

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

CF06XXPC 15L 35K XW XX NL XX
Nom 6" diam Gamma Cylinder (damp location), no lens

Test Number

SP-01045_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
-------------	-------

Lumen Output

Output Lumens	1122
Efficacy	118.12 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.21
Two luminaires, plane 90°	1.23
Four luminaires	1.12

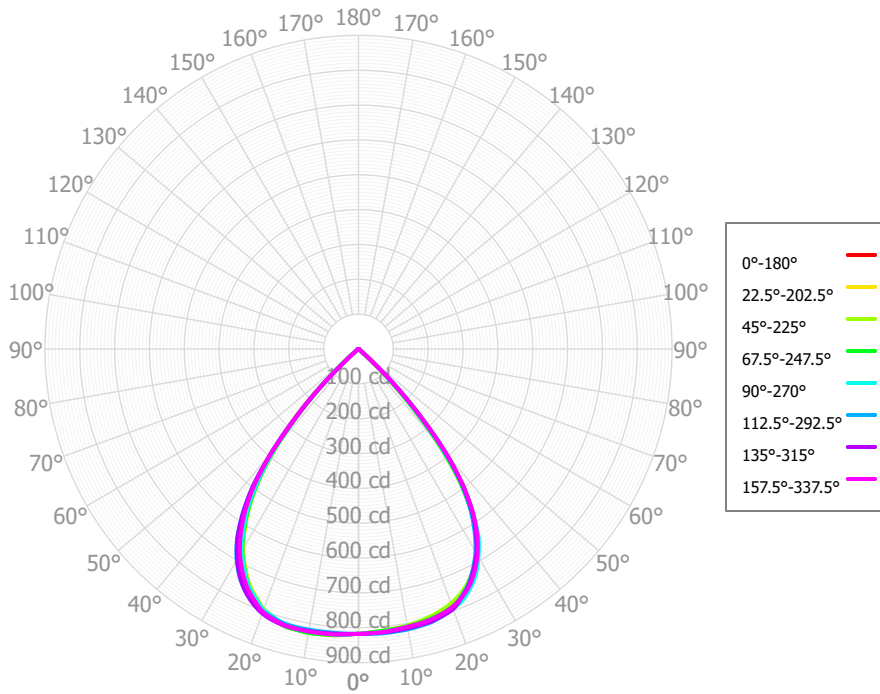
Full Beam Angle

0° - 180°	78°
90° - 270°	78°

IES File Header Contents

Keyword	Value
TEST	SP-01045_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 NL XX
LUMINAIRE	Nom 6" diam Gamma Cylinder (damp location), no lens
OTHER	Beam angle: 76.4 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°	79.29	7.07%	90.00° - 100.00°	0.04	0.00%
10.00° - 20.00°	228.96	20.40%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	342.83	30.55%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	341.06	30.39%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	122.31	10.90%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	3.76	0.33%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	1.71	0.15%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	1.47	0.13%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	0.69	0.06%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1122.07	100.00%	0.00° - 180.00°	1122.11	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°	817.87	817.87	817.87	817.87	817.87	817.87	817.87	817.87	817.87	817.87	817.87	817.87	817.87	817.87	817.87	817.87	817.87
2.50°	815.75	814.54	814.59	814.65	816.85	817.96	818.83	820.36	820.64	820.71	821.55	820.38	820.65	818.67	816.80	816.78	815.75
5.00°	813.52	812.31	811.41	812.06	815.25	817.73	820.41	822.80	822.89	824.24	825.17	823.31	822.39	819.09	816.67	815.42	813.52
7.50°	810.77	811.22	809.05	810.87	814.38	817.98	821.38	823.30	823.52	825.90	826.18	825.58	822.84	818.28	815.43	812.51	810.77
10.00°	807.99	808.58	806.01	809.16	813.08	818.15	822.24	823.68	824.18	827.02	827.01	827.65	822.94	817.35	814.13	809.69	807.99
12.50°	805.00	803.79	801.00	805.48	811.18	818.03	822.73	822.71	824.91	824.90	823.78	825.81	820.67	814.69	812.09	807.26	805.00
15.00°	801.73	798.70	795.11	801.34	807.90	816.33	821.62	820.83	822.53	822.18	820.03	822.98	817.96	811.34	809.71	803.84	801.73
17.50°	794.43	793.28	787.39	795.94	803.08	810.22	816.94	813.52	813.42	809.43	808.10	812.29	807.90	802.98	803.04	797.24	794.43
20.00°	785.91	782.77	776.87	786.85	793.87	801.65	807.79	803.11	799.04	795.64	794.75	799.29	797.08	792.10	794.29	787.96	785.91
22.50°	769.36	767.96	761.97	770.47	780.93	787.87	791.14	781.05	775.90	769.69	771.30	775.12	773.25	770.29	772.77	772.55	769.36
25.00°	750.13	746.02	741.12	747.92	758.44	768.05	768.22	755.55	747.75	742.92	745.28	747.84	748.56	745.45	748.79	751.67	750.13
27.50°	720.01	719.46	713.01	716.21	729.59	738.67	737.07	721.03	713.28	704.39	707.73	710.58	710.75	711.65	715.00	721.20	720.01
30.00°	684.36	680.03	675.00	676.70	688.69	699.71	696.94	680.77	670.31	664.00	665.06	667.55	671.06	672.04	677.01	683.23	684.36
32.50°	632.68	634.17	627.72	628.07	641.75	649.17	647.79	629.14	619.12	606.46	606.94	611.29	614.26	620.04	627.43	635.27	632.68
35.00°	569.51	563.16	559.50	560.44	571.12	581.58	580.82	566.98	554.64	545.32	542.09	546.14	553.23	559.39	567.99	572.14	569.51
37.50°	482.23	482.98	476.27	475.77	491.81	497.72	500.15	489.16	480.00	464.82	462.56	465.35	470.82	484.52	488.70	493.53	482.23
40.00°	378.27	369.09	364.67	364.45	376.56	388.24	391.72	390.24	384.05	375.87	369.69	371.00	380.74	389.60	391.87	390.18	378.27
42.50°	248.13	246.72	237.21	234.87	251.79	260.02	266.59	267.37	275.73	257.47	254.43	258.59	265.15	269.60	267.64	266.91	248.13
45.00°	138.26	137.54	131.48	129.92	140.38	149.31	154.55	156.51	166.67	149.97	152.69	157.42	157.80	159.41	156.04	155.83	138.26
47.50°	53.35	30.54	34.74	38.10	31.19	48.29	48.39	56.45	57.29	69.28	68.17	67.73	70.60	58.65	59.47	52.21	53.35
50.00°	9.11	12.19	8.08	8.10	12.50	12.31	14.47	11.67	20.10	14.39	20.72	21.40	12.72	11.69	10.26	13.26	9.11
52.50°	3.31	1.12	1.94	2.34	1.35	3.82	3.80	4.82	5.94	7.84	9.51	10.01	7.84	5.44	4.29	3.89	3.31
55.00°	0.87	0.82	0.70	0.97	1.04	1.77	1.87	2.40	3.51	4.07	4.01	5.52	4.97	3.17	1.71	1.28	0.87
57.50°	0.86	0.63	0.45	0.80	0.94	1.64	1.86	2.26	3.58	4.22	2.93	5.26	4.86	3.18	1.56	0.97	0.86
60.00°	0.82	0.66	0.58	0.79	1.06	1.42	1.68	2.10	3.46	4.02	2.35	4.81	4.22	2.84	1.42	0.85	0.82
62.50°	0.76	0.68	0.75	0.80	1.16	1.17	1.48	1.93	3.31	3.43	2.07	4.28	3.02	2.35	1.29	0.77	0.76
65.00°	0.76	0.71	0.62	0.79	1.03	1.07	1.33	2.02	3.29	3.24	2.00	3.88	2.26	1.90	1.24	0.74	0.76
67.50°	0.79	0.72	0.50	0.77	0.91	0.99	1.19	2.18	3.30	3.39	2.02	3.52	1.86	1.45	1.23	0.72	0.79
70.00°	0.70	0.69	0.51	0.80	0.80	0.88	1.25	2.38	3.67	3.84	1.71	3.26	1.68	1.37	0.97	0.73	0.70
72.50°	0.61	0.58	0.51	0.76	0.75	0.80	1.36	2.45	4.00	4.43	1.34	3.08	1.59	1.32	0.73	0.71	0.61
75.00°	0.58	0.41	0.51	0.60	0.77	0.79	1.58	1.98	4.23	3.98	1.10	3.48	1.78	1.22	0.95	0.66	0.58
77.50°	0.63	0.34	0.52	0.43	0.79	0.78	1.25	1.40	2.54	2.93	1.05	3.04	1.55	1.01	1.00	0.64	0.63
80.00°	0.69	0.40	0.48	0.41	0.70	0.70	0.88	0.91	1.23	1.28	1.07	2.00	0.91	0.82	0.89	0.70	0.69
82.50°	0.61	0.46	0.41	0.46	0.51	0.52	0.64	0.73	1.12	1.04	0.88	1.23	1.01	0.82	0.65	0.79	0.61
85.00°	0.45	0.45	0.40	0.42	0.44	0.36	0.58	0.61	0.77	0.96	1.00	1.02	0.61	0.70	0.58	0.57	0.45
87.50°	0.45	0.50	0.38	0.58	0.57	0.45	0.58	0.44	0.59	0.70	0.66	0.98	0.71	0.59	0.54	0.53	0.45
90.00°	0.30	0.00	0.00	0.00	0.00	0.46	0.00	0.31	0.50	0.40	0.43	0.44	0.46	0.34	0.39	0.43	0.30
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	1336	1336	1336	1336	1305	1305	1305	1305	1247	1247	1247	1194	1194	1194	1145	1145	1122
	1	1269	1236	1206	1179	1241	1211	1185	1161	1166	1144	1125	1124	1107	1091	1085	1072	1050
	2	1200	1141	1093	1052	1175	1122	1078	1040	1085	1049	1017	1051	1021	995	1020	996	976
	3	1133	1055	995	947	1110	1039	984	939	1009	962	924	981	942	909	956	923	905
	4	1068	976	909	858	1047	963	901	853	939	885	843	916	870	833	894	855	839
	5	1007	905	834	782	988	894	828	778	874	816	771	854	804	764	836	792	778
	6	949	841	768	715	932	832	763	713	814	753	708	798	744	703	782	735	722
	7	896	782	709	657	880	775	705	655	760	697	652	746	690	648	733	683	671
	8	846	729	656	606	831	723	653	605	710	647	602	698	641	599	687	635	625
	9	799	682	609	561	786	676	607	560	665	602	558	654	597	555	644	592	583
	10	757	638	567	520	745	633	565	519	624	561	518	614	557	516	606	553	545

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	27.0 fc	9.0 ft
6.5 ft	19.4 fc	10.6 ft
7.5 ft	14.5 fc	12.2 ft
8.0 ft	12.8 fc	13.0 ft
10.0 ft	8.2 fc	16.3 ft
12.0 ft	5.7 fc	19.6 ft
14.0 ft	4.2 fc	22.8 ft
16.0 ft	3.2 fc	26.1 ft
20.0 ft	2.0 fc	32.6 ft
24.0 ft	1.4 fc	39.1 ft
28.0 ft	1.0 fc	45.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	44836	44836	44836
45.00°	10719	10193	10883
55.00°	83	67	100
65.00°	99	81	134
75.00°	123	108	164
85.00°	285	253	277

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	-15.3	-14.3	-14.9	-14.0	-13.6	-4.7	-3.6	-4.3	-3.3	-3.0
	3H	-12.3	-11.3	-11.9	-11.0	-10.6	-3.4	-2.5	-3.1	-2.2	-1.8
	4H	-11.1	-10.2	-10.7	-9.9	-9.5	-2.6	-1.8	-2.2	-1.4	-1.0
	6H	-9.3	-8.5	-8.9	-8.2	-7.8	-1.9	-1.1	-1.5	-0.8	-0.4
	8H	-8.2	-7.5	-7.8	-7.1	-6.7	-1.7	-1.0	-1.2	-0.6	-0.2
	12H	-7.4	-6.7	-7.0	-6.3	-5.9	-1.5	-0.8	-1.1	-0.4	0.0
4H	2H	-13.8	-12.9	-13.4	-12.6	-12.2	-4.6	-3.8	-4.2	-3.5	-3.1
	3H	-10.9	-10.2	-10.5	-9.8	-9.4	-2.9	-2.2	-2.5	-1.8	-1.4
	4H	-9.7	-9.1	-9.3	-8.7	-8.2	-1.4	-0.8	-0.9	-0.3	0.1
	6H	-7.9	-7.4	-7.4	-6.9	-6.4	-0.4	0.2	0.1	0.6	1.1
	8H	-6.7	-6.2	-6.2	-5.8	-5.3	-0.1	0.4	0.4	0.8	1.3
	12H	-5.8	-5.3	-5.3	-4.9	-4.4	0.1	0.5	0.6	1.0	1.5
8H	4H	-8.8	-8.3	-8.3	-7.8	-7.4	-1.0	-0.5	-0.5	-0.1	0.4
	6H	-6.8	-6.4	-6.2	-5.9	-5.4	0.2	0.6	0.7	1.1	1.6
	8H	-5.5	-5.1	-4.9	-4.6	-4.1	0.6	0.9	1.1	1.5	2.0
	12H	-4.3	-4.0	-3.8	-3.5	-2.9	1.0	1.3	1.5	1.8	2.3
12H	4H	-8.5	-8.1	-8.0	-7.6	-7.2	-1.0	-0.6	-0.5	-0.1	0.4
	6H	-6.4	-6.1	-5.9	-5.6	-5.1	0.3	0.6	0.8	1.1	1.6
	8H	-5.1	-4.8	-4.6	-4.3	-3.7	0.7	1.0	1.2	1.5	2.1

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0