

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

SGRTE8XT 10L 35K ND XX AR8466XT SG SO
N/A

Test Number

SP-01207_1_M-10L

Test Date

2/11/2021

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

Summary of Results

Power

Input Watts	10.2 W
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Lumen Output

Output Lumens	813
Efficacy	79.73 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.41
Two luminaires, plane 90°	0.42
Four luminaires	0.46

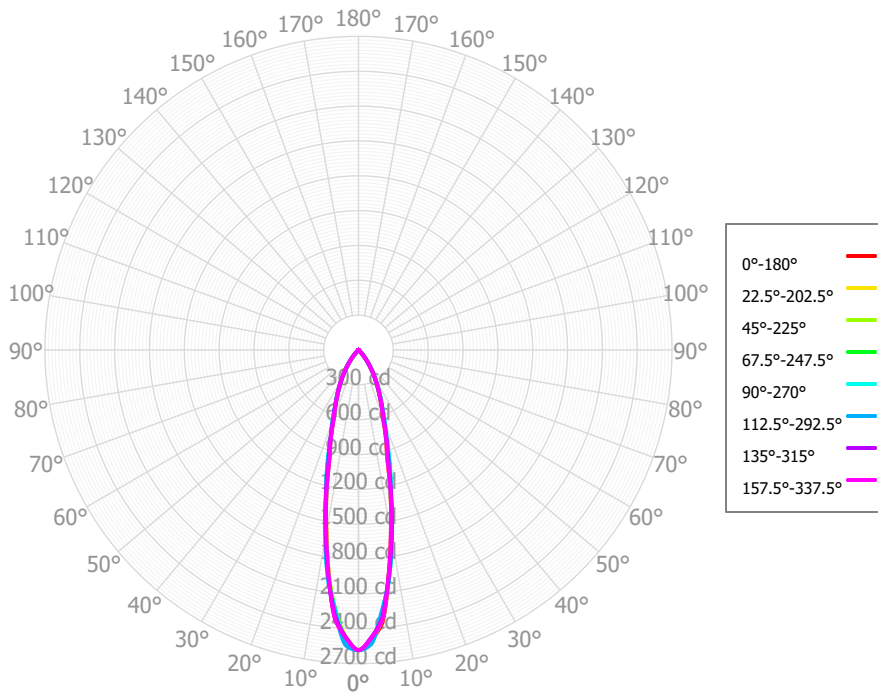
Full Beam Angle

0° - 180°	25°
90° - 270°	25°

IES File Header Contents

Keyword	Value
TEST	SP-01207_1_M-10L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/11/2021
ISSUEDATE	3/2/2021
LUMCAT	SGRTE8XT 10L 35K ND XX AR8466XT SG SO
LUMINAIRE	N/A
OTHER	Beam Angle: 25 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°	198.20	24.37%	90.00° - 100.00°	0.18	0.02%
10.00° - 20.00°	281.34	34.59%	100.00° - 110.00°	0.20	0.02%
20.00° - 30.00°	200.57	24.66%	100.00° - 120.00°	0.38	0.05%
30.00° - 40.00°	108.36	13.32%	120.00° - 130.00°	0.20	0.03%
40.00° - 50.00°	21.59	2.65%	130.00° - 140.00°	0.27	0.03%
50.00° - 60.00°	0.95	0.12%	140.00° - 150.00°	0.30	0.04%
60.00° - 70.00°	0.19	0.02%	150.00° - 160.00°	0.21	0.03%
70.00° - 80.00°	0.17	0.02%	160.00° - 170.00°	0.12	0.01%
80.00° - 90.00°	0.18	0.02%	170.00° - 180.00°	0.03	0.00%
0.00° - 90.00°	811.55	99.79%	0.00° - 180.00°	813.25	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°	2584.68	2584.68	2584.68	2584.68	2584.68	2584.68	2584.68	2584.68	2584.68	2584.68	2584.68	2584.68	2584.68	2584.68	2584.68	2584.68	2584.68
2.50°	2500.42	2494.51	2502.03	2513.32	2526.73	2544.46	2479.00	2482.97	2482.02	2473.82	2478.28	2499.00	2511.89	2534.40	2481.24	2486.72	2500.42
5.00°	2357.75	2335.98	2317.37	2287.43	2288.67	2275.46	2306.84	2325.01	2320.77	2286.15	2261.10	2255.05	2264.90	2268.95	2323.35	2335.81	2357.75
7.50°	1981.14	1974.58	1983.12	1989.86	1997.65	1999.14	1976.99	1969.64	1956.76	1954.83	1963.33	1980.66	1996.17	2000.92	1979.75	1973.07	1981.14
10.00°	1603.53	1617.13	1639.40	1649.25	1658.87	1645.52	1616.86	1602.92	1593.16	1591.04	1603.19	1623.34	1640.20	1642.81	1637.20	1612.18	1603.53
12.50°	1277.06	1276.64	1283.63	1293.15	1308.49	1290.02	1301.00	1284.69	1278.67	1281.26	1287.02	1290.37	1301.81	1287.84	1299.98	1283.36	1277.06
15.00°	950.80	966.53	995.67	1030.90	1050.88	1041.73	993.48	969.11	965.21	983.77	1004.55	1022.86	1034.42	1033.04	987.90	963.32	950.80
17.50°	781.89	785.21	793.07	801.99	815.47	796.18	801.25	791.86	793.91	795.99	794.53	789.18	792.39	781.86	800.70	787.53	781.89
20.00°	612.99	619.94	633.09	652.56	664.26	658.00	630.91	622.34	623.33	632.78	640.23	646.96	651.13	650.59	627.87	616.55	612.99
22.50°	518.69	521.66	526.98	531.52	533.33	522.29	525.22	523.95	526.38	526.75	523.02	520.52	521.63	520.87	526.97	521.03	518.69
25.00°	424.46	428.63	435.23	441.60	443.18	439.86	431.60	429.33	429.67	433.61	434.04	436.22	438.15	438.41	430.99	427.02	424.46
27.50°	355.69	357.62	361.48	362.67	362.69	358.52	358.83	360.25	361.09	361.88	358.31	356.79	358.20	356.50	359.24	357.25	355.69
30.00°	286.97	288.59	292.85	294.05	295.01	293.27	289.98	292.46	292.60	294.90	292.70	290.44	292.21	291.69	289.30	288.01	286.97
32.50°	227.61	227.76	230.68	229.10	230.37	228.37	229.22	231.94	233.24	234.35	231.45	227.49	228.63	227.27	228.35	227.07	227.61
35.00°	168.30	169.54	174.02	173.87	174.90	174.14	169.96	171.80	173.96	175.23	173.51	173.54	174.45	173.92	170.02	167.07	168.30
37.50°	121.54	121.94	124.22	122.06	121.57	120.11	123.29	123.10	123.23	123.97	123.11	123.41	123.54	121.11	124.43	120.82	121.54
40.00°	74.90	77.99	82.11	82.72	81.95	82.91	78.96	74.96	72.73	74.44	78.46	83.46	85.41	82.94	81.15	75.72	74.90
42.50°	48.30	48.97	49.62	47.77	45.49	46.05	46.09	42.27	40.16	41.78	44.31	47.93	50.20	45.39	49.21	47.84	48.30
45.00°	21.79	23.63	25.50	26.46	25.15	26.09	15.31	10.29	8.04	12.76	18.07	24.01	26.26	25.05	21.11	21.18	21.79
47.50°	12.80	13.08	11.73	9.89	8.56	6.41	7.07	5.44	4.90	5.18	5.32	5.99	6.63	5.39	11.50	12.04	12.80
50.00°	3.86	4.26	3.41	3.98	3.62	3.64	2.86	1.87	1.80	2.27	2.63	3.26	3.66	3.37	3.31	3.40	3.86
52.50°	2.32	2.49	1.77	1.72	1.34	1.19	1.40	1.10	1.06	1.14	1.16	1.16	1.22	1.41	1.86	2.05	2.32
55.00°	0.79	0.98	0.75	0.91	0.65	0.72	0.44	0.46	0.33	0.38	0.61	0.69	0.76	0.96	0.64	0.77	0.79
57.50°	0.54	0.53	0.49	0.60	0.31	0.28	0.29	0.33	0.33	0.23	0.32	0.32	0.36	0.52	0.49	0.55	0.54
60.00°	0.30	0.17	0.33	0.38	0.19	0.21	0.30	0.21	0.32	0.20	0.24	0.21	0.21	0.38	0.34	0.34	0.30
62.50°	0.22	0.16	0.28	0.21	0.12	0.15	0.25	0.21	0.26	0.19	0.16	0.13	0.11	0.25	0.23	0.36	0.22
65.00°	0.15	0.15	0.24	0.14	0.12	0.14	0.20	0.22	0.20	0.18	0.09	0.14	0.18	0.20	0.14	0.38	0.15
67.50°	0.21	0.14	0.21	0.12	0.12	0.14	0.16	0.22	0.21	0.16	0.08	0.15	0.21	0.16	0.15	0.27	0.21
70.00°	0.27	0.13	0.19	0.14	0.15	0.16	0.12	0.22	0.21	0.13	0.12	0.15	0.14	0.15	0.17	0.17	0.27
72.50°	0.23	0.13	0.16	0.16	0.20	0.18	0.10	0.26	0.21	0.12	0.14	0.13	0.09	0.14	0.21	0.12	0.23
75.00°	0.19	0.14	0.16	0.19	0.18	0.15	0.09	0.30	0.21	0.12	0.15	0.10	0.11	0.19	0.24	0.09	0.19
77.50°	0.19	0.17	0.18	0.21	0.16	0.13	0.11	0.23	0.20	0.14	0.14	0.11	0.14	0.25	0.19	0.14	0.19
80.00°	0.20	0.19	0.19	0.20	0.14	0.16	0.14	0.16	0.19	0.15	0.11	0.20	0.16	0.23	0.15	0.19	0.20
82.50°	0.24	0.17	0.17	0.18	0.12	0.18	0.13	0.15	0.15	0.16	0.10	0.24	0.18	0.21	0.15	0.18	0.24
85.00°	0.28	0.16	0.14	0.23	0.10	0.15	0.10	0.13	0.11	0.17	0.11	0.18	0.19	0.19	0.16	0.18	0.28
87.50°	0.26	0.16	0.12	0.31	0.09	0.11	0.16	0.15	0.13	0.16	0.16	0.13	0.20	0.17	0.19	0.19	0.26
90.00°	0.23	0.17	0.13	0.24	0.12	0.21	0.23	0.17	0.15	0.16	0.23	0.13	0.23	0.14	0.21	0.19	0.23
92.50°	0.22	0.18	0.16	0.12	0.15	0.31	0.17	0.17	0.20	0.15	0.22	0.12	0.23	0.11	0.19	0.20	0.22
95.00°	0.20	0.19	0.16	0.08	0.18	0.23	0.09	0.16	0.24	0.13	0.14	0.11	0.16	0.15	0.18	0.21	0.20
97.50°	0.16	0.16	0.13	0.08	0.20	0.16	0.15	0.16	0.19	0.11	0.10	0.11	0.12	0.19	0.28	0.16	0.16
100.00°	0.12	0.14	0.11	0.13	0.17	0.18	0.22	0.15	0.14	0.09	0.08	0.13	0.14	0.23	0.35	0.12	0.12
102.50°	0.16	0.20	0.10	0.21	0.13	0.21	0.25	0.13	0.12	0.15	0.11	0.15	0.15	0.27	0.26	0.16	0.16
105.00°	0.18	0.25	0.12	0.19	0.19	0.20	0.27	0.12	0.10	0.23	0.17	0.18	0.15	0.30	0.19	0.20	0.18
107.50°	0.17	0.23	0.18	0.15	0.29	0.19	0.22	0.17	0.19	0.21	0.19	0.18	0.17	0.34	0.17	0.18	0.17
110.00°	0.15	0.22	0.19	0.16	0.21	0.18	0.15	0.22	0.28	0.18	0.18	0.13	0.23	0.31	0.16	0.16	0.15
112.50°	0.19	0.23	0.14	0.19	0.09	0.17	0.18	0.23	0.25	0.15	0.16	0.11	0.27	0.27	0.17	0.19	0.19

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	968	968	968	968	945	945	945	945	903	903	903	864	864	864	828	828	812
	1	930	910	893	877	910	893	877	863	860	847	836	829	820	811	802	794	778
	2	892	859	831	807	875	845	819	798	819	798	780	795	778	764	773	759	745
	3	857	813	778	751	841	801	770	745	781	755	733	761	740	722	743	726	712
	4	823	771	733	705	809	762	727	700	745	716	692	730	705	684	715	694	681
	5	791	734	694	665	778	727	690	662	713	681	656	700	672	650	688	664	652
	6	760	700	659	630	749	694	656	628	682	649	624	671	642	620	661	636	625
	7	732	669	628	600	722	664	625	598	654	620	595	645	615	592	637	610	600
	8	705	641	600	572	696	636	598	571	628	594	569	620	589	567	613	585	576
	9	680	615	575	548	672	611	573	547	604	569	545	597	566	543	591	563	554
	10	656	591	552	525	649	588	550	525	582	547	523	576	544	522	570	542	534

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	85.4 fc	2.4 ft
6.5 ft	61.2 fc	2.9 ft
7.5 ft	45.9 fc	3.3 ft
8.0 ft	40.4 fc	3.6 ft
10.0 ft	25.8 fc	4.4 ft
12.0 ft	17.9 fc	5.3 ft
14.0 ft	13.2 fc	6.2 ft
16.0 ft	10.1 fc	7.1 ft
20.0 ft	6.5 fc	8.9 ft
24.0 ft	4.5 fc	10.7 ft
28.0 ft	3.3 fc	12.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	89249	89249	89249
45.00°	1064	1245	1228
55.00°	47	45	39
65.00°	12	20	9
75.00°	25	21	24
85.00°	111	57	41

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	-18.8	-17.9	-18.5	-17.6	-17.3	-22.6	-21.7	-22.2	-21.3	-21.0
	3H	-18.1	-17.3	-17.7	-17.0	-16.6	-21.4	-20.6	-21.0	-20.2	-19.9
	4H	-17.6	-16.9	-17.2	-16.5	-16.1	-20.4	-19.7	-20.0	-19.3	-18.9
	6H	-16.6	-15.9	-16.2	-15.6	-15.2	-19.1	-18.4	-18.7	-18.0	-17.6
	8H	-15.7	-15.0	-15.2	-14.6	-14.2	-18.1	-17.4	-17.6	-17.0	-16.6
	12H	-14.2	-13.6	-13.8	-13.2	-12.8	-16.9	-16.3	-16.5	-15.9	-15.5
4H	2H	-18.9	-18.2	-18.5	-17.8	-17.4	-22.5	-21.7	-22.1	-21.4	-21.0
	3H	-18.0	-17.4	-17.6	-17.0	-16.6	-20.9	-20.3	-20.5	-19.9	-19.5
	4H	-17.4	-16.9	-17.0	-16.5	-16.0	-19.8	-19.2	-19.3	-18.8	-18.3
	6H	-16.0	-15.5	-15.5	-15.1	-14.6	-18.0	-17.5	-17.5	-17.0	-16.6
	8H	-14.8	-14.3	-14.3	-13.9	-13.4	-16.6	-16.2	-16.1	-15.7	-15.3
	12H	-13.0	-12.7	-12.5	-12.2	-11.7	-15.3	-14.9	-14.8	-14.4	-13.9
8H	4H	-17.0	-16.6	-16.6	-16.2	-15.7	-19.3	-18.9	-18.8	-18.4	-18.0
	6H	-15.3	-14.9	-14.8	-14.4	-13.9	-17.0	-16.7	-16.5	-16.2	-15.7
	8H	-13.9	-13.6	-13.4	-13.1	-12.6	-15.3	-15.0	-14.8	-14.5	-14.0
	12H	-12.0	-11.7	-11.5	-11.2	-10.7	-13.7	-13.5	-13.2	-13.0	-12.4
12H	4H	-16.9	-16.5	-16.4	-16.0	-15.6	-19.1	-18.8	-18.6	-18.3	-17.8
	6H	-15.0	-14.8	-14.5	-14.3	-13.7	-16.8	-16.5	-16.3	-16.0	-15.5
	8H	-13.6	-13.4	-13.1	-12.9	-12.3	-15.0	-14.7	-14.5	-14.2	-13.6

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0