Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire
C06xxSQXT 13L XN 35K XX TCY GL MW
Nom. 6" Square x 18" H Cylinder

Test Number
SP-01200

Test Date
10/13/2017

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

Summary of Results

Power

Input Watts	18.4 W

Lumen Output

Output Lumens	1142
Efficacy	62.04 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.2
Two luminaires, plane 90°	0.21
Four luminaires	0.21

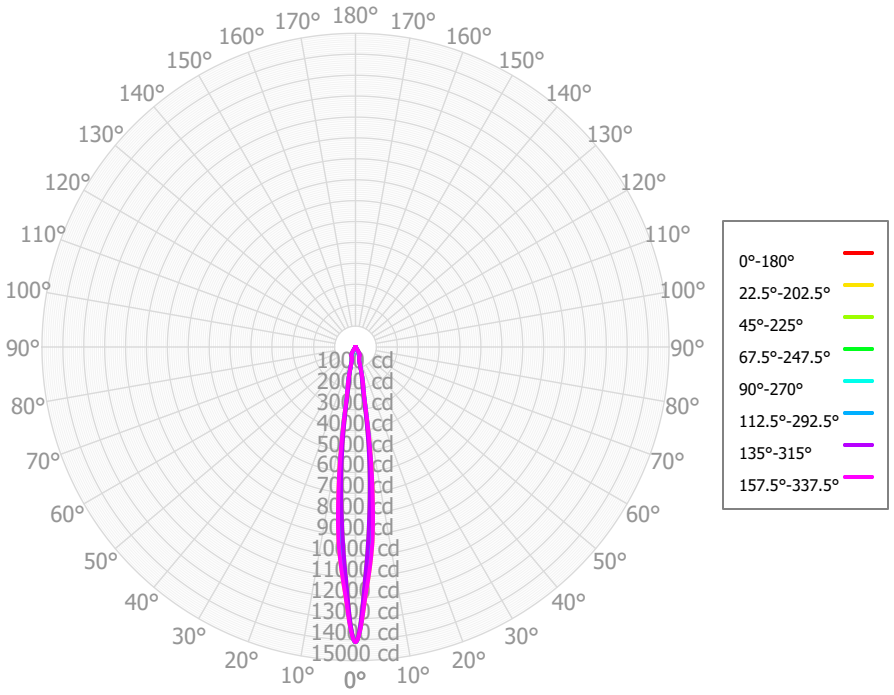
Full Beam Angle

0° - 180°	12°
90° - 270°	12°

IES File Header Contents

Keyword	Value
TEST	SP-01200
TESTLAB	VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/13/2017
ISSUEDATE	2/23/2021
LUMCAT	C06xxSQXT 13L XN 35K XX TCY GL MW
LUMINAIRE	Nom. 6" Square x 18" H Cylinder
OTHER	Cylinder also available as 24" H variant
OTHER	Downlight: Xtra Narrow Beam, Clear Glass lens
OTHER	Downlight: 12 Degree Beam Angle
OTHER	Trim: Same Color as Cylinder, Matte White
LAMP	N/A
OTHER	N/A, 9mm 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
_CRI	83
_CCTMULT	Same for all available CCT's
_LAMPMULT	10L x 0.74

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	653.13	57.22%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	262.71	23.01%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	180.15	15.78%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	56.93	4.99%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	10.65	0.93%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	9.45	0.83%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	8.23	0.72%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	4.94	0.43%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.79	0.16%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1187.97	104.07%	0.00° - 180.00°	1187.97	104.07%

Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	14115.51	14115.51	14115.51	14115.51	14115.51
2.50°	11175.01	11719.63	10894.76	11452.69	11310.21
5.00°	8234.51	9323.75	7674.02	8789.88	8504.92
7.50°	5228.93	5874.30	4812.31	5528.30	5454.31
10.00°	2223.34	2424.85	1950.61	2266.72	2403.71
12.50°	1457.14	1568.62	1307.11	1480.49	1555.51
15.00°	690.95	712.40	663.62	694.25	707.32
17.50°	598.33	612.47	588.48	600.66	601.87
20.00°	505.71	512.53	513.35	507.07	496.41
22.50°	473.01	488.68	490.87	450.70	407.15
25.00°	440.31	464.82	468.38	394.34	317.90
27.50°	287.01	366.17	440.99	273.18	194.24
30.00°	133.71	267.51	413.59	152.02	70.58
32.50°	78.60	165.61	285.60	85.91	42.87
35.00°	23.50	63.72	157.61	19.79	15.15
37.50°	18.86	40.13	93.68	17.68	13.64
40.00°	14.22	16.54	29.74	15.57	12.13
42.50°	14.22	14.76	20.93	14.42	11.10
45.00°	14.22	12.97	12.11	13.26	10.07
47.50°	15.60	12.53	11.33	11.75	9.65
50.00°	16.98	12.09	10.54	10.23	9.23
52.50°	15.63	12.24	10.17	9.23	9.04
55.00°	14.29	12.39	9.81	8.23	8.86
57.50°	12.94	11.54	10.19	7.82	8.88
60.00°	11.60	10.68	10.57	7.41	8.91
62.50°	10.34	9.25	10.29	7.53	8.55
65.00°	9.08	7.83	10.00	7.64	8.19
67.50°	7.90	8.23	7.73	6.56	7.16
70.00°	6.72	8.64	5.47	5.47	6.13
72.50°	5.46	7.07	5.30	4.95	5.31
75.00°	4.20	5.49	5.13	4.43	4.48
77.50°	3.63	4.32	3.64	3.15	3.69
80.00°	3.06	3.16	2.14	1.87	2.89
82.50°	2.08	2.26	1.76	2.17	2.31
85.00°	1.10	1.37	1.38	2.46	1.73
87.50°	0.99	1.03	1.16	1.35	1.45
90.00°	0.88	0.69	0.94	0.24	1.17

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%
RCR	0	1414	1414	1414	1414	1381	1381	1381	1381	1320	1320	1320	1264	1264	1264	1212	1212	1212	1188
	1	1368	1343	1321	1301	1340	1318	1299	1281	1271	1256	1242	1228	1216	1205	1188	1179	1171	1156
	2	1325	1284	1250	1221	1301	1264	1233	1207	1227	1203	1181	1193	1174	1157	1162	1147	1133	1125
	3	1286	1234	1193	1160	1266	1218	1181	1151	1189	1158	1133	1162	1137	1116	1137	1117	1100	1097
	4	1251	1190	1146	1112	1233	1178	1137	1106	1155	1121	1094	1133	1105	1082	1113	1090	1070	1070
	5	1218	1153	1107	1073	1203	1143	1101	1069	1124	1088	1060	1107	1076	1051	1091	1064	1043	1046
	6	1188	1120	1074	1041	1175	1112	1069	1037	1096	1059	1031	1082	1050	1025	1069	1041	1019	1024
	7	1161	1090	1045	1013	1149	1084	1041	1010	1071	1033	1006	1059	1026	1001	1048	1019	996	1003
	8	1135	1064	1019	988	1124	1058	1016	986	1048	1010	983	1038	1004	979	1029	998	976	984
	9	1111	1040	996	966	1102	1035	994	965	1026	989	962	1018	984	960	1010	980	957	966
	10	1089	1018	975	947	1081	1014	973	946	1006	969	944	999	966	942	993	962	940	949

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	466.6 fc	1.2 ft
6.5 ft	334.1 fc	1.4 ft
7.5 ft	250.9 fc	1.6 ft
8.0 ft	220.6 fc	1.7 ft
10.0 ft	141.2 fc	2.1 ft
12.0 ft	98.0 fc	2.6 ft
14.0 ft	72.0 fc	3.0 ft
16.0 ft	55.1 fc	3.4 ft
20.0 ft	35.3 fc	4.3 ft
24.0 ft	24.5 fc	5.1 ft
28.0 ft	18.0 fc	6.0 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	1240311	1240311	1240311
45.00°	1768	1505	1251
55.00°	2189	1502	1357
65.00°	1888	2080	1702
75.00°	1424	1743	1522
85.00°	1112	1394	1740

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	5.7	6.6	6.1	7.0	7.3	3.1	4.0	3.4	4.3	4.6
	3H	7.7	8.5	8.1	8.8	9.2	5.6	6.5	6.0	6.8	7.2
	4H	8.3	9.0	8.7	9.4	9.8	6.6	7.3	7.0	7.7	8.1
	6H	8.7	9.4	9.2	9.8	10.2	7.2	7.9	7.6	8.3	8.7
	8H	8.9	9.5	9.3	9.9	10.3	7.5	8.1	7.9	8.5	8.9
	12H	9.0	9.6	9.4	10.0	10.4	7.7	8.3	8.2	8.7	9.1
4H	2H	6.4	7.2	6.8	7.5	7.9	4.7	5.4	5.1	5.8	6.2
	3H	8.5	9.2	9.0	9.6	10.0	6.9	7.5	7.3	7.9	8.3
	4H	9.3	9.9	9.8	10.3	10.7	7.8	8.4	8.2	8.8	9.2
	6H	9.9	10.4	10.4	10.8	11.3	8.4	8.9	8.9	9.3	9.8
	8H	10.1	10.5	10.5	10.9	11.4	8.7	9.1	9.2	9.6	10.1
	12H	10.2	10.5	10.6	11.0	11.5	9.0	9.4	9.5	9.9	10.4
8H	4H	9.5	9.9	9.9	10.4	10.8	8.2	8.6	8.6	9.1	9.5
	6H	10.2	10.5	10.7	11.0	11.5	8.8	9.2	9.3	9.7	10.2
	8H	10.4	10.7	11.0	11.3	11.8	9.2	9.5	9.8	10.1	10.5
	12H	10.6	10.9	11.1	11.4	12.0	9.8	10.1	10.3	10.6	11.1
12H	4H	9.4	9.8	9.9	10.3	10.8	8.2	8.6	8.7	9.0	9.5
	6H	10.2	10.5	10.7	10.9	11.5	8.9	9.2	9.4	9.6	10.2
	8H	10.5	10.7	11.0	11.2	11.8	9.3	9.6	9.9	10.1	10.7

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0