

## Indoor Distribution Test Report

# Spectrum Lighting Inc.

994 Jefferson Street  
Fall River, MA 02721  
+1.508.678.2303

## Spectrum Lighting Photometric Lab

### Luminaire

C06xxSQXT 10L XW 35K XX TCY SO MW  
Nom. 6" Square x 18" H Cylinder

### Test Number

SP-01199\_M-10L

### Test Date

10/13/2017

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

### Summary of Results

#### Power

Input Watts	9.1 W
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#### Lumen Output

Output Lumens	759
Efficacy	83.41 lm/W

#### Luminous Dimensions

0° - 180° Size	0.35
90° - 270° Size	0.35
Height	0

#### Spacing Criterion

Two luminaires, plane 0°	0.81
Two luminaires, plane 90°	0.8
Four luminaires	0.82

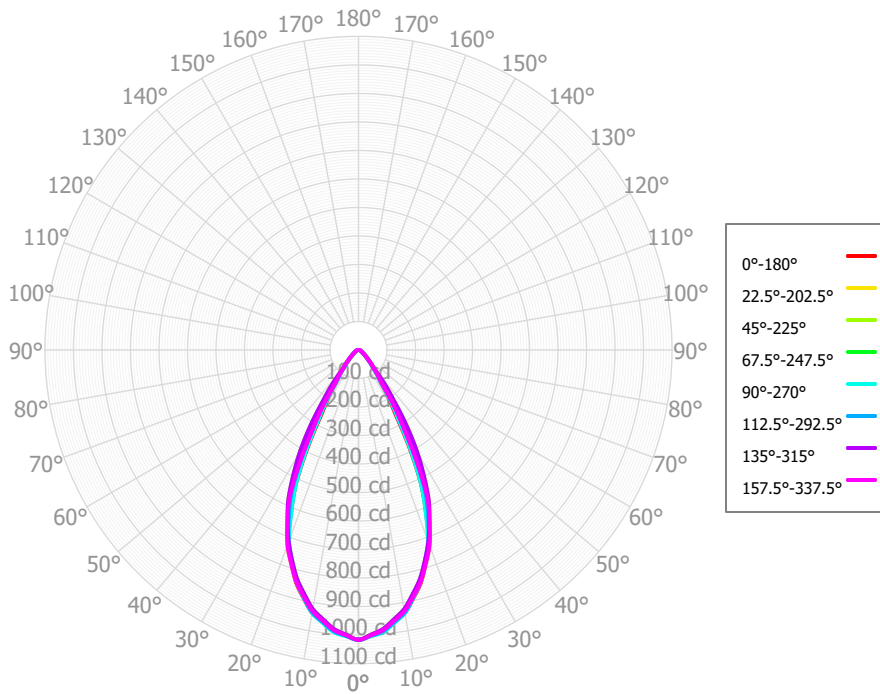
#### Full Beam Angle

0° - 180°	50°
90° - 270°	50°

### IES File Header Contents

Keyword	Value
TEST	SP-01199_M-10L
TESTLAB	VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/13/2017
ISSUEDATE	2/23/2021
LUMCAT	C06xxSQXT 10L XW 35K XX TCY SO MW
LUMINAIRE	Nom. 6" Square x 18" H Cylinder
OTHER	Cylinder also available as 24" H. variant
OTHER	Downlight: Xtra Wide Beam, Regressed Solite lens
OTHER	Downlight: 50.4 Degree Beam Angle
OTHER	Trim: Same Color as Cylinder, Matte White
LAMP	N/A
OTHER	N/A, 19mm LES direct
OTHER	Total Luminaire Watts is approximate
OTHER	LEDXT lumen output is the same for all available CCT's
OTHER	See Catalog cut sheet for different source lumen multipliers
OTHER	This report prepared by Spectrum Lighting, scaled from 20L

### Candela Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	96.95	12.77%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	232.33	30.61%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	244.50	32.21%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	110.06	14.50%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	39.89	5.26%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	18.55	2.44%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	11.41	1.50%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	6.70	0.88%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.96	0.26%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	762.36	100.44%	0.00° - 180.00°	762.36	100.44%

### Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	1016.69	1016.69	1016.69	1016.69	1016.69
2.50°	1003.02	1001.74	999.83	1003.57	1005.05
5.00°	989.35	986.79	982.98	990.45	993.40
7.50°	962.92	958.45	953.15	962.65	965.16
10.00°	936.48	930.11	923.31	934.84	936.92
12.50°	890.90	886.32	877.77	887.37	888.97
15.00°	845.31	842.54	832.22	839.89	841.02
17.50°	782.58	785.72	774.38	780.00	776.92
20.00°	719.84	728.91	716.53	720.10	712.81
22.50°	620.58	650.99	649.92	639.57	616.33
25.00°	521.31	573.07	583.31	559.04	519.84
27.50°	390.06	446.36	495.66	441.43	398.07
30.00°	258.81	319.66	408.02	323.83	276.29
32.50°	194.76	229.64	311.39	233.33	202.79
35.00°	130.71	139.61	214.77	142.84	129.30
37.50°	105.64	109.78	151.39	110.30	102.49
40.00°	80.56	79.94	88.02	77.75	75.69
42.50°	64.90	65.11	67.97	63.39	61.72
45.00°	49.25	50.28	47.92	49.03	47.75
47.50°	38.83	40.69	39.63	40.01	38.63
50.00°	28.41	31.10	31.34	30.98	29.50
52.50°	22.26	25.19	26.25	25.68	23.88
55.00°	16.11	19.29	21.16	20.37	18.26
57.50°	13.83	16.46	18.15	17.39	15.78
60.00°	11.55	13.63	15.15	14.40	13.31
62.50°	10.93	12.61	13.47	12.97	12.34
65.00°	10.32	11.60	11.79	11.53	11.36
67.50°	9.47	10.51	10.53	10.51	10.56
70.00°	8.63	9.42	9.26	9.50	9.76
72.50°	7.40	7.99	7.72	7.60	8.30
75.00°	6.16	6.56	6.18	5.71	6.84
77.50°	5.00	5.11	4.82	4.69	5.23
80.00°	3.84	3.65	3.46	3.67	3.62
82.50°	2.68	2.70	2.35	2.51	2.56
85.00°	1.51	1.75	1.23	1.35	1.50
87.50°	1.18	1.23	0.90	1.01	1.07
90.00°	0.84	0.71	0.56	0.68	0.63

### 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%	0%
	<b>pw</b>	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	<b>0</b>	908	908	908	908	886	886	886	886	847	847	847	811	811	811	778	778	762
	<b>1</b>	864	842	823	805	845	826	808	792	795	781	768	766	755	745	740	732	717
	<b>2</b>	821	783	752	725	804	770	741	717	745	722	702	722	703	686	701	686	672
	<b>3</b>	780	731	692	662	765	720	685	657	700	670	646	681	657	636	664	644	631
	<b>4</b>	741	684	642	610	728	675	636	606	659	625	599	644	615	592	629	605	594
	<b>5</b>	705	642	598	565	693	635	594	563	621	585	558	609	577	553	597	570	560
	<b>6</b>	672	605	560	527	661	599	556	526	587	550	522	577	544	518	567	538	528
	<b>7</b>	640	571	526	494	630	566	523	493	556	518	490	547	513	488	539	508	500
	<b>8</b>	611	540	495	465	602	536	493	464	528	489	462	520	485	460	513	481	474
	<b>9</b>	584	512	468	438	576	508	466	438	501	463	436	495	460	435	488	457	450
	<b>10</b>	559	487	444	415	551	483	442	414	477	439	413	472	437	412	466	434	428

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	33.6 fc	5.2 ft
6.5 ft	24.1 fc	6.1 ft
7.5 ft	18.1 fc	7.1 ft
8.0 ft	15.9 fc	7.5 ft
10.0 ft	10.2 fc	9.4 ft
12.0 ft	7.1 fc	11.3 ft
14.0 ft	5.2 fc	13.2 ft
16.0 ft	4.0 fc	15.1 ft
20.0 ft	2.5 fc	18.9 ft
24.0 ft	1.8 fc	22.6 ft
28.0 ft	1.3 fc	26.4 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	89335	89335	89335
45.00°	6120	5955	5934
55.00°	2469	3241	2797
65.00°	2145	2451	2362
75.00°	2091	2099	2322
85.00°	1520	1239	1516

### UGR CIE 190:2010

<b>Ceiling reflectance</b>		<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>
<b>Wall reflectance</b>		<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>
<b>Plane reflectance</b>		<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>
<b>Room dimensions</b>		<b>Viewed crosswise</b>					<b>Viewed endwise</b>				
<b>2H</b>	<b>2H</b>	9.1	10.1	9.4	10.4	10.7	9.5	10.6	9.9	10.9	11.2
	<b>3H</b>	10.7	11.6	11.1	12.0	12.3	11.2	12.1	11.6	12.4	12.8
	<b>4H</b>	11.4	12.2	11.8	12.6	13.0	11.8	12.6	12.2	13.0	13.4
	<b>6H</b>	11.8	12.6	12.3	13.0	13.4	12.2	12.9	12.6	13.3	13.7
	<b>8H</b>	12.0	12.7	12.4	13.1	13.5	12.3	13.0	12.7	13.4	13.8
	<b>12H</b>	12.1	12.7	12.5	13.1	13.6	12.3	13.0	12.8	13.4	13.8
<b>4H</b>	<b>2H</b>	9.6	10.5	10.0	10.8	11.2	10.0	10.8	10.4	11.2	11.6
	<b>3H</b>	11.5	12.2	11.9	12.6	13.0	11.8	12.5	12.3	12.9	13.3
	<b>4H</b>	12.3	12.9	12.7	13.3	13.8	12.5	13.1	12.9	13.5	14.0
	<b>6H</b>	12.9	13.4	13.3	13.8	14.3	13.0	13.5	13.5	14.0	14.5
	<b>8H</b>	13.0	13.5	13.5	14.0	14.4	13.2	13.6	13.6	14.1	14.6
	<b>12H</b>	13.1	13.6	13.6	14.1	14.5	13.2	13.7	13.7	14.1	14.6
<b>8H</b>	<b>4H</b>	12.5	13.0	13.0	13.4	13.9	12.7	13.2	13.2	13.6	14.1
	<b>6H</b>	13.2	13.6	13.7	14.1	14.6	13.3	13.7	13.8	14.2	14.7
	<b>8H</b>	13.4	13.8	14.0	14.3	14.8	13.5	13.9	14.0	14.4	14.9
	<b>12H</b>	13.6	13.9	14.1	14.4	15.0	13.7	14.0	14.2	14.5	15.0
<b>12H</b>	<b>4H</b>	12.5	12.9	13.0	13.4	13.9	12.7	13.1	13.2	13.6	14.1
	<b>6H</b>	13.2	13.5	13.7	14.0	14.6	13.3	13.7	13.9	14.1	14.7
	<b>8H</b>	13.5	13.8	14.0	14.3	14.9	13.6	13.9	14.1	14.4	15.0

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0