

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 ND 35K EX TCY GL MW
Nom. 6" Square x 18" H Cylinder

Test Number

SP-01201_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	957
Efficacy	105.13 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.34
Two luminaires, plane 90°	0.35
Four luminaires	0.38

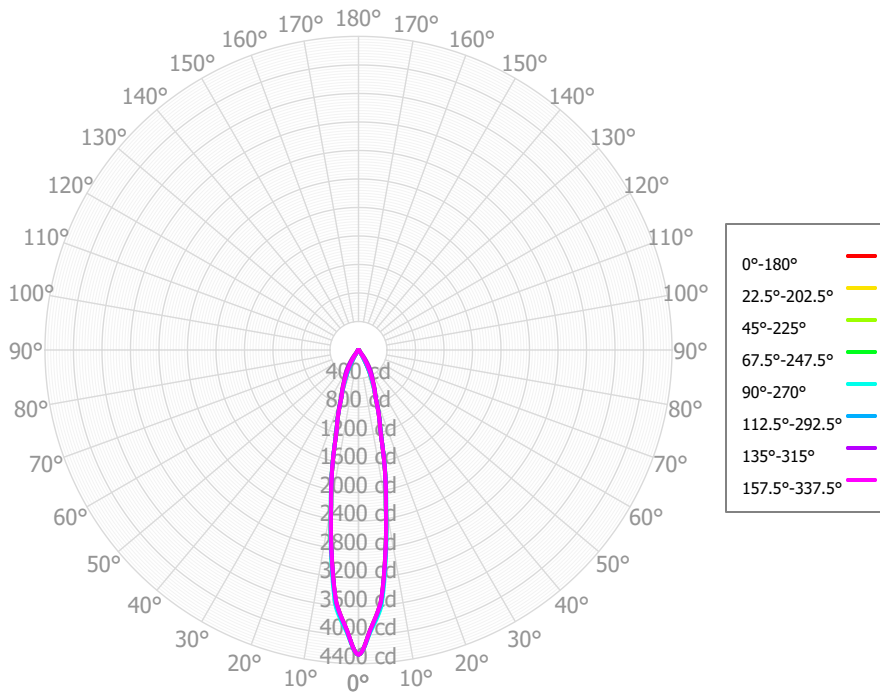
Full Beam Angle

0° - 180°	21°
90° - 270°	21°

IES File Header Contents

Keyword	Value
TEST	SP-01201_M-10L
TESTLAB	VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/13/2017
ISSUEDATE	2/23/2021
LUMCAT	C06xxSQXT 10L ND 35K EX TCY GL MW
LUMINAIRE	Nom. 6" Square x 18" H Cylinder
OTHER	Cylinder also available as 24" H variant
OTHER	Downlight: Narrow Beam, Clear Glass lens
OTHER	Downlight: 21 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°	309.17	32.32%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	350.12	36.60%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	202.64	21.18%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	62.73	6.56%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	13.76	1.44%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	12.36	1.29%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	10.92	1.14%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	7.02	0.73%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	2.02	0.21%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	970.75	101.47%	0.00° - 180.00°	970.75	101.47%

Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	4273.71	4273.71	4273.71	4273.71	4273.71
2.50°	3925.81	3917.08	3915.69	3925.81	3949.92
5.00°	3577.91	3560.45	3557.67	3577.92	3626.13
7.50°	2903.38	2887.00	2885.88	2891.23	2936.13
10.00°	2228.86	2213.55	2214.08	2204.54	2246.12
12.50°	1712.56	1703.26	1709.02	1704.74	1724.25
15.00°	1196.26	1192.96	1203.95	1204.95	1202.37
17.50°	942.52	941.53	954.96	952.70	944.36
20.00°	688.78	690.11	705.97	700.46	686.36
22.50°	548.96	570.89	593.13	569.94	540.98
25.00°	409.14	451.68	480.28	439.42	395.61
27.50°	284.56	351.40	412.31	312.87	270.73
30.00°	159.97	251.12	344.35	186.32	145.85
32.50°	95.95	157.02	264.75	116.29	84.47
35.00°	31.92	62.93	185.16	46.27	23.09
37.50°	24.76	41.15	114.13	32.41	19.95
40.00°	17.61	19.37	43.10	18.56	16.81
42.50°	16.59	17.77	30.32	17.13	16.19
45.00°	15.57	16.17	17.54	15.71	15.57
47.50°	15.49	15.65	15.95	14.82	15.40
50.00°	15.41	15.13	14.36	13.94	15.23
52.50°	14.99	14.54	14.20	13.69	14.97
55.00°	14.58	13.95	14.03	13.45	14.72
57.50°	13.10	12.96	13.48	13.14	13.84
60.00°	11.63	11.97	12.92	12.84	12.96
62.50°	10.61	11.48	12.07	12.56	11.96
65.00°	9.59	10.99	11.21	12.29	10.96
67.50°	9.22	10.06	10.38	10.85	9.93
70.00°	8.85	9.13	9.55	9.42	8.89
72.50°	7.47	7.94	7.78	8.50	8.12
75.00°	6.08	6.76	6.01	7.58	7.34
77.50°	4.70	5.07	5.07	5.79	5.92
80.00°	3.32	3.39	4.12	4.00	4.49
82.50°	2.30	2.28	2.84	2.93	3.35
85.00°	1.28	1.16	1.56	1.86	2.21
87.50°	0.73	0.58	1.17	1.18	1.38
90.00°	0.18	0.00	0.77	0.51	0.55

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%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	0	1156	1156	1156	1156	1129	1129	1129	1129	1079	1079	1079	1033	1033	1033	991	991	971
	1	1110	1087	1066	1047	1087	1066	1048	1031	1027	1013	999	992	980	970	959	950	931
	2	1068	1028	995	968	1047	1012	982	957	981	957	936	953	933	916	927	911	894
	3	1028	977	937	906	1010	964	928	899	939	909	885	917	892	871	896	875	859
	4	991	932	889	856	975	922	882	851	902	868	841	884	855	832	867	843	827
	5	957	893	848	815	943	884	842	811	868	832	804	853	822	797	839	812	798
	6	925	857	812	779	912	850	807	776	837	799	771	824	792	767	813	784	771
	7	895	825	780	748	884	819	776	746	808	770	742	798	764	739	788	758	746
	8	867	796	751	720	857	791	748	719	782	743	716	773	738	713	765	734	723
	9	841	769	725	695	832	765	723	694	757	719	692	749	715	690	742	711	701
	10	817	745	701	673	809	741	700	672	734	696	670	728	693	669	722	690	680

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	141.3 fc	2.0 ft
6.5 ft	101.2 fc	2.4 ft
7.5 ft	76.0 fc	2.8 ft
8.0 ft	66.8 fc	3.0 ft
10.0 ft	42.7 fc	3.7 ft
12.0 ft	29.7 fc	4.4 ft
14.0 ft	21.8 fc	5.2 ft
16.0 ft	16.7 fc	5.9 ft
20.0 ft	10.7 fc	7.4 ft
24.0 ft	7.4 fc	8.9 ft
28.0 ft	5.5 fc	10.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	375525	375525	375525
45.00°	1935	2179	1934
55.00°	2233	2150	2255
65.00°	1994	2331	2279
75.00°	2065	2041	2493
85.00°	1293	1577	2231

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	7.0	7.9	7.3	8.2	8.6	7.1	8.1	7.5	8.4	8.7
	3H	9.2	10.0	9.6	10.4	10.7	9.5	10.3	9.8	10.6	11.0
	4H	10.0	10.8	10.4	11.1	11.5	10.4	11.2	10.8	11.6	12.0
	6H	10.5	11.2	10.9	11.6	12.0	11.1	11.8	11.5	12.2	12.6
	8H	10.6	11.3	11.0	11.7	12.1	11.3	12.0	11.8	12.4	12.8
	12H	10.6	11.3	11.1	11.7	12.1	11.5	12.1	11.9	12.5	12.9
4H	2H	7.7	8.5	8.1	8.9	9.2	7.9	8.6	8.3	9.0	9.4
	3H	10.1	10.8	10.6	11.2	11.6	10.4	11.0	10.8	11.4	11.8
	4H	11.1	11.6	11.5	12.1	12.5	11.5	12.1	11.9	12.5	12.9
	6H	11.6	12.1	12.1	12.6	13.0	12.2	12.7	12.7	13.2	13.7
	8H	11.8	12.2	12.2	12.7	13.2	12.5	12.9	13.0	13.4	13.9
	12H	11.8	12.2	12.3	12.7	13.2	12.7	13.1	13.2	13.6	14.0
8H	4H	11.4	11.8	11.8	12.3	12.7	11.7	12.2	12.2	12.6	13.1
	6H	12.1	12.4	12.6	12.9	13.4	12.6	13.0	13.1	13.5	14.0
	8H	12.3	12.6	12.8	13.1	13.6	12.9	13.3	13.5	13.8	14.3
	12H	12.4	12.6	12.9	13.1	13.7	13.2	13.5	13.7	14.0	14.6
12H	4H	11.4	11.8	11.9	12.3	12.7	11.7	12.1	12.2	12.6	13.1
	6H	12.1	12.4	12.6	12.9	13.4	12.6	13.0	13.2	13.4	14.0
	8H	12.4	12.6	12.9	13.1	13.7	13.0	13.3	13.5	13.8	14.4

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0