

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CW06XXPC 10L 35K XW XX CL XX

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

Test Number

SP-01078_M-10L

Test Date

2/3/2020

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

Summary of Results

Power

Input Watts	6.5 W
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Lumen Output

Output Lumens	688
Efficacy	105.83 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

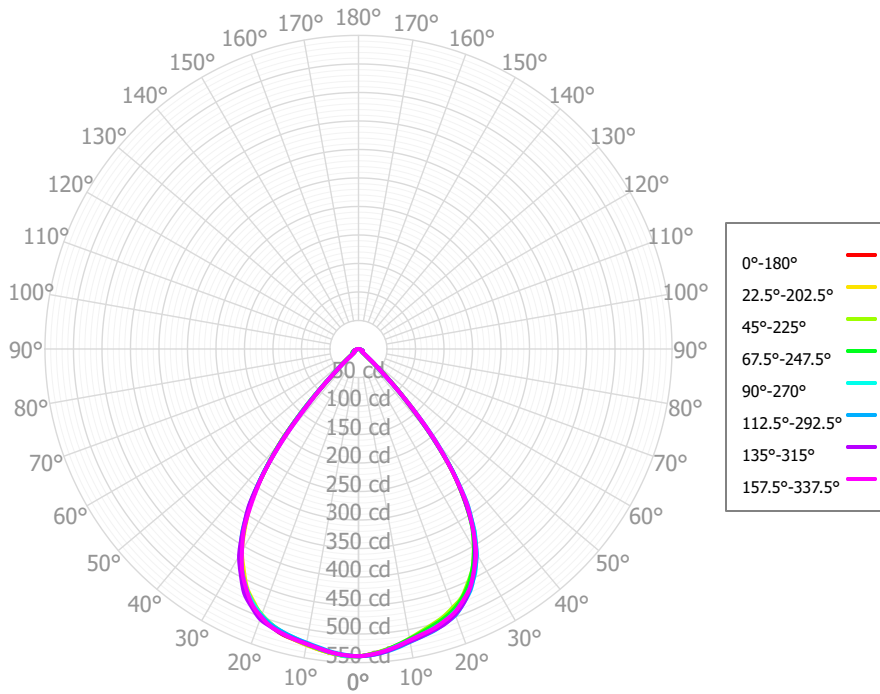
Full Beam Angle

0° - 180°	75°
90° - 270°	75°

IES File Header Contents

Keyword	Value
TEST	SP-01078_M-10L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/3/2020
ISSUEDATE	5/31/2022
LUMCAT	CW06XXPC 10L 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°	51.28	7.46%	90.00° - 100.00°	0.02	0.00%
10.00° - 20.00°	144.09	20.95%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	211.29	30.72%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	198.55	28.86%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	61.97	9.01%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	7.96	1.16%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	8.36	1.22%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	3.88	0.56%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	0.47	0.07%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	687.86	100.00%	0.00° - 180.00°	687.88	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°	538.93	538.93	538.93	538.93	538.93	538.93	538.93	538.93	538.93	538.93	538.93	538.93	538.93	538.93	538.93	538.93	538.93
2.50°	535.60	535.45	535.60	535.66	537.23	536.98	537.94	537.56	538.90	538.48	539.55	538.03	539.22	537.37	537.08	536.05	535.60
5.00°	530.82	530.79	529.96	530.89	531.76	533.49	534.42	534.75	535.65	536.05	535.44	535.06	534.91	533.67	533.14	531.61	530.82
7.50°	524.83	524.33	523.82	523.69	525.20	528.10	529.91	529.81	531.51	531.88	531.09	530.56	530.13	528.25	526.75	525.61	524.83
10.00°	518.41	517.64	515.84	516.57	519.34	523.30	524.97	525.45	526.56	527.34	525.96	525.78	524.38	521.85	520.99	518.52	518.41
12.50°	511.73	510.45	507.66	509.67	513.63	519.04	520.96	521.56	522.11	521.95	520.54	521.19	518.95	516.56	515.98	512.79	511.73
15.00°	505.23	503.72	500.39	502.86	507.39	513.83	517.27	516.49	518.02	516.44	514.39	516.62	514.06	511.81	510.80	507.84	505.23
17.50°	498.82	497.75	493.15	496.24	501.08	507.89	511.18	510.66	509.90	507.13	506.66	508.70	506.95	504.86	505.42	500.48	498.82
20.00°	489.22	489.20	482.91	487.00	491.32	498.40	504.46	499.73	499.39	497.46	495.85	500.59	496.79	497.09	495.69	492.03	489.22
22.50°	478.39	477.16	472.24	473.77	481.25	486.71	489.84	486.12	484.02	480.22	482.16	484.32	482.85	482.42	482.31	478.30	478.39
25.00°	460.58	460.34	453.45	456.25	462.54	467.83	473.75	465.30	466.32	462.57	463.98	467.56	464.67	465.79	462.63	462.65	460.58
27.50°	440.62	438.24	433.63	433.47	443.31	445.39	447.03	441.49	440.79	436.23	440.63	441.29	441.47	441.37	438.70	438.79	440.62
30.00°	410.07	409.59	404.64	405.28	411.97	414.00	419.06	408.81	412.35	409.12	410.58	413.72	413.69	415.28	408.17	412.68	410.07
32.50°	377.11	375.07	372.75	371.59	379.35	379.01	377.35	373.19	372.96	370.00	373.50	373.74	376.49	375.78	374.07	373.40	377.11
35.00°	325.68	327.89	324.75	326.51	327.95	328.37	334.76	323.64	330.34	328.80	328.99	331.11	332.12	334.36	325.77	331.54	325.68
37.50°	271.39	271.22	272.59	271.89	274.04	272.92	271.35	270.66	271.56	271.24	272.51	272.02	273.71	273.33	271.17	270.93	271.39
40.00°	200.07	202.82	203.47	204.27	200.78	201.17	207.23	198.11	209.34	210.48	205.74	209.69	206.70	210.73	201.54	207.96	200.07
42.50°	127.08	127.33	135.34	127.82	129.53	125.73	131.38	122.21	135.52	133.39	136.43	133.52	136.56	133.96	126.74	134.35	127.08
45.00°	71.80	71.84	70.20	71.14	68.37	71.13	59.78	68.88	60.06	65.97	65.32	68.09	64.88	57.88	72.23	59.97	71.80
47.50°	17.86	26.02	21.56	25.22	18.76	19.91	33.01	18.11	33.21	35.49	29.37	36.33	31.59	32.63	22.94	33.97	17.86
50.00°	11.98	10.36	11.48	9.21	11.51	11.59	9.81	11.94	10.59	12.66	13.74	13.67	13.58	9.18	11.82	9.61	11.98
52.50°	6.46	6.51	5.12	6.55	6.33	7.44	8.94	8.15	10.04	11.72	8.72	13.73	9.42	8.55	7.97	8.30	6.46
55.00°	7.11	6.17	5.84	6.24	6.99	7.91	8.33	8.91	10.14	10.93	8.57	13.66	9.48	8.05	7.88	7.13	7.11
57.50°	7.72	6.89	6.47	6.74	7.62	8.54	8.82	9.63	10.32	10.49	8.45	13.34	9.46	8.64	8.24	7.63	7.72
60.00°	8.02	7.47	6.94	7.35	8.17	8.90	9.20	9.48	10.48	10.15	8.32	12.84	9.42	9.12	8.51	8.07	8.02
62.50°	8.24	8.02	7.27	7.97	8.43	9.20	9.21	9.31	10.29	9.99	8.15	12.07	9.31	9.00	8.77	8.08	8.24
65.00°	8.03	7.76	7.42	8.02	8.19	8.57	9.11	8.92	10.03	9.61	7.97	11.05	9.19	8.74	8.37	8.06	8.03
67.50°	7.63	7.36	7.18	7.97	7.86	7.91	8.81	8.37	9.27	8.88	6.87	9.72	8.18	7.99	7.87	7.90	7.63
70.00°	6.69	6.31	6.61	7.09	7.41	7.06	7.86	7.16	8.23	7.70	5.60	7.95	7.02	6.83	6.50	7.11	6.69
72.50°	5.20	5.04	5.20	5.74	5.57	5.66	6.18	5.69	6.47	6.12	3.76	5.81	4.92	4.99	4.98	5.19	5.20
75.00°	3.24	3.33	3.52	3.42	3.38	3.57	3.87	3.88	4.58	4.34	2.16	4.11	3.08	3.23	3.17	3.34	3.24
77.50°	1.94	1.68	1.68	1.90	1.81	1.92	1.89	2.06	2.68	2.54	1.00	2.51	1.62	1.68	1.80	1.71	1.94
80.00°	0.99	0.71	0.87	0.83	0.87	0.91	0.85	0.89	1.17	0.79	0.62	0.92	0.79	0.84	0.84	0.70	0.99
82.50°	0.53	0.46	0.41	0.38	0.47	0.49	0.46	0.51	0.60	0.57	0.50	0.73	0.43	0.47	0.39	0.51	0.53
85.00°	0.43	0.42	0.38	0.44	0.34	0.39	0.30	0.44	0.42	0.38	0.40	0.56	0.34	0.44	0.30	0.36	0.43
87.50°	0.35	0.43	0.30	0.33	0.27	0.37	0.40	0.31	0.26	0.23	0.39	0.41	0.31	0.43	0.35	0.44	0.35
90.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.29	0.33	0.23	0.33	0.28	0.31	0.43	0.02	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	819	819	819	819	800	800	800	800	764	764	764	732	732	732	702	702	688
	1	777	756	738	721	760	741	725	709	713	700	688	687	677	667	664	655	642
	2	734	697	667	642	718	685	658	634	663	640	620	642	623	607	623	608	595
	3	692	644	607	577	678	634	600	572	616	587	563	599	574	554	583	563	552
	4	653	596	555	523	640	588	549	520	573	540	513	559	530	507	546	521	511
	5	616	553	509	477	604	546	505	475	534	498	470	522	490	466	511	483	475
	6	581	514	469	437	570	508	466	435	498	460	432	488	454	429	478	449	441
	7	549	479	434	402	539	474	431	401	465	427	399	456	422	396	448	418	410
	8	518	447	402	371	510	443	400	371	435	397	369	428	393	367	421	389	383
	9	491	418	374	344	482	415	373	344	408	369	342	402	366	341	396	364	358
	10	465	392	349	320	457	389	348	320	383	345	319	378	343	318	373	340	335

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	17.8 fc	8.5 ft
6.5 ft	12.8 fc	10.0 ft
7.5 ft	9.6 fc	11.5 ft
8.0 ft	8.4 fc	12.3 ft
10.0 ft	5.4 fc	15.4 ft
12.0 ft	3.7 fc	18.5 ft
14.0 ft	2.7 fc	21.5 ft
16.0 ft	2.1 fc	24.6 ft
20.0 ft	1.3 fc	30.8 ft
24.0 ft	0.9 fc	36.9 ft
28.0 ft	0.7 fc	43.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	29544	29544	29544
45.00°	5566	5443	5300
55.00°	680	559	668
65.00°	1042	963	1063
75.00°	686	746	717
85.00°	268	240	215

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	2.7	2.0	3.0	3.3	4.2	5.3	4.6	5.6	5.9
	3H	5.1	6.0	5.5	6.3	6.7	6.6	7.5	6.9	7.8	8.2
	4H	5.7	6.5	6.1	6.9	7.3	7.0	7.8	7.4	8.2	8.6
	6H	5.8	6.5	6.2	6.9	7.3	7.0	7.8	7.4	8.1	8.5
	8H	5.7	6.5	6.2	6.8	7.3	6.9	7.7	7.4	8.1	8.5
	12H	5.7	6.4	6.1	6.8	7.2	6.9	7.6	7.3	8.0	8.4
4H	2H	2.9	3.7	3.3	4.1	4.5	4.9	5.7	5.3	6.1	6.5
	3H	6.1	6.8	6.5	7.2	7.6	7.3	8.0	7.7	8.4	8.8
	4H	6.7	7.3	7.1	7.7	8.2	7.8	8.4	8.2	8.8	9.3
	6H	6.8	7.3	7.2	7.7	8.2	7.8	8.4	8.3	8.8	9.3
	8H	6.7	7.2	7.2	7.7	8.2	7.8	8.3	8.3	8.7	9.2
	12H	6.7	7.1	7.2	7.6	8.1	7.7	8.2	8.2	8.7	9.1
8H	4H	6.8	7.3	7.3	7.7	8.2	7.8	8.3	8.3	8.8	9.3
	6H	6.9	7.3	7.4	7.8	8.3	7.9	8.3	8.4	8.8	9.3
	8H	6.9	7.2	7.4	7.7	8.2	7.9	8.2	8.4	8.7	9.2
	12H	6.9	7.2	7.4	7.7	8.2	7.8	8.1	8.4	8.6	9.2
12H	4H	6.8	7.2	7.2	7.7	8.1	7.8	8.2	8.3	8.7	9.2
	6H	6.8	7.2	7.4	7.7	8.2	7.8	8.2	8.4	8.7	9.2
	8H	6.8	7.1	7.4	7.6	8.2	7.8	8.1	8.3	8.6	9.2

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0