

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SR3Mx 25L 35K ND xx xx RDA3F 25L 35K ND MW NL (nadir)
Nom. 3" Round Deep Adjustable A-Spec, Narrow Beam

Test Number

SP-01396

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	2059
Efficacy	78.27 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.57
Two luminaires, plane 90°	0.58
Four luminaires	0.58

Full Beam Angle

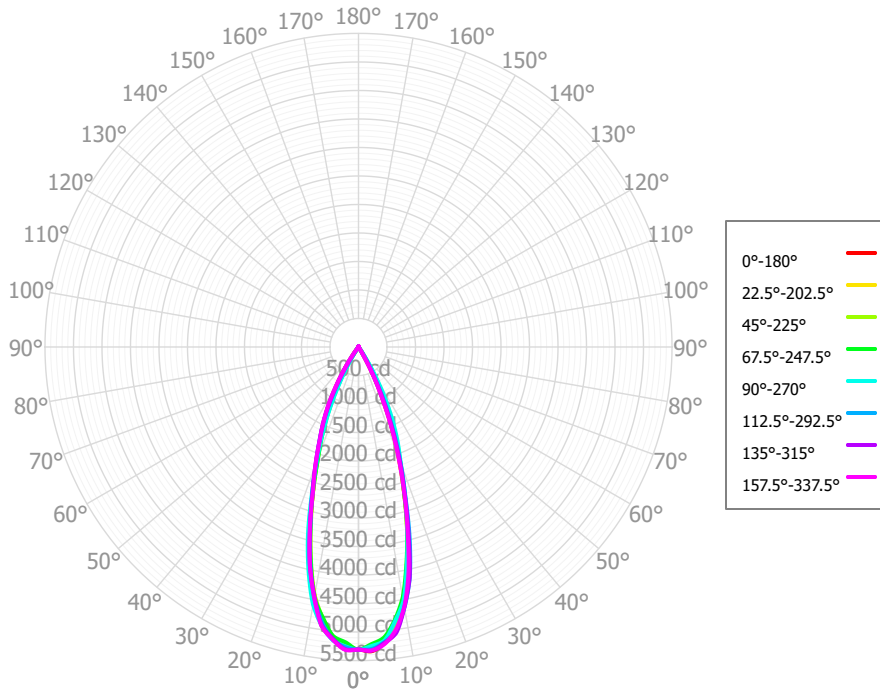
0° - 180°	35°
90° - 270°	35°

IES File Header Contents

Keyword	Value
TEST	SP-01396
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/12/2022
ISSUDATE	12/19/2022
LUMCAT	SR3Mx 25L 35K ND xx xx RDA3F 25L 35K ND MW NL (nadir)
LUMINAIRE	Nom. 3" Round Deep Adjustable A-Spec, Narrow Beam
OTHER	Matte White Trim, No lens
OTHER	35 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 ND xx xx RDA3F 25L 35K ND
 MW NL (nadir)

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	478.12	23.23%	90.00° - 100.00°	1.83	0.09%
10.00° - 20.00°	898.71	43.66%	100.00° - 110.00°	1.79	0.09%
20.00° - 30.00°	558.02	27.11%	100.00° - 120.00°	4.37	0.21%
30.00° - 40.00°	84.43	4.10%	120.00° - 130.00°	2.97	0.14%
40.00° - 50.00°	6.06	0.29%	130.00° - 140.00°	3.72	0.18%
50.00° - 60.00°	4.32	0.21%	140.00° - 150.00°	3.39	0.16%
60.00° - 70.00°	4.44	0.22%	150.00° - 160.00°	2.09	0.10%
70.00° - 80.00°	2.92	0.14%	160.00° - 170.00°	0.89	0.04%
80.00° - 90.00°	2.09	0.10%	170.00° - 180.00°	0.23	0.01%
0.00° - 90.00°	2039.11	99.05%	0.00° - 180.00°	2058.60	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°	5308.80	5308.80	5308.80	5308.80	5308.80	5308.80	5308.80	5308.80	5308.80	5308.80	5308.80	5308.80	5308.80	5308.80	5308.80	5308.80	5308.80
2.50°	5341.53	5291.78	5256.30	5218.20	5250.19	5268.31	5307.04	5317.82	5310.47	5283.16	5216.34	5186.62	5258.28	5304.00	5329.96	5328.98	5341.53
5.00°	5215.35	5171.73	5135.32	5117.80	5172.40	5157.89	5139.54	515718	5139.34	5117.53	5098.80	5091.49	5162.05	5197.57	5212.60	5232.98	5215.35
7.50°	5038.43	4941.86	4908.46	4841.36	4866.08	4879.98	4928.36	4943.51	4937.74	4911.41	4802.41	4789.56	4934.44	5029.17	5061.02	5007.51	5038.43
10.00°	4597.23	4541.51	4503.68	4464.00	4531.85	4472.23	4451.59	4472.45	4444.20	4439.68	4423.93	4468.83	4590.17	4640.47	4634.99	4627.71	4597.23
12.50°	4083.42	3993.34	3964.78	3886.58	3920.23	3908.00	3934.92	3935.37	3921.96	3924.83	3852.94	3870.03	4042.47	4152.20	4145.00	4054.52	4083.42
15.00°	3344.51	3283.84	3332.00	3286.64	3303.24	3259.40	3282.85	3301.29	3266.62	3286.46	3223.87	3269.83	3427.50	3464.33	3394.64	3318.31	3344.51
17.50°	2652.51	2643.22	2649.34	2655.38	2717.65	2701.36	2685.49	2654.26	2657.08	2646.51	2648.32	2654.81	2729.42	2718.55	2689.92	2655.48	2652.51
20.00°	2055.66	2055.72	2119.64	2136.06	2162.25	2176.38	2209.65	2211.37	2177.76	2183.38	2081.88	2073.01	2141.96	2141.05	2102.50	2036.61	2055.66
22.50°	1490.52	1518.76	1643.84	1726.68	1787.40	1794.65	1790.64	1781.94	1754.79	1735.48	1696.12	1650.71	1651.17	1590.60	1539.78	1475.69	1490.52
25.00°	969.78	1009.34	1171.36	1301.57	1403.86	1445.35	1457.99	1464.36	1438.02	1407.92	1322.39	1232.39	1184.49	1109.53	1020.43	938.23	969.78
27.50°	545.70	591.14	699.60	865.56	991.19	1061.78	1107.95	1141.52	1108.59	1073.19	948.11	825.48	732.81	637.21	582.34	534.58	545.70
30.00°	218.48	206.65	377.32	501.08	606.93	674.48	739.05	784.80	762.56	709.60	583.67	468.44	402.51	331.12	243.85	165.52	218.48
32.50°	59.83	83.02	70.07	171.23	285.21	370.24	428.95	454.83	455.34	389.84	301.64	207.51	123.50	56.81	64.86	70.02	59.83
35.00°	22.05	17.99	37.68	59.82	75.85	85.74	163.93	219.31	184.51	179.98	67.93	47.13	41.94	30.46	24.12	11.46	22.05
37.50°	8.65	9.46	9.88	18.67	35.88	46.42	51.62	48.58	56.18	40.46	36.20	23.08	14.22	9.18	8.10	7.69	8.65
40.00°	7.33	7.00	8.49	10.14	14.21	12.92	21.94	26.50	23.34	21.73	12.70	10.52	8.86	8.13	7.32	6.05	7.33
42.50°	5.94	5.75	7.17	7.69	12.26	11.38	12.60	11.98	12.43	10.56	10.80	8.96	6.78	6.97	6.50	5.69	5.94
45.00°	4.53	4.55	6.26	6.01	10.05	9.74	10.59	9.31	11.58	8.61	8.95	7.26	5.87	5.48	5.68	5.24	4.53
47.50°	4.09	3.92	5.46	4.41	7.64	7.73	8.88	7.68	9.53	7.47	7.15	5.45	5.05	4.49	5.27	4.13	4.09
50.00°	3.84	3.50	4.97	4.64	6.09	6.07	7.24	7.21	7.12	7.03	5.96	4.80	5.06	4.36	4.98	3.38	3.84
52.50°	3.85	4.19	4.56	4.85	5.00	5.12	6.33	6.49	6.14	5.98	5.52	4.70	4.99	4.31	4.71	3.93	3.85
55.00°	3.89	4.70	4.32	4.80	4.40	4.66	5.51	5.58	5.40	4.56	5.23	4.91	4.27	4.35	4.43	4.21	3.89
57.50°	3.99	4.59	4.22	4.70	3.97	4.90	5.77	5.11	4.91	4.52	5.09	5.23	3.73	4.12	4.30	3.89	3.99
60.00°	4.04	4.45	4.30	4.32	4.39	4.88	5.99	4.88	4.46	5.04	5.41	5.56	3.87	3.68	4.22	3.79	4.04
62.50°	3.52	4.22	4.37	4.12	4.99	4.58	5.49	5.05	4.73	5.47	6.02	5.90	3.99	3.75	5.01	4.05	3.52
65.00°	3.06	3.83	4.43	4.40	4.37	4.56	5.09	5.36	5.04	5.87	6.19	5.32	4.10	4.14	5.50	3.64	3.06
67.50°	2.90	3.20	3.93	4.54	3.64	4.75	5.26	5.37	5.62	5.31	6.17	4.67	3.92	3.69	3.88	2.47	2.90
70.00°	2.65	2.80	3.04	4.43	2.92	4.34	5.16	5.31	5.80	4.61	5.19	3.62	3.28	2.89	2.58	1.90	2.65
72.50°	2.18	2.64	2.31	3.87	2.30	3.65	4.23	4.46	4.25	4.02	3.94	2.68	2.78	2.49	2.45	1.79	2.18
75.00°	1.78	2.40	1.66	2.74	2.78	3.17	3.34	3.52	3.04	3.41	3.06	2.65	2.46	2.19	2.37	1.78	1.78
77.50°	1.53	2.10	1.70	2.19	3.11	2.77	2.54	2.90	2.70	2.38	2.25	2.61	2.26	2.31	2.38	1.81	1.53
80.00°	1.57	1.93	1.98	2.17	2.64	2.65	2.04	2.34	2.30	1.52	2.02	2.59	2.16	2.50	2.22	1.78	1.57
82.50°	2.00	1.84	1.85	2.23	2.20	2.58	1.96	2.43	1.79	1.84	1.83	2.40	1.94	2.31	1.82	1.73	2.00
85.00°	2.22	1.86	1.65	2.35	1.86	2.06	1.78	2.44	1.56	2.03	1.81	1.77	1.63	2.11	1.63	1.67	2.22
87.50°	2.24	1.92	1.76	2.17	1.66	1.51	1.50	1.95	1.68	1.69	1.79	1.41	1.79	2.06	1.70	1.60	2.24
90.00°	2.00	1.82	1.88	1.85	1.78	1.54	1.50	1.57	1.71	1.45	1.72	1.54	2.14	2.02	1.75	1.62	2.00
92.50°	1.58	1.68	1.72	1.61	1.75	1.56	1.70	1.49	1.65	1.46	1.67	1.61	2.18	1.98	1.78	1.65	1.58
95.00°	1.49	1.78	1.58	1.39	1.51	1.57	1.73	1.53	1.64	1.39	1.65	1.60	2.14	1.89	1.82	1.48	1.49
97.50°	1.55	1.89	1.67	1.70	1.68	1.59	1.68	1.80	1.64	1.22	1.63	1.57	2.11	1.61	1.86	1.31	1.55
100.00°	1.74	1.74	1.74	2.11	2.24	1.64	1.61	1.91	1.51	1.21	1.61	1.53	2.08	1.53	1.64	1.36	1.74

SR3Mx 25L 35K ND xx xx RDA3F 25L 35K ND
 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	2446	2446	2446	2446	2387	2387	2387	2387	2277	2277	2277	2175	2175	2175	2083	2083	2039
	1	2353	2305	2262	2224	2302	2259	2221	2187	2174	2144	2116	2095	2071	2050	2022	2004	1963
	2	2265	2183	2115	2059	2220	2147	2086	2034	2079	2030	1987	2016	1977	1943	1959	1927	1889
	3	2182	2076	1994	1928	2142	2047	1972	1912	1992	1930	1879	1942	1891	1848	1895	1854	1818
	4	2103	1980	1889	1821	2068	1956	1873	1809	1912	1842	1786	1871	1812	1764	1833	1784	1750
	5	2028	1893	1798	1729	1997	1874	1786	1720	1837	1762	1704	1804	1739	1688	1772	1717	1686
	6	1957	1814	1718	1648	1930	1798	1708	1642	1768	1689	1630	1740	1671	1619	1713	1654	1625
	7	1891	1741	1645	1577	1866	1728	1637	1572	1703	1622	1563	1679	1608	1555	1657	1594	1568
	8	1827	1674	1578	1512	1805	1663	1572	1509	1642	1560	1502	1621	1549	1495	1602	1537	1513
	9	1767	1612	1518	1454	1747	1603	1513	1451	1584	1503	1445	1567	1493	1440	1551	1484	1462
	10	1711	1555	1462	1399	1693	1547	1457	1397	1531	1449	1393	1515	1441	1389	1501	1434	1413

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	175.5 fc	3.5 ft
6.5 ft	125.7 fc	4.1 ft
7.5 ft	94.4 fc	4.7 ft
8.0 ft	82.9 fc	5.0 ft
10.0 ft	53.1 fc	6.3 ft
12.0 ft	36.9 fc	7.5 ft
14.0 ft	27.1 fc	8.8 ft
16.0 ft	20.7 fc	10.1 ft
20.0 ft	13.3 fc	12.6 ft
24.0 ft	9.2 fc	15.1 ft
28.0 ft	6.8 fc	17.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	1164116	1164116	1164116
45.00°	1406	1942	3115
55.00°	1486	1653	1682
65.00°	1587	2299	2270
75.00°	1509	1406	2356
85.00°	5584	4162	4669

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	-1.1	-0.2	-0.7	0.1	0.4	-0.1	0.8	0.3	1.1	1.4
	3H	0.7	1.5	1.1	1.8	2.2	2.5	3.3	2.9	3.6	4.0
	4H	1.5	2.2	1.9	2.5	3.0	3.4	4.1	3.8	4.4	4.9
	6H	2.2	2.9	2.7	3.3	3.7	4.5	5.1	4.9	5.5	6.0
	8H	3.0	3.6	3.5	4.0	4.5	5.1	5.7	5.5	6.1	6.5
	12H	4.2	4.8	4.6	5.2	5.6	5.6	6.2	6.1	6.6	7.1
4H	2H	0.3	1.0	0.7	1.4	1.8	1.3	2.0	1.7	2.4	2.8
	3H	2.0	2.5	2.4	3.0	3.4	3.9	4.5	4.3	4.9	5.3
	4H	2.8	3.3	3.3	3.8	4.2	4.8	5.3	5.3	5.8	6.3
	6H	3.8	4.2	4.3	4.7	5.2	6.0	6.5	6.5	6.9	7.4
	8H	4.6	5.0	5.1	5.5	6.0	6.7	7.1	7.2	7.6	8.0
	12H	5.8	6.2	6.3	6.7	7.2	7.3	7.6	7.8	8.2	8.7
8H	4H	3.2	3.6	3.7	4.1	4.6	5.3	5.7	5.8	6.2	6.7
	6H	4.5	4.9	5.1	5.4	5.9	6.7	7.0	7.2	7.6	8.1
	8H	5.5	5.8	6.1	6.3	6.9	7.6	7.8	8.1	8.4	8.9
	12H	7.0	7.2	7.5	7.7	8.4	8.4	8.6	8.9	9.2	9.8
12H	4H	3.4	3.7	3.9	4.2	4.7	5.3	5.7	5.8	6.2	6.7
	6H	4.8	5.1	5.3	5.6	6.1	6.8	7.1	7.4	7.6	8.2
	8H	5.9	6.1	6.4	6.6	7.2	7.8	8.0	8.3	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