

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SR3Mx 25L 35K WD xx xx RDA3F 25L 35K WD MW GL (nadir)
Nom. 3" Round Deep Adjustable A-Spec, Wide Beam

Test Number

SP-01397_4

Test Date

9/12/2022

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

Summary of Results

Power

Input Watts	26.3 W
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Lumen Output

Output Lumens	1907
Efficacy	72.49 lm/W

Luminous Dimensions

0° - 180° Size	-0.25
90° - 270° Size	-0.25
Height	0

Spacing Criterion

Two luminaires, plane 0°	0.78
Two luminaires, plane 90°	0.78
Four luminaires	0.73

Full Beam Angle

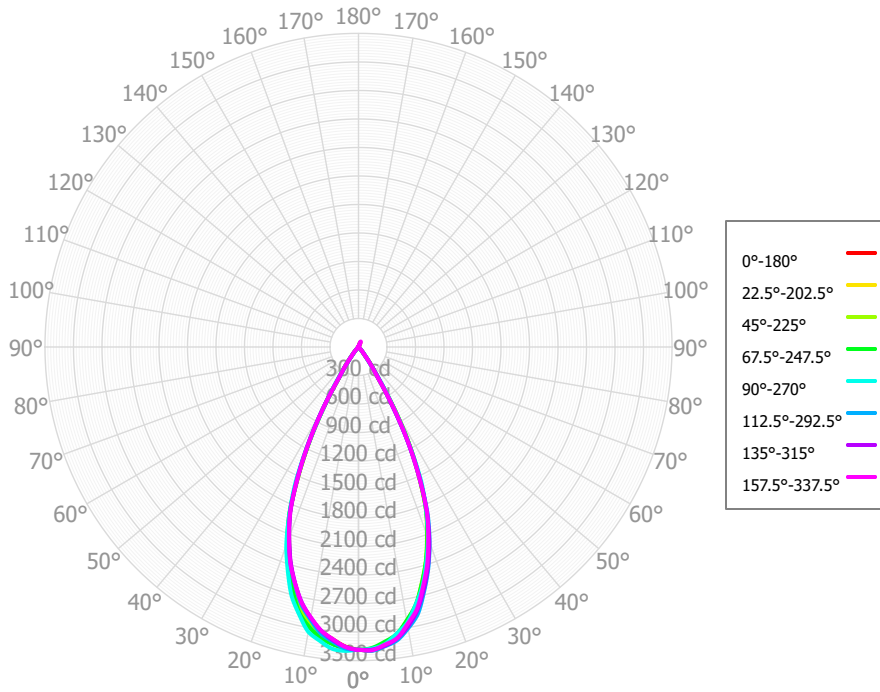
0° - 180°	49°
90° - 270°	49°

IES File Header Contents

Keyword	Value
TEST	SP-01397_4
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/12/2022
ISSUE DATE	12/19/2022
LUMCAT	SR3Mx 25L 35K WD xx xx RDA3F 25L 35K WD MW GL (nadir)
LUMINAIRE	Nom. 3" Round Deep Adjustable A-Spec, Wide Beam
OTHER	Matte White Trim, Clear Glass Lens
OTHER	48 Degree Beam Angle
LAMP	N/A, 19mm LES
LAMPCAT	N/A, Min. 80 CRI
OTHER	Reference project SL167
OTHER	minus 2W, no thermal protection required for 7L, 10L, and 15L (non-IC)
OTHER	minus 2W, no thermal protection required for all (including 20L and 25L) IC luminaires
OTHER	Total Luminaire Watts is approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	80

SR3Mx 25L 35K WD xx xx RDA3F 25L 35K WD
 MW GL (nadir)

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	297.28	15.59%	90.00° - 100.00°	1.98	0.10%
10.00° - 20.00°	720.95	37.81%	100.00° - 110.00°	1.91	0.10%
20.00° - 30.00°	667.48	35.01%	100.00° - 120.00°	4.14	0.22%
30.00° - 40.00°	164.66	8.64%	120.00° - 130.00°	2.25	0.12%
40.00° - 50.00°	15.83	0.83%	130.00° - 140.00°	2.77	0.15%
50.00° - 60.00°	5.79	0.30%	140.00° - 150.00°	3.42	0.18%
60.00° - 70.00°	5.26	0.28%	150.00° - 160.00°	6.55	0.34%
70.00° - 80.00°	3.17	0.17%	160.00° - 170.00°	2.57	0.13%
80.00° - 90.00°	2.19	0.11%	170.00° - 180.00°	0.25	0.01%
0.00° - 90.00°	1882.61	98.75%	0.00° - 180.00°	1906.53	100.00%

SR3Mx 25L 35K WD xx xx RDA3F 25L 35K WD
MW GL (nadir)

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°	3187.31	3187.31	3187.31	3187.31	3187.31	3187.31	3187.31	3187.31	3187.31	3187.31	3187.31	3187.31	3187.31	3187.31	3187.31	3187.31	3187.31
2.50°	3198.22	3188.26	3189.44	3171.80	3177.82	3177.34	3159.65	3159.57	3156.12	3161.58	3182.60	3178.74	3201.62	3201.23	3188.59	3196.12	3198.22
5.00°	3142.81	3135.37	3129.79	3116.86	3142.36	3113.16	3097.23	3087.34	3088.56	3098.82	3123.06	3139.36	3187.99	3163.15	3158.59	3146.76	3142.81
7.50°	3078.35	3071.97	3067.82	3051.32	3047.16	3042.36	3012.05	3010.81	3017.35	3027.00	3060.10	3087.42	3119.43	3114.23	3096.67	3094.13	3078.35
10.00°	2947.21	2935.33	2926.60	2923.07	2950.18	2913.44	2893.00	2889.43	2902.06	2915.37	2956.08	2992.51	3043.74	3007.49	2991.17	2963.74	2947.21
12.50°	2805.15	2788.21	2783.79	2782.40	2778.28	2778.05	2754.68	2761.37	2784.01	2788.29	2841.99	2870.82	2884.76	2881.38	2845.79	2831.18	2805.15
15.00°	2595.81	2583.07	2571.50	2577.81	2603.32	2584.70	2575.29	2577.93	2585.52	2601.50	2634.12	2665.93	2716.73	2665.94	2650.26	2618.16	2595.81
17.50°	2380.68	2371.14	2358.37	2362.35	2372.87	2386.30	2374.26	2386.58	2383.53	2402.26	2420.76	2448.49	2473.79	2442.47	2429.66	2404.00	2380.68
20.00°	2135.15	2121.21	2107.14	2115.74	2138.41	2137.34	2132.86	2141.39	2136.35	2160.29	2166.05	2195.97	2220.92	2186.53	2179.99	2146.72	2135.15
22.50°	1869.43	1867.65	1852.08	1864.67	1858.74	1885.16	1872.05	1877.87	1888.17	1885.34	1891.85	1903.80	1901.36	1901.85	1880.03	1885.40	1869.43
25.00°	1510.01	1512.41	1508.51	1518.81	1564.76	1517.87	1517.55	1508.96	1503.52	1509.36	1495.19	1511.51	1562.47	1514.31	1526.30	1506.55	1510.01
27.50°	1140.56	1149.83	1161.41	1161.52	1146.50	1145.81	1122.00	1134.43	1118.67	1125.39	1099.51	1114.93	1121.11	1121.29	1131.62	1126.59	1140.56
30.00°	730.34	756.55	760.42	767.56	743.54	751.66	747.72	731.55	733.18	719.37	709.09	708.53	711.75	710.72	696.54	726.94	730.34
32.50°	375.84	361.75	380.00	370.09	440.92	357.00	381.92	377.46	357.99	387.65	364.67	385.27	440.70	368.52	394.86	347.12	375.84
35.00°	221.69	222.30	230.48	223.61	175.17	227.09	212.99	237.28	236.44	241.06	233.34	235.41	209.63	222.14	214.47	216.71	221.69
37.50°	94.99	89.95	92.69	95.28	111.75	99.43	114.84	116.56	119.30	122.57	118.10	118.41	129.26	103.65	105.96	94.98	94.99
40.00°	56.29	55.74	58.19	58.21	55.56	63.42	64.54	70.89	72.20	67.64	68.10	64.02	61.06	57.28	57.73	57.21	56.29
42.50°	25.23	22.56	26.68	25.66	31.59	28.39	29.71	32.38	28.00	26.78	26.56	25.60	31.69	22.19	28.42	22.77	25.23
45.00°	16.18	15.71	16.60	16.85	12.22	17.97	16.73	18.38	17.65	14.92	15.40	15.04	9.74	13.54	13.72	14.16	16.18
47.50°	9.16	9.06	7.84	8.69	9.89	8.13	10.17	7.66	8.18	7.11	6.78	8.13	8.04	7.37	7.43	6.73	9.16
50.00°	7.43	8.13	7.22	7.30	7.87	7.56	7.71	6.96	6.78	6.94	6.33	7.03	6.63	6.48	7.12	7.07	7.43
52.50°	6.38	7.23	6.65	5.98	6.86	7.04	6.33	6.47	5.61	6.69	6.08	6.28	5.91	5.78	6.92	7.27	6.38
55.00°	6.96	6.65	6.35	5.92	6.24	6.96	6.35	6.54	6.17	6.33	6.44	6.03	5.58	5.47	6.78	6.71	6.96
57.50°	7.12	6.09	6.23	5.87	6.71	6.85	6.68	6.42	6.58	6.07	6.57	5.98	6.10	5.39	6.51	6.21	7.12
60.00°	6.40	5.86	6.90	6.42	6.87	6.51	6.37	5.83	6.10	6.00	6.09	6.21	6.46	5.75	6.15	6.01	6.40
62.50°	5.91	5.62	7.26	6.91	6.25	6.09	5.94	5.29	5.58	5.65	5.59	5.86	6.53	5.60	5.76	5.82	5.91
65.00°	5.87	5.29	6.38	6.26	5.64	5.09	5.14	4.89	4.79	4.89	5.02	4.80	6.21	4.60	5.33	5.70	5.87
67.50°	5.53	4.96	5.41	5.59	5.04	4.15	4.29	4.44	4.13	4.16	4.38	4.00	5.22	3.98	5.07	5.41	5.53
70.00°	4.62	4.66	4.15	4.67	4.41	3.63	3.97	3.84	3.97	3.47	3.56	3.48	4.29	3.94	4.90	4.50	4.62
72.50°	3.91	4.22	3.12	3.80	3.71	3.09	3.72	3.32	3.72	2.95	2.91	2.92	3.45	3.59	4.11	3.59	3.91
75.00°	3.52	2.91	2.79	3.29	3.13	2.48	3.25	2.93	3.09	2.62	2.61	2.29	2.91	2.81	3.04	2.69	3.52
77.50°	3.11	1.87	2.51	2.80	2.75	1.98	2.76	2.47	2.62	2.30	2.32	1.89	2.79	2.34	2.37	2.02	3.11
80.00°	2.69	2.34	2.41	2.40	2.44	2.00	2.39	1.90	2.73	2.00	2.07	1.72	2.56	2.28	1.86	2.06	2.69
82.50°	2.33	2.65	2.34	2.04	2.25	2.04	2.03	1.61	2.70	1.74	1.79	1.76	2.20	2.12	1.92	2.10	2.33
85.00°	2.04	2.13	2.34	1.97	2.15	2.20	1.88	1.78	2.17	1.54	1.48	2.01	2.09	1.84	2.19	2.12	2.04
87.50°	1.87	1.73	2.20	1.93	2.18	2.25	1.73	1.82	1.76	1.51	1.32	2.03	2.27	1.70	2.02	2.06	1.87
90.00°	1.86	1.83	1.76	2.03	2.23	1.89	1.51	1.69	1.66	1.65	1.42	1.86	2.29	1.71	1.71	1.78	1.86
92.50°	1.84	1.87	1.56	2.11	2.30	1.61	1.27	1.71	1.67	1.73	1.53	1.80	2.15	1.77	1.60	1.61	1.84
95.00°	1.79	1.65	1.85	2.02	2.29	1.63	1.45	1.92	1.95	1.76	1.64	1.83	2.11	1.86	1.55	1.72	1.79
97.50°	1.73	1.46	2.00	1.96	2.21	1.65	1.64	2.08	2.06	1.79	1.67	1.89	2.16	1.93	1.69	1.80	1.73
100.00°	1.66	1.33	1.88	2.00	2.04	1.64	1.57	2.19	1.77	1.83	1.57	1.97	2.09	1.98	1.87	1.85	1.66

SR3Mx 25L 35K WD xx xx RDA3F 25L 35K WD
 MW GL (nadir)

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	2264	2264	2264	2264	2209	2209	2209	2209	2105	2105	2105	2010	2010	2010	1923	1923	1883
	1	2170	2122	2079	2040	2121	2079	2040	2005	1998	1967	1940	1923	1900	1878	1855	1837	1798
	2	2078	1996	1927	1870	2035	1961	1900	1847	1897	1847	1803	1837	1797	1762	1782	1750	1715
	3	1991	1883	1800	1733	1953	1855	1779	1718	1803	1740	1688	1755	1703	1659	1711	1668	1635
	4	1908	1782	1690	1620	1873	1759	1674	1609	1717	1645	1588	1677	1616	1567	1640	1589	1559
	5	1829	1690	1593	1522	1798	1671	1581	1514	1636	1558	1499	1603	1536	1484	1573	1515	1487
	6	1754	1606	1507	1436	1726	1591	1498	1430	1561	1480	1419	1533	1462	1408	1508	1446	1420
	7	1683	1529	1429	1360	1658	1516	1422	1355	1491	1408	1347	1468	1394	1339	1446	1380	1357
	8	1616	1458	1359	1291	1593	1447	1353	1288	1426	1341	1281	1406	1330	1275	1387	1319	1298
	9	1553	1393	1295	1228	1532	1383	1290	1226	1365	1280	1221	1347	1271	1216	1331	1262	1242
	10	1493	1332	1236	1171	1475	1324	1231	1169	1308	1223	1165	1292	1216	1161	1278	1208	1190

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	105.4 fc	5.0 ft
6.5 ft	75.4 fc	5.9 ft
7.5 ft	56.7 fc	6.8 ft
8.0 ft	49.8 fc	7.2 ft
10.0 ft	31.9 fc	9.1 ft
12.0 ft	22.1 fc	10.9 ft
14.0 ft	16.3 fc	12.7 ft
16.0 ft	12.5 fc	14.5 ft
20.0 ft	8.0 fc	18.1 ft
24.0 ft	5.5 fc	21.7 ft
28.0 ft	4.1 fc	25.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	698914	698914	698914
45.00°	5017	5147	3791
55.00°	2659	2429	2384
65.00°	3047	3310	2925
75.00°	2980	2360	2655
85.00°	5123	5880	5407

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	1.9	2.8	2.3	3.2	3.5	2.1	3.0	2.5	3.3	3.6
	3H	4.5	5.3	4.9	5.6	6.0	4.0	4.8	4.4	5.2	5.6
	4H	5.3	6.0	5.7	6.4	6.8	4.7	5.4	5.1	5.8	6.2
	6H	6.1	6.7	6.5	7.1	7.6	5.5	6.1	5.9	6.5	7.0
	8H	6.5	7.1	7.0	7.6	8.0	5.9	6.5	6.4	6.9	7.4
	12H	7.0	7.6	7.5	8.0	8.5	6.5	7.1	7.0	7.5	8.0
4H	2H	2.8	3.5	3.3	3.9	4.3	2.7	3.4	3.1	3.8	4.2
	3H	5.4	6.0	5.8	6.4	6.9	4.7	5.3	5.1	5.7	6.2
	4H	6.2	6.7	6.7	7.2	7.7	5.4	6.0	5.9	6.4	6.9
	6H	7.0	7.5	7.5	8.0	8.5	6.3	6.7	6.8	7.2	7.7
	8H	7.6	8.0	8.1	8.5	9.0	6.9	7.3	7.4	7.7	8.3
	12H	8.2	8.6	8.8	9.1	9.6	7.6	8.0	8.1	8.5	9.0
8H	4H	6.4	6.8	6.9	7.3	7.8	5.7	6.1	6.2	6.6	7.1
	6H	7.4	7.8	8.0	8.3	8.8	6.8	7.1	7.3	7.6	8.1
	8H	8.2	8.5	8.8	9.0	9.6	7.5	7.8	8.0	8.3	8.8
	12H	9.1	9.4	9.7	9.9	10.5	8.5	8.8	9.1	9.3	9.9
12H	4H	6.4	6.8	7.0	7.3	7.8	5.7	6.1	6.3	6.6	7.1
	6H	7.6	7.8	8.1	8.3	8.9	6.9	7.2	7.4	7.7	8.2
	8H	8.4	8.7	9.0	9.2	9.8	7.7	7.9	8.2	8.5	9.1

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0