

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

ALAT18GV 15L 35K xx MWI xx xx

Nom 18.4" diam reflector x 10.7" H, Retro Pendant decorative luminaire

Test Number

SP-00730_M-15L

Test Date

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

Summary of Results

Power

Input Watts	10 W
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Lumen Output

Output Lumens	1094
Efficacy	109.41 lm/W

Luminous Dimensions

0° - 180° Size	-1.53
90° - 270° Size	-1.53
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.25
Two luminaires, plane 90°	1.25
Four luminaires	1.38

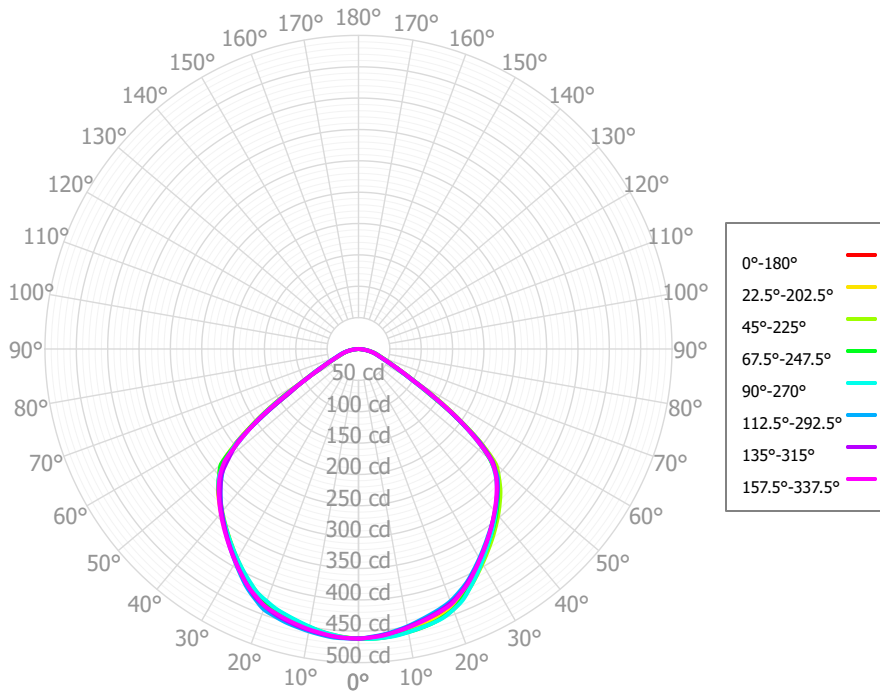
Full Beam Angle

0° - 180°	106°
90° - 270°	106°

IES File Header Contents

Keyword	Value
TEST	SP-00730_M-15L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
ISSUEDATE	10/30/2018
UPDATE	6/8/2022
LUMCAT	ALAT18GV 15L 35K xx MWI xx xx
LUMINAIRE	Nom 18.4" diam reflector x 10.7" H, Retro Pendant decorative luminaire
OTHER	Matte white interior finish
OTHER	Platinum outside finish
OTHER	4" Low profile frosted glass dome
OTHER	Beam Angle: 104.4 deg
LAMPCAT	N/A, Gen3
LAMP	N/A
OTHER	Total Luminaire watts is approximate
OTHER	CCT multipliers: 27K x 0.971, 30K x 0.985, 40K x 1.03
OTHER	This report generated by Spectrum Lighting, scaled from 55L
_CRI	85+

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	44.32	4.05%	90.00° - 100.00°	0.02	0.00%
10.00° - 20.00°	125.87	11.50%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	190.95	17.45%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	228.63	20.90%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	241.37	22.06%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	169.04	15.45%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	59.91	5.48%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	27.41	2.51%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	6.61	0.60%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1094.10	100.00%	0.00° - 180.00°	1094.12	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°	461.78	461.78	461.78	461.78	461.78	461.78	461.78	461.78	461.78	461.78	461.78	461.78	461.78	461.78	461.78	461.78	461.78
2.50°	461.02	460.96	462.14	462.53	462.83	461.94	461.65	461.09	461.08	460.79	460.35	460.90	460.61	459.48	460.16	460.53	461.02
5.00°	458.80	459.59	461.53	462.10	462.23	461.87	460.28	459.75	458.89	458.77	457.83	458.89	457.54	457.00	457.73	458.63	458.80
7.50°	456.28	457.43	459.99	460.27	461.26	459.70	458.13	456.96	456.08	455.89	454.40	454.86	454.18	453.20	454.62	455.08	456.28
10.00°	453.03	455.02	457.40	458.32	458.53	457.15	455.26	454.13	452.54	452.34	450.41	450.29	449.49	449.13	450.26	451.48	453.03
12.50°	449.85	452.37	454.93	456.06	455.81	454.16	452.10	450.22	448.78	448.16	446.02	445.51	444.64	444.08	445.94	447.31	449.85
15.00°	446.83	449.00	452.59	453.07	453.16	451.10	447.95	446.26	444.18	443.54	441.16	440.68	439.74	439.05	441.69	443.09	446.83
17.50°	442.67	445.00	448.23	448.46	449.50	446.60	443.46	441.52	439.36	438.04	435.99	435.80	434.83	434.07	436.67	438.36	442.67
20.00°	436.30	438.12	442.04	441.86	442.44	441.93	436.60	436.42	432.26	431.99	429.03	430.90	427.89	428.07	430.46	433.09	436.30
22.50°	428.15	428.90	432.57	431.38	433.84	431.43	429.03	427.02	424.68	423.56	421.06	421.88	420.81	419.34	422.22	423.26	428.15
25.00°	416.90	417.82	420.36	419.66	420.55	420.40	417.37	417.31	413.70	413.75	410.59	412.15	409.64	409.63	411.13	413.04	416.90
27.50°	405.00	405.35	407.93	405.71	407.09	406.77	404.63	404.86	402.11	402.34	398.86	399.87	398.30	397.57	399.47	400.22	405.00
30.00°	392.08	392.95	395.34	392.13	393.15	392.95	391.69	392.38	389.61	390.10	386.59	387.24	386.32	385.47	387.09	387.46	392.08
32.50°	379.43	380.59	383.10	379.15	379.55	379.44	378.72	379.68	376.99	377.80	374.05	375.01	374.33	373.29	374.83	375.03	379.43
35.00°	367.19	368.14	371.11	366.61	366.76	365.95	365.45	367.01	364.82	365.47	361.89	362.82	362.47	361.40	362.71	362.59	367.19
37.50°	354.70	355.63	358.86	354.72	353.76	352.46	352.14	354.46	352.71	353.33	349.87	351.06	350.61	350.10	350.49	350.13	354.70
40.00°	341.88	342.91	346.45	342.11	340.28	338.98	339.00	341.84	340.46	341.27	337.97	339.34	338.81	338.62	338.16	337.60	341.88
42.50°	328.85	330.07	333.47	328.53	326.55	325.04	325.89	328.93	328.20	329.20	326.10	327.80	327.00	326.86	325.84	324.82	328.85
45.00°	315.57	316.26	320.17	314.07	312.37	311.03	311.10	315.51	314.73	317.12	313.75	316.28	315.21	314.32	313.51	311.62	315.57
47.50°	299.63	301.96	303.96	298.54	295.97	294.87	296.10	299.94	301.19	301.93	301.24	301.49	302.17	300.60	297.94	296.91	299.63
50.00°	280.82	274.82	286.26	273.85	275.78	277.28	269.35	278.64	273.80	285.74	274.53	286.61	274.73	276.05	279.56	276.06	280.82
52.50°	244.83	242.01	246.57	239.00	242.97	236.11	241.43	236.99	245.87	245.71	243.85	241.33	244.16	235.97	242.38	236.67	244.83
55.00°	192.10	191.68	196.85	194.14	190.31	194.29	186.85	192.59	188.24	198.76	191.27	195.81	186.05	189.87	190.35	193.94	192.10
57.50°	145.37	134.40	149.78	139.12	143.24	144.54	130.33	139.81	130.61	150.11	133.48	145.16	131.15	135.99	144.12	142.39	145.37
60.00°	104.00	99.57	103.79	100.00	104.07	97.74	99.49	95.31	99.32	101.02	99.25	95.78	98.70	95.95	102.05	99.27	104.00
62.50°	76.35	72.71	78.19	75.44	75.31	76.95	69.78	73.84	68.60	76.03	69.97	74.58	68.99	71.96	74.87	76.45	76.35
65.00°	59.73	57.34	60.00	58.24	59.69	57.52	56.28	55.33	54.86	56.22	54.42	54.08	54.74	54.48	57.24	57.60	59.73
67.50°	47.84	44.87	48.63	46.25	47.58	46.91	43.43	43.92	41.79	44.66	41.25	43.72	41.90	43.07	45.55	45.77	47.84
70.00°	38.42	37.89	39.08	38.68	38.35	37.60	36.43	35.03	34.71	34.54	34.49	34.27	34.53	35.55	36.41	37.47	38.42
72.50°	32.63	31.76	33.80	32.55	33.10	32.41	30.09	30.04	28.49	29.72	28.52	29.21	28.56	29.72	31.35	31.81	32.63
75.00°	27.40	26.97	28.31	27.63	28.36	27.30	25.48	25.01	24.22	25.11	24.18	24.51	24.63	25.14	26.32	26.64	27.40
77.50°	22.54	21.13	22.64	21.84	22.86	22.28	20.22	20.03	19.60	20.53	19.71	20.27	19.89	20.16	21.01	21.39	22.54
80.00°	17.12	15.01	17.02	15.77	16.93	16.59	14.82	15.55	14.75	15.83	15.04	15.29	14.80	14.82	15.64	15.91	17.12
82.50°	11.00	9.19	11.20	10.06	11.40	10.88	9.81	9.83	9.72	10.85	9.75	10.17	9.46	9.42	10.77	10.15	11.00
85.00°	5.33	3.94	5.54	4.51	5.73	5.63	4.17	4.83	4.37	5.75	4.94	5.30	4.25	4.42	5.62	4.94	5.33
87.50°	1.30	0.59	1.29	0.83	1.41	1.68	0.83	1.37	1.22	2.10	0.99	1.66	1.04	0.95	1.55	0.91	1.30
90.00°	0.00	0.00	0.00	0.00	0.00	0.25	0.22	0.31	0.28	0.30	0.29	0.24	0.37	0.00	0.00	0.00	0.00
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

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	1303	1303	1303	1303	1272	1272	1272	1272	1216	1216	1216	1164	1164	1164	1116	1116	1094
	1	1211	1168	1129	1094	1182	1143	1108	1076	1098	1069	1042	1056	1032	1011	1017	998	978
	2	1117	1039	976	922	1089	1019	961	911	982	933	890	947	906	870	915	881	863
	3	1029	927	849	787	1003	911	838	780	879	817	766	850	797	753	823	779	762
	4	949	831	745	679	925	817	737	674	790	721	665	766	706	657	743	691	677
	5	877	748	659	592	855	736	652	589	714	640	583	693	628	577	674	617	604
	6	812	677	587	522	792	667	582	520	648	572	515	630	563	511	614	554	543
	7	755	616	527	464	736	608	523	462	591	515	459	576	507	456	562	500	491
	8	703	564	476	416	687	556	473	414	542	466	412	529	460	410	517	454	446
	9	657	518	433	375	643	512	430	374	500	425	372	488	420	371	477	415	407
	10	616	478	396	341	603	473	393	340	462	389	339	452	385	337	443	381	374

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	15.3 fc	14.7 ft
6.5 ft	10.9 fc	17.3 ft
7.5 ft	8.2 fc	20.0 ft
8.0 ft	7.2 fc	21.3 ft
10.0 ft	4.6 fc	26.7 ft
12.0 ft	3.2 fc	32.0 ft
14.0 ft	2.4 fc	37.3 ft
16.0 ft	1.8 fc	42.7 ft
20.0 ft	1.2 fc	53.3 ft
24.0 ft	0.8 fc	64.0 ft
28.0 ft	0.6 fc	74.7 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	2704	2704	2704
45.00°	2613	2651	2586
55.00°	1961	2009	1943
65.00°	827	831	827
75.00°	620	640	641
85.00°	358	372	385

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

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0