

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

C0614LM137L40KNDNL
6" Round x 12" High Cylinder Luminaire

Test Number

SP-R18

Test Date

9/10/2025

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

Summary of Results

Power

Input Watts	97.68 W
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Lumen Output

Output Lumens	10504
Efficacy	107.53 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.41
Two luminaires, plane 90°	0.4
Four luminaires	0.47

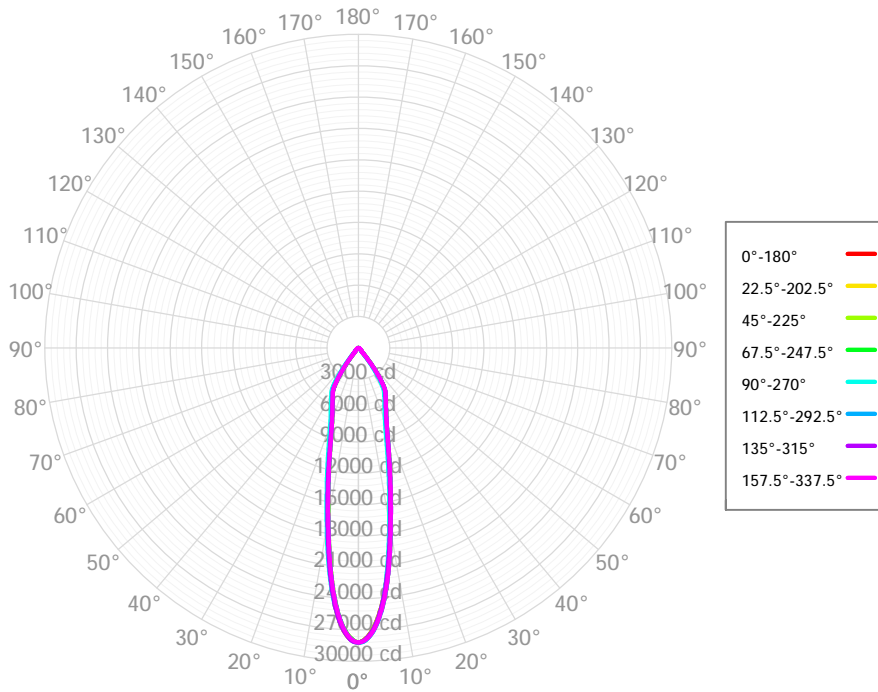
Full Beam Angle

0° - 180°	24°
90° - 270°	25°

IES File Header Contents

Keyword	Value
TEST	SP-R18
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/10/2025
ISSUEDATE	9/10/2025
LUMCAT	C0614LM137L40KNDNL
LUMINAIRE	6" Round x 12" High Cylinder Luminaire
DISTRIBUTION	Beam Angle 24.5
OTHER	CCT 4010 CRI 83.0 R9 10.8
OTHER	Total Luminaire wattage is approximate
OTHER	This report is prepared by Spectrum Lighting
_CRI	80+
_CCTMULT	30K x 0.93, 35K x 0.98, 30HK x 0.73, 35HK x 0.72, 40HK x 0.73
_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°	2124.18	20.22%	90.00° - 100.00°	1.69	0.02%
10.00° - 20.00°	3116.78	29.67%	100.00° - 110.00°	1.65	0.02%
20.00° - 30.00°	2807.13	26.72%	100.00° - 120.00°	3.41	0.03%
30.00° - 40.00°	1950.72	18.57%	120.00° - 130.00°	1.89	0.02%
40.00° - 50.00°	328.93	3.13%	130.00° - 140.00°	2.19	0.02%
50.00° - 60.00°	125.59	1.20%	140.00° - 150.00°	2.29	0.02%
60.00° - 70.00°	29.36	0.28%	150.00° - 160.00°	2.04	0.02%
70.00° - 80.00°	4.55	0.04%	160.00° - 170.00°	1.11	0.01%
80.00° - 90.00°	1.81	0.02%	170.00° - 180.00°	0.34	0.00%
0.00° - 90.00°	10489.06	99.86%	0.00° - 180.00°	10504.00	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°	28182.54	28182.54	28182.54	28182.54	28182.54	28182.54	28182.54	28182.54	28182.54	28182.54	28182.54	28182.54	28182.54	28182.54	28182.54	28182.54	28182.54
1.00°	27987.80	28055.99	27990.36	28042.45	28112.16	28079.71	28116.96	28007.36	28065.42	27985.66	28064.52	27954.42	28082.78	28122.14	28027.98	28070.30	27987.80
2.00°	27565.60	27717.46	27595.76	27698.57	27726.70	27618.90	27714.50	27574.31	27718.46	27512.95	27667.13	27513.05	27660.90	27768.12	27617.11	27725.83	27565.60
3.00°	26907.28	27123.52	26902.60	27100.75	27073.85	26875.50	27058.86	26869.97	27078.49	26847.28	27030.44	26815.24	26997.69	27196.42	26973.39	27144.88	26907.28
4.00°	26041.23	26278.73	26019.92	26266.80	26225.16	25875.07	26192.27	25892.58	26179.63	25869.05	26157.05	25847.85	26128.45	26364.80	26090.66	26316.83	26041.23
5.00°	24943.02	25254.38	24934.00	25231.29	25099.68	24675.41	25025.02	24673.13	25011.04	24674.46	25009.73	24616.62	25000.90	25330.06	24981.82	25264.76	24943.02
6.00°	23661.85	24049.09	23653.16	24014.68	23657.61	23226.27	23623.18	23203.12	23599.10	23168.41	23591.84	23145.06	23736.11	24104.31	23681.99	24040.98	23661.85
7.00°	22196.07	22641.93	22182.07	22612.67	22031.52	21585.29	22023.26	21559.59	21980.86	21514.15	21971.71	21491.87	22244.89	22677.71	22232.18	22648.84	22196.07
8.00°	20618.65	21057.73	20592.93	21039.71	20337.01	19876.92	20311.12	19847.83	20282.88	19824.15	20264.18	19782.53	20651.75	21100.59	20630.14	21121.55	20618.65
9.00°	18972.51	19417.23	18961.93	19409.01	18637.46	18162.63	18597.19	18130.61	18566.14	18133.90	18551.57	18102.97	19026.54	19455.94	18989.04	19464.39	18972.51
10.00°	17383.75	17814.26	17367.12	17822.27	17014.18	16583.67	16990.73	16572.52	16989.43	16549.51	16965.09	16523.74	17431.66	17879.58	17395.55	17824.33	17383.75
11.00°	15920.70	16324.23	15902.78	16309.52	15526.15	15147.50	15533.37	15115.46	15506.35	15090.98	15490.41	15090.95	15961.88	16332.67	15931.66	16337.00	15920.70
12.00°	14580.07	14940.84	14583.82	14933.82	14187.83	13824.39	14177.10	13798.26	14150.37	13798.15	14135.50	13778.68	14616.81	14973.35	14593.30	14968.90	14580.07
13.00°	13396.37	13701.91	13379.55	13708.79	12948.21	12607.37	12911.81	12607.24	12887.00	12596.23	12876.66	12562.59	13435.58	13763.50	13406.20	13754.40	13396.37
14.00°	12305.08	12609.89	12280.85	12594.79	11799.35	11519.36	11817.35	11502.38	11783.00	11494.11	11783.04	11468.93	12370.06	12628.89	12332.42	12635.11	12305.08
15.00°	11354.91	11614.01	11315.80	11579.80	10801.21	10539.28	10767.73	10522.86	10759.66	10513.13	10757.13	10496.33	11372.02	11628.04	11344.57	11606.08	11354.91
16.00°	10455.08	10703.95	10418.13	10658.04	9903.37	9666.44	9906.91	9652.82	9863.24	9648.34	9850.69	9639.11	10476.25	10706.43	10458.94	10685.71	10455.08
17.00°	9693.47	9853.82	9634.41	9851.50	9106.16	8910.10	9108.46	8897.49	9106.51	8902.61	9094.42	8893.03	9679.75	9904.37	9655.28	9890.01	9693.47
18.00°	9002.56	9172.66	8962.63	9140.81	8439.47	8284.32	8450.52	8272.39	8422.74	8280.07	8420.24	8258.61	8991.05	9181.61	8989.08	9172.35	9002.56
19.00°	8397.92	8547.00	8368.69	8527.99	7907.45	7769.75	7886.23	7754.41	7871.53	7737.71	7862.53	7736.24	8409.15	8556.63	8399.68	8534.28	8397.92
20.00°	7883.83	8013.02	7864.74	8002.19	7439.79	7314.70	7417.99	7315.74	7424.51	7299.57	7405.02	7301.64	7902.38	8033.10	7903.60	8001.94	7883.83
21.00°	7454.31	7565.20	7446.74	7553.71	7050.18	6945.11	7045.98	6930.25	7042.12	6922.54	7020.22	6925.35	7460.69	7579.57	7473.55	7564.83	7454.31
22.00°	7082.47	7182.63	7080.07	7166.14	6720.74	6624.02	6698.60	6622.42	6710.66	6615.78	6686.54	6597.91	7077.23	7182.59	7095.12	7169.04	7082.47
23.00°	6757.41	6838.60	6747.32	6828.68	6402.93	6330.49	6397.71	6330.75	6390.44	6321.12	6391.12	6306.63	6760.68	6848.22	6770.15	6835.84	6757.41
24.00°	6464.85	6529.71	6445.81	6528.54	6127.54	6064.44	6124.26	6047.06	6115.77	6043.72	6117.65	6038.68	6488.93	6560.00	6480.46	6545.57	6464.85
25.00°	6203.20	6260.17	6189.29	6258.38	5880.96	5821.92	5876.76	5812.94	5873.59	5801.56	5864.62	5804.16	6217.29	6285.00	6196.42	6281.56	6203.20
26.00°	5956.31	6015.85	5947.01	6010.51	5665.93	5603.92	5666.92	5608.39	5656.26	5595.51	5647.95	5597.83	5970.92	6032.36	5953.76	6033.79	5956.31
27.00°	5748.24	5805.01	5737.10	5797.85	5460.87	5415.22	5475.45	5418.00	5458.51	5395.40	5449.50	5398.03	5763.45	5815.46	5764.88	5816.93	5748.24
28.00°	5555.13	5603.81	5532.36	5596.96	5275.35	5231.31	5271.53	5214.42	5265.78	5207.48	5252.91	5211.61	5569.94	5612.96	5569.16	5603.80	5555.13
29.00°	5354.78	5406.60	5342.58	5395.22	5101.60	5059.42	5081.03	5017.25	5086.46	5038.10	5071.96	5037.37	5363.73	5412.97	5363.23	5380.80	5354.78
30.00°	5182.61	5221.49	5167.70	5207.60	4931.69	4870.56	4925.71	4857.23	4915.76	4873.38	4910.90	4871.77	5180.24	5232.19	5178.22	5207.72	5182.61
31.00°	5018.29	5049.75	5003.70	5042.60	4702.69	4626.54	4706.25	4619.42	4694.69	4608.27	4695.83	4611.87	5022.86	5067.25	5017.13	5067.73	5018.29
32.00°	4808.20	4858.74	4806.91	4865.47	4367.42	4267.17	4361.03	4263.81	4364.51	4246.08	4353.37	4248.46	4833.90	4896.81	4818.83	4891.25	4808.20
33.00°	4507.61	4582.85	4510.82	4593.58	3950.48	3830.50	3934.81	3824.65	3935.99	3818.65	3939.75	3811.96	4514.69	4607.19	4524.41	4608.85	4507.61
34.00°	4112.53	4216.18	4124.15	4218.59	3469.81	3341.84	3461.94	3340.80	3460.69	3330.62	3455.08	3328.84	4123.88	4220.99	4117.88	4224.04	4112.53
35.00°	3651.05	3774.17	3653.09	3767.47	2952.04	2829.53	2962.58	2826.98	2958.59	2822.24	2959.84	2822.00	3665.34	3772.33	3647.96	3769.80	3651.05
36.00°	3151.33	3275.80	3157.60	3273.84	2452.50	2320.18	2455.44	2314.92	2454.27	2313.81	2451.31	2309.90	3166.36	3287.23	3150.30	3273.58	3151.33
37.00°	2638.56	2765.97	2646.46	2766.04	1952.16	1822.37	1948.55	1818.50	1946.40	1816.65	1940.89	1814.72	2642.69	2776.86	2643.15	2767.46	2638.56
38.00°	2125.31	2255.85	2134.87	2251.19	1468.96	1349.92	1470.01	1347.17	1469.37	1341.57	1469.59	1340.70	2128.05	2261.73	2133.27	2265.26	2125.31
39.00°	1642.29	1761.39	1637.81	1758.95	1051.67	953.06	1049.74	945.91	1048.61	952.02	1046.02	947.23	1649.60	1765.59	1645.04	1766.27	1642.29
40.00°	1206.01	1304.91	1194.66	1301.30	723.46	649.71	718.81	640.15	714.40	645.66	713.47	645.40	1206.58	1303.59	1206.33	1304.28	1206.01
41.00°	844.39	924.36	843.02	922.31	523.68	489.98	510.87	486.80	512.53	484.09	507.98	486.34	847.66	926.87	843.18	925.88	844.39
42.00°	599.51	647.30	595.23	646.50	450.10	436.29	449.57	434.15	444.73	429.72	447.76	432.76	610.45	649.52	600.46	647.71	599.51
43.00°	511.13	529.52	512.94	531.84	400.34	395.38	400.59	393.72	401.41	392.20	407.82	391.43	514.82	533.80	513.51	522.46	511.13

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	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%
RCR	0	12501	12501	12501	12501	12209	12209	12209	12209	11663	11663	11663	11163	11163	11163	10705	10705	10705	10489
	1	11971	11701	11460	11243	11713	11474	11259	11063	11049	10878	10721	10658	10524	10400	10298	10194	10098	9991
	2	11441	10972	10584	10258	11212	10792	10440	10142	10454	10166	9918	10142	9909	9705	9854	9668	9502	9478
	3	10931	10316	9840	9461	10728	10171	9735	9383	9899	9534	9233	9647	9343	9088	9413	9163	8948	8988
	4	10447	9726	9199	8796	10265	9609	9120	8743	9386	8969	8639	9180	8826	8539	8988	8689	8441	8528
	5	9989	9194	8639	8229	9826	9097	8579	8192	8914	8464	8119	8743	8353	8047	8583	8247	7978	8100
	6	9559	8712	8144	7736	9412	8631	8098	7710	8478	8008	7657	8335	7922	7606	8201	7839	7555	7704
	7	9155	8275	7704	7303	9023	8207	7667	7284	8077	7596	7246	7956	7528	7208	7843	7462	7170	7339
	8	8778	7876	7309	6919	8658	7818	7280	6905	7708	7223	6876	7605	7167	6847	7508	7114	6819	7002
	9	8426	7513	6953	6575	8317	7463	6929	6564	7369	6883	6542	7280	6838	6521	7196	6794	6499	6692
	10	8098	7180	6631	6265	7999	7137	6611	6257	7055	6573	6240	6978	6536	6223	6905	6500	6207	6406

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	931.7 fc	2.4 ft
6.5 ft	667.0 fc	2.8 ft
7.5 ft	501.0 fc	3.3 ft
8.0 ft	440.4 fc	3.5 ft
10.0 ft	281.8 fc	4.3 ft
12.0 ft	195.7 fc	5.2 ft
14.0 ft	143.8 fc	6.1 ft
16.0 ft	110.1 fc	6.9 ft
20.0 ft	70.5 fc	8.7 ft
24.0 ft	48.9 fc	10.4 ft
28.0 ft	35.9 fc	12.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	1544971	1544971	1544971
45.00°	33001	33341	26418
55.00°	15779	16225	9687
65.00°	4381	4621	1724
75.00°	961	795	496
85.00°	927	1249	1208

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	12.6	13.6	13.0	13.9	14.2	8.7	9.7	9.1	10.0	10.3
	3H	12.6	13.4	13.0	13.7	14.1	8.7	9.5	9.0	9.8	10.2
	4H	12.5	13.2	12.9	13.6	14.0	8.6	9.3	9.0	9.7	10.1
	6H	12.4	13.1	12.8	13.4	13.8	8.5	9.2	8.9	9.6	10.0
	8H	12.3	13.0	12.8	13.4	13.8	8.4	9.1	8.9	9.5	9.9
	12H	12.3	12.9	12.7	13.3	13.7	8.4	9.0	8.8	9.4	9.8
4H	2H	12.5	13.2	12.9	13.6	14.0	8.5	9.3	8.9	9.6	10.0
	3H	12.4	13.0	12.8	13.4	13.9	8.4	9.0	8.8	9.4	9.9
	4H	12.3	12.9	12.7	13.3	13.7	8.3	8.9	8.8	9.3	9.8
	6H	12.2	12.7	12.7	13.1	13.6	8.2	8.7	8.7	9.2	9.6
	8H	12.1	12.6	12.6	13.0	13.5	8.2	8.6	8.7	9.1	9.5
	12H	12.1	12.4	12.6	12.9	13.4	8.1	8.5	8.6	9.0	9.5
8H	4H	12.1	12.6	12.6	13.0	13.5	8.2	8.6	8.6	9.0	9.5
	6H	12.0	12.4	12.5	12.9	13.4	8.1	8.4	8.6	8.9	9.4
	8H	11.9	12.3	12.5	12.8	13.3	8.0	8.3	8.6	8.8	9.3
	12H	11.9	12.2	12.4	12.7	13.3	8.0	8.3	8.5	8.8	9.3
12H	4H	12.1	12.4	12.6	12.9	13.4	8.1	8.5	8.6	9.0	9.4
	6H	11.9	12.2	12.5	12.7	13.3	8.0	8.3	8.5	8.8	9.3
	8H	11.9	12.2	12.4	12.7	13.2	8.0	8.2	8.5	8.7	9.3

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0