

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CF06XXPC 40L 35K WD XX NL XX
Nom 6" diam Gamma Cylinder (damp location), no lens

Test Number

SP-01288_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
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Lumen Output

Output Lumens	2989
Efficacy	110.71 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.78
Two luminaires, plane 90°	0.77
Four luminaires	0.84

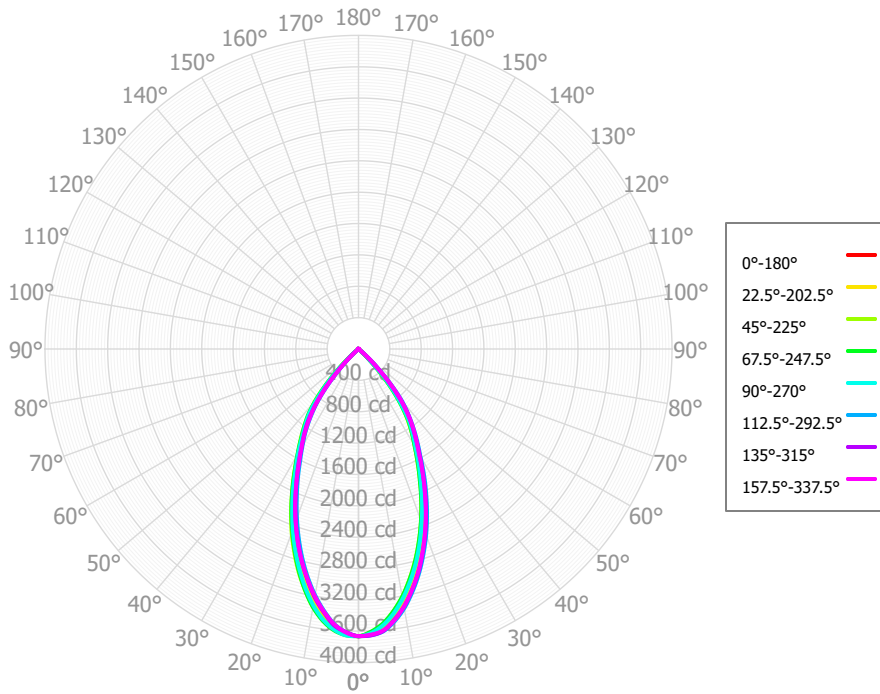
Full Beam Angle

0° - 180°	52°
90° - 270°	52°

IES File Header Contents

Keyword	Value
TEST	SP-01288_M-40L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	5/2/2022
ISSUEDATE	5/18/2022
LUMCAT	CF06XXPC 40L 35K WD XX NL XX
LUMINAIRE	Nom 6" diam Gamma Cylinder (damp location), no lens
OTHER	Beam angle: 52 deg
OTHER	Wide optic
OTHER	G7 converted to G^
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°	335.15	11.21%	90.00° - 100.00°	1.90	0.06%
10.00° - 20.00°	795.17	26.60%	100.00° - 110.00°	1.83	0.06%
20.00° - 30.00°	883.33	29.55%	100.00° - 120.00°	3.60	0.12%
30.00° - 40.00°	705.66	23.61%	120.00° - 130.00°	1.68	0.06%
40.00° - 50.00°	244.01	8.16%	130.00° - 140.00°	1.61	0.05%
50.00° - 60.00°	7.35	0.25%	140.00° - 150.00°	1.36	0.05%
60.00° - 70.00°	2.21	0.07%	150.00° - 160.00°	1.05	0.04%
70.00° - 80.00°	2.30	0.08%	160.00° - 170.00°	0.67	0.02%
80.00° - 90.00°	1.87	0.06%	170.00° - 180.00°	0.23	0.01%
0.00° - 90.00°	2977.04	99.60%	0.00° - 180.00°	2989.13	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°	3663.64	3663.64	3663.64	3663.64	3663.64	3663.64	3663.64	3663.64	3663.64	3663.64	3663.64	3663.64	3663.64	3663.64	3663.64	3663.64	3663.64
2.50°	3641.47	3638.75	3615.93	3611.41	3629.10	3618.14	3615.70	3620.62	3627.89	3635.84	3639.53	3655.46	3656.89	3654.84	3657.02	3648.13	3641.47
5.00°	3577.73	3568.99	3535.47	3519.62	3542.10	3524.94	3541.59	3527.56	3565.21	3563.05	3592.89	3602.04	3592.16	3616.16	3611.91	3605.46	3577.73
7.50°	3441.72	3433.87	3383.66	3379.93	3408.28	3369.44	3388.78	3379.32	3429.58	3436.59	3477.97	3496.72	3480.92	3506.87	3485.88	3495.10	3441.72
10.00°	3279.34	3268.28	3211.61	3211.01	3238.46	3189.91	3217.40	3203.37	3267.64	3280.91	3341.67	3344.60	3321.11	3360.04	3339.47	3337.04	3279.34
12.50°	3079.56	3067.05	3007.49	3012.26	3041.10	2986.19	3012.06	3006.04	3076.43	3091.84	3150.70	3150.57	3126.59	3174.76	3153.40	3148.67	3079.56
15.00°	2865.05	2852.73	2792.77	2798.84	2826.48	2766.58	2801.14	2795.69	2877.19	2884.11	2946.99	2934.59	2911.47	2973.18	2951.72	2942.98	2865.05
17.50°	2633.46	2623.81	2564.36	2568.73	2595.55	2533.86	2572.45	2577.16	2653.11	2658.87	2721.49	2702.51	2684.40	2751.19	2725.51	2717.30	2633.46
20.00°	2397.12	2390.79	2331.64	2332.14	2356.38	2297.34	2341.95	2345.31	2424.18	2425.91	2492.46	2468.62	2447.64	2522.47	2492.67	2482.46	2397.12
22.50°	2156.29	2150.00	2094.34	2092.44	2119.85	2058.27	2106.29	2106.71	2187.17	2187.02	2248.41	2233.65	2206.38	2284.28	2251.35	2241.92	2156.29
25.00°	1921.91	1907.62	1861.16	1851.82	1884.39	1832.76	1870.58	1876.08	1949.12	1949.85	2002.87	1997.98	1972.04	2043.74	2010.91	1999.33	1921.91
27.50°	1692.58	1692.14	1631.55	1640.52	1669.13	1614.66	1658.74	1648.65	1720.80	1713.77	1774.57	1761.97	1740.20	1809.60	1771.40	1769.20	1692.58
30.00°	1495.59	1480.34	1436.03	1435.70	1460.13	1431.09	1449.77	1458.84	1493.15	1512.25	1547.53	1557.21	1537.57	1576.58	1557.61	1542.49	1495.59
32.50°	1319.15	1319.79	1264.43	1267.37	1290.36	1262.58	1288.64	1280.73	1324.07	1328.19	1378.22	1364.27	1343.01	1391.76	1365.97	1367.30	1319.15
35.00°	1145.39	1163.14	1082.10	1104.57	1129.62	1075.79	1121.69	1096.54	1154.72	1155.25	1208.69	1202.24	1180.57	1212.28	1190.43	1202.37	1145.39
37.50°	972.99	955.56	893.65	881.90	916.71	882.78	905.72	910.94	952.82	986.75	1035.76	1049.17	1024.56	1033.67	1026.21	1014.67	972.99
40.00°	750.55	745.71	659.33	653.87	695.46	649.37	685.98	675.12	747.33	758.97	854.13	831.56	798.42	855.11	814.40	823.98	750.55
42.50°	507.72	495.39	404.07	411.85	454.71	405.56	445.74	431.24	502.88	512.81	600.70	600.19	562.96	611.00	575.37	586.10	507.72
45.00°	303.51	254.86	222.26	172.47	212.09	229.24	230.06	242.34	272.51	302.90	359.78	371.92	339.84	370.42	358.45	344.83	303.51
47.50°	111.50	130.19	66.77	87.68	109.59	65.32	109.61	58.79	133.60	101.34	185.86	144.07	117.61	199.67	151.64	190.71	111.50
50.00°	45.00	20.16	21.16	8.50	13.73	27.06	17.53	27.42	18.48	43.22	43.20	70.20	59.17	43.50	61.49	42.37	45.00
52.50°	8.05	10.46	5.54	5.14	8.03	3.66	8.50	2.54	9.57	7.97	20.46	8.62	5.47	21.08	13.34	21.87	8.05
55.00°	2.69	2.43	2.65	2.20	2.66	2.23	2.17	2.70	2.64	4.03	3.45	4.78	4.07	2.00	2.53	3.00	2.69
57.50°	2.52	2.16	2.26	2.40	2.34	2.11	2.00	2.85	2.25	3.11	3.11	2.43	2.76	2.15	1.96	2.50	2.52
60.00°	2.22	1.89	2.03	2.52	2.05	2.02	1.80	3.01	2.21	2.55	2.78	2.11	2.64	2.23	1.70	2.07	2.22
62.50°	1.90	1.67	1.83	2.25	1.98	1.93	1.54	3.18	3.00	2.03	2.50	1.82	2.49	2.05	1.50	2.10	1.90
65.00°	1.87	1.61	1.85	1.99	1.94	1.98	1.48	3.52	3.54	2.45	2.37	1.86	2.20	1.98	1.68	2.19	1.87
67.50°	1.85	2.00	1.90	1.79	2.07	2.03	1.71	3.86	3.54	2.87	2.50	1.92	2.02	2.26	1.91	2.55	1.85
70.00°	1.98	2.12	1.86	1.61	2.14	2.05	1.87	4.20	3.79	3.06	2.67	2.16	2.37	2.34	1.81	2.68	1.98
72.50°	2.09	1.68	1.83	1.52	1.99	2.07	1.94	4.30	4.44	3.18	2.87	2.29	2.55	1.92	1.69	2.04	2.09
75.00°	1.95	1.44	2.03	1.47	1.89	2.06	1.94	3.42	4.29	2.66	2.94	1.86	2.18	1.62	1.72	1.58	1.95
77.50°	1.81	1.53	2.20	1.49	1.94	2.01	1.85	2.59	3.10	2.18	2.83	1.58	1.89	1.54	1.74	1.56	1.81
80.00°	1.66	1.63	1.94	1.60	1.92	1.81	1.75	1.90	2.27	1.96	2.51	1.82	1.81	1.47	1.58	1.65	1.66
82.50°	1.57	1.73	1.71	1.84	1.74	1.68	1.64	1.49	1.86	1.78	1.97	1.91	1.75	1.39	1.42	1.93	1.57
85.00°	1.77	1.84	1.69	1.93	1.65	1.76	1.62	1.75	1.70	1.76	1.70	1.60	1.74	1.31	1.36	1.99	1.77
87.50°	1.88	1.95	1.68	1.81	1.71	1.83	1.65	1.86	1.78	1.73	1.65	1.52	1.77	1.25	1.33	1.70	1.88
90.00°	1.60	1.87	1.71	1.72	1.78	1.84	1.55	1.68	1.65	1.69	1.69	1.93	1.84	1.33	1.43	1.53	1.60
92.50°	1.39	1.61	1.79	1.65	1.87	1.86	1.39	1.61	1.36	1.69	1.79	2.16	1.92	1.55	1.57	1.54	1.39
95.00°	1.35	1.58	2.05	1.68	1.89	1.90	1.58	1.72	1.36	1.78	1.80	2.08	2.00	1.63	1.85	1.66	1.35
97.50°	1.41	1.73	2.13	1.79	1.83	1.91	1.93	1.80	1.52	1.79	1.76	1.93	1.98	1.60	2.01	1.90	1.41
100.00°	1.74	1.68	1.75	1.83	1.74	1.88	1.69	1.86	1.63	1.67	1.80	1.68	1.85	1.59	1.77	2.00	1.74

CF06XXPC 40L 35K WD XX NL XX

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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	3556	3556	3556	3556	3472	3472	3472	3472	3315	3315	3315	3171	3171	3171	3039	3039	2977
	1	3389	3306	3232	3165	3314	3240	3174	3113	3117	3064	3015	3004	2962	2923	2900	2867	2809
	2	3221	3075	2954	2852	3153	3022	2912	2819	2923	2833	2756	2832	2759	2695	2748	2689	2635
	3	3057	2864	2715	2596	2996	2822	2685	2574	2741	2626	2532	2667	2571	2490	2598	2519	2469
	4	2900	2673	2507	2381	2845	2638	2485	2366	2572	2441	2336	2511	2399	2308	2454	2359	2314
	5	2751	2500	2325	2196	2702	2471	2308	2185	2416	2274	2164	2365	2241	2144	2317	2210	2170
	6	2611	2343	2163	2034	2566	2319	2150	2027	2273	2123	2012	2229	2098	1997	2189	2073	2037
	7	2480	2201	2020	1893	2439	2180	2009	1887	2141	1988	1876	2104	1967	1865	2069	1948	1914
	8	2358	2071	1891	1767	2320	2053	1882	1763	2020	1865	1755	1988	1849	1746	1958	1833	1803
	9	2244	1953	1775	1655	2210	1938	1768	1652	1909	1754	1646	1881	1741	1639	1856	1727	1700
	10	2138	1846	1671	1555	2107	1833	1665	1552	1807	1654	1548	1783	1642	1543	1761	1631	1607

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	121.1 fc	5.4 ft
6.5 ft	86.7 fc	6.4 ft
7.5 ft	65.1 fc	7.4 ft
8.0 ft	57.2 fc	7.8 ft
10.0 ft	36.6 fc	9.8 ft
12.0 ft	25.4 fc	11.8 ft
14.0 ft	18.7 fc	13.7 ft
16.0 ft	14.3 fc	15.7 ft
20.0 ft	9.2 fc	19.6 ft
24.0 ft	6.4 fc	23.5 ft
28.0 ft	4.7 fc	27.5 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	200841	200841	200841
45.00°	23530	17231	16442
55.00°	257	253	254
65.00°	243	241	251
75.00°	413	430	400
85.00°	1114	1062	1038

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	-11.4	-10.4	-11.0	-10.1	-9.8	-11.5	-10.5	-11.1	-10.2	-9.9
	3H	-8.3	-7.4	-7.9	-7.1	-6.7	-8.4	-7.5	-8.0	-7.2	-6.8
	4H	-6.9	-6.1	-6.5	-5.7	-5.3	-6.6	-5.8	-6.2	-5.5	-5.1
	6H	-5.4	-4.6	-4.9	-4.2	-3.8	-5.0	-4.2	-4.5	-3.8	-3.4
	8H	-4.5	-3.8	-4.0	-3.4	-3.0	-4.0	-3.3	-3.6	-2.9	-2.5
	12H	-3.3	-2.6	-2.9	-2.3	-1.8	-3.0	-2.3	-2.6	-1.9	-1.5
4H	2H	-10.9	-10.1	-10.5	-9.7	-9.3	-10.7	-9.9	-10.3	-9.6	-9.2
	3H	-7.3	-6.7	-6.9	-6.3	-5.8	-7.2	-6.5	-6.8	-6.1	-5.7
	4H	-5.9	-5.3	-5.4	-4.9	-4.4	-5.3	-4.8	-4.9	-4.3	-3.9
	6H	-4.1	-3.6	-3.6	-3.2	-2.7	-3.5	-3.0	-3.0	-2.5	-2.1
	8H	-3.1	-2.6	-2.6	-2.1	-1.7	-2.5	-2.0	-2.0	-1.6	-1.1
	12H	-1.7	-1.3	-1.2	-0.8	-0.3	-1.3	-0.9	-0.8	-0.4	0.1
8H	4H	-5.2	-4.8	-4.7	-4.3	-3.8	-4.3	-3.8	-3.8	-3.4	-2.9
	6H	-3.2	-2.8	-2.7	-2.3	-1.8	-2.3	-2.0	-1.8	-1.5	-1.0
	8H	-1.9	-1.5	-1.3	-1.0	-0.5	-1.2	-0.9	-0.7	-0.3	0.2
	12H	-0.2	0.1	0.4	0.6	1.2	0.1	0.4	0.7	0.9	1.5
12H	4H	-5.1	-4.7	-4.6	-4.2	-3.7	-4.1	-3.7	-3.6	-3.2	-2.7
	6H	-2.9	-2.6	-2.4	-2.1	-1.5	-2.0	-1.7	-1.5	-1.2	-0.7
	8H	-1.5	-1.2	-0.9	-0.7	-0.1	-0.8	-0.5	-0.3	0.0	0.6

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0