

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 NL (nadir)
Nom. 3" Deep Adjustable A-Spec, Medium Beam

Test Number

SP-01396_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	2006
Efficacy	76.29 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.72
Two luminaires, plane 90°	0.71
Four luminaires	0.68

Full Beam Angle

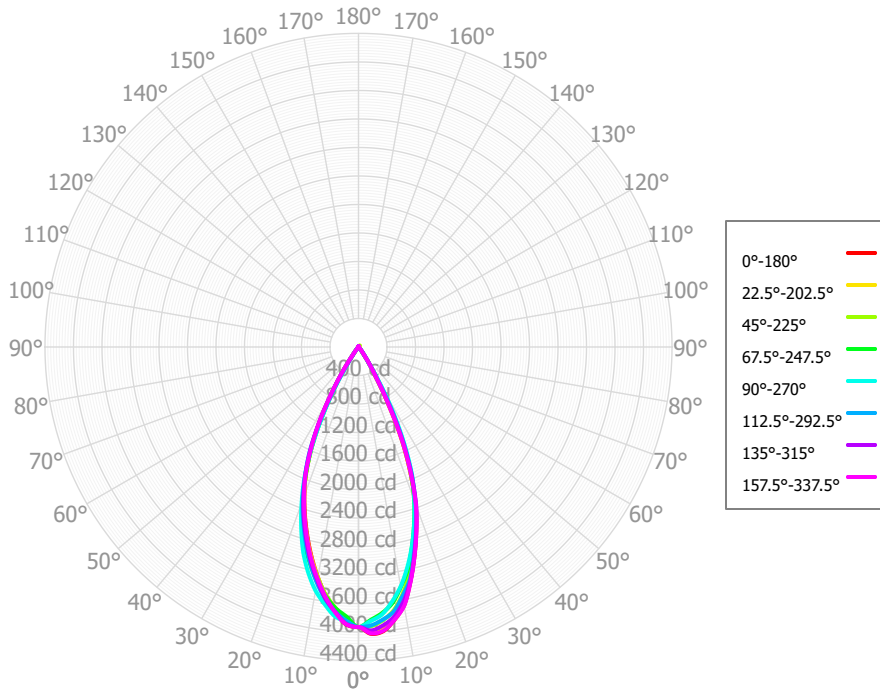
0° - 180°	44°
90° - 270°	44°

IES File Header Contents

Keyword	Value
TEST	SP-01396_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 NL (nadir)
LUMINAIRE	Nom. 3" Deep Adjustable A-Spec, Medium Beam
OTHER	Matte White Trim, No lens
OTHER	44 Degree Beam Angle
LAMP	N/A, 19mm LES
LAMPCAT	N/A, Min. 83 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 NL (nadir)

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	356.42	17.76%	90.00° - 100.00°	2.05	0.10%
10.00° - 20.00°	801.43	39.95%	100.00° - 110.00°	1.95	0.10%
20.00° - 30.00°	668.26	33.31%	100.00° - 120.00°	4.56	0.23%
30.00° - 40.00°	133.34	6.65%	120.00° - 130.00°	2.85	0.14%
40.00° - 50.00°	11.43	0.57%	130.00° - 140.00°	4.64	0.23%
50.00° - 60.00°	4.33	0.22%	140.00° - 150.00°	3.77	0.19%
60.00° - 70.00°	4.78	0.24%	150.00° - 160.00°	2.07	0.10%
70.00° - 80.00°	3.07	0.15%	160.00° - 170.00°	0.91	0.05%
80.00° - 90.00°	2.16	0.11%	170.00° - 180.00°	0.25	0.01%
0.00° - 90.00°	1985.23	98.95%	0.00° - 180.00°	2006.33	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°	3930.87	3930.87	3930.87	3930.87	3930.87	3930.87	3930.87	3930.87	3930.87	3930.87	3930.87	3930.87	3930.87	3930.87	3930.87	3930.87	3930.87
2.50°	4029.68	3997.65	3924.52	3836.87	3851.39	3846.79	3890.94	3896.81	3899.80	3876.12	3830.24	3790.03	3860.54	3913.40	3982.23	4022.43	4029.68
5.00°	4003.32	3942.43	3854.73	3751.32	3770.15	3731.06	3733.09	3740.91	3737.18	3707.73	3676.80	3681.03	3794.90	3844.20	3924.57	3996.54	4003.32
7.50°	3862.88	3823.40	3736.06	3629.70	3604.49	3569.76	3562.44	3538.85	3524.00	3523.13	3511.15	3529.63	3641.52	3751.42	3820.22	3863.26	3862.88
10.00°	3684.25	3621.63	3535.31	3421.48	3411.37	3362.38	3327.69	3304.49	3283.12	3282.59	3289.40	3347.15	3472.97	3552.32	3630.77	3690.54	3684.25
12.50°	3369.41	3342.42	3281.59	3197.24	3164.99	3119.84	3086.56	3055.57	3028.70	3038.87	3062.86	3127.16	3250.15	3336.76	3366.37	3375.54	3369.41
15.00°	3037.05	3006.42	2977.23	2897.34	2894.44	2857.12	2820.64	2785.32	2763.40	2779.83	2815.29	2892.22	2992.32	3004.42	3025.72	3039.16	3037.05
17.50°	2696.35	2669.71	2655.68	2594.61	2597.52	2576.60	2549.06	2510.62	2495.55	2514.73	2551.95	2597.91	2672.21	2672.04	2694.46	2704.03	2696.35
20.00°	2339.26	2332.73	2324.98	2281.72	2290.44	2290.95	2266.58	2231.89	2220.97	2232.81	2256.16	2293.65	2334.62	2339.51	2368.53	2353.58	2339.26
22.50°	1900.17	1898.35	1917.03	1934.46	1977.04	1962.04	1953.49	1944.14	1937.44	1921.55	1923.73	1931.56	1979.63	1963.45	1939.15	1915.42	1900.17
25.00°	1435.05	1447.14	1488.60	1489.93	1560.21	1622.67	1607.29	1582.06	1569.32	1566.74	1549.13	1557.93	1553.86	1503.15	1479.75	1451.82	1435.05
27.50°	911.44	938.65	988.72	1035.72	1110.28	1174.91	1207.39	1206.13	1190.79	1176.17	1139.13	1111.71	1088.15	1040.88	977.80	925.97	911.44
30.00°	512.38	471.80	503.90	567.15	679.70	745.93	774.80	788.21	777.44	755.20	706.15	697.52	681.87	576.49	489.03	522.24	512.38
32.50°	268.09	272.75	289.24	273.12	263.07	394.91	444.29	439.39	431.42	435.89	403.69	368.35	292.62	307.62	299.59	281.72	268.09
35.00°	130.40	115.01	110.48	127.52	153.63	139.70	145.46	200.40	199.25	163.98	145.27	148.84	173.78	158.52	136.70	140.05	130.40
37.50°	68.69	67.00	65.73	61.18	59.29	74.33	75.06	70.43	69.67	79.51	78.31	83.84	82.72	89.47	82.86	73.13	68.69
40.00°	36.28	32.27	31.78	31.83	36.13	33.79	31.08	38.09	38.81	35.24	36.75	44.01	51.58	45.48	40.83	39.07	36.28
42.50°	14.96	16.53	17.93	18.52	18.16	20.87	20.15	21.75	22.18	22.29	23.58	24.24	24.75	26.88	22.35	18.37	14.96
45.00°	8.24	7.83	9.10	8.75	11.39	12.96	10.70	13.44	13.19	11.55	12.19	14.19	15.41	11.59	10.66	10.37	8.24
47.50°	3.78	4.83	5.47	6.17	6.85	8.21	7.95	9.73	9.25	9.13	9.87	8.42	8.54	7.53	6.57	4.62	3.78
50.00°	3.77	4.14	3.89	4.13	4.95	6.20	5.85	7.12	6.66	6.94	7.86	6.07	6.56	4.21	4.84	4.16	3.77
52.50°	3.91	4.48	3.52	4.26	4.28	5.06	5.10	5.79	5.91	5.46	6.56	4.40	5.41	4.27	4.60	3.88	3.91
55.00°	4.86	4.09	3.69	4.35	4.45	5.34	4.70	4.67	5.31	4.73	5.84	4.38	5.17	4.20	4.35	4.36	4.86
57.50°	5.51	3.56	4.02	4.27	4.68	5.75	4.70	4.95	5.00	5.23	5.85	4.49	4.97	3.82	4.09	4.61	5.51
60.00°	5.42	3.70	4.50	4.40	4.93	5.08	5.00	5.25	4.82	5.49	5.62	5.31	4.79	4.11	4.50	4.25	5.42
62.50°	5.19	3.86	4.93	4.87	5.36	4.59	5.49	5.60	5.16	5.54	5.20	5.81	4.67	5.18	4.95	4.17	5.19
65.00°	4.76	3.99	4.21	4.74	5.79	5.00	5.84	5.82	5.59	5.51	5.90	5.41	4.58	5.03	4.05	4.47	4.76
67.50°	3.87	3.81	3.56	4.05	4.80	4.98	6.15	5.82	6.18	5.44	7.03	4.99	4.27	4.08	3.20	4.04	3.87
70.00°	2.60	2.76	3.19	3.42	3.89	4.01	5.94	5.49	5.69	5.07	6.02	4.55	3.92	3.19	2.64	3.00	2.60
72.50°	2.07	2.15	2.74	2.82	3.36	3.25	5.63	4.81	4.07	4.63	4.67	3.79	3.37	2.33	2.14	2.52	2.07
75.00°	1.85	2.25	2.13	2.61	2.80	2.73	3.91	3.74	2.98	3.70	3.76	2.73	2.90	2.37	1.77	2.28	1.85
77.50°	1.79	2.16	1.91	2.50	2.20	2.43	2.43	2.45	2.19	2.81	2.93	2.46	2.76	2.52	1.66	2.06	1.79
80.00°	1.75	1.90	2.11	2.28	1.95	2.29	2.26	2.31	2.13	2.87	2.55	2.57	2.56	2.29	1.84	1.84	1.75
82.50°	1.68	1.83	2.09	2.07	2.17	2.15	2.09	2.49	2.30	2.80	2.18	2.34	2.23	2.10	1.72	1.67	1.68
85.00°	1.63	1.84	1.95	2.03	2.06	2.00	1.94	1.96	2.11	2.27	1.84	2.03	2.09	2.17	1.38	1.54	1.63
87.50°	1.74	1.77	1.92	1.93	1.72	2.34	1.78	1.43	1.89	1.97	1.61	1.94	2.19	2.14	1.50	1.65	1.74
90.00°	1.77	1.68	1.94	1.62	1.61	2.74	1.61	1.76	1.97	2.09	1.54	1.88	2.12	1.86	1.79	1.74	1.77
92.50°	1.56	1.74	2.12	1.56	1.59	2.69	1.55	2.02	2.01	2.17	1.54	2.05	1.93	1.79	1.91	1.78	1.56
95.00°	1.54	1.83	2.32	1.95	1.65	2.59	1.57	2.02	1.94	2.22	1.60	2.11	1.82	1.99	2.00	1.80	1.54
97.50°	1.79	2.01	2.04	2.12	1.73	2.16	1.78	1.87	1.79	1.99	1.61	1.80	1.73	2.15	1.73	1.78	1.79
100.00°	1.90	2.05	1.82	2.06	1.83	1.89	2.08	1.41	1.47	1.61	1.60	1.54	1.77	2.27	1.56	1.70	1.90

SR3Mx 25L 35K MD xx xx RDA3F 25L 35K MD
 MW NL (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	2383	2383	2383	2383	2326	2326	2326	2326	2218	2218	2218	2119	2119	2119	2028	2028	1985
	1	2287	2238	2194	2154	2237	2193	2154	2118	2109	2078	2050	2031	2007	1985	1960	1942	1901
	2	2195	2110	2040	1982	2150	2075	2012	1958	2008	1957	1912	1946	1905	1869	1889	1856	1819
	3	2106	1997	1912	1844	2067	1968	1890	1828	1914	1850	1797	1864	1811	1766	1818	1774	1740
	4	2022	1894	1801	1729	1987	1871	1785	1718	1827	1754	1696	1786	1725	1674	1748	1697	1665
	5	1943	1802	1703	1631	1911	1783	1691	1623	1746	1667	1607	1713	1645	1591	1681	1623	1593
	6	1867	1717	1617	1544	1839	1701	1607	1538	1671	1588	1527	1643	1571	1515	1616	1553	1526
	7	1796	1640	1538	1467	1770	1626	1531	1463	1601	1516	1454	1577	1502	1446	1554	1488	1463
	8	1728	1568	1467	1398	1705	1556	1461	1395	1535	1449	1388	1514	1437	1381	1495	1426	1403
	9	1664	1502	1402	1335	1643	1492	1397	1332	1473	1387	1327	1455	1378	1322	1439	1368	1347
	10	1604	1440	1342	1277	1585	1431	1338	1275	1415	1330	1271	1400	1322	1267	1385	1314	1295

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	129.9 fc	4.4 ft
6.5 ft	93.0 fc	5.2 ft
7.5 ft	69.9 fc	6.0 ft
8.0 ft	61.4 fc	6.4 ft
10.0 ft	39.3 fc	8.0 ft
12.0 ft	27.3 fc	9.6 ft
14.0 ft	20.1 fc	11.2 ft
16.0 ft	15.4 fc	12.8 ft
20.0 ft	9.8 fc	16.0 ft
24.0 ft	6.8 fc	19.2 ft
28.0 ft	5.0 fc	22.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	861963	861963	861963
45.00°	2554	2821	3532
55.00°	1857	1410	1701
65.00°	2472	2186	3005
75.00°	1571	1808	2374
85.00°	4111	4896	5195

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	-0.8	0.1	-0.4	0.4	0.8	0.3	1.2	0.7	1.5	1.9
	3H	1.7	2.5	2.1	2.8	3.2	3.2	4.0	3.6	4.4	4.8
	4H	2.3	3.0	2.7	3.4	3.8	4.1	4.8	4.5	5.2	5.6
	6H	3.1	3.7	3.5	4.1	4.6	4.9	5.6	5.3	6.0	6.4
	8H	3.6	4.2	4.1	4.6	5.1	5.4	6.0	5.9	6.4	6.9
	12H	4.3	4.9	4.7	5.3	5.7	6.1	6.6	6.5	7.0	7.5
4H	2H	0.1	0.9	0.6	1.2	1.7	1.6	2.3	2.1	2.7	3.1
	3H	2.5	3.1	3.0	3.5	4.0	4.6	5.2	5.0	5.6	6.0
	4H	3.3	3.8	3.8	4.3	4.8	5.4	5.9	5.9	6.4	6.9
	6H	4.3	4.8	4.8	5.3	5.8	6.3	6.8	6.8	7.2	7.7
	8H	4.9	5.4	5.4	5.8	6.3	6.9	7.3	7.4	7.8	8.3
	12H	5.7	6.1	6.2	6.6	7.1	7.6	8.0	8.1	8.5	9.0
8H	4H	3.6	4.1	4.1	4.5	5.0	5.9	6.3	6.4	6.8	7.3
	6H	4.9	5.3	5.5	5.8	6.3	7.0	7.4	7.6	7.9	8.4
	8H	5.8	6.0	6.3	6.6	7.1	7.8	8.1	8.3	8.6	9.1
	12H	6.8	7.1	7.4	7.6	8.2	8.7	9.0	9.3	9.5	10.1
12H	4H	3.7	4.1	4.3	4.6	5.1	6.0	6.3	6.5	6.8	7.3
	6H	5.2	5.5	5.7	5.9	6.5	7.2	7.5	7.7	8.0	8.5
	8H	6.1	6.4	6.7	6.9	7.5	8.0	8.3	8.6	8.8	9.4

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0