

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-01205_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	613
Efficacy	60.07 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

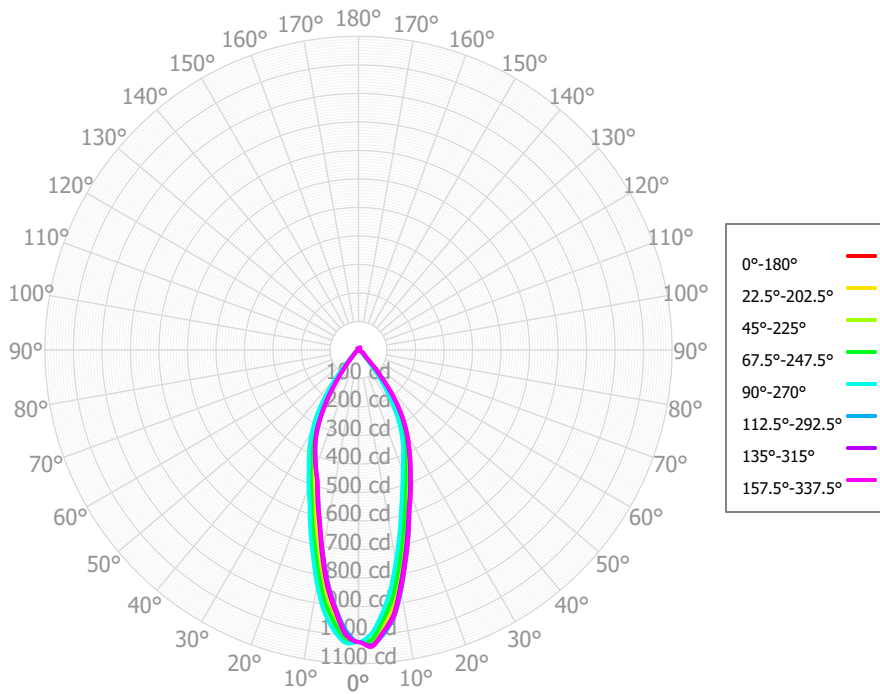
Full Beam Angle

0° - 180°	37°
90° - 270°	37°

IES File Header Contents

Keyword	Value
TEST	SP-01205_2_M-10L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/11/2021
ISSUEDATE	3/2/2021
LUMCAT	SGRTE8XT 10L 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°	87.24	14.24%	90.00° - 100.00°	0.28	0.05%
10.00° - 20.00°	171.38	27.97%	100.00° - 110.00°	0.27	0.04%
20.00° - 30.00°	178.34	29.11%	100.00° - 120.00°	0.59	0.10%
30.00° - 40.00°	117.68	19.21%	120.00° - 130.00°	0.62	0.10%
40.00° - 50.00°	31.64	5.16%	130.00° - 140.00°	1.26	0.21%
50.00° - 60.00°	13.22	2.16%	140.00° - 150.00°	3.43	0.56%
60.00° - 70.00°	3.50	0.57%	150.00° - 160.00°	2.09	0.34%
70.00° - 80.00°	0.28	0.05%	160.00° - 170.00°	0.81	0.13%
80.00° - 90.00°	0.29	0.05%	170.00° - 180.00°	0.06	0.01%
0.00° - 90.00°	603.56	98.51%	0.00° - 180.00°	612.72	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°	1024.60	1024.60	1024.60	1024.60	1024.60	1024.60	1024.60	1024.60	1024.60	1024.60	1024.60	1024.60	1024.60	1024.60	1024.60	1024.60	1024.60
2.50°	1029.09	1024.45	1018.41	1019.16	998.20	987.11	1002.58	997.09	1002.33	997.88	1017.14	1023.23	1029.04	1037.15	1038.20	1042.68	1029.09
5.00°	984.50	983.98	962.00	954.80	931.20	909.93	922.54	913.79	933.72	931.99	956.92	963.23	987.76	1002.06	992.92	995.98	984.50
7.50°	923.36	923.19	895.70	886.79	850.64	822.70	838.39	827.18	849.87	851.35	886.63	896.94	925.60	947.80	938.12	945.82	923.36
10.00°	835.04	839.96	804.47	793.12	752.94	720.60	734.10	721.87	751.32	753.31	792.99	801.78	836.86	859.59	842.56	853.38	835.04
12.50°	746.97	748.31	715.58	700.24	662.15	627.65	631.22	622.62	649.27	661.94	696.81	709.27	739.01	761.98	749.34	761.60	746.97
15.00°	659.21	664.52	631.18	618.14	578.22	545.17	553.96	545.56	570.46	576.74	615.62	625.10	653.26	675.87	663.07	676.01	659.21
17.50°	584.50	582.82	556.05	539.33	510.00	481.79	481.07	478.42	495.20	510.21	535.75	548.72	570.39	591.91	585.64	594.69	584.50
20.00°	522.77	521.21	494.43	482.36	453.88	435.36	440.29	437.10	450.73	457.08	483.69	490.38	511.51	532.13	527.67	536.02	522.77
22.50°	468.34	463.04	440.35	428.29	408.43	393.91	399.74	396.26	408.54	411.84	432.43	437.85	456.28	474.86	473.17	479.78	468.34
25.00°	419.54	416.22	394.77	386.27	369.40	355.93	360.24	356.36	367.03	371.01	389.51	395.43	412.66	427.97	424.45	432.21	419.54
27.50°	374.14	370.47	349.65	342.64	323.98	308.41	316.72	309.77	324.64	322.30	345.09	350.41	369.90	381.54	378.59	385.99	374.14
30.00°	330.78	324.20	304.92	294.23	275.67	255.81	260.71	253.15	266.62	270.28	292.01	301.87	322.00	338.38	336.38	343.22	330.78
32.50°	282.64	277.71	255.24	243.70	220.28	197.95	203.70	195.98	208.96	212.88	237.97	248.09	273.51	294.18	290.41	297.81	282.64
35.00°	232.32	225.56	202.16	188.61	162.56	137.96	144.36	138.15	154.03	153.82	180.29	188.80	215.41	239.45	240.66	247.30	232.32
37.50°	177.44	173.18	148.80	135.14	112.72	91.62	93.24	90.65	102.20	108.24	126.57	135.02	157.88	184.26	184.90	193.03	177.44
40.00°	121.01	118.72	95.30	84.35	64.72	49.22	56.34	52.54	64.74	65.46	83.48	85.72	104.90	126.49	124.46	133.25	121.01
42.50°	79.07	69.54	61.47	48.39	43.00	33.24	31.73	30.97	34.03	43.14	49.22	52.44	57.89	75.54	81.16	85.42	79.07
45.00°	40.50	48.17	35.43	31.29	25.06	22.45	23.68	21.20	24.64	23.31	32.51	29.35	38.63	49.42	48.11	51.16	40.50
47.50°	31.30	30.81	26.86	21.29	21.58	18.77	18.20	15.84	17.26	19.36	21.12	19.65	23.31	29.85	35.17	32.67	31.30
50.00°	26.33	27.40	23.32	18.38	19.12	15.88	15.40	12.87	14.49	16.22	17.88	16.41	20.41	27.50	31.48	28.28	26.33
52.50°	22.47	23.98	20.10	15.77	16.35	13.34	12.92	10.52	11.84	13.49	14.92	13.63	17.64	24.74	27.00	24.10	22.47
55.00°	18.70	20.55	16.95	13.39	13.60	10.83	10.70	8.42	9.41	10.81	12.30	11.02	15.13	21.14	22.26	20.05	18.70
57.50°	15.50	17.15	14.19	11.03	11.11	8.64	8.51	6.84	7.38	8.90	9.96	9.00	12.51	17.45	18.08	16.39	15.50
60.00°	12.23	13.80	11.47	8.68	8.47	6.39	6.35	5.41	5.91	6.86	7.88	7.13	9.66	13.63	14.03	12.93	12.23
62.50°	7.56	9.55	6.88	5.53	4.80	3.31	3.94	3.31	4.00	4.08	5.24	4.46	6.53	9.35	9.09	8.63	7.56
65.00°	3.26	4.02	2.32	2.01	1.66	0.65	1.43	1.08	1.64	1.69	2.21	1.65	3.01	4.56	4.01	3.98	3.26
67.50°	1.62	0.88	1.19	0.78	0.88	0.40	0.56	0.58	0.49	0.92	0.85	0.84	0.96	1.72	2.09	1.83	1.62
70.00°	0.29	0.46	0.18	0.31	0.29	0.21	0.28	0.28	0.33	0.34	0.41	0.20	0.45	0.65	0.39	0.42	0.29
72.50°	0.30	0.27	0.27	0.21	0.29	0.24	0.23	0.23	0.26	0.30	0.25	0.20	0.22	0.23	0.36	0.17	0.30
75.00°	0.31	0.29	0.35	0.20	0.29	0.27	0.25	0.20	0.24	0.26	0.21	0.20	0.21	0.27	0.33	0.15	0.31
77.50°	0.30	0.29	0.35	0.25	0.27	0.30	0.23	0.19	0.24	0.22	0.24	0.22	0.22	0.27	0.30	0.21	0.30
80.00°	0.28	0.27	0.33	0.32	0.27	0.30	0.20	0.19	0.24	0.22	0.29	0.24	0.22	0.25	0.28	0.28	0.28
82.50°	0.23	0.25	0.27	0.28	0.30	0.26	0.26	0.26	0.24	0.29	0.30	0.27	0.25	0.24	0.26	0.25	0.23
85.00°	0.19	0.23	0.22	0.22	0.29	0.27	0.33	0.30	0.24	0.32	0.30	0.29	0.30	0.23	0.24	0.23	0.19
87.50°	0.17	0.23	0.22	0.26	0.23	0.34	0.30	0.23	0.27	0.30	0.26	0.29	0.29	0.28	0.23	0.24	0.17
90.00°	0.19	0.23	0.23	0.29	0.23	0.34	0.26	0.19	0.32	0.29	0.22	0.29	0.26	0.35	0.22	0.26	0.19
92.50°	0.23	0.22	0.28	0.25	0.27	0.27	0.20	0.26	0.27	0.29	0.19	0.31	0.23	0.34	0.24	0.29	0.23
95.00°	0.27	0.21	0.32	0.21	0.30	0.24	0.15	0.31	0.20	0.25	0.16	0.31	0.20	0.31	0.23	0.31	0.27
97.50°	0.31	0.21	0.32	0.19	0.32	0.28	0.27	0.29	0.23	0.18	0.21	0.25	0.25	0.33	0.20	0.33	0.31
100.00°	0.30	0.22	0.34	0.17	0.30	0.28	0.35	0.27	0.25	0.21	0.26	0.23	0.31	0.35	0.18	0.34	0.30
102.50°	0.26	0.23	0.36	0.14	0.26	0.28	0.28	0.26	0.24	0.30	0.25	0.25	0.24	0.31	0.19	0.28	0.26
105.00°	0.24	0.25	0.32	0.13	0.27	0.27	0.22	0.26	0.22	0.31	0.24	0.26	0.16	0.27	0.23	0.25	0.24
107.50°	0.22	0.20	0.23	0.19	0.29	0.25	0.19	0.27	0.29	0.28	0.22	0.25	0.22	0.21	0.30	0.28	0.22
110.00°	0.24	0.15	0.23	0.25	0.29	0.27	0.18	0.25	0.34	0.23	0.21	0.28	0.29	0.17	0.32	0.29	0.24
112.50°	0.29	0.23	0.29	0.28	0.27	0.31	0.22	0.20	0.34	0.18	0.24	0.37	0.24	0.24	0.29	0.25	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	727	727	727	727	709	709	709	709	676	676	676	645	645	645	617	617	604
	1	694	677	662	648	678	663	649	637	636	626	616	612	604	596	590	583	571
	2	660	631	606	586	646	619	597	579	598	580	564	578	564	551	560	549	537
	3	627	589	559	535	614	580	552	530	562	539	520	546	527	511	531	516	505
	4	596	551	518	493	585	544	513	489	529	503	482	516	494	476	504	485	475
	5	567	517	482	456	557	511	478	454	499	471	449	488	464	444	478	457	448
	6	540	487	451	425	531	481	448	423	471	442	420	462	436	416	453	431	423
	7	515	459	423	398	506	455	421	397	446	416	394	438	411	391	431	407	400
	8	491	434	398	374	483	430	396	373	423	392	371	416	389	369	410	385	379
	9	469	411	376	352	462	408	374	352	402	371	350	396	368	348	390	365	359
	10	448	391	356	333	442	388	355	332	382	352	331	377	349	330	372	347	341

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	33.9 fc	3.7 ft
6.5 ft	24.3 fc	4.4 ft
7.5 ft	18.2 fc	5.0 ft
8.0 ft	16.0 fc	5.4 ft
10.0 ft	10.2 fc	6.7 ft
12.0 ft	7.1 fc	8.1 ft
14.0 ft	5.2 fc	9.4 ft
16.0 ft	4.0 fc	10.8 ft
20.0 ft	2.6 fc	13.5 ft
24.0 ft	1.8 fc	16.1 ft
28.0 ft	1.3 fc	18.8 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	35380	35380	35380
45.00°	1978	1730	1224
55.00°	1126	1021	819
65.00°	266	189	135
75.00°	41	46	38
85.00°	74	89	114

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	5.9	6.9	6.3	7.2	7.6	2.0	2.9	2.4	3.3	3.6
	3H	5.8	6.6	6.2	7.0	7.4	1.8	2.6	2.2	3.0	3.4
	4H	5.7	6.4	6.1	6.8	7.3	1.7	2.5	2.1	2.9	3.3
	6H	5.5	6.3	6.0	6.7	7.1	1.6	2.3	2.0	2.7	3.2
	8H	5.5	6.2	6.0	6.6	7.0	1.5	2.2	2.0	2.6	3.1
	12H	5.4	6.1	5.9	6.5	7.0	1.5	2.2	2.0	2.6	3.0
4H	2H	5.7	6.5	6.1	6.9	7.3	1.7	2.5	2.2	2.9	3.3
	3H	5.5	6.2	6.0	6.6	7.1	1.6	2.2	2.0	2.6	3.1
	4H	5.4	6.0	5.9	6.4	6.9	1.5	2.0	1.9	2.5	3.0
	6H	5.3	5.8	5.8	6.3	6.8	1.4	1.8	1.9	2.3	2.8
	8H	5.2	5.7	5.7	6.2	6.7	1.3	1.8	1.8	2.2	2.8
	12H	5.2	5.6	5.7	6.1	6.6	1.3	1.7	1.8	2.2	2.7
8H	4H	5.2	5.7	5.7	6.2	6.7	1.3	1.7	1.8	2.2	2.7
	6H	5.1	5.5	5.7	6.0	6.5	1.2	1.5	1.7	2.1	2.6
	8H	5.1	5.4	5.6	5.9	6.5	1.1	1.5	1.7	2.0	2.5
	12H	5.0	5.3	5.6	5.8	6.4	1.2	1.4	1.7	2.0	2.6
12H	4H	5.2	5.6	5.7	6.1	6.6	1.2	1.6	1.7	2.1	2.6
	6H	5.0	5.4	5.6	5.9	6.5	1.1	1.4	1.7	1.9	2.5
	8H	5.0	5.3	5.6	5.8	6.4	1.1	1.4	1.7	1.9	2.5

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0