

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CW06XXPC 15L 35K XW XX CL XX

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

Test Number

SP-01078_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	1018
Efficacy	10716 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.14
Two luminaires, plane 90°	1.14
Four luminaires	1.09

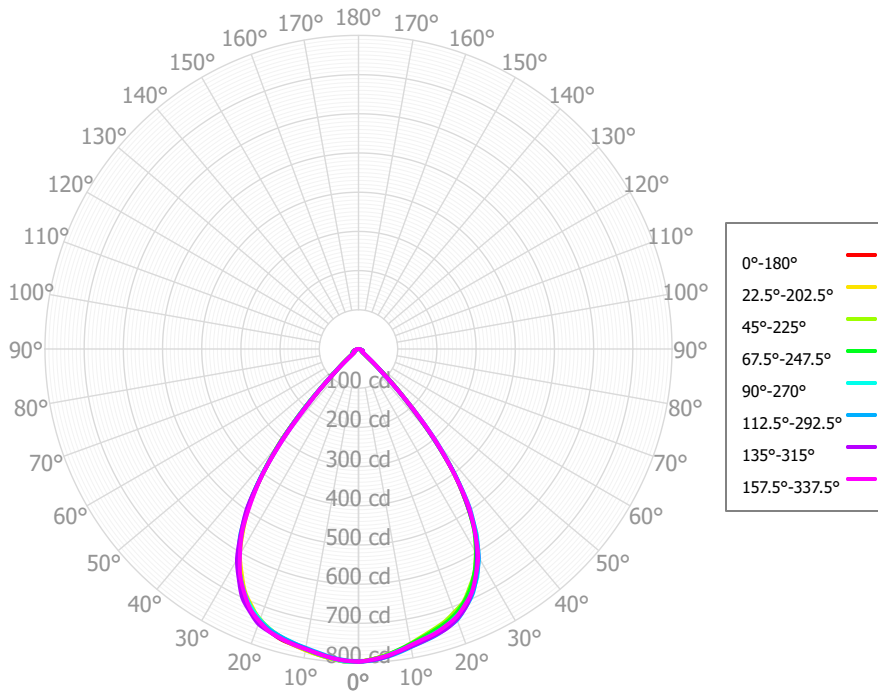
Full Beam Angle

0° - 180°	75°
90° - 270°	75°

IES File Header Contents

Keyword	Value
TEST	SP-01078_M-15L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/3/2020
ISSUEDATE	5/31/2022
LUMCAT	CW06XXPC 15L 35K XW XX CL XX
LUMINAIRE	Nom 6" diam Gamma Cylinder (wet location), clear glass lens
OTHER	Beam angle: 75.1 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°	75.90	7.46%	90.00° - 100.00°	0.03	0.00%
10.00° - 20.00°	213.26	20.95%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	312.71	30.72%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	293.85	28.86%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	91.72	9.01%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	11.78	1.16%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	12.37	1.22%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	5.74	0.56%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	0.70	0.07%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1018.03	100.00%	0.00° - 180.00°	1018.06	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°	797.62	797.62	797.62	797.62	797.62	797.62	797.62	797.62	797.62	797.62	797.62	797.62	797.62	797.62	797.62	797.62	797.62
2.50°	792.69	792.46	792.69	792.78	795.10	794.73	796.15	795.60	797.57	796.95	798.54	796.29	798.04	795.31	794.87	793.36	792.69
5.00°	785.62	785.57	784.34	785.72	787.00	789.57	790.94	791.43	792.76	793.35	792.46	791.89	791.66	789.82	789.04	786.78	785.62
7.50°	776.75	776.02	775.25	775.05	777.29	781.59	784.27	784.12	786.63	787.19	786.01	785.23	784.59	781.81	779.59	777.90	776.75
10.00°	767.25	766.10	763.44	764.53	768.62	774.48	776.96	777.67	779.31	780.46	778.42	778.16	776.08	772.33	771.06	767.40	767.25
12.50°	757.36	755.47	751.33	754.30	760.18	768.18	771.03	771.90	772.73	772.49	770.40	771.36	768.05	764.51	763.65	758.93	757.36
15.00°	747.74	745.51	740.58	744.23	750.94	760.47	765.56	764.41	766.67	764.32	761.30	764.60	760.81	757.48	755.98	751.61	747.74
17.50°	738.25	736.67	729.87	734.44	741.59	751.68	756.54	755.78	754.66	750.55	749.85	752.87	750.28	747.20	748.03	740.71	738.25
20.00°	724.05	724.02	714.71	720.75	727.15	737.63	746.60	739.60	739.10	736.24	733.86	740.87	735.25	735.69	733.61	728.20	724.05
22.50°	708.01	706.20	698.92	701.18	712.24	720.34	724.96	719.45	716.34	710.73	713.60	716.80	714.61	713.98	713.82	707.88	708.01
25.00°	681.66	681.30	671.11	675.26	684.56	692.39	701.15	688.64	690.15	684.60	686.69	691.98	687.71	689.38	684.70	684.73	681.66
27.50°	652.12	648.59	641.77	641.54	656.10	659.18	661.60	653.40	652.38	645.62	652.14	653.10	653.37	653.23	649.27	649.41	652.12
30.00°	606.90	606.20	598.87	599.81	609.71	612.72	620.21	605.04	610.28	605.50	607.66	612.30	612.26	614.61	604.09	610.77	606.90
32.50°	558.13	555.10	551.67	549.96	561.43	560.93	558.48	552.33	551.97	547.59	552.77	553.14	557.20	556.16	553.63	552.63	558.13
35.00°	482.00	485.28	480.63	483.23	485.37	485.99	495.45	478.99	488.90	486.63	486.91	490.05	491.53	494.86	482.14	490.68	482.00
37.50°	401.66	401.40	403.43	402.39	405.58	403.92	401.60	400.58	401.91	401.43	403.31	402.60	405.10	404.53	401.34	400.98	401.66
40.00°	296.10	300.18	301.14	302.31	297.15	297.73	306.70	293.20	309.82	311.51	304.50	310.34	305.92	311.88	298.28	307.78	296.10
42.50°	188.08	188.44	200.30	189.18	191.71	186.08	194.45	180.87	200.58	197.41	201.92	197.62	202.11	198.25	187.58	198.84	188.08
45.00°	106.26	106.32	103.90	105.28	101.18	105.27	88.47	101.94	88.89	97.64	96.68	100.78	96.03	85.66	106.91	88.76	106.26
47.50°	26.44	38.51	31.90	37.32	27.76	29.47	48.85	26.80	49.15	52.53	43.47	53.77	46.76	48.30	33.96	50.28	26.44
50.00°	17.72	15.33	17.00	13.63	17.03	17.16	14.51	17.67	15.68	18.74	20.33	20.23	20.10	13.59	17.49	14.22	17.72
52.50°	9.57	9.64	7.58	9.69	9.37	11.02	13.23	12.06	14.86	17.35	12.90	20.32	13.94	12.65	11.80	12.28	9.57
55.00°	10.53	9.14	8.65	9.23	10.35	11.70	12.32	13.19	15.01	16.18	12.69	20.22	14.03	11.92	11.66	10.56	10.53
57.50°	11.43	10.19	9.57	9.98	11.27	12.64	13.06	14.25	15.28	15.52	12.50	19.74	14.00	12.79	12.20	11.30	11.43
60.00°	11.88	11.05	10.27	10.87	12.09	13.17	13.62	14.04	15.51	15.02	12.32	19.00	13.94	13.49	12.60	11.94	11.88
62.50°	12.20	11.88	10.75	11.80	12.48	13.61	13.62	13.78	15.23	14.79	12.07	17.86	13.78	13.32	12.98	11.96	12.20
65.00°	11.89	11.48	10.99	11.88	12.13	12.69	13.49	13.20	14.84	14.22	11.80	16.36	13.60	12.93	12.38	11.93	11.89
67.50°	11.29	10.89	10.63	11.80	11.63	11.71	13.03	12.38	13.73	13.14	10.17	14.39	12.11	11.83	11.65	11.69	11.29
70.00°	9.90	9.34	9.79	10.50	10.97	10.46	11.63	10.60	12.18	11.40	8.29	11.76	10.39	10.11	9.62	10.52	9.90
72.50°	7.70	7.45	7.69	8.49	8.24	8.38	9.15	8.42	9.57	9.06	5.57	8.60	7.28	7.38	7.37	7.68	7.70
75.00°	4.79	4.92	5.21	5.06	5.01	5.28	5.73	5.75	6.78	6.43	3.20	6.08	4.56	4.77	4.69	4.94	4.79
77.50°	2.87	2.48	2.48	2.80	2.68	2.85	2.79	3.05	3.97	3.76	1.48	3.71	2.40	2.49	2.67	2.52	2.87
80.00°	1.47	1.06	1.29	1.23	1.29	1.34	1.26	1.31	1.74	1.17	0.92	1.36	1.17	1.24	1.25	1.04	1.47
82.50°	0.78	0.68	0.60	0.56	0.70	0.73	0.68	0.75	0.88	0.84	0.74	1.08	0.63	0.69	0.57	0.76	0.78
85.00°	0.63	0.62	0.57	0.65	0.50	0.58	0.45	0.65	0.62	0.56	0.59	0.83	0.51	0.64	0.44	0.53	0.63
87.50°	0.52	0.64	0.45	0.49	0.40	0.54	0.59	0.46	0.38	0.34	0.58	0.60	0.45	0.64	0.51	0.65	0.52
90.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.42	0.49	0.34	0.49	0.41	0.46	0.64	0.03	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	1212	1212	1212	1212	1184	1184	1184	1184	1131	1131	1131	1083	1083	1083	1039	1039	1018
	1	1150	1119	1092	1067	1124	1097	1072	1050	1056	1036	1018	1017	1002	987	982	970	951
	2	1086	1032	987	950	1063	1014	973	939	981	947	918	950	922	898	922	899	881
	3	1025	953	898	854	1004	939	888	847	912	868	833	886	850	820	863	833	816
	4	966	882	821	774	947	870	813	769	848	799	760	827	785	751	807	772	757
	5	911	818	753	706	894	808	748	702	790	737	696	772	726	689	756	716	702
	6	860	761	694	647	844	752	690	644	737	681	640	722	673	635	708	665	653
	7	812	709	642	595	797	702	638	593	688	631	590	675	625	587	664	618	608
	8	767	662	595	550	754	656	592	549	644	587	546	633	581	544	623	576	567
	9	726	619	554	510	714	614	551	509	604	547	507	594	542	505	586	538	529
	10	688	581	517	474	677	576	515	473	567	511	472	559	507	470	551	503	496

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	26.4 fc	8.5 ft
6.5 ft	18.9 fc	10.0 ft
7.5 ft	14.2 fc	11.5 ft
8.0 ft	12.5 fc	12.3 ft
10.0 ft	8.0 fc	15.4 ft
12.0 ft	5.5 fc	18.5 ft
14.0 ft	4.1 fc	21.5 ft
16.0 ft	3.1 fc	24.6 ft
20.0 ft	2.0 fc	30.8 ft
24.0 ft	1.4 fc	36.9 ft
28.0 ft	1.0 fc	43.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	43726	43726	43726
45.00°	8238	8055	7844
55.00°	1006	827	989
65.00°	1542	1425	1573
75.00°	1015	1103	1061
85.00°	396	356	317

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	3.0	4.1	3.4	4.4	4.7	5.6	6.6	6.0	6.9	7.3
	3H	6.4	7.4	6.8	7.7	8.1	7.9	8.8	8.3	9.2	9.5
	4H	7.0	7.9	7.4	8.2	8.6	8.3	9.2	8.7	9.5	9.9
	6H	7.1	7.9	7.5	8.3	8.7	8.3	9.1	8.8	9.5	9.9
	8H	7.1	7.8	7.5	8.2	8.6	8.3	9.0	8.7	9.4	9.8
	12H	7.1	7.8	7.5	8.1	8.6	8.3	9.0	8.7	9.3	9.8
4H	2H	4.2	5.1	4.6	5.4	5.8	6.2	7.1	6.6	7.4	7.8
	3H	7.5	8.2	7.9	8.6	9.0	8.7	9.4	9.1	9.8	10.2
	4H	8.0	8.7	8.5	9.1	9.5	9.1	9.8	9.6	10.2	10.6
	6H	8.1	8.7	8.6	9.1	9.6	9.2	9.7	9.7	10.2	10.6
	8H	8.1	8.6	8.6	9.0	9.5	9.2	9.6	9.6	10.1	10.6
	12H	8.1	8.5	8.6	9.0	9.5	9.1	9.5	9.6	10.0	10.5
8H	4H	8.2	8.7	8.6	9.1	9.6	9.2	9.7	9.7	10.1	10.6
	6H	8.3	8.6	8.8	9.1	9.6	9.3	9.6	9.8	10.1	10.6
	8H	8.2	8.6	8.8	9.1	9.6	9.2	9.6	9.8	10.1	10.6
	12H	8.2	8.5	8.7	9.0	9.6	9.2	9.5	9.7	10.0	10.6
12H	4H	8.1	8.5	8.6	9.0	9.5	9.1	9.6	9.6	10.1	10.5
	6H	8.2	8.6	8.7	9.0	9.6	9.2	9.5	9.7	10.0	10.6
	8H	8.2	8.5	8.7	9.0	9.6	9.2	9.5	9.7	10.0	10.6

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0