

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

C0614LM100L35KNDGL

6" Round x 12" High Cylinder Luminaire

Test Number

SP-R33

Test Date

9/10/2025

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

Summary of Results

Power

Input Watts	69.19 W
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Lumen Output

Output Lumens	7214
Efficacy	104.26 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.42
Two luminaires, plane 90°	0.41
Four luminaires	0.49

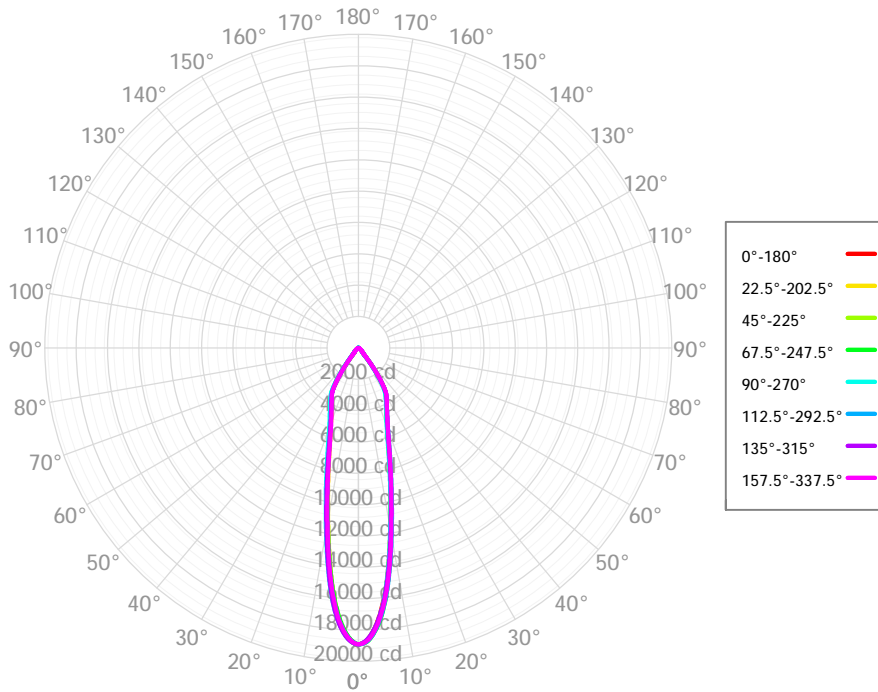
Full Beam Angle

0° - 180°	25°
90° - 270°	25°

IES File Header Contents

Keyword	Value
TEST	SP-R33
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/10/2025
ISSUEDATE	9/10/2025
LUMCAT	C0614LM100L35KNDGL
LUMINAIRE	6" Round x 12" High Cylinder Luminaire
DISTRIBUTION	Beam Angle 24.9
OTHER	CCT 3469 CRI 81.2 R9 2.7
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	120L x 1.14, 137L x 1.31

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	1434.19	19.88%	90.00° - 100.00°	1.42	0.02%
10.00° - 20.00°	2141.62	29.69%	100.00° - 110.00°	1.41	0.02%
20.00° - 30.00°	1948.22	27.01%	100.00° - 120.00°	2.82	0.04%
30.00° - 40.00°	1268.33	17.58%	120.00° - 130.00°	1.49	0.02%
40.00° - 50.00°	258.98	3.59%	130.00° - 140.00°	1.70	0.02%
50.00° - 60.00°	112.25	1.56%	140.00° - 150.00°	1.69	0.02%
60.00° - 70.00°	31.58	0.44%	150.00° - 160.00°	1.44	0.02%
70.00° - 80.00°	5.36	0.07%	160.00° - 170.00°	0.83	0.01%
80.00° - 90.00°	1.85	0.03%	170.00° - 180.00°	0.24	0.00%
0.00° - 90.00°	7202.38	99.84%	0.00° - 180.00°	7214.00	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°	18906.56	18906.56	18906.56	18906.56	18906.56	18906.56	18906.56	18906.56	18906.56	18906.56	18906.56	18906.56	18906.56	18906.56	18906.56	18906.56	18906.56
1.00°	18811.91	18846.88	18810.61	18866.26	18818.55	18775.22	18832.34	18787.87	18826.79	18763.71	18815.57	18745.54	18825.57	18868.77	18797.52	18843.29	18811.91
2.00°	18530.47	18628.56	18579.00	18680.96	18541.87	18498.92	18589.23	18500.02	18565.15	18461.71	18534.34	18422.75	18583.21	18647.50	18521.06	18617.43	18530.47
3.00°	18083.83	18245.89	18161.49	18287.94	18125.97	18047.30	18197.37	18046.51	18148.49	17982.69	18087.39	17930.36	18175.88	18270.00	18098.75	18235.31	18083.83
4.00°	17489.99	17705.46	17587.03	17790.30	17564.50	17455.60	17638.01	17443.53	17581.08	17317.75	17491.19	17267.77	17609.34	17728.57	17518.81	17683.86	17489.99
5.00°	16757.38	17025.85	16853.80	17122.60	16830.77	16677.81	16914.84	16659.25	16813.98	16480.56	16688.93	16455.59	16915.58	17064.65	16801.40	16990.63	16757.38
6.00°	15907.71	16196.44	15975.56	16316.92	15938.40	15755.07	16034.17	15701.81	15875.01	15496.25	15744.52	15516.02	16070.06	16280.31	15983.47	16186.14	15907.71
7.00°	14944.23	15249.50	14991.09	15320.15	14927.88	14730.86	15023.74	14633.97	14814.21	14397.99	14697.90	14450.67	15086.49	15363.06	15027.02	15260.67	14944.23
8.00°	13884.68	14195.01	13906.77	14249.05	13847.78	13621.18	13925.98	13485.98	13678.18	13268.74	13567.45	13340.70	14027.54	14343.70	13995.18	14234.68	13884.68
9.00°	12798.94	13106.72	12813.61	13142.76	12746.26	12514.44	12803.31	12360.37	12540.53	12150.84	12442.50	12259.54	12925.08	13277.96	12914.29	13163.05	12798.94
10.00°	11739.72	12041.03	11760.41	12075.92	11687.76	11470.79	11731.06	11299.41	11463.32	11109.54	11383.74	11228.06	11878.39	12216.82	11862.43	12102.44	11739.72
11.00°	10768.34	11033.44	10787.82	11054.29	10703.66	10504.07	10728.41	10321.36	10486.17	10172.26	10429.73	10282.02	10893.62	11210.60	10889.79	11100.74	10768.34
12.00°	9883.73	10125.07	9901.07	10126.59	9820.85	9615.00	9802.79	9429.26	9578.17	9294.39	9556.17	9437.37	9997.65	10285.02	10001.83	10182.67	9883.73
13.00°	9090.42	9313.82	9094.72	9291.09	9002.09	8796.13	8964.58	8612.67	8754.54	8516.30	8764.50	8666.19	9190.68	9448.99	9195.25	9353.07	9090.42
14.00°	8368.27	8567.05	8365.75	8544.18	8247.29	8056.92	8180.92	7872.24	7997.24	7796.76	8048.24	7975.01	8451.97	8690.67	8465.43	8603.05	8368.27
15.00°	7713.98	7895.52	7699.63	7860.29	7582.27	7393.79	7493.68	7210.97	7340.88	7171.34	7403.63	7340.92	7780.15	7999.58	7804.53	7930.18	7713.98
16.00°	7124.01	7282.70	7103.59	7220.90	6988.10	6801.61	6874.97	6627.24	6743.42	6623.49	6834.23	6785.58	7182.48	7380.68	7215.68	7321.72	7124.01
17.00°	6594.23	6739.77	6571.26	6676.22	6456.37	6295.14	6336.33	6131.88	6228.52	6143.42	6337.65	6296.39	6652.80	6821.72	6690.73	6781.02	6594.23
18.00°	6134.47	6260.23	6128.22	6205.04	6005.70	5859.01	5884.25	5704.29	5792.76	5728.81	5910.80	5888.12	6187.66	6333.33	6225.57	6303.15	6134.47
19.00°	5738.64	5847.98	5711.33	5797.56	5604.72	5482.91	5502.14	5349.82	5426.17	5381.43	5539.85	5508.03	5781.48	5919.90	5816.93	5889.69	5738.64
20.00°	5404.32	5489.77	5377.27	5440.52	5287.46	5172.49	5185.32	5050.15	5126.18	5086.54	5219.28	5208.75	5429.03	5545.36	5470.54	5530.28	5404.32
21.00°	5121.96	5184.81	5088.69	5132.22	4996.44	4906.53	4908.68	4791.52	4865.55	4839.23	4957.84	4948.16	5141.00	5222.63	5170.75	5227.56	5121.96
22.00°	4866.96	4927.42	4844.24	4872.80	4758.11	4673.23	4668.72	4570.52	4634.27	4622.59	4717.73	4710.73	4889.16	4962.28	4918.60	4967.80	4866.96
23.00°	4637.23	4696.76	4624.63	4645.73	4552.31	4456.55	4458.41	4371.70	4424.76	4421.59	4527.90	4504.49	4669.99	4729.86	4692.19	4733.19	4637.23
24.00°	4437.94	4485.86	4434.59	4457.19	4359.46	4263.37	4264.78	4191.47	4233.18	4238.63	4337.89	4319.15	4470.28	4517.13	4487.19	4523.11	4437.94
25.00°	4261.89	4297.46	4253.97	4280.08	4185.61	4092.77	4096.66	4028.27	4065.30	4080.48	4155.59	4160.92	4287.68	4330.03	4298.50	4330.75	4261.89
26.00°	4101.66	4137.79	4092.54	4116.29	4035.90	3946.94	3945.84	3875.47	3912.15	3932.24	4012.40	4024.02	4132.38	4161.92	4132.33	4164.39	4101.66
27.00°	3954.33	3994.38	3954.34	3970.78	3889.20	3774.72	3790.28	3733.13	3771.29	3778.68	3867.31	3867.70	3989.73	4011.52	3994.04	4016.46	3954.33
28.00°	3802.69	3843.10	3816.52	3819.82	3727.69	3624.98	3644.20	3597.81	3637.48	3637.17	3693.26	3708.87	3820.90	3864.24	3852.28	3873.80	3802.69
29.00°	3662.83	3685.99	3652.49	3638.27	3580.69	3485.86	3517.10	3468.25	3503.39	3520.45	3555.54	3571.38	3666.91	3709.65	3718.10	3732.13	3662.83
30.00°	3542.54	3566.85	3515.84	3521.15	3450.51	3360.56	3388.53	3339.74	3384.34	3395.74	3428.13	3435.66	3540.84	3579.28	3591.93	3599.88	3542.54
31.00°	3426.86	3449.16	3374.95	3396.22	3289.76	3164.36	3210.93	3145.25	3207.18	3194.70	3272.47	3247.29	3390.92	3452.61	3451.40	3479.94	3426.86
32.00°	3221.72	3274.83	3183.06	3210.13	3050.27	2896.13	2955.89	2860.35	2954.13	2924.08	3014.64	2978.99	3147.76	3257.44	3242.70	3302.88	3221.72
33.00°	2954.79	3024.99	2910.29	2939.09	2750.14	2581.60	2644.42	2533.93	2632.49	2599.38	2706.08	2654.46	2850.40	2984.77	2947.43	3032.53	2954.79
34.00°	2636.87	2721.70	2587.46	2608.85	2411.29	2243.62	2304.66	2187.19	2290.01	2238.66	2364.80	2309.05	2523.92	2669.73	2618.46	2717.25	2636.87
35.00°	2291.91	2373.11	2237.15	2257.40	2058.70	1892.80	1953.98	1823.23	1923.91	1870.80	2002.52	1957.00	2174.01	2330.19	2269.87	2371.44	2291.91
36.00°	1931.81	2002.28	1874.91	1899.96	1710.93	1539.52	1606.74	1475.50	1564.98	1500.99	1635.48	1602.41	1814.24	1972.16	1911.93	2019.36	1931.81
37.00°	1573.79	1639.43	1512.04	1550.38	1357.61	1213.20	1253.83	1140.90	1216.81	1148.63	1285.54	1263.71	1467.11	1611.64	1562.96	1662.26	1573.79
38.00°	1235.31	1289.45	1172.75	1214.34	1034.90	919.91	943.86	840.57	904.66	848.55	968.85	951.49	1141.25	1277.62	1224.13	1323.39	1235.31
39.00°	925.20	972.32	872.69	904.58	756.93	672.33	684.06	597.50	647.25	615.53	707.82	690.52	854.50	973.85	928.49	1004.98	925.20
40.00°	680.82	719.59	626.23	651.37	544.95	502.06	498.23	449.39	472.99	470.37	523.72	514.92	630.77	721.96	684.70	737.23	680.82
41.00°	519.50	538.65	476.99	490.82	439.65	422.34	416.12	394.45	402.14	408.10	439.25	448.66	499.70	536.65	530.52	552.30	519.50
42.00°	446.46	447.65	420.37	419.15	394.36	385.21	378.49	358.41	372.51	370.94	398.95	411.36	442.05	465.49	462.75	468.09	446.46
43.00°	409.93	409.24	385.69	385.64	365.34	352.34	341.03	325.40	341.23	342.87	367.12	374.68	404.76	425.95	422.86	426.94	409.93

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	ρ_{fc}	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	ρ_{cc}	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	ρ_w	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	8585	8585	8585	8585	8384	8384	8384	8384	8009	8009	8009	7666	7666	7666	7351	7351	7351	7202
	1	8217	8030	7863	7713	8040	7874	7725	7589	7582	7463	7354	7313	7220	7134	7065	6993	6926	6853
	2	7849	7524	7255	7029	7692	7400	7156	6949	7167	6968	6796	6953	6791	6649	6754	6625	6509	6495
	3	7495	7069	6739	6476	7355	6969	6667	6423	6782	6528	6320	6608	6397	6220	6447	6273	6124	6153
	4	7160	6661	6295	6016	7034	6579	6241	5980	6426	6137	5908	6284	6038	5839	6152	5944	5772	5834
	5	6843	6293	5908	5624	6731	6226	5867	5599	6099	5788	5549	5982	5712	5500	5872	5639	5452	5538
	6	6546	5961	5567	5285	6445	5905	5535	5267	5799	5474	5231	5700	5414	5195	5608	5357	5161	5265
	7	6268	5659	5264	4987	6177	5612	5239	4974	5523	5190	4948	5440	5143	4922	5361	5098	4896	5013
	8	6009	5385	4993	4724	5926	5345	4973	4714	5269	4933	4694	5198	4895	4674	5131	4859	4655	4782
	9	5767	5136	4749	4488	5692	5101	4732	4480	5036	4700	4465	4975	4669	4450	4917	4639	4435	4569
	10	5541	4907	4528	4275	5473	4878	4514	4270	4821	4488	4258	4768	4462	4246	4717	4437	4235	4373

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	625.0 fc	2.4 ft
6.5 ft	447.5 fc	2.8 ft
7.5 ft	336.1 fc	3.3 ft
8.0 ft	295.4 fc	3.5 ft
10.0 ft	189.1 fc	4.4 ft
12.0 ft	131.3 fc	5.3 ft
14.0 ft	96.5 fc	6.1 ft
16.0 ft	73.9 fc	7.0 ft
20.0 ft	47.3 fc	8.8 ft
24.0 ft	32.8 fc	10.5 ft
28.0 ft	24.1 fc	12.3 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	1036460	1036460	1036460
45.00°	27069	25570	24218
55.00°	13543	12849	11153
65.00°	4393	4412	3778
75.00°	1319	1060	816
85.00°	1258	986	877

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	12.9	13.9	13.3	14.2	14.5	11.0	12.0	11.4	12.3	12.6
	3H	12.9	13.8	13.3	14.1	14.5	11.0	11.8	11.4	12.2	12.5
	4H	12.9	13.6	13.3	14.0	14.4	10.9	11.7	11.3	12.0	12.4
	6H	12.8	13.5	13.2	13.8	14.3	10.8	11.5	11.2	11.9	12.3
	8H	12.7	13.4	13.2	13.8	14.2	10.8	11.4	11.2	11.8	12.2
	12H	12.7	13.3	13.1	13.7	14.1	10.7	11.3	11.2	11.7	12.2
4H	2H	12.8	13.6	13.2	13.9	14.3	10.9	11.7	11.3	12.0	12.4
	3H	12.8	13.5	13.2	13.9	14.3	10.9	11.5	11.3	11.9	12.3
	4H	12.7	13.3	13.2	13.7	14.2	10.8	11.3	11.2	11.8	12.2
	6H	12.7	13.1	13.1	13.6	14.1	10.7	11.2	11.2	11.6	12.1
	8H	12.6	13.0	13.1	13.5	14.0	10.6	11.1	11.1	11.5	12.0
	12H	12.5	12.9	13.0	13.4	13.9	10.6	11.0	11.1	11.5	12.0
8H	4H	12.6	13.0	13.1	13.5	13.9	10.6	11.1	11.1	11.5	12.0
	6H	12.5	12.8	13.0	13.3	13.8	10.5	10.9	11.0	11.4	11.9
	8H	12.4	12.7	13.0	13.3	13.8	10.5	10.8	11.0	11.3	11.8
	12H	12.4	12.7	12.9	13.2	13.7	10.5	10.7	11.0	11.2	11.8
12H	4H	12.5	12.9	13.0	13.4	13.9	10.5	10.9	11.0	11.4	11.9
	6H	12.4	12.7	12.9	13.2	13.7	10.5	10.8	11.0	11.2	11.8
	8H	12.4	12.6	12.9	13.1	13.7	10.4	10.7	11.0	11.2	11.8

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0