

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

SGRTE8XT 40L 35K WD XX AR8466XT SG SO
N/A

Test Number

SP-01209_2_M-40L

Test Date

2/11/2021

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

Summary of Results

Power

Input Watts	42.2 W
-------------	--------

Lumen Output

Output Lumens	2692
Efficacy	63.79 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

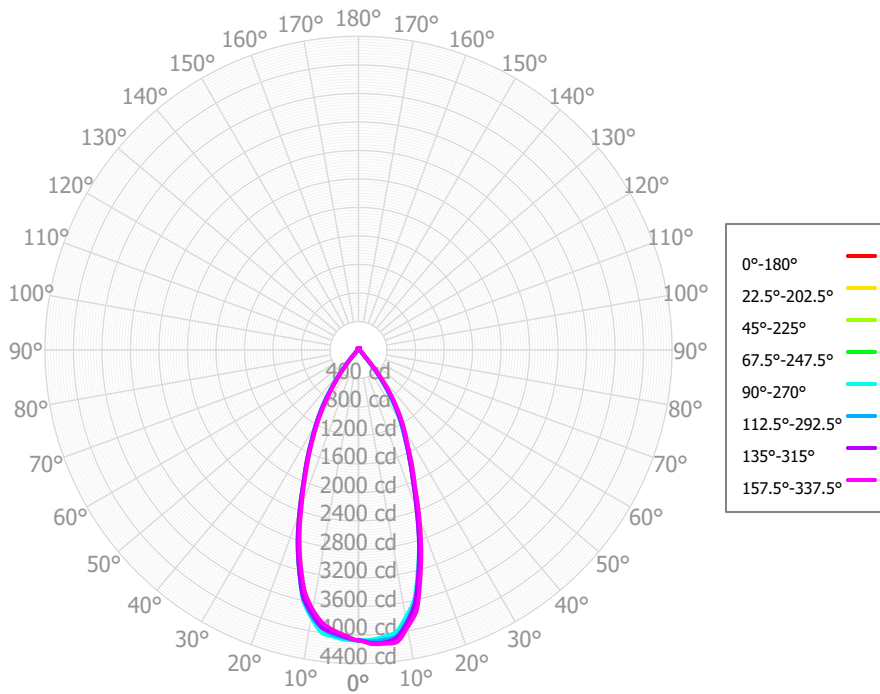
Full Beam Angle

0° - 180°	44°
90° - 270°	44°

IES File Header Contents

Keyword	Value
TEST	SP-01209_2_M-40L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/11/2021
ISSUEDATE	3/1/2021
LUMCAT	SGRTE8XT 40L 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°	385.53	14.32%	90.00° - 100.00°	1.29	0.05%
10.00° - 20.00°	880.68	32.71%	100.00° - 110.00°	1.32	0.05%
20.00° - 30.00°	784.78	29.15%	100.00° - 120.00°	2.94	0.11%
30.00° - 40.00°	452.37	16.80%	120.00° - 130.00°	2.86	0.11%
40.00° - 50.00°	101.27	3.76%	130.00° - 140.00°	5.06	0.19%
50.00° - 60.00°	39.78	1.48%	140.00° - 150.00°	12.78	0.47%
60.00° - 70.00°	10.53	0.39%	150.00° - 160.00°	6.80	0.25%
70.00° - 80.00°	1.28	0.05%	160.00° - 170.00°	2.61	0.10%
80.00° - 90.00°	1.29	0.05%	170.00° - 180.00°	0.27	0.01%
0.00° - 90.00°	2657.51	98.71%	0.00° - 180.00°	2692.12	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°	4075.23	4075.23	4075.23	4075.23	4075.23	4075.23	4075.23	4075.23	4075.23	4075.23	4075.23	4075.23	4075.23	4075.23	4075.23	4075.23	4075.23
2.50°	4125.64	4127.32	4117.70	4093.52	4071.08	4046.35	4035.08	4015.75	4017.98	4015.75	4035.08	4046.35	4071.08	4093.52	4117.70	4127.32	4125.64
5.00°	4137.92	4134.26	4121.19	4080.89	4039.65	4011.60	3983.36	3953.08	3951.00	3953.08	3983.36	4011.60	4039.65	4080.89	4121.19	4134.26	4137.92
7.50°	4094.47	4133.59	4073.17	4052.40	3996.93	3931.69	3930.53	3864.18	3882.23	3864.18	3930.53	3931.69	3996.93	4052.40	4073.17	4133.59	4094.47
10.00°	3937.22	3952.75	3899.16	3874.08	3810.65	3794.50	3758.47	3700.10	3708.64	3700.10	3758.47	3794.50	3810.65	3874.08	3899.16	3952.75	3937.22
12.50°	3687.55	3757.00	3645.35	3643.48	3598.45	3552.79	3571.99	3477.50	3517.06	3477.50	3571.99	3552.79	3598.45	3643.48	3645.35	3757.00	3687.55
15.00°	3293.72	3344.02	3242.47	3259.11	3214.84	3206.27	3212.17	3129.89	3168.30	3129.89	3212.17	3206.27	3214.84	3259.11	3242.47	3344.02	3293.72
17.50°	2876.53	2926.65	2823.69	2837.09	2824.39	2813.28	2843.01	2756.51	2805.03	2756.51	2843.01	2813.28	2824.39	2837.09	2823.69	2926.65	2876.53
20.00°	2430.67	2492.19	2382.09	2420.58	2405.38	2383.95	2428.15	2341.21	2401.69	2341.21	2428.15	2383.95	2405.38	2420.58	2382.09	2492.19	2430.67
22.50°	2048.49	2071.81	2003.50	2004.96	2015.01	2015.59	2021.45	1969.74	2000.96	1969.74	2021.45	2015.59	2015.01	2004.96	2003.50	2071.81	2048.49
25.00°	1727.23	1772.51	1695.74	1712.63	1708.24	1684.63	1716.34	1654.23	1699.02	1654.23	1716.34	1684.63	1708.24	1712.63	1695.74	1772.51	1727.23
27.50°	1467.69	1488.29	1439.77	1430.48	1424.75	1413.97	1419.06	1367.78	1400.90	1367.78	1419.06	1413.97	1424.75	1430.48	1439.77	1488.29	1467.69
30.00°	1254.80	1279.75	1229.54	1212.57	1192.21	1171.48	1172.15	1110.24	1138.02	1110.24	1172.15	1171.48	1192.21	1212.57	1229.54	1279.75	1254.80
32.50°	1042.71	1069.35	1012.70	995.16	959.42	924.87	925.79	860.49	880.00	860.49	925.79	924.87	959.42	995.16	1012.70	1069.35	1042.71
35.00°	831.09	852.59	791.30	768.15	726.22	676.84	681.69	616.87	648.19	616.87	681.69	676.84	726.22	768.15	791.30	852.59	831.09
37.50°	605.10	631.28	564.78	543.40	507.97	469.21	456.73	419.55	432.46	419.55	456.73	469.21	507.97	543.40	564.78	631.28	605.10
40.00°	372.65	398.60	335.55	337.70	309.24	271.55	287.17	250.43	274.34	250.43	287.17	271.55	309.24	337.70	335.55	398.60	372.65
42.50°	229.56	219.34	205.58	157.93	174.09	167.42	153.59	150.34	145.37	150.34	153.59	167.42	174.09	157.93	205.58	219.34	229.56
45.00°	115.98	139.96	115.51	109.92	103.57	78.03	98.20	82.49	92.68	82.49	98.20	78.03	103.57	109.92	115.51	139.96	115.98
47.50°	85.86	88.89	87.67	71.16	67.30	60.58	60.57	57.21	54.95	57.21	60.57	60.58	67.30	71.16	87.67	88.89	85.86
50.00°	74.84	79.12	78.06	63.98	58.56	48.89	52.27	46.75	46.42	46.75	52.27	48.89	58.56	63.98	78.06	79.12	74.84
52.50°	65.79	69.21	67.88	56.43	50.58	41.70	44.27	39.43	38.65	39.43	44.27	41.70	50.58	56.43	67.88	69.21	65.79
55.00°	57.03	59.14	57.59	47.93	43.06	34.65	36.67	32.88	32.02	32.88	36.67	34.65	43.06	47.93	57.59	59.14	57.03
57.50°	46.52	49.17	47.57	39.34	35.04	29.22	29.93	26.73	25.99	26.73	29.93	29.22	35.04	39.34	47.57	49.17	46.52
60.00°	35.90	39.27	37.58	30.55	26.78	23.42	24.07	20.65	20.68	20.65	24.07	23.42	26.78	30.55	37.58	39.27	35.90
62.50°	19.77	25.35	21.43	20.47	17.24	14.61	16.47	13.30	14.32	13.30	16.47	14.61	17.24	20.47	21.43	25.35	19.77
65.00°	4.39	8.62	5.21	8.53	7.23	6.76	7.51	5.85	6.99	5.85	7.51	6.76	7.23	8.53	5.21	8.62	4.39
67.50°	2.67	2.29	3.07	2.02	3.55	3.73	3.17	3.43	3.08	3.43	3.17	3.73	3.55	2.02	3.07	2.29	2.67
70.00°	1.15	1.52	1.10	1.68	1.46	1.38	1.68	1.19	1.64	1.19	1.68	1.38	1.46	1.68	1.10	1.52	1.15
72.50°	1.16	1.28	1.08	1.42	1.15	1.33	1.21	1.10	1.17	1.10	1.21	1.33	1.15	1.42	1.08	1.28	1.16
75.00°	1.18	1.25	1.06	1.23	1.12	1.27	1.21	1.01	1.25	1.01	1.21	1.27	1.12	1.23	1.06	1.25	1.18
77.50°	1.21	1.36	1.08	1.08	1.07	1.20	1.20	1.00	1.35	1.00	1.20	1.20	1.07	1.08	1.08	1.36	1.21
80.00°	1.24	1.52	1.12	0.98	1.01	1.14	1.18	1.01	1.46	1.01	1.18	1.14	1.01	0.98	1.12	1.52	1.24
82.50°	1.26	1.42	1.21	1.05	1.04	1.09	1.09	1.16	1.57	1.16	1.09	1.09	1.04	1.05	1.21	1.42	1.26
85.00°	1.22	1.27	1.24	1.23	1.07	1.16	0.97	1.29	1.67	1.29	0.97	1.16	1.07	1.23	1.24	1.27	1.22
87.50°	1.03	1.09	1.07	1.29	1.06	1.38	0.97	1.37	1.44	1.37	0.97	1.38	1.06	1.29	1.07	1.09	1.03
90.00°	0.92	0.91	0.98	1.31	1.06	1.44	0.99	1.36	1.14	1.36	0.99	1.44	1.06	1.31	0.98	0.91	0.92
92.50°	0.97	1.06	1.06	1.21	1.20	1.32	1.27	1.17	1.18	1.17	1.27	1.32	1.20	1.21	1.06	1.06	0.97
95.00°	1.00	1.21	1.09	1.08	1.30	1.23	1.56	1.09	1.26	1.09	1.56	1.23	1.30	1.08	1.09	1.21	1.00
97.50°	1.00	1.29	1.05	1.18	1.24	1.16	1.27	1.23	1.21	1.23	1.27	1.16	1.24	1.18	1.05	1.29	1.00
100.00°	1.04	1.36	1.09	1.32	1.18	1.17	0.99	1.31	1.16	1.31	0.99	1.17	1.18	1.32	1.09	1.36	1.04
102.50°	1.15	1.48	1.24	1.19	1.11	1.24	1.05	1.30	1.12	1.30	1.05	1.24	1.11	1.19	1.24	1.48	1.15
105.00°	1.27	1.57	1.26	1.03	1.10	1.26	1.11	1.33	1.07	1.33	1.11	1.26	1.10	1.03	1.26	1.57	1.27
107.50°	1.41	1.51	1.15	1.28	1.23	1.25	1.20	1.39	1.04	1.39	1.20	1.25	1.23	1.28	1.15	1.51	1.41
110.00°	1.38	1.45	1.17	1.55	1.34	1.25	1.27	1.33	1.03	1.33	1.27	1.25	1.34	1.55	1.17	1.45	1.38
112.50°	1.22	1.44	1.28	1.81	1.42	1.26	1.30	1.16	1.19	1.16	1.30	1.26	1.42	1.81	1.28	1.44	1.22

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	3197	3197	3197	3197	3118	3118	3118	3118	2972	2972	2972	2838	2838	2838	2715	2715	2658
	1	3055	2983	2919	2862	2985	2922	2865	2813	2807	2762	2720	2701	2666	2633	2604	2577	2523
	2	2913	2788	2685	2599	2851	2739	2646	2567	2647	2571	2506	2563	2501	2447	2484	2435	2385
	3	2777	2613	2486	2385	2721	2573	2457	2364	2499	2402	2322	2430	2349	2282	2365	2299	2253
	4	2647	2455	2315	2207	2597	2423	2293	2192	2361	2251	2163	2304	2210	2135	2251	2172	2130
	5	2524	2312	2165	2055	2479	2286	2148	2045	2234	2115	2024	2187	2084	2003	2142	2054	2015
	6	2409	2183	2032	1923	2368	2161	2019	1916	2118	1993	1900	2078	1968	1885	2040	1944	1910
	7	2301	2066	1914	1807	2264	2047	1903	1801	2010	1883	1790	1976	1863	1778	1944	1844	1812
	8	2199	1959	1808	1704	2166	1943	1799	1699	1911	1782	1690	1882	1766	1681	1854	1750	1722
	9	2105	1861	1712	1611	2075	1847	1705	1608	1820	1691	1601	1795	1678	1594	1771	1665	1638
	10	2017	1772	1625	1528	1989	1760	1619	1525	1736	1608	1519	1714	1597	1514	1693	1586	1562

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	134.7 fc	4.5 ft
6.5 ft	96.5 fc	5.3 ft
7.5 ft	72.4 fc	6.1 ft
8.0 ft	63.7 fc	6.5 ft
10.0 ft	40.8 fc	8.2 ft
12.0 ft	28.3 fc	9.8 ft
14.0 ft	20.8 fc	11.5 ft
16.0 ft	15.9 fc	13.1 ft
20.0 ft	10.2 fc	16.4 ft
24.0 ft	7.1 fc	19.6 ft
28.0 ft	5.2 fc	22.9 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	140718	140718	140718
45.00°	5664	5641	5057
55.00°	3433	3467	2592
65.00°	359	426	591
75.00°	157	142	150
85.00°	484	493	424

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	8.3	9.3	8.7	9.6	10.0	5.0	6.0	5.4	6.3	6.7
	3H	8.1	9.0	8.6	9.3	9.7	4.9	5.7	5.3	6.1	6.5
	4H	8.0	8.8	8.5	9.2	9.6	4.8	5.6	5.2	5.9	6.4
	6H	7.9	8.6	8.4	9.0	9.5	4.7	5.4	5.1	5.8	6.2
	8H	7.9	8.5	8.4	9.0	9.4	4.7	5.3	5.1	5.7	6.2
	12H	7.8	8.5	8.3	8.9	9.3	4.6	5.2	5.1	5.7	6.1
4H	2H	8.1	8.8	8.5	9.2	9.6	4.8	5.6	5.3	6.0	6.4
	3H	7.9	8.5	8.3	8.9	9.4	4.7	5.3	5.1	5.8	6.2
	4H	7.7	8.3	8.2	8.7	9.2	4.6	5.1	5.1	5.6	6.1
	6H	7.6	8.1	8.1	8.6	9.1	4.5	5.0	5.0	5.5	6.0
	8H	7.6	8.0	8.1	8.5	9.0	4.5	4.9	5.0	5.4	5.9
	12H	7.6	7.9	8.1	8.4	9.0	4.5	4.8	5.0	5.3	5.9
8H	4H	7.6	8.0	8.1	8.5	9.0	4.4	4.9	4.9	5.3	5.8
	6H	7.5	7.8	8.0	8.3	8.9	4.3	4.7	4.9	5.2	5.7
	8H	7.4	7.7	8.0	8.3	8.8	4.3	4.6	4.9	5.2	5.7
	12H	7.4	7.7	8.0	8.2	8.8	4.4	4.6	4.9	5.2	5.8
12H	4H	7.5	7.9	8.0	8.4	8.9	4.4	4.7	4.9	5.2	5.8
	6H	7.4	7.7	8.0	8.2	8.8	4.3	4.6	4.8	5.1	5.7
	8H	7.4	7.6	7.9	8.2	8.8	4.3	4.6	4.8	5.1	5.7

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0