

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

C0614LM100L30KNDSO

6" Round x 12" High Cylinder Luminaire

Test Number

SP-R41

Test Date

9/10/2025

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

Summary of Results

Power

Input Watts	69.98 W
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Lumen Output

Output Lumens	6896
Efficacy	98.54 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°	0.45
Four luminaires	0.56

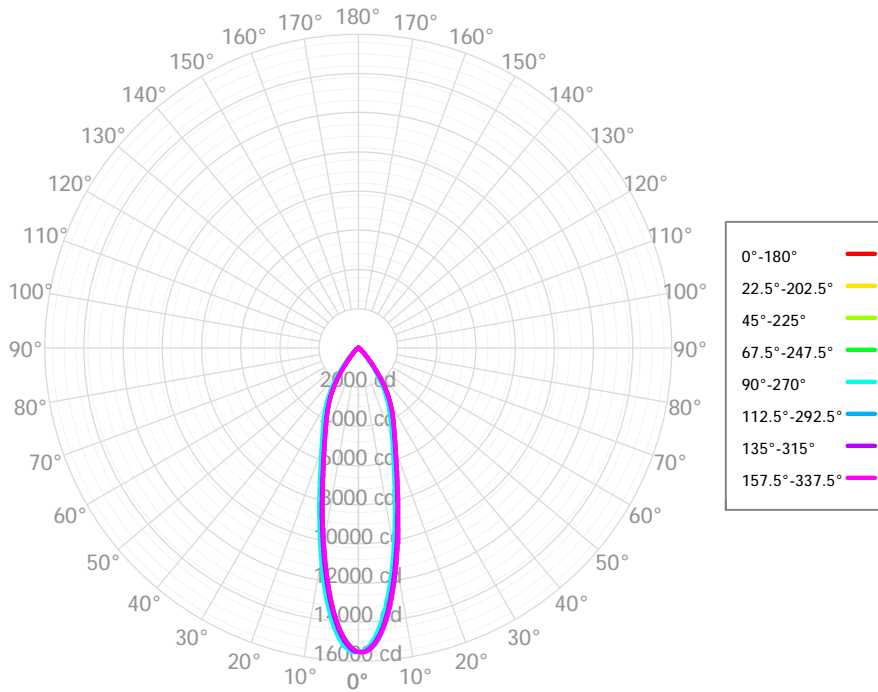
Full Beam Angle

0° - 180°	29°
90° - 270°	29°

IES File Header Contents

Keyword	Value
TEST	SP-R41
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/10/2025
ISSUEDATE	9/10/2025
LUMCAT	C0614LM100L30KNDSO
LUMINAIRE	6" Round x 12" High Cylinder Luminaire
DISTRIBUTION	Beam Angle 28.6
OTHER	CCT 3011 CRI 82.9 R9 8.2
OTHER	Total Luminaire wattage is approximate
OTHER	This report is prepared by Spectrum Lighting
_CRI	80+
_CCTMULT	35K x 1.056, 40K x 1.07, 30HK x 0.79, 35HK x 0.77, 40HK x 0.78
_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°	1230.65	17.85%	90.00° - 100.00°	1.57	0.02%
10.00° - 20.00°	2065.49	29.95%	100.00° - 110.00°	1.53	0.02%
20.00° - 30.00°	1849.21	26.82%	100.00° - 120.00°	3.00	0.04%
30.00° - 40.00°	1198.40	17.38%	120.00° - 130.00°	1.46	0.02%
40.00° - 50.00°	361.10	5.24%	130.00° - 140.00°	1.59	0.02%
50.00° - 60.00°	121.48	1.76%	140.00° - 150.00°	1.59	0.02%
60.00° - 70.00°	45.43	0.66%	150.00° - 160.00°	1.37	0.02%
70.00° - 80.00°	10.48	0.15%	160.00° - 170.00°	0.79	0.01%
80.00° - 90.00°	2.15	0.03%	170.00° - 180.00°	0.25	0.00%
0.00° - 90.00°	6884.39	99.83%	0.00° - 180.00°	6896.00	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°	15516.21	15516.21	15516.21	15516.21	15516.21	15516.21	15516.21	15516.21	15516.21	15516.21	15516.21	15516.21	15516.21	15516.21	15516.21	15516.21	15516.21
1.00°	15501.35	15506.51	15481.19	15498.04	15466.66	15417.36	15443.98	15364.03	15413.52	15351.15	15391.69	15344.58	15531.87	15530.86	15514.60	15535.43	15501.35
2.00°	15361.53	15394.19	15340.23	15395.43	15233.18	15151.04	15213.87	15101.95	15190.90	15103.48	15171.35	15096.36	15403.77	15438.38	15369.80	15423.08	15361.53
3.00°	15102.42	15169.63	15079.39	15181.77	14892.56	14768.72	14876.89	14734.78	14846.38	14737.69	14840.78	14730.27	15165.63	15223.16	15123.54	15186.79	15102.42
4.00°	14729.46	14832.12	14704.61	14827.13	14446.94	14283.55	14419.53	14270.47	14401.90	14269.20	14404.21	14262.20	14776.26	14888.04	14765.71	14844.50	14729.46
5.00°	14265.47	14392.02	14241.59	14388.30	13890.89	13718.67	13871.18	13703.42	13866.13	13705.97	13868.78	13691.54	14308.55	14426.87	14289.12	14396.70	14265.47
6.00°	13711.25	13863.78	13687.62	13859.96	13258.50	13079.35	13244.23	13060.34	13250.77	13056.74	13241.25	13037.63	13732.34	13909.20	13721.54	13869.94	13711.25
7.00°	13073.19	13251.15	13050.93	13234.01	12571.75	12384.59	12574.19	12368.21	12567.50	12351.85	12550.41	12336.34	13103.45	13291.62	13065.26	13267.10	13073.19
8.00°	12384.48	12574.59	12370.94	12561.92	11848.74	11650.12	11849.71	11615.23	11838.89	11618.95	11822.81	11612.60	12403.45	12608.39	12387.50	12592.63	12384.48
9.00°	11661.16	11864.52	11652.41	11855.73	11119.10	10904.33	11093.47	10871.48	11092.47	10864.17	11078.70	10874.06	11692.87	11892.24	11672.62	11882.72	11661.16
10.00°	10926.93	11134.39	10913.75	11128.83	10368.53	10151.53	10350.58	10135.95	10346.40	10131.76	10343.88	10139.59	10945.41	11161.19	10924.89	11174.96	10926.93
11.00°	10210.75	10401.37	10192.42	10396.74	9638.88	9424.91	9643.20	9423.20	9621.38	9418.46	9630.31	9420.28	10226.31	10432.80	10215.57	10447.29	10210.75
12.00°	9517.16	9698.15	9501.69	9694.75	8944.10	8739.69	8963.81	8755.42	8932.68	8732.41	8936.80	8732.92	9534.37	9717.51	9520.53	9704.57	9517.16
13.00°	8843.42	9026.99	8835.80	9024.28	8281.14	8098.86	8302.54	8105.68	8276.26	8093.72	8277.42	8090.96	8868.45	9042.67	8837.32	9027.71	8843.42
14.00°	8224.04	8404.63	8210.28	8387.78	7674.12	7505.09	7671.03	7485.66	7665.96	7494.63	7667.40	7496.90	8257.12	8415.67	8225.73	8399.00	8224.04
15.00°	7648.70	7806.95	7629.75	7794.60	7109.93	6970.79	7105.50	6962.37	7109.80	6948.81	7106.83	6960.90	7663.31	7823.76	7654.25	7813.26	7648.70
16.00°	7115.58	7262.34	7117.22	7254.94	6603.44	6483.73	6600.64	6466.62	6606.65	6464.73	6598.38	6470.68	7136.27	7281.91	7125.28	7262.11	7115.58
17.00°	6639.57	6766.29	6629.85	6766.79	6154.58	6037.12	6148.97	6020.53	6152.42	6020.07	6143.24	6023.65	6657.69	6780.92	6647.35	6771.02	6639.57
18.00°	6202.62	6322.93	6205.38	6322.07	5754.29	5639.98	5735.35	5644.02	5745.10	5630.45	5735.28	5634.27	6222.49	6339.10	6213.79	6329.88	6202.62
19.00°	5824.44	5926.34	5824.12	5924.09	5399.45	5293.39	5386.40	5292.46	5379.81	5285.30	5377.07	5284.30	5840.06	5940.09	5831.91	5933.52	5824.44
20.00°	5485.83	5573.70	5478.65	5571.48	5079.97	4985.56	5069.02	4975.32	5068.32	4977.87	5064.12	4974.51	5493.47	5576.96	5490.42	5592.76	5485.83
21.00°	5186.34	5253.76	5177.64	5258.20	4781.90	4709.28	4777.75	4687.55	4779.98	4694.31	4769.06	4694.26	5188.45	5266.31	5189.49	5277.57	5186.34
22.00°	4904.80	4972.90	4898.82	4977.73	4517.05	4440.99	4519.77	4432.75	4512.36	4434.65	4504.36	4436.27	4914.61	4984.25	4911.88	4993.19	4904.80
23.00°	4657.26	4718.44	4653.00	4721.28	4277.89	4207.77	4277.91	4215.73	4270.60	4204.55	4262.82	4200.72	4660.64	4722.16	4665.48	4721.50	4657.26
24.00°	4429.51	4484.31	4422.37	4488.00	4052.18	3990.76	4047.93	3988.57	4040.75	3984.86	4038.75	3985.05	4431.77	4485.52	4435.38	4486.10	4429.51
25.00°	4214.17	4267.04	4211.19	4270.58	3829.43	3791.15	3835.90	3777.89	3831.20	3770.96	3823.98	3768.37	4218.09	4278.07	4215.32	4280.23	4214.17
26.00°	4007.40	4057.15	4011.39	4063.33	3629.50	3570.47	3622.52	3568.49	3624.14	3566.96	3626.02	3567.22	4020.16	4067.29	4006.06	4067.85	4007.40
27.00°	3807.81	3852.08	3808.85	3858.71	3436.65	3367.09	3431.76	3360.51	3413.38	3370.26	3426.32	3367.59	3814.52	3864.56	3807.80	3867.00	3807.81
28.00°	3612.10	3656.63	3608.45	3657.40	3245.04	3177.86	3225.77	3173.59	3220.09	3175.64	3226.82	3169.49	3617.53	3670.44	3611.56	3669.60	3612.10
29.00°	3417.06	3469.20	3417.75	3465.69	3046.78	2987.27	3040.74	2982.39	3033.69	2976.87	3033.12	2976.47	3424.27	3472.30	3417.68	3475.89	3417.06
30.00°	3222.77	3271.41	3223.04	3270.12	2841.55	2784.52	2836.62	2783.96	2837.72	2774.85	2835.07	2781.73	3225.65	3278.76	3227.62	3279.79	3222.77
31.00°	3017.65	3071.51	3018.61	3067.86	2635.85	2573.69	2630.26	2568.63	2628.56	2567.49	2625.60	2565.76	3022.72	3077.52	3022.42	3072.61	3017.65
32.00°	2809.76	2862.96	2807.38	2861.72	2404.86	2359.37	2403.78	2343.16	2410.79	2349.35	2411.94	2349.24	2817.47	2861.86	2813.00	2867.76	2809.76
33.00°	2597.76	2648.40	2595.09	2644.45	2188.86	2127.99	2187.50	2117.63	2184.77	2120.62	2182.35	2119.64	2609.53	2652.03	2598.28	2655.32	2597.76
34.00°	2374.63	2425.66	2374.82	2424.67	1955.34	1895.22	1956.16	1895.37	1961.35	1891.01	1956.60	1890.61	2386.52	2436.53	2374.26	2430.81	2374.63
35.00°	2146.78	2199.45	2142.94	2193.53	1730.17	1677.25	1734.73	1672.49	1730.99	1668.11	1729.52	1670.08	2164.94	2202.71	2148.01	2201.18	2146.78
36.00°	1916.08	1972.69	1914.10	1967.01	1511.90	1452.96	1516.71	1452.70	1514.26	1454.26	1511.58	1457.14	1924.33	1974.45	1915.92	1970.97	1916.08
37.00°	1694.68	1743.97	1691.47	1742.98	1303.19	1250.80	1306.79	1246.77	1306.66	1250.19	1304.54	1246.95	1698.76	1744.55	1688.41	1739.37	1694.68
38.00°	1482.91	1527.85	1479.08	1527.43	1112.35	1064.15	1111.61	1060.57	1107.27	1059.92	1111.11	1058.59	1486.04	1531.71	1478.21	1526.85	1482.91
39.00°	1283.18	1326.74	1278.60	1325.34	936.86	900.53	941.27	897.69	940.19	898.81	939.21	897.78	1290.21	1330.51	1280.28	1331.21	1283.18
40.00°	1101.67	1140.45	1099.63	1138.34	793.94	757.45	793.66	759.81	794.14	761.48	791.11	757.74	1099.78	1142.50	1102.37	1144.40	1101.67
41.00°	940.41	972.64	939.35	969.92	668.13	637.70	667.28	641.05	668.18	634.03	667.71	636.52	941.73	974.06	939.71	973.56	940.41
42.00°	800.55	829.95	799.84	827.45	561.07	536.78	563.93	537.88	557.57	533.79	560.15	536.32	801.65	825.47	800.80	830.62	800.55
43.00°	682.35	704.93	678.09	699.17	476.73	455.97	476.50	454.85	471.15	458.81	473.13	456.37	682.19	703.47	680.49	706.02	682.35

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	8207	8207	8207	8207	8015	8015	8015	8015	7656	7656	7656	7328	7328	7328	7026	7026	6884
	1	7844	7661	7497	7349	7674	7511	7364	7231	7231	7114	7007	6973	6882	6797	6736	6665	6599
	2	7480	7160	6895	6673	7328	7041	6801	6597	6817	6621	6451	6612	6452	6312	6421	6293	6179
	3	7130	6710	6386	6127	6994	6614	6316	6077	6434	6184	5979	6267	6059	5884	6112	5940	5793
	4	6798	6307	5948	5673	6677	6229	5896	5638	6081	5797	5571	5944	5702	5505	5817	5612	5442
	5	6486	5945	5566	5287	6377	5880	5527	5263	5758	5451	5216	5644	5378	5169	5538	5308	5124
	6	6194	5618	5231	4954	6096	5564	5201	4937	5462	5142	4902	5367	5085	4869	5277	5030	4836
	7	5921	5322	4934	4662	5832	5277	4910	4649	5191	4863	4624	5110	4818	4600	5034	4774	4576
	8	5667	5054	4669	4404	5586	5016	4649	4395	4942	4612	4376	4873	4575	4357	4808	4540	4339
	9	5430	4810	4431	4174	5357	4777	4415	4167	4714	4384	4152	4654	4354	4138	4598	4325	4124
	10	5210	4588	4215	3967	5144	4559	4202	3962	4504	4177	3951	4452	4152	3940	4403	4128	3929

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	512.9 fc	2.8 ft
6.5 ft	367.2 fc	3.3 ft
7.5 ft	275.8 fc	3.8 ft
8.0 ft	242.4 fc	4.1 ft
10.0 ft	155.2 fc	5.1 ft
12.0 ft	107.8 fc	6.1 ft
14.0 ft	79.2 fc	7.1 ft
16.0 ft	60.6 fc	8.2 ft
20.0 ft	38.8 fc	10.2 ft
24.0 ft	26.9 fc	12.2 ft
28.0 ft	19.8 fc	14.3 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	850601	850601	850601
45.00°	38656	38557	26826
55.00°	14260	14139	10487
65.00°	6308	6345	4526
75.00°	2146	2185	1338
85.00°	1188	1130	816

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	13.7	14.7	14.1	15.0	15.3	11.7	12.7	12.1	13.0	13.3
	3H	14.0	14.8	14.3	15.2	15.5	12.0	12.9	12.4	13.2	13.6
	4H	13.9	14.7	14.3	15.1	15.5	12.0	12.8	12.4	13.2	13.6
	6H	13.9	14.6	14.3	15.0	15.4	11.9	12.7	12.3	13.0	13.4
	8H	13.8	14.5	14.2	14.9	15.3	11.9	12.6	12.3	13.0	13.4
	12H	13.8	14.4	14.2	14.8	15.2	11.8	12.5	12.3	12.9	13.3
4H	2H	13.7	14.5	14.1	14.9	15.3	11.7	12.5	12.1	12.9	13.3
	3H	14.0	14.7	14.4	15.1	15.5	12.1	12.7	12.5	13.1	13.5
	4H	14.0	14.6	14.5	15.0	15.5	12.0	12.6	12.5	13.0	13.5
	6H	14.0	14.5	14.4	14.9	15.4	12.0	12.5	12.4	12.9	13.4
	8H	13.9	14.4	14.4	14.8	15.3	11.9	12.4	12.4	12.8	13.3
	12H	13.9	14.2	14.3	14.7	15.2	11.9	12.3	12.3	12.7	13.2
8H	4H	13.9	14.4	14.4	14.8	15.3	11.9	12.3	12.4	12.8	13.3
	6H	13.8	14.2	14.3	14.7	15.2	11.8	12.2	12.3	12.7	13.2
	8H	13.8	14.1	14.3	14.6	15.1	11.8	12.1	12.3	12.6	13.1
	12H	13.7	14.0	14.3	14.5	15.1	11.7	12.0	12.3	12.5	13.1
12H	4H	13.8	14.2	14.3	14.7	15.2	11.8	12.2	12.3	12.7	13.2
	6H	13.8	14.1	14.3	14.6	15.1	11.7	12.1	12.3	12.5	13.1
	8H	13.7	14.0	14.3	14.5	15.1	11.7	12.0	12.2	12.5	13.1

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0