.27	12715.52	12642.89	12682.94	12642.05	12695.42	12718.22	12864.24	12874.11	12850.27	12820.95	12774.81
2.00°	12664.66	12620.99	12479.49	12455.57	12607.61	12476.53	12512.65	12412.00	12491.07	12450.86	12572.59	12606.19	12754.78	12816.66	12777.17	12771.69	12664.66
3.00°	12469.21	12419.28	12224.70	12196.31	12334.96	12174.97	12215.37	12098.94	12207.17	12170.28	12355.38	12405.80	12554.19	12669.66	12608.07	12615.40	12469.21
4.00°	12176.35	12125.85	11883.23	11845.71	11988.19	11787.53	11843.40	11705.43	11842.46	11810.54	12058.83	12121.82	12274.65	12425.84	12348.16	12367.66	12176.35
5.00°	11785.75	11739.05	11451.92	11417.73	11572.34	11338.37	11411.01	11247.11	11408.19	11378.31	11673.33	11766.13	11909.70	12103.94	12001.70	12029.30	11785.75
6.00°	11321.94	11281.61	10960.38	10940.15	11091.25	10831.38	10915.04	10730.11	10910.72	10880.13	11221.26	11327.38	11466.05	11704.88	11576.38	11614.87	11321.94
7.00°	10792.08	10759.86	10403.47	10403.76	10563.54	10292.94	10374.09	10174.97	10373.22	10340.16	10717.22	10833.71	10964.40	11234.89	11073.05	11118.11	10792.08
8.00°	10210.75	10186.51	9811.35	9836.20	9998.39	9722.58	9811.01	9593.23	9802.41	9764.16	10171.41	10293.10	10426.91	10707.61	10523.09	10572.31	10210.75
9.00°	9614.63	9585.57	9220.62	9264.14	9420.38	9149.31	9234.82	9015.28	9215.58	9182.25	9600.65	9725.63	9859.59	10148.17	9950.74	9988.97	9614.63
10.00°	8996.42	8980.26	8634.03	8691.58	8845.46	8578.60	8662.36	8436.73	8630.66	8601.20	9023.17	9145.60	9276.70	9564.96	9354.75	9384.17	8996.42
11.00°	8384.54	8380.58	8059.40	8123.32	8275.83	8029.44	8101.28	7885.34	8062.93	8040.03	8458.17	8586.23	8692.99	8979.74	8761.97	8773.92	8384.54
12.00°	7794.85	7797.11	7509.84	7572.04	7730.69	7496.06	7570.64	7354.55	7520.78	7501.33	7908.49	8032.95	8126.00	8402.78	8176.46	8174.30	7794.85
13.00°	7239.96	7243.12	6986.54	7059.10	7213.64	6996.95	7066.72	6849.86	7007.80	6986.11	7380.49	7496.49	7582.64	7843.53	7615.66	7604.17	7239.96
14.00°	6712.29	6727.90	6500.37	6582.04	6724.18	6526.60	6585.40	6379.72	6521.88	6506.54	6877.48	6983.72	7064.97	7308.46	7084.08	7060.41	6712.29
15.00°	6227.00	6244.96	6049.47	6132.59	6269.71	6092.35	6139.12	5955.97	6075.07	6070.33	6410.36	6510.69	6576.16	6804.13	6581.20	6545.82	6227.00
16.00°	5785.78	5802.89	5632.62	5722.06	5855.25	5695.22	5738.26	5562.90	5668.69	5665.28	5983.20	6072.94	6124.47	6329.59	6111.90	6074.10	5785.78
17.00°	5382.25	5408.91	5264.56	5350.23	5476.03	5332.30	5371.43	5206.06	5302.25	5295.08	5587.48	5669.03	5711.39	5890.93	5686.07	5643.07	5382.25
18.00°	5024.68	5057.07	4930.99	5011.51	5130.42	5000.99	5034.24	4886.56	4968.75	4964.40	5227.29	5301.35	5337.56	5494.92	5301.52	5260.80	5024.68
19.00°	4707.09	4741.99	4632.53	4707.01	4817.36	4698.49	4734.53	4602.00	4671.87	4672.35	4908.04	4969.08	4997.78	5137.48	4952.52	4916.83	4707.09
20.00°	4422.14	4459.78	4366.83	4434.39	4537.52	4429.90	4467.84	4343.92	4410.26	4413.13	4622.21	4671.21	4693.05	4813.16	4642.90	4606.28	4422.14
21.00°	4175.83	4211.49	4131.85	4193.67	4285.08	4191.11	4225.06	4116.70	4174.52	4178.29	4364.57	4404.78	4423.84	4525.20	4367.27	4338.24	4175.83
22.00°	3955.52	3994.21	3919.00	3974.81	4057.47	3971.75	4004.76	3912.25	3965.29	3968.17	4135.45	4169.14	4180.22	4268.03	4120.98	4098.25	3955.52
23.00°	3754.19	3793.02	3720.00	3764.25	3846.94	3764.17	3804.71	3725.80	3776.04	3778.73	3928.30	3952.05	3954.65	4031.40	3897.99	3884.88	3754.19
24.00°	3572.31	3607.55	3530.81	3566.16	3647.03	3568.67	3614.71	3548.63	3599.45	3607.10	3734.17	3747.59	3747.25	3812.16	3692.61	3682.71	3572.31
25.00°	3405.67	3433.29	3352.82	3376.56	3454.25	3380.97	3430.26	3378.59	3439.18	3440.17	3554.98	3552.58	3551.48	3608.45	3500.99	3498.98	3405.67
26.00°	3243.90	3267.40	3180.85	3199.18	3265.94	3191.91	3250.05	3211.55	3273.56	3277.27	3380.78	3367.76	3358.21	3414.79	3319.54	3326.52	3243.90
27.00°	3077.54	3101.92	3002.77	3021.24	3084.07	3002.26	3069.65	3038.54	3110.75	3112.32	3208.78	3188.36	3172.07	3225.87	3142.00	3157.48	3077.54
28.00°	2917.11	2940.15	2825.93	2833.85	2898.12	2819.89	2885.83	2863.50	2948.08	2941.69	3036.01	3009.63	2988.05	3038.10	2965.02	2987.65	2917.11
29.00°	2749.34	2763.50	2647.49	2653.65	2712.79	2633.56	2701.01	2683.02	2767.98	2764.77	2860.73	2825.88	2797.21	2853.30	2786.89	2820.71	2749.34
30.00°	2570.63	2592.73	2466.77	2468.30	2524.61	2442.85	2513.36	2488.16	2587.63	2577.28	2673.92	2636.37	2603.22	2668.85	2602.97	2647.71	2570.63
31.00°	2384.84	2414.15	2278.61	2270.96	2336.64	2246.66	2315.83	2288.24	2387.14	2380.96	2480.02	2446.96	2412.30	2475.89	2415.93	2465.81	2384.84
32.00°	2190.49	2211.11	2085.16	2075.44	2142.31	2055.93	2115.94	2084.33	2184.43	2173.60	2279.57	2249.80	2216.25	2279.84	2225.06	2275.89	2190.49
33.00°	1993.82	2013.31	1888.95	1884.85	1941.46	1856.64	1913.97	1875.91	1971.64	1958.72	2072.20	2050.09	2025.31	2083.49	2032.16	2078.30	1993.82
34.00°	1796.77	1811.79	1692.25	1684.80	1744.97	1662.38	1717.29	1675.06	1762.50	1747.65	1858.82	1850.31	1826.99	1888.13	1837.19	1879.79	1796.77
35.00°	1591.83	1611.74	1500.18	1494.84	1559.71	1479.11	1520.80	1476.35	1558.15	1541.58	1654.26	1649.66	1635.32	1692.84	1640.39	1681.16	1591.83
36.00°	1397.96	1418.30	1317.63	1316.89	1374.30	1306.21	1341.82	1290.46	1364.70	1347.06	1456.99	1468.49	1450.13	1507.95	1455.94	1487.01	1397.96
37.00°	1220.08	1230.92	1150.05	1156.31	1207.92	1143.56	1171.98	1121.81	1185.34	1172.53	1271.06	1285.37	1277.93	1329.88	1279.72	1302.41	1220.08
38.00°	1052.70	1064.89	994.72	1005.77	1054.09	996.30	1017.28	965.98	1018.39	1010.13	1100.52	1116.03	1117.80	1165.26	1111.56	1135.62	1052.70
39.00°	904.33	912.97	858.85	876.48	921.81	865.27	884.16	833.19	874.43	862.86	946.44	972.21	976.82	1016.58	968.14	975.50	904.33
40.00°	771.35	781.89	740.78	761.00	801.08	757.54	770.86	722.59	752.42	742.01	817.09	846.28	846.61	881.43	833.58	835.02	771.35
41.00°	659.79	669.36	641.67	664.34	703.22	664.63	673.53	630.59	646.34	640.71	707.75	735.22	738.04	768.24	721.90	716.14	659.79
42.00°	560.21	574.43	555.14	580.28	617.08	582.90	584.99	555.50	560.40	556.36	614.63	638.30	643.85	666.94	624.32	615.31	560.21
43.00°	485.22	492.51	488.72	508.30	543.03	519.47	515.68	488.74	490.19	485.58	540.87	558.02	567.89	582.62	542.81	531.57	485.22

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	6977	6977	6977	6977	6815	6815	6815	6815	6512	6512	6512	6235	6235	6235	5981	5981	5861
	1	6666	6510	6369	6243	6523	6383	6258	6144	6147	6047	5955	5930	5851	5778	5729	5668	5556
	2	6354	6080	5854	5664	6226	5980	5774	5600	5791	5623	5478	5618	5481	5361	5457	5347	5242
	3	6054	5695	5417	5196	5939	5614	5359	5154	5462	5248	5072	5321	5143	4993	5191	5043	4946
	4	5771	5350	5042	4807	5667	5284	4999	4778	5160	4915	4722	5044	4836	4668	4937	4760	4672
	5	5504	5040	4716	4477	5411	4986	4683	4457	4883	4619	4418	4787	4558	4379	4697	4500	4419
	6	5254	4761	4430	4192	5170	4715	4404	4178	4629	4355	4150	4549	4307	4122	4474	4261	4188
	7	5021	4508	4176	3943	4945	4470	4156	3933	4397	4117	3912	4329	4079	3892	4265	4042	3976
	8	4803	4279	3950	3723	4735	4247	3934	3716	4185	3902	3700	4127	3872	3685	4072	3842	3781
	9	4601	4071	3747	3527	4540	4043	3733	3521	3990	3708	3510	3940	3683	3498	3893	3659	3603
	10	4414	3882	3563	3351	4357	3858	3552	3347	3811	3531	3338	3768	3511	3329	3727	3491	3440

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	422.6 fc	2.8 ft
6.5 ft	302.5 fc	3.3 ft
7.5 ft	227.2 fc	3.8 ft
8.0 ft	199.7 fc	4.1 ft
10.0 ft	127.8 fc	5.1 ft
12.0 ft	88.8 fc	6.2 ft
14.0 ft	65.2 fc	7.2 ft
16.0 ft	49.9 fc	8.2 ft
20.0 ft	32.0 fc	10.3 ft
24.0 ft	22.2 fc	12.3 ft
28.0 ft	16.3 fc	14.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	700724	700724	700724
45.00°	28124	29046	32734
55.00°	10389	10700	12340
65.00°	4565	4757	5061
75.00°	1618	1813	1910
85.00°	980	1036	1140

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	12.0	13.0	12.4	13.3	13.6	13.1	14.1	13.5	14.5	14.8
	3H	12.3	13.1	12.6	13.5	13.8	13.4	14.3	13.8	14.6	15.0
	4H	12.2	13.0	12.6	13.4	13.8	13.4	14.2	13.8	14.6	14.9
	6H	12.2	12.9	12.6	13.3	13.7	13.3	14.1	13.7	14.4	14.8
	8H	12.1	12.8	12.6	13.2	13.6	13.3	14.0	13.7	14.4	14.8
	12H	12.1	12.7	12.5	13.1	13.6	13.2	13.9	13.7	14.3	14.7
4H	2H	12.1	12.9	12.5	13.2	13.6	13.1	14.0	13.5	14.3	14.7
	3H	12.4	13.1	12.8	13.5	13.9	13.5	14.1	13.9	14.5	14.9
	4H	12.4	13.0	12.8	13.4	13.9	13.5	14.0	13.9	14.5	14.9
	6H	12.4	12.9	12.8	13.3	13.8	13.4	13.9	13.9	14.4	14.8
	8H	12.3	12.8	12.8	13.2	13.7	13.4	13.8	13.8	14.3	14.8
	12H	12.3	12.7	12.8	13.2	13.6	13.3	13.7	13.8	14.2	14.7
8H	4H	12.3	12.8	12.8	13.2	13.7	13.3	13.8	13.8	14.3	14.7
	6H	12.3	12.6	12.8	13.1	13.6	13.3	13.7	13.8	14.2	14.7
	8H	12.2	12.6	12.8	13.1	13.6	13.3	13.6	13.8	14.1	14.6
	12H	12.2	12.5	12.7	13.0	13.6	13.2	13.5	13.8	14.0	14.6
12H	4H	12.2	12.6	12.7	13.1	13.6	13.3	13.7	13.8	14.2	14.7
	6H	12.2	12.5	12.7	13.0	13.6	13.2	13.6	13.8	14.0	14.6
	8H	12.2	12.5	12.7	13.0	13.6	13.2	13.5	13.7	14.0	14.6

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0