

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-01201

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	1983
Efficacy	91.37 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

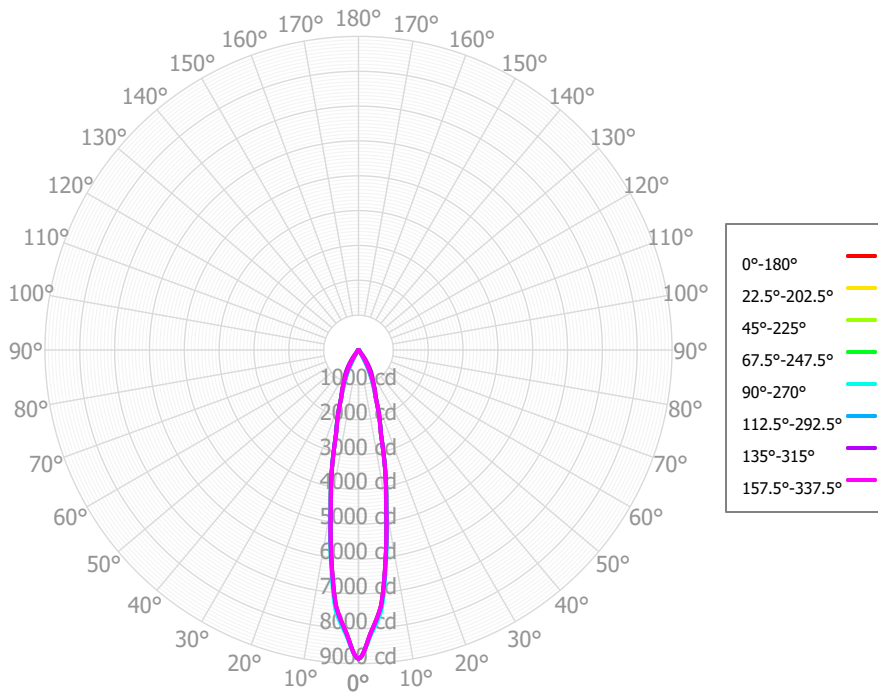
Full Beam Angle

0° - 180°	21°
90° - 270°	21°

IES File Header Contents

Keyword	Value
TEST	SP-01201
TESTLAB	VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/13/2017
ISSUEDATE	2/23/2021
LUMCAT	C06xxSQXT 20L ND 35K XX 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

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	640.78	32.32%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	725.64	36.60%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	419.98	21.18%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	130.01	6.56%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	28.52	1.44%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	25.62	1.29%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	22.64	1.14%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	14.54	0.73%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	4.19	0.21%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	2011.92	101.47%	0.00° - 180.00°	2011.92	101.47%

Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	8857.43	8857.43	8857.43	8857.43	8857.43
2.50°	8136.39	8118.29	8115.42	8136.40	8186.36
5.00°	7415.35	7379.16	7373.41	7415.37	7515.30
7.50°	6017.37	5983.42	5981.09	5992.18	6085.24
10.00°	4619.39	4587.68	4588.77	4568.99	4655.18
12.50°	3549.34	3530.07	3542.00	3533.15	3573.57
15.00°	2479.29	2472.45	2495.23	2497.30	2491.96
17.50°	1953.41	1951.37	1979.19	1974.52	1957.23
20.00°	1427.53	1430.28	1463.15	1451.73	1422.50
22.50°	1137.74	1183.20	1229.28	1181.22	1121.21
25.00°	847.95	936.12	995.40	910.72	819.91
27.50°	589.75	728.29	854.54	648.44	561.10
30.00°	331.55	520.46	713.67	386.16	302.28
32.50°	198.85	325.44	548.71	241.02	175.07
35.00°	66.15	130.42	383.74	95.89	47.86
37.50°	51.32	85.29	236.54	67.17	41.35
40.00°	36.50	40.15	89.33	38.46	34.84
42.50°	34.39	36.83	62.84	35.51	33.55
45.00°	32.28	33.51	36.35	32.55	32.26
47.50°	32.10	32.44	33.06	30.72	31.91
50.00°	31.93	31.36	29.77	28.90	31.56
52.50°	31.07	30.14	29.43	28.38	31.03
55.00°	30.21	28.91	29.08	27.87	30.51
57.50°	27.16	26.86	27.94	27.24	28.68
60.00°	24.11	24.81	26.79	26.61	26.85
62.50°	21.99	23.80	25.01	26.03	24.79
65.00°	19.88	22.78	23.24	25.46	22.72
67.50°	19.11	20.85	21.52	22.50	20.58
70.00°	18.35	18.92	19.80	19.53	18.43
72.50°	15.48	16.46	16.13	17.61	16.82
75.00°	12.61	14.01	12.46	15.70	15.22
77.50°	9.74	10.52	10.50	12.00	12.26
80.00°	6.88	7.03	8.53	8.29	9.30
82.50°	4.77	4.72	5.89	6.07	6.95
85.00°	2.66	2.41	3.24	3.85	4.59
87.50°	1.52	1.20	2.42	2.45	2.86
90.00°	0.38	0.00	1.59	1.05	1.13

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	2395	2395	2395	2395	2339	2339	2339	2339	2235	2235	2235	2140	2140	2140	2053	2053	2012
	1	2301	2253	2210	2171	2253	2210	2171	2137	2129	2099	2071	2055	2032	2010	1987	1969	1952
	2	2213	2130	2063	2006	2170	2097	2035	1983	2033	1983	1940	1975	1934	1899	1920	1888	1860
	3	2130	2025	1943	1878	2093	1998	1923	1863	1947	1885	1833	1900	1849	1805	1857	1814	1778
	4	2054	1932	1843	1774	2021	1910	1828	1764	1869	1799	1744	1831	1772	1724	1796	1746	1705
	5	1983	1850	1757	1688	1954	1832	1746	1681	1799	1724	1667	1768	1703	1653	1739	1683	1639
	6	1917	1776	1682	1614	1891	1762	1673	1609	1734	1657	1599	1709	1641	1589	1684	1625	1579
	7	1855	1710	1616	1550	1832	1698	1609	1546	1675	1596	1538	1653	1583	1531	1633	1571	1524
	8	1797	1649	1556	1493	1777	1639	1551	1490	1620	1541	1484	1602	1530	1478	1585	1521	1473
	9	1743	1594	1503	1441	1725	1585	1498	1439	1569	1490	1435	1553	1482	1430	1539	1474	1426
	10	1692	1543	1454	1394	1676	1536	1450	1393	1521	1443	1389	1508	1436	1386	1495	1430	1383

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	292.8 fc	2.0 ft
6.5 ft	209.6 fc	2.4 ft
7.5 ft	157.5 fc	2.8 ft
8.0 ft	138.4 fc	3.0 ft
10.0 ft	88.6 fc	3.7 ft
12.0 ft	61.5 fc	4.4 ft
14.0 ft	45.2 fc	5.2 ft
16.0 ft	34.6 fc	5.9 ft
20.0 ft	22.1 fc	7.4 ft
24.0 ft	15.4 fc	8.9 ft
28.0 ft	11.3 fc	10.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	778290	778290	778290
45.00°	4011	4517	4009
55.00°	4628	4455	4674
65.00°	4132	4832	4724
75.00°	4280	4231	5166
85.00°	2681	3269	4624

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	9.5	10.5	9.9	10.8	11.1	9.7	10.6	10.0	10.9	11.3
	3H	11.7	12.6	12.1	12.9	13.3	12.0	12.8	12.4	13.2	13.5
	4H	12.5	13.3	12.9	13.7	14.1	13.0	13.8	13.4	14.1	14.5
	6H	13.0	13.7	13.4	14.1	14.5	13.6	14.4	14.1	14.7	15.1
	8H	13.1	13.8	13.6	14.2	14.6	13.9	14.5	14.3	14.9	15.3
	12H	13.2	13.8	13.6	14.2	14.6	14.0	14.7	14.5	15.0	15.5
4H	2H	10.3	11.0	10.7	11.4	11.8	10.4	11.2	10.8	11.5	11.9
	3H	12.7	13.3	13.1	13.7	14.1	12.9	13.5	13.3	13.9	14.3
	4H	13.6	14.2	14.1	14.6	15.1	14.0	14.6	14.5	15.0	15.5
	6H	14.2	14.7	14.6	15.1	15.6	14.8	15.3	15.2	15.7	16.2
	8H	14.3	14.8	14.8	15.2	15.7	15.0	15.5	15.5	15.9	16.4
	12H	14.4	14.8	14.9	15.3	15.7	15.2	15.6	15.7	16.1	16.6
8H	4H	13.9	14.4	14.4	14.8	15.3	14.3	14.7	14.7	15.2	15.6
	6H	14.6	14.9	15.1	15.4	15.9	15.1	15.5	15.7	16.0	16.5
	8H	14.8	15.1	15.3	15.6	16.1	15.5	15.8	16.0	16.3	16.8
	12H	14.9	15.2	15.4	15.7	16.3	15.8	16.0	16.3	16.5	17.1
12H	4H	13.9	14.3	14.4	14.8	15.3	14.2	14.6	14.7	15.1	15.6
	6H	14.6	15.0	15.2	15.4	16.0	15.2	15.5	15.7	16.0	16.5
	8H	14.9	15.2	15.4	15.7	16.2	15.6	15.8	16.1	16.3	16.9

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0