

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

C06xxSQXT 30L WD 35K XX TCY SO MW
Nom. 6" Square x 18" H Cylinder

Test Number

SP-01203_M-30L

Test Date

10/13/2017

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

Summary of Results

Power

Input Watts	32.6 W
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Lumen Output

Output Lumens	2549
Efficacy	78.18 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.69
Two luminaires, plane 90°	0.69
Four luminaires	0.74

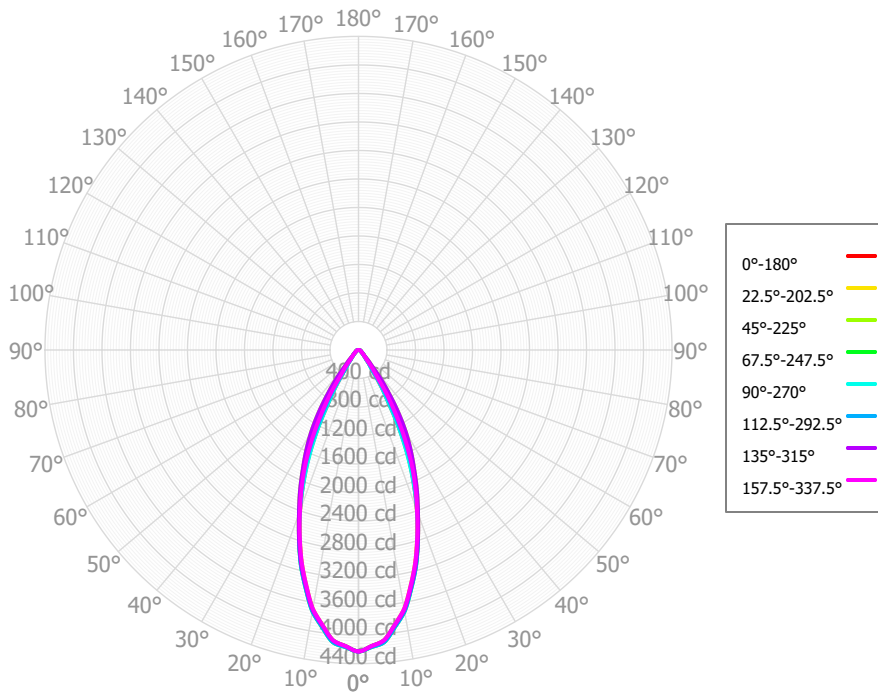
Full Beam Angle

0° - 180°	44°
90° - 270°	44°

IES File Header Contents

Keyword	Value
TEST	SP-01203_M-30L
TESTLAB	VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/13/2017
ISSUEDATE	2/23/2021
LUMCAT	C06xxSQXT 30L WD 35K XX TCY SO MW
LUMINAIRE	Nom. 6" Square x 18" H Cylinder
OTHER	Cylinder also available as 24" H variant
OTHER	Downlight: Wide Beam, Regressed Solite lens
OTHER	Downlight: 43.8 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
_CRI	83
_CCTMULT	Same for all available CCT's
_LAMPMULT	10L x 0.32, 13L x 0.43, 20L x 0.67

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	395.82	15.53%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	851.24	33.40%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	780.93	30.64%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	324.30	12.72%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	94.38	3.70%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	49.70	1.95%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	34.92	1.37%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	23.80	0.93%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	7.60	0.30%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	2562.68	100.55%	0.00° - 180.00°	2562.68	100.55%

Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	4230.46	4230.46	4230.46	4230.46	4230.46
2.50°	4163.61	4160.15	4161.40	4173.67	4164.85
5.00°	4096.76	4089.84	4092.33	4116.87	4099.23
7.50°	3898.49	3889.29	3898.05	3920.48	3905.25
10.00°	3700.23	3688.74	3703.78	3724.10	3711.26
12.50°	3396.22	3384.58	3406.59	3424.16	3411.89
15.00°	3092.22	3080.42	3109.40	3124.21	3112.53
17.50°	2745.92	2740.52	2774.52	2772.55	2759.07
20.00°	2399.63	2400.61	2439.63	2420.88	2405.61
22.50°	2028.22	2080.57	2143.51	2079.27	2016.87
25.00°	1656.81	1760.53	1847.39	1737.65	1628.13
27.50°	1235.48	1411.87	1584.26	1340.97	1215.37
30.00°	814.14	1063.21	1321.13	944.30	802.62
32.50°	572.18	743.13	1032.39	642.82	551.79
35.00°	330.22	423.05	743.64	341.34	300.97
37.50°	251.41	297.70	515.24	253.61	230.66
40.00°	172.61	172.35	286.84	165.89	160.34
42.50°	141.09	141.55	201.61	137.84	132.39
45.00°	109.56	110.74	116.38	109.79	104.44
47.50°	92.76	93.74	95.97	93.47	87.95
50.00°	75.96	76.73	75.56	77.15	71.46
52.50°	62.96	65.86	65.58	65.69	59.88
55.00°	49.96	54.98	55.61	54.23	48.30
57.50°	42.72	48.24	49.56	47.66	42.39
60.00°	35.47	41.51	43.52	41.10	36.47
62.50°	35.03	38.23	39.43	38.70	34.92
65.00°	34.58	34.96	35.35	36.30	33.38
67.50°	32.45	32.98	31.68	34.29	31.22
70.00°	30.31	31.00	28.00	32.28	29.05
72.50°	26.85	26.87	24.18	28.38	27.18
75.00°	23.40	22.73	20.35	24.47	25.31
77.50°	18.02	18.15	16.47	19.82	21.40
80.00°	12.64	13.58	12.60	15.16	17.48
82.50°	9.25	9.25	8.72	11.03	12.04
85.00°	5.86	4.93	4.83	6.89	6.61
87.50°	3.95	3.57	3.60	4.71	4.69
90.00°	2.04	2.21	2.37	2.54	2.78

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	3051	3051	3051	3051	2980	2980	2980	2980	2847	2847	2847	2726	2726	2726	2615	2615	2563
	1	2909	2838	2775	2718	2846	2783	2726	2675	2679	2634	2592	2584	2548	2515	2496	2469	2443
	2	2771	2649	2548	2463	2715	2605	2513	2435	2522	2447	2382	2446	2385	2331	2376	2326	2282
	3	2641	2482	2359	2261	2591	2447	2334	2243	2380	2285	2207	2318	2239	2173	2261	2195	2139
	4	2519	2334	2199	2095	2474	2305	2180	2083	2251	2143	2058	2200	2109	2034	2153	2075	2011
	5	2405	2202	2060	1955	2364	2178	2046	1946	2133	2018	1929	2091	1991	1912	2052	1965	1896
	6	2298	2083	1938	1834	2261	2063	1927	1828	2025	1905	1816	1990	1884	1804	1957	1864	1792
	7	2198	1975	1830	1728	2165	1958	1821	1724	1926	1804	1715	1896	1787	1706	1869	1771	1697
	8	2105	1876	1733	1634	2075	1862	1726	1631	1835	1712	1624	1810	1699	1618	1786	1686	1611
	9	2017	1787	1645	1550	1990	1775	1640	1547	1751	1628	1542	1729	1618	1537	1709	1607	1532
	10	1936	1704	1566	1474	1911	1694	1561	1472	1674	1552	1468	1655	1543	1464	1637	1534	1460

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	139.8 fc	4.4 ft
6.5 ft	100.1 fc	5.2 ft
7.5 ft	75.2 fc	6.0 ft
8.0 ft	66.1 fc	6.4 ft
10.0 ft	42.3 fc	8.0 ft
12.0 ft	29.4 fc	9.6 ft
14.0 ft	21.6 fc	11.3 ft
16.0 ft	16.5 fc	12.9 ft
20.0 ft	10.6 fc	16.1 ft
24.0 ft	7.3 fc	19.3 ft
28.0 ft	5.4 fc	22.5 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	371725	371725	371725
45.00°	13615	14462	12978
55.00°	7654	8519	7400
65.00°	7191	7349	6940
75.00°	7943	6908	8594
85.00°	5907	4873	6660

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	12.4	13.4	12.8	13.8	14.1	12.4	13.4	12.7	13.7	14.0
	3H	14.5	15.3	14.8	15.7	16.0	14.4	15.3	14.8	15.6	16.0
	4H	15.3	16.1	15.7	16.5	16.9	15.4	16.2	15.8	16.6	17.0
	6H	15.9	16.6	16.3	17.0	17.4	16.2	17.0	16.6	17.3	17.7
	8H	16.0	16.7	16.5	17.1	17.5	16.5	17.2	16.9	17.6	18.0
	12H	16.1	16.8	16.6	17.2	17.6	16.6	17.3	17.1	17.7	18.1
4H	2H	13.0	13.8	13.4	14.2	14.5	12.9	13.7	13.3	14.1	14.5
	3H	15.2	15.9	15.7	16.3	16.7	15.2	15.9	15.7	16.3	16.7
	4H	16.2	16.8	16.7	17.3	17.7	16.4	17.0	16.8	17.4	17.8
	6H	16.9	17.4	17.4	17.9	18.4	17.3	17.8	17.8	18.3	18.7
	8H	17.1	17.6	17.6	18.0	18.5	17.6	18.1	18.1	18.5	19.0
	12H	17.2	17.7	17.7	18.1	18.6	17.8	18.2	18.3	18.7	19.2
8H	4H	16.5	17.0	17.0	17.4	17.9	16.6	17.1	17.1	17.5	18.0
	6H	17.3	17.7	17.8	18.2	18.7	17.7	18.0	18.2	18.6	19.0
	8H	17.6	17.9	18.1	18.4	18.9	18.1	18.4	18.6	18.9	19.4
	12H	17.8	18.1	18.3	18.6	19.2	18.4	18.7	18.9	19.2	19.7
12H	4H	16.5	16.9	17.0	17.4	17.9	16.6	17.0	17.1	17.5	18.0
	6H	17.4	17.7	17.9	18.2	18.7	17.7	18.0	18.2	18.5	19.1
	8H	17.7	18.0	18.2	18.5	19.1	18.2	18.4	18.7	18.9	19.5

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0