

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SR3Mx 25L 35HK XW xx xx RH3F 25L 35HK XW MW NL
Nom. 3" Round Pinhole A-Spec, Xtra Wide Beam

Test Number

SP-01404_3

Test Date

9/14/2022

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

SR3Mx 25L 35HK XW xx xx RH3F 25L 35HK
XW MW NL

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Summary of Results

Power

Input Watts	26.3 W
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Lumen Output

Output Lumens	1567
Efficacy	59.58 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.94
Two luminaires, plane 90°	0.94
Four luminaires	0.85

Full Beam Angle

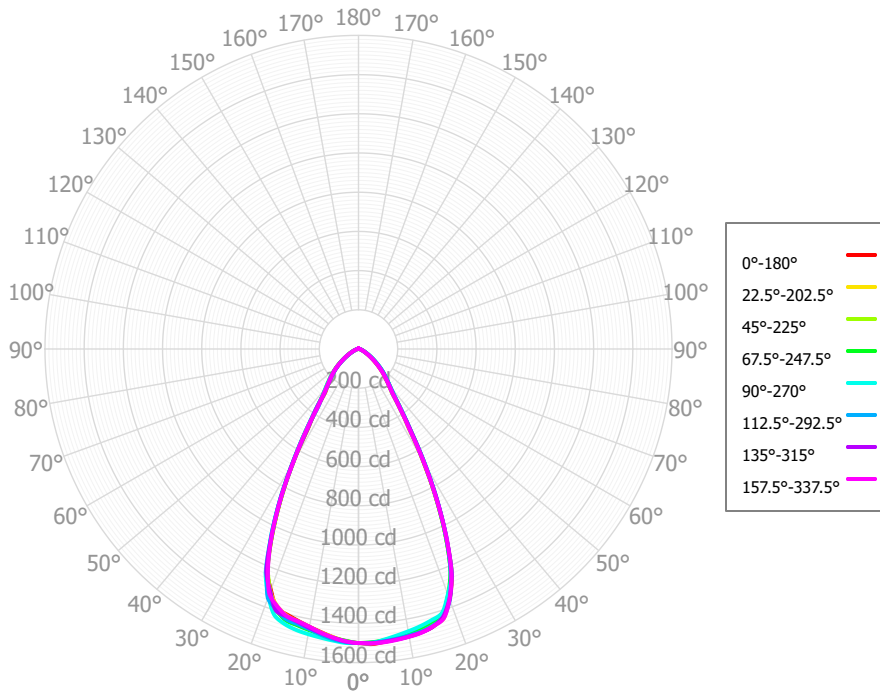
0° - 180°	58°
90° - 270°	58°

IES File Header Contents

Keyword	Value
TEST	SP-01404_3
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/14/2022
ISSUE DATE	10/25/2022
LUMCAT	SR3Mx 25L 35HK XW xx xx RH3F 25L 35HK XW MW NL
LUMINAIRE	Nom. 3" Round Pinhole A-Spec, Xtra Wide Beam
OTHER	Matte White Trim, No lens
OTHER	58 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

SR3Mx 25L 35HK XW xx xx RH3F 25L 35HK
 XW MW NL

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	143.49	9.16%	90.00° - 100.00°	2.08	0.13%
10.00° - 20.00°	402.41	25.68%	100.00° - 110.00°	1.98	0.13%
20.00° - 30.00°	468.23	29.88%	100.00° - 120.00°	3.85	0.25%
30.00° - 40.00°	247.65	15.80%	120.00° - 130.00°	1.76	0.11%
40.00° - 50.00°	146.48	9.35%	130.00° - 140.00°	1.54	0.10%
50.00° - 60.00°	84.95	5.42%	140.00° - 150.00°	1.32	0.08%
60.00° - 70.00°	38.25	2.44%	150.00° - 160.00°	0.98	0.06%
70.00° - 80.00°	16.63	1.06%	160.00° - 170.00°	0.60	0.04%
80.00° - 90.00°	6.55	0.42%	170.00° - 180.00°	0.20	0.01%
0.00° - 90.00°	1554.63	99.21%	0.00° - 180.00°	1566.96	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°	1500.59	1500.59	1500.59	1500.59	1500.59	1500.59	1500.59	1500.59	1500.59	1500.59	1500.59	1500.59	1500.59	1500.59	1500.59	1500.59	1500.59
2.50°	1507.40	1503.86	1500.15	1498.59	1502.41	1497.23	1494.70	1493.12	1494.55	1492.38	1491.99	1490.88	1501.45	1500.73	1503.59	1503.84	1507.40
5.00°	1500.57	1498.20	1494.88	1492.16	1489.57	1487.38	1479.81	1478.62	1477.49	1476.60	1479.81	1480.66	1493.48	1497.11	1499.51	1502.33	1500.57
7.50°	1494.14	1489.64	1486.76	1479.93	1475.97	1470.60	1463.06	1460.57	1458.07	1460.14	1464.34	1469.10	1485.52	1491.42	1495.11	1497.37	1494.14
10.00°	1488.68	1483.08	1474.90	1468.39	1463.01	1451.27	1445.22	1439.61	1439.74	1442.04	1448.78	1456.12	1477.67	1485.00	1489.70	1490.92	1488.68
12.50°	1480.59	1476.98	1463.52	1457.28	1450.03	1438.29	1427.22	1423.84	1421.66	1424.72	1433.17	1444.16	1468.66	1477.35	1481.83	1483.28	1480.59
15.00°	1466.88	1460.93	1452.65	1440.37	1433.95	1427.29	1413.29	1411.72	1404.34	1408.96	1415.50	1433.17	1453.61	1462.39	1467.38	1466.43	1466.88
17.50°	1432.33	1443.04	1416.97	1420.51	1414.43	1392.86	1399.79	1377.62	1387.15	1377.26	1397.00	1396.24	1425.23	1437.14	1433.85	1443.36	1432.33
20.00°	1360.41	1349.35	1356.57	1337.11	1333.48	1352.57	1317.24	1329.99	1308.38	1318.74	1314.88	1338.36	1343.69	1362.59	1357.77	1359.11	1360.41
22.50°	1242.38	1245.43	1232.07	1226.56	1243.53	1214.25	1230.60	1207.35	1222.44	1213.58	1211.02	1214.47	1238.30	1228.62	1244.37	1238.55	1242.38
25.00°	1054.10	1054.54	1052.85	1053.84	1055.52	1056.04	1047.36	1045.57	1041.39	1039.52	1041.63	1045.00	1053.81	1063.14	1058.68	1062.72	1054.10
27.50°	860.16	855.28	861.92	858.33	867.03	864.64	861.62	859.56	852.81	856.44	854.14	860.93	867.22	864.14	867.63	859.14	860.16
30.00°	658.64	663.29	662.45	671.93	675.10	668.27	672.18	662.55	665.35	661.96	669.13	668.01	674.97	676.11	667.79	667.11	658.64
32.50°	492.01	471.69	502.21	488.26	495.92	509.98	487.22	505.50	477.93	497.76	484.69	510.62	505.75	498.11	498.73	480.10	492.01
35.00°	365.42	374.65	367.19	381.48	383.41	355.54	384.07	363.48	377.37	367.29	380.10	371.47	388.19	377.13	373.98	369.76	365.42
37.50°	281.58	279.88	291.17	293.81	285.42	298.34	286.53	295.22	279.49	284.59	289.27	300.46	297.39	302.10	286.66	287.02	281.58
40.00°	241.07	243.67	247.33	250.29	248.67	247.45	250.96	249.65	246.97	247.57	251.95	259.81	258.68	251.97	245.40	242.40	241.07
42.50°	207.36	207.93	214.29	215.23	214.44	217.37	216.78	219.88	215.16	217.48	221.16	228.34	224.41	219.00	211.10	208.92	207.36
45.00°	179.56	179.82	186.38	188.57	188.68	187.88	192.75	194.16	192.35	193.08	197.59	200.28	197.49	190.15	184.12	180.22	179.56
47.50°	152.28	152.03	159.44	163.08	163.13	165.12	168.54	170.56	169.41	168.71	174.62	174.14	170.98	163.73	157.34	152.67	152.28
50.00°	125.39	127.32	132.87	137.42	138.16	142.28	143.39	147.38	145.29	144.36	149.19	148.57	145.09	138.17	130.74	127.90	125.39
52.50°	102.32	103.26	109.62	111.74	114.60	118.04	118.98	122.93	121.57	121.87	123.65	124.55	120.36	113.04	107.29	103.65	102.32
55.00°	81.74	83.70	87.45	91.20	94.32	94.35	97.69	98.30	100.24	100.53	102.92	100.92	97.06	92.86	86.36	84.37	81.74
57.50°	66.10	65.44	70.44	70.95	75.55	76.50	77.77	81.45	80.13	81.80	82.34	82.00	77.90	74.81	69.15	65.75	66.10
60.00°	53.21	53.70	54.83	57.39	59.72	59.33	62.42	65.44	65.51	64.45	66.54	63.99	63.12	59.81	54.48	52.80	53.21
62.50°	42.44	42.46	44.28	44.03	46.49	47.17	48.46	51.77	51.83	51.75	51.16	51.43	50.19	45.91	43.40	40.39	42.44
65.00°	32.65	33.26	34.81	35.82	37.73	35.89	38.34	38.24	41.66	41.17	41.52	39.65	38.99	36.52	34.47	33.28	32.65
67.50°	26.45	25.33	28.32	27.80	29.96	29.46	29.43	31.48	32.41	32.98	32.26	31.82	30.84	28.50	27.60	26.44	26.45
70.00°	21.69	21.49	22.31	22.97	23.65	23.33	23.35	24.87	25.87	25.70	26.45	24.40	25.15	22.37	21.77	20.46	21.69
72.50°	18.18	17.93	18.65	18.27	18.81	18.46	18.10	19.42	19.87	20.22	20.72	19.65	20.36	16.71	17.82	14.60	18.18
75.00°	15.09	15.09	15.27	14.94	15.81	14.28	14.50	14.15	15.27	15.31	15.59	15.05	16.17	14.66	14.70	13.41	15.09
77.50°	12.95	12.53	13.09	11.96	13.30	12.46	11.89	12.19	11.63	12.52	11.36	12.45	12.96	13.32	12.45	12.17	12.95
80.00°	11.08	10.58	11.00	11.46	11.33	10.72	11.00	10.23	10.06	10.28	11.33	9.91	10.34	11.14	10.52	10.11	11.08
82.50°	8.17	8.16	7.85	10.36	8.61	9.21	9.02	8.24	8.08	8.11	10.48	8.18	7.85	8.84	8.04	8.01	8.17
85.00°	5.04	4.83	4.65	6.18	5.16	7.28	5.43	6.21	5.33	5.95	6.50	6.42	5.41	5.81	5.40	5.32	5.04
87.50°	3.40	2.61	3.37	2.71	3.08	4.37	3.14	3.97	3.30	3.83	3.31	4.15	3.73	2.71	3.51	2.90	3.40
90.00°	2.01	2.18	2.13	2.16	2.14	2.31	2.46	2.05	2.41	1.72	2.55	2.07	2.37	2.12	1.82	2.38	2.01
92.50°	1.89	1.93	1.78	1.76	1.70	1.98	1.99	1.86	1.88	1.65	1.99	2.02	2.13	1.67	1.54	1.94	1.89
95.00°	1.93	1.96	1.46	1.85	1.61	1.76	1.75	1.71	1.86	1.80	1.98	1.96	2.30	1.92	1.54	1.91	1.93
97.50°	2.06	1.95	1.66	1.84	1.68	1.74	1.71	1.70	1.83	1.98	1.92	1.80	2.39	2.18	1.70	1.91	2.06
100.00°	2.21	1.89	1.84	1.58	1.83	1.77	1.85	1.71	1.80	2.16	1.73	1.69	2.45	2.13	1.87	2.02	2.21

SR3Mx 25L 35HK XW xx xx RH3F 25L 35HK
 XW MW NL

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	1862	1862	1862	1862	1818	1818	1818	1818	1734	1734	1734	1658	1658	1658	1588	1588	1555
	1	1762	1713	1669	1629	1721	1677	1638	1602	1611	1579	1550	1550	1525	1501	1494	1474	1443
	2	1661	1575	1504	1444	1624	1547	1482	1427	1493	1440	1393	1444	1400	1361	1398	1363	1334
	3	1566	1454	1367	1297	1533	1431	1350	1286	1387	1319	1263	1346	1289	1242	1308	1261	1235
	4	1478	1347	1251	1177	1447	1327	1238	1169	1291	1215	1154	1257	1192	1139	1226	1170	1147
	5	1396	1252	1151	1077	1368	1236	1142	1072	1206	1124	1061	1177	1106	1050	1151	1089	1068
	6	1320	1168	1066	992	1295	1154	1058	988	1129	1044	980	1105	1030	972	1082	1016	998
	7	1251	1093	991	919	1228	1082	985	916	1060	973	910	1039	962	904	1020	951	934
	8	1187	1026	925	856	1166	1016	920	853	997	911	849	980	902	844	963	893	878
	9	1127	966	867	800	1109	957	863	798	941	855	794	926	847	791	911	840	826
	10	1073	911	815	750	1056	904	811	749	890	805	746	877	798	743	864	792	780

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	49.6 fc	6.1 ft
6.5 ft	35.5 fc	7.2 ft
7.5 ft	26.7 fc	8.3 ft
8.0 ft	23.4 fc	8.8 ft
10.0 ft	15.0 fc	11.0 ft
12.0 ft	10.4 fc	13.2 ft
14.0 ft	7.7 fc	15.4 ft
16.0 ft	5.9 fc	17.6 ft
20.0 ft	3.8 fc	22.0 ft
24.0 ft	2.6 fc	26.4 ft
28.0 ft	1.9 fc	30.8 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	914029	914029	914029
45.00°	154675	160553	162534
55.00°	86800	92870	100166
65.00°	47065	50164	54376
75.00°	35515	35937	37199
85.00°	35206	32517	36045

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	22.1	23.2	22.4	23.5	23.9	23.3	24.5	23.7	24.8	25.1
	3H	22.7	23.7	23.1	24.1	24.5	23.9	24.9	24.3	25.3	25.7
	4H	23.0	23.9	23.4	24.3	24.7	24.1	25.0	24.5	25.4	25.8
	6H	23.2	24.1	23.7	24.5	24.9	24.3	25.1	24.7	25.5	25.9
	8H	23.3	24.2	23.8	24.6	25.0	24.3	25.2	24.8	25.6	26.0
	12H	23.4	24.2	23.9	24.6	25.0	24.4	25.2	24.8	25.6	26.0
4H	2H	22.3	23.2	22.7	23.6	24.0	23.5	24.4	23.9	24.8	25.2
	3H	23.1	23.8	23.5	24.2	24.7	24.2	25.0	24.6	25.4	25.8
	4H	23.4	24.1	23.9	24.5	25.0	24.5	25.2	24.9	25.6	26.1
	6H	23.8	24.4	24.3	24.9	25.3	24.8	25.3	25.2	25.8	26.3
	8H	24.0	24.5	24.5	25.0	25.5	24.9	25.4	25.4	25.9	26.4
	12H	24.1	24.6	24.6	25.1	25.6	25.0	25.5	25.5	26.0	26.5
8H	4H	23.5	24.0	24.0	24.5	25.0	24.5	25.0	25.0	25.5	26.0
	6H	24.0	24.5	24.6	25.0	25.5	24.9	25.3	25.4	25.8	26.3
	8H	24.3	24.7	24.8	25.2	25.7	25.1	25.5	25.6	26.0	26.5
	12H	24.5	24.8	25.0	25.4	26.0	25.3	25.7	25.9	26.2	26.8
12H	4H	23.5	24.0	24.0	24.5	25.0	24.5	25.0	25.0	25.5	26.0
	6H	24.1	24.5	24.6	24.9	25.5	24.9	25.3	25.5	25.8	26.4
	8H	24.4	24.7	24.9	25.2	25.8	25.2	25.5	25.7	26.0	26.6

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0