

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CY0618GV 15L 35K XX XX MW

Nom 6" diam x 18" H decorative cylindrical shaped luminaire

Test Number

SP-00988_M-15L

Test Date

12/24/2019

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	1098
Efficacy	109.8 lm/W

Luminous Dimensions

0° - 180° Size	-0.5
90° - 270° Size	-0.5
Height	1.5

Spacing Criterion

Two luminaires, plane 0°	0.47
Two luminaires, plane 90°	0.47
Four luminaires	0.56

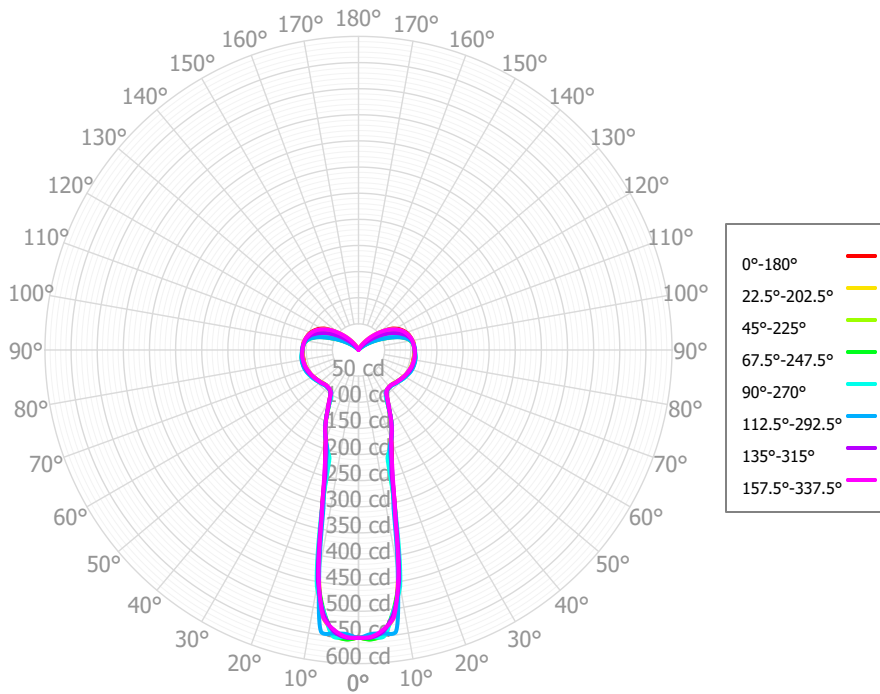
Full Beam Angle

0° - 180°	28°
90° - 270°	27°

IES File Header Contents

Keyword	Value
TEST	SP-00988_M-15L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	12/24/2019
ISSUEDATE	4/7/2020
LUMCAT	CY0618GV 15L 35K XX XX MW
LUMINAIRE	Nom 6" diam x 18" H decorative cylindrical shaped luminaire
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multipliers: 27K x 0.97, 30K x 0.99, 40K x 1.03
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting, scaled from 27L

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	49.42	4.50%	90.00° - 100.00°	115.44	10.51%
10.00° - 20.00°	72.45	6.60%	100.00° - 110.00°	101.60	9.25%
20.00° - 30.00°	66.51	6.06%	100.00° - 120.00°	173.59	15.81%
30.00° - 40.00°	60.57	5.52%	120.00° - 130.00°	40.55	3.69%
40.00° - 50.00°	72.29	6.58%	130.00° - 140.00°	16.87	1.54%
50.00° - 60.00°	88.55	8.07%	140.00° - 150.00°	4.81	0.44%
60.00° - 70.00°	103.64	9.44%	150.00° - 160.00°	0.93	0.08%
70.00° - 80.00°	114.07	10.39%	160.00° - 170.00°	0.27	0.02%
80.00° - 90.00°	117.91	10.74%	170.00° - 180.00°	0.08	0.01%
0.00° - 90.00°	745.42	67.89%	0.00° - 180.00°	1,097.96	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°	550.76	550.76	550.76	550.76	550.76	550.76	550.76	550.76	550.76	550.76	550.76	550.76	550.76	550.76	550.76	550.76	550.76
2.50°	553.33	552.35	553.99	554.50	549.07	544.17	550.86	549.48	553.33	552.35	553.99	554.50	549.07	544.17	550.86	549.48	553.33
5.00°	541.84	539.69	547.78	545.52	550.88	544.51	540.84	537.64	541.84	539.69	547.78	545.52	550.88	544.51	540.84	537.64	541.84
7.50°	510.87	517.16	508.25	506.00	506.28	544.90	510.42	516.68	510.87	517.16	508.25	506.00	506.28	544.90	510.42	516.68	510.87
10.00°	445.11	436.98	452.86	445.32	459.03	432.94	447.64	438.94	445.11	436.98	452.86	445.32	459.03	432.94	447.64	438.94	445.11
12.50°	329.02	318.26	328.72	325.79	336.94	309.86	328.98	323.70	329.02	318.26	328.72	325.79	336.94	309.86	328.98	323.70	329.02
15.00°	248.43	248.23	227.17	233.97	214.50	252.37	244.35	253.89	248.43	248.23	227.17	233.97	214.50	252.37	244.35	253.89	248.43
17.50°	211.97	205.98	203.61	206.30	198.98	198.55	209.94	209.68	211.97	205.98	203.61	206.30	198.98	198.55	209.94	209.68	211.97
20.00°	184.54	180.95	181.83	182.33	183.36	182.82	183.15	183.40	184.54	180.95	181.83	182.33	183.36	182.82	183.15	183.40	184.54
22.50°	167.05	164.51	165.11	165.82	165.92	167.60	166.29	165.96	167.05	164.51	165.11	165.82	165.92	167.60	166.29	165.96	167.05
25.00°	147.75	146.21	146.78	147.16	148.05	147.30	147.32	147.01	147.75	146.21	146.78	147.16	148.05	147.30	147.32	147.01	147.75
27.50°	126.73	127.12	124.59	124.86	125.14	127.23	125.97	127.44	126.73	127.12	124.59	124.86	125.14	127.23	125.97	127.44	126.73
30.00°	111.06	112.05	107.06	108.07	104.32	111.19	110.35	112.32	111.06	112.05	107.06	108.07	104.32	111.19	110.35	112.32	111.06
32.50°	99.76	98.39	99.02	99.31	99.05	96.43	100.24	98.74	99.76	98.39	99.02	99.31	99.05	96.43	100.24	98.74	99.76
35.00°	94.36	94.29	93.58	94.03	94.48	94.78	94.78	94.13	94.36	94.29	93.58	94.03	94.48	94.78	94.78	94.13	94.36
37.50°	93.22	93.03	92.60	93.22	93.69	93.28	93.30	92.14	93.22	93.03	92.60	93.22	93.69	93.28	93.30	92.14	93.22
40.00°	92.45	92.12	91.98	92.75	93.07	92.90	92.31	91.64	92.45	92.12	91.98	92.75	93.07	92.90	92.31	91.64	92.45
42.50°	91.91	91.29	91.92	92.64	93.20	92.77	91.69	91.48	91.91	91.29	91.92	92.64	93.20	92.77	91.69	91.48	91.91
45.00°	92.43	91.96	92.51	93.30	93.67	94.07	92.39	92.69	92.43	91.96	92.51	93.30	93.67	94.07	92.39	92.69	92.43
47.50°	93.52	92.89	93.92	94.68	95.27	95.35	93.92	94.15	93.52	92.89	93.92	94.68	95.27	95.35	93.92	94.15	93.52
50.00°	94.83	94.60	95.22	96.29	96.86	96.60	95.27	95.42	94.83	94.60	95.22	96.29	96.86	96.60	95.27	95.42	94.83
52.50°	96.24	96.42	96.39	98.08	98.42	97.98	96.52	96.67	96.24	96.42	96.39	98.08	98.42	97.98	96.52	96.67	96.24
55.00°	97.58	97.79	97.94	99.72	100.10	99.78	98.07	98.06	97.58	97.79	97.94	99.72	100.10	99.78	98.07	98.06	97.58
57.50°	98.89	99.12	99.85	101.26	102.04	101.48	99.75	99.48	98.89	99.12	99.85	101.26	102.04	101.48	99.75	99.48	98.89
60.00°	100.57	100.39	101.43	102.75	103.73	102.88	101.32	100.73	100.57	100.39	101.43	102.75	103.73	102.88	101.32	100.73	100.57
62.50°	102.37	101.65	102.72	104.19	104.90	104.44	102.84	101.97	102.37	101.65	102.72	104.19	104.90	104.44	102.84	101.97	102.37
65.00°	103.59	102.89	103.86	105.63	106.17	106.40	104.26	103.02	103.59	102.89	103.86	105.63	106.17	106.40	104.26	103.02	103.59
67.50°	104.67	104.11	104.88	107.05	107.60	108.04	105.65	104.08	104.67	104.11	104.88	107.05	107.60	108.04	105.65	104.08	104.67
70.00°	105.54	104.75	105.63	108.16	108.70	109.04	106.66	105.15	105.54	104.75	105.63	108.16	108.70	109.04	106.66	105.15	105.54
72.50°	106.37	105.40	106.20	109.12	109.28	109.85	107.56	106.19	106.37	105.40	106.20	109.12	109.28	109.85	107.56	106.19	106.37
75.00°	106.50	106.05	106.90	109.63	109.59	110.31	107.86	106.83	106.50	106.05	106.90	109.63	109.59	110.31	107.86	106.83	106.50
77.50°	106.52	106.69	107.68	109.95	109.54	110.57	108.02	107.46	106.52	106.69	107.68	109.95	109.54	110.57	108.02	107.46	106.52
80.00°	106.58	107.25	108.10	109.97	109.60	110.53	108.27	107.91	106.58	107.25	108.10	109.97	109.60	110.53	108.27	107.91	106.58
82.50°	106.64	107.65	108.36	109.88	109.80	110.12	108.52	108.25	106.64	107.65	108.36	109.88	109.80	110.12	108.52	108.25	106.64
85.00°	107.01	106.98	107.99	108.83	109.44	109.25	108.32	107.85	107.01	106.98	107.99	108.83	109.44	109.25	108.32	107.85	107.01
87.50°	107.39	106.41	107.36	107.53	108.52	108.60	108.06	107.46	107.39	106.41	107.36	107.53	108.52	108.60	108.06	107.46	107.39
90.00°	106.88	106.32	106.88	107.23	107.60	108.19	107.57	107.08	106.88	106.32	106.88	107.23	107.60	108.19	107.57	107.08	106.88
92.50°	106.34	106.27	106.44	107.14	106.67	107.60	107.06	106.67	106.34	106.27	106.44	107.14	106.67	107.60	107.06	106.67	106.34
95.00°	106.27	106.35	105.87	105.84	105.51	106.84	106.06	106.11	106.27	106.35	105.87	105.84	105.51	106.84	106.06	106.11	106.27
97.50°	106.15	106.10	105.26	104.33	104.17	104.90	105.05	105.48	106.15	106.10	105.26	104.33	104.17	104.90	105.05	105.48	106.15
100.00°	104.72	104.74	103.72	100.86	101.62	101.97	103.62	104.60	104.72	104.74	103.72	100.86	101.62	101.97	103.62	104.60	104.72
102.50°	103.27	103.16	101.97	97.15	98.26	96.98	102.12	103.39	103.27	103.16	101.97	97.15	98.26	96.98	102.12	103.39	103.27
105.00°	101.77	100.95	98.93	89.74	91.99	90.49	98.61	101.24	101.77	100.95	98.93	89.74	91.99	90.49	98.61	101.24	101.77
107.50°	100.13	98.55	95.67	82.05	84.08	81.44	94.95	98.92	100.13	98.55	95.67	82.05	84.08	81.44	94.95	98.92	100.13
110.00°	97.36	95.70	90.70	71.21	74.48	70.80	89.25	96.23	97.36	95.70	90.70	71.21	74.48	70.80	89.25	96.23	97.36
112.50°	94.46	92.46	85.51	60.26	64.08	60.49	83.45	93.11	94.46	92.46	85.51	60.26	64.08	60.49	83.45	93.11	94.46

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	1,223	1,223	1,223	1,223	1,154	1,154	1,154	1,154	1,024	1,024	1,024	906	906	906	797	797	797	745
	1	1,066	996	932	875	998	935	879	827	823	778	736	719	684	651	624	597	571	553
	2	957	850	761	687	893	798	718	651	701	637	582	611	561	516	528	489	454	451
	3	868	740	641	562	809	695	606	534	611	539	479	534	476	427	462	416	376	383
	4	794	654	552	473	740	616	523	451	543	467	407	476	414	364	413	363	322	335
	5	731	585	483	408	682	552	459	389	489	412	353	430	367	317	375	324	283	299
	6	677	529	429	358	633	499	408	342	444	368	312	392	330	282	344	293	252	271
	7	630	481	385	318	589	456	367	305	407	333	279	361	300	253	319	268	228	249
	8	588	441	349	286	551	419	334	275	376	304	252	335	275	231	297	247	209	230
	9	552	408	319	260	518	387	306	250	349	279	231	313	254	212	279	229	193	215
	10	519	378	294	238	488	360	282	229	326	259	213	293	236	196	263	214	180	201

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	18.2 fc	2.8 ft
6.5 ft	13.0 fc	3.3 ft
7.5 ft	9.8 fc	3.8 ft
8.0 ft	8.6 fc	4.0 ft
10.0 ft	5.5 fc	5.0 ft
12.0 ft	3.8 fc	6.0 ft
14.0 ft	2.8 fc	7.0 ft
16.0 ft	2.2 fc	8.0 ft
20.0 ft	1.4 fc	10.1 ft
24.0 ft	1.0 fc	12.1 ft
28.0 ft	0.7 fc	14.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	30,193	30,193	30,193
45.00°	1,487	1,488	1,507
55.00°	1,445	1,450	1,482
65.00°	1,462	1,466	1,498
75.00°	1,479	1,484	1,522
85.00°	1,507	1,521	1,541

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	-	-	-	-	-	-	-	-	-	-
	3H	-	-	-	-	-	-	-	-	-	-
	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
4H	2H	-	-	-	-	-	-	-	-	-	-
	3H	-	-	-	-	-	-	-	-	-	-
	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
8H	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
12H	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-

Corrected UGR values based on total output lumens

SHR = 1.0