

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-01205_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	1935
Efficacy	60.09 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.62
Two luminaires, plane 90°	0.55
Four luminaires	0.71

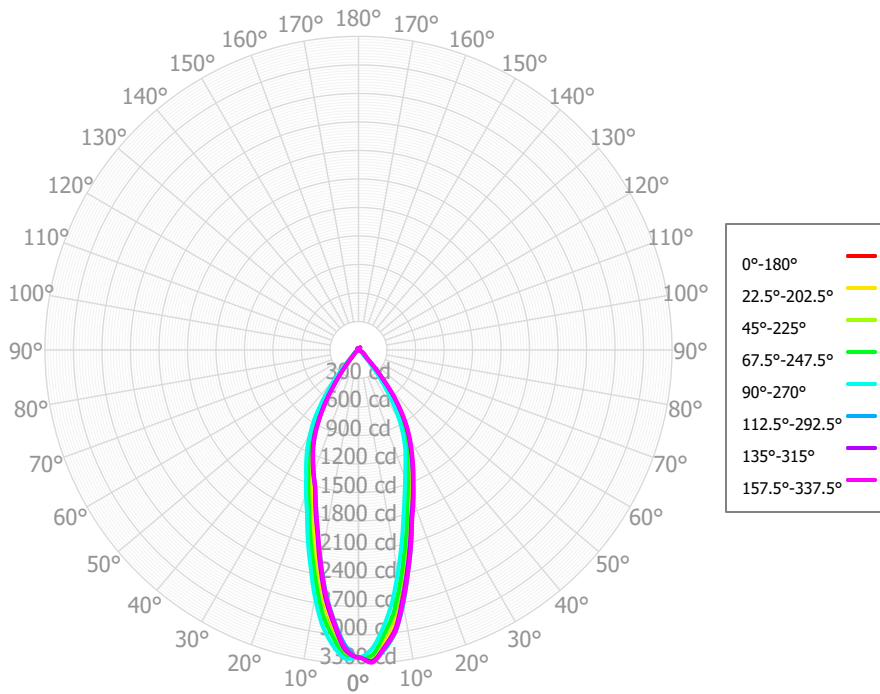
Full Beam Angle

0° - 180°	37°
90° - 270°	37°

IES File Header Contents

Keyword	Value
TEST	SP-01205_2_M-30L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/11/2021
ISSUEDATE	3/2/2021
LUMCAT	SGRTE8XT 30L 35K MD XX AR8466XT SG SO
LUMINAIRE	N/A
OTHER	Beam Angle: 37 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°	275.48	14.24%	90.00° - 100.00°	0.89	0.05%
10.00° - 20.00°	541.20	27.97%	100.00° - 110.00°	0.84	0.04%
20.00° - 30.00°	563.19	29.11%	100.00° - 120.00°	1.87	0.10%
30.00° - 40.00°	371.62	19.21%	120.00° - 130.00°	1.97	0.10%
40.00° - 50.00°	99.90	5.16%	130.00° - 140.00°	3.99	0.21%
50.00° - 60.00°	41.76	2.16%	140.00° - 150.00°	10.84	0.56%
60.00° - 70.00°	11.04	0.57%	150.00° - 160.00°	6.61	0.34%
70.00° - 80.00°	0.88	0.05%	160.00° - 170.00°	2.54	0.13%
80.00° - 90.00°	0.90	0.05%	170.00° - 180.00°	0.19	0.01%
0.00° - 90.00°	1905.98	98.51%	0.00° - 180.00°	1934.89	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°	3235.58	3235.58	3235.58	3235.58	3235.58	3235.58	3235.58	3235.58	3235.58	3235.58	3235.58	3235.58	3235.58	3235.58	3235.58	3235.58	3235.58
2.50°	3249.74	3235.10	3216.04	3218.41	3152.20	3117.20	3166.04	3148.70	3165.26	3151.19	3212.01	3231.26	3249.61	3275.22	3278.51	3292.66	3249.74
5.00°	3108.95	3107.29	3037.90	3015.16	2940.63	2873.45	2913.28	2885.66	2948.58	2943.12	3021.85	3041.78	3119.24	3164.41	3135.54	3145.19	3108.95
7.50°	2915.88	2915.33	2828.53	2800.39	2686.24	2597.99	2647.55	2612.13	2683.79	2688.46	2799.89	2832.44	2922.94	2993.07	2962.48	2986.79	2915.88
10.00°	2636.98	2652.49	2540.43	2504.60	2377.71	2275.58	2318.22	2279.59	2372.57	2378.89	2504.17	2531.93	2642.71	2714.49	2660.71	2694.88	2636.98
12.50°	2358.85	2363.08	2259.73	2211.28	2090.99	1982.06	1993.34	1966.16	2050.31	2090.34	2200.46	2239.81	2333.72	2406.26	2366.35	2405.04	2358.85
15.00°	2081.71	2098.49	1993.20	1952.03	1825.97	1721.60	1749.34	1722.83	1801.46	1821.28	1944.08	1973.99	2062.94	2134.34	2093.90	2134.77	2081.71
17.50°	1845.80	1840.48	1755.94	1703.13	1610.52	1521.44	1519.16	1510.81	1563.80	1611.18	1691.85	1732.81	1801.24	1869.18	1849.38	1877.97	1845.80
20.00°	1650.86	1645.92	1561.35	1523.24	1433.30	1374.83	1390.39	1380.31	1423.35	1443.41	1527.44	1548.57	1615.29	1680.42	1666.31	1692.71	1650.86
22.50°	1478.98	1462.22	1390.58	1352.49	1289.77	1243.94	1262.34	1251.34	1290.12	1300.56	1365.58	1382.70	1440.88	1499.56	1494.22	1515.09	1478.98
25.00°	1324.86	1314.37	1246.65	1219.81	1166.52	1124.00	1137.59	1125.35	1159.05	1171.61	1230.04	1248.73	1303.13	1351.48	1340.36	1364.87	1324.86
27.50°	1181.49	1169.90	1104.15	1082.01	1023.10	973.92	1000.17	978.22	1025.18	1017.77	1089.74	1106.56	1168.09	1204.87	1195.54	1218.92	1181.49
30.00°	1044.58	1023.80	962.91	929.14	870.52	807.81	823.30	799.44	841.95	853.53	922.15	953.29	1016.85	1068.57	1062.26	1083.87	1044.58
32.50°	892.55	876.97	806.02	769.58	695.63	625.09	643.26	618.88	659.87	672.25	751.47	783.43	863.73	929.00	917.09	940.46	892.55
35.00°	733.65	712.30	638.39	595.60	513.33	435.67	455.89	436.26	486.42	485.73	569.34	596.20	680.23	756.17	759.98	780.93	733.65
37.50°	560.33	546.90	469.89	426.75	355.95	289.33	294.46	286.25	322.73	341.82	399.71	426.37	498.58	581.87	583.89	609.57	560.33
40.00°	382.14	374.90	300.94	266.37	204.39	155.45	177.93	165.93	204.44	206.73	263.62	270.70	331.26	399.43	393.04	420.80	382.14
42.50°	249.69	219.60	194.12	152.80	135.78	104.96	100.20	97.80	107.45	136.24	155.44	165.61	182.82	238.55	256.28	269.75	249.69
45.00°	127.89	152.12	111.90	98.82	79.12	70.90	74.78	66.96	77.80	73.62	102.67	92.68	122.00	156.06	151.92	161.57	127.89
47.50°	98.84	97.29	84.82	67.22	68.13	59.26	57.47	50.01	54.50	61.12	66.69	62.05	73.60	94.26	111.07	103.16	98.84
50.00°	83.14	86.52	73.63	58.03	60.38	50.14	48.63	40.66	45.74	51.21	56.45	51.82	64.46	86.85	99.40	89.30	83.14
52.50°	70.97	75.73	63.48	49.79	51.64	42.14	40.81	33.23	37.38	42.58	47.12	43.05	55.69	78.11	85.26	76.09	70.97
55.00°	59.05	64.91	53.54	42.29	42.96	34.19	33.80	26.60	29.71	34.15	38.85	34.81	47.79	66.76	70.29	63.32	59.05
57.50°	48.96	54.17	44.81	34.83	35.08	27.30	26.89	21.60	23.32	28.10	31.46	28.43	39.50	55.11	57.09	51.76	48.96
60.00°	38.61	43.58	36.21	27.41	26.75	20.17	20.05	17.10	18.66	21.67	24.88	22.52	30.50	43.03	44.31	40.84	38.61
62.50°	23.87	30.17	21.74	17.46	15.16	10.46	12.45	10.47	12.63	12.88	16.56	14.08	20.61	29.53	28.70	27.24	23.87
65.00°	10.29	12.68	7.32	6.35	5.24	2.04	4.50	3.41	5.17	5.34	6.98	5.21	9.52	14.39	12.67	12.58	10.29
67.50°	5.13	2.77	3.77	2.46	2.78	1.26	1.77	1.82	1.54	2.90	2.69	2.65	3.04	5.43	6.59	5.79	5.13
70.00°	0.91	1.44	0.55	0.98	0.91	0.66	0.88	0.89	1.04	1.06	1.31	0.64	1.42	2.05	1.24	1.32	0.91
72.50°	0.96	0.85	0.85	0.66	0.92	0.76	0.74	0.74	0.81	0.94	0.80	0.62	0.69	0.72	1.13	0.54	0.96
75.00°	0.98	0.92	1.10	0.62	0.90	0.85	0.78	0.62	0.75	0.81	0.65	0.63	0.68	0.85	1.05	0.48	0.98
77.50°	0.95	0.90	1.10	0.80	0.86	0.94	0.71	0.60	0.75	0.68	0.75	0.70	0.68	0.85	0.96	0.66	0.95
80.00°	0.87	0.84	1.06	1.03	0.86	0.96	0.62	0.60	0.76	0.69	0.93	0.76	0.69	0.79	0.88	0.87	0.87
82.50°	0.71	0.78	0.86	0.88	0.94	0.83	0.82	0.81	0.76	0.90	0.96	0.84	0.80	0.75	0.82	0.80	0.71
85.00°	0.59	0.73	0.71	0.71	0.91	0.85	1.03	0.95	0.75	1.00	0.96	0.91	0.96	0.73	0.77	0.72	0.59
87.50°	0.55	0.72	0.69	0.82	0.73	1.07	0.93	0.73	0.87	0.94	0.84	0.91	0.92	0.89	0.73	0.77	0.55
90.00°	0.59	0.73	0.74	0.91	0.71	1.08	0.82	0.59	1.01	0.91	0.70	0.93	0.81	1.09	0.70	0.83	0.59
92.50°	0.73	0.70	0.89	0.79	0.86	0.84	0.63	0.83	0.85	0.92	0.59	0.98	0.72	1.06	0.75	0.90	0.73
95.00°	0.86	0.66	1.00	0.68	0.96	0.77	0.49	0.99	0.65	0.79	0.50	0.96	0.64	0.99	0.74	0.98	0.86
97.50°	0.96	0.67	1.02	0.61	1.01	0.87	0.84	0.92	0.71	0.56	0.67	0.80	0.79	1.04	0.62	1.05	0.96
100.00°	0.95	0.69	1.07	0.54	0.95	0.90	1.09	0.86	0.80	0.66	0.83	0.73	0.98	1.10	0.56	1.06	0.95
102.50°	0.83	0.74	1.13	0.44	0.83	0.88	0.88	0.82	0.75	0.94	0.80	0.80	0.76	0.98	0.61	0.88	0.83
105.00°	0.75	0.79	1.01	0.41	0.84	0.84	0.69	0.81	0.71	0.97	0.77	0.82	0.50	0.85	0.72	0.77	0.75
107.50°	0.69	0.63	0.72	0.60	0.93	0.80	0.59	0.85	0.91	0.88	0.70	0.78	0.71	0.67	0.94	0.88	0.69
110.00°	0.77	0.48	0.71	0.77	0.91	0.87	0.56	0.80	1.08	0.74	0.67	0.89	0.91	0.52	1.01	0.90	0.77
112.50°	0.91	0.72	0.91	0.89	0.87	0.97	0.69	0.62	1.08	0.58	0.74	1.16	0.77	0.75	0.91	0.78	0.91

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	2297	2297	2297	2297	2240	2240	2240	2240	2134	2134	2134	2037	2037	2037	1948	1948	1906
	1	2191	2138	2090	2048	2140	2093	2051	2012	2010	1976	1945	1933	1907	1882	1862	1842	1803
	2	2084	1991	1914	1850	2039	1955	1886	1827	1888	1832	1783	1827	1781	1740	1769	1733	1696
	3	1981	1859	1765	1689	1940	1830	1744	1674	1776	1703	1643	1725	1665	1614	1678	1628	1595
	4	1884	1740	1636	1556	1847	1717	1620	1545	1671	1589	1523	1630	1559	1503	1591	1531	1501
	5	1792	1634	1523	1442	1758	1614	1511	1434	1576	1487	1418	1541	1464	1403	1508	1442	1415
	6	1705	1537	1424	1343	1675	1520	1414	1337	1489	1395	1326	1459	1377	1315	1431	1360	1335
	7	1625	1450	1336	1257	1598	1436	1329	1253	1409	1313	1244	1383	1299	1235	1360	1285	1262
	8	1550	1371	1258	1181	1525	1359	1252	1177	1335	1239	1171	1314	1227	1164	1293	1216	1195
	9	1480	1299	1188	1113	1458	1288	1183	1110	1268	1172	1105	1250	1162	1100	1232	1153	1134
	10	1416	1234	1125	1052	1395	1224	1120	1050	1207	1112	1046	1190	1103	1042	1175	1095	1078

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	107.0 fc	3.7 ft
6.5 ft	76.6 fc	4.4 ft
7.5 ft	57.5 fc	5.0 ft
8.0 ft	50.6 fc	5.4 ft
10.0 ft	32.4 fc	6.7 ft
12.0 ft	22.5 fc	8.1 ft
14.0 ft	16.5 fc	9.4 ft
16.0 ft	12.6 fc	10.8 ft
20.0 ft	8.1 fc	13.5 ft
24.0 ft	5.6 fc	16.1 ft
28.0 ft	4.1 fc	18.8 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	111725	111725	111725
45.00°	6245	5464	3864
55.00°	3555	3223	2586
65.00°	841	598	428
75.00°	131	146	121
85.00°	235	280	362

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	9.9	10.9	10.3	11.2	11.6	6.0	6.9	6.4	7.3	7.6
	3H	9.8	10.6	10.2	11.0	11.4	5.8	6.6	6.2	7.0	7.4
	4H	9.7	10.4	10.1	10.8	11.3	5.7	6.5	6.1	6.9	7.3
	6H	9.5	10.3	10.0	10.7	11.1	5.6	6.3	6.0	6.7	7.2
	8H	9.5	10.2	10.0	10.6	11.0	5.5	6.2	6.0	6.6	7.1
	12H	9.4	10.1	9.9	10.5	11.0	5.5	6.2	6.0	6.6	7.0
4H	2H	9.7	10.5	10.1	10.9	11.3	5.7	6.5	6.2	6.9	7.3
	3H	9.5	10.2	10.0	10.6	11.1	5.6	6.2	6.0	6.6	7.1
	4H	9.4	10.0	9.9	10.4	10.9	5.4	6.0	5.9	6.5	7.0
	6H	9.3	9.8	9.8	10.3	10.8	5.4	5.8	5.9	6.3	6.8
	8H	9.2	9.7	9.7	10.2	10.7	5.3	5.8	5.8	6.2	6.8
	12H	9.2	9.6	9.7	10.1	10.6	5.3	5.7	5.8	6.2	6.7
8H	4H	9.2	9.7	9.7	10.2	10.7	5.3	5.7	5.8	6.2	6.7
	6H	9.1	9.5	9.6	10.0	10.5	5.2	5.5	5.7	6.1	6.6
	8H	9.0	9.4	9.6	9.9	10.4	5.1	5.5	5.7	6.0	6.5
	12H	9.0	9.3	9.6	9.8	10.4	5.2	5.4	5.7	6.0	6.6
12H	4H	9.2	9.6	9.7	10.1	10.6	5.2	5.6	5.7	6.1	6.6
	6H	9.0	9.4	9.6	9.9	10.4	5.1	5.4	5.7	5.9	6.5
	8H	9.0	9.3	9.5	9.8	10.4	5.1	5.4	5.6	5.9	6.5

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0