

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

CW06XXPC 40L 35K WD XX SO XX
Nom 6" diam Gamma Cylinder (Wet Location), SO lens

Test Number

SP-01291_M-40L

Test Date

5/2/2022

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

Summary of Results

Power

Input Watts	27 W
-------------	------

Lumen Output

Output Lumens	2929
Efficacy	108.47 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.73
Two luminaires, plane 90°	0.79
Four luminaires	0.84

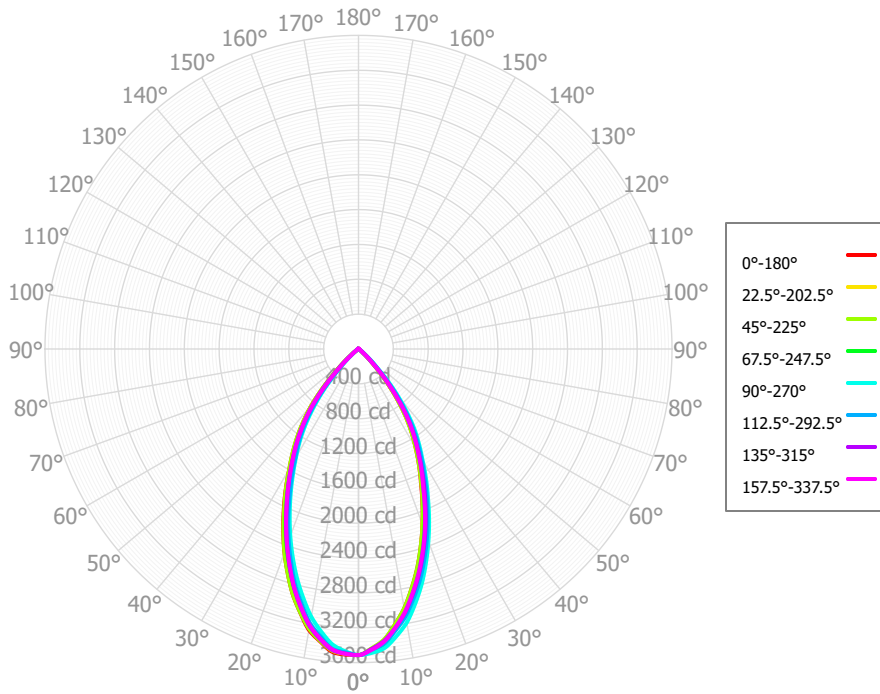
Full Beam Angle

0° - 180°	52°
90° - 270°	53°

IES File Header Contents

Keyword	Value
TEST	SP-01291_M-40L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	5/2/2022
ISSUEDATE	5/18/2022
LUMCAT	CW06XXPC 40L 35K WD XX SO XX
LUMINAIRE	Nom 6" diam Gamma Cylinder (Wet Location), SO lens
OTHER	Beam angle: 52 deg
OTHER	Wide optic
OTHER	Gen7 converted to G6
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 0.83
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	80
_CCTMULT	27K x 0.97, 30K x 0.98, 40K x 1.04

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	321.42	10.98%	90.00° - 100.00°	2.21	0.08%
10.00° - 20.00°	764.55	26.11%	100.00° - 110.00°	2.08	0.07%
20.00° - 30.00°	852.25	29.10%	100.00° - 120.00°	3.97	0.14%
30.00° - 40.00°	663.39	22.65%	120.00° - 130.00°	1.84	0.06%
40.00° - 50.00°	248.64	8.49%	130.00° - 140.00°	1.67	0.06%
50.00° - 60.00°	38.74	1.32%	140.00° - 150.00°	1.44	0.05%
60.00° - 70.00°	15.04	0.51%	150.00° - 160.00°	1.08	0.04%
70.00° - 80.00°	7.95	0.27%	160.00° - 170.00°	0.68	0.02%
80.00° - 90.00°	3.59	0.12%	170.00° - 180.00°	0.22	0.01%
0.00° - 90.00°	2915.58	99.55%	0.00° - 180.00°	2928.69	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°	3514.96	3514.96	3514.96	3514.96	3514.96	3514.96	3514.96	3514.96	3514.96	3514.96	3514.96	3514.96	3514.96	3514.96	3514.96	3514.96	3514.96
2.50°	3447.50	3449.90	3440.58	3461.37	3492.84	3486.75	3500.00	3503.44	3511.80	3502.92	3501.55	3493.97	3474.90	3457.20	3448.46	3457.62	3447.50
5.00°	3358.91	3372.39	3350.18	3400.56	3446.18	3456.34	3468.89	3462.17	3488.93	3476.03	3474.66	3462.39	3407.32	3394.90	3366.02	3373.84	3358.91
7.50°	3195.82	3208.01	3193.35	3241.70	3327.66	3330.63	3362.24	3356.46	3385.16	3369.62	3378.02	3345.94	3274.28	3259.75	3229.67	3231.12	3195.82
10.00°	3025.77	3041.66	3022.07	3079.84	3189.82	3200.09	3230.29	3223.13	3276.34	3255.58	3263.82	3220.74	3122.49	3116.94	3073.85	3067.51	3025.77
12.50°	2818.10	2836.04	2816.81	2874.69	3000.01	3003.91	3046.51	3040.45	3097.31	3081.92	3095.25	3033.76	2928.76	2929.11	2881.60	2871.42	2818.10
15.00°	2606.48	2628.75	2604.20	2668.74	2798.94	2806.21	2848.35	2843.31	2916.18	2902.39	2915.45	2842.73	2726.94	2736.07	2680.06	2665.73	2606.48
17.50°	2377.57	2387.52	2376.79	2441.91	2575.08	2574.62	2624.82	2623.43	2701.15	2688.80	2703.00	2630.07	2509.58	2519.13	2463.25	2446.48	2377.57
20.00°	2148.36	2149.99	2150.19	2215.12	2347.24	2342.86	2395.58	2400.67	2485.61	2471.53	2485.35	2414.55	2289.24	2300.02	2242.11	2223.89	2148.36
22.50°	1918.08	1932.20	1925.00	1988.87	2117.45	2107.81	2167.69	2174.00	2257.39	2237.54	2251.56	2186.68	2063.85	2072.73	2014.78	1992.54	1918.08
25.00°	1697.46	1716.50	1709.49	1765.33	1887.40	1874.57	1940.04	1952.25	2029.51	2006.62	2015.91	1960.28	1844.16	1850.10	1794.30	1759.48	1697.46
27.50°	1505.32	1517.38	1508.78	1565.16	1677.51	1662.50	1736.33	1736.46	1806.15	1787.25	1800.62	1739.01	1632.82	1642.03	1582.33	1561.37	1505.32
30.00°	1316.48	1320.67	1316.23	1367.78	1469.39	1454.90	1535.88	1535.10	1586.60	1575.78	1586.95	1527.82	1434.90	1441.08	1383.03	1368.53	1316.48
32.50°	1135.99	1138.19	1134.54	1188.33	1291.44	1282.48	1353.36	1349.01	1399.35	1388.75	1403.67	1346.07	1254.10	1258.78	1197.69	1185.97	1135.99
35.00°	94714	951.53	942.10	1003.41	1115.11	1105.54	1172.61	1162.49	1211.89	1201.14	1221.67	1160.90	1060.67	1068.39	1001.93	1004.58	94714
37.50°	740.29	745.11	73718	791.21	908.28	901.47	971.14	975.57	1023.06	1011.97	1024.31	96713	852.97	859.64	796.09	790.62	740.29
40.00°	540.32	544.11	540.30	584.32	700.94	696.34	768.42	765.40	827.39	809.80	826.15	765.09	643.79	651.43	591.95	574.32	540.32
42.50°	353.32	363.70	351.68	398.51	495.96	486.25	550.12	536.17	598.09	578.37	601.57	545.34	433.15	444.28	389.24	397.03	353.32
45.00°	207.04	208.29	213.90	234.90	295.70	297.21	332.18	352.68	385.58	374.68	381.81	354.76	273.17	273.03	240.39	221.10	207.04
47.50°	127.07	132.84	121.87	145.18	193.08	187.45	216.74	201.89	239.15	224.47	247.58	218.70	156.88	162.06	131.76	142.57	127.07
50.00°	70.23	71.65	68.04	72.90	95.91	95.90	104.56	113.30	116.62	114.09	121.38	117.04	86.57	83.30	71.34	66.17	70.23
52.50°	46.60	48.70	44.23	49.08	64.77	62.09	69.40	63.37	72.93	70.09	79.74	70.97	51.39	52.20	42.25	47.77	46.60
55.00°	31.07	30.93	31.45	30.71	36.25	35.64	36.17	38.59	38.39	39.10	41.88	39.01	32.77	31.20	28.44	30.21	31.07
57.50°	25.67	24.95	26.35	25.16	29.02	28.71	28.17	27.55	29.06	27.19	31.62	27.17	25.18	23.20	23.24	25.19	25.67
60.00°	20.75	20.02	22.20	20.71	22.39	22.60	20.66	21.37	21.29	19.56	22.42	19.75	20.61	18.05	19.21	20.32	20.75
62.50°	16.36	17.16	18.62	18.50	19.22	18.36	17.40	17.48	17.20	17.40	19.25	17.82	17.79	16.12	15.75	16.84	16.36
65.00°	13.42	14.38	16.21	16.40	16.26	14.88	14.26	14.89	14.22	14.79	16.50	15.31	14.90	14.12	13.31	13.50	13.42
67.50°	11.89	11.74	14.40	14.48	14.25	12.91	11.94	12.83	13.49	11.66	15.57	12.17	11.99	12.05	11.29	11.10	11.89
70.00°	10.61	9.34	12.80	12.58	12.26	11.00	9.79	11.29	12.03	9.23	14.33	10.05	10.01	10.14	9.13	8.87	10.61
72.50°	9.54	7.28	11.29	10.68	10.34	9.20	8.48	9.93	9.27	7.50	11.94	8.91	8.44	8.38	6.92	7.52	9.54
75.00°	7.89	5.82	9.13	8.90	8.45	7.36	7.08	8.32	7.05	6.25	9.46	7.47	6.76	7.05	5.73	6.27	7.89
77.50°	5.80	5.13	6.72	7.27	6.65	5.48	5.37	6.63	5.68	5.43	6.69	5.78	5.05	6.06	4.86	5.45	5.80
80.00°	4.77	4.69	5.25	5.72	5.16	4.14	3.95	5.01	4.43	4.38	4.59	4.64	4.34	4.82	4.39	4.71	4.77
82.50°	4.45	4.55	4.09	4.25	4.55	3.50	3.51	3.40	3.34	3.16	4.20	3.91	3.95	3.41	4.03	4.26	4.45
85.00°	3.64	3.92	3.29	3.26	3.75	2.91	3.14	2.75	2.67	2.65	3.67	3.31	3.23	2.75	3.20	3.67	3.64
87.50°	2.55	2.81	2.60	2.74	2.54	2.36	2.95	2.28	2.48	2.63	2.84	2.80	2.43	2.54	2.27	2.67	2.55
90.00°	1.99	2.22	2.46	2.41	1.83	2.10	2.71	2.05	2.20	2.43	2.22	2.40	2.19	2.23	2.04	1.98	1.99
92.50°	1.69	2.10	2.44	2.24	2.11	2.15	2.37	1.86	1.81	2.12	2.01	2.04	2.07	1.87	1.93	2.04	1.69
95.00°	1.62	1.97	2.05	2.19	2.22	2.08	2.16	1.79	1.68	2.05	2.02	1.95	2.18	1.79	1.76	2.13	1.62
97.50°	1.65	1.81	1.58	2.22	2.05	1.90	2.23	1.73	1.79	2.10	2.38	1.98	2.32	1.83	1.58	2.27	1.65
100.00°	1.63	1.85	1.78	2.23	1.98	1.89	2.17	1.65	1.95	2.15	2.46	2.13	2.25	1.78	1.55	2.25	1.63

CW06XXPC 40L 35K WD XX SO XX

© Spectrum Lighting

Page 4 of 6

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	3483	3483	3483	3483	3401	3401	3401	3401	3247	3247	3247	3106	3106	3106	2976	2976	2976	2916
	1	3315	3232	3157	3089	3242	3167	3100	3039	3046	2992	2943	2935	2892	2853	2832	2799	2768	2742
	2	3145	2998	2877	2775	3079	2947	2836	2743	2850	2759	2681	2760	2686	2621	2677	2617	2564	2565
	3	2981	2788	2638	2519	2921	2746	2608	2497	2667	2551	2456	2593	2497	2415	2525	2445	2377	2397
	4	2825	2598	2431	2304	2770	2563	2409	2290	2498	2366	2261	2437	2324	2233	2381	2285	2206	2241
	5	2677	2426	2251	2121	2628	2397	2234	2111	2343	2200	2091	2293	2168	2071	2245	2138	2052	2098
	6	2539	2271	2092	1963	2494	2247	2078	1956	2201	2052	1941	2159	2027	1927	2119	2003	1913	1967
	7	2410	2131	1951	1824	2369	2111	1940	1819	2072	1919	1808	2036	1899	1798	2001	1880	1787	1848
	8	2290	2005	1825	1702	2253	1987	1817	1698	1954	1800	1690	1922	1783	1682	1893	1768	1674	1739
	9	2178	1890	1713	1593	2145	1874	1706	1590	1846	1692	1584	1818	1678	1578	1793	1665	1572	1639
	10	2075	1785	1612	1496	2044	1772	1606	1494	1747	1594	1489	1723	1583	1484	1701	1572	1479	1549

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	116.2 fc	5.4 ft
6.5 ft	83.2 fc	6.4 ft
7.5 ft	62.5 fc	7.4 ft
8.0 ft	54.9 fc	7.9 ft
10.0 ft	35.1 fc	9.8 ft
12.0 ft	24.4 fc	11.8 ft
14.0 ft	17.9 fc	13.8 ft
16.0 ft	13.7 fc	15.8 ft
20.0 ft	8.8 fc	19.7 ft
24.0 ft	6.1 fc	23.6 ft
28.0 ft	4.5 fc	27.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	192691	192691	192691
45.00°	16051	16583	22925
55.00°	2970	3006	3464
65.00°	1741	2102	2110
75.00°	1671	1934	1790
85.00°	2290	2070	2360

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	5.0	6.1	5.4	6.4	6.7	5.7	6.7	6.1	7.0	7.4
	3H	5.9	6.8	6.3	7.2	7.6	6.6	7.5	7.0	7.8	8.2
	4H	6.3	7.2	6.8	7.5	7.9	7.0	7.8	7.4	8.2	8.6
	6H	6.7	7.4	7.1	7.8	8.2	7.2	8.0	7.7	8.4	8.8
	8H	6.9	7.6	7.3	8.0	8.4	7.4	8.1	7.8	8.5	8.9
	12H	7.1	7.8	7.5	8.2	8.6	7.5	8.2	8.0	8.6	9.0
4H	2H	5.3	6.1	5.7	6.5	6.9	5.9	6.7	6.3	7.1	7.5
	3H	6.4	7.1	6.8	7.5	7.9	7.0	7.7	7.5	8.1	8.6
	4H	6.9	7.5	7.3	7.9	8.3	7.5	8.1	8.0	8.6	9.0
	6H	7.3	7.8	7.8	8.3	8.8	7.9	8.4	8.4	8.9	9.3
	8H	7.6	8.1	8.1	8.5	9.0	8.1	8.6	8.6	9.0	9.5
	12H	7.9	8.3	8.4	8.8	9.3	8.3	8.7	8.8	9.2	9.7
8H	4H	7.0	7.5	7.5	8.0	8.4	7.7	8.1	8.1	8.6	9.1
	6H	7.6	8.0	8.1	8.5	9.0	8.1	8.5	8.6	9.0	9.5
	8H	8.0	8.4	8.6	8.9	9.4	8.4	8.7	8.9	9.3	9.8
	12H	8.6	8.9	9.1	9.4	9.9	8.8	9.1	9.3	9.6	10.2
12H	4H	7.0	7.4	7.5	7.9	8.4	7.6	8.0	8.1	8.5	9.0
	6H	7.7	8.0	8.2	8.5	9.1	8.1	8.5	8.7	9.0	9.5
	8H	8.2	8.5	8.7	9.0	9.6	8.5	8.8	9.0	9.3	9.9

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0