

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SR3Mx 25L 35K MD xx xx RDA3F 25L 35K MD MW SO (nadir)
Nom. 3" Round Deep Adjustable A-Spec, Medium Beam

Test Number

SP-01398_2

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	1938
Efficacy	73.69 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.7
Two luminaires, plane 90°	0.71
Four luminaires	0.69

Full Beam Angle

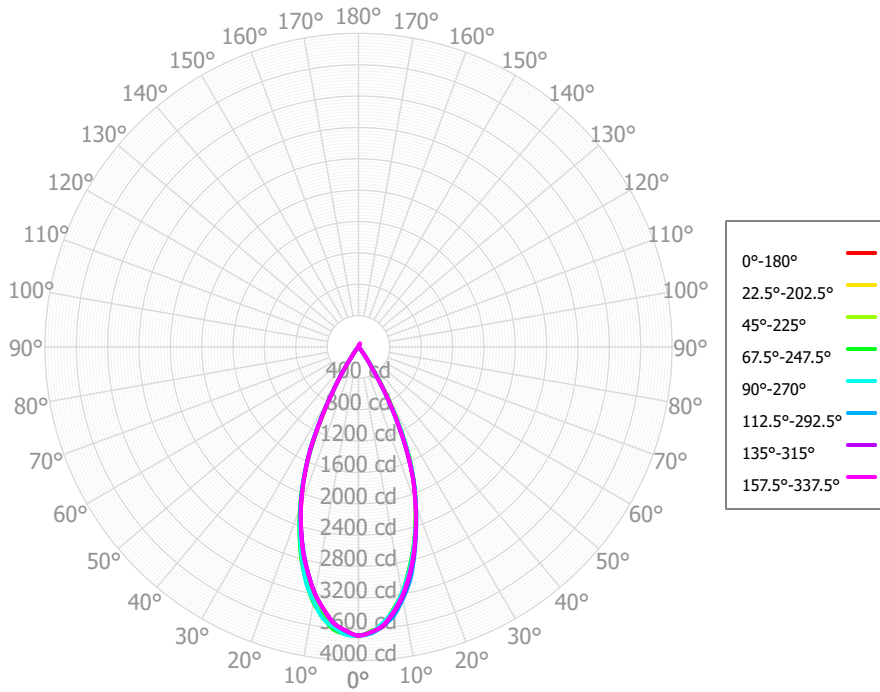
0° - 180°	45°
90° - 270°	45°

IES File Header Contents

Keyword	Value
TEST	SP-01398_2
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/12/2022
ISSUDATE	12/19/2022
LUMCAT	SR3Mx 25L 35K MD xx xx RDA3F 25L 35K MD MW SO (nadir)
LUMINAIRE	Nom. 3" Round Deep Adjustable A-Spec, Medium Beam
OTHER	Matte White Trim, Solite Lens
OTHER	45 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 MD xx xx RDA3F 25L 35K MD
 MW SO (nadir)

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	333.32	17.20%	90.00° - 100.00°	2.21	0.11%
10.00° - 20.00°	750.66	38.73%	100.00° - 110.00°	2.01	0.10%
20.00° - 30.00°	643.15	33.19%	100.00° - 120.00°	4.34	0.22%
30.00° - 40.00°	149.98	7.74%	120.00° - 130.00°	2.65	0.14%
40.00° - 50.00°	18.26	0.94%	130.00° - 140.00°	2.99	0.15%
50.00° - 60.00°	7.11	0.37%	140.00° - 150.00°	3.35	0.17%
60.00° - 70.00°	6.01	0.31%	150.00° - 160.00°	5.51	0.28%
70.00° - 80.00°	3.54	0.18%	160.00° - 170.00°	2.13	0.11%
80.00° - 90.00°	2.53	0.13%	170.00° - 180.00°	0.26	0.01%
0.00° - 90.00°	1914.54	98.79%	0.00° - 180.00°	1937.97	100.00%

SR3Mx 25L 35K MD xx xx RDA3F 25L 35K MD
MW SO (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°	3682.21	3682.21	3682.21	3682.21	3682.21	3682.21	3682.21	3682.21	3682.21	3682.21	3682.21	3682.21	3682.21	3682.21	3682.21	3682.21	3682.21
2.50°	3639.28	3632.80	3634.16	3633.63	3645.24	3636.73	3624.07	3625.01	3629.06	3637.59	3653.56	3665.55	3674.75	3658.47	3642.68	3642.45	3639.28
5.00°	3578.06	3568.89	3560.84	3561.95	3534.03	3536.84	3547.88	3540.88	3551.16	3572.96	3605.19	3620.52	3591.30	3574.26	3574.46	3565.03	3578.06
7.50°	3403.77	3388.62	3383.82	3381.87	3392.85	3391.28	3380.48	3378.00	3391.22	3420.15	3450.85	3476.50	3492.87	3458.89	3425.60	3411.01	3403.77
10.00°	3221.79	3201.23	3192.17	3192.72	3185.59	3192.50	3199.89	3196.03	3210.74	3250.84	3286.31	3312.51	3293.15	3263.65	3243.82	3220.59	3221.79
12.50°	2973.18	2952.99	2943.83	2940.11	2956.03	2962.30	2959.40	2962.82	2978.69	3025.75	3052.25	3072.47	3084.60	3046.72	3007.87	2985.12	2973.18
15.00°	2719.33	2699.26	2687.33	2683.01	2692.61	2706.04	2714.76	2723.05	2726.34	2777.49	2803.26	2811.75	2787.67	2751.97	2741.02	2719.84	2719.33
17.50°	2431.39	2422.11	2410.87	2409.05	2422.74	2435.20	2434.80	2434.15	2439.41	2477.67	2497.96	2501.16	2488.47	2445.73	2437.81	2427.97	2431.39
20.00°	2137.41	2136.79	2128.23	2129.18	2145.96	2155.73	2148.99	2141.45	2138.71	2163.92	2180.41	2177.64	2169.45	2139.62	2131.35	2123.68	2137.41
22.50°	1821.39	1829.94	1835.32	1834.96	1836.43	1831.08	1820.96	1809.45	1821.27	1828.53	1833.02	1832.54	1836.23	1830.17	1822.18	1811.44	1821.39
25.00°	1481.19	1494.07	1502.65	1504.58	1501.53	1487.95	1472.16	1463.46	1444.80	1446.94	1452.44	1449.60	1440.08	1435.75	1453.04	1447.09	1481.19
27.50°	1083.65	1105.78	1122.69	1113.45	1113.60	1081.87	1043.67	1030.07	1016.58	1014.60	1016.77	1021.54	1043.01	1042.07	1048.65	1059.87	1083.65
30.00°	715.33	740.48	756.07	743.28	696.94	659.55	654.61	632.90	654.54	655.90	650.42	662.69	643.43	653.84	681.73	693.40	715.33
32.50°	394.40	404.70	400.87	397.88	409.37	391.40	362.87	364.61	333.42	354.70	365.07	362.51	335.90	318.61	330.05	332.78	394.40
35.00°	184.34	195.39	201.07	189.04	169.50	144.28	154.97	159.04	178.52	190.76	191.85	196.26	196.17	189.54	181.21	189.96	184.34
37.50°	101.07	101.47	95.15	94.97	89.44	89.73	89.91	96.77	93.84	103.00	113.15	109.94	100.68	88.42	85.43	82.13	101.07
40.00°	52.57	51.96	50.03	47.07	45.58	44.33	47.17	51.28	57.43	60.24	66.27	64.66	62.47	55.87	52.22	52.14	52.57
42.50°	32.74	31.10	29.92	26.87	29.41	30.84	31.16	32.10	34.29	34.58	38.56	36.33	36.35	31.08	27.72	27.33	32.74
45.00°	21.49	20.90	20.24	16.91	16.43	18.39	20.40	19.05	22.70	21.91	22.94	22.75	21.49	19.46	20.17	19.21	21.49
47.50°	15.27	15.49	13.32	11.12	12.53	13.14	14.11	12.87	12.90	12.30	12.28	13.12	13.07	11.60	13.48	11.71	15.27
50.00°	12.01	12.05	10.44	9.42	8.96	8.79	10.82	9.58	10.73	9.85	9.18	9.43	8.91	8.23	11.45	9.10	12.01
52.50°	9.92	9.19	8.15	8.79	7.85	7.79	9.35	8.63	8.99	8.24	8.03	6.59	7.43	6.91	9.53	7.13	9.92
55.00°	8.45	8.65	7.65	8.07	6.92	7.01	7.85	7.92	8.21	8.37	7.11	6.45	7.17	7.34	8.44	7.78	8.45
57.50°	7.14	8.51	7.20	7.33	7.01	6.79	6.34	7.35	7.49	8.48	6.22	6.44	6.96	7.75	7.54	8.17	7.14
60.00°	7.63	8.48	6.36	7.01	6.99	6.50	6.18	6.82	7.32	7.62	5.83	6.76	6.77	8.14	7.37	7.86	7.63
62.50°	8.37	8.42	5.67	6.71	6.55	6.09	6.39	6.31	6.93	6.83	5.46	7.00	5.76	7.05	7.08	7.55	8.37
65.00°	7.68	7.08	6.08	6.25	5.91	5.65	6.27	6.02	5.64	6.41	5.07	6.58	4.62	5.35	6.53	7.23	7.68
67.50°	6.92	5.78	6.17	5.75	4.84	5.18	6.10	5.80	4.52	5.78	4.61	5.98	4.42	4.92	5.68	6.45	6.92
70.00°	5.44	4.93	5.03	5.00	3.97	4.43	4.72	4.58	3.83	4.40	3.71	4.71	4.29	4.84	4.34	5.10	5.44
72.50°	4.12	4.13	4.09	4.23	3.38	3.46	3.32	3.24	3.41	3.35	2.99	3.57	4.05	3.99	3.50	4.06	4.12
75.00°	3.83	3.53	3.61	3.39	2.84	2.93	2.87	3.17	3.47	3.05	2.96	2.76	3.79	3.04	3.25	3.29	3.83
77.50°	3.43	3.14	3.13	2.81	2.36	2.66	2.47	3.13	3.24	2.75	2.83	2.27	3.29	3.03	2.77	3.03	3.43
80.00°	2.63	3.27	2.65	2.88	2.00	2.57	2.47	2.86	2.66	2.44	2.47	2.33	2.83	3.06	2.09	3.08	2.63
82.50°	2.07	3.11	2.48	2.72	1.74	2.54	2.41	2.63	2.52	2.32	2.30	2.45	2.51	2.63	1.86	2.72	2.07
85.00°	2.03	2.44	2.69	2.21	1.72	2.18	2.12	2.70	2.76	2.39	2.44	2.65	2.19	2.24	1.88	2.17	2.03
87.50°	1.95	2.06	2.76	1.99	1.84	1.72	1.94	2.62	2.55	2.32	2.34	2.59	1.87	2.08	1.92	2.21	1.95
90.00°	1.77	2.04	2.72	2.10	1.78	1.96	2.02	2.03	2.07	2.12	1.96	2.30	1.70	1.94	1.97	2.43	1.77
92.50°	1.70	2.00	2.46	1.99	1.65	2.30	1.99	1.71	2.15	2.04	1.94	2.14	1.79	1.84	2.57	2.13	1.70
95.00°	1.73	1.94	2.06	1.70	1.95	2.21	1.78	2.00	2.46	2.02	2.21	2.06	1.78	1.83	3.30	1.74	1.73
97.50°	1.57	1.92	1.81	1.76	2.35	2.10	1.72	2.12	2.35	2.14	2.10	1.97	1.66	2.05	2.59	2.04	1.57
100.00°	1.26	1.92	1.64	2.03	2.56	1.98	1.84	1.98	2.14	2.32	1.75	1.88	1.64	2.09	1.68	2.37	1.26

SR3Mx 25L 35K MD xx xx RDA3F 25L 35K MD
MW SO (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	2302	2302	2302	2302	2245	2245	2245	2245	2140	2140	2140	2044	2044	2044	1956	1956	1915
	1	2207	2159	2115	2076	2157	2115	2076	2041	2033	2002	1974	1957	1934	1912	1888	1870	1831
	2	2115	2032	1964	1906	2072	1998	1936	1883	1932	1882	1839	1872	1832	1796	1816	1784	1748
	3	2028	1920	1837	1770	1990	1892	1816	1754	1840	1776	1724	1791	1738	1694	1746	1703	1669
	4	1945	1819	1727	1657	1911	1797	1712	1646	1754	1681	1624	1714	1653	1603	1677	1625	1595
	5	1867	1728	1631	1560	1836	1709	1619	1552	1674	1596	1536	1641	1574	1521	1610	1552	1524
	6	1792	1645	1546	1475	1765	1629	1536	1469	1600	1518	1458	1572	1501	1446	1546	1484	1458
	7	1722	1569	1469	1399	1697	1555	1462	1395	1530	1447	1386	1507	1433	1378	1485	1419	1396
	8	1656	1498	1399	1331	1633	1487	1393	1328	1466	1381	1321	1445	1370	1315	1426	1359	1337
	9	1593	1433	1336	1269	1573	1424	1331	1267	1405	1321	1262	1388	1311	1257	1371	1302	1282
	10	1534	1373	1277	1213	1516	1365	1273	1211	1349	1265	1207	1334	1257	1203	1319	1249	1231

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	121.7 fc	4.5 ft
6.5 ft	87.2 fc	5.3 ft
7.5 ft	65.5 fc	6.2 ft
8.0 ft	57.5 fc	6.6 ft
10.0 ft	36.8 fc	8.2 ft
12.0 ft	25.6 fc	9.9 ft
14.0 ft	18.8 fc	11.5 ft
16.0 ft	14.4 fc	13.2 ft
20.0 ft	9.2 fc	16.4 ft
24.0 ft	6.4 fc	19.7 ft
28.0 ft	4.7 fc	23.0 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	807437	807437	807437
45.00°	6663	6275	5094
55.00°	3230	2923	2644
65.00°	3987	3154	3068
75.00°	3245	3056	2408
85.00°	5118	6762	4331

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	3.6	4.5	4.0	4.9	5.2	2.3	3.2	2.7	3.5	3.9
	3H	5.9	6.7	6.3	7.0	7.4	4.4	5.2	4.9	5.6	6.0
	4H	6.5	7.3	7.0	7.6	8.1	5.2	5.9	5.6	6.3	6.7
	6H	7.2	7.9	7.7	8.3	8.7	5.9	6.6	6.4	7.0	7.4
	8H	7.5	8.1	8.0	8.5	9.0	6.3	6.9	6.8	7.4	7.8
	12H	7.9	8.5	8.3	8.9	9.3	6.8	7.4	7.3	7.8	8.3
4H	2H	4.2	4.9	4.6	5.3	5.7	3.0	3.7	3.4	4.1	4.5
	3H	6.5	7.1	6.9	7.5	8.0	5.2	5.8	5.7	6.3	6.7
	4H	7.3	7.8	7.7	8.2	8.7	6.0	6.6	6.5	7.0	7.5
	6H	8.2	8.6	8.7	9.1	9.6	6.9	7.4	7.4	7.9	8.4
	8H	8.6	9.0	9.1	9.5	10.0	7.5	7.9	8.0	8.3	8.9
	12H	9.1	9.4	9.6	9.9	10.5	8.1	8.5	8.6	9.0	9.5
8H	4H	7.5	7.9	8.0	8.4	8.9	6.3	6.7	6.8	7.2	7.7
	6H	8.6	9.0	9.2	9.5	10.0	7.4	7.8	8.0	8.3	8.8
	8H	9.3	9.6	9.8	10.1	10.7	8.2	8.5	8.8	9.0	9.6
	12H	10.0	10.3	10.6	10.8	11.4	9.2	9.4	9.7	9.9	10.5
12H	4H	7.5	7.9	8.0	8.4	8.9	6.4	6.7	6.9	7.2	7.7
	6H	8.7	9.0	9.3	9.5	10.1	7.6	7.9	8.1	8.4	9.0
	8H	9.5	9.7	10.0	10.3	10.9	8.5	8.7	9.0	9.3	9.9

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0