

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

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

### **Test Number**

SP-01083

### **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	5654
Efficacy	103.17 lm/W

#### Luminous Dimensions

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

#### Spacing Criterion

Two luminaires, plane 0°	0.5
Two luminaires, plane 90°	0.5
Four luminaires	0.53

#### Full Beam Angle

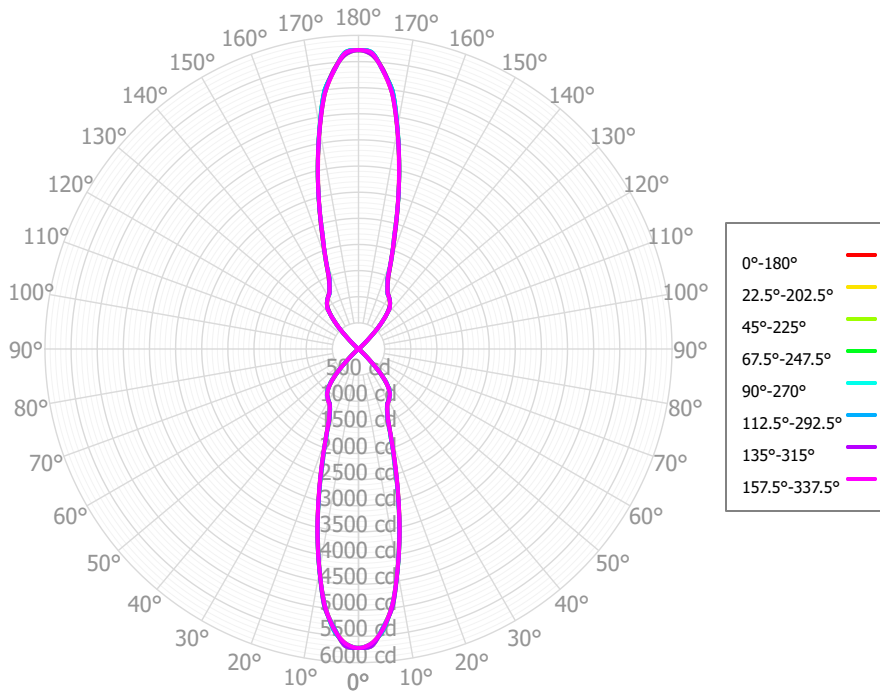
0° - 180°	31°
90° - 270°	31°

### IES File Header Contents

Keyword	Value
TEST	SP-01083
TESTLAB	VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	1/20/2020
ISSUEDATE	12/15/2020
LUMCAT	CW06XXUDPC 40LMDCL 40LMDCL 35KXX XXMW (IND/DIR Wet location)
LUMINAIRE	Nom. 6" Diam. Gamma Indirect/Direct Cylinder
OTHER	Uplight: Medium Optic, Flush Clear Glass lens
OTHER	Uplight: 30.5 Degree Beam Angle
OTHER	Downlight: Medium Optic, Regressed Glass lens
OTHER	Downlight: 30.5 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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 XXMW (IND/DIR Wet location)

**Candela Polar Plot**



**Zonal Lumen Summary**

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	484.62	8.57%	90.00° - 100.00°	2.14	0.04%
10.00° - 20.00°	802.19	14.19%	100.00° - 110.00°	6.70	0.12%
20.00° - 30.00°	620.33	10.97%	100.00° - 120.00°	10.99	0.19%
30.00° - 40.00°	634.80	11.23%	120.00° - 130.00°	12.35	0.22%
40.00° - 50.00°	261.98	4.63%	130.00° - 140.00°	255.98	4.53%
50.00° - 60.00°	11.56	0.20%	140.00° - 150.00°	638.01	11.28%
60.00° - 70.00°	3.92	0.07%	150.00° - 160.00°	623.99	11.04%
70.00° - 80.00°	6.94	0.12%	160.00° - 170.00°	798.15	14.12%
80.00° - 90.00°	2.02	0.04%	170.00° - 180.00°	483.88	8.56%
0.00° - 90.00°	2828.36	50.03%	0.00° - 180.00°	5653.86	100.00%

### Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	5720.68	5720.68	5720.68	5720.68	5720.68
2.50°	5689.32	5640.00	5694.32	5643.78	5690.41
5.00°	5352.19	5386.11	5363.69	5410.16	5348.56
7.50°	4966.91	4941.10	4985.61	4940.43	4980.44
10.00°	4294.51	4297.88	4298.25	4307.95	4293.25
12.50°	3589.99	3632.74	3613.78	3631.53	3590.61
15.00°	2929.26	2947.43	2943.72	2928.43	2928.77
17.50°	2271.85	2350.66	2314.06	2335.50	2272.42
20.00°	1844.59	1825.03	1845.83	1800.46	1847.58
22.50°	1426.17	1496.15	1451.81	1490.70	1438.01
25.00°	1306.84	1305.08	1305.87	1284.24	1312.58
27.50°	1190.61	1203.21	1186.81	1192.14	1194.42
30.00°	1150.79	1156.45	1142.71	1144.69	1154.83
32.50°	1109.55	1103.50	1095.83	1095.60	1113.02
35.00°	1046.08	1047.23	1042.23	1045.96	1054.64
37.50°	970.51	940.30	951.59	943.23	975.40
40.00°	772.91	810.09	784.83	825.77	776.25
42.50°	568.95	568.29	579.31	564.68	565.87
45.00°	319.93	282.07	304.12	271.28	304.97
47.50°	101.74	139.01	112.25	139.30	90.93
50.00°	53.07	43.96	50.14	36.62	47.67
52.50°	12.71	17.25	12.50	16.62	13.81
55.00°	8.33	9.56	8.01	7.89	8.83
57.50°	4.78	6.05	4.99	5.27	4.99
60.00°	4.16	3.51	3.73	3.22	4.08
62.50°	3.69	2.91	3.28	3.51	3.50
65.00°	3.67	2.67	3.68	3.94	3.66
67.50°	4.05	3.84	4.43	5.05	4.13
70.00°	5.24	5.18	5.46	6.11	5.06
72.50°	6.10	6.69	6.30	7.00	6.51
75.00°	6.70	7.58	6.90	7.98	7.96
77.50°	5.92	7.61	6.75	8.11	6.67
80.00°	4.19	4.80	5.17	3.96	4.76
82.50°	2.21	1.90	2.78	2.60	2.54
85.00°	1.59	1.13	1.69	1.23	1.67
87.50°	1.23	1.13	1.40	1.33	1.43
90.00°	0.00	0.00	0.00	0.00	0.00
92.50°	1.09	1.26	1.30	0.86	1.43
95.00°	1.47	1.59	1.61	1.13	1.67
97.50°	3.14	3.03	2.88	2.37	2.54
100.00°	5.62	5.11	5.16	4.18	4.76

CW06XXUDPC 40LMDCL 40LMDCL 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>	6058	6058	6058	6058	5589	5589	5589	5589	4712	4712	4712	3911	3911	3911	3174	3174	2828
	<b>1</b>	5661	5471	5301	5148	5231	5073	4931	4802	4328	4231	4143	3644	3581	3524	3012	2976	2676
	<b>2</b>	5287	4962	4694	4469	4894	4622	4394	4202	3982	3823	3686	3392	3286	3193	2846	2781	2520
	<b>3</b>	4939	4520	4196	3938	4580	4226	3949	3725	3673	3474	3311	3161	3025	2911	2686	2599	2371
	<b>4</b>	4619	4135	3781	3510	4292	3880	3574	3337	3399	3175	2998	2951	2795	2668	2535	2433	2233
	<b>5</b>	4327	3799	3431	3159	4028	3576	3255	3015	3155	2916	2734	2762	2592	2458	2395	2281	2105
	<b>6</b>	4060	3505	3133	2865	3787	3309	2983	2745	2938	2692	2508	2591	2412	2275	2266	2143	1988
	<b>7</b>	3818	3248	2877	2618	3568	3074	2748	2516	2745	2496	2314	2436	2253	2116	2147	2018	1881
	<b>8</b>	3599	3021	2657	2407	3370	2867	2544	2320	2573	2324	2146	2297	2111	1975	2037	1905	1783
	<b>9</b>	3400	2821	2466	2226	3189	2683	2367	2150	2419	2173	2000	2171	1985	1852	1937	1803	1694
	<b>10</b>	3220	2644	2299	2069	3025	2520	2211	2003	2282	2039	1872	2058	1873	1742	1846	1711	1613

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	189.1 fc	3.0 ft
6.5 ft	135.4 fc	3.5 ft
7.5 ft	101.7 fc	4.1 ft
8.0 ft	89.4 fc	4.4 ft
10.0 ft	57.2 fc	5.5 ft
12.0 ft	39.7 fc	6.5 ft
14.0 ft	29.2 fc	7.6 ft
16.0 ft	22.3 fc	8.7 ft
20.0 ft	14.3 fc	10.9 ft
24.0 ft	9.9 fc	13.1 ft
28.0 ft	7.3 fc	15.3 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	313609	313609	313609
<b>45.00°</b>	24803	23577	23643
<b>55.00°</b>	796	765	844
<b>65.00°</b>	475	478	475
<b>75.00°</b>	1419	1461	1685
<b>85.00°</b>	1000	1064	1052

### 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	-9.4	-8.8	-8.4	-7.8	-6.5	-10.2	-9.5	-9.2	-8.5	-7.2
	3H	-6.9	-6.3	-5.9	-5.3	-4.0	-6.7	-6.1	-5.7	-5.1	-3.8
	4H	-3.8	-3.3	-2.8	-2.3	-1.0	-3.3	-2.8	-2.3	-1.8	-0.4
	6H	-1.9	-1.4	-0.9	-0.4	0.9	-1.3	-0.8	-0.3	0.2	1.5
	8H	-1.6	-1.2	-0.6	-0.1	1.2	-1.1	-0.6	0.0	0.4	1.8
	12H	-1.5	-1.0	-0.5	0.0	1.3	-0.9	-0.4	0.1	0.6	1.9
4H	2H	-9.1	-8.6	-8.1	-7.6	-6.2	-9.7	-9.2	-8.7	-8.2	-6.9
	3H	-5.4	-5.0	-4.4	-4.0	-2.6	-5.2	-4.7	-4.1	-3.7	-2.4
	4H	-2.1	-1.7	-1.1	-0.7	0.7	-1.6	-1.2	-0.6	-0.2	1.2
	6H	-0.1	0.2	0.9	1.3	2.6	0.3	0.7	1.3	1.7	3.0
	8H	0.1	0.5	1.2	1.5	2.9	0.6	0.9	1.6	1.9	3.3
	12H	0.3	0.6	1.3	1.6	3.0	0.7	1.0	1.8	2.1	3.4
8H	4H	-1.1	-0.8	-0.1	0.3	1.6	-0.8	-0.4	0.3	0.6	2.0
	6H	0.8	1.1	1.9	2.2	3.5	1.1	1.4	2.2	2.4	3.8
	8H	1.1	1.4	2.2	2.4	3.8	1.4	1.7	2.5	2.7	4.1
	12H	1.3	1.5	2.3	2.5	3.9	1.6	1.8	2.7	2.9	4.3
12H	4H	-1.0	-0.7	0.1	0.3	1.7	-0.7	-0.4	0.4	0.7	2.0
	6H	1.0	1.2	2.0	2.2	3.6	1.2	1.4	2.3	2.5	3.9
	8H	1.3	1.5	2.3	2.5	3.9	1.6	1.8	2.7	2.8	4.3

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0