

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SGRTE8XT 30L 35K XW XX AR8466XT SG FG
N/A

Test Number

SP-01211_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	1753
Efficacy	54.43 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.84
Two luminaires, plane 90°	0.83
Four luminaires	0.91

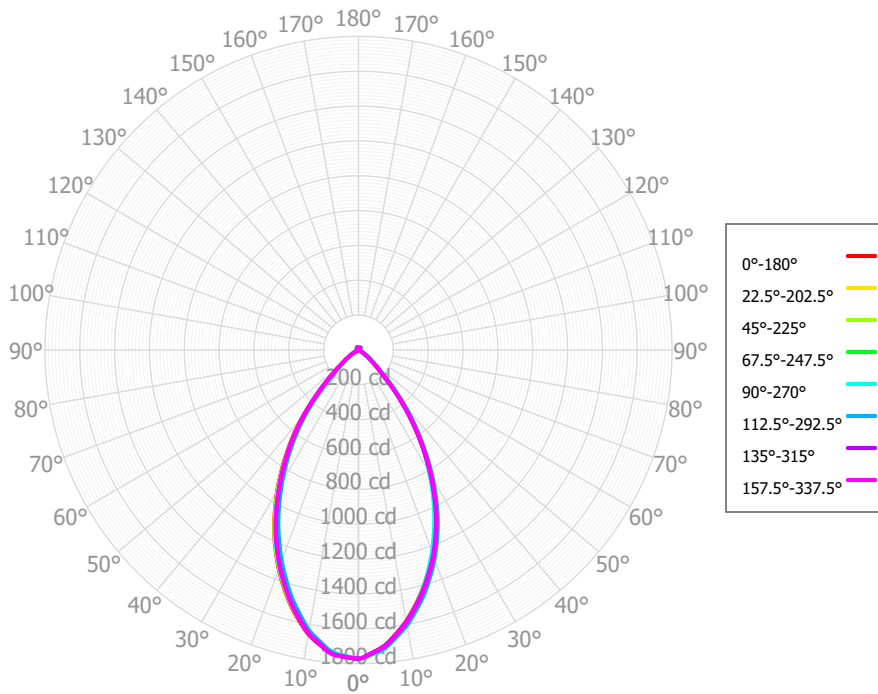
Full Beam Angle

0° - 180°	60°
90° - 270°	59°

IES File Header Contents

Keyword	Value
TEST	SP-01211_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 XW XX AR8466XT SG FG
LUMINAIRE	N/A
OTHER	Beam Angle: 59 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°	163.42	9.32%	90.00° - 100.00°	0.98	0.06%
10.00° - 20.00°	407.84	23.27%	100.00° - 110.00°	0.99	0.06%
20.00° - 30.00°	494.90	28.24%	100.00° - 120.00°	2.75	0.16%
30.00° - 40.00°	401.51	22.91%	120.00° - 130.00°	4.54	0.26%
40.00° - 50.00°	185.23	10.57%	130.00° - 140.00°	7.28	0.42%
50.00° - 60.00°	55.64	3.17%	140.00° - 150.00°	8.82	0.50%
60.00° - 70.00°	9.15	0.52%	150.00° - 160.00°	5.89	0.34%
70.00° - 80.00°	1.04	0.06%	160.00° - 170.00°	2.42	0.14%
80.00° - 90.00°	1.01	0.06%	170.00° - 180.00°	0.20	0.01%
0.00° - 90.00°	1719.75	98.12%	0.00° - 180.00°	1752.64	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°	1771.87	1771.87	1771.87	1771.87	1771.87	1771.87	1771.87	1771.87	1771.87	1771.87	1771.87	1771.87	1771.87	1771.87	1771.87	1771.87	1771.87
2.50°	1741.15	1745.21	1744.12	1749.27	1748.34	1761.03	1764.40	1763.44	1763.24	1763.46	1761.43	1758.60	1759.47	1747.98	1741.57	1742.46	1741.15
5.00°	1704.92	1710.86	1712.67	1722.09	1717.60	1743.72	1749.68	1752.76	1748.85	1745.88	1746.89	1739.92	1740.10	1717.77	1705.67	1710.18	1704.92
7.50°	1644.73	1653.05	1649.56	1661.64	1657.43	1689.89	1704.62	1702.95	1706.52	1699.99	1700.06	1689.87	1693.08	1662.39	1647.41	1650.31	1644.73
10.00°	1579.97	1590.01	1585.56	1599.36	1591.95	1634.34	1651.32	1652.06	1656.87	1647.52	1651.04	1636.62	1640.31	1604.26	1583.95	1588.83	1579.97
12.50°	1501.80	1514.37	1504.38	1516.42	1509.30	1554.49	1578.22	1576.63	1586.84	1577.03	1580.57	1566.18	1570.95	1530.46	1507.59	1512.87	1501.80
15.00°	1421.62	1434.23	1422.34	1432.96	1424.41	1474.10	1500.31	1500.18	1512.18	1503.15	1508.07	1493.03	1497.37	1454.19	1428.94	1435.48	1421.62
17.50°	1333.45	1345.01	1330.29	1340.37	1329.06	1381.87	1412.35	1412.07	1426.82	1416.89	1422.02	1408.11	1413.69	1366.64	1342.07	1348.46	1333.45
20.00°	1244.47	1252.51	1237.27	1247.33	1232.75	1289.20	1320.92	1322.86	1338.23	1328.92	1334.65	1320.49	1326.51	1276.72	1254.14	1259.57	1244.47
22.50°	1144.43	1154.38	1136.91	1146.17	1130.61	1189.47	1223.33	1225.28	1243.35	1233.05	1240.73	1223.59	1232.09	1178.29	1154.40	1161.41	1144.43
25.00°	1043.74	1052.55	1035.41	1044.38	1028.18	1089.08	1122.63	1126.31	1144.60	1136.45	1144.15	1123.70	1132.59	1076.78	1053.58	1060.77	1043.74
27.50°	932.47	945.11	927.75	936.16	921.59	982.50	1017.25	1019.23	1039.45	1029.54	1036.79	1015.41	1024.16	966.29	940.71	950.48	932.47
30.00°	820.90	834.95	819.54	828.10	814.97	876.00	910.96	911.97	932.37	922.05	927.96	904.90	912.96	853.75	827.26	838.81	820.90
32.50°	707.42	721.29	708.90	721.21	709.56	770.01	803.48	803.87	822.49	810.62	814.37	789.00	797.61	736.15	710.93	722.61	707.42
35.00°	594.00	610.62	599.35	614.82	604.34	664.61	697.23	696.51	713.90	699.15	701.57	674.22	682.65	619.98	594.67	607.40	594.00
37.50°	481.86	503.31	493.64	511.02	502.38	562.15	592.38	591.76	606.93	588.85	590.88	561.70	568.21	506.83	481.80	494.83	481.86
40.00°	370.75	393.32	387.91	406.81	400.35	458.32	484.52	484.39	495.43	478.12	477.48	447.35	451.32	394.59	369.72	383.86	370.75
42.50°	271.52	280.69	282.12	300.89	297.77	349.01	373.67	369.21	379.04	360.46	357.79	329.82	331.63	283.98	270.28	276.46	271.52
45.00°	178.90	198.44	192.18	206.75	201.58	249.28	277.09	266.02	279.36	247.48	254.06	232.59	236.99	196.40	176.43	188.88	178.90
47.50°	136.18	142.05	141.24	151.59	150.47	180.03	193.00	192.31	195.61	182.80	181.33	166.25	166.96	143.81	135.55	139.86	136.18
50.00°	96.06	102.06	98.47	104.32	103.34	121.36	135.79	132.16	138.34	122.65	124.23	115.97	118.41	102.61	96.85	99.53	96.06
52.50°	70.24	74.07	72.58	78.49	76.85	91.45	98.82	100.00	102.84	93.99	92.95	86.63	88.55	76.69	72.40	73.56	70.24
55.00°	46.39	51.62	50.50	55.59	53.15	64.72	69.85	71.03	72.97	66.48	65.32	60.85	63.11	54.10	49.36	51.12	46.39
57.50°	31.22	32.75	35.08	39.56	40.69	45.19	46.04	47.86	47.10	44.84	43.01	39.08	40.98	35.35	33.52	33.67	31.22
60.00°	17.57	20.19	21.74	25.23	28.17	29.13	31.75	29.70	30.91	25.50	26.08	23.24	25.92	21.04	19.05	19.58	17.57
62.50°	9.23	11.11	11.63	14.23	15.45	19.70	22.87	19.25	20.75	15.75	15.87	13.30	15.38	11.14	10.10	9.69	9.23
65.00°	2.79	5.75	4.80	6.14	5.43	11.38	13.42	10.66	11.75	7.42	8.24	6.56	8.19	4.94	3.02	3.70	2.79
67.50°	1.78	2.14	2.32	2.91	2.84	4.92	3.69	4.51	3.36	3.76	3.36	2.56	2.84	2.00	1.97	1.90	1.78
70.00°	1.08	1.15	0.98	0.99	1.01	1.09	1.01	1.12	0.73	1.08	0.95	0.99	1.06	0.82	1.16	1.04	1.08
72.50°	1.17	1.24	0.96	1.00	0.92	1.01	1.17	0.93	0.68	1.06	0.89	1.21	0.99	0.99	0.99	1.05	1.17
75.00°	1.24	1.04	0.96	0.94	0.87	0.95	1.25	0.90	0.77	0.98	0.87	1.24	0.99	0.92	0.90	0.97	1.24
77.50°	1.27	0.74	1.01	0.79	0.88	0.92	1.29	1.03	0.90	0.78	0.90	1.15	1.01	0.71	0.99	0.82	1.27
80.00°	1.25	0.74	0.99	0.77	0.91	0.88	1.28	0.99	0.92	0.72	0.85	1.01	0.92	0.82	1.07	0.86	1.25
82.50°	1.17	0.82	0.91	0.90	0.96	0.83	1.26	0.79	0.90	0.90	0.75	0.86	0.80	1.11	1.11	1.04	1.17
85.00°	1.04	0.85	0.94	0.93	0.96	0.85	1.08	0.81	0.85	1.03	0.78	0.80	0.81	1.10	1.11	1.04	1.04
87.50°	0.84	0.89	1.03	0.88	0.90	0.93	0.86	0.99	0.79	1.11	0.88	0.80	0.86	0.95	1.03	0.93	0.84
90.00°	0.76	0.82	1.03	0.80	0.87	0.88	1.00	1.10	0.79	1.17	0.85	0.76	0.97	0.84	0.96	0.89	0.76
92.50°	0.85	0.74	0.98	0.71	0.86	0.72	1.21	1.16	0.80	1.23	0.75	0.71	1.09	0.74	0.87	0.88	0.85
95.00°	0.92	0.83	0.97	0.68	0.92	0.70	1.02	1.15	0.82	1.23	0.76	0.69	0.98	0.83	0.85	0.96	0.92
97.50°	0.99	0.93	1.00	0.71	1.05	0.77	0.78	1.11	0.83	1.17	0.83	0.67	0.83	0.98	0.91	1.08	0.99
100.00°	0.90	0.94	0.96	0.68	1.10	0.82	0.82	0.99	0.86	1.09	0.94	0.72	0.80	0.97	0.90	1.06	0.90
102.50°	0.67	0.93	0.90	0.62	1.07	0.85	0.89	0.84	0.88	0.99	1.08	0.78	0.80	0.91	0.82	1.00	0.67
105.00°	0.79	1.02	0.97	0.72	1.08	0.93	0.73	0.77	0.94	0.95	1.03	0.91	0.81	0.86	0.92	1.01	0.79
107.50°	1.21	1.12	1.08	0.91	1.11	1.03	0.57	0.74	1.00	0.97	0.91	1.05	0.82	0.82	1.18	1.05	1.21
110.00°	1.43	1.12	1.13	1.01	1.13	1.08	0.92	0.86	1.02	1.01	0.82	1.14	0.79	1.00	1.20	1.08	1.43
112.50°	1.49	1.12	1.16	1.06	1.13	1.12	1.27	1.04	1.04	1.08	0.74	1.21	0.76	1.22	1.02	1.10	1.49

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	2026	2026	2026	2026	1929	1929	1929	1840	1840	1840	1758	1758	1720
	1	1974	1922	1876	1834	1927	1881	1840	1802	1804	1771	1741	1733	1707	1683	1668	1647	1612
	2	1867	1775	1700	1636	1824	1742	1673	1615	1680	1623	1575	1622	1576	1536	1569	1532	1499
	3	1763	1642	1549	1474	1724	1615	1529	1460	1563	1491	1432	1516	1456	1405	1472	1422	1380
	4	1664	1522	1418	1338	1629	1499	1403	1329	1457	1374	1309	1417	1347	1290	1380	1321	1272
	5	1571	1414	1304	1223	1539	1395	1293	1216	1359	1270	1202	1326	1249	1188	1295	1228	1175
	6	1485	1317	1205	1124	1455	1301	1196	1119	1271	1178	1109	1242	1161	1098	1216	1144	1088
	7	1404	1230	1118	1038	1378	1217	1110	1034	1191	1096	1027	1166	1082	1019	1143	1068	1011
	8	1330	1152	1040	963	1306	1140	1034	960	1118	1022	954	1097	1011	948	1077	1000	942
	9	1261	1082	971	897	1239	1071	966	894	1052	956	890	1033	947	885	1016	938	880
	10	1198	1018	910	838	1178	1009	906	836	992	897	832	976	889	828	961	881	824

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	58.6 fc	6.0 ft
6.5 ft	41.9 fc	7.0 ft
7.5 ft	31.5 fc	8.1 ft
8.0 ft	27.7 fc	8.7 ft
10.0 ft	17.7 fc	10.8 ft
12.0 ft	12.3 fc	13.0 ft
14.0 ft	9.0 fc	15.2 ft
16.0 ft	6.9 fc	17.3 ft
20.0 ft	4.4 fc	21.7 ft
24.0 ft	3.1 fc	26.0 ft
28.0 ft	2.3 fc	30.3 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	61183	61183	61183
45.00°	8736	9385	9844
55.00°	2793	3040	3199
65.00°	228	392	443
75.00°	166	128	116
85.00°	411	371	381

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	6.8	7.9	7.2	8.2	8.6	8.5	9.6	8.9	9.9	10.3
	3H	6.6	7.6	7.1	7.9	8.4	8.4	9.3	8.8	9.7	10.1
	4H	6.6	7.4	7.0	7.8	8.2	8.3	9.1	8.7	9.5	10.0
	6H	6.5	7.3	6.9	7.7	8.1	8.2	9.0	8.6	9.4	9.8
	8H	6.4	7.2	6.9	7.6	8.1	8.1	8.9	8.6	9.3	9.8
	12H	6.4	7.1	6.9	7.5	8.0	8.1	8.8	8.6	9.2	9.7
4H	2H	6.6	7.4	7.0	7.8	8.3	8.4	9.2	8.8	9.6	10.1
	3H	6.4	7.1	6.9	7.5	8.0	8.2	8.9	8.7	9.4	9.8
	4H	6.3	6.9	6.8	7.4	7.9	8.1	8.7	8.6	9.2	9.7
	6H	6.2	6.7	6.7	7.2	7.8	8.0	8.6	8.5	9.0	9.6
	8H	6.2	6.7	6.7	7.2	7.7	8.0	8.5	8.5	8.9	9.5
	12H	6.2	6.6	6.7	7.1	7.6	7.9	8.4	8.5	8.9	9.4
8H	4H	6.1	6.6	6.6	7.1	7.6	8.0	8.4	8.5	8.9	9.4
	6H	6.1	6.4	6.6	7.0	7.5	7.9	8.2	8.4	8.8	9.3
	8H	6.0	6.4	6.6	6.9	7.5	7.8	8.2	8.4	8.7	9.2
	12H	6.0	6.4	6.6	6.9	7.5	7.8	8.1	8.3	8.6	9.2
12H	4H	6.1	6.5	6.6	7.0	7.5	7.9	8.3	8.4	8.8	9.4
	6H	6.0	6.3	6.6	6.9	7.4	7.8	8.1	8.4	8.6	9.2
	8H	6.0	6.3	6.5	6.8	7.4	7.8	8.1	8.3	8.6	9.2

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0