

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

C0614LM100L30KNDGL

6" Round x 12" High Cylinder Luminaire

Test Number

SP-R40

Test Date

9/10/2025

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

Summary of Results

Power

Input Watts	69.86 W
-------------	---------

Lumen Output

Output Lumens	6803
Efficacy	97.38 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.45
Two luminaires, plane 90°	0.38
Four luminaires	0.49

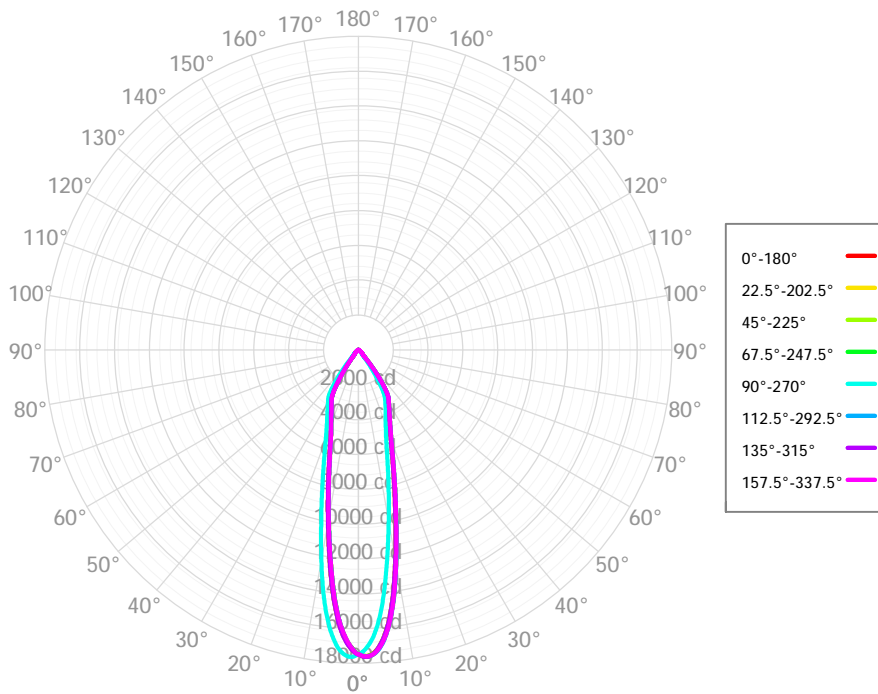
Full Beam Angle

0° - 180°	25°
90° - 270°	25°

IES File Header Contents

Keyword	Value
TEST	SP-R40
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/10/2025
ISSUEDATE	9/10/2025
LUMCAT	C0614LM100L30KNDGL
LUMINAIRE	6" Round x 12" High Cylinder Luminaire
DISTRIBUTION	Beam Angle 25.2
OTHER	CCT 3052 CRI 82.5 R9 5.7
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°	1349.96	19.84%	90.00° - 100.00°	1.54	0.02%
10.00° - 20.00°	2030.55	29.85%	100.00° - 110.00°	1.56	0.02%
20.00° - 30.00°	1833.73	26.95%	100.00° - 120.00°	3.03	0.04%
30.00° - 40.00°	1190.85	17.50%	120.00° - 130.00°	1.44	0.02%
40.00° - 50.00°	249.42	3.67%	130.00° - 140.00°	1.43	0.02%
50.00° - 60.00°	102.27	1.50%	140.00° - 150.00°	1.48	0.02%
60.00° - 70.00°	28.12	0.41%	150.00° - 160.00°	1.33	0.02%
70.00° - 80.00°	4.99	0.07%	160.00° - 170.00°	0.78	0.01%
80.00° - 90.00°	1.81	0.03%	170.00° - 180.00°	0.26	0.00%
0.00° - 90.00°	6791.71	99.83%	0.00° - 180.00°	6803.00	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°	17482.01	17482.01	17482.01	17482.01	17482.01	17482.01	17482.01	17482.01	17482.01	17482.01	17482.01	17482.01	17482.01	17482.01	17482.01	17482.01	17482.01
1.00°	17605.79	17594.80	17575.73	17567.78	17290.96	17227.08	17291.29	17202.02	17279.44	17201.72	17276.48	17189.00	17623.45	17599.22	17626.85	17589.04	17605.79
2.00°	17562.88	17616.00	17558.50	17579.02	16961.35	16857.98	16949.27	16799.96	16930.73	16837.22	16917.73	16810.78	17605.55	17609.50	17610.24	17590.63	17562.88
3.00°	17399.27	17483.11	17409.52	17450.79	16488.64	16303.62	16472.32	16262.93	16446.67	16306.34	16434.65	16282.77	17432.63	17483.42	17428.00	17464.41	17399.27
4.00°	17077.60	17177.68	17081.69	17163.09	15831.73	15589.26	15824.20	15583.45	15806.37	15594.84	15782.05	15584.64	17107.99	17209.16	17075.15	17177.97	17077.60
5.00°	16596.54	16727.15	16589.62	16716.85	15007.46	14745.55	14987.28	14749.96	14989.92	14728.66	14967.00	14729.09	16598.64	16769.85	16605.99	16745.16	16596.54
6.00°	15959.55	16121.54	15955.16	16124.34	14044.59	13765.36	14029.90	13756.49	14037.55	13744.32	14025.03	13739.06	15968.20	16164.69	15960.20	16152.33	15959.55
7.00°	15161.48	15393.81	15179.74	15385.12	12998.93	12713.19	13001.40	12694.96	13009.29	12687.33	13000.95	12690.00	15185.90	15423.56	15170.53	15408.28	15161.48
8.00°	14245.48	14529.00	14239.68	14514.04	11957.47	11662.60	11950.41	11668.46	11951.65	11667.30	11948.92	11656.68	14269.04	14549.71	14256.60	14520.19	14245.48
9.00°	13248.25	13533.11	13256.97	13527.51	10962.62	10671.50	10942.10	10698.08	10958.99	10674.40	10943.54	10679.73	13259.69	13560.01	13238.72	13532.26	13248.25
10.00°	12197.81	12492.04	12188.69	12480.77	10040.66	9777.49	10018.27	9780.26	10020.60	9768.35	10017.36	9775.11	12225.17	12526.53	12212.13	12491.57	12197.81
11.00°	11184.76	11463.23	11166.45	11460.62	9177.88	8932.13	9169.17	8941.76	9168.82	8940.65	9166.46	8938.67	11194.22	11503.33	11204.90	11469.24	11184.76
12.00°	10237.78	10506.00	10216.28	10494.23	8380.80	8166.13	8384.06	8176.39	8381.61	8181.70	8383.01	8166.62	10258.25	10534.84	10252.42	10516.54	10237.78
13.00°	9389.28	9638.58	9377.68	9621.75	7662.25	7468.98	7670.97	7464.43	7658.67	7463.86	7659.32	7458.03	9417.51	9648.11	9395.86	9627.01	9389.28
14.00°	8633.03	8854.92	8621.66	8831.27	7007.10	6823.10	7016.86	6830.13	7008.71	6832.23	7003.06	6829.46	8644.08	8859.97	8642.58	8854.34	8633.03
15.00°	7933.55	8140.60	7946.64	8123.04	6419.14	6291.82	6428.05	6281.98	6434.28	6274.18	6424.10	6278.97	7946.53	8136.79	7942.87	8136.83	7933.55
16.00°	7318.50	7480.03	7321.09	7478.73	5924.93	5797.07	5927.62	5800.24	5931.87	5788.83	5927.41	5792.08	7315.53	7498.00	7319.57	7486.61	7318.50
17.00°	6759.40	6903.97	6767.71	6904.53	5494.34	5391.16	5493.67	5386.56	5503.52	5375.75	5483.68	5386.64	6762.94	6907.54	6752.63	6903.76	6759.40
18.00°	6268.71	6392.73	6259.96	6383.90	5142.51	5059.01	5149.01	5039.02	5130.52	5048.31	5137.58	5050.26	6266.40	6403.44	6264.66	6388.95	6268.71
19.00°	5828.76	5950.77	5830.27	5936.00	4854.53	4776.67	4853.52	4768.38	4835.56	4773.92	4837.88	4763.46	5836.81	5945.31	5822.70	5940.13	5828.76
20.00°	5455.77	5550.53	5458.17	5551.24	4598.24	4540.55	4596.65	4536.79	4590.04	4528.31	4594.48	4523.33	5457.20	5562.67	5455.28	5554.45	5455.77
21.00°	5136.43	5222.50	5133.74	5211.35	4368.04	4322.29	4370.18	4314.41	4365.94	4315.97	4374.61	4313.99	5129.81	5211.40	5129.42	5225.03	5136.43
22.00°	4851.36	4927.99	4853.13	4925.04	4188.70	4122.33	4178.60	4136.06	4170.29	4116.84	4169.02	4121.84	4860.05	4939.49	4871.98	4935.10	4851.36
23.00°	4618.00	4674.08	4617.25	4678.90	4003.03	3942.40	4007.45	3938.91	4014.35	3944.26	3992.26	3949.84	4617.67	4687.92	4621.59	4688.94	4618.00
24.00°	4410.99	4465.52	4414.90	4457.15	3839.00	3793.70	3846.27	3788.11	3829.66	3787.38	3827.28	3788.60	4414.93	4469.59	4410.46	4465.32	4410.99
25.00°	4213.16	4269.07	4219.32	4264.85	3693.23	3648.21	3670.06	3650.31	3708.02	3644.77	3688.90	3647.95	4216.91	4269.34	4212.05	4270.53	4213.16
26.00°	4042.90	4086.16	4039.99	4086.24	3556.80	3515.39	3553.76	3515.12	3561.82	3511.47	3564.04	3508.22	4045.08	4095.22	4038.61	4091.01	4042.90
27.00°	3892.85	3929.29	3890.62	3924.44	3417.03	3387.48	3423.26	3387.21	3424.00	3384.59	3407.02	3383.42	3888.00	3935.28	3889.57	3932.52	3892.85
28.00°	3745.88	3786.09	3757.16	3781.00	3291.56	3257.30	3295.37	3256.32	3299.23	3258.81	3282.74	3260.76	3752.25	3786.48	3746.01	3785.53	3745.88
29.00°	3608.74	3647.02	3614.39	3643.13	3158.37	3124.93	3161.48	3118.96	3158.03	3119.73	3165.58	3120.99	3619.48	3650.32	3616.59	3644.52	3608.74
30.00°	3480.65	3514.78	3480.63	3511.06	2990.19	2914.80	2978.31	2917.60	2972.13	2916.72	2988.35	2914.43	3481.92	3515.86	3480.57	3515.15	3480.65
31.00°	3362.43	3396.30	3364.22	3388.72	2721.60	2636.12	2721.35	2639.21	2715.34	2638.23	2723.83	2634.73	3364.61	3397.14	3365.47	3392.19	3362.43
32.00°	3243.15	3276.15	3238.84	3274.07	2407.24	2320.79	2409.83	2320.81	2405.80	2317.07	2397.34	2318.68	3252.60	3286.65	3249.95	3276.84	3243.15
33.00°	3063.96	3120.95	3064.50	3122.23	2077.82	1985.48	2069.20	1983.16	2069.32	1980.53	2075.99	1987.39	3075.91	3140.02	3070.95	3126.44	3063.96
34.00°	2811.22	2886.21	2811.09	2885.41	1741.29	1652.47	1735.80	1652.90	1739.59	1651.49	1741.47	1657.99	2815.69	2898.40	2813.66	2888.19	2811.22
35.00°	2513.82	2587.58	2506.37	2590.75	1421.39	1330.79	1417.84	1332.34	1418.79	1334.27	1415.08	1337.84	2519.17	2594.44	2514.64	2592.40	2513.82
36.00°	2203.25	2279.49	2191.78	2273.19	1117.26	1039.13	1121.24	1039.31	1118.19	1042.47	1112.14	1043.72	2200.73	2279.39	2200.76	2281.65	2203.25
37.00°	1874.76	1957.64	1865.04	1948.35	843.93	778.05	848.31	777.97	841.00	778.25	841.97	778.66	1874.10	1952.26	1875.32	1958.16	1874.76
38.00°	1545.86	1624.27	1537.75	1622.52	613.66	559.63	612.86	560.27	608.79	556.85	611.72	559.64	1548.49	1628.12	1547.16	1623.36	1545.86
39.00°	1214.46	1294.59	1212.36	1292.24	456.39	432.75	452.68	429.51	454.04	429.53	457.75	431.83	1212.03	1299.30	1215.21	1295.02	1214.46
40.00°	901.94	978.92	897.13	975.92	384.29	379.63	384.25	376.06	384.44	375.88	388.32	375.64	900.98	976.71	904.36	971.57	901.94
41.00°	646.52	706.30	640.55	700.34	349.70	342.25	350.82	342.56	351.06	341.96	350.50	338.92	644.49	704.42	649.67	697.98	646.52
42.00°	478.02	512.98	472.35	507.20	321.42	312.75	318.81	312.09	319.85	311.51	316.82	311.32	478.05	512.67	483.49	509.72	478.02
43.00°	409.67	422.89	413.01	426.37	293.71	288.06	294.81	286.86	294.16	286.50	291.00	290.02	409.42	426.93	413.50	424.49	409.67

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%	20%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	8096	8096	8096	8096	7907	7907	7907	7907	7553	7553	7553	7229	7229	7229	6931	6931	6931	6792
	1	7749	7573	7416	7274	7582	7426	7285	7157	7150	7038	6936	6896	6809	6728	6663	6595	6532	6463
	2	7402	7096	6842	6629	7254	6979	6749	6554	6760	6572	6410	6557	6405	6272	6370	6248	6140	6126
	3	7069	6667	6356	6109	6937	6574	6288	6059	6397	6158	5961	6233	6034	5868	6081	5917	5777	5804
	4	6753	6283	5938	5675	6635	6206	5888	5641	6062	5790	5574	5928	5696	5509	5803	5607	5445	5503
	5	6455	5936	5574	5306	6349	5873	5535	5282	5754	5460	5235	5643	5388	5189	5539	5320	5144	5224
	6	6175	5623	5252	4987	6079	5570	5222	4969	5471	5164	4935	5378	5108	4902	5291	5054	4869	4967
	7	5913	5339	4967	4706	5827	5295	4943	4693	5211	4897	4668	5132	4852	4644	5058	4809	4620	4730
	8	5668	5081	4711	4457	5590	5043	4692	4448	4971	4655	4429	4904	4619	4410	4841	4584	4392	4512
	9	5440	4845	4481	4234	5369	4813	4465	4227	4751	4435	4213	4693	4406	4199	4639	4377	4185	4311
	10	5227	4630	4272	4034	5163	4602	4260	4029	4549	4235	4018	4498	4210	4007	4451	4187	3996	4126

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	577.9 fc	2.5 ft
6.5 ft	413.8 fc	2.9 ft
7.5 ft	310.8 fc	3.4 ft
8.0 ft	273.2 fc	3.6 ft
10.0 ft	174.8 fc	4.5 ft
12.0 ft	121.4 fc	5.4 ft
14.0 ft	89.2 fc	6.3 ft
16.0 ft	68.3 fc	7.2 ft
20.0 ft	43.7 fc	8.9 ft
24.0 ft	30.4 fc	10.7 ft
28.0 ft	22.3 fc	12.5 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	958366	958366	958366
45.00°	26834	26694	19060
55.00°	13079	13107	7885
65.00°	4651	4676	1648
75.00°	1018	751	710
85.00°	787	1169	1238

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	13.1	14.0	13.5	14.4	14.7	9.4	10.3	9.7	10.6	11.0
	3H	13.1	13.9	13.5	14.3	14.6	9.4	10.2	9.7	10.5	10.9
	4H	13.0	13.8	13.4	14.1	14.5	9.3	10.1	9.7	10.4	10.8
	6H	12.9	13.6	13.3	14.0	14.4	9.2	9.9	9.6	10.3	10.7
	8H	12.8	13.5	13.3	13.9	14.3	9.2	9.8	9.6	10.2	10.6
	12H	12.8	13.4	13.2	13.8	14.2	9.1	9.7	9.6	10.1	10.6
4H	2H	13.0	13.8	13.4	14.1	14.5	9.2	10.0	9.6	10.3	10.7
	3H	13.0	13.6	13.4	14.0	14.5	9.2	9.8	9.6	10.2	10.6
	4H	12.9	13.5	13.3	13.9	14.3	9.1	9.7	9.5	10.1	10.5
	6H	12.8	13.3	13.3	13.7	14.2	9.0	9.5	9.5	10.0	10.4
	8H	12.7	13.2	13.2	13.6	14.1	9.0	9.4	9.5	9.9	10.4
	12H	12.7	13.1	13.2	13.6	14.0	8.9	9.3	9.4	9.8	10.3
8H	4H	12.7	13.2	13.2	13.6	14.1	8.9	9.4	9.4	9.8	10.3
	6H	12.6	13.0	13.2	13.5	14.0	8.9	9.2	9.4	9.7	10.2
	8H	12.6	12.9	13.1	13.4	13.9	8.8	9.1	9.4	9.7	10.2
	12H	12.5	12.8	13.1	13.3	13.9	8.8	9.1	9.3	9.6	10.2
12H	4H	12.7	13.1	13.2	13.5	14.0	8.9	9.2	9.4	9.7	10.2
	6H	12.6	12.9	13.1	13.4	13.9	8.8	9.1	9.3	9.6	10.1
	8H	12.5	12.8	13.0	13.3	13.9	8.8	9.0	9.3	9.5	10.1

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0