

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

C0614LM100L35HKNSO
6" Round x 12" High Cylinder Luminaire

Test Number

SP-R12

Test Date

9/10/2025

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

Summary of Results

Power

Input Watts	74.37 W
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Lumen Output

Output Lumens	5863
Efficacy	78.84 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.5
Two luminaires, plane 90°	0.48
Four luminaires	0.57

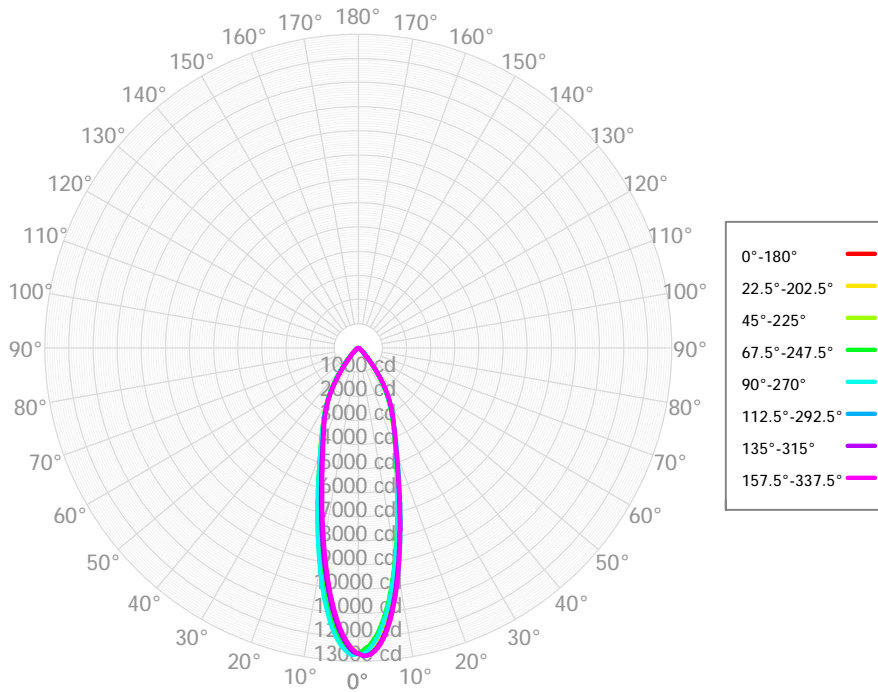
Full Beam Angle

0° - 180°	29°
90° - 270°	30°

IES File Header Contents

Keyword	Value
TEST	SP-R12
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/10/2025
ISSUEDATE	9/10/2025
LUMCAT	C0614LM100L35HKND50
LUMINAIRE	6" Round x 12" High Cylinder Luminaire
DISTRIBUTION	Beam Angle 29.7
OTHER	CCT 3450 CRI 92.1 R9 63.0
OTHER	Total Luminaire wattage is approximate
OTHER	This report is prepared by Spectrum Lighting
_CRI	90+
_CCTMULT	30K x 1.3, 35K x 1.37, 40K x 1.39, 30HK x 1.02, 40HK x 1.01
_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°	1018.74	17.38%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	1760.11	30.02%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	1568.67	26.76%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1025.68	17.49%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	328.95	5.61%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	107.41	1.83%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	40.74	0.69%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	10.29	0.18%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	2.41	0.04%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	5863.00	100.00%	0.00° - 180.00°	5863.00	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°	12677.04	12677.04	12677.04	12677.04	12677.04	12677.04	12677.04	12677.04	12677.04	12677.04	12677.04	12677.04	12677.04	12677.04	12677.04	12677.04	12677.04
1.00°	12717.78	12649.56	12564.85	12519.33	12679.80	12586.80	12604.36	12510.09	12545.57	12487.90	12561.81	12581.50	12744.73	12778.29	12781.37	12757.80	12717.78
2.00°	12657.05	12590.51	12441.67	12367.17	12509.60	12354.63	12375.68	12250.63	12326.61	12286.13	12409.77	12467.97	12637.38	12731.66	12723.89	12745.93	12657.05
3.00°	12500.33	12437.05	12232.54	12120.57	12256.48	12041.17	12060.67	11915.93	12026.59	12002.26	12189.75	12262.13	12445.44	12585.51	12569.54	12621.74	12500.33
4.00°	12250.53	12192.40	11922.03	11804.73	11928.09	11650.55	11671.52	11503.95	11651.95	11637.47	11902.11	11975.21	12168.76	12358.56	12321.31	12400.01	12250.53
5.00°	11913.71	11867.49	11534.12	11403.41	11522.18	11198.01	11221.74	11024.74	11206.40	11205.36	11527.19	11636.20	11810.44	12042.27	11981.81	12091.88	11913.71
6.00°	11491.67	11463.66	11096.42	10947.89	11049.91	10698.50	10711.05	10499.83	10710.68	10718.21	11080.10	11211.73	11380.40	11647.62	11568.37	11696.99	11491.67
7.00°	10999.32	10981.89	10587.57	10457.19	10533.57	10164.55	10167.89	9941.29	10172.61	10181.78	10582.69	10737.54	10889.75	11182.32	11083.58	11222.94	10999.32
8.00°	10450.54	10451.69	10032.10	9912.94	9989.13	9596.17	9598.02	9360.90	9604.86	9624.84	10061.94	10215.29	10355.01	10659.95	10542.23	10687.36	10450.54
9.00°	9867.38	9894.23	9473.34	9359.49	9425.81	9020.62	9020.25	8779.56	9028.52	9059.53	9505.31	9678.24	9793.93	10103.27	9964.08	10116.37	9867.38
10.00°	9271.98	9303.08	8911.98	8793.23	8860.52	8459.56	8445.43	8205.93	8455.17	8496.96	8958.49	9125.05	9219.20	9522.04	9368.05	9514.45	9271.98
11.00°	8669.08	8714.57	8349.81	8252.69	8304.46	7911.52	7888.63	7655.47	7900.01	7953.87	8400.41	8570.51	8640.00	8927.42	8765.74	8902.26	8669.08
12.00°	8081.33	8141.79	7800.64	7710.44	7770.45	7385.24	7355.84	7135.14	7369.49	7434.78	7868.11	8037.15	8073.31	8335.69	8173.60	8300.95	8081.33
13.00°	7518.65	7592.54	7280.07	7186.86	7248.78	6884.98	6852.18	6643.26	6863.21	6936.40	7363.15	7507.14	7528.33	7775.25	7606.05	7718.47	7518.65
14.00°	6979.69	7066.72	6788.13	6709.32	6759.17	6416.04	6388.36	6189.07	6399.43	6469.82	6891.23	6996.29	7008.73	7236.77	7061.63	7163.47	6979.69
15.00°	6475.52	6558.59	6320.55	6251.24	6301.48	5986.48	5957.21	5777.06	5971.26	6038.73	6427.87	6522.28	6520.38	6715.09	6542.49	6641.52	6475.52
16.00°	6008.71	6092.42	5898.48	5835.77	5881.92	5590.98	5569.51	5403.07	5573.01	5642.17	5990.83	6076.30	6067.39	6230.72	6061.02	6152.05	6008.71
17.00°	5583.14	5667.38	5497.57	5449.71	5484.35	5232.78	5214.02	5061.68	5216.31	5277.70	5597.33	5658.77	5651.45	5791.53	5627.72	5709.47	5583.14
18.00°	5198.91	5285.40	5140.28	5099.34	5137.32	4914.14	4892.93	4758.21	4898.75	4951.29	5221.45	5279.59	5273.50	5394.81	5238.43	5308.69	5198.91
19.00°	4851.46	4936.51	4818.44	4796.17	4824.54	4627.20	4605.94	4489.23	4608.55	4656.53	4887.88	4934.40	4929.76	5029.42	4888.30	4955.18	4851.46
20.00°	4545.39	4630.80	4526.95	4509.28	4541.54	4366.95	4351.82	4243.15	4357.36	4387.48	4588.30	4625.81	4617.79	4702.02	4576.89	4638.10	4545.39
21.00°	4277.11	4351.09	4257.50	4241.50	4280.17	4132.26	4122.25	4020.21	4124.33	4148.09	4329.94	4353.79	4335.79	4415.52	4307.32	4348.59	4277.11
22.00°	4037.36	4095.12	4013.87	4011.03	4046.68	3916.78	3912.53	3821.90	3912.23	3927.64	4074.33	4097.41	4084.48	4152.44	4067.70	4102.19	4037.36
23.00°	3813.67	3861.16	3787.89	3796.42	3824.54	3718.85	3725.19	3639.51	3717.93	3725.48	3852.95	3874.69	3851.41	3916.52	3845.24	3872.48	3813.67
24.00°	3606.81	3649.40	3567.97	3568.14	3619.30	3527.74	3549.11	3465.34	3538.29	3530.52	3646.69	3661.66	3639.54	3700.39	3643.51	3670.30	3606.81
25.00°	3416.72	3448.47	3375.07	3376.12	3425.45	3344.63	3374.39	3295.88	3362.08	3351.10	3454.12	3459.45	3442.40	3503.32	3452.48	3475.91	3416.72
26.00°	3240.51	3260.84	3188.51	3188.92	3238.28	3168.32	3201.40	3133.73	3185.72	3179.91	3272.70	3277.35	3251.43	3317.94	3276.74	3294.65	3240.51
27.00°	3063.38	3074.17	3010.95	3016.65	3055.86	2996.87	3036.49	2974.23	3018.03	3008.16	3086.32	3108.95	3076.78	3150.64	3108.58	3124.19	3063.38
28.00°	2893.79	2901.99	2840.58	2832.53	2877.57	2824.92	2869.09	2805.63	2852.61	2843.74	2915.88	2935.99	2906.72	2980.49	2939.43	2955.56	2893.79
29.00°	2726.07	2733.07	2666.07	2666.68	2708.49	2650.86	2700.14	2635.76	2691.81	2674.19	2746.69	2769.49	2734.66	2817.59	2773.62	2788.18	2726.07
30.00°	2562.64	2575.45	2498.24	2490.78	2535.63	2475.86	2527.23	2460.11	2526.52	2508.61	2580.15	2603.62	2570.17	2653.00	2609.02	2629.04	2562.64
31.00°	2396.02	2407.51	2329.88	2320.80	2366.18	2300.29	2346.65	2280.58	2359.01	2341.37	2414.57	2437.38	2400.51	2489.35	2445.27	2464.74	2396.02
32.00°	2224.69	2237.67	2161.11	2147.99	2190.26	2117.47	2160.77	2099.29	2175.53	2165.09	2247.56	2266.54	2224.20	2315.51	2276.94	2298.79	2224.69
33.00°	2047.59	2064.18	1979.87	1975.32	2009.86	1929.89	1967.64	1907.03	1988.37	1977.41	2078.57	2089.04	2050.66	2140.42	2101.12	2122.24	2047.59
34.00°	1868.74	1879.56	1794.74	1793.32	1826.67	1740.97	1771.30	1713.99	1794.52	1798.82	1896.75	1911.29	1871.39	1952.85	1915.70	1938.43	1868.74
35.00°	1676.61	1691.69	1609.47	1615.80	1644.54	1555.91	1578.89	1522.90	1602.63	1610.75	1721.87	1730.06	1687.56	1765.14	1723.02	1748.23	1676.61
36.00°	1493.00	1506.75	1433.21	1443.04	1467.00	1373.77	1391.21	1336.59	1418.46	1440.19	1549.26	1557.60	1505.82	1578.27	1533.68	1560.06	1493.00
37.00°	1315.78	1333.22	1271.78	1274.58	1294.12	1202.37	1214.53	1163.93	1244.28	1266.35	1374.28	1384.94	1335.55	1396.25	1349.42	1375.88	1315.78
38.00°	1139.71	1165.60	1113.32	1119.86	1134.34	1040.66	1048.90	1002.67	1083.29	1103.96	1208.48	1221.37	1171.26	1222.36	1171.57	1197.74	1139.71
39.00°	979.25	1010.12	969.95	976.97	984.47	900.66	899.83	861.42	932.18	956.31	1055.78	1071.13	1016.94	1058.33	1009.53	1030.64	979.25
40.00°	831.54	869.76	841.82	841.32	852.35	773.71	770.21	735.47	801.54	823.96	918.21	928.94	879.83	906.41	859.21	876.18	831.54
41.00°	702.64	745.60	727.85	727.69	732.32	661.76	655.91	627.49	689.31	711.93	793.63	807.29	758.52	770.17	725.68	742.43	702.64
42.00°	597.09	636.49	627.20	625.90	632.72	567.69	560.89	534.59	591.55	610.53	687.79	697.20	652.16	654.06	609.41	623.71	597.09
43.00°	504.08	542.90	534.67	539.36	543.71	488.97	482.21	458.00	508.32	524.55	594.36	598.05	557.07	557.79	510.69	521.81	504.08

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	6980	6980	6980	6980	6817	6817	6817	6817	6514	6514	6514	6237	6237	6237	5983	5983	5863
	1	6669	6512	6372	6246	6525	6386	6260	6147	6149	6049	5958	5932	5853	5780	5732	5671	5558
	2	6357	6083	5857	5667	6229	5983	5777	5603	5794	5626	5481	5621	5484	5364	5460	5350	5245
	3	6057	5698	5420	5199	5942	5617	5362	5157	5465	5251	5075	5324	5145	4995	5193	5046	4949
	4	5773	5353	5045	4810	5670	5287	5002	4781	5162	4918	4725	5047	4839	4670	4939	4763	4674
	5	5506	5042	4719	4479	5413	4988	4686	4459	4885	4622	4420	4789	4561	4382	4700	4502	4422
	6	5256	4763	4432	4194	5172	4717	4406	4180	4631	4356	4152	4551	4309	4124	4475	4263	4189
	7	5022	4510	4177	3944	4947	4471	4157	3934	4399	4118	3913	4331	4080	3893	4267	4044	3977
	8	4804	4280	3950	3724	4736	4248	3934	3716	4186	3903	3701	4127	3872	3686	4073	3843	3782
	9	4602	4072	3747	3527	4540	4044	3733	3521	3990	3708	3510	3940	3683	3498	3893	3659	3603
	10	4414	3881	3563	3351	4357	3857	3552	3346	3811	3531	3337	3767	3510	3328	3726	3490	3440

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	419.1 fc	2.9 ft
6.5 ft	300.0 fc	3.4 ft
7.5 ft	225.4 fc	3.9 ft
8.0 ft	198.1 fc	4.2 ft
10.0 ft	126.8 fc	5.2 ft
12.0 ft	88.0 fc	6.3 ft
14.0 ft	64.7 fc	7.3 ft
16.0 ft	49.5 fc	8.3 ft
20.0 ft	31.7 fc	10.4 ft
24.0 ft	22.0 fc	12.5 ft
28.0 ft	16.2 fc	14.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	694957	694957	694957
45.00°	28549	30888	31390
55.00°	10005	10683	11466
65.00°	4570	4860	5280
75.00°	1429	1718	2058
85.00°	1188	1360	1411

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

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0