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 MD 35K XX TCY SO MW
Nom. 6" Square x 18" H Cylinder

Test Number
SP-01202_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

Lumen Output

Output Lumens	837
Efficacy	92.01 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.61
Two luminaires, plane 90°	0.62
Four luminaires	0.67

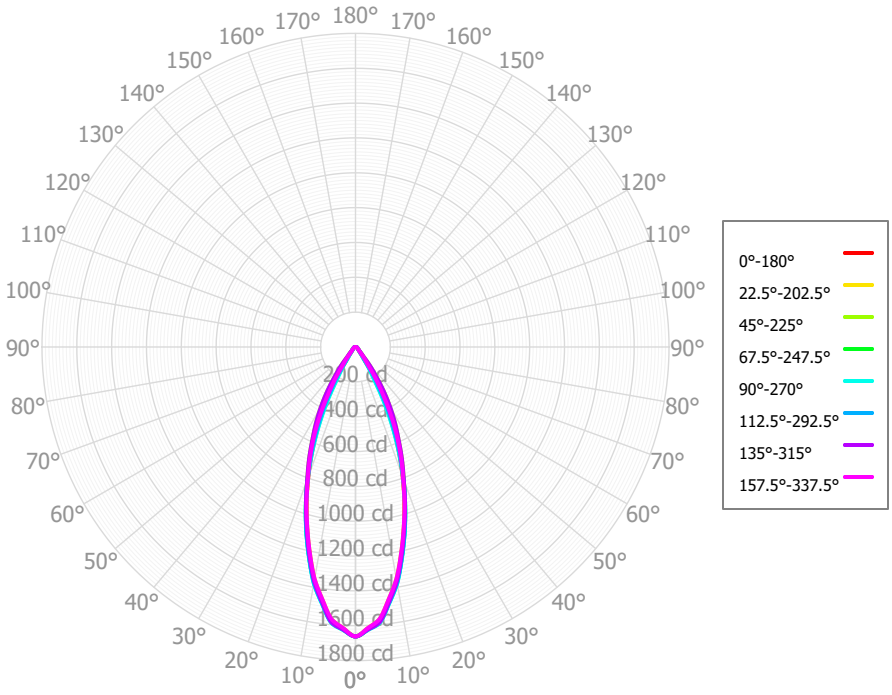
Full Beam Angle

0° - 180°	39°
90° - 270°	39°

IES File Header Contents

Keyword	Value
TEST	SP-01202_M-10L
TESTLAB	VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/13/2017
ISSUEDATE	2/23/2021
LUMCAT	C06xxSQXT 10L MD 35K XX TCY SO MW
LUMINAIRE	Nom. 6" Square x 18" H Cylinder
OTHER	Cylinder also available as 24" H variant
OTHER	Downlight: Medium Beam, Regressed Solite lens
OTHER	Downlight: 38.6 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°	150.35	17.96%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	296.97	35.47%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	245.06	29.27%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	90.15	10.77%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	23.91	2.86%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	14.54	1.74%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	11.19	1.34%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	7.87	0.94%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	2.77	0.33%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	842.80	100.65%	0.00° - 180.00°	842.80	100.65%

Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	1661.85	1661.85	1661.85	1661.85	1661.85
2.50°	1618.60	1615.69	1624.23	1623.95	1626.40
5.00°	1575.35	1569.53	1586.61	1586.04	1590.94
7.50°	1467.61	1460.98	1476.43	1480.23	1484.63
10.00°	1359.86	1352.43	1366.25	1374.42	1378.33
12.50°	1217.39	1211.46	1223.28	1232.57	1235.44
15.00°	1074.91	1070.48	1080.31	1090.71	1092.55
17.50°	933.34	934.30	944.44	947.33	944.92
20.00°	791.76	798.11	808.57	803.95	797.28
22.50°	652.62	679.07	695.71	665.70	646.15
25.00°	513.48	560.02	582.84	527.45	495.02
27.50°	377.29	437.18	488.78	398.84	347.95
30.00°	241.10	314.33	394.71	270.22	200.88
32.50°	160.61	216.93	301.42	182.52	134.77
35.00°	80.12	119.52	208.14	94.82	68.66
37.50°	60.28	82.49	138.46	68.79	53.94
40.00°	40.44	45.45	68.78	42.76	39.23
42.50°	33.79	36.70	49.15	35.30	32.34
45.00°	27.14	27.96	29.52	27.85	25.44
47.50°	23.73	24.36	25.21	24.19	21.92
50.00°	20.33	20.76	20.91	20.54	18.41
52.50°	18.20	18.58	18.66	18.14	16.39
55.00°	16.07	16.39	16.42	15.73	14.36
57.50°	14.57	14.68	15.05	14.27	12.84
60.00°	13.07	12.97	13.69	12.81	11.32
62.50°	12.24	12.15	12.61	12.04	10.58
65.00°	11.42	11.32	11.53	11.27	9.85
67.50°	10.47	10.86	10.79	10.48	9.69
70.00°	9.52	10.41	10.05	9.69	9.53
72.50°	8.16	8.97	8.88	8.77	8.76
75.00°	6.81	7.53	7.71	7.84	7.98
77.50°	5.43	5.93	6.22	6.42	6.68
80.00°	4.05	4.34	4.72	5.00	5.39
82.50°	2.88	3.07	3.65	3.91	4.07
85.00°	1.71	1.80	2.57	2.82	2.75
87.50°	1.19	1.19	1.74	1.80	1.87
90.00°	0.68	0.57	0.92	0.78	0.99

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	ρfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	ρcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	ρw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	1003	1003	1003	1003	980	980	980	980	936	936	936	897	897	897	860	860	860	843
	1	958	935	915	897	937	917	899	882	883	869	855	852	840	830	823	814	806	798
	2	915	875	843	816	896	861	832	807	834	810	789	809	790	772	786	770	756	755
	3	874	823	784	752	857	811	775	746	790	759	735	769	744	723	751	730	712	716
	4	835	776	733	700	821	767	727	696	749	715	688	733	704	680	717	693	673	680
RCR	5	799	735	690	657	786	727	685	654	712	676	648	699	667	642	686	659	637	647
	6	766	697	652	619	754	691	648	617	679	641	612	667	634	608	657	627	605	617
	7	734	664	618	585	724	658	615	584	648	609	581	638	604	578	629	598	575	589
	8	705	633	587	556	695	628	585	555	619	580	552	611	576	550	603	572	548	563
	9	677	604	560	529	669	600	558	528	593	554	527	586	550	525	579	547	523	539
	10	652	578	534	505	644	575	533	505	568	530	503	562	527	502	557	524	501	517

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	54.9 fc	3.9 ft
6.5 ft	39.3 fc	4.6 ft
7.5 ft	29.5 fc	5.3 ft
8.0 ft	26.0 fc	5.6 ft
10.0 ft	16.6 fc	7.0 ft
12.0 ft	11.5 fc	8.4 ft
14.0 ft	8.5 fc	9.8 ft
16.0 ft	6.5 fc	11.2 ft
20.0 ft	4.2 fc	14.1 ft
24.0 ft	2.9 fc	16.9 ft
28.0 ft	2.1 fc	19.7 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	146025	146025	146025
45.00°	3373	3668	3161
55.00°	2462	2516	2200
65.00°	2374	2398	2047
75.00°	2313	2616	2710
85.00°	1719	2586	2770

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	8.2	9.2	8.6	9.5	9.8	7.9	8.9	8.3	9.2	9.5
	3H	10.4	11.3	10.8	11.6	12.0	10.1	10.9	10.4	11.3	11.6
	4H	11.2	12.0	11.6	12.4	12.8	11.1	11.9	11.5	12.3	12.7
	6H	11.7	12.5	12.2	12.9	13.3	12.0	12.7	12.4	13.1	13.5
	8H	11.9	12.6	12.3	13.0	13.4	12.3	13.0	12.7	13.3	13.8
	12H	12.0	12.6	12.4	13.0	13.5	12.5	13.2	12.9	13.5	14.0
4H	2H	8.8	9.6	9.2	10.0	10.4	8.6	9.4	9.0	9.8	10.1
	3H	11.3	11.9	11.7	12.3	12.8	11.0	11.7	11.4	12.1	12.5
	4H	12.2	12.8	12.7	13.3	13.7	12.2	12.8	12.6	13.2	13.7
	6H	12.9	13.4	13.4	13.9	14.3	13.1	13.6	13.6	14.1	14.6
	8H	13.1	13.6	13.6	14.0	14.5	13.5	14.0	14.0	14.4	14.9
	12H	13.2	13.6	13.7	14.1	14.6	13.8	14.2	14.3	14.7	15.2
8H	4H	12.6	13.1	13.1	13.5	14.0	12.5	13.0	13.0	13.5	13.9
	6H	13.4	13.8	13.9	14.3	14.7	13.6	14.0	14.1	14.5	15.0
	8H	13.7	14.0	14.2	14.5	15.0	14.1	14.4	14.6	15.0	15.5
	12H	13.9	14.1	14.4	14.6	15.2	14.5	14.8	15.0	15.3	15.9
12H	4H	12.6	13.0	13.1	13.5	14.0	12.6	13.0	13.1	13.5	13.9
	6H	13.5	13.8	14.0	14.3	14.8	13.7	14.0	14.2	14.5	15.0
	8H	13.8	14.1	14.3	14.6	15.2	14.2	14.5	14.8	15.0	15.6

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0