

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

SR3Mx 25L 35HK MD xx xx RH3F 25L 35HK MD MW SO
Nom. 3" Round Pinhole A-Spec, Medium Beam

Test Number

SP-01405_1

Test Date

9/14/2022

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

SR3Mx 25L 35HK MD xx xx RH3F 25L 35HK
MD MW SO

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Page 1 of 6

Summary of Results

Power

Input Watts	26.3 W
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Lumen Output

Output Lumens	1392
Efficacy	52.94 lm/W

Luminous Dimensions

0° - 180° Size	-0.15
90° - 270° Size	-0.15
Height	0

Spacing Criterion

Two luminaires, plane 0°	0.54
Two luminaires, plane 90°	0.54
Four luminaires	0.58

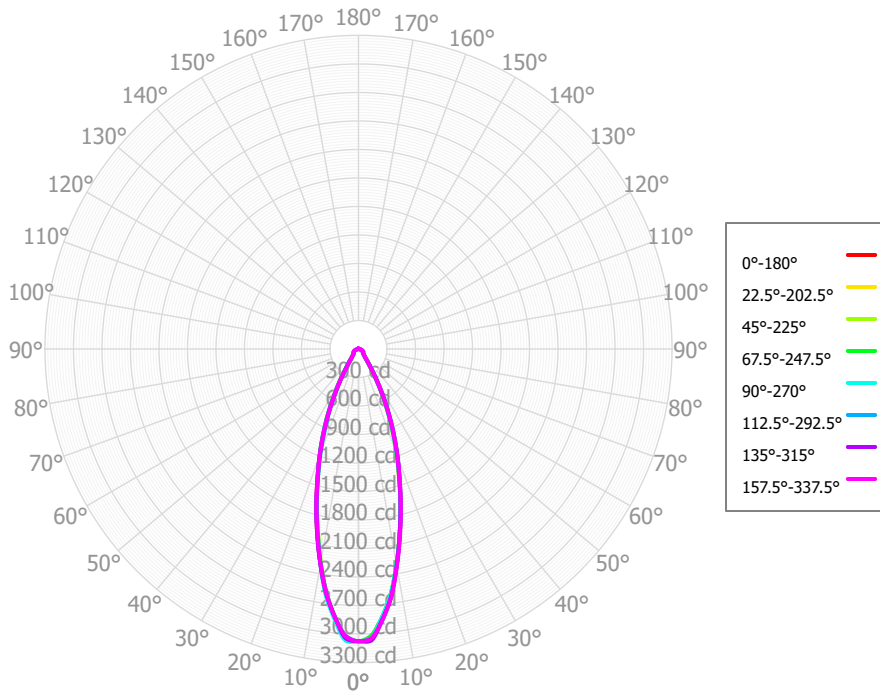
Full Beam Angle

0° - 180°	33°
90° - 270°	33°

IES File Header Contents

Keyword	Value
TEST	SP-01405_1
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/14/2022
ISSUDATE	10/25/2022
LUMCAT	SR3Mx 25L 35HK MD xx xx RH3F 25L 35HK MD MW SO
LUMINAIRE	Nom. 3" Round Pinhole A-Spec, Medium Beam
OTHER	Matte White Trim, Solite lens
OTHER	33 Degree Beam Angle
LAMP	N/A, 19mm LES
LAMPCAT	N/A, Min. 90 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	90

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	257.17	18.47%	90.00° - 100.00°	2.04	0.15%
10.00° - 20.00°	467.70	33.59%	100.00° - 110.00°	1.98	0.14%
20.00° - 30.00°	339.55	24.39%	100.00° - 120.00°	3.86	0.28%
30.00° - 40.00°	123.09	8.84%	120.00° - 130.00°	1.72	0.12%
40.00° - 50.00°	59.57	4.28%	130.00° - 140.00°	1.64	0.12%
50.00° - 60.00°	54.11	3.89%	140.00° - 150.00°	1.46	0.10%
60.00° - 70.00°	46.41	3.33%	150.00° - 160.00°	1.15	0.08%
70.00° - 80.00°	25.16	1.81%	160.00° - 170.00°	0.65	0.05%
80.00° - 90.00°	6.89	0.49%	170.00° - 180.00°	0.21	0.01%
0.00° - 90.00°	1379.65	99.09%	0.00° - 180.00°	1392.37	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°	3075.47	3075.47	3075.47	3075.47	3075.47	3075.47	3075.47	3075.47	3075.47	3075.47	3075.47	3075.47	3075.47	3075.47	3075.47	3075.47	3075.47
2.50°	3047.18	3046.52	3058.81	3021.93	3046.67	3023.93	3049.76	3028.67	3042.15	3035.86	3062.61	3031.95	3073.42	3052.10	3072.13	3049.45	3047.18
5.00°	2849.28	2850.18	2840.86	2835.08	2833.87	2839.07	2833.50	2840.37	2840.83	2836.45	2833.98	2845.51	2861.55	2869.34	2861.32	2866.99	2849.28
7.50°	2610.85	2616.77	2613.00	2600.18	2602.06	2589.02	2602.47	2591.42	2608.52	2589.08	2599.95	2589.14	2622.79	2627.21	2633.84	2631.68	2610.85
10.00°	2309.17	2311.68	2304.41	2301.44	2302.14	2300.62	2303.01	2299.16	2304.23	2286.39	2287.40	2290.03	2304.79	2312.96	2316.44	2322.36	2309.17
12.50°	1997.02	2008.25	1997.96	2003.05	2003.79	1996.37	2005.43	1991.87	2003.93	1971.40	1977.77	1975.07	1981.80	2006.66	1998.54	2017.06	1997.02
15.00°	1707.79	1707.40	1702.42	1705.05	1709.63	1705.38	1714.36	1707.55	1711.07	1693.00	1695.15	1694.01	1701.54	1708.19	1711.76	1716.39	1707.79
17.50°	1420.75	1432.39	1417.64	1429.32	1429.57	1418.53	1437.02	1429.05	1438.37	1419.90	1420.75	1422.23	1423.91	1440.40	1429.27	1443.36	1420.75
20.00°	1183.13	1189.69	1171.00	1173.11	1179.21	1169.42	1194.78	1191.63	1195.35	1188.23	1191.79	1194.02	1199.32	1197.21	1192.93	1195.84	1183.13
22.50°	947.99	960.08	934.23	941.16	943.07	929.11	962.46	961.69	967.45	960.08	967.88	974.08	976.55	972.91	960.44	966.22	947.99
25.00°	742.24	743.55	724.41	726.69	730.38	723.02	749.69	751.94	757.32	754.41	763.59	770.02	770.36	760.65	751.61	749.82	742.24
27.50°	540.40	551.82	532.22	539.68	539.25	522.21	554.38	544.38	566.64	551.01	570.05	567.96	570.94	573.38	552.79	560.32	540.40
30.00°	388.74	380.52	376.87	368.34	377.23	376.88	387.00	392.29	394.79	399.41	407.66	413.40	410.54	399.06	395.11	387.04	388.74
32.50°	247.38	260.35	251.42	254.84	255.16	236.26	257.95	243.12	270.47	254.49	271.18	261.65	266.85	277.14	257.50	269.01	247.38
35.00°	181.12	173.78	176.47	167.09	176.25	176.71	177.67	179.52	182.97	185.64	191.81	191.34	188.70	176.22	182.06	177.09	181.12
37.50°	122.86	126.99	124.24	124.48	126.94	120.63	125.45	118.68	131.22	123.47	131.49	124.01	124.67	128.43	122.45	131.56	122.86
40.00°	102.03	101.47	102.46	97.74	103.25	101.67	101.80	100.73	101.49	103.71	104.99	103.36	101.12	96.56	99.90	102.80	102.03
42.50°	83.94	87.08	86.29	84.48	87.26	83.46	85.43	83.90	86.30	85.95	85.33	83.88	81.87	82.56	81.92	87.16	83.94
45.00°	74.96	77.30	76.13	74.69	76.75	74.65	75.18	75.71	78.36	76.63	75.27	74.57	72.30	72.54	72.52	75.17	74.96
47.50°	67.46	69.96	68.93	69.77	69.49	66.65	68.23	68.24	71.40	68.88	68.34	66.05	64.93	65.27	65.10	66.65	67.46
50.00°	63.80	63.37	64.35	65.70	64.06	64.07	63.50	64.49	64.82	66.12	64.92	61.93	61.42	58.41	60.63	58.81	63.80
52.50°	61.26	61.33	62.25	63.83	62.02	61.90	61.81	61.61	63.22	64.00	62.69	58.81	59.09	57.80	58.58	58.28	61.26
55.00°	60.93	60.35	61.89	62.21	61.48	61.53	61.77	61.84	63.10	63.39	61.57	59.54	58.39	57.68	59.41	58.70	60.93
57.50°	59.21	58.73	59.95	60.02	60.37	60.24	59.69	60.99	60.97	61.74	59.88	59.34	57.68	56.26	58.81	57.44	59.21
60.00°	55.23	57.01	57.14	57.78	59.06	55.91	56.76	57.15	58.41	58.16	57.78	56.51	56.95	54.76	56.82	56.08	55.23
62.50°	50.88	52.03	53.28	51.71	53.32	51.47	53.02	52.85	53.60	54.25	54.10	52.68	53.36	51.61	52.70	50.30	50.88
65.00°	46.04	46.77	48.93	45.66	46.46	46.71	49.03	47.59	48.48	49.85	49.51	46.59	47.12	48.24	46.91	44.61	46.04
67.50°	40.49	40.62	42.75	40.00	39.62	41.19	41.86	42.02	42.38	44.34	43.48	40.67	41.62	42.21	41.11	40.90	40.49
70.00°	34.22	34.45	35.94	34.33	32.78	34.21	33.93	35.93	36.21	37.52	36.77	35.03	36.64	36.16	35.32	36.92	34.22
72.50°	28.64	28.22	29.07	28.67	26.62	27.48	27.42	30.01	29.92	30.97	31.04	30.08	31.09	30.01	29.57	30.51	28.64
75.00°	23.65	22.16	22.17	23.07	20.53	21.14	21.14	24.31	23.68	24.70	25.65	26.11	25.19	24.15	23.85	24.26	23.65
77.50°	18.75	18.19	16.73	17.78	15.72	15.80	16.61	18.80	18.50	19.18	20.30	21.06	19.68	19.51	18.08	18.91	18.75
80.00°	13.91	14.12	11.54	12.74	10.97	11.70	12.25	13.50	13.40	14.28	14.96	14.79	14.35	14.78	12.28	13.78	13.91
82.50°	9.46	9.28	7.92	8.64	8.08	7.87	8.11	8.94	9.21	9.73	10.40	9.85	9.89	9.78	8.63	9.55	9.46
85.00°	5.24	5.00	4.46	5.10	5.27	4.32	4.04	5.04	5.38	5.39	5.98	6.13	5.76	5.57	5.61	5.85	5.24
87.50°	3.26	3.19	3.17	3.08	3.56	2.55	2.99	2.95	3.71	3.21	3.88	3.77	3.47	3.27	3.52	3.64	3.26
90.00°	2.24	1.77	1.99	1.74	2.02	2.24	2.01	2.15	2.25	2.13	2.05	2.43	1.69	1.74	1.64	2.08	2.24
92.50°	1.76	1.60	2.05	1.84	1.77	2.15	1.90	1.93	1.69	1.87	2.07	1.98	1.67	1.63	1.54	2.00	1.76
95.00°	1.46	1.59	2.11	1.89	1.59	2.20	1.80	2.05	1.33	1.95	2.21	2.04	2.00	1.60	1.68	1.98	1.46
97.50°	1.60	1.97	2.03	1.88	1.82	2.09	1.73	1.92	1.57	1.75	2.08	1.92	1.91	1.67	1.73	2.08	1.60
100.00°	1.85	2.17	1.94	1.86	1.95	1.89	1.67	1.67	1.77	1.48	1.95	1.72	1.78	1.75	1.78	2.18	1.85

SR3Mx 25L 35HK MD xx xx RH3F 25L 35HK
 MD MW SO

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	1655	1655	1655	1655	1615	1615	1615	1615	1540	1540	1540	1472	1472	1472	1409	1409	1380
	1	1572	1531	1494	1461	1536	1499	1466	1436	1440	1414	1390	1386	1365	1346	1336	1320	1292
	2	1492	1422	1363	1315	1460	1396	1344	1299	1349	1306	1268	1306	1270	1239	1265	1237	1211
	3	1419	1328	1258	1202	1390	1308	1243	1191	1269	1215	1171	1234	1189	1151	1201	1163	1140
	4	1352	1248	1171	1112	1326	1231	1160	1105	1199	1139	1091	1170	1118	1076	1143	1099	1078
	5	1291	1177	1097	1039	1268	1163	1089	1033	1137	1073	1023	1113	1057	1013	1090	1042	1022
	6	1234	1115	1034	977	1214	1103	1028	973	1081	1015	965	1061	1002	958	1042	990	973
	7	1183	1059	979	923	1164	1049	974	920	1031	964	915	1014	954	909	997	944	928
	8	1135	1009	930	876	1118	1001	926	874	985	918	870	970	910	866	956	902	887
	9	1090	964	887	835	1075	957	883	833	943	877	830	931	870	826	919	864	850
	10	1049	923	848	798	1035	917	845	796	905	839	794	894	834	791	883	828	816

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	101.7 fc	3.3 ft
6.5 ft	72.8 fc	3.9 ft
7.5 ft	54.7 fc	4.5 ft
8.0 ft	48.1 fc	4.8 ft
10.0 ft	30.8 fc	5.9 ft
12.0 ft	21.4 fc	7.1 ft
14.0 ft	15.7 fc	8.3 ft
16.0 ft	12.0 fc	9.5 ft
20.0 ft	7.7 fc	11.9 ft
24.0 ft	5.3 fc	14.3 ft
28.0 ft	3.9 fc	16.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	1873306	1873306	1873306
45.00°	64568	65576	66112
55.00°	64710	65720	65289
65.00°	66359	70526	66966
75.00°	55660	52179	48322
85.00°	36618	31198	36824

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	21.8	22.9	22.2	23.2	23.5	21.9	23.0	22.3	23.4	23.7
	3H	23.7	24.7	24.1	25.0	25.4	23.8	24.7	24.2	25.1	25.5
	4H	24.3	25.2	24.7	25.6	26.0	24.4	25.3	24.8	25.6	26.1
	6H	24.8	25.6	25.2	26.0	26.4	24.8	25.6	25.2	26.0	26.4
	8H	24.9	25.7	25.3	26.1	26.5	24.9	25.6	25.3	26.0	26.5
	12H	24.9	25.7	25.4	26.1	26.5	24.9	25.7	25.4	26.1	26.5
4H	2H	22.5	23.4	22.9	23.8	24.2	22.6	23.5	23.1	23.9	24.3
	3H	24.5	25.3	25.0	25.7	26.1	24.6	25.3	25.0	25.8	26.2
	4H	25.2	25.9	25.7	26.3	26.8	25.3	26.0	25.8	26.4	26.9
	6H	25.8	26.3	26.3	26.8	27.3	25.8	26.3	26.3	26.8	27.3
	8H	25.9	26.5	26.4	26.9	27.4	25.9	26.4	26.4	26.9	27.4
	12H	26.0	26.5	26.5	27.0	27.5	26.0	26.5	26.5	27.0	27.5
8H	4H	25.5	26.0	25.9	26.4	26.9	25.5	26.1	26.0	26.5	27.0
	6H	26.1	26.5	26.6	27.0	27.5	26.1	26.5	26.6	27.1	27.6
	8H	26.3	26.7	26.9	27.2	27.7	26.3	26.7	26.9	27.2	27.7
	12H	26.5	26.8	27.0	27.3	27.9	26.5	26.8	27.0	27.3	27.9
12H	4H	25.4	25.9	25.9	26.4	26.9	25.5	26.0	26.0	26.5	27.0
	6H	26.1	26.5	26.7	27.0	27.5	26.1	26.5	26.7	27.0	27.6
	8H	26.4	26.7	26.9	27.2	27.8	26.4	26.7	26.9	27.2	27.8

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0