

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CY0618GV 27L 35K XX XX MW

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

Test Number

SP-00988

Test Date

12/24/2019

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

Summary of Results

Power

Input Watts	19 W
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Lumen Output

Output Lumens	1926
Efficacy	101.38 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

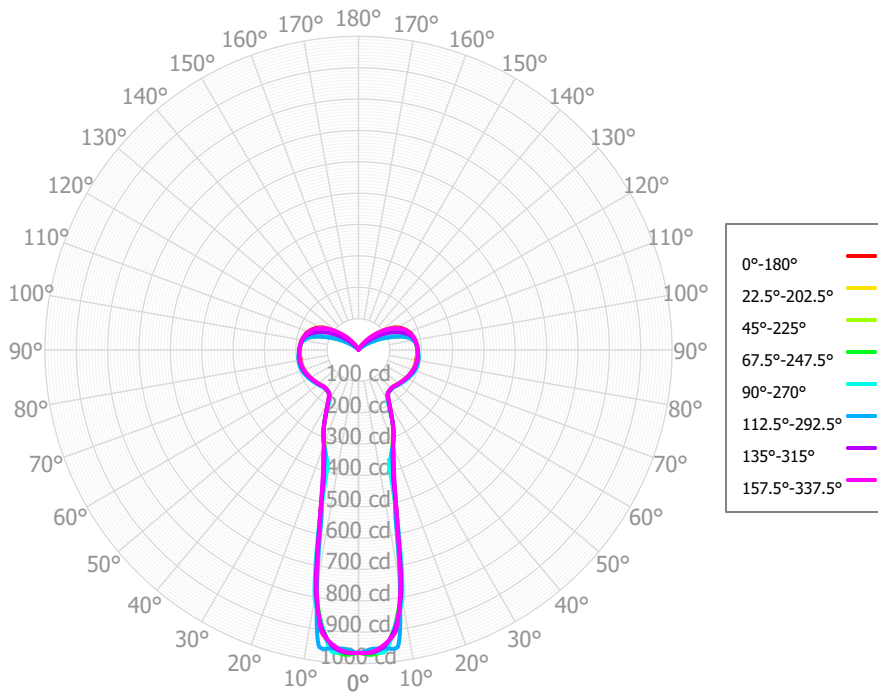
Full Beam Angle

0° - 180°	28°
90° - 270°	27°

IES File Header Contents

Keyword	Value
TEST	SP-00988
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	12/24/2019
ISSUEDATE	4/7/2020
LUMCAT	CY0618GV 27L 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
_CRI	80+
_CCTMULT	27K x 0.97, 30K x 0.99, 40K x 1.03
_LAMPMULT	15L x 0.57

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	86.70	4.50%	90.00° - 100.00°	202.52	10.51%
10.00° - 20.00°	127.11	6.60%	100.00° - 110.00°	178.25	9.25%
20.00° - 30.00°	116.69	6.06%	100.00° - 120.00°	304.54	15.81%
30.00° - 40.00°	106.26	5.52%	120.00° - 130.00°	71.13	3.69%
40.00° - 50.00°	126.82	6.58%	130.00° - 140.00°	29.60	1.54%
50.00° - 60.00°	155.36	8.07%	140.00° - 150.00°	8.44	0.44%
60.00° - 70.00°	181.82	9.44%	150.00° - 160.00°	1.63	0.08%
70.00° - 80.00°	200.12	10.39%	160.00° - 170.00°	0.47	0.02%
80.00° - 90.00°	206.87	10.74%	170.00° - 180.00°	0.14	0.01%
0.00° - 90.00°	1,307.76	67.89%	0.00° - 180.00°	1,926.24	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°	966.25	966.25	966.25	966.25	966.25	966.25	966.25	966.25	966.25	966.25	966.25	966.25	966.25	966.25	966.25	966.25	966.25
2.50°	970.76	969.04	971.92	972.80	963.27	954.69	966.41	963.99	970.76	969.04	971.92	972.80	963.27	954.69	966.41	963.99	970.76
5.00°	950.59	946.82	961.01	957.05	966.45	955.28	948.84	943.22	950.59	946.82	961.01	957.05	966.45	955.28	948.84	943.22	950.59
7.50°	896.26	907.31	891.66	887.72	888.20	955.96	895.48	906.45	896.26	907.31	891.66	887.72	888.20	955.96	895.48	906.45	896.26
10.00°	780.90	766.63	794.49	781.27	805.31	759.55	785.33	770.07	780.90	766.63	794.49	781.27	805.31	759.55	785.33	770.07	780.90
12.50°	577.22	558.35	576.69	571.56	591.13	543.61	577.15	567.89	577.22	558.35	576.69	571.56	591.13	543.61	577.15	567.89	577.22
15.00°	435.84	435.50	398.55	410.48	376.32	442.76	428.69	445.41	435.84	435.50	398.55	410.48	376.32	442.76	428.69	445.41	435.84
17.50°	371.88	361.37	357.21	361.93	349.08	348.33	368.32	367.87	371.88	361.37	357.21	361.93	349.08	348.33	368.32	367.87	371.88
20.00°	323.76	317.45	319.01	319.88	321.68	320.74	321.31	321.75	323.76	317.45	319.01	319.88	321.68	320.74	321.31	321.75	323.76
22.50°	293.08	288.62	289.66	290.90	291.09	294.03	291.73	291.15	293.08	288.62	289.66	290.90	291.09	294.03	291.73	291.15	293.08
25.00°	259.22	256.51	257.51	258.18	259.73	258.43	258.45	257.91	259.22	256.51	257.51	258.18	259.73	258.43	258.45	257.91	259.22
27.50°	222.34	223.02	218.57	219.05	219.54	223.21	221.01	223.57	222.34	223.02	218.57	219.05	219.54	223.21	221.01	223.57	222.34
30.00°	194.85	196.59	187.82	189.59	183.01	195.07	193.59	197.06	194.85	196.59	187.82	189.59	183.01	195.07	193.59	197.06	194.85
32.50°	175.01	172.61	173.73	174.23	173.77	169.18	175.86	173.22	175.01	172.61	173.73	174.23	173.77	169.18	175.86	173.22	175.01
35.00°	165.54	165.43	164.17	164.96	165.75	166.27	166.28	165.14	165.54	165.43	164.17	164.96	165.75	166.27	166.28	165.14	165.54
37.50°	163.54	163.22	162.45	163.54	164.36	163.65	163.68	161.65	163.54	163.22	162.45	163.54	164.36	163.65	163.68	161.65	163.54
40.00°	162.19	161.62	161.37	162.71	163.28	162.98	161.95	160.77	162.19	161.62	161.37	162.71	163.28	162.98	161.95	160.77	162.19
42.50°	161.24	160.16	161.27	162.53	163.52	162.76	160.86	160.49	161.24	160.16	161.27	162.53	163.52	162.76	160.86	160.49	161.24
45.00°	162.16	161.33	162.29	163.68	164.33	165.03	162.09	162.62	162.16	161.33	162.29	163.68	164.33	165.03	162.09	162.62	162.16
47.50°	164.08	162.97	164.77	166.11	167.13	167.28	164.77	165.17	164.08	162.97	164.77	166.11	167.13	167.28	164.77	165.17	164.08
50.00°	166.37	165.97	167.05	168.92	169.92	169.47	167.14	167.40	166.37	165.97	167.05	168.92	169.92	169.47	167.14	167.40	166.37
52.50°	168.85	169.15	169.11	172.06	172.67	171.89	169.33	169.59	168.85	169.15	169.11	172.06	172.67	171.89	169.33	169.59	168.85
55.00°	171.20	171.56	171.82	174.95	175.62	175.06	172.04	172.04	171.20	171.56	171.82	174.95	175.62	175.06	172.04	172.04	171.20
57.50°	173.49	173.89	175.17	177.66	179.02	178.04	175.00	174.52	173.49	173.89	175.17	177.66	179.02	178.04	175.00	174.52	173.49
60.00°	176.44	176.12	177.94	180.26	181.99	180.49	177.75	176.72	176.44	176.12	177.94	180.26	181.99	180.49	177.75	176.72	176.44
62.50°	179.59	178.34	180.22	182.80	184.04	183.23	180.42	178.90	179.59	178.34	180.22	182.80	184.04	183.23	180.42	178.90	179.59
65.00°	181.75	180.50	182.21	185.31	186.27	186.67	182.91	180.74	181.75	180.50	182.21	185.31	186.27	186.67	182.91	180.74	181.75
67.50°	183.64	182.65	184.01	187.80	188.78	189.54	185.35	182.59	183.64	182.65	184.01	187.80	188.78	189.54	185.35	182.59	183.64
70.00°	185.16	183.78	185.32	189.75	190.70	191.30	187.12	184.47	185.16	183.78	185.32	189.75	190.70	191.30	187.12	184.47	185.16
72.50°	186.61	184.90	186.32	191.44	191.72	192.71	188.71	186.30	186.61	184.90	186.32	191.44	191.72	192.71	188.71	186.30	186.61
75.00°	186.84	186.05	187.55	192.33	192.26	193.53	189.23	187.43	186.84	186.05	187.55	192.33	192.26	193.53	189.23	187.43	186.84
77.50°	186.88	187.18	188.92	192.90	192.17	193.99	189.52	188.52	186.88	187.18	188.92	192.90	192.17	193.99	189.52	188.52	186.88
80.00°	186.98	188.15	189.65	192.93	192.28	193.91	189.94	189.31	186.98	188.15	189.65	192.93	192.28	193.91	189.94	189.31	186.98
82.50°	187.08	188.86	190.10	192.78	192.62	193.19	190.39	189.91	187.08	188.86	190.10	192.78	192.62	193.19	190.39	189.91	187.08
85.00°	187.73	187.69	189.45	190.94	191.99	191.67	190.04	189.21	187.73	187.69	189.45	190.94	191.99	191.67	190.04	189.21	187.73
87.50°	188.41	186.68	188.36	188.64	190.39	190.53	189.58	188.52	188.41	186.68	188.36	188.64	190.39	190.53	189.58	188.52	188.41
90.00°	187.51	186.53	187.51	188.12	188.77	189.80	188.72	187.86	187.51	186.53	187.51	188.12	188.77	189.80	188.72	187.86	187.51
92.50°	186.56	186.43	186.74	187.97	187.14	188.77	187.82	187.13	186.56	186.43	186.74	187.97	187.14	188.77	187.82	187.13	186.56
95.00°	186.44	186.57	185.74	185.68	185.10	187.45	186.07	186.15	186.44	186.57	185.74	185.68	185.10	187.45	186.07	186.15	186.44
97.50°	186.23	186.14	184.67	183.04	182.76	184.04	184.29	185.05	186.23	186.14	184.67	183.04	182.76	184.04	184.29	185.05	186.23
100.00°	183.71	183.76	181.96	176.95	178.28	178.89	181.78	183.52	183.71	183.76	181.96	176.95	178.28	178.89	181.78	183.52	183.71
102.50°	181.18	180.98	178.89	170.43	172.39	170.14	179.15	181.39	181.18	180.98	178.89	170.43	172.39	170.14	179.15	181.39	181.18
105.00°	178.55	177.11	173.56	157.43	161.38	158.75	173.00	177.61	178.55	177.11	173.56	157.43	161.38	158.75	173.00	177.61	178.55
107.50°	175.67	172.89	167.85	143.95	147.51	142.88	166.58	173.54	175.67	172.89	167.85	143.95	147.51	142.88	166.58	173.54	175.67
110.00°	170.81	167.90	159.12	124.93	130.66	124.21	156.58	168.82	170.81	167.90	159.12	124.93	130.66	124.21	156.58	168.82	170.81
112.50°	165.72	162.21	150.02	105.71	112.42	106.13	146.41	163.36	165.72	162.21	150.02	105.71	112.42	106.13	146.41	163.36	165.72

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	2,146	2,146	2,146	2,146	2,024	2,024	2,024	2,024	1,797	1,797	1,797	1,589	1,589	1,589	1,398	1,398	1,308
	1	1,871	1,747	1,635	1,535	1,751	1,641	1,542	1,451	1,443	1,364	1,292	1,262	1,200	1,143	1,094	1,047	969
	2	1,678	1,490	1,335	1,205	1,567	1,400	1,260	1,142	1,229	1,118	1,021	1,072	984	906	927	858	791
	3	1,523	1,298	1,124	985	1,420	1,220	1,063	936	1,073	946	841	936	835	749	810	730	672
	4	1,393	1,147	968	830	1,299	1,080	917	791	952	819	714	834	726	639	724	637	588
	5	1,283	1,027	848	715	1,197	968	805	683	857	722	619	754	644	557	657	568	525
	6	1,187	927	753	627	1,110	876	716	600	779	646	547	688	578	494	604	513	476
	7	1,105	844	676	558	1,034	800	645	535	714	584	489	634	526	445	559	469	436
	8	1,032	775	613	501	967	735	586	482	659	533	443	588	482	405	521	433	404
	9	968	715	560	455	909	680	536	438	612	490	405	549	446	372	489	402	377
	10	911	664	516	417	857	632	495	402	572	454	373	515	415	344	461	376	353

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	31.9 fc	2.8 ft
6.5 ft	22.9 fc	3.3 ft
7.5 ft	17.2 fc	3.8 ft
8.0 ft	15.1 fc	4.0 ft
10.0 ft	9.7 fc	5.0 ft
12.0 ft	6.7 fc	6.0 ft
14.0 ft	4.9 fc	7.0 ft
16.0 ft	3.8 fc	8.0 ft
20.0 ft	2.4 fc	10.1 ft
24.0 ft	1.7 fc	12.1 ft
28.0 ft	1.2 fc	14.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	52,970	52,970	52,970
45.00°	2,608	2,611	2,643
55.00°	2,535	2,544	2,600
65.00°	2,565	2,572	2,629
75.00°	2,594	2,604	2,669
85.00°	2,644	2,668	2,704

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