

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-01205_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	595
Efficacy	58.38 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.5
Two luminaires, plane 90°	0.5
Four luminaires	0.68

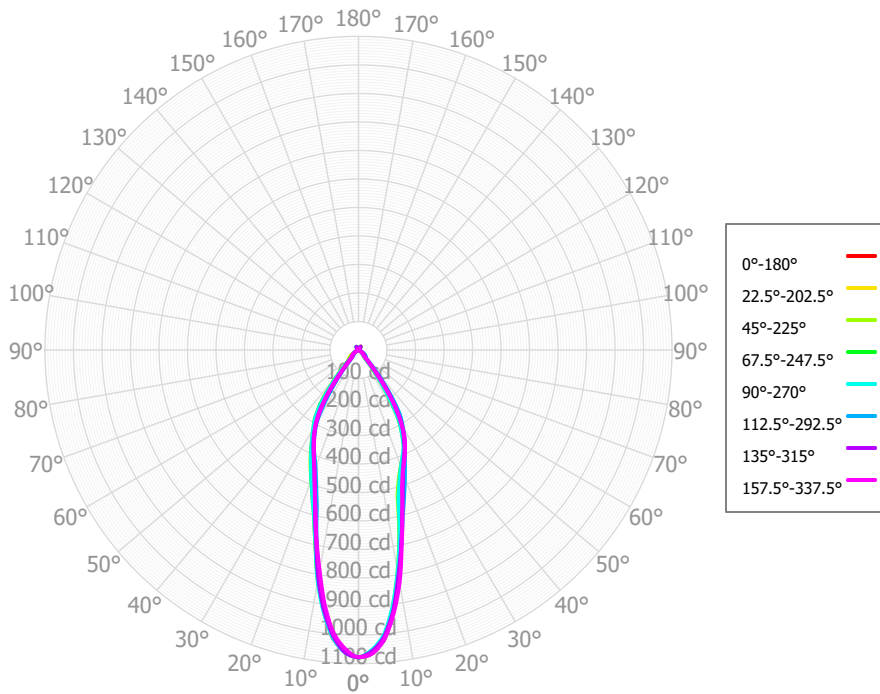
Full Beam Angle

0° - 180°	33°
90° - 270°	33°

IES File Header Contents

Keyword	Value
TEST	SP-01205_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 MD XX AR8466XT SG GL
LUMINAIRE	N/A
OTHER	Beam Angle: 33 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°	90.63	15.22%	90.00° - 100.00°	0.28	0.05%
10.00° - 20.00°	164.08	27.56%	100.00° - 110.00°	0.29	0.05%
20.00° - 30.00°	173.22	29.09%	100.00° - 120.00°	0.64	0.11%
30.00° - 40.00°	110.78	18.60%	120.00° - 130.00°	0.51	0.09%
40.00° - 50.00°	26.81	4.50%	130.00° - 140.00°	0.81	0.14%
50.00° - 60.00°	16.20	2.72%	140.00° - 150.00°	4.29	0.72%
60.00° - 70.00°	3.85	0.65%	150.00° - 160.00°	2.01	0.34%
70.00° - 80.00°	0.29	0.05%	160.00° - 170.00°	0.71	0.12%
80.00° - 90.00°	0.27	0.05%	170.00° - 180.00°	0.05	0.01%
0.00° - 90.00°	586.13	98.44%	0.00° - 180.00°	595.44	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°	1078.01	1078.01	1078.01	1078.01	1078.01	1078.01	1078.01	1078.01	1078.01	1078.01	1078.01	1078.01	1078.01	1078.01	1078.01	1078.01	1078.01
2.50°	1058.07	1066.41	1057.94	1065.52	1054.36	1054.07	1062.53	1050.58	1059.04	1055.07	1061.02	1054.61	1062.69	1062.43	1059.45	1067.19	1058.07
5.00°	1021.36	1017.75	1012.34	1021.75	1006.36	1006.41	1008.67	998.64	1017.27	1006.86	1013.35	1010.93	1016.26	1014.02	1013.90	1022.43	1021.36
7.50°	916.08	929.11	914.45	926.00	911.10	915.13	922.48	904.56	919.44	915.35	926.94	912.85	930.05	927.84	927.60	936.72	916.08
10.00°	799.42	812.39	789.61	811.68	790.32	795.63	811.83	785.91	815.56	795.80	821.88	795.42	823.71	819.93	805.56	828.90	799.42
12.50°	674.07	671.25	660.55	669.97	666.54	679.71	685.46	680.74	696.45	688.79	696.76	687.24	696.62	693.10	694.61	699.83	674.07
15.00°	547.79	564.93	529.76	559.07	541.46	565.67	588.51	582.02	596.34	588.37	602.98	581.64	602.74	600.46	591.64	594.34	547.79
17.50°	489.85	483.50	470.94	485.44	478.06	493.87	507.15	511.28	534.40	524.73	537.33	526.88	537.46	532.25	516.09	507.74	489.85
20.00°	435.43	437.59	435.25	436.20	436.03	440.13	452.67	451.14	476.24	476.84	483.96	482.46	482.80	475.29	456.65	453.48	435.43
22.50°	407.76	412.72	405.37	411.62	403.77	403.37	409.58	407.95	424.23	428.48	439.65	434.12	435.66	424.99	415.05	420.47	407.76
25.00°	379.55	379.85	376.93	379.94	374.09	372.29	373.22	369.72	379.19	379.96	395.56	385.25	392.77	384.82	382.05	386.12	379.55
27.50°	337.45	343.14	329.72	342.36	329.58	333.87	339.14	334.92	343.55	343.23	351.59	348.47	352.37	349.49	344.44	351.05	337.45
30.00°	292.51	285.03	279.19	285.50	282.23	293.55	296.69	300.88	308.10	309.51	315.87	312.68	316.62	310.79	305.07	302.49	292.51
32.50°	218.73	218.66	203.48	215.28	208.02	227.37	252.09	247.63	272.84	269.58	284.24	274.78	283.07	270.81	247.04	248.05	218.73
35.00°	146.88	147.58	124.92	145.20	130.31	156.35	182.41	191.42	218.67	228.49	231.78	235.95	226.85	206.90	183.48	177.80	146.88
37.50°	87.21	75.09	76.77	75.21	80.06	97.29	107.97	122.86	147.25	155.73	170.96	156.93	162.13	135.84	118.18	102.14	87.21
40.00°	37.30	45.96	30.44	42.72	31.78	39.75	67.20	53.15	92.99	79.09	111.63	81.47	100.94	84.94	52.48	61.47	37.30
42.50°	30.12	26.68	26.39	27.26	25.50	29.92	30.64	40.51	51.80	60.46	52.78	56.34	40.79	38.50	37.55	29.89	30.12
45.00°	24.54	23.92	22.78	21.80	20.11	23.39	28.91	30.33	36.22	45.83	42.67	33.66	28.85	33.42	30.54	23.15	24.54
47.50°	24.32	23.78	21.36	19.99	18.08	23.23	29.52	29.62	36.58	43.81	43.98	29.86	27.44	34.90	28.96	21.19	24.32
50.00°	23.14	21.16	19.78	17.13	16.01	23.10	27.91	28.66	32.86	41.81	39.67	25.90	25.23	32.51	27.92	17.90	23.14
52.50°	19.48	18.30	16.49	13.97	13.48	20.22	26.14	23.61	27.06	33.55	34.41	21.02	22.90	29.74	23.41	14.44	19.48
55.00°	15.69	14.85	13.30	11.40	11.00	17.32	20.78	18.62	21.29	25.48	27.73	16.57	20.38	24.71	18.76	11.45	15.69
57.50°	11.64	11.37	10.71	8.96	8.96	14.21	15.53	14.24	15.53	19.69	20.90	13.74	17.84	19.57	14.78	8.49	11.64
60.00°	8.01	8.97	8.09	7.06	6.84	11.00	11.75	9.85	10.89	13.82	14.93	10.43	13.81	14.18	10.76	6.80	8.01
62.50°	5.10	6.52	5.31	5.25	4.38	7.09	7.93	5.47	6.62	7.36	9.01	5.72	9.71	8.83	6.07	5.12	5.10
65.00°	2.74	3.38	2.81	2.94	2.21	3.53	3.82	1.77	3.52	1.86	4.67	2.09	4.90	4.41	1.76	2.71	2.74
67.50°	1.14	0.54	1.31	0.59	1.13	1.64	0.39	0.85	0.71	0.99	0.53	0.96	0.36	0.41	0.92	0.47	1.14
70.00°	0.31	0.36	0.22	0.43	0.33	0.19	0.30	0.18	0.28	0.31	0.36	0.22	0.33	0.33	0.20	0.39	0.31
72.50°	0.37	0.22	0.23	0.36	0.36	0.27	0.23	0.25	0.26	0.33	0.20	0.21	0.30	0.27	0.20	0.32	0.37
75.00°	0.36	0.24	0.23	0.32	0.37	0.31	0.25	0.29	0.27	0.32	0.22	0.21	0.29	0.29	0.21	0.32	0.36
77.50°	0.30	0.26	0.23	0.28	0.35	0.26	0.27	0.25	0.29	0.26	0.23	0.24	0.28	0.30	0.24	0.30	0.30
80.00°	0.26	0.26	0.22	0.28	0.31	0.24	0.29	0.23	0.26	0.22	0.19	0.26	0.27	0.29	0.27	0.22	0.26
82.50°	0.23	0.25	0.23	0.29	0.24	0.27	0.29	0.25	0.22	0.22	0.16	0.26	0.26	0.29	0.29	0.16	0.23
85.00°	0.24	0.26	0.22	0.28	0.19	0.29	0.22	0.27	0.24	0.22	0.20	0.27	0.28	0.30	0.30	0.18	0.24
87.50°	0.26	0.25	0.19	0.27	0.19	0.30	0.20	0.27	0.26	0.22	0.23	0.29	0.30	0.33	0.28	0.21	0.26
90.00°	0.27	0.23	0.18	0.28	0.22	0.30	0.25	0.28	0.28	0.22	0.23	0.31	0.30	0.36	0.28	0.23	0.27
92.50°	0.26	0.22	0.18	0.28	0.27	0.27	0.27	0.29	0.29	0.21	0.23	0.33	0.28	0.37	0.28	0.27	0.26
95.00°	0.26	0.24	0.21	0.27	0.30	0.25	0.25	0.29	0.23	0.21	0.19	0.30	0.23	0.30	0.29	0.31	0.26
97.50°	0.27	0.26	0.26	0.28	0.29	0.27	0.24	0.28	0.19	0.22	0.18	0.24	0.22	0.26	0.29	0.32	0.27
100.00°	0.27	0.26	0.29	0.36	0.32	0.25	0.25	0.26	0.26	0.24	0.22	0.24	0.26	0.28	0.26	0.27	0.27
102.50°	0.28	0.25	0.29	0.41	0.37	0.19	0.27	0.23	0.32	0.28	0.26	0.29	0.29	0.28	0.21	0.26	0.28
105.00°	0.23	0.21	0.27	0.36	0.37	0.18	0.28	0.22	0.27	0.28	0.31	0.30	0.28	0.27	0.20	0.31	0.23
107.50°	0.17	0.24	0.22	0.35	0.33	0.21	0.27	0.22	0.22	0.26	0.32	0.28	0.27	0.29	0.23	0.35	0.17
110.00°	0.24	0.32	0.25	0.39	0.33	0.23	0.24	0.23	0.20	0.27	0.25	0.27	0.26	0.35	0.26	0.39	0.24
112.50°	0.33	0.42	0.32	0.38	0.34	0.24	0.22	0.25	0.20	0.30	0.23	0.26	0.29	0.35	0.29	0.45	0.33

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	707	707	707	707	689	689	689	689	656	656	656	627	627	627	599	599	586
	1	674	658	643	630	659	644	631	619	618	608	599	595	587	579	573	567	555
	2	641	613	589	570	627	602	581	562	581	564	549	562	548	536	544	533	522
	3	610	572	544	520	597	564	537	516	547	524	506	531	513	497	517	501	491
	4	580	536	504	480	569	529	499	476	515	490	470	502	481	463	490	472	463
	5	552	504	470	445	542	497	466	442	486	459	438	475	451	433	465	445	436
	6	526	474	440	415	517	469	437	413	459	431	409	450	425	406	442	420	412
	7	501	448	413	389	493	443	411	387	435	406	385	427	401	382	420	397	390
	8	478	424	389	366	471	420	387	364	413	383	362	406	380	360	400	376	370
	9	457	402	368	345	450	399	366	344	392	363	342	387	360	341	381	357	351
	10	438	382	349	327	431	379	347	326	374	345	325	369	342	323	364	340	334

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	35.6 fc	3.0 ft
6.5 ft	25.5 fc	3.5 ft
7.5 ft	19.2 fc	4.1 ft
8.0 ft	16.8 fc	4.4 ft
10.0 ft	10.8 fc	5.4 ft
12.0 ft	7.5 fc	6.5 ft
14.0 ft	5.5 fc	7.6 ft
16.0 ft	4.2 fc	8.7 ft
20.0 ft	2.7 fc	10.9 ft
24.0 ft	1.9 fc	13.1 ft
28.0 ft	1.4 fc	15.3 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	37224	37224	37224
45.00°	1198	1112	982
55.00°	944	800	662
65.00°	224	230	181
75.00°	48	31	50
85.00°	93	86	76

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	2.7	3.7	3.1	4.0	4.4	4.8	5.8	5.2	6.1	6.5
	3H	2.5	3.4	3.0	3.8	4.2	4.6	5.5	5.0	5.8	6.2
	4H	2.5	3.2	2.9	3.6	4.1	4.5	5.3	4.9	5.7	6.1
	6H	2.4	3.1	2.8	3.5	3.9	4.4	5.1	4.9	5.5	6.0
	8H	2.3	3.0	2.8	3.4	3.9	4.4	5.0	4.8	5.5	5.9
	12H	2.3	2.9	2.7	3.3	3.8	4.3	5.0	4.8	5.4	5.8
4H	2H	2.5	3.3	3.0	3.7	4.1	4.7	5.5	5.1	5.9	6.3
	3H	2.3	3.0	2.8	3.4	3.9	4.5	5.1	4.9	5.6	6.0
	4H	2.2	2.8	2.7	3.3	3.8	4.4	4.9	4.8	5.4	5.9
	6H	2.1	2.6	2.6	3.1	3.6	4.3	4.8	4.8	5.2	5.8
	8H	2.1	2.5	2.6	3.0	3.5	4.2	4.7	4.7	5.1	5.7
	12H	2.0	2.4	2.6	3.0	3.5	4.2	4.5	4.7	5.1	5.6
8H	4H	2.1	2.5	2.6	3.0	3.5	4.2	4.6	4.7	5.1	5.6
	6H	2.0	2.3	2.5	2.9	3.4	4.1	4.4	4.6	5.0	5.5
	8H	1.9	2.2	2.5	2.8	3.3	4.0	4.3	4.6	4.9	5.4
	12H	1.9	2.2	2.4	2.7	3.3	4.0	4.3	4.5	4.8	5.4
12H	4H	2.0	2.4	2.5	2.9	3.4	4.1	4.5	4.6	5.0	5.5
	6H	1.9	2.2	2.5	2.7	3.3	4.0	4.3	4.6	4.8	5.4
	8H	1.9	2.1	2.4	2.7	3.3	4.0	4.2	4.5	4.8	5.4

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0