

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-01209_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	639
Efficacy	62.68 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

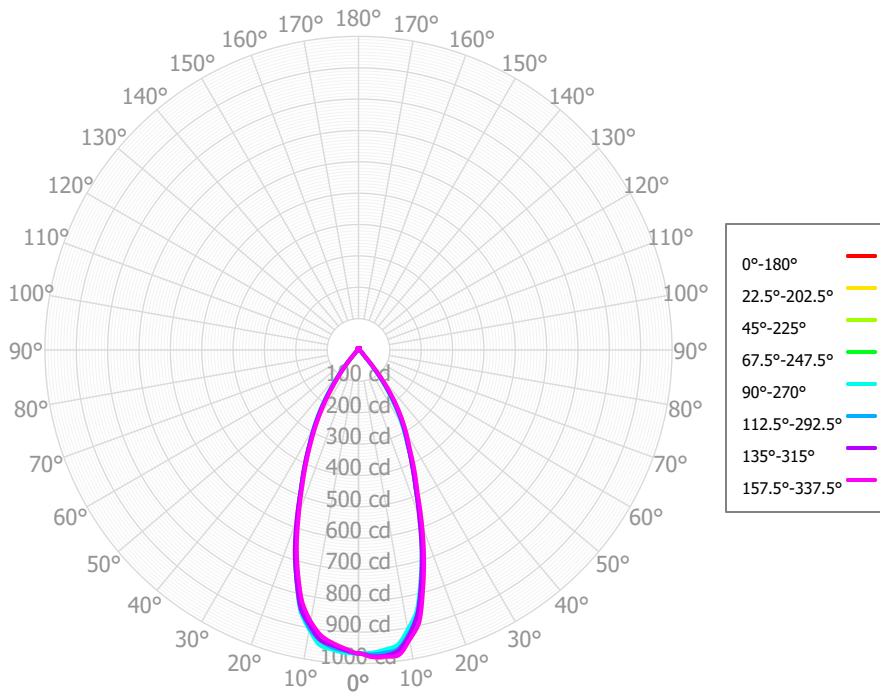
Full Beam Angle

0° - 180°	44°
90° - 270°	44°

IES File Header Contents

Keyword	Value
TEST	SP-01209_2_M-10L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/11/2021
ISSUEDATE	3/1/2021
LUMCAT	SGRTE8XT 10L 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°	91.56	14.32%	90.00° - 100.00°	0.31	0.05%
10.00° - 20.00°	209.16	32.71%	100.00° - 110.00°	0.31	0.05%
20.00° - 30.00°	186.39	29.15%	100.00° - 120.00°	0.70	0.11%
30.00° - 40.00°	107.44	16.80%	120.00° - 130.00°	0.68	0.11%
40.00° - 50.00°	24.05	3.76%	130.00° - 140.00°	1.20	0.19%
50.00° - 60.00°	9.45	1.48%	140.00° - 150.00°	3.04	0.47%
60.00° - 70.00°	2.50	0.39%	150.00° - 160.00°	1.62	0.25%
70.00° - 80.00°	0.30	0.05%	160.00° - 170.00°	0.62	0.10%
80.00° - 90.00°	0.31	0.05%	170.00° - 180.00°	0.06	0.01%
0.00° - 90.00°	631.16	98.71%	0.00° - 180.00°	639.38	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°	967.87	967.87	967.87	967.87	967.87	967.87	967.87	967.87	967.87	967.87	967.87	967.87	967.87	967.87	967.87	967.87	967.87
2.50°	979.84	980.24	977.95	972.21	966.88	961.01	958.33	953.74	954.27	953.74	958.33	961.01	966.88	972.21	977.95	980.24	979.84
5.00°	982.76	981.89	978.78	969.21	959.42	952.76	946.05	938.86	938.36	938.86	946.05	952.76	959.42	969.21	978.78	981.89	982.76
7.50°	972.44	981.73	967.38	962.45	949.27	933.78	933.50	917.74	922.03	917.74	933.50	933.78	949.27	962.45	967.38	981.73	972.44
10.00°	935.09	938.78	926.05	920.09	905.03	901.19	892.64	878.77	880.80	878.77	892.64	901.19	905.03	920.09	926.05	938.78	935.09
12.50°	875.79	892.29	865.77	865.33	854.63	843.79	848.35	825.91	835.30	825.91	848.35	843.79	854.63	865.33	865.77	892.29	875.79
15.00°	782.26	794.21	770.09	774.04	763.52	761.49	762.89	743.35	752.47	743.35	762.89	761.49	763.52	774.04	770.09	794.21	782.26
17.50°	683.18	695.08	670.63	673.81	670.79	668.15	675.22	654.67	666.19	654.67	675.22	668.15	670.79	673.81	670.63	695.08	683.18
20.00°	577.28	591.90	565.75	574.89	571.28	566.19	576.69	556.04	570.40	556.04	576.69	566.19	571.28	574.89	565.75	591.90	577.28
22.50°	486.52	492.06	475.83	476.18	478.57	478.70	480.09	467.81	475.23	467.81	480.09	478.70	478.57	476.18	475.83	492.06	486.52
25.00°	410.22	420.97	402.74	406.75	405.71	400.10	407.63	392.88	403.52	392.88	407.63	400.10	405.71	406.75	402.74	420.97	410.22
27.50°	348.58	353.47	341.94	339.74	338.38	335.82	337.03	324.85	332.71	324.85	337.03	335.82	338.38	339.74	341.94	353.47	348.58
30.00°	298.01	303.94	292.02	287.99	283.15	278.23	278.38	263.68	270.28	263.68	278.38	278.23	283.15	287.99	292.02	303.94	298.01
32.50°	247.64	253.97	240.52	236.35	227.86	219.66	219.87	204.37	209.00	204.37	219.87	219.66	227.86	236.35	240.52	253.97	247.64
35.00°	197.38	202.49	187.93	182.44	172.48	160.75	161.90	146.51	153.95	146.51	161.90	160.75	172.48	182.44	187.93	202.49	197.38
37.50°	143.71	149.93	134.14	129.06	120.64	111.44	108.47	99.64	102.71	99.64	108.47	111.44	120.64	129.06	134.14	149.93	143.71
40.00°	88.50	94.67	79.69	80.20	73.44	64.49	68.20	59.48	65.15	59.48	68.20	64.49	73.44	80.20	79.69	94.67	88.50
42.50°	54.52	52.09	48.83	37.51	41.35	39.76	36.48	35.71	34.53	35.71	36.48	39.76	41.35	37.51	48.83	52.09	54.52
45.00°	27.55	33.24	27.43	26.11	24.60	18.53	23.32	19.59	22.01	19.59	23.32	18.53	24.60	26.11	27.43	33.24	27.55
47.50°	20.39	21.11	20.82	16.90	15.98	14.39	14.39	13.59	13.05	13.59	14.39	14.39	15.98	16.90	20.82	21.11	20.39
50.00°	17.77	18.79	18.54	15.20	13.91	11.61	12.41	11.10	11.03	11.10	12.41	11.61	13.91	15.20	18.54	18.79	17.77
52.50°	15.62	16.44	16.12	13.40	12.01	9.90	10.51	9.36	9.18	9.36	10.51	9.90	12.01	13.40	16.12	16.44	15.62
55.00°	13.54	14.05	13.68	11.38	10.23	8.23	8.71	7.81	7.60	7.81	8.71	8.23	10.23	11.38	13.68	14.05	13.54
57.50°	11.05	11.68	11.30	9.34	8.32	6.94	7.11	6.35	6.17	6.35	7.11	6.94	8.32	9.34	11.30	11.68	11.05
60.00°	8.53	9.33	8.93	7.26	6.36	5.56	5.72	4.91	4.91	4.91	5.72	5.56	6.36	7.26	8.93	9.33	8.53
62.50°	4.69	6.02	5.09	4.86	4.09	3.47	3.91	3.16	3.40	3.16	3.91	3.47	4.09	4.86	5.09	6.02	4.69
65.00°	1.04	2.05	1.24	2.03	1.72	1.60	1.78	1.39	1.66	1.39	1.78	1.60	1.72	2.03	1.24	2.05	1.04
67.50°	0.64	0.54	0.73	0.48	0.84	0.89	0.75	0.82	0.73	0.82	0.75	0.89	0.84	0.48	0.73	0.54	0.64
70.00°	0.27	0.36	0.26	0.40	0.35	0.33	0.40	0.28	0.39	0.28	0.40	0.33	0.35	0.40	0.26	0.36	0.27
72.50°	0.28	0.30	0.26	0.34	0.27	0.32	0.29	0.26	0.28	0.26	0.29	0.32	0.27	0.34	0.26	0.30	0.28
75.00°	0.28	0.30	0.25	0.29	0.27	0.30	0.29	0.24	0.30	0.24	0.29	0.30	0.27	0.29	0.25	0.30	0.28
77.50°	0.29	0.32	0.26	0.26	0.25	0.28	0.29	0.24	0.32	0.24	0.29	0.28	0.25	0.26	0.26	0.32	0.29
80.00°	0.30	0.36	0.27	0.23	0.24	0.27	0.28	0.24	0.35	0.24	0.28	0.27	0.24	0.23	0.27	0.36	0.30
82.50°	0.30	0.34	0.29	0.25	0.25	0.26	0.26	0.28	0.37	0.28	0.26	0.26	0.25	0.25	0.29	0.34	0.30
85.00°	0.29	0.30	0.30	0.29	0.25	0.27	0.23	0.31	0.40	0.31	0.23	0.27	0.25	0.29	0.30	0.30	0.29
87.50°	0.24	0.26	0.25	0.31	0.25	0.33	0.23	0.32	0.34	0.32	0.23	0.33	0.25	0.31	0.25	0.26	0.24
90.00°	0.22	0.22	0.23	0.31	0.25	0.34	0.24	0.32	0.27	0.32	0.24	0.34	0.25	0.31	0.23	0.22	0.22
92.50°	0.23	0.25	0.25	0.29	0.28	0.31	0.30	0.28	0.28	0.28	0.30	0.31	0.28	0.29	0.25	0.25	0.23
95.00°	0.24	0.29	0.26	0.26	0.31	0.29	0.37	0.26	0.30	0.26	0.37	0.29	0.31	0.26	0.26	0.29	0.24
97.50°	0.24	0.31	0.25	0.28	0.29	0.28	0.30	0.29	0.29	0.29	0.30	0.28	0.29	0.28	0.25	0.31	0.24
100.00°	0.25	0.32	0.26	0.31	0.28	0.28	0.23	0.31	0.27	0.31	0.23	0.28	0.28	0.31	0.26	0.32	0.25
102.50°	0.27	0.35	0.30	0.28	0.26	0.29	0.25	0.31	0.26	0.31	0.25	0.29	0.26	0.28	0.30	0.35	0.27
105.00°	0.30	0.37	0.30	0.25	0.26	0.30	0.26	0.32	0.25	0.32	0.26	0.30	0.26	0.25	0.30	0.37	0.30
107.50°	0.34	0.36	0.27	0.30	0.29	0.30	0.28	0.33	0.25	0.33	0.28	0.30	0.29	0.30	0.27	0.36	0.34
110.00°	0.33	0.35	0.28	0.37	0.32	0.30	0.30	0.32	0.24	0.32	0.30	0.30	0.32	0.37	0.28	0.35	0.33
112.50°	0.29	0.34	0.30	0.43	0.34	0.30	0.31	0.28	0.28	0.28	0.31	0.30	0.34	0.43	0.30	0.34	0.29

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	759	759	759	759	741	741	741	741	706	706	706	674	674	674	645	645	631
	1	725	709	693	680	709	694	680	668	667	656	646	642	633	625	618	612	599
	2	692	662	638	617	677	651	628	610	629	611	595	609	594	581	590	578	566
	3	659	621	591	567	646	611	584	561	593	570	551	577	558	542	562	546	535
	4	629	583	550	524	617	575	545	521	561	535	514	547	525	507	535	516	506
	5	599	549	514	488	589	543	510	486	531	502	481	519	495	476	509	488	479
	6	572	519	483	457	562	513	479	455	503	473	451	493	467	448	485	462	454
	7	546	491	455	429	538	486	452	428	477	447	425	469	442	422	462	438	430
	8	522	465	429	405	514	461	427	404	454	423	401	447	419	399	440	416	409
	9	500	442	407	383	493	439	405	382	432	402	380	426	398	379	421	395	389
	10	479	421	386	363	472	418	385	362	412	382	361	407	379	360	402	377	371

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	32.0 fc	4.5 ft
6.5 ft	22.9 fc	5.3 ft
7.5 ft	17.2 fc	6.1 ft
8.0 ft	15.1 fc	6.5 ft
10.0 ft	9.7 fc	8.2 ft
12.0 ft	6.7 fc	9.8 ft
14.0 ft	4.9 fc	11.5 ft
16.0 ft	3.8 fc	13.1 ft
20.0 ft	2.4 fc	16.4 ft
24.0 ft	1.7 fc	19.6 ft
28.0 ft	1.2 fc	22.9 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	33421	33421	33421
45.00°	1345	1340	1201
55.00°	815	823	616
65.00°	85	101	140
75.00°	37	34	36
85.00°	115	117	101

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	3.3	4.3	3.7	4.6	5.0	0.0	1.0	0.4	1.3	1.7
	3H	3.1	4.0	3.6	4.3	4.7	-0.1	0.7	0.3	1.1	1.5
	4H	3.0	3.8	3.5	4.2	4.6	-0.2	0.6	0.2	0.9	1.4
	6H	2.9	3.6	3.4	4.0	4.5	-0.3	0.4	0.1	0.8	1.2
	8H	2.9	3.6	3.4	4.0	4.4	-0.3	0.3	0.1	0.7	1.2
	12H	2.9	3.5	3.3	3.9	4.4	-0.4	0.3	0.1	0.7	1.1
4H	2H	3.1	3.8	3.5	4.2	4.6	-0.1	0.6	0.3	1.0	1.4
	3H	2.9	3.5	3.3	3.9	4.4	-0.3	0.3	0.1	0.8	1.2
	4H	2.7	3.3	3.2	3.7	4.2	-0.4	0.2	0.1	0.6	1.1
	6H	2.7	3.1	3.1	3.6	4.1	-0.5	0.0	0.0	0.5	1.0
	8H	2.6	3.0	3.1	3.5	4.0	-0.5	-0.1	0.0	0.4	0.9
	12H	2.6	2.9	3.1	3.5	4.0	-0.5	-0.2	0.0	0.4	0.9
8H	4H	2.6	3.0	3.1	3.5	4.0	-0.6	-0.1	-0.1	0.3	0.8
	6H	2.5	2.8	3.0	3.3	3.9	-0.6	-0.3	-0.1	0.2	0.7
	8H	2.4	2.7	3.0	3.3	3.8	-0.7	-0.4	-0.1	0.2	0.7
	12H	2.4	2.7	3.0	3.2	3.8	-0.6	-0.4	-0.1	0.2	0.8
12H	4H	2.5	2.9	3.0	3.4	3.9	-0.6	-0.3	-0.1	0.3	0.8
	6H	2.4	2.7	3.0	3.2	3.8	-0.7	-0.4	-0.1	0.1	0.7
	8H	2.4	2.6	2.9	3.2	3.8	-0.7	-0.4	-0.2	0.1	0.7

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0