

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-01045

Test Date

2/3/2020

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

Summary of Results

Power

Input Watts	27.4 W
--------------------	--------

Lumen Output

Output Lumens	3033
Efficacy	110.68 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

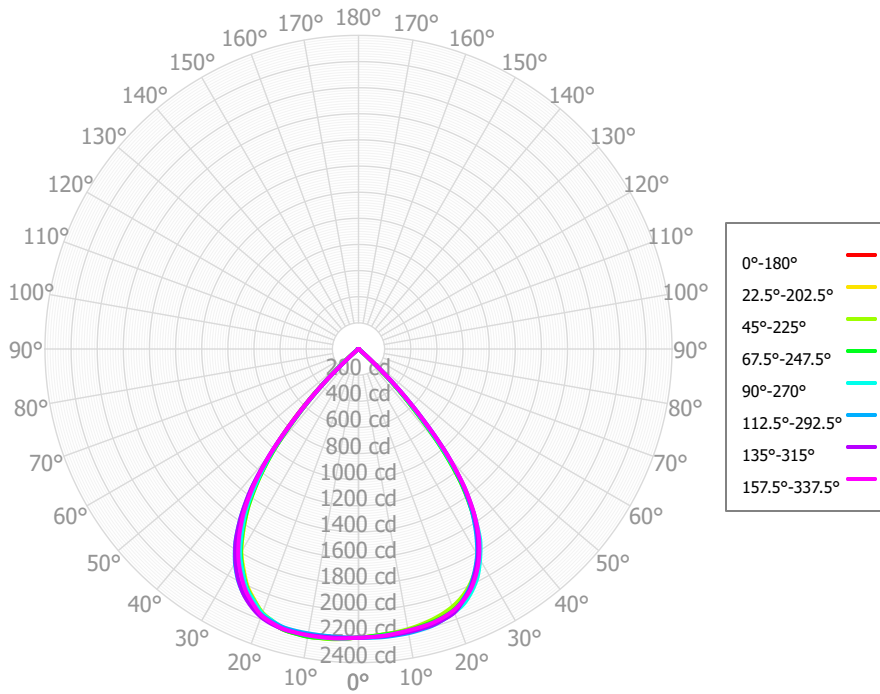
Full Beam Angle

0° - 180°	78°
90° - 270°	78°

IES File Header Contents

Keyword	Value
TEST	SP-01045
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/3/2020
ISSUEDATE	05/16/2022
LUMCAT	CF06XXPC 40L 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
_CRI	80
_CCTMULT	27K x 0.97, 30K x 0.98, 40K x 1.04
_CCTMULTA	27HK x 0.78, 30HK x 0.82

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	214.29	7.07%	90.00° - 100.00°	0.10	0.00%
10.00° - 20.00°	618.81	20.40%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	926.56	30.55%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	921.77	30.39%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	330.57	10.90%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	10.15	0.33%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	4.63	0.15%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	3.98	0.13%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.86	0.06%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	3032.62	100.00%	0.00° - 180.00°	3032.73	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°	2210.47	2210.47	2210.47	2210.47	2210.47	2210.47	2210.47	2210.47	2210.47	2210.47	2210.47	2210.47	2210.47	2210.47	2210.47	2210.47	2210.47
2.50°	2204.72	2201.45	2201.59	2201.74	2207.70	2210.70	2213.06	2217.20	2217.93	2218.14	2220.41	2217.25	2217.97	2212.61	2207.57	2207.52	2204.72
5.00°	2198.71	2195.43	2193.01	2194.76	2203.38	2210.08	2217.32	2223.79	2224.02	2227.67	2230.19	2225.16	2222.68	2213.76	2207.21	2203.85	2198.71
7.50°	2191.28	2192.48	2186.63	2191.55	2201.02	2210.75	2219.95	2225.13	2225.74	2232.16	2232.93	2231.30	2223.90	2211.56	2203.87	2195.98	2191.28
10.00°	2183.75	2185.36	2178.40	2186.92	2197.52	2211.23	2222.27	2226.15	2227.52	2235.18	2235.15	2236.89	2224.15	2209.05	2200.35	2188.34	2183.75
12.50°	2175.68	2172.41	2164.87	2176.98	2192.38	2210.88	2223.59	2223.54	2229.49	2229.47	2226.44	2231.93	2218.03	2201.87	2194.85	2181.79	2175.68
15.00°	2166.84	2158.65	2148.95	2165.79	2183.50	2206.30	2220.61	2218.45	2223.04	2222.11	2216.29	2224.28	2210.71	2192.82	2188.41	2172.55	2166.84
17.50°	2147.11	2144.00	2128.09	2151.18	2170.50	2189.79	2207.96	2198.72	2198.44	2187.64	2184.05	2195.38	2183.51	2170.21	2170.39	2154.70	2147.11
20.00°	2124.08	2115.60	2099.64	2126.61	2145.61	2166.63	2183.21	2170.58	2159.58	2150.39	2147.98	2160.24	2154.28	2140.81	2146.73	2129.61	2124.08
22.50°	2079.36	2075.58	2059.38	2082.34	2110.61	2129.37	2138.23	2110.96	2097.04	2080.24	2084.60	2094.91	2089.86	2081.86	2088.55	2087.96	2079.36
25.00°	2027.38	2016.26	2003.04	2021.41	2049.84	2075.81	2076.26	2042.02	2020.96	2007.88	2014.27	2021.18	2023.14	2014.72	2023.77	2031.54	2027.38
27.50°	1945.98	1944.50	1927.05	1935.71	1971.85	1996.40	1992.09	1948.74	1927.78	1903.75	1912.78	1920.48	1920.95	1923.38	1932.43	1949.19	1945.98
30.00°	1849.62	1837.93	1824.32	1828.93	1861.33	1891.11	1883.62	1839.92	1811.66	1794.59	1797.47	1804.18	1813.68	1816.34	1829.77	1846.56	1849.62
32.50°	1709.95	1713.98	1696.54	1697.50	1734.47	1754.50	1750.79	1700.38	1673.30	1639.08	1640.39	1652.14	1660.16	1675.79	1695.75	1716.96	1709.95
35.00°	1539.22	1522.04	1512.17	1514.71	1543.58	1571.84	1569.79	1532.38	1499.02	1473.84	1465.11	1476.05	1495.22	1511.87	1535.11	1546.34	1539.22
37.50°	1303.31	1305.34	1287.21	1285.86	1329.23	1345.20	1351.77	1322.04	1297.31	1256.26	1250.17	1257.69	1272.49	1309.53	1320.82	1333.86	1303.31
40.00°	1022.36	997.53	985.59	985.01	1017.72	1049.30	1058.71	1054.72	1037.97	1015.86	999.16	1002.70	1029.03	1052.98	1059.10	1054.53	1022.36
42.50°	670.63	666.82	641.10	634.79	680.52	702.77	720.52	722.61	745.22	695.87	687.66	698.90	716.63	728.64	723.35	721.39	670.63
45.00°	373.67	371.73	355.35	351.14	379.40	403.55	417.72	423.00	450.47	405.33	412.68	425.47	426.49	430.84	421.73	421.16	373.67
47.50°	144.19	82.53	93.89	102.98	84.30	130.52	130.78	152.56	154.85	187.24	184.24	183.05	190.82	158.51	160.73	141.12	144.19
50.00°	24.62	32.96	21.84	21.90	33.79	33.27	39.11	31.54	54.33	38.88	56.00	57.84	34.39	31.61	27.73	35.84	24.62
52.50°	8.94	3.03	5.25	6.32	3.66	10.34	10.27	13.04	16.04	21.18	25.70	27.06	21.19	14.70	11.60	10.52	8.94
55.00°	2.35	2.22	1.90	2.62	2.82	4.77	5.05	6.49	9.48	10.99	10.85	14.92	13.43	8.56	4.62	3.45	2.35
57.50°	2.32	1.72	1.20	2.17	2.55	4.43	5.04	6.11	9.67	11.42	7.92	14.21	13.12	8.59	4.20	2.63	2.32
60.00°	2.21	1.78	1.56	2.13	2.88	3.83	4.55	5.67	9.34	10.87	6.35	13.00	11.41	7.67	3.83	2.29	2.21
62.50°	2.06	1.84	2.03	2.17	3.12	3.17	4.00	5.21	8.94	9.26	5.58	11.57	8.16	6.34	3.48	2.07	2.06
65.00°	2.07	1.92	1.69	2.13	2.78	2.90	3.59	5.45	8.88	8.75	5.39	10.48	6.11	5.12	3.35	2.00	2.07
67.50°	2.14	1.95	1.35	2.09	2.45	2.67	3.23	5.89	8.91	9.15	5.46	9.51	5.04	3.93	3.31	1.96	2.14
70.00°	1.90	1.87	1.38	2.16	2.16	2.38	3.37	6.42	9.92	10.37	4.62	8.80	4.54	3.70	2.63	1.96	1.90
72.50°	1.64	1.58	1.39	2.05	2.03	2.17	3.67	6.61	10.80	11.98	3.62	8.33	4.30	3.56	1.98	1.93	1.64
75.00°	1.57	1.10	1.37	1.61	2.09	2.14	4.27	5.34	11.44	10.75	2.99	9.39	4.82	3.30	2.57	1.79	1.57
77.50°	1.71	0.93	1.41	1.16	2.14	2.10	3.38	3.78	6.86	7.91	2.83	8.21	4.20	2.73	2.71	1.74	1.71
80.00°	1.86	1.09	1.31	1.10	1.89	1.90	2.38	2.46	3.31	3.46	2.90	5.41	2.47	2.22	2.41	1.90	1.86
82.50°	1.65	1.24	1.12	1.23	1.39	1.40	1.73	1.98	3.02	2.82	2.38	3.31	2.72	2.21	1.75	2.13	1.65
85.00°	1.22	1.21	1.09	1.13	1.19	0.97	1.55	1.64	2.09	2.59	2.71	2.75	1.66	1.90	1.56	1.54	1.22
87.50°	1.22	1.35	1.02	1.58	1.55	1.21	1.58	1.19	1.59	1.88	1.79	2.66	1.93	1.61	1.47	1.44	1.22
90.00°	0.82	0.00	0.00	0.00	0.00	1.24	0.00	0.83	1.36	1.07	1.17	1.18	1.25	0.92	1.05	1.18	0.82
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%	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	3610	3610	3610	3610	3526	3526	3526	3526	3370	3370	3370	3226	3226	3226	3095	3095	3095	3033
	1	3429	3340	3260	3188	3354	3274	3202	3137	3151	3093	3040	3038	2992	2949	2933	2897	2864	2839
	2	3243	3085	2954	2844	3175	3032	2913	2811	2933	2834	2749	2841	2761	2690	2757	2692	2633	2638
	3	3061	2851	2689	2559	2999	2808	2659	2538	2727	2601	2497	2653	2547	2458	2583	2495	2419	2446
	4	2887	2639	2458	2319	2830	2604	2435	2305	2537	2392	2277	2475	2351	2250	2417	2311	2224	2267
	5	2722	2447	2255	2113	2670	2417	2237	2103	2361	2204	2084	2309	2172	2065	2261	2142	2046	2102
	6	2566	2272	2075	1934	2519	2247	2062	1927	2200	2036	1913	2156	2011	1899	2115	1987	1886	1951
	7	2421	2114	1916	1777	2378	2093	1905	1772	2053	1884	1762	2015	1864	1752	1980	1845	1742	1813
	8	2286	1972	1774	1638	2247	1953	1765	1634	1919	1748	1627	1886	1732	1620	1856	1717	1612	1688
	9	2161	1842	1647	1515	2125	1826	1640	1512	1797	1626	1507	1768	1613	1501	1742	1600	1496	1575
	10	2045	1725	1534	1406	2012	1711	1528	1404	1685	1516	1400	1661	1505	1395	1637	1494	1391	1472

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	73.1 fc	9.0 ft
6.5 ft	52.3 fc	10.6 ft
7.5 ft	39.3 fc	12.2 ft
8.0 ft	34.5 fc	13.0 ft
10.0 ft	22.1 fc	16.3 ft
12.0 ft	15.4 fc	19.6 ft
14.0 ft	11.3 fc	22.8 ft
16.0 ft	8.6 fc	26.1 ft
20.0 ft	5.5 fc	32.6 ft
24.0 ft	3.8 fc	39.1 ft
28.0 ft	2.8 fc	45.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	121178	121178	121178
45.00°	28969	27550	29414
55.00°	224	181	270
65.00°	268	219	361
75.00°	332	291	443
85.00°	770	683	749

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	-11.9	-10.8	-11.5	-10.5	-10.2	-1.2	-0.2	-0.9	0.1	0.4
	3H	-8.8	-7.9	-8.4	-7.6	-7.2	0.0	0.9	0.4	1.3	1.6
	4H	-7.6	-6.8	-7.2	-6.4	-6.0	0.9	1.7	1.3	2.0	2.4
	6H	-5.8	-5.1	-5.4	-4.7	-4.3	1.6	2.3	2.0	2.7	3.1
	8H	-4.8	-4.1	-4.4	-3.7	-3.3	1.8	2.5	2.2	2.9	3.3
	12H	-3.9	-3.3	-3.5	-2.9	-2.4	2.0	2.6	2.4	3.0	3.5
4H	2H	-10.3	-9.5	-9.9	-9.1	-8.8	-1.2	-0.4	-0.8	0.0	0.4
	3H	-7.5	-6.8	-7.1	-6.4	-6.0	0.6	1.2	1.0	1.6	2.0
	4H	-6.3	-5.7	-5.8	-5.2	-4.8	2.1	2.7	2.5	3.1	3.6
	6H	-4.4	-3.9	-3.9	-3.5	-3.0	3.1	3.6	3.6	4.1	4.5
	8H	-3.3	-2.8	-2.8	-2.3	-1.9	3.4	3.8	3.8	4.3	4.8
	12H	-2.3	-1.9	-1.8	-1.4	-0.9	3.6	4.0	4.1	4.5	5.0
8H	4H	-5.3	-4.8	-4.8	-4.4	-3.9	2.4	2.9	2.9	3.4	3.8
	6H	-3.3	-2.9	-2.8	-2.4	-1.9	3.7	4.0	4.2	4.5	5.0
	8H	-2.0	-1.7	-1.5	-1.1	-0.6	4.0	4.4	4.6	4.9	5.4
	12H	-0.9	-0.6	-0.3	-0.1	0.5	4.4	4.7	4.9	5.2	5.8
12H	4H	-5.1	-4.7	-4.6	-4.2	-3.7	2.5	2.9	3.0	3.4	3.9
	6H	-3.0	-2.7	-2.5	-2.2	-1.6	3.7	4.1	4.3	4.5	5.1
	8H	-1.6	-1.3	-1.1	-0.8	-0.2	4.2	4.5	4.7	5.0	5.6

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0