

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

994 Jefferson Street  
Fall River, MA 02721  
+1.508.678.2303

## **Spectrum Lighting Photometric Lab**

### **Luminaire**

CW06XXUDPC 40LNDCL 40LNDCL 35KXX XXMW (IND/DIR Wet location)  
Nom. 6" Diam. Gamma Indirect/Direct Cylinder

### **Test Number**

SP-01084

### **Test Date**

1/20/2020

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

### Summary of Results

#### Power

Input Watts	54.8 W
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#### Lumen Output

Output Lumens	5837
Efficacy	106.51 lm/W

#### Luminous Dimensions

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

#### Spacing Criterion

Two luminaires, plane 0°	0.24
Two luminaires, plane 90°	0.23
Four luminaires	0.25

#### Full Beam Angle

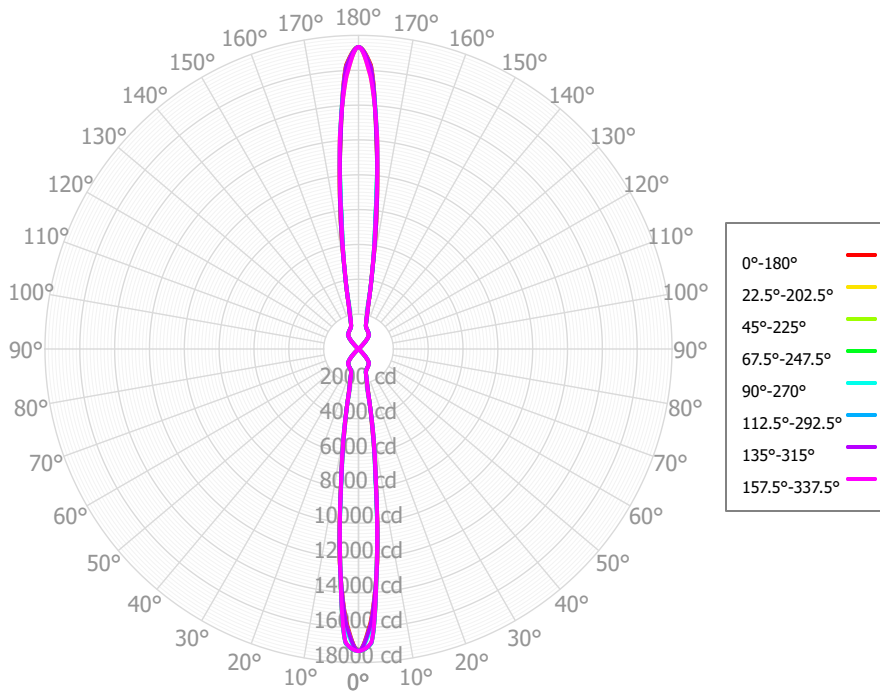
0° - 180°	14°
90° - 270°	14°

### IES File Header Contents

Keyword	Value
TEST	SP-01084
TESTLAB	VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	1/20/2020
ISSUEDATE	12/15/2020
LUMCAT	CW06XXUDPC 40LNDCL 40LNDCL 35KXX XXMW (IND/DIR Wet location)
LUMINAIRE	Nom. 6" Diam. Gamma Indirect/Direct Cylinder
OTHER	Uplight: Narrow Optic, Flush Clear Glass lens
OTHER	Uplight: 13.5 Degree Beam Angle
OTHER	Downlight: Narrow Optic, Regressed Glass lens
OTHER	Downlight: 13.5 Degree Beam Angle
OTHER	Trim: Matte White
LAMP	N/A
LAMPCAT	N/A, 19mm LES Uplight
OTHER	N/A, 19mm LES Downlight
OTHER	Total Luminaire Watts is approximate
OTHER	CCT Output Multipliers: 27K x 0.97, 30K x 0.98, 40K x 1.04, 27HK x 0.78, 30HK x 0.82

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**Candela Polar Plot**



**Zonal Lumen Summary**

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	893.86	15.31%	90.00° - 100.00°	1.64	0.03%
10.00° - 20.00°	560.54	9.60%	100.00° - 110.00°	2.00	0.03%
20.00° - 30.00°	551.36	9.45%	100.00° - 120.00°	4.19	0.07%
30.00° - 40.00°	627.52	10.75%	120.00° - 130.00°	8.30	0.14%
40.00° - 50.00°	271.11	4.64%	130.00° - 140.00°	274.68	4.71%
50.00° - 60.00°	7.89	0.14%	140.00° - 150.00°	630.08	10.79%
60.00° - 70.00°	1.96	0.03%	150.00° - 160.00°	553.06	9.48%
70.00° - 80.00°	1.51	0.03%	160.00° - 170.00°	561.00	9.61%
80.00° - 90.00°	1.33	0.02%	170.00° - 180.00°	886.87	15.19%
0.00° - 90.00°	2917.08	49.98%	0.00° - 180.00°	5836.89	100.00%

### Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	17336.73	17336.73	17336.73	17336.73	17336.73
2.50°	15744.87	16871.23	15861.06	16903.87	16078.81
5.00°	12318.08	12079.41	12298.65	12101.76	12181.92
7.50°	7539.97	7643.47	7508.62	7587.41	7347.49
10.00°	4457.35	4767.37	4541.67	4802.28	4601.38
12.50°	2593.87	2400.23	2576.76	2410.37	2459.07
15.00°	1701.26	1830.21	1735.96	1839.38	1759.45
17.50°	1421.36	1384.72	1423.56	1372.01	1396.82
20.00°	1284.32	1308.68	1294.45	1296.90	1291.46
22.50°	1224.88	1242.63	1239.62	1230.43	1234.36
25.00°	1181.50	1201.40	1195.41	1190.71	1197.55
27.50°	1145.58	1160.68	1154.81	1150.06	1163.59
30.00°	1108.13	1121.04	1113.02	1106.96	1124.46
32.50°	1070.07	1078.80	1070.90	1064.31	1084.82
35.00°	1016.32	1031.80	1028.23	1022.65	1039.37
37.50°	957.33	947.65	985.43	949.64	993.58
40.00°	768.05	804.96	795.60	817.14	805.46
42.50°	542.91	602.92	580.09	622.17	613.15
45.00°	320.03	320.01	337.29	325.31	343.42
47.50°	97.65	129.71	90.86	120.78	83.82
50.00°	39.63	50.54	39.69	46.40	41.79
52.50°	10.51	8.23	6.05	4.82	3.10
55.00°	5.64	4.38	3.57	3.92	2.98
57.50°	3.90	2.27	2.64	2.98	2.84
60.00°	3.06	1.75	2.55	1.99	2.43
62.50°	2.29	1.95	2.46	1.59	2.08
65.00°	1.87	2.72	1.83	1.73	2.05
67.50°	1.50	2.65	1.27	1.81	1.86
70.00°	1.91	2.07	1.32	1.86	1.14
72.50°	2.01	1.72	1.27	1.73	0.91
75.00°	1.34	1.47	1.03	1.51	1.28
77.50°	1.73	1.51	1.32	1.07	0.92
80.00°	2.06	1.66	1.58	0.77	0.91
82.50°	1.48	1.67	1.50	0.63	1.37
85.00°	1.47	1.53	1.43	1.11	1.26
87.50°	1.29	0.79	1.10	1.03	1.08
90.00°	1.34	1.12	0.82	0.94	1.01
92.50°	1.00	1.08	1.58	1.47	1.08
95.00°	1.16	1.31	2.06	1.78	1.26
97.50°	0.75	1.67	2.16	1.54	1.37
100.00°	1.97	2.51	2.11	2.00	0.91

CW06XXUDPC 40LNDCL 40LNDCL 35KXX  
 XXMW (IND/DIR Wet location)

### Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

<b>RCR</b>	<b>pfc</b>	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	<b>pcc</b>	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%
	<b>pw</b>	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	<b>0</b>	6253	6253	6253	6253	5769	5769	5769	5769	4863	4863	4863	4035	4035	4035	3275	3275	2917
	<b>1</b>	5855	5664	5493	5339	5412	5253	5111	4981	4484	4388	4299	3777	3716	3660	3126	3091	2781
	<b>2</b>	5481	5155	4885	4659	5076	4803	4576	4382	4143	3985	3849	3534	3430	3339	2971	2909	2639
	<b>3</b>	5134	4714	4389	4130	4765	4411	4133	3909	3840	3643	3481	3312	3179	3067	2822	2739	2503
	<b>4</b>	4817	4332	3976	3705	4480	4069	3763	3526	3572	3351	3175	3112	2958	2834	2683	2584	2377
	<b>5</b>	4527	3999	3630	3358	4220	3770	3449	3210	3335	3099	2918	2930	2764	2633	2553	2443	2261
	<b>6</b>	4264	3709	3337	3070	3984	3508	3182	2946	3125	2882	2700	2768	2593	2460	2433	2315	2154
	<b>7</b>	4026	3457	3087	2828	3770	3278	2953	2723	2939	2693	2514	2622	2442	2309	2324	2200	2057
	<b>8</b>	3811	3235	2873	2624	3576	3077	2756	2533	2774	2529	2354	2491	2309	2177	2223	2097	1969
	<b>9</b>	3618	3041	2688	2449	3401	2899	2585	2371	2628	2385	2215	2373	2192	2062	2132	2004	1889
	<b>10</b>	3443	2870	2527	2299	3243	2742	2437	2230	2498	2259	2095	2267	2087	1960	2049	1920	1817

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	573.1 fc	1.3 ft
6.5 ft	410.3 fc	1.6 ft
7.5 ft	308.2 fc	1.8 ft
8.0 ft	270.9 fc	1.9 ft
10.0 ft	173.4 fc	2.4 ft
12.0 ft	120.4 fc	2.9 ft
14.0 ft	88.5 fc	3.4 ft
16.0 ft	67.7 fc	3.9 ft
20.0 ft	43.3 fc	4.8 ft
24.0 ft	30.1 fc	5.8 ft
28.0 ft	22.1 fc	6.8 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	950402	950402	950402
<b>45.00°</b>	24811	26149	26624
<b>55.00°</b>	539	341	285
<b>65.00°</b>	242	237	266
<b>75.00°</b>	284	218	272
<b>85.00°</b>	926	901	795

### 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	-15.1	-14.5	-14.1	-13.5	-12.2	-14.2	-13.5	-13.2	-12.6	-11.3
	3H	-12.5	-11.9	-11.5	-10.9	-9.6	-12.7	-12.1	-11.6	-11.1	-9.8
	4H	-11.5	-11.0	-10.5	-10.0	-8.6	-11.9	-11.3	-10.9	-10.3	-9.0
	6H	-9.7	-9.2	-8.6	-8.2	-6.8	-11.3	-10.8	-10.3	-9.8	-8.5
	8H	-8.8	-8.3	-7.8	-7.3	-6.0	-10.6	-10.1	-9.6	-9.1	-7.8
	12H	-7.9	-7.4	-6.8	-6.4	-5.1	-9.6	-9.1	-8.5	-8.1	-6.7
4H	2H	-14.6	-14.1	-13.6	-13.1	-11.8	-13.9	-13.3	-12.9	-12.3	-11.0
	3H	-11.8	-11.3	-10.8	-10.3	-9.0	-11.9	-11.5	-10.9	-10.5	-9.1
	4H	-10.6	-10.2	-9.5	-9.1	-7.8	-10.9	-10.5	-9.9	-9.5	-8.1
	6H	-8.5	-8.1	-7.4	-7.1	-5.7	-10.2	-9.8	-9.1	-8.8	-7.4
	8H	-7.4	-7.1	-6.4	-6.1	-4.7	-9.5	-9.1	-8.4	-8.1	-6.7
	12H	-6.3	-6.0	-5.3	-5.0	-3.6	-8.2	-7.9	-7.2	-6.9	-5.5
8H	4H	-10.2	-9.9	-9.2	-8.9	-7.5	-10.5	-10.2	-9.5	-9.1	-7.8
	6H	-7.7	-7.5	-6.7	-6.4	-5.0	-9.5	-9.2	-8.4	-8.2	-6.8
	8H	-6.4	-6.2	-5.3	-5.1	-3.7	-8.7	-8.5	-7.6	-7.4	-6.0
	12H	-5.1	-4.9	-4.0	-3.8	-2.4	-7.2	-7.0	-6.1	-6.0	-4.5
12H	4H	-10.2	-9.9	-9.1	-8.8	-7.5	-10.3	-10.0	-9.2	-9.0	-7.6
	6H	-7.5	-7.3	-6.5	-6.3	-4.9	-9.1	-8.8	-8.0	-7.8	-6.4
	8H	-6.1	-5.9	-5.0	-4.8	-3.4	-8.1	-7.9	-7.1	-6.9	-5.5

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0