

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

C0614LM100L40HKNDGL
6" Round x 12" High Cylinder Luminaire

Test Number

SP-R16

Test Date

9/10/2025

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

Summary of Results

Power

Input Watts	74.16 W
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Lumen Output

Output Lumens	5934
Efficacy	80.02 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

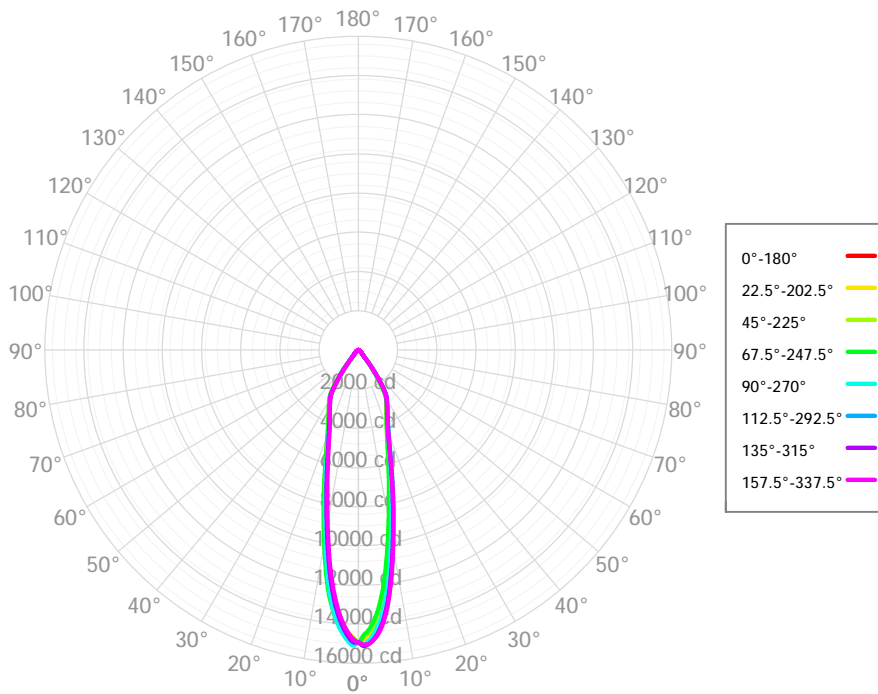
Full Beam Angle

0° - 180°	25°
90° - 270°	26°

IES File Header Contents

Keyword	Value
TEST	SP-R16
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/10/2025
ISSUEDATE	9/10/2025
LUMCAT	C0614LM100L40HKNDGL
LUMINAIRE	6" Round x 12" High Cylinder Luminaire
DISTRIBUTION	Beam Angle 25.8
OTHER	CCT 4079 CRI 90.9 R9 58.1
OTHER	Total Luminaire wattage is approximate
OTHER	This report is prepared by Spectrum Lighting
_CRI	90+
_CCTMULT	30K x 1.28, 35K x 1.35, 40K x 1.37, 30HK x 1.001, 35HK 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°	1155.35	19.47%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	1769.82	29.83%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	1615.04	27.22%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1055.69	17.79%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	214.54	3.62%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	91.07	1.53%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	25.50	0.43%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	5.06	0.09%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.94	0.03%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	5934.00	100.00%	0.00° - 180.00°	5934.00	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°	14932.96	14932.96	14932.96	14932.96	14932.96	14932.96	14932.96	14932.96	14932.96	14932.96	14932.96	14932.96	14932.96	14932.96	14932.96	14932.96	14932.96
1.00°	14956.68	14826.04	14665.45	14584.53	15042.78	14936.59	14915.90	14767.99	14776.06	14688.98	14715.42	14746.26	15092.29	15120.14	15108.81	15041.29	14956.68
2.00°	14868.70	14725.11	14469.92	14339.04	14867.55	14653.49	14635.19	14465.23	14513.15	14444.75	14574.58	14648.65	14887.37	15024.19	15028.94	15015.21	14868.70
3.00°	14660.17	14496.87	14131.85	13973.46	14559.22	14276.90	14248.32	14055.85	14146.11	14126.37	14332.03	14434.21	14563.31	14811.86	14800.16	14825.11	14660.17
4.00°	14268.47	14130.08	13662.32	13486.03	14124.84	13798.37	13754.61	13551.03	13707.77	13677.65	13983.32	14093.60	14183.66	14462.28	14472.02	14544.33	14268.47
5.00°	13767.09	13619.10	13059.76	12886.48	13596.67	13187.37	13162.90	12943.38	13153.76	13140.19	13534.02	13676.43	13659.41	14007.50	14007.69	14111.37	13767.09
6.00°	13111.84	12956.27	12290.67	12144.93	12930.66	12468.79	12481.98	12233.01	12503.36	12498.98	12955.52	13117.66	13003.86	13444.13	13401.71	13533.76	13111.84
7.00°	12314.82	12158.90	11456.99	11322.59	12156.99	11666.83	11715.29	11459.57	11763.86	11748.60	12272.17	12474.46	12256.63	12736.11	12663.85	12801.60	12314.82
8.00°	11441.37	11295.01	10594.30	10468.55	11315.23	10800.67	10899.76	10636.13	10949.80	10935.57	11505.01	11701.65	11426.56	11924.54	11821.65	11970.87	11441.37
9.00°	10555.21	10420.56	9753.35	9647.38	10451.42	9958.68	10057.81	9789.02	10115.57	10116.05	10692.26	10870.88	10550.47	11078.03	10946.88	11099.50	10555.21
10.00°	9702.30	9585.38	8982.97	8879.16	9601.04	9164.02	9253.01	9001.10	9316.84	9320.06	9867.21	10053.88	9712.96	10227.03	10085.85	10226.76	9702.30
11.00°	8904.46	8808.66	8246.80	8165.99	8818.45	8435.10	8511.48	8288.14	8565.37	8580.58	9094.34	9264.60	8941.60	9408.99	9262.02	9386.49	8904.46
12.00°	8163.34	8080.03	7575.15	7516.37	8108.48	7763.19	7827.99	7636.05	7885.14	7903.71	8388.17	8537.75	8228.99	8651.84	8495.36	8597.74	8163.34
13.00°	7480.47	7419.10	6973.18	6919.79	7469.08	7150.67	7221.17	7033.53	7253.79	7282.33	7731.48	7863.10	7560.07	7939.16	7799.73	7883.03	7480.47
14.00°	6848.15	6804.98	6432.19	6389.56	6877.44	6593.71	6653.15	6491.60	6691.87	6712.04	7127.08	7242.22	6937.49	7280.30	7142.20	7213.54	6848.15
15.00°	6278.41	6261.15	5933.91	5909.86	6349.30	6094.96	6150.58	5998.82	6174.68	6192.85	6572.02	6671.36	6366.90	6664.85	6527.38	6601.99	6278.41
16.00°	5762.58	5758.36	5487.19	5466.96	5879.38	5647.90	5683.64	5571.77	5720.42	5739.85	6067.60	6143.46	5869.79	6118.34	5984.57	6027.68	5762.58
17.00°	5315.51	5331.75	5109.27	5093.71	5444.10	5255.45	5286.13	5186.66	5309.54	5340.39	5622.78	5683.37	5421.59	5620.65	5504.79	5537.80	5315.51
18.00°	4921.43	4969.21	4775.34	4767.40	5066.84	4905.31	4927.10	4837.63	4941.76	4970.51	5219.97	5266.97	5024.57	5202.87	5080.15	5121.67	4921.43
19.00°	4604.83	4631.25	4487.18	4479.73	4737.45	4598.77	4629.53	4533.69	4643.40	4652.57	4873.29	4914.77	4680.27	4837.74	4723.18	4752.32	4604.83
20.00°	4328.19	4372.44	4249.94	4230.50	4461.41	4333.16	4375.09	4296.80	4383.39	4398.99	4572.80	4594.05	4404.97	4532.66	4431.23	4455.29	4328.19
21.00°	4104.50	4150.04	4039.16	4039.35	4229.46	4116.94	4149.23	4080.99	4155.52	4158.50	4320.70	4340.77	4176.14	4274.40	4188.91	4202.58	4104.50
22.00°	3915.72	3949.44	3859.76	3858.71	4020.94	3923.63	3951.22	3883.78	3957.64	3954.69	4101.68	4123.83	3961.13	4050.67	3984.42	4000.49	3915.72
23.00°	3733.59	3771.92	3701.15	3687.33	3844.06	3751.57	3769.39	3722.61	3790.01	3784.30	3906.93	3907.28	3789.42	3857.67	3796.31	3813.02	3733.59
24.00°	3564.07	3612.51	3549.48	3546.75	3684.03	3588.41	3612.85	3559.94	3614.28	3627.69	3737.69	3729.54	3625.71	3685.31	3627.37	3635.64	3564.07
25.00°	3416.34	3468.42	3414.09	3414.51	3541.55	3442.52	3468.14	3426.02	3468.84	3479.40	3579.22	3590.33	3481.68	3529.90	3476.86	3475.30	3416.34
26.00°	3291.07	3336.03	3295.68	3302.13	3410.59	3334.25	3331.91	3303.68	3347.96	3353.21	3439.79	3449.16	3362.14	3390.83	3349.20	3346.21	3291.07
27.00°	3175.17	3212.61	3177.84	3167.20	3287.04	3203.81	3211.81	3185.76	3223.01	3230.31	3317.15	3323.58	3244.23	3280.02	3228.69	3233.82	3175.17
28.00°	3058.83	3088.35	3040.10	3042.84	3157.41	3071.63	3099.50	3071.24	3104.00	3102.67	3194.88	3208.89	3111.02	3154.93	3102.08	3106.51	3058.83
29.00°	2955.51	2974.22	2929.13	2934.70	3025.04	2973.21	2994.65	2959.50	3005.30	3000.15	3063.83	3080.22	2987.90	3029.13	2998.06	2987.03	2955.51
30.00°	2848.37	2863.16	2811.64	2821.13	2913.61	2870.83	2899.83	2849.54	2905.01	2901.67	2948.48	2961.28	2881.38	2915.25	2896.66	2879.39	2848.37
31.00°	2702.72	2728.40	2636.64	2630.42	2780.92	2722.63	2768.98	2715.14	2789.05	2790.44	2848.80	2851.55	2747.04	2809.54	2762.54	2777.13	2702.72
32.00°	2499.19	2522.19	2395.19	2388.65	2589.82	2508.83	2571.04	2505.21	2609.94	2614.36	2710.85	2706.41	2549.75	2638.87	2572.41	2596.96	2499.19
33.00°	2239.77	2268.17	2121.10	2121.26	2348.60	2256.81	2323.51	2247.83	2362.48	2361.85	2491.01	2487.65	2300.55	2410.96	2329.78	2349.76	2239.77
34.00°	1955.27	1988.12	1838.24	1829.92	2067.05	1978.43	2044.70	1968.40	2088.24	2079.86	2225.81	2228.50	2025.52	2138.04	2055.29	2076.41	1955.27
35.00°	1678.99	1690.62	1554.44	1543.02	1786.84	1685.63	1756.12	1675.94	1803.71	1788.66	1940.01	1947.19	1731.87	1837.41	1765.16	1793.57	1678.99
36.00°	1402.29	1410.51	1272.52	1257.84	1496.63	1403.18	1462.97	1387.69	1521.82	1509.54	1653.49	1664.43	1441.11	1545.07	1476.86	1509.42	1402.29
37.00°	1131.27	1138.25	1002.30	988.49	1208.60	1125.12	1179.40	1115.24	1243.57	1237.99	1375.10	1380.04	1161.73	1263.33	1194.75	1229.19	1131.27
38.00°	869.38	867.39	750.23	743.23	942.84	861.42	912.72	864.22	973.41	969.88	1105.39	1106.22	895.88	987.99	926.47	960.38	869.38
39.00°	627.13	624.08	529.78	530.00	706.37	635.03	675.18	627.61	720.95	720.71	848.47	850.97	650.77	736.33	683.51	717.75	627.13
40.00°	438.53	453.45	394.88	402.28	519.20	469.39	496.22	458.77	514.23	512.34	619.46	622.41	469.87	530.11	487.83	509.64	438.53
41.00°	355.93	367.70	351.04	355.99	409.29	395.72	397.15	383.98	394.81	394.65	451.56	446.77	373.29	402.75	372.38	381.35	355.93
42.00°	323.19	331.27	321.37	325.91	366.42	355.94	359.40	350.78	354.91	351.28	370.21	371.62	340.05	347.58	332.13	329.90	323.19
43.00°	295.37	300.14	292.01	299.99	334.64	324.43	329.61	323.66	324.50	321.69	334.42	335.43	311.45	315.68	302.11	303.26	295.37

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	7064	7064	7064	7064	6900	6900	6900	6900	6593	6593	6593	6313	6313	6313	6055	6055	5934
	1	6760	6607	6469	6345	6616	6479	6356	6244	6240	6142	6052	6021	5944	5872	5818	5759	5645
	2	6457	6189	5967	5781	6328	6088	5886	5716	5898	5733	5591	5723	5589	5472	5561	5454	5347
	3	6165	5813	5541	5324	6050	5732	5483	5281	5579	5370	5198	5438	5263	5117	5306	5162	5064
	4	5888	5476	5175	4945	5785	5410	5131	4915	5285	5047	4858	5170	4966	4802	5062	4890	4800
	5	5627	5173	4855	4621	5535	5118	4822	4601	5015	4758	4560	4919	4696	4521	4830	4637	4554
	6	5381	4898	4574	4341	5299	4853	4548	4326	4767	4498	4297	4686	4450	4269	4611	4404	4328
	7	5152	4649	4323	4095	5077	4611	4303	4084	4538	4263	4063	4470	4225	4042	4407	4188	4120
	8	4937	4423	4099	3877	4870	4390	4083	3869	4328	4051	3853	4270	4020	3837	4216	3991	3928
	9	4737	4216	3897	3681	4676	4188	3884	3675	4135	3858	3663	4085	3833	3652	4038	3809	3751
	10	4551	4027	3714	3506	4495	4003	3703	3501	3958	3682	3492	3914	3661	3483	3873	3641	3589

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	493.7 fc	2.5 ft
6.5 ft	353.4 fc	2.9 ft
7.5 ft	265.5 fc	3.4 ft
8.0 ft	233.3 fc	3.6 ft
10.0 ft	149.3 fc	4.5 ft
12.0 ft	103.7 fc	5.4 ft
14.0 ft	76.2 fc	6.3 ft
16.0 ft	58.3 fc	7.2 ft
20.0 ft	37.3 fc	9.0 ft
24.0 ft	25.9 fc	10.8 ft
28.0 ft	19.0 fc	12.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	818627	818627	818627
45.00°	19233	19262	21917
55.00°	8255	7992	9768
65.00°	2535	2248	3110
75.00°	1002	837	869
85.00°	1015	1223	1187

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

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0