

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

RG1817GV 27L35K EX CD MWI

Nom 18 inch diam round Banco Pendant decorative luminaire

Test Number

SP-00556_1_M-27L

Test Date

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

Summary of Results

Power

Input Watts	18 W
-------------	------

Lumen Output

Output Lumens	1882
Efficacy	104.57 lm/W

Luminous Dimensions

0° - 180° Size	-1.5
90° - 270° Size	-1.5
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.27
Two luminaires, plane 90°	1.29
Four luminaires	1.26

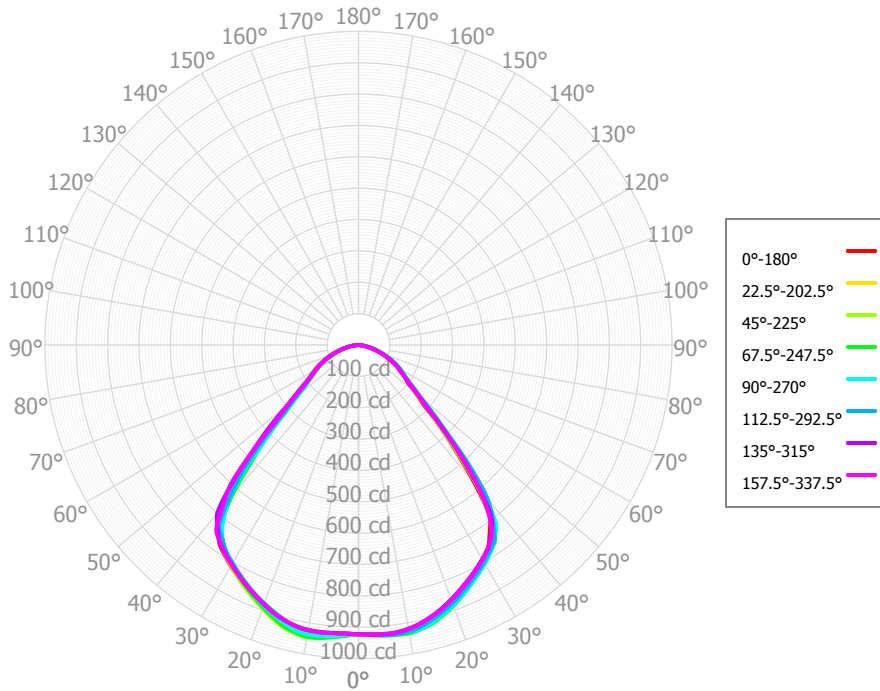
Full Beam Angle

0° - 180°	87°
90° - 270°	87°

IES File Header Contents

Keyword	Value
TEST	SP-00556_1_M-27L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
ISSUEDATE	4/30/2019
UPDATE	6/12/2019
LUMCAT	RG1817GV 27L35K EX CD MWI
LUMINAIRE	Nom 18 inch diam round Banco Pendant decorative luminaire
LAMPCAT	N/A
LAMP	N/A; CRI: 80
OTHER	CCT Output Multipliers; 27K x 0.97, 30K x 0.99, 40K x 1.03
OTHER	Total luminaire wattages is approximate
OTHER	This report prepared by Spectrum Lighting, scaled from 55L

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	90.03	4.78%	90.00° - 100.00°	0.06	0.00%
10.00° - 20.00°	257.11	13.66%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	388.56	20.64%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	463.75	24.64%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	324.50	17.24%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	174.47	9.27%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	116.87	6.21%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	56.34	2.99%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	10.57	0.56%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1,882.21	100.00%	0.00° - 180.00°	1,882.27	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°	922.68	922.68	922.68	922.68	922.68	922.68	922.68	922.68	922.68	922.68	922.68	922.68	922.68	922.68	922.68	922.68	922.68
2.50°	923.34	923.51	924.59	923.46	922.90	920.94	921.28	921.45	922.58	924.92	927.36	928.85	925.69	925.93	925.19	923.36	923.34
5.00°	925.71	928.92	927.57	926.83	925.66	921.69	922.51	922.90	925.40	929.60	934.29	935.21	931.77	930.34	926.03	924.97	925.71
7.50°	928.73	931.67	933.27	930.21	930.03	924.67	923.16	925.02	927.74	936.00	940.62	942.67	935.79	931.17	924.86	924.50	928.73
10.00°	924.32	932.11	933.60	933.61	929.35	923.40	923.31	922.62	929.40	937.30	946.66	944.39	936.98	928.80	918.97	918.96	924.32
12.50°	916.61	925.35	926.93	927.63	926.34	919.01	918.42	919.19	926.62	934.77	941.33	937.92	931.56	920.48	909.40	910.87	916.61
15.00°	903.22	913.21	915.43	918.16	914.63	908.26	909.84	908.96	918.25	924.31	931.29	926.58	918.06	907.57	896.42	897.58	903.22
17.50°	887.73	897.25	898.53	902.65	899.57	893.52	896.81	897.46	905.97	908.74	914.20	909.10	902.28	892.60	881.10	882.79	887.73
20.00°	869.81	878.77	880.67	885.29	881.91	877.36	881.01	880.48	889.45	890.71	894.59	890.04	884.10	876.21	863.69	865.40	869.81
22.50°	851.16	859.36	861.87	865.49	863.44	860.43	864.11	862.77	871.41	871.29	874.96	869.26	865.30	857.83	845.05	847.56	851.16
25.00°	831.36	839.43	842.10	845.07	843.60	842.02	846.59	845.31	851.95	851.31	855.31	848.74	845.93	838.29	826.58	829.01	831.36
27.50°	811.26	819.04	821.50	825.07	823.41	822.92	827.90	827.87	832.86	831.06	834.01	828.47	826.40	819.13	808.18	810.04	811.26
30.00°	790.27	798.43	799.86	805.16	803.39	803.29	808.65	809.53	814.09	811.32	812.33	807.74	806.73	800.16	788.75	790.54	790.27
32.50°	769.09	773.96	777.45	782.37	783.40	783.45	789.70	791.14	794.19	791.78	790.79	786.65	784.63	778.67	768.89	767.48	769.09
35.00°	729.80	747.90	739.64	759.15	753.44	757.66	770.86	768.88	773.50	763.90	769.26	755.37	760.85	756.08	736.22	740.42	729.80
37.50°	687.84	680.91	691.86	698.31	721.91	729.89	738.21	745.48	734.73	733.18	718.54	716.86	709.59	703.84	698.94	684.32	687.84
40.00°	577.49	599.84	593.88	633.52	621.86	646.94	700.97	676.59	684.97	644.38	663.82	628.10	642.14	641.00	600.94	600.01	577.49
42.50°	459.69	487.88	468.16	508.47	514.35	549.09	597.21	604.45	582.42	539.21	538.87	508.88	533.83	527.99	485.10	498.09	459.69
45.00°	369.49	367.26	373.47	379.48	408.36	438.78	475.58	474.92	451.72	430.80	407.58	406.38	404.42	400.33	388.59	381.02	369.49
47.50°	281.08	298.73	293.30	312.83	302.49	325.83	379.54	351.68	359.02	321.67	333.20	312.77	321.76	322.29	296.62	300.34	281.08
50.00°	239.51	242.33	243.52	248.15	255.89	268.08	288.91	291.08	283.43	267.40	261.54	255.42	259.44	256.32	246.41	246.58	239.51
52.50°	199.21	210.37	206.06	216.43	211.32	219.72	240.01	234.22	235.98	222.45	225.52	214.36	219.83	218.21	204.13	208.81	199.21
55.00°	180.79	182.77	183.79	185.41	189.96	193.33	198.13	202.81	199.11	196.88	190.46	189.26	188.45	185.35	181.88	181.17	180.79
57.50°	162.44	166.00	166.62	169.76	168.80	169.60	176.84	173.84	177.64	173.82	173.75	170.13	168.86	167.59	162.42	161.54	162.44
60.00°	145.55	150.62	150.00	153.98	152.98	152.86	158.02	157.87	161.11	156.29	156.96	152.56	152.92	151.91	145.37	146.38	145.55
62.50°	128.62	132.89	133.53	136.66	136.99	136.65	141.07	141.52	143.64	139.21	139.07	135.48	136.19	134.05	128.54	129.88	128.62
65.00°	111.22	114.96	116.20	119.35	118.94	119.63	124.25	123.61	125.92	120.90	121.16	117.51	119.26	115.97	110.75	112.77	111.22
67.50°	93.93	98.00	98.69	102.13	101.26	102.59	107.04	106.17	108.39	102.63	103.14	99.32	101.31	98.54	92.98	95.61	93.93
70.00°	77.20	81.11	81.74	85.15	85.25	85.58	89.96	89.88	90.90	85.58	85.73	82.38	83.32	81.26	76.62	78.45	77.20
72.50°	61.18	64.43	65.33	68.71	69.33	69.37	73.62	73.67	73.92	69.22	69.93	65.89	67.43	64.71	60.91	62.51	61.18
75.00°	46.07	49.63	50.73	53.91	53.54	54.71	58.55	57.51	58.05	54.23	54.79	50.78	52.40	49.16	46.56	47.60	46.07
77.50°	33.90	36.66	37.39	40.16	40.14	41.24	44.68	44.01	43.70	40.77	40.38	37.82	38.53	34.80	33.92	34.58	33.90
80.00°	22.82	24.62	25.37	27.13	28.01	28.77	31.70	31.31	30.85	28.38	27.75	26.23	26.52	24.26	22.21	22.90	22.82
82.50°	12.83	14.03	15.09	16.41	17.23	17.93	20.37	19.64	19.97	17.47	17.62	15.43	15.35	14.85	11.82	12.44	12.83
85.00°	4.73	5.79	6.62	8.21	8.23	9.20	10.67	9.74	10.64	8.58	8.04	6.17	7.03	5.83	4.42	4.78	4.73
87.50°	0.84	1.07	1.37	1.61	2.31	2.23	2.90	2.82	3.27	1.89	1.95	1.51	1.57	1.07	0.98	0.81	0.84
90.00°	0.72	0.29	0.63	0.33	0.52	0.28	0.26	0.38	0.30	0.56	0.28	0.50	0.30	0.41	0.43	0.37	0.72
92.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
107.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	2,241	2,241	2,241	2,241	2,189	2,189	2,189	2,189	2,091	2,091	2,091	2,002	2,002	2,002	1,921	1,921	1,921
	1	2,089	2,017	1,952	1,894	2,040	1,975	1,916	1,863	1,897	1,849	1,805	1,825	1,786	1,751	1,759	1,728	1,699
	2	1,935	1,808	1,703	1,614	1,889	1,774	1,677	1,595	1,709	1,629	1,559	1,650	1,583	1,524	1,595	1,540	1,491
	3	1,793	1,627	1,498	1,395	1,750	1,598	1,479	1,383	1,545	1,443	1,360	1,495	1,409	1,337	1,450	1,377	1,315
	4	1,663	1,471	1,329	1,221	1,624	1,447	1,315	1,213	1,402	1,288	1,198	1,361	1,262	1,182	1,322	1,238	1,168
	5	1,546	1,336	1,189	1,081	1,510	1,316	1,178	1,075	1,278	1,157	1,064	1,243	1,137	1,054	1,211	1,118	1,043
	6	1,440	1,220	1,071	965	1,407	1,203	1,063	961	1,171	1,046	953	1,141	1,030	946	1,113	1,015	938
	7	1,345	1,118	971	868	1,315	1,104	964	865	1,077	951	860	1,051	938	854	1,027	926	849
	8	1,259	1,030	885	786	1,232	1,017	880	784	994	869	780	972	858	776	951	848	772
	9	1,181	952	811	716	1,157	941	807	714	921	798	711	902	789	708	884	781	705
	10	1,111	883	747	656	1,089	874	743	655	856	736	652	840	728	650	824	721	647

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	30.5 fc	10.2 ft
6.5 ft	21.8 fc	12.1 ft
7.5 ft	16.4 fc	13.9 ft
8.0 ft	14.4 fc	14.8 ft
10.0 ft	9.2 fc	18.5 ft
12.0 ft	6.4 fc	22.3 ft
14.0 ft	4.7 fc	26.0 ft
16.0 ft	3.6 fc	29.7 ft
20.0 ft	2.3 fc	37.1 ft
24.0 ft	1.6 fc	44.5 ft
28.0 ft	1.2 fc	51.9 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	5,620	5,620	5,620
45.00°	3,183	3,217	3,518
55.00°	1,920	1,952	2,017
65.00°	1,603	1,675	1,714
75.00°	1,084	1,194	1,260
85.00°	330	463	575

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		Viewed crosswise					Viewed endwise				
2H	2H	11.6	12.9	11.9	13.3	13.6	11.8	13.2	12.2	13.5	13.8
	3H	13.0	14.2	13.4	14.5	14.9	13.3	14.5	13.7	14.9	15.2
	4H	13.4	14.5	13.8	14.9	15.3	13.8	14.9	14.2	15.3	15.6
	6H	13.6	14.6	14.0	15.0	15.4	14.0	15.1	14.4	15.4	15.8
	8H	13.6	14.6	14.0	15.0	15.4	14.1	15.1	14.5	15.5	15.9
	12H	13.6	14.6	14.0	14.9	15.4	14.1	15.0	14.5	15.4	15.8
4H	2H	12.1	13.2	12.5	13.6	14.0	12.4	13.5	12.8	13.9	14.3
	3H	13.7	14.6	14.1	15.0	15.4	14.0	15.0	14.5	15.4	15.8
	4H	14.2	15.0	14.6	15.4	15.9	14.6	15.4	15.0	15.9	16.3
	6H	14.4	15.2	14.9	15.6	16.1	14.9	15.7	15.4	16.1	16.6
	8H	14.5	15.2	15.0	15.6	16.1	15.0	15.7	15.5	16.1	16.6
	12H	14.5	15.1	15.0	15.6	16.0	15.0	15.6	15.5	16.1	16.6
8H	4H	14.3	15.0	14.8	15.5	15.9	14.8	15.5	15.3	15.9	16.4
	6H	14.7	15.2	15.2	15.7	16.2	15.2	15.8	15.7	16.3	16.7
	8H	14.7	15.2	15.3	15.8	16.2	15.3	15.8	15.8	16.3	16.8
	12H	14.8	15.2	15.3	15.7	16.3	15.4	15.8	15.9	16.3	16.9
12H	4H	14.3	14.9	14.8	15.4	15.9	14.8	15.4	15.3	15.9	16.3
	6H	14.7	15.2	15.2	15.6	16.2	15.2	15.7	15.8	16.2	16.7
	8H	14.8	15.2	15.3	15.7	16.3	15.4	15.8	15.9	16.3	16.9

Corrected UGR values based on total output lumens

SHR = 1.0