

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SR3Mx 25L 35K WW xx xx RNW3F 25L 35K WW MB NL
Nom 3 inch dia round open wall wash, matte black finish, no lens

Test Number

SP-01423

Test Date

10/11/2022

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	1900
Efficacy	72.25 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1
Two luminaires, plane 90°	1.17
Four luminaires	0.99

Full Beam Angle

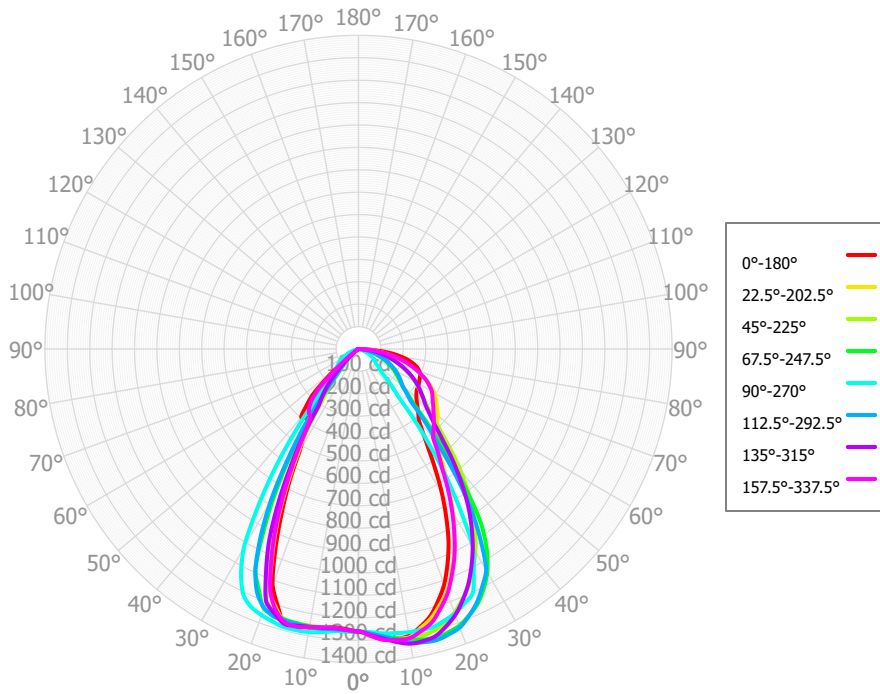
0° - 180°	59°
90° - 270°	69°

IES File Header Contents

Keyword	Value
TEST	SP-01423
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/11/2022
ISSUE DATE	10/25/2022
LUMCAT	SR3Mx 25L 35K WW xx xx RNW3F 25L 35K WW MB NL
LUMINAIRE	Nom 3 inch dia round open wall wash, matte black finish, no lens
OTHER	Beam Angle: 61 x 72 degrees
LAMPCAT	N/A, 19mm LES
LAMP	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
OTHER	CCT Output Multipliers: 27K x 0.95, 30K x 0.97, 40K x 1.03
_CRI	80

SR3Mx 25L 35K WW xx xx RNW3F 25L 35K
 WW MB NL

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	124.01	6.53%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	357.63	18.82%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	473.23	24.91%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	366.15	19.27%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	218.40	11.49%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	146.74	7.72%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	116.26	6.12%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	74.27	3.91%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	23.38	1.23%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1900.06	100.00%	0.00° - 180.00°	1900.06	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°	1261.88	1261.88	1261.88	1261.88	1261.88	1261.88	1261.88	1261.88	1261.88	1261.88	1261.88	1261.88	1261.88	1261.88	1261.88	1261.88	1261.88
2.50°	1283.21	1280.03	1281.20	1275.30	1265.87	1257.36	1255.18	1254.71	1252.28	1256.69	1256.96	1262.87	1261.17	1272.60	1279.51	1281.50	1283.21
5.00°	1302.34	1297.35	1297.98	1286.60	1274.94	1256.51	1251.87	1250.09	1247.95	1251.22	1251.24	1262.16	1265.06	1288.97	1298.33	1303.77	1302.34
7.50°	1304.92	1303.02	1310.60	1302.75	1279.91	1259.91	1255.04	1254.40	1254.71	1255.35	1252.75	1260.11	1275.14	1309.61	1320.07	1310.11	1304.92
10.00°	1300.29	1306.89	1320.20	1317.85	1284.17	1261.31	1259.70	1260.56	1263.39	1259.61	1254.84	1257.86	1283.59	1332.01	1336.09	1311.42	1300.29
12.50°	1271.28	1277.50	1312.50	1328.82	1285.05	1259.39	1265.63	1270.74	1268.13	1266.40	1255.01	1255.09	1286.38	1341.46	1335.94	1290.82	1271.28
15.00°	1235.75	1246.91	1302.16	1335.44	1285.48	1256.93	1271.81	1264.23	1272.29	1268.74	1255.08	1252.26	1286.01	1346.14	1327.59	1264.28	1235.75
17.50°	1180.86	1201.52	1279.36	1327.56	1272.08	1253.64	1240.47	1225.55	1201.27	1217.55	1228.54	1243.43	1276.13	1336.98	1298.96	1215.81	1180.86
20.00°	1118.99	1153.71	1252.65	1314.99	1257.25	1230.87	1203.20	1151.43	1121.89	1156.43	1201.10	1234.12	1264.54	1323.30	1263.94	1162.29	1118.99
22.50°	1038.71	1083.86	1210.47	1288.92	1231.56	1181.33	1079.20	1016.56	970.56	1009.33	1061.52	1163.74	1248.47	1289.35	1215.02	1090.28	1038.71
25.00°	951.72	1012.30	1164.67	1256.69	1205.10	1090.18	944.17	872.77	813.55	860.21	921.02	1090.01	1214.18	1249.70	1159.83	1014.75	951.72
27.50°	849.22	928.87	1106.46	1209.00	1114.78	947.81	776.60	715.13	668.44	697.70	746.50	919.85	1136.45	1196.64	1092.59	926.42	849.22
30.00°	745.63	844.73	1044.09	1150.51	1021.60	784.54	605.96	571.33	523.90	543.62	573.42	746.87	1023.51	1140.37	1020.30	836.08	745.63
32.50°	639.81	756.65	969.21	1067.37	836.74	598.20	458.21	446.98	449.53	434.72	425.61	563.32	836.56	1016.95	939.25	743.87	639.81
35.00°	546.04	671.53	890.36	956.77	650.06	426.83	311.89	373.23	376.85	343.38	284.83	381.32	649.96	880.22	852.57	651.42	546.04
37.50°	474.04	599.95	801.10	790.79	460.59	270.31	263.99	363.23	388.00	333.38	224.45	259.52	463.98	717.08	757.06	583.87	474.04
40.00°	420.09	537.95	708.31	627.87	275.38	169.78	219.36	342.50	397.37	314.05	165.58	142.43	313.45	549.45	660.59	518.64	420.09
42.50°	395.64	513.57	607.41	470.43	209.28	119.78	163.68	309.65	344.69	258.40	119.30	110.76	221.71	436.25	562.80	495.60	395.64
45.00°	373.12	491.45	518.58	352.43	145.88	83.89	108.16	249.06	289.47	198.62	75.56	80.31	158.98	330.35	484.70	475.19	373.12
47.50°	353.47	477.00	454.20	297.35	123.85	59.58	69.94	159.96	190.35	125.10	48.65	64.80	139.79	290.36	431.38	456.24	353.47
50.00°	337.39	461.48	401.37	255.56	102.99	43.58	32.76	91.25	95.76	62.49	24.46	49.94	125.35	256.99	391.12	437.34	337.39
52.50°	326.03	442.80	369.59	232.98	94.80	33.67	19.24	41.63	51.96	31.23	15.09	40.93	117.36	239.74	365.63	420.90	326.03
55.00°	318.29	424.85	340.60	212.90	86.54	25.70	6.52	14.38	12.19	7.81	7.15	32.19	108.00	223.60	341.77	404.55	318.29
57.50°	314.84	408.78	316.20	196.10	77.61	18.99	4.59	5.90	6.65	4.34	5.61	25.25	96.98	206.86	319.60	391.69	314.84
60.00°	310.93	390.20	291.06	178.39	68.32	13.93	2.83	2.07	1.83	1.92	4.22	18.74	84.96	190.10	296.11	378.49	310.93
62.50°	306.54	365.88	264.83	159.61	56.69	9.82	2.56	1.74	1.92	1.86	3.37	14.54	71.84	170.63	271.38	357.46	306.54
65.00°	302.20	338.75	237.86	140.70	45.40	7.39	2.31	1.55	1.99	1.78	2.64	10.67	59.88	151.11	245.07	335.88	302.20
67.50°	297.92	305.88	209.88	121.65	35.91	5.85	2.23	1.46	1.94	1.65	2.26	8.34	49.06	132.15	217.45	306.81	297.92
70.00°	288.81	272.28	182.86	103.26	26.84	4.56	2.17	1.69	1.90	1.69	2.02	6.17	38.63	113.16	189.97	277.36	288.81
72.50°	275.44	237.36	156.96	85.49	19.60	3.38	2.16	2.12	1.91	2.03	2.13	4.61	28.55	93.55	162.61	244.31	275.44
75.00°	254.03	202.13	132.21	68.38	13.16	2.89	2.15	2.22	1.95	2.17	2.26	3.30	20.21	74.08	137.00	210.61	254.03
77.50°	226.25	166.42	108.71	51.82	9.77	2.69	2.09	2.13	2.07	2.01	2.42	2.89	13.28	56.63	112.58	172.03	226.25
80.00°	190.09	130.12	84.86	36.86	6.70	2.41	2.02	2.11	2.11	1.86	2.43	2.54	8.77	39.38	86.99	133.29	190.09
82.50°	147.98	92.97	60.67	23.13	4.65	2.10	1.87	2.13	1.92	1.73	2.07	2.35	6.00	24.37	60.67	93.53	147.98
85.00°	93.77	57.16	37.21	13.00	2.91	2.03	1.76	2.07	1.76	1.66	1.90	2.17	4.12	10.48	36.13	55.53	93.77
87.50°	31.90	23.11	14.40	5.38	2.04	2.04	1.84	1.99	1.73	1.68	2.12	2.02	2.82	5.63	12.57	26.06	31.90
90.00°	6.72	3.91	3.58	2.23	1.50	1.90	1.94	1.82	1.76	1.70	2.21	1.98	2.05	1.47	3.83	2.35	6.72

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%	20%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	2262	2262	2262	2262	2209	2209	2209	2209	2111	2111	2111	2021	2021	2021	1939	1939	1939	1900
	1	2109	2036	1971	1912	2060	1994	1935	1881	1915	1867	1823	1842	1804	1768	1776	1745	1716	1709
	2	1962	1836	1732	1645	1916	1802	1707	1626	1737	1658	1589	1678	1612	1554	1623	1569	1521	1536
	3	1828	1666	1541	1441	1785	1638	1522	1429	1584	1486	1405	1535	1452	1382	1489	1419	1359	1390
	4	1707	1521	1385	1281	1668	1498	1371	1273	1453	1343	1256	1412	1317	1241	1374	1292	1225	1266
	5	1598	1397	1256	1151	1563	1377	1245	1146	1340	1224	1135	1305	1203	1124	1273	1184	1113	1161
	6	1500	1288	1146	1045	1467	1272	1138	1040	1240	1121	1032	1211	1105	1025	1183	1090	1017	1069
	7	1410	1194	1053	955	1381	1180	1046	952	1153	1033	946	1128	1020	940	1104	1008	934	990
	8	1329	1110	972	878	1303	1098	967	876	1075	956	871	1054	946	867	1033	936	863	920
	9	1256	1036	902	811	1232	1026	898	810	1006	889	806	988	880	803	970	872	800	857
	10	1188	971	840	753	1167	962	837	752	944	829	750	928	822	747	913	815	745	802

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	41.7 fc	6.3 ft
6.5 ft	29.9 fc	7.4 ft
7.5 ft	22.4 fc	8.5 ft
8.0 ft	19.7 fc	9.1 ft
10.0 ft	12.6 fc	11.4 ft
12.0 ft	8.8 fc	13.6 ft
14.0 ft	6.4 fc	15.9 ft
16.0 ft	4.9 fc	18.2 ft
20.0 ft	3.2 fc	22.7 ft
24.0 ft	2.2 fc	27.3 ft
28.0 ft	1.6 fc	31.8 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	276707	276707	276707
45.00°	115709	160815	45240
55.00°	121683	130214	33083
65.00°	156800	123414	23557
75.00°	215224	112014	11150
85.00°	235929	93624	7311

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	30.0	31.4	30.4	31.7	32.0	13.1	14.4	13.5	14.8	15.1
	3H	32.5	33.7	32.9	34.0	34.4	15.1	16.3	15.5	16.6	17.0
	4H	33.7	34.8	34.1	35.1	35.5	15.7	16.8	16.1	17.1	17.5
	6H	34.7	35.7	35.1	36.1	36.5	16.0	17.0	16.4	17.4	17.8
	8H	35.1	36.1	35.6	36.5	36.9	16.1	17.0	16.5	17.4	17.8
	12H	35.4	36.4	35.9	36.8	37.2	16.1	17.1	16.6	17.4	17.9
4H	2H	30.4	31.5	30.8	31.9	32.2	12.9	14.0	13.3	14.3	14.7
	3H	33.1	34.0	33.5	34.4	34.8	14.9	15.8	15.3	16.2	16.6
	4H	34.4	35.3	34.9	35.7	36.1	15.5	16.3	15.9	16.7	17.1
	6H	35.6	36.4	36.1	36.8	37.3	15.8	16.5	16.3	17.0	17.5
	8H	36.1	36.8	36.6	37.2	37.7	16.0	16.6	16.4	17.1	17.6
	12H	36.5	37.1	37.0	37.6	38.0	16.1	16.7	16.6	17.2	17.7
8H	4H	34.5	35.2	35.0	35.7	36.1	15.3	16.0	15.8	16.5	16.9
	6H	35.9	36.4	36.4	36.9	37.4	15.7	16.3	16.2	16.8	17.3
	8H	36.4	36.9	37.0	37.4	37.9	15.9	16.4	16.4	16.9	17.4
	12H	36.9	37.3	37.4	37.8	38.4	16.1	16.5	16.6	17.0	17.6
12H	4H	34.5	35.1	35.0	35.6	36.1	15.3	15.9	15.8	16.4	16.8
	6H	35.9	36.4	36.4	36.8	37.4	15.7	16.2	16.2	16.6	17.2
	8H	36.5	36.9	37.0	37.4	38.0	15.9	16.3	16.4	16.8	17.4

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0