

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

C06xxSQXT 20L MD 35K XX TCY SO MW
Nom. 6" Square x 18" H Cylinder

Test Number

SP-01202

Test Date

10/13/2017

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

Summary of Results

Power

Input Watts	21.7 W
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Lumen Output

Output Lumens	1735
Efficacy	79.97 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

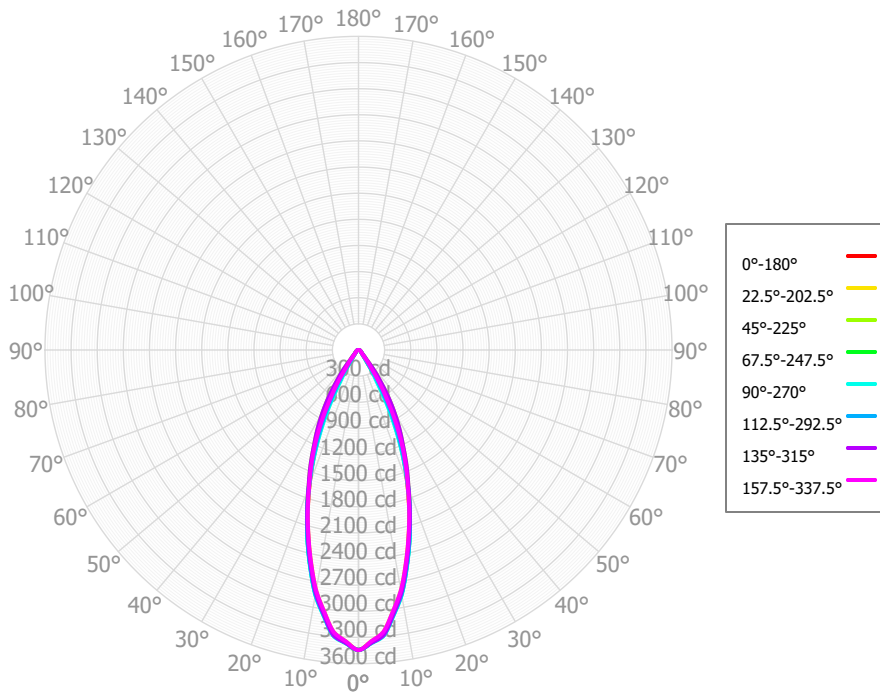
Full Beam Angle

0° - 180°	39°
90° - 270°	39°

IES File Header Contents

Keyword	Value
TEST	SP-01202
TESTLAB	VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/13/2017
ISSUEDATE	2/23/2021
LUMCAT	C06xxSQXT 20L 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

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	311.60	17.96%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	615.48	35.47%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	507.89	29.27%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	186.84	10.77%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	49.55	2.86%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	30.14	1.74%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	23.20	1.34%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	16.31	0.94%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	5.74	0.33%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1746.74	100.65%	0.00° - 180.00°	1746.74	100.65%

Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	3444.26	3444.26	3444.26	3444.26	3444.26
2.50°	3354.62	3348.59	3366.29	3365.70	3370.77
5.00°	3264.98	3252.91	3288.32	3287.14	3297.28
7.50°	3041.67	3027.94	3059.96	3067.84	3076.96
10.00°	2818.37	2802.97	2831.60	2848.55	2856.64
12.50°	2523.09	2510.79	2535.29	2554.54	2560.50
15.00°	2227.80	2218.61	2238.98	2260.54	2264.35
17.50°	1934.38	1936.37	1957.39	1963.38	1958.37
20.00°	1640.95	1654.12	1675.80	1666.22	1652.39
22.50°	1352.58	1407.40	1441.88	1379.69	1339.17
25.00°	1064.20	1160.67	1207.96	1093.16	1025.95
27.50°	781.95	906.07	1013.01	826.61	721.14
30.00°	499.69	651.47	818.05	560.05	416.33
32.50°	332.88	449.59	624.71	378.28	279.31
35.00°	166.06	247.72	431.37	196.51	142.29
37.50°	124.93	170.95	286.96	142.57	111.80
40.00°	83.80	94.19	142.55	88.62	81.31
42.50°	70.03	76.07	101.87	73.16	67.02
45.00°	56.25	57.94	61.18	57.71	52.73
47.50°	49.19	50.49	52.26	50.14	45.44
50.00°	42.13	43.03	43.33	42.58	38.15
52.50°	37.72	38.50	38.68	37.59	33.96
55.00°	33.31	33.98	34.04	32.60	29.77
57.50°	30.20	30.43	31.20	29.57	26.61
60.00°	27.08	26.89	28.36	26.55	23.45
62.50°	25.37	25.18	26.13	24.95	21.93
65.00°	23.66	23.46	23.91	23.35	20.41
67.50°	21.70	22.52	22.37	21.72	20.08
70.00°	19.73	21.57	20.84	20.09	19.75
72.50°	16.92	18.59	18.40	18.17	18.15
75.00°	14.12	15.60	15.97	16.25	16.54
77.50°	11.26	12.30	12.88	13.31	13.85
80.00°	8.40	8.99	9.79	10.36	11.16
82.50°	5.97	6.36	7.56	8.10	8.43
85.00°	3.53	3.74	5.32	5.85	5.70
87.50°	2.47	2.46	3.61	3.74	3.88
90.00°	1.41	1.18	1.91	1.63	2.06

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	2079	2079	2079	2079	2031	2031	2031	2031	1941	1941	1941	1858	1858	1858	1782	1782	1747
	1	1986	1939	1896	1858	1943	1901	1863	1829	1830	1800	1773	1766	1742	1720	1706	1687	1654
	2	1895	1814	1748	1691	1857	1785	1724	1672	1728	1679	1636	1677	1636	1601	1629	1596	1565
	3	1811	1705	1624	1560	1777	1682	1607	1547	1636	1574	1522	1595	1542	1499	1556	1513	1484
	4	1731	1609	1520	1452	1701	1590	1507	1443	1553	1482	1426	1519	1458	1410	1487	1436	1409
	5	1657	1523	1430	1361	1629	1507	1420	1355	1477	1401	1343	1448	1383	1331	1422	1365	1341
	6	1587	1445	1350	1282	1563	1432	1343	1278	1407	1328	1269	1383	1314	1261	1361	1300	1278
	7	1522	1375	1280	1213	1500	1364	1274	1210	1343	1262	1204	1323	1251	1198	1304	1240	1220
	8	1461	1311	1217	1152	1441	1302	1212	1150	1283	1203	1145	1266	1194	1140	1251	1185	1166
	9	1404	1252	1160	1097	1386	1244	1156	1095	1229	1148	1092	1214	1141	1088	1200	1134	1117
	10	1351	1199	1108	1047	1334	1192	1104	1046	1178	1098	1043	1165	1092	1040	1154	1086	1071

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	113.9 fc	3.9 ft
6.5 ft	81.5 fc	4.6 ft
7.5 ft	61.2 fc	5.3 ft
8.0 ft	53.8 fc	5.6 ft
10.0 ft	34.4 fc	7.0 ft
12.0 ft	23.9 fc	8.4 ft
14.0 ft	17.6 fc	9.8 ft
16.0 ft	13.5 fc	11.2 ft
20.0 ft	8.6 fc	14.1 ft
24.0 ft	6.0 fc	16.9 ft
28.0 ft	4.4 fc	19.7 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	302642	302642	302642
45.00°	6990	7603	6552
55.00°	5103	5214	4560
65.00°	4920	4970	4243
75.00°	4793	5421	5616
85.00°	3563	5360	5743

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	10.7	11.7	11.1	12.0	12.4	10.4	11.4	10.8	11.7	12.1
	3H	12.9	13.8	13.3	14.1	14.5	12.6	13.5	13.0	13.8	14.2
	4H	13.7	14.5	14.1	14.9	15.3	13.6	14.5	14.1	14.8	15.2
	6H	14.3	15.0	14.7	15.4	15.8	14.5	15.2	14.9	15.6	16.0
	8H	14.4	15.1	14.9	15.5	15.9	14.8	15.5	15.2	15.9	16.3
	12H	14.5	15.2	15.0	15.6	16.0	15.0	15.7	15.5	16.1	16.5
4H	2H	11.4	12.2	11.8	12.5	12.9	11.1	11.9	11.5	12.3	12.7
	3H	13.8	14.5	14.2	14.9	15.3	13.5	14.2	14.0	14.6	15.0
	4H	14.8	15.4	15.2	15.8	16.2	14.7	15.3	15.2	15.7	16.2
	6H	15.4	15.9	15.9	16.4	16.9	15.7	16.2	16.1	16.6	17.1
	8H	15.6	16.1	16.1	16.5	17.0	16.0	16.5	16.5	16.9	17.4
	12H	15.7	16.1	16.2	16.6	17.1	16.3	16.7	16.8	17.2	17.7
8H	4H	15.1	15.6	15.6	16.0	16.5	15.1	15.6	15.6	16.0	16.5
	6H	15.9	16.3	16.4	16.8	17.3	16.2	16.5	16.7	17.0	17.5
	8H	16.2	16.5	16.7	17.0	17.5	16.6	17.0	17.2	17.5	18.0
	12H	16.4	16.7	16.9	17.2	17.8	17.1	17.3	17.6	17.8	18.4
12H	4H	15.1	15.5	15.6	16.0	16.5	15.1	15.5	15.6	16.0	16.5
	6H	16.0	16.3	16.5	16.8	17.3	16.2	16.6	16.8	17.0	17.6
	8H	16.3	16.6	16.9	17.1	17.7	16.8	17.0	17.3	17.5	18.1

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0