

## Indoor Distribution Test Report

### Spectrum Lighting Inc.

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

Luminaire

C0614LM100L35HKNDGL  
6" Round x 12" High Cylinder Luminaire

Test Number

SP-R13

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	5694
Efficacy	76.56 lm/W

### Luminous Dimensions

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

### Spacing Criterion

Two luminaires, plane 0°	0.43
Two luminaires, plane 90°	0.43
Four luminaires	0.5

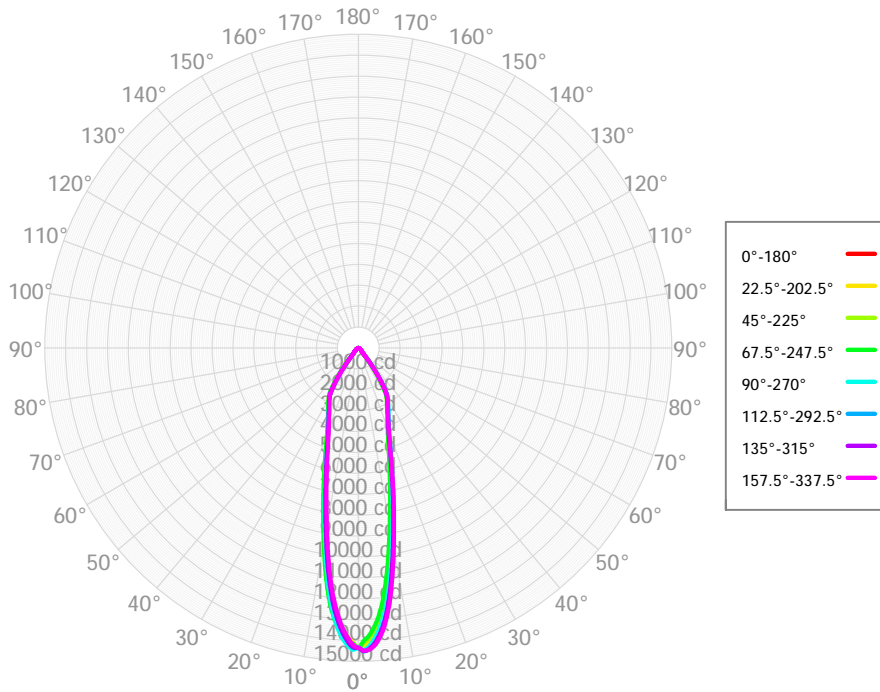
### Full Beam Angle

0° - 180°	25°
90° - 270°	26°

## IES File Header Contents

Keyword	Value
TEST	SP-R13
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/10/2025
ISSUEDATE	9/10/2025
LUMCAT	C0614LM100L35HKNDGL
LUMINAIRE	6" Round x 12" High Cylinder Luminaire
DISTRIBUTION	Beam Angle 25.8
OTHER	CCT 3500 CRI 91.3 R9 59.6
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°	1110.01	19.49%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	1699.40	29.85%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	1552.63	27.27%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1012.45	17.78%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	203.25	3.57%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	86.53	1.52%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	23.52	0.41%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	4.46	0.08%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.75	0.03%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	5694.00	100.00%	0.00° - 180.00°	5694.00	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°	14354.06	14354.06	14354.06	14354.06	14354.06	14354.06	14354.06	14354.06	14354.06	14354.06	14354.06	14354.06	14354.06	14354.06	14354.06	14354.06	14354.06
1.00°	14394.12	14272.19	14123.59	14035.67	14464.99	14349.40	14328.09	14214.51	14197.27	14106.86	14159.76	14159.25	14444.13	14525.62	14511.05	14488.49	14394.12
2.00°	14297.40	14177.22	13937.73	13810.69	14295.24	14090.81	14088.70	13902.02	13976.59	13876.96	14018.86	14052.00	14258.73	14431.92	14414.96	14455.36	14297.40
3.00°	14072.88	13964.09	13632.65	13476.59	13998.79	13732.56	13709.47	13512.09	13630.89	13547.43	13774.07	13831.61	13965.81	14197.46	14205.99	14293.46	14072.88
4.00°	13729.51	13634.12	13208.45	13031.26	13598.70	13264.19	13247.16	13018.76	13202.96	13124.59	13421.22	13502.06	13554.05	13835.67	13858.29	13990.10	13729.51
5.00°	13243.54	13163.23	12652.06	12469.52	13091.40	12679.19	12693.03	12446.55	12654.92	12596.62	12964.52	13060.13	13015.41	13386.32	13397.10	13566.70	13243.54
6.00°	12621.11	12556.10	11960.85	11786.84	12475.83	12013.94	12041.46	11777.42	12015.76	11967.83	12395.60	12510.52	12376.29	12811.52	12784.47	13000.87	12621.11
7.00°	11877.21	11801.92	11150.93	11012.31	11740.86	11268.99	11312.88	11017.15	11292.10	11255.41	11728.18	11854.12	11642.22	12109.77	12052.82	12297.13	11877.21
8.00°	11030.47	10951.27	10311.35	10202.22	10945.66	10464.40	10529.04	10236.03	10522.63	10478.86	10983.48	11107.01	10824.17	11311.08	11237.64	11473.22	11030.47
9.00°	10179.75	10100.25	9496.39	9400.32	10122.57	9655.31	9710.84	9429.84	9721.31	9683.56	10196.33	10315.26	9995.39	10493.77	10384.58	10606.69	10179.75
10.00°	9348.01	9296.47	8719.71	8649.00	9300.33	8878.02	8930.90	8669.43	8949.63	8918.20	9412.37	9528.56	9203.37	9667.77	9542.84	9760.91	9348.01
11.00°	8581.06	8546.96	8021.42	7952.01	8549.80	8160.29	8229.58	7974.90	8242.55	8217.77	8683.73	8783.18	8460.56	8872.23	8760.18	8955.04	8581.06
12.00°	7871.72	7846.39	7368.54	7316.53	7871.27	7506.97	7574.62	7346.32	7589.77	7587.50	8010.93	8093.75	7774.57	8151.45	8023.24	8199.39	7871.72
13.00°	7219.21	7192.59	6783.47	6742.14	7238.95	6915.27	6962.78	6767.08	6992.75	6984.90	7385.18	7456.56	7151.32	7470.14	7347.76	7513.53	7219.21
14.00°	6597.66	6598.59	6246.93	6223.04	6672.13	6387.49	6420.11	6251.49	6455.21	6437.84	6807.33	6867.81	6570.54	6863.75	6724.29	6876.66	6597.66
15.00°	6051.27	6065.30	5759.06	5751.82	6156.93	5913.18	5944.23	5780.30	5956.21	5956.41	6280.58	6333.26	6041.05	6286.24	6151.43	6287.49	6051.27
16.00°	5563.70	5591.04	5337.05	5325.81	5697.57	5470.14	5510.86	5357.54	5510.81	5508.78	5802.98	5844.42	5562.45	5767.79	5637.27	5765.57	5563.70
17.00°	5135.62	5177.66	4970.01	4956.28	5286.55	5086.24	5119.25	4978.27	5117.70	5112.12	5372.87	5399.25	5144.83	5318.37	5191.46	5298.65	5135.62
18.00°	4760.99	4814.54	4636.57	4631.93	4925.24	4750.48	4775.91	4660.06	4772.57	4767.46	4994.45	5007.79	4776.00	4925.55	4815.04	4907.51	4760.99
19.00°	4450.11	4501.61	4359.62	4353.03	4586.56	4458.12	4473.89	4378.65	4470.89	4464.02	4661.39	4669.30	4466.19	4581.39	4483.16	4564.38	4450.11
20.00°	4190.48	4240.54	4121.55	4116.91	4316.06	4207.81	4214.14	4133.53	4208.95	4215.60	4375.96	4379.77	4205.58	4298.02	4206.58	4271.87	4190.48
21.00°	3968.31	4017.80	3918.13	3913.40	4092.19	3988.67	3998.06	3924.20	3989.44	3996.76	4133.29	4131.59	3982.37	4061.50	3981.80	4030.83	3968.31
22.00°	3780.66	3820.59	3742.29	3734.91	3883.64	3800.81	3808.30	3747.92	3801.33	3809.85	3921.99	3918.54	3787.93	3859.54	3791.83	3832.43	3780.66
23.00°	3611.15	3651.65	3584.46	3571.86	3712.71	3634.70	3631.15	3578.62	3642.46	3634.25	3738.81	3735.71	3625.00	3677.86	3614.56	3657.01	3611.15
24.00°	3454.37	3496.56	3433.09	3426.68	3546.92	3482.98	3474.80	3425.94	3500.78	3489.78	3579.22	3572.05	3478.39	3514.04	3458.94	3495.60	3454.37
25.00°	3312.66	3347.56	3301.19	3296.45	3406.65	3338.11	3335.43	3293.08	3359.42	3357.88	3433.69	3421.57	3342.56	3375.89	3314.75	3340.54	3312.66
26.00°	3192.95	3222.38	3181.18	3180.31	3277.29	3207.29	3204.49	3173.70	3228.85	3218.03	3301.40	3293.79	3216.57	3249.67	3194.60	3214.15	3192.95
27.00°	3069.96	3099.84	3044.62	3052.02	3157.36	3085.37	3092.13	3062.94	3108.80	3104.58	3186.00	3178.21	3108.54	3131.06	3077.65	3103.42	3069.96
28.00°	2962.69	2971.97	2915.86	2925.53	3035.65	2963.13	2991.35	2955.59	2995.55	2978.57	3070.53	3075.09	2989.50	3005.90	2954.61	2981.48	2962.69
29.00°	2856.11	2866.28	2802.95	2818.06	2908.50	2856.74	2892.28	2854.42	2889.94	2880.98	2948.97	2947.51	2871.24	2894.57	2854.18	2871.75	2856.11
30.00°	2756.63	2761.29	2685.51	2711.79	2812.43	2752.54	2793.70	2763.45	2795.36	2789.01	2837.30	2835.38	2765.31	2790.65	2752.60	2775.72	2756.63
31.00°	2621.32	2642.47	2511.95	2540.68	2701.72	2617.33	2669.40	2630.11	2689.03	2684.25	2731.15	2731.04	2646.87	2677.90	2629.72	2662.52	2621.32
32.00°	2415.17	2440.81	2285.19	2303.01	2522.44	2420.31	2482.23	2424.99	2511.27	2503.95	2591.12	2606.90	2450.84	2509.49	2443.44	2486.77	2415.17
33.00°	2164.50	2187.88	2027.49	2046.03	2282.98	2172.68	2239.33	2171.40	2279.34	2253.11	2376.86	2391.44	2207.27	2277.48	2207.25	2252.85	2164.50
34.00°	1900.62	1912.19	1755.72	1780.58	2028.25	1905.61	1968.74	1896.11	2003.02	1968.97	2110.12	2130.73	1936.76	2018.03	1950.71	1993.88	1900.62
35.00°	1624.92	1639.50	1480.41	1500.80	1745.05	1627.53	1692.52	1619.54	1726.17	1691.37	1827.52	1862.39	1652.51	1740.52	1677.52	1723.20	1624.92
36.00°	1355.24	1368.36	1214.34	1226.64	1472.77	1345.74	1412.94	1343.05	1447.63	1423.54	1552.35	1581.18	1380.66	1459.30	1402.36	1445.22	1355.24
37.00°	1090.62	1102.85	957.20	964.35	1191.62	1073.34	1137.51	1074.49	1182.60	1157.83	1285.38	1305.95	1104.84	1191.18	1133.76	1171.80	1090.62
38.00°	829.25	845.71	719.19	722.13	930.89	829.18	880.00	824.43	923.78	902.40	1025.54	1037.13	850.36	935.37	878.37	912.26	829.25
39.00°	595.58	606.56	521.68	515.65	685.10	616.06	650.99	606.40	689.54	666.50	782.24	794.64	620.79	698.93	643.80	674.31	595.58
40.00°	426.15	431.11	400.64	393.88	494.17	456.28	476.91	445.04	500.40	483.24	569.65	576.33	448.54	505.87	460.21	478.20	426.15
41.00°	339.83	346.43	346.69	341.11	388.33	373.33	379.69	364.82	380.72	380.68	417.57	412.79	355.10	381.72	355.46	360.93	339.83
42.00°	303.27	312.92	314.16	313.06	346.96	339.51	342.53	331.08	334.80	336.29	346.57	348.71	318.44	324.85	309.95	312.73	303.27
43.00°	277.45	285.55	285.53	288.02	317.64	310.81	314.10	303.22	308.63	305.46	316.47	317.44	292.22	296.39	282.76	282.17	277.45

### 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	6779	6779	6779	6779	6621	6621	6621	6621	6327	6327	6327	6057	6057	6057	5810	5810	5694
	1	6487	6340	6208	6089	6349	6218	6100	5992	5988	5894	5808	5778	5704	5636	5583	5527	5417
	2	6197	5939	5727	5548	6073	5842	5650	5486	5660	5503	5366	5492	5364	5252	5337	5234	5132
	3	5917	5580	5319	5111	5807	5502	5263	5070	5355	5155	4990	5219	5052	4912	5093	4955	4861
	4	5651	5257	4968	4747	5553	5193	4926	4719	5074	4845	4664	4962	4768	4610	4859	4694	4608
	5	5401	4966	4661	4437	5312	4913	4629	4417	4814	4568	4379	4722	4509	4341	4636	4452	4373
	6	5166	4702	4391	4168	5086	4659	4367	4154	4576	4319	4126	4499	4272	4099	4427	4228	4156
	7	4945	4463	4151	3932	4874	4427	4132	3922	4357	4094	3902	4292	4057	3882	4231	4022	3956
	8	4740	4246	3936	3723	4675	4215	3920	3715	4156	3890	3700	4100	3860	3685	4048	3832	3772
	9	4548	4048	3742	3535	4489	4021	3729	3530	3971	3705	3518	3923	3681	3507	3877	3657	3602
	10	4369	3867	3567	3367	4315	3844	3556	3363	3800	3536	3354	3758	3516	3345	3719	3497	3447

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	474.5 fc	2.5 ft
6.5 ft	339.7 fc	2.9 ft
7.5 ft	255.2 fc	3.4 ft
8.0 ft	224.3 fc	3.6 ft
10.0 ft	143.5 fc	4.5 ft
12.0 ft	99.7 fc	5.4 ft
14.0 ft	73.2 fc	6.3 ft
16.0 ft	56.1 fc	7.2 ft
20.0 ft	35.9 fc	9.0 ft
24.0 ft	24.9 fc	10.9 ft
28.0 ft	18.3 fc	12.7 ft

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

	0.00°	45.00°	90.00°
0.00°	786892	786892	786892
45.00°	18173	18648	20881
55.00°	7546	7821	9284
65.00°	2600	2372	2866
75.00°	740	884	592
85.00°	810	980	918

### 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	9.8	10.8	10.2	11.1	11.4	11.2	12.2	11.6	12.5	12.8
	3H	9.8	10.6	10.2	11.0	11.3	11.2	12.0	11.6	12.4	12.7
	4H	9.7	10.5	10.1	10.9	11.2	11.1	11.9	11.5	12.2	12.6
	6H	9.6	10.3	10.1	10.7	11.1	11.0	11.7	11.4	12.1	12.5
	8H	9.6	10.3	10.0	10.6	11.1	10.9	11.6	11.4	12.0	12.4
	12H	9.5	10.2	10.0	10.6	11.0	10.9	11.5	11.3	11.9	12.3
4H	2H	9.7	10.5	10.1	10.8	11.2	11.1	11.9	11.5	12.2	12.6
	3H	9.7	10.3	10.1	10.7	11.1	11.1	11.7	11.5	12.1	12.5
	4H	9.6	10.2	10.0	10.6	11.0	11.0	11.6	11.4	12.0	12.4
	6H	9.5	10.0	10.0	10.5	10.9	10.9	11.4	11.4	11.8	12.3
	8H	9.5	9.9	10.0	10.4	10.9	10.8	11.3	11.3	11.7	12.2
	12H	9.4	9.8	9.9	10.3	10.8	10.8	11.2	11.3	11.7	12.1
8H	4H	9.5	9.9	9.9	10.3	10.8	10.8	11.3	11.3	11.7	12.2
	6H	9.4	9.7	9.9	10.2	10.7	10.7	11.1	11.2	11.6	12.1
	8H	9.3	9.6	9.9	10.2	10.7	10.7	11.0	11.2	11.5	12.0
	12H	9.3	9.6	9.8	10.1	10.7	10.7	10.9	11.2	11.4	12.0
12H	4H	9.4	9.8	9.9	10.3	10.7	10.8	11.1	11.3	11.6	12.1
	6H	9.3	9.6	9.9	10.1	10.7	10.7	11.0	11.2	11.5	12.0
	8H	9.3	9.6	9.8	10.1	10.6	10.6	10.9	11.2	11.4	12.0

Corrected UGR values based on total output energy  
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0