

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-01211_2_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	643
Efficacy	63 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.87
Two luminaires, plane 90°	0.82
Four luminaires	0.84

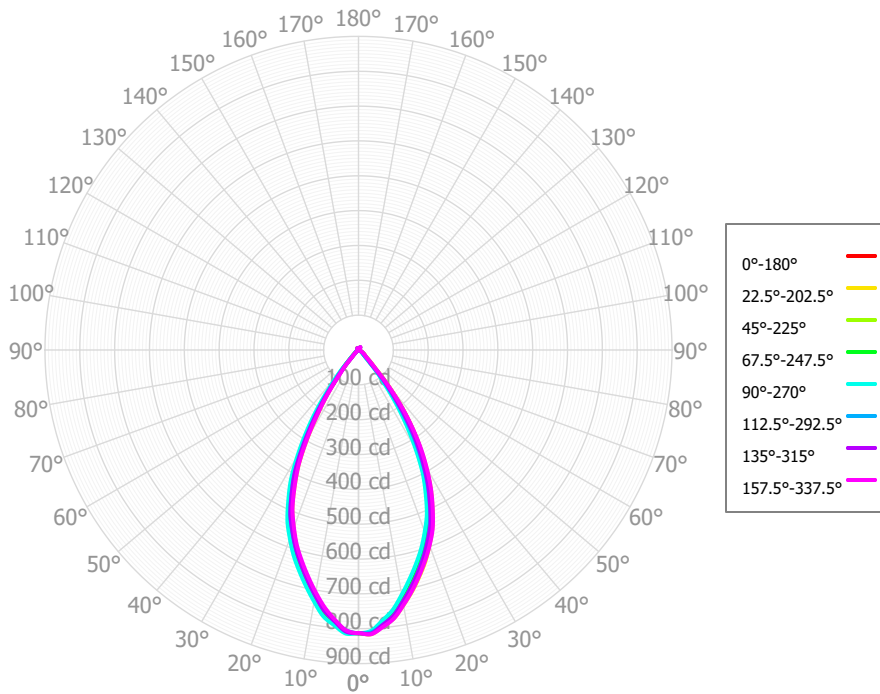
Full Beam Angle

0° - 180°	55°
90° - 270°	55°

IES File Header Contents

Keyword	Value
TEST	SP-01211_2_M-10L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/11/2021
ISSUEDATE	2/25/2021
LUMCAT	SGRTE8XT 10L 35K XW XX AR8466XT SG SO
LUMINAIRE	N/A
OTHER	Beam Angle: 55 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°	74.31	11.56%	90.00° - 100.00°	0.29	0.04%
10.00° - 20.00°	181.22	28.20%	100.00° - 110.00°	0.28	0.04%
20.00° - 30.00°	211.36	32.89%	100.00° - 120.00°	0.67	0.10%
30.00° - 40.00°	126.51	19.69%	120.00° - 130.00°	0.67	0.10%
40.00° - 50.00°	27.68	4.31%	130.00° - 140.00°	1.13	0.18%
50.00° - 60.00°	9.90	1.54%	140.00° - 150.00°	3.12	0.49%
60.00° - 70.00°	2.68	0.42%	150.00° - 160.00°	1.69	0.26%
70.00° - 80.00°	0.30	0.05%	160.00° - 170.00°	0.67	0.11%
80.00° - 90.00°	0.30	0.05%	170.00° - 180.00°	0.07	0.01%
0.00° - 90.00°	634.25	98.71%	0.00° - 180.00°	642.57	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°	812.85	812.85	812.85	812.85	812.85	812.85	812.85	812.85	812.85	812.85	812.85	812.85	812.85	812.85	812.85	812.85	812.85
2.50°	814.83	816.78	811.75	810.90	807.34	805.82	809.35	805.76	808.08	808.41	810.16	809.76	814.98	811.93	815.19	816.82	814.83
5.00°	795.77	797.35	791.69	789.87	780.24	781.39	782.15	777.34	782.51	781.07	786.76	787.63	793.64	792.54	792.54	798.52	795.77
7.50°	774.27	777.10	766.05	763.44	752.61	751.94	754.77	745.23	753.40	752.66	759.82	761.63	771.55	769.48	769.63	777.62	774.27
10.00°	739.99	743.65	732.60	728.66	713.61	713.84	715.59	706.56	714.44	713.94	722.42	723.12	733.42	733.66	733.70	743.29	739.99
12.50°	705.43	710.02	696.79	691.54	674.66	673.53	676.40	666.81	673.88	674.78	684.48	684.38	694.87	697.28	697.71	708.56	705.43
15.00°	669.45	673.79	659.60	653.30	636.51	635.05	637.00	627.46	633.04	633.05	645.03	644.90	656.83	659.00	660.19	671.84	669.45
17.50°	632.88	637.21	621.99	614.76	598.13	597.01	597.54	588.17	592.17	591.23	603.91	604.16	618.81	620.25	622.56	634.87	632.88
20.00°	593.53	596.00	580.52	573.00	555.82	555.25	554.38	542.19	547.00	544.05	558.12	559.59	575.95	580.00	581.69	596.78	593.53
22.50°	551.82	553.97	537.97	530.42	512.68	512.60	510.99	495.21	501.20	496.72	509.06	511.58	533.06	536.64	540.27	556.18	551.82
25.00°	499.47	502.27	486.25	478.63	456.85	454.95	453.51	434.84	441.60	434.76	451.23	453.57	476.70	483.66	485.40	504.34	499.47
27.50°	445.71	449.70	432.07	424.55	399.90	393.94	395.55	372.61	380.11	372.49	388.34	391.18	420.22	427.38	430.18	451.03	445.71
30.00°	385.68	387.86	368.35	359.32	328.07	320.70	318.77	296.33	303.97	294.59	312.45	316.62	348.93	361.24	367.89	391.51	385.68
32.50°	324.62	325.72	302.13	291.45	256.54	244.80	242.16	218.18	225.92	216.49	239.04	243.85	277.64	293.85	305.23	330.62	324.62
35.00°	259.26	260.42	236.89	224.17	188.59	175.59	170.79	153.18	162.16	156.88	171.85	175.99	207.74	222.82	235.90	264.10	259.26
37.50°	193.41	195.19	171.90	157.03	122.37	107.77	100.68	89.79	100.13	97.37	112.72	115.32	138.18	155.63	167.14	197.34	193.41
40.00°	125.59	130.62	114.10	101.39	75.39	66.73	63.77	56.21	63.91	63.99	73.07	73.48	90.87	99.14	107.40	129.64	125.59
42.50°	67.06	70.59	58.05	48.25	31.92	31.05	28.17	26.14	30.67	30.81	40.78	39.47	44.19	52.82	50.70	71.16	67.06
45.00°	44.53	48.90	38.54	30.37	23.98	20.41	20.40	17.86	20.35	21.89	25.93	25.14	29.53	34.21	38.05	47.99	44.53
47.50°	26.03	29.22	27.46	19.77	16.56	14.49	12.90	11.92	12.45	13.06	14.71	14.24	15.22	20.21	26.11	29.03	26.03
50.00°	22.38	25.73	22.88	15.98	14.12	11.56	10.38	9.06	9.34	10.25	11.77	11.73	13.17	18.27	23.30	25.44	22.38
52.50°	18.86	22.26	19.72	13.52	11.73	9.15	7.92	6.53	6.69	7.47	9.12	9.40	11.13	16.25	20.46	21.81	18.86
55.00°	15.81	18.95	16.80	11.45	9.74	7.54	6.46	5.36	5.54	6.01	7.08	7.46	9.06	14.06	17.22	18.01	15.81
57.50°	12.77	15.60	13.93	9.45	7.74	6.07	5.03	4.32	4.53	4.56	5.33	5.75	7.03	11.82	13.97	14.34	12.77
60.00°	9.76	11.95	10.32	7.10	5.64	4.48	3.98	3.23	3.55	3.45	4.21	4.58	5.61	9.45	10.56	11.09	9.76
62.50°	6.61	8.23	6.57	4.69	3.58	2.88	2.90	2.13	2.59	2.33	2.97	3.27	4.16	6.73	7.13	7.63	6.61
65.00°	3.00	4.00	3.58	2.63	1.82	1.65	1.56	1.22	1.51	1.30	1.47	1.65	2.30	3.17	3.58	3.50	3.00
67.50°	0.27	0.35	0.73	0.63	0.27	0.48	0.33	0.33	0.43	0.31	0.43	0.50	0.53	0.61	0.37	0.35	0.27
70.00°	0.28	0.34	0.30	0.34	0.27	0.26	0.33	0.26	0.37	0.24	0.33	0.37	0.41	0.40	0.27	0.25	0.28
72.50°	0.28	0.33	0.32	0.34	0.28	0.19	0.34	0.24	0.38	0.18	0.28	0.29	0.30	0.24	0.18	0.19	0.28
75.00°	0.24	0.33	0.30	0.33	0.33	0.20	0.34	0.26	0.31	0.25	0.31	0.29	0.34	0.21	0.18	0.24	0.24
77.50°	0.24	0.33	0.27	0.31	0.37	0.23	0.34	0.29	0.23	0.31	0.31	0.28	0.37	0.20	0.18	0.26	0.24
80.00°	0.32	0.31	0.30	0.29	0.29	0.27	0.30	0.30	0.24	0.30	0.22	0.26	0.29	0.25	0.26	0.23	0.32
82.50°	0.36	0.29	0.34	0.26	0.22	0.31	0.27	0.31	0.26	0.29	0.19	0.27	0.22	0.26	0.32	0.21	0.36
85.00°	0.27	0.28	0.33	0.26	0.22	0.28	0.27	0.31	0.25	0.27	0.27	0.35	0.31	0.19	0.32	0.22	0.27
87.50°	0.21	0.26	0.32	0.26	0.22	0.25	0.28	0.31	0.24	0.26	0.29	0.36	0.40	0.16	0.31	0.23	0.21
90.00°	0.22	0.25	0.28	0.26	0.25	0.25	0.30	0.31	0.28	0.26	0.23	0.25	0.37	0.20	0.27	0.24	0.22
92.50°	0.24	0.24	0.24	0.25	0.28	0.26	0.31	0.30	0.32	0.26	0.20	0.20	0.35	0.22	0.25	0.25	0.24
95.00°	0.29	0.23	0.27	0.27	0.32	0.22	0.26	0.25	0.33	0.26	0.22	0.24	0.33	0.23	0.33	0.23	0.29
97.50°	0.32	0.23	0.31	0.29	0.34	0.17	0.22	0.19	0.33	0.25	0.23	0.28	0.30	0.25	0.38	0.22	0.32
100.00°	0.31	0.23	0.29	0.31	0.29	0.19	0.24	0.21	0.28	0.26	0.23	0.33	0.28	0.30	0.30	0.21	0.31
102.50°	0.30	0.23	0.26	0.33	0.25	0.22	0.25	0.23	0.22	0.26	0.24	0.34	0.27	0.32	0.23	0.21	0.30
105.00°	0.30	0.22	0.31	0.33	0.24	0.23	0.26	0.21	0.28	0.25	0.26	0.31	0.26	0.29	0.23	0.26	0.30
107.50°	0.31	0.22	0.38	0.32	0.25	0.24	0.27	0.19	0.35	0.24	0.28	0.28	0.25	0.28	0.24	0.29	0.31
110.00°	0.33	0.25	0.33	0.34	0.33	0.25	0.30	0.29	0.33	0.25	0.29	0.23	0.26	0.29	0.28	0.29	0.33
112.50°	0.34	0.28	0.27	0.35	0.42	0.26	0.31	0.39	0.30	0.27	0.28	0.30	0.29	0.39	0.32	0.29	0.34

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	763	763	763	763	744	744	744	744	709	709	709	677	677	677	648	648	634
	1	728	710	694	680	711	695	681	669	668	657	646	643	634	626	619	613	606
	2	692	661	636	614	677	650	626	607	628	609	592	607	592	578	588	576	565
	3	658	617	586	561	644	608	579	556	590	566	546	573	553	536	558	541	530
	4	625	577	543	516	613	570	537	512	555	527	505	541	518	499	528	508	492
	5	594	541	505	477	583	535	501	475	523	493	470	511	485	465	500	478	469
	6	565	509	471	444	555	503	468	442	493	462	438	483	456	435	474	450	442
	7	538	479	441	415	529	475	439	413	466	434	410	457	429	408	450	424	417
	8	512	452	414	388	504	448	412	387	441	408	385	433	404	383	427	401	394
	9	489	428	390	365	481	424	389	364	418	385	363	411	382	361	405	379	373
	10	466	405	368	344	460	402	367	343	396	364	342	391	362	341	386	359	353

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	26.9 fc	5.9 ft
6.5 ft	19.2 fc	6.9 ft
7.5 ft	14.5 fc	8.0 ft
8.0 ft	12.7 fc	8.5 ft
10.0 ft	8.1 fc	10.7 ft
12.0 ft	5.6 fc	12.8 ft
14.0 ft	4.1 fc	14.9 ft
16.0 ft	3.2 fc	17.1 ft
20.0 ft	2.0 fc	21.4 ft
24.0 ft	1.4 fc	25.6 ft
28.0 ft	1.0 fc	29.9 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	28068	28068	28068
45.00°	2175	1882	1171
55.00°	952	1011	586
65.00°	245	292	149
75.00°	32	40	44
85.00°	107	130	86

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	4.9	5.9	5.3	6.2	6.6	-1.1	-0.1	-0.7	0.2	0.6
	3H	4.7	5.5	5.1	5.9	6.3	-1.2	-0.4	-0.8	0.0	0.4
	4H	4.6	5.4	5.0	5.8	6.2	-1.3	-0.5	-0.9	-0.2	0.3
	6H	4.5	5.2	4.9	5.6	6.0	-1.4	-0.7	-0.9	-0.3	0.2
	8H	4.5	5.1	4.9	5.5	6.0	-1.4	-0.8	-1.0	-0.3	0.1
	12H	4.4	5.0	4.9	5.4	5.9	-1.4	-0.8	-1.0	-0.4	0.1
4H	2H	4.7	5.5	5.2	5.9	6.3	-1.2	-0.5	-0.8	-0.1	0.3
	3H	4.5	5.1	5.0	5.6	6.0	-1.4	-0.8	-1.0	-0.4	0.1
	4H	4.4	5.0	4.9	5.4	5.9	-1.5	-1.0	-1.1	-0.5	0.0
	6H	4.3	4.8	4.8	5.2	5.8	-1.6	-1.1	-1.1	-0.6	-0.1
	8H	4.2	4.7	4.7	5.1	5.7	-1.6	-1.2	-1.1	-0.7	-0.2
	12H	4.2	4.6	4.7	5.1	5.6	-1.6	-1.2	-1.1	-0.7	-0.2
8H	4H	4.2	4.7	4.7	5.1	5.6	-1.7	-1.2	-1.2	-0.8	-0.3
	6H	4.1	4.4	4.6	5.0	5.5	-1.7	-1.4	-1.2	-0.8	-0.3
	8H	4.0	4.4	4.6	4.9	5.4	-1.7	-1.4	-1.2	-0.9	-0.3
	12H	4.0	4.3	4.6	4.8	5.4	-1.6	-1.4	-1.1	-0.8	-0.2
12H	4H	4.1	4.5	4.7	5.0	5.5	-1.7	-1.4	-1.2	-0.8	-0.3
	6H	4.0	4.3	4.6	4.8	5.4	-1.8	-1.5	-1.2	-1.0	-0.4
	8H	4.0	4.3	4.5	4.8	5.4	-1.7	-1.5	-1.2	-0.9	-0.3

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0