

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CF06XXPC 15L 35K XW XX CL XX

Nom 6" diam Gamma Cylinder (damp location), clear glass lens

Test Number

SP-01044_M-15L

Test Date

2/3/2020

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

Summary of Results

Power

Input Watts	9.5 W
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Lumen Output

Output Lumens	1075
Efficacy	113.2 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.17
Two luminaires, plane 90°	1.17
Four luminaires	1.11

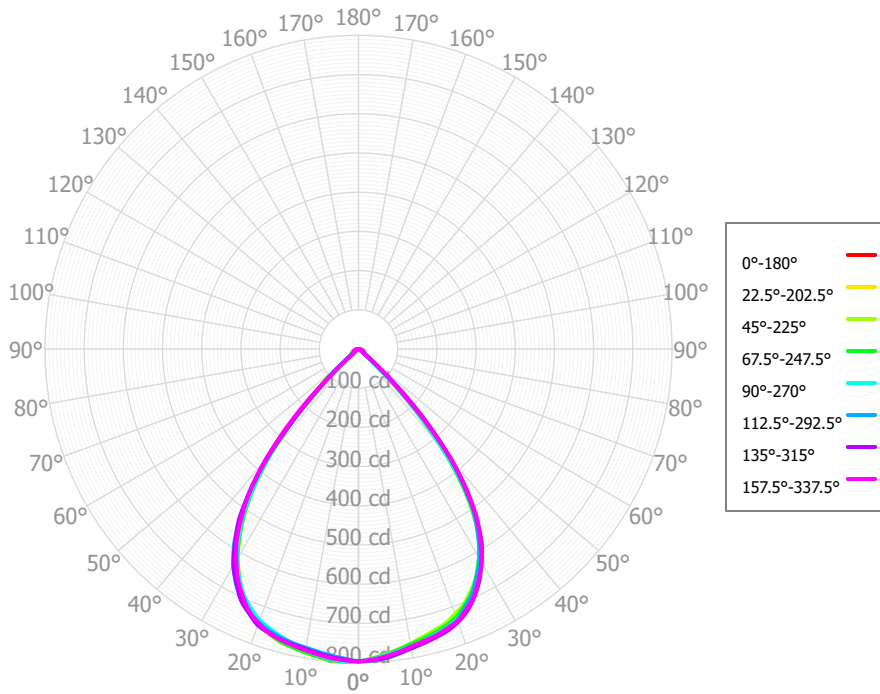
Full Beam Angle

0° - 180°	78°
90° - 270°	77°

IES File Header Contents

Keyword	Value
TEST	SP-01044_M-15L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/3/2020
ISSUEDATE	05/16/2022
LUMCAT	CF06XXPC 15L 35K XW XX CL XX
LUMINAIRE	Nom 6" diam Gamma Cylinder (damp location), clear glass lens
OTHER	Beam angle: 77.4 deg
OTHER	Xtra Wide optic
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multipliers: 27K x 0.97, 30K x 0.98, 40K x 1.04, 27HK x 0.78, 30HK x 0.82
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting, scaled from 40L

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	76.04	7.07%	90.00° - 100.00°	0.03	0.00%
10.00° - 20.00°	214.58	19.95%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	316.99	29.48%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	313.74	29.17%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	122.24	11.37%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	13.00	1.21%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	11.96	1.11%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	6.02	0.56%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	0.82	0.08%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1075.39	100.00%	0.00° - 180.00°	1075.42	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°	796.79	796.79	796.79	796.79	796.79	796.79	796.79	796.79	796.79	796.79	796.79	796.79	796.79	796.79	796.79	796.79	796.79
2.50°	792.43	790.74	790.44	791.06	791.79	791.19	793.36	795.13	797.26	797.96	798.78	797.76	797.57	795.36	794.96	793.38	792.43
5.00°	786.02	783.86	782.46	783.74	785.50	785.71	789.14	791.93	794.03	797.81	796.43	796.94	793.67	792.16	791.43	787.58	786.02
7.50°	777.68	775.29	773.45	774.51	778.24	779.56	783.50	786.40	788.99	791.78	792.53	791.11	787.72	784.53	783.19	779.93	777.68
10.00°	768.97	766.48	763.46	765.48	770.93	773.85	777.39	780.60	783.09	785.19	786.20	785.24	779.98	775.76	775.52	771.19	768.97
12.50°	759.87	756.89	753.16	758.04	763.59	768.92	772.47	774.55	777.60	779.31	779.50	778.96	770.78	767.84	768.72	764.04	759.87
15.00°	751.07	747.44	744.02	750.22	755.34	762.64	767.84	767.55	772.28	773.33	772.34	771.87	760.56	760.07	761.66	757.64	751.07
17.50°	742.56	738.33	735.15	740.46	746.66	754.39	759.37	759.81	760.76	760.22	760.65	759.58	748.95	748.92	754.28	748.60	742.56
20.00°	729.41	726.22	720.12	728.52	734.67	742.93	750.26	745.02	747.41	746.37	744.33	745.31	736.53	737.36	741.73	738.62	729.41
22.50°	712.94	708.19	704.08	708.46	721.39	727.61	729.98	725.86	723.17	721.65	722.16	722.53	716.23	713.31	723.98	719.07	712.94
25.00°	689.27	686.56	679.63	684.88	696.65	705.50	708.50	697.73	696.60	695.36	695.02	696.43	692.29	688.57	698.49	696.87	689.27
27.50°	661.35	659.24	654.38	651.53	668.48	676.79	673.97	665.18	660.49	657.26	659.20	659.86	658.99	654.17	666.70	663.83	661.35
30.00°	624.38	623.10	616.00	614.53	627.08	637.82	638.70	623.54	622.96	616.64	617.44	618.51	622.35	619.07	627.56	628.66	624.38
32.50°	583.17	575.47	576.83	569.66	582.82	590.76	585.88	578.30	569.88	563.69	564.74	565.26	569.78	569.28	583.58	578.33	583.17
35.00°	520.06	513.21	508.44	512.45	515.79	527.09	531.63	518.10	515.49	506.40	506.04	505.05	512.86	517.14	523.43	526.08	520.06
37.50°	449.01	435.54	438.07	433.54	445.29	452.88	451.88	453.40	440.59	433.22	431.31	431.30	436.17	443.33	454.51	449.05	449.01
40.00°	351.88	341.57	338.62	340.21	340.94	355.10	368.18	365.10	364.52	351.70	349.42	346.10	355.55	365.42	367.04	370.35	351.88
42.50°	247.39	233.73	238.50	226.56	233.65	245.02	251.11	271.68	258.38	247.36	247.66	243.19	251.37	264.41	271.67	259.17	247.39
45.00°	148.30	139.59	133.32	130.71	133.62	145.83	141.64	165.98	155.07	152.87	139.07	151.25	144.20	167.83	173.16	149.22	148.30
47.50°	50.29	55.17	41.99	55.13	35.36	51.08	72.36	58.40	87.50	79.27	78.82	73.37	82.85	89.47	73.63	80.82	50.29
50.00°	25.66	18.81	22.52	15.61	20.43	20.64	16.55	31.69	27.68	30.70	30.88	29.56	24.42	28.78	37.34	18.28	25.66
52.50°	10.55	9.71	7.06	9.32	6.59	10.21	13.13	12.02	21.59	24.18	21.17	21.10	19.40	21.50	16.87	13.93	10.55
55.00°	9.53	6.93	6.27	6.67	6.98	8.34	10.64	12.43	16.51	19.91	18.61	18.15	15.34	16.58	13.77	10.25	9.53
57.50°	9.55	6.98	5.93	6.81	7.39	8.50	10.78	13.40	16.38	18.75	17.26	19.85	15.88	17.15	13.67	10.76	9.55
60.00°	10.13	7.71	6.82	7.46	7.86	9.27	11.10	13.66	16.29	17.76	16.05	19.73	16.31	17.23	13.54	11.26	10.13
62.50°	10.71	8.70	7.78	8.41	8.36	10.14	11.79	13.88	16.36	16.95	14.61	18.35	15.62	16.40	13.42	11.66	10.71
65.00°	10.83	9.46	8.87	9.35	9.00	10.24	11.96	13.47	16.12	15.96	13.15	16.22	14.71	14.95	13.12	11.74	10.83
67.50°	10.78	10.18	9.25	10.29	9.43	10.26	11.25	12.87	15.08	14.82	10.89	13.68	12.50	12.59	12.71	10.89	10.78
70.00°	9.69	8.80	8.66	9.38	9.30	9.84	10.23	11.36	13.51	12.77	8.57	11.33	10.02	10.07	10.31	9.62	9.69
72.50°	7.93	7.03	7.33	7.87	8.08	8.75	8.95	9.22	11.26	10.20	5.95	9.04	6.95	7.43	7.85	7.78	7.93
75.00°	5.22	4.49	5.51	5.15	5.95	6.13	5.93	6.21	8.08	7.81	3.72	6.63	4.55	4.74	5.21	4.98	5.22
77.50°	2.87	2.59	2.71	2.82	3.51	3.27	3.19	3.46	4.80	5.14	1.91	4.16	2.66	2.62	2.78	2.46	2.87
80.00°	1.27	1.28	1.33	1.16	1.60	1.27	1.38	1.62	2.04	2.05	1.38	1.83	1.59	1.51	1.15	1.49	1.27
82.50°	0.63	0.66	0.69	0.57	0.64	0.79	1.07	0.92	1.32	1.34	1.18	1.27	0.91	0.99	0.85	0.81	0.63
85.00°	0.52	0.51	0.40	0.54	0.51	0.66	0.63	0.74	0.96	1.03	0.91	0.72	0.86	0.74	0.70	0.55	0.52
87.50°	0.45	0.45	0.33	0.52	0.38	0.47	0.51	0.50	0.54	0.76	0.63	0.66	0.52	0.79	0.69	0.59	0.45
90.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.41	0.43	0.43	0.50	0.51	0.34	0.51	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%	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	1280	1280	1280	1280	1250	1250	1250	1250	1195	1195	1195	1144	1144	1144	1097	1097	1097	1075
	1	1214	1181	1151	1125	1187	1157	1131	1107	1114	1092	1073	1073	1056	1041	1036	1023	1011	1002
	2	1145	1087	1039	999	1121	1068	1024	987	1033	997	965	1000	971	945	970	946	925	927
	3	1079	1002	943	896	1056	987	932	888	958	912	874	931	892	860	906	874	846	857
	4	1016	926	860	809	996	913	852	804	889	836	794	867	822	785	846	808	776	792
	5	957	857	787	736	938	846	781	732	826	769	725	808	758	719	790	747	712	733
	6	901	795	724	672	884	786	719	670	769	710	665	753	701	660	739	692	656	680
	7	850	739	667	617	834	732	664	615	717	656	612	704	649	608	691	642	605	631
	8	802	689	618	569	788	682	614	567	670	609	565	658	603	562	647	597	560	587
	9	758	643	573	526	745	638	571	525	627	566	523	617	561	521	607	556	519	548
	10	717	602	534	488	706	598	532	487	588	527	486	579	523	484	571	520	483	512

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	26.3 fc	8.8 ft
6.5 ft	18.9 fc	10.5 ft
7.5 ft	14.2 fc	12.1 ft
8.0 ft	12.4 fc	12.9 ft
10.0 ft	8.0 fc	16.1 ft
12.0 ft	5.5 fc	19.3 ft
14.0 ft	4.1 fc	22.5 ft
16.0 ft	3.1 fc	25.7 ft
20.0 ft	2.0 fc	32.2 ft
24.0 ft	1.4 fc	38.6 ft
28.0 ft	1.0 fc	45.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	43680	43680	43680
45.00°	11497	10336	10359
55.00°	911	599	668
65.00°	1405	1150	1168
75.00°	1106	1167	1260
85.00°	326	252	321

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	1.6	2.6	1.9	2.9	3.3	4.9	5.9	5.2	6.3	6.6
	3H	5.6	6.5	6.0	6.9	7.2	7.2	8.1	7.6	8.5	8.8
	4H	6.3	7.2	6.7	7.6	7.9	7.7	8.6	8.2	9.0	9.4
	6H	6.4	7.2	6.9	7.6	8.0	7.8	8.6	8.3	9.0	9.4
	8H	6.4	7.2	6.8	7.6	8.0	7.8	8.6	8.2	9.0	9.4
	12H	6.4	7.1	6.8	7.5	7.9	7.8	8.5	8.2	8.9	9.3
4H	2H	3.1	4.0	3.5	4.4	4.7	5.6	6.5	6.0	6.8	7.2
	3H	6.7	7.4	7.1	7.8	8.2	8.1	8.8	8.5	9.2	9.6
	4H	7.4	8.1	7.9	8.5	8.9	8.7	9.3	9.2	9.8	10.2
	6H	7.5	8.1	8.0	8.5	9.0	8.8	9.4	9.3	9.8	10.3
	8H	7.5	8.0	8.0	8.5	8.9	8.8	9.3	9.3	9.8	10.2
	12H	7.5	7.9	8.0	8.4	8.9	8.8	9.2	9.3	9.7	10.2
8H	4H	7.6	8.1	8.1	8.5	9.0	8.8	9.3	9.3	9.8	10.3
	6H	7.7	8.1	8.2	8.6	9.1	9.0	9.4	9.5	9.9	10.4
	8H	7.7	8.1	8.2	8.6	9.1	8.9	9.3	9.5	9.8	10.3
	12H	7.7	8.0	8.2	8.5	9.1	8.9	9.3	9.5	9.8	10.3
12H	4H	7.5	8.0	8.0	8.5	8.9	8.8	9.2	9.3	9.7	10.2
	6H	7.7	8.0	8.2	8.5	9.1	8.9	9.3	9.5	9.8	10.3
	8H	7.7	8.0	8.2	8.5	9.1	8.9	9.2	9.4	9.7	10.3

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0