

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SGRTE8XT 30L 35K WD XX AR8466XT SG SO
N/A

Test Number

SP-01209_2_M-30L

Test Date

2/11/2021

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

Summary of Results

Power

Input Watts	32.2 W
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Lumen Output

Output Lumens	2019
Efficacy	62.7 lm/W

Luminous Dimensions

0° - 180° Size	-0.63
90° - 270° Size	-0.63
Height	0

Spacing Criterion

Two luminaires, plane 0°	0.72
Two luminaires, plane 90°	0.72
Four luminaires	0.73

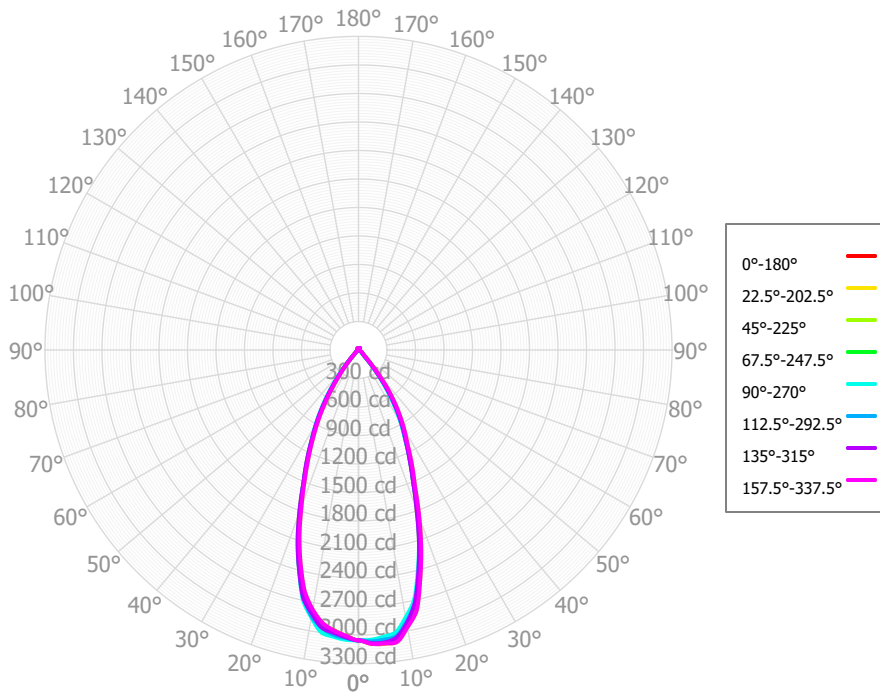
Full Beam Angle

0° - 180°	44°
90° - 270°	44°

IES File Header Contents

Keyword	Value
TEST	SP-01209_2_M-30L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/11/2021
ISSUEDATE	3/1/2021
LUMCAT	SGRTE8XT 30L 35K WD XX AR8466XT SG SO
LUMINAIRE	N/A
OTHER	Beam Angle: 44 degrees
LAMPCAT	N/A
LAMP	19mm LES
OTHER	LEDXT lumen output is the same for all available CCT's
OTHER	Total luminaire watts is approximate; includes 2 watts for thermal protector
OTHER	This report prepared by Spectrum Lighting, scaled from 50L

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	289.15	14.32%	90.00° - 100.00°	0.97	0.05%
10.00° - 20.00°	660.51	32.71%	100.00° - 110.00°	0.99	0.05%
20.00° - 30.00°	588.59	29.15%	100.00° - 120.00°	2.20	0.11%
30.00° - 40.00°	339.28	16.80%	120.00° - 130.00°	2.14	0.11%
40.00° - 50.00°	75.95	3.76%	130.00° - 140.00°	3.80	0.19%
50.00° - 60.00°	29.83	1.48%	140.00° - 150.00°	9.59	0.47%
60.00° - 70.00°	7.89	0.39%	150.00° - 160.00°	5.10	0.25%
70.00° - 80.00°	0.96	0.05%	160.00° - 170.00°	1.96	0.10%
80.00° - 90.00°	0.97	0.05%	170.00° - 180.00°	0.20	0.01%
0.00° - 90.00°	1993.13	98.71%	0.00° - 180.00°	2019.09	100.00%

Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°	112.50°	135.00°	157.50°	180.00°	202.50°	225.00°	247.50°	270.00°	292.50°	315.00°	337.50°	360.00°
0.00°	3056.42	3056.42	3056.42	3056.42	3056.42	3056.42	3056.42	3056.42	3056.42	3056.42	3056.42	3056.42	3056.42	3056.42	3056.42	3056.42	3056.42
2.50°	3094.23	3095.49	3088.28	3070.14	3053.31	3034.76	3026.31	3011.81	3013.49	3011.81	3026.31	3034.76	3053.31	3070.14	3088.28	3095.49	3094.23
5.00°	3103.44	3100.69	3090.90	3060.67	3029.74	3008.70	2987.52	2964.81	2963.25	2964.81	2987.52	3008.70	3029.74	3060.67	3090.90	3100.69	3103.44
7.50°	3070.85	3100.19	3054.88	3039.30	2997.70	2948.77	2947.90	2898.13	2911.67	2898.13	2947.90	2948.77	2997.70	3039.30	3054.88	3100.19	3070.85
10.00°	2952.92	2964.56	2924.37	2905.56	2857.99	2845.88	2818.85	2775.07	2781.48	2775.07	2818.85	2845.88	2857.99	2905.56	2924.37	2964.56	2952.92
12.50°	2765.66	2817.75	2734.02	2732.61	2698.84	2664.59	2678.99	2608.13	2637.80	2608.13	2678.99	2664.59	2698.84	2732.61	2734.02	2817.75	2765.66
15.00°	2470.29	2508.02	2431.85	2444.33	2411.13	2404.70	2409.13	2347.42	2376.23	2347.42	2409.13	2404.70	2411.13	2444.33	2431.85	2508.02	2470.29
17.50°	2157.39	2194.99	2117.77	2127.81	2118.29	2109.96	2132.26	2067.38	2103.77	2067.38	2132.26	2109.96	2118.29	2127.81	2117.77	2194.99	2157.39
20.00°	1823.00	1869.14	1786.57	1815.44	1804.03	1787.97	1821.11	1755.91	1801.27	1755.91	1821.11	1787.97	1804.03	1815.44	1786.57	1869.14	1823.00
22.50°	1536.37	1553.86	1502.62	1503.72	1511.26	1511.69	1516.09	1477.31	1500.72	1477.31	1516.09	1511.69	1511.26	1503.72	1502.62	1553.86	1536.37
25.00°	1295.42	1329.38	1271.81	1284.47	1281.18	1263.47	1287.25	1240.68	1274.27	1240.68	1287.25	1263.47	1281.18	1284.47	1271.81	1329.38	1295.42
27.50°	1100.77	1116.21	1079.83	1072.86	1068.56	1060.48	1064.29	1025.83	1050.68	1025.83	1064.29	1060.48	1068.56	1072.86	1079.83	1116.21	1100.77
30.00°	941.10	959.82	922.16	909.43	894.16	878.61	879.11	832.68	853.52	832.68	879.11	878.61	894.16	909.43	922.16	959.82	941.10
32.50°	782.03	802.01	759.53	746.37	719.57	693.65	694.34	645.37	660.00	645.37	694.34	693.65	719.57	746.37	759.53	802.01	782.03
35.00°	623.31	639.44	593.47	576.11	544.66	507.63	511.27	462.65	486.14	462.65	511.27	507.63	544.66	576.11	593.47	639.44	623.31
37.50°	453.82	473.46	423.59	407.55	380.98	351.90	342.55	314.66	324.34	314.66	342.55	351.90	380.98	407.55	423.59	473.46	453.82
40.00°	279.49	298.95	251.66	253.28	231.93	203.66	215.38	187.82	205.75	187.82	215.38	203.66	231.93	253.28	251.66	298.95	279.49
42.50°	172.17	164.50	154.18	118.44	130.57	125.57	115.19	112.76	109.03	112.76	115.19	125.57	130.57	118.44	154.18	164.50	172.17
45.00°	86.98	104.97	86.63	82.44	77.68	58.52	73.65	61.87	69.51	61.87	73.65	58.52	77.68	82.44	86.63	104.97	86.98
47.50°	64.39	66.67	65.75	53.37	50.47	45.44	45.43	42.91	41.21	42.91	45.43	45.44	50.47	53.37	65.75	66.67	64.39
50.00°	56.13	59.34	58.55	47.99	43.92	36.67	39.20	35.06	34.82	35.06	39.20	36.67	43.92	47.99	58.55	59.34	56.13
52.50°	49.34	51.91	50.91	42.32	37.93	31.27	33.21	29.57	28.99	29.57	33.21	31.27	37.93	42.32	50.91	51.91	49.34
55.00°	42.77	44.36	43.19	35.95	32.30	25.99	27.50	24.66	24.01	24.66	27.50	25.99	32.30	35.95	43.19	44.36	42.77
57.50°	34.89	36.88	35.68	29.50	26.28	21.91	22.45	20.05	19.49	20.05	22.45	21.91	26.28	29.50	35.68	36.88	34.89
60.00°	26.93	29.46	28.19	22.91	20.09	17.57	18.05	15.49	15.51	15.49	18.05	17.57	20.09	22.91	28.19	29.46	26.93
62.50°	14.82	19.01	16.07	15.36	12.93	10.95	12.36	9.98	10.74	9.98	12.36	10.95	12.93	15.36	16.07	19.01	14.82
65.00°	3.30	6.47	3.91	6.40	5.42	5.07	5.63	4.39	5.24	4.39	5.63	5.07	5.42	6.40	3.91	6.47	3.30
67.50°	2.01	1.71	2.31	1.51	2.66	2.80	2.38	2.58	2.31	2.58	2.38	2.80	2.66	1.51	2.31	1.71	2.01
70.00°	0.87	1.14	0.82	1.26	1.10	1.03	1.26	0.89	1.23	0.89	1.26	1.03	1.10	1.26	0.82	1.14	0.87
72.50°	0.87	0.96	0.81	1.07	0.86	1.00	0.90	0.82	0.88	0.82	0.90	1.00	0.86	1.07	0.81	0.96	0.87
75.00°	0.88	0.93	0.80	0.92	0.84	0.96	0.91	0.76	0.94	0.76	0.91	0.96	0.84	0.92	0.80	0.93	0.88
77.50°	0.91	1.02	0.81	0.81	0.80	0.90	0.90	0.75	1.01	0.75	0.90	0.90	0.80	0.81	0.81	1.02	0.91
80.00°	0.93	1.14	0.84	0.73	0.76	0.85	0.89	0.76	1.09	0.76	0.89	0.85	0.76	0.73	0.84	1.14	0.93
82.50°	0.95	1.07	0.91	0.79	0.78	0.82	0.82	0.87	1.17	0.87	0.82	0.82	0.78	0.79	0.91	1.07	0.95
85.00°	0.92	0.95	0.93	0.92	0.80	0.87	0.73	0.97	1.25	0.97	0.73	0.87	0.80	0.92	0.93	0.95	0.92
87.50°	0.77	0.82	0.80	0.97	0.79	1.04	0.73	1.02	1.08	1.02	0.73	1.04	0.79	0.97	0.80	0.82	0.77
90.00°	0.69	0.69	0.74	0.98	0.79	1.08	0.75	1.02	0.85	1.02	0.75	1.08	0.79	0.98	0.74	0.69	0.69
92.50°	0.73	0.79	0.79	0.91	0.90	0.99	0.95	0.88	0.88	0.88	0.95	0.99	0.90	0.91	0.79	0.79	0.73
95.00°	0.75	0.91	0.82	0.81	0.98	0.92	1.17	0.82	0.95	0.82	1.17	0.92	0.98	0.81	0.82	0.91	0.75
97.50°	0.75	0.96	0.79	0.88	0.93	0.87	0.95	0.92	0.91	0.92	0.95	0.87	0.93	0.88	0.79	0.96	0.75
100.00°	0.78	1.02	0.82	0.99	0.88	0.88	0.74	0.98	0.87	0.98	0.74	0.88	0.88	0.99	0.82	1.02	0.78
102.50°	0.86	1.11	0.93	0.90	0.84	0.93	0.79	0.98	0.84	0.98	0.79	0.93	0.84	0.90	0.93	1.11	0.86
105.00°	0.95	1.18	0.95	0.77	0.83	0.94	0.83	1.00	0.80	1.00	0.83	0.94	0.83	0.77	0.95	1.18	0.95
107.50°	1.06	1.13	0.86	0.96	0.92	0.94	0.90	1.04	0.78	1.04	0.90	0.94	0.92	0.96	0.86	1.13	1.06
110.00°	1.03	1.09	0.88	1.16	1.00	0.94	0.95	1.00	0.77	1.00	0.95	0.94	1.00	1.16	0.88	1.09	1.03
112.50°	0.92	1.08	0.96	1.36	1.07	0.94	0.98	0.87	0.90	0.87	0.98	0.94	1.07	1.36	0.96	1.08	0.92

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	2397	2397	2397	2397	2339	2339	2339	2339	2229	2229	2229	2129	2129	2129	2036	2036	1993
	1	2291	2237	2189	2146	2239	2191	2149	2110	2105	2071	2040	2026	2000	1975	1953	1933	1892
	2	2185	2091	2014	1949	2138	2055	1984	1925	1986	1928	1879	1922	1876	1835	1863	1826	1789
	3	2082	1960	1865	1789	2041	1930	1843	1773	1874	1801	1742	1822	1762	1711	1774	1724	1690
	4	1985	1841	1736	1656	1948	1817	1720	1644	1771	1688	1622	1728	1658	1601	1688	1629	1597
	5	1893	1734	1623	1542	1859	1714	1611	1534	1676	1586	1518	1640	1563	1502	1607	1540	1512
	6	1807	1637	1524	1443	1776	1621	1514	1437	1588	1495	1425	1558	1476	1414	1530	1458	1432
	7	1725	1549	1435	1355	1698	1535	1427	1351	1508	1412	1342	1482	1397	1334	1458	1383	1359
	8	1649	1469	1356	1278	1625	1457	1349	1274	1433	1337	1268	1411	1325	1261	1391	1313	1291
	9	1579	1396	1284	1208	1556	1385	1279	1206	1365	1268	1201	1346	1258	1195	1328	1249	1229
	10	1512	1329	1219	1146	1492	1320	1215	1144	1302	1206	1140	1285	1197	1135	1270	1189	1171

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	101.0 fc	4.5 ft
6.5 ft	72.3 fc	5.3 ft
7.5 ft	54.3 fc	6.1 ft
8.0 ft	47.8 fc	6.5 ft
10.0 ft	30.6 fc	8.2 ft
12.0 ft	21.2 fc	9.8 ft
14.0 ft	15.6 fc	11.5 ft
16.0 ft	11.9 fc	13.1 ft
20.0 ft	7.6 fc	16.4 ft
24.0 ft	5.3 fc	19.6 ft
28.0 ft	3.9 fc	22.9 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	105539	105539	105539
45.00°	4248	4231	3793
55.00°	2575	2600	1944
65.00°	269	320	443
75.00°	118	106	112
85.00°	363	369	318

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	7.3	8.3	7.7	8.6	9.0	4.0	5.0	4.4	5.3	5.7
	3H	7.1	8.0	7.6	8.3	8.7	3.9	4.7	4.3	5.1	5.5
	4H	7.0	7.8	7.5	8.2	8.6	3.8	4.6	4.2	4.9	5.4
	6H	6.9	7.6	7.4	8.0	8.5	3.7	4.4	4.1	4.8	5.2
	8H	6.9	7.5	7.4	8.0	8.4	3.7	4.3	4.1	4.7	5.2
	12H	6.8	7.5	7.3	7.9	8.3	3.6	4.2	4.1	4.7	5.1
4H	2H	7.1	7.8	7.5	8.2	8.6	3.8	4.6	4.3	5.0	5.4
	3H	6.9	7.5	7.3	7.9	8.4	3.7	4.3	4.1	4.8	5.2
	4H	6.7	7.3	7.2	7.7	8.2	3.6	4.1	4.1	4.6	5.1
	6H	6.6	7.1	7.1	7.6	8.1	3.5	4.0	4.0	4.5	5.0
	8H	6.6	7.0	7.1	7.5	8.0	3.5	3.9	4.0	4.4	4.9
	12H	6.6	6.9	7.1	7.4	8.0	3.5	3.8	4.0	4.3	4.9
8H	4H	6.6	7.0	7.1	7.5	8.0	3.4	3.9	3.9	4.3	4.8
	6H	6.5	6.8	7.0	7.3	7.9	3.3	3.7	3.9	4.2	4.7
	8H	6.4	6.7	7.0	7.3	7.8	3.3	3.6	3.9	4.2	4.7
	12H	6.4	6.7	7.0	7.2	7.8	3.4	3.6	3.9	4.2	4.8
12H	4H	6.5	6.9	7.0	7.4	7.9	3.4	3.7	3.9	4.2	4.8
	6H	6.4	6.7	7.0	7.2	7.8	3.3	3.6	3.8	4.1	4.7
	8H	6.4	6.6	6.9	7.2	7.8	3.3	3.6	3.8	4.1	4.7

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0