

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

C0614LM137L30HKNDNL
6" Round x 12" High Cylinder Luminaire

Test Number

SP-R4

Test Date

9/10/2025

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

Summary of Results

Power

Input Watts	100.11 W
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Lumen Output

Output Lumens	7695
Efficacy	76.87 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.44
Two luminaires, plane 90°	0.4
Four luminaires	0.5

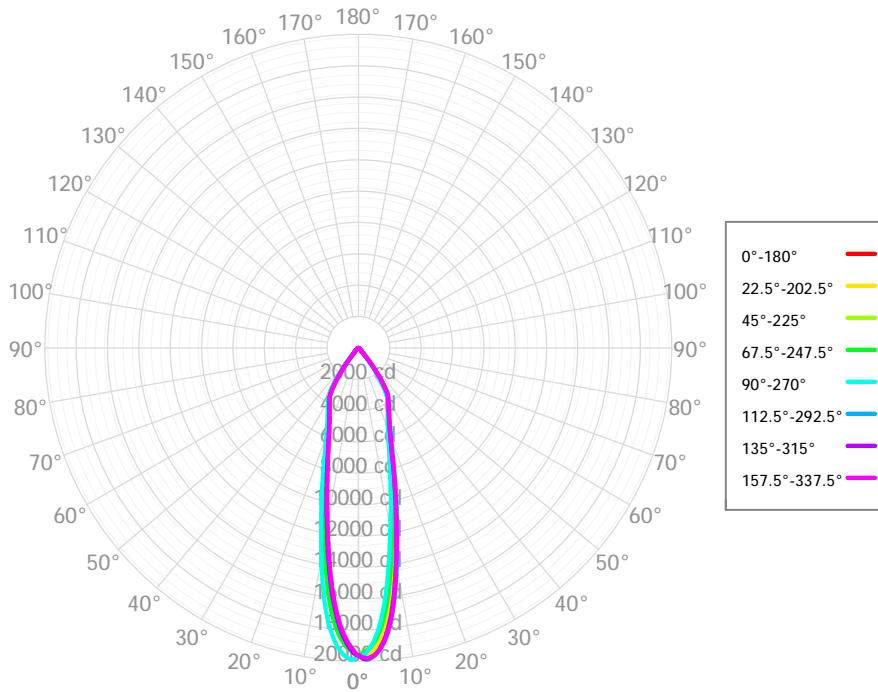
Full Beam Angle

0° - 180°	25°
90° - 270°	26°

IES File Header Contents

Keyword	Value
TEST	SP-R4
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/10/2025
ISSUEDATE	9/10/2025
LUMCAT	C0614LM137L30HKNDNL
LUMINAIRE	6" Round x 12" High Cylinder Luminaire
DISTRIBUTION	Beam Angle 25.5
OTHER	CCT 3060 CRI 92.6 R9 61.1
OTHER	Total Luminaire wattage is approximate
OTHER	This report is prepared by Spectrum Lighting
_CRI	90+
_CCTMULT	30K x 1.27, 35K x 1.34, 40K x 1.37, 35HK x 0.98, 40HK x 0.99
_LAMPMULT	100L x 0.77, 120L x 0.88

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	1519.19	19.74%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	2306.93	29.98%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	2085.42	27.10%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1430.37	18.59%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	238.62	3.10%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	90.26	1.17%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	18.94	0.25%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	3.38	0.04%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.89	0.02%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	7695.00	100.00%	0.00° - 180.00°	7695.00	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°	19618.52	19618.52	19618.52	19618.52	19618.52	19618.52	19618.52	19618.52	19618.52	19618.52	19618.52	19618.52	19618.52	19618.52	19618.52	19618.52	19618.52
1.00°	19682.59	19576.56	19486.30	19424.42	19411.02	19420.06	19419.47	19253.72	19343.42	19258.50	19392.98	19424.20	19907.45	19863.10	19842.02	19766.54	19682.59
2.00°	19619.03	19516.46	19283.29	19208.82	19242.30	18970.17	18997.79	18811.76	18951.09	18889.22	19115.07	19181.02	19783.36	19870.04	19800.55	19779.46	19619.03
3.00°	19409.52	19294.11	18936.79	18833.39	18726.29	18362.57	18439.67	18218.95	18436.81	18370.83	18703.56	18799.83	19530.16	19662.93	19635.18	19618.42	19409.52
4.00°	19028.04	18893.94	18428.37	18307.40	18048.58	17610.25	17728.68	17490.26	17785.34	17722.42	18160.76	18276.41	19105.25	19332.15	19273.67	19307.98	19028.04
5.00°	18431.32	18302.17	17735.04	17621.94	17183.45	16722.66	16878.72	16620.74	17022.27	16957.42	17481.09	17598.81	18527.45	18858.00	18725.28	18838.91	18431.32
6.00°	17640.72	17529.72	16865.42	16734.54	16167.89	15694.37	15900.23	15628.56	16080.61	16026.83	16650.54	16755.59	17814.30	18201.24	18016.44	18177.05	17640.72
7.00°	16669.89	16577.67	15802.72	15727.90	15068.62	14570.83	14825.02	14550.13	15000.38	14963.65	15633.19	15759.99	16924.33	17364.48	17128.03	17332.92	16669.89
8.00°	15571.18	15457.81	14617.68	14597.00	13902.79	13443.41	13705.57	13431.64	13909.08	13848.77	14534.91	14661.50	15883.27	16373.13	16094.92	16291.14	15571.18
9.00°	14407.61	14271.25	13451.78	13448.25	12760.75	12346.14	12610.81	12346.29	12815.62	12751.65	13416.25	13538.43	14744.77	15298.33	14956.90	15130.73	14407.61
10.00°	13249.89	13119.98	12348.90	12336.89	11722.88	11325.55	11569.88	11337.62	11753.12	11728.14	12344.10	12459.34	13586.61	14123.13	13794.02	13947.44	13249.89
11.00°	12150.74	12048.22	11328.46	11322.76	10782.37	10413.94	10633.92	10425.43	10801.88	10784.60	11357.62	11461.14	12489.08	13000.13	12666.43	12821.41	12150.74
12.00°	11123.09	11045.46	10397.34	10412.31	9907.91	9587.93	9770.97	9593.45	9914.64	9914.65	10439.20	10538.34	11467.67	11939.07	11622.24	11736.77	11123.09
13.00°	10164.60	10105.09	9529.43	9563.70	9098.72	8823.32	8990.25	8823.65	9139.97	9128.15	9618.56	9666.20	10518.96	10933.51	10647.41	10743.80	10164.60
14.00°	9294.48	9254.03	8757.27	8785.99	8384.92	8138.62	8295.80	8129.81	8410.55	8416.13	8857.54	8884.65	9655.46	10033.12	9732.27	9805.90	9294.48
15.00°	8502.76	8487.14	8062.44	8094.04	7722.47	7520.81	7658.91	7505.94	7767.47	7760.85	8159.14	8184.42	8857.12	9194.20	8902.26	8966.98	8502.76
16.00°	7796.37	7803.98	7426.86	7457.42	7140.27	6965.33	7083.89	6946.24	7179.47	7187.35	7539.95	7552.09	8121.61	8409.46	8149.50	8191.76	7796.37
17.00°	7167.41	7179.92	6874.58	6921.26	6644.41	6489.91	6588.89	6475.31	6671.29	6678.65	6966.82	6994.79	7476.88	7702.65	7451.64	7481.21	7167.41
18.00°	6609.55	6635.96	6398.31	6438.35	6198.20	6067.67	6164.43	6063.64	6228.14	6231.37	6476.70	6493.83	6901.96	7094.96	6866.42	6871.90	6609.55
19.00°	6151.96	6198.68	5989.27	6025.16	5822.94	5712.56	5795.44	5711.38	5850.47	5843.25	6056.93	6052.63	6404.23	6561.94	6356.37	6389.58	6151.96
20.00°	5759.03	5811.10	5645.05	5676.36	5507.98	5418.00	5470.71	5414.60	5517.07	5516.59	5707.96	5691.63	5979.96	6105.86	5922.41	5952.16	5759.03
21.00°	5442.59	5488.84	5349.42	5377.82	5221.49	5154.80	5194.98	5135.65	5235.37	5238.91	5404.34	5385.29	5625.77	5727.19	5562.30	5593.95	5442.59
22.00°	5156.57	5201.97	5091.71	5130.63	4990.26	4912.98	4959.46	4903.17	4983.18	5002.32	5125.66	5126.50	5328.09	5405.92	5265.46	5286.85	5156.57
23.00°	4927.40	4966.48	4859.12	4901.54	4776.16	4703.67	4743.90	4692.16	4777.91	4790.04	4895.67	4888.08	5068.96	5133.03	5009.57	5040.49	4927.40
24.00°	4709.57	4759.82	4661.58	4681.17	4581.99	4505.26	4541.80	4507.36	4593.05	4585.12	4689.43	4675.45	4845.57	4891.75	4783.28	4801.79	4709.57
25.00°	4505.35	4552.73	4484.63	4498.52	4405.22	4343.98	4378.39	4344.86	4410.01	4401.23	4503.89	4502.54	4640.26	4680.59	4586.15	4587.54	4505.35
26.00°	4339.64	4377.67	4322.52	4341.39	4260.46	4193.63	4219.75	4198.67	4257.84	4250.53	4338.34	4335.61	4463.35	4493.81	4403.29	4414.33	4339.64
27.00°	4177.84	4204.67	4172.62	4195.36	4094.58	4023.46	4071.11	4056.43	4117.26	4095.82	4198.92	4195.67	4306.62	4330.91	4243.87	4233.19	4177.84
28.00°	4026.73	4053.47	3999.66	4020.56	3927.65	3885.13	3945.21	3924.87	3968.82	3945.78	4039.49	4026.38	4148.47	4172.83	4085.37	4082.18	4026.73
29.00°	3888.67	3897.66	3852.67	3885.13	3798.91	3764.19	3808.04	3785.08	3835.32	3837.29	3887.72	3872.68	3985.26	3998.56	3944.39	3950.12	3888.67
30.00°	3769.55	3774.92	3730.61	3752.65	3674.95	3635.51	3682.81	3677.41	3708.42	3717.12	3741.65	3740.83	3837.70	3858.74	3801.02	3805.12	3769.55
31.00°	3631.80	3653.11	3585.81	3609.00	3471.91	3409.68	3501.40	3487.09	3561.52	3572.12	3630.47	3609.44	3705.42	3732.11	3682.79	3682.66	3631.80
32.00°	3449.97	3482.38	3340.74	3365.42	3184.87	3121.43	3242.81	3217.16	3344.22	3348.95	3455.18	3401.77	3549.64	3604.82	3521.29	3545.66	3449.97
33.00°	3173.75	3202.16	3038.32	3051.07	2850.12	2771.60	2911.07	2881.80	3045.79	3023.89	3154.09	3106.46	3309.86	3371.47	3264.19	3302.84	3173.75
34.00°	2842.98	2859.95	2683.88	2711.78	2486.60	2407.17	2556.45	2527.27	2700.43	2662.33	2820.45	2765.42	2998.88	3072.94	2944.23	2983.83	2842.98
35.00°	2485.66	2508.80	2326.35	2364.17	2122.66	2038.36	2191.88	2163.38	2336.37	2304.93	2463.18	2415.43	2650.53	2733.13	2594.82	2636.44	2485.66
36.00°	2119.91	2140.43	1968.84	1992.70	1759.06	1676.89	1813.55	1796.79	1967.08	1944.87	2100.36	2049.39	2283.95	2362.53	2228.35	2283.14	2119.91
37.00°	1763.96	1785.63	1611.96	1633.66	1401.16	1317.52	1457.79	1438.27	1608.84	1597.90	1741.60	1696.79	1920.51	1988.26	1862.83	1916.49	1763.96
38.00°	1405.96	1437.54	1266.64	1284.18	1060.60	986.68	1111.65	1095.53	1261.11	1254.05	1385.39	1342.61	1559.29	1628.31	1505.56	1554.39	1405.96
39.00°	1062.72	1097.85	936.80	956.55	761.57	702.82	802.91	790.40	936.69	928.10	1055.58	1019.89	1210.82	1273.28	1158.08	1204.43	1062.72
40.00°	754.77	775.01	644.97	668.36	527.61	486.19	562.29	542.87	657.86	636.23	753.74	721.81	891.63	944.75	835.84	884.91	754.77
41.00°	497.16	519.16	435.31	458.54	396.53	392.90	416.52	409.63	452.30	439.81	507.88	482.85	617.25	662.59	573.80	602.51	497.16
42.00°	365.09	376.12	358.94	365.38	354.36	356.02	370.56	365.19	374.41	368.09	380.00	373.12	428.13	455.96	397.08	405.01	365.09
43.00°	316.69	329.40	324.28	332.35	325.78	319.57	339.66	329.93	342.62	331.92	341.54	335.87	359.70	359.48	333.72	328.82	316.69

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	9161	9161	9161	9161	8948	8948	8948	8948	8550	8550	8550	8186	8186	8186	7852	7852	7852	7695
	1	8772	8574	8397	8238	8584	8409	8251	8108	8099	7974	7859	7815	7716	7625	7552	7477	7406	7328
	2	8383	8039	7755	7516	8217	7908	7650	7432	7662	7452	7270	7436	7265	7115	7226	7089	6967	6951
	3	8009	7558	7209	6931	7861	7453	7133	6875	7255	6987	6766	7072	6849	6661	6902	6718	6560	6590
	4	7654	7125	6738	6443	7521	7040	6682	6405	6878	6572	6330	6728	6468	6257	6589	6369	6187	6251
	5	7317	6734	6327	6026	7198	6664	6284	5999	6531	6200	5947	6406	6120	5896	6291	6044	5845	5936
	6	7001	6380	5963	5664	6894	6321	5930	5645	6210	5865	5607	6106	5802	5570	6009	5743	5534	5644
	7	6704	6058	5639	5345	6608	6009	5613	5331	5915	5561	5304	5827	5512	5277	5745	5465	5250	5375
	8	6427	5765	5348	5062	6340	5723	5327	5052	5643	5286	5032	5568	5247	5011	5498	5208	4991	5126
	9	6168	5497	5086	4809	6089	5461	5069	4801	5393	5036	4786	5328	5003	4770	5267	4972	4755	4897
	10	5926	5252	4849	4581	5854	5221	4835	4575	5162	4807	4563	5106	4781	4551	5053	4755	4539	4686

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	648.5 fc	2.5 ft
6.5 ft	464.3 fc	2.9 ft
7.5 ft	348.8 fc	3.4 ft
8.0 ft	306.5 fc	3.6 ft
10.0 ft	196.2 fc	4.5 ft
12.0 ft	136.2 fc	5.4 ft
14.0 ft	100.1 fc	6.3 ft
16.0 ft	76.6 fc	7.2 ft
20.0 ft	49.0 fc	8.9 ft
24.0 ft	34.1 fc	10.7 ft
28.0 ft	25.0 fc	12.5 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	1075490	1075490	1075490
45.00°	20398	20900	21279
55.00°	8212	8024	8547
65.00°	1530	1743	1358
75.00°	467	548	410
85.00°	1381	975	1113

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	8.5	9.4	8.9	9.7	10.1	9.7	10.6	10.1	11.0	11.3
	3H	8.3	9.2	8.7	9.5	9.9	9.6	10.4	10.0	10.8	11.1
	4H	8.3	9.0	8.7	9.4	9.8	9.5	10.3	9.9	10.6	11.0
	6H	8.2	8.9	8.6	9.2	9.6	9.4	10.1	9.8	10.5	10.9
	8H	8.1	8.8	8.6	9.2	9.6	9.4	10.0	9.8	10.4	10.8
	12H	8.1	8.7	8.5	9.1	9.5	9.3	9.9	9.8	10.3	10.8
4H	2H	8.3	9.1	8.7	9.4	9.8	9.5	10.3	9.9	10.6	11.0
	3H	8.2	8.8	8.6	9.2	9.6	9.4	10.0	9.8	10.4	10.8
	4H	8.1	8.6	8.5	9.0	9.5	9.3	9.9	9.8	10.3	10.7
	6H	8.0	8.5	8.5	8.9	9.4	9.2	9.7	9.7	10.2	10.6
	8H	7.9	8.4	8.4	8.8	9.3	9.2	9.6	9.7	10.1	10.5
	12H	7.9	8.3	8.4	8.8	9.3	9.1	9.5	9.6	10.0	10.5
8H	4H	7.9	8.3	8.4	8.8	9.3	9.1	9.6	9.6	10.0	10.5
	6H	7.8	8.2	8.3	8.7	9.2	9.1	9.4	9.6	9.9	10.4
	8H	7.8	8.1	8.3	8.6	9.1	9.0	9.3	9.6	9.8	10.3
	12H	7.8	8.1	8.3	8.6	9.2	9.0	9.3	9.5	9.8	10.4
12H	4H	7.8	8.2	8.3	8.7	9.2	9.1	9.4	9.6	9.9	10.4
	6H	7.8	8.1	8.3	8.5	9.1	9.0	9.3	9.5	9.8	10.3
	8H	7.8	8.0	8.3	8.5	9.1	9.0	9.2	9.5	9.7	10.3

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0