

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-01418

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	1655
Efficacy	62.92 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.04
Two luminaires, plane 90°	1.17
Four luminaires	1.01

Full Beam Angle

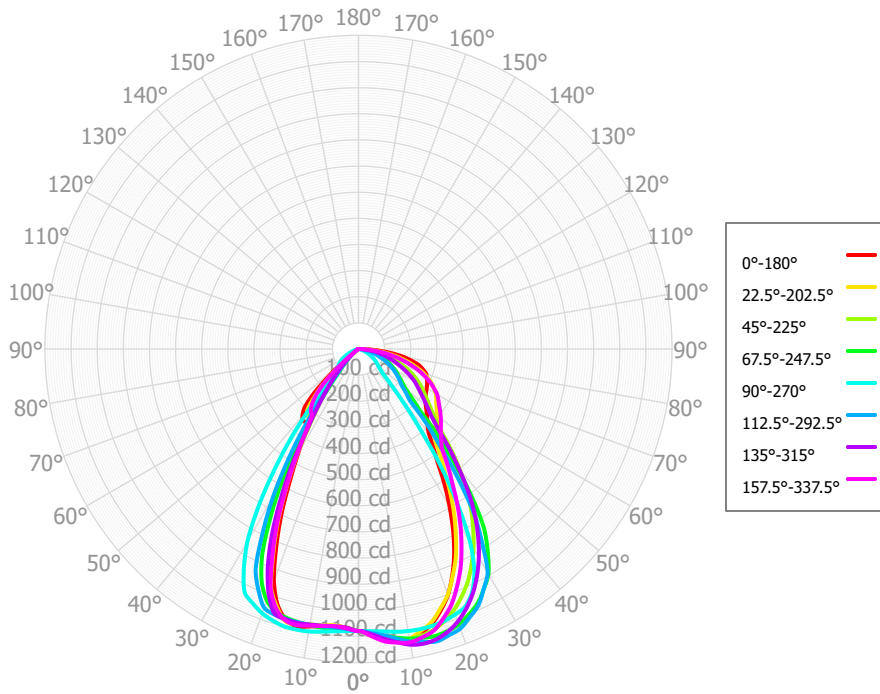
0° - 180°	61°
90° - 270°	69°

IES File Header Contents

Keyword	Value
TEST	SP-01418
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/11/2022
ISSUEDATE	10/25/2022
LUMCAT	SR3Mx 25L 35HK WW xx xx RNW3F 25L 35HK 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. 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
OTHER	CCT Output Multipliers: 27HK x 0.92, 30HK x 0.96, 40HK x 1.03
_CRI	90

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

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	106.07	6.41%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	306.81	18.54%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	406.11	24.54%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	320.25	19.35%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	193.59	11.70%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	130.03	7.86%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	103.49	6.25%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	66.96	4.05%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	21.61	1.31%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1654.92	100.00%	0.00° - 180.00°	1654.92	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°	1079.54	1079.54	1079.54	1079.54	1079.54	1079.54	1079.54	1079.54	1079.54	1079.54	1079.54	1079.54	1079.54	1079.54	1079.54	1079.54	1079.54
2.50°	1096.47	1098.88	1095.04	1091.98	1081.24	1073.13	1067.93	1070.75	1067.56	1069.53	1072.80	1079.68	1080.73	1088.03	1091.94	1099.51	1096.47
5.00°	1118.66	1119.66	1111.93	1103.35	1085.21	1070.01	1065.30	1065.36	1063.93	1061.87	1068.12	1076.95	1084.99	1100.00	1112.94	1122.67	1118.66
7.50°	1127.87	1123.49	1122.01	1114.43	1091.74	1071.30	1068.07	1069.64	1070.53	1067.47	1068.50	1075.79	1090.96	1118.27	1132.05	1133.43	1127.87
10.00°	1128.73	1125.13	1127.23	1125.36	1096.28	1072.36	1071.05	1074.92	1078.32	1073.36	1069.93	1073.92	1097.87	1137.01	1149.10	1139.78	1128.73
12.50°	1113.20	1104.74	1123.02	1132.23	1097.94	1071.63	1074.17	1082.34	1087.63	1080.81	1072.54	1070.90	1099.87	1148.02	1155.18	1130.16	1113.20
15.00°	1087.96	1082.04	1112.58	1137.18	1096.57	1070.44	1071.09	1076.58	1072.60	1079.14	1066.87	1065.09	1099.33	1158.62	1150.26	1115.42	1087.96
17.50°	1048.60	1041.82	1091.91	1131.92	1091.11	1066.40	1063.72	1044.03	1028.85	1036.36	1052.38	1055.18	1090.12	1149.12	1135.27	1080.94	1048.60
20.00°	1001.52	1000.15	1064.87	1122.27	1081.70	1054.59	1003.16	981.21	947.18	977.49	991.45	1025.23	1076.78	1138.99	1110.76	1040.60	1001.52
22.50°	938.18	941.21	1028.52	1101.31	1067.30	1000.39	907.94	861.93	824.08	854.62	884.71	967.64	1055.05	1111.74	1076.60	984.65	938.18
25.00°	866.51	881.12	986.83	1075.91	1028.47	932.20	783.78	736.27	697.63	729.61	759.18	873.79	1029.65	1084.14	1034.01	924.55	866.51
27.50°	784.47	807.21	935.85	1037.67	961.15	795.22	642.23	599.65	567.71	596.84	616.50	733.71	950.70	1037.28	981.65	853.88	784.47
30.00°	697.55	732.68	879.96	994.73	855.53	654.60	503.78	476.64	462.60	475.19	482.36	586.79	849.96	989.06	921.22	780.72	697.55
32.50°	611.85	654.55	817.55	921.18	708.53	498.25	367.07	375.63	381.19	389.87	355.59	431.82	709.17	881.36	852.68	703.33	611.85
35.00°	526.69	576.34	751.91	837.53	553.73	349.88	274.94	310.69	344.34	325.17	269.13	298.67	553.57	772.36	777.94	625.02	526.69
37.50°	466.98	516.43	678.93	711.75	390.96	231.93	205.95	299.48	346.89	321.17	214.86	189.84	405.49	629.17	691.97	559.78	466.98
40.00°	417.48	457.09	602.63	573.46	267.30	132.04	156.10	277.98	333.59	304.48	164.10	118.55	259.99	487.91	598.05	496.99	417.48
42.50°	390.38	438.11	526.22	450.29	180.61	95.50	115.36	242.35	307.04	253.08	115.94	85.97	189.12	379.31	511.32	468.45	390.38
45.00°	371.45	419.29	449.78	331.26	129.78	64.03	78.68	190.81	245.21	195.54	76.55	62.34	141.36	276.12	429.38	445.39	371.45
47.50°	353.54	405.81	401.86	275.27	110.35	48.55	43.81	118.62	156.12	122.74	43.24	47.25	117.80	244.90	377.24	427.97	353.54
50.00°	335.97	392.28	364.96	234.60	96.67	34.97	24.58	63.28	89.45	62.17	22.99	36.03	100.97	215.04	343.40	411.33	335.97
52.50°	323.93	377.81	337.31	211.60	87.75	26.86	11.71	28.16	38.81	29.98	11.14	28.31	92.42	199.02	314.90	394.18	323.93
55.00°	313.57	363.58	312.90	192.50	78.26	19.88	6.26	7.67	13.30	7.02	5.40	21.49	85.98	183.06	289.43	376.97	313.57
57.50°	307.01	352.87	291.80	177.07	68.34	15.91	3.56	3.60	4.72	3.65	3.35	15.41	76.00	167.51	267.65	362.14	307.01
60.00°	301.49	341.72	271.79	162.34	59.00	11.96	2.40	1.46	1.38	1.38	2.41	10.91	65.22	151.77	247.83	347.54	301.49
62.50°	295.77	325.13	250.01	146.45	50.08	8.07	1.77	1.36	1.28	1.25	2.09	7.63	53.72	134.66	224.38	325.79	295.77
65.00°	290.01	307.95	227.72	130.35	41.01	5.05	1.57	1.28	1.30	1.09	1.91	5.59	42.08	117.55	199.15	303.49	290.01
67.50°	282.68	285.23	202.99	114.46	31.84	3.96	1.50	1.22	1.38	0.91	1.79	4.46	32.97	100.49	175.26	276.01	282.68
70.00°	275.01	261.66	177.62	98.59	24.09	3.01	1.43	1.21	1.46	0.89	1.62	3.50	24.30	83.75	151.95	248.26	275.01
72.50°	258.17	231.54	154.24	82.91	17.22	2.38	1.36	1.24	1.55	1.17	1.43	2.67	17.81	68.68	130.31	215.99	258.17
75.00°	239.57	201.05	131.33	67.25	11.80	1.97	1.45	1.25	1.51	1.30	1.35	2.14	11.65	53.84	109.37	183.55	239.57
77.50°	208.78	168.10	107.84	51.54	7.23	2.01	1.58	1.23	1.40	1.22	1.32	1.80	8.35	40.10	89.41	151.01	208.78
80.00°	175.89	134.30	84.23	35.81	4.58	1.95	1.58	1.19	1.35	1.21	1.46	1.54	5.42	27.01	69.83	118.47	175.89
82.50°	132.57	95.61	60.65	23.05	2.95	1.68	1.56	1.14	1.33	1.29	1.66	1.32	3.91	16.63	48.56	83.58	132.57
85.00°	87.71	58.27	37.07	10.54	2.09	1.44	1.44	1.21	1.46	1.37	1.54	1.20	2.56	7.70	26.68	48.84	87.71
87.50°	46.45	27.54	19.76	5.69	1.60	1.23	1.31	1.39	1.66	1.44	1.31	1.14	1.88	4.11	13.61	24.69	46.45
90.00°	5.63	2.27	3.46	1.30	1.33	1.15	1.29	1.37	1.56	1.44	1.25	1.12	1.25	1.31	3.35	1.37	5.63

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	1970	1970	1970	1970	1924	1924	1924	1924	1839	1839	1839	1761	1761	1761	1689	1689	1655
	1	1835	1771	1714	1662	1792	1735	1683	1635	1666	1623	1584	1602	1568	1536	1544	1517	1485
	2	1706	1596	1505	1428	1666	1566	1482	1411	1509	1440	1379	1457	1400	1349	1409	1362	1333
	3	1589	1447	1337	1249	1552	1422	1320	1238	1375	1289	1218	1332	1259	1197	1292	1231	1205
	4	1483	1320	1200	1109	1449	1299	1188	1102	1261	1164	1088	1225	1141	1074	1191	1120	1097
	5	1388	1211	1087	996	1357	1194	1078	991	1161	1059	981	1131	1042	972	1103	1025	1005
	6	1302	1116	992	903	1273	1102	984	899	1074	970	892	1049	956	885	1025	943	925
	7	1224	1034	911	824	1198	1021	905	822	998	893	817	976	882	812	956	871	855
	8	1153	961	840	757	1130	951	836	756	930	826	752	912	817	748	894	808	794
	9	1089	897	779	700	1068	888	775	698	870	767	695	854	760	693	839	753	740
	10	1030	840	725	649	1011	832	722	648	817	716	646	802	709	644	789	703	692

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	35.7 fc	6.5 ft
6.5 ft	25.6 fc	7.6 ft
7.5 ft	19.2 fc	8.8 ft
8.0 ft	16.9 fc	9.4 ft
10.0 ft	10.8 fc	11.8 ft
12.0 ft	7.5 fc	14.1 ft
14.0 ft	5.5 fc	16.5 ft
16.0 ft	4.2 fc	18.8 ft
20.0 ft	2.7 fc	23.5 ft
24.0 ft	1.9 fc	28.2 ft
28.0 ft	1.4 fc	32.9 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	236723	236723	236723
45.00°	115190	139480	40247
55.00°	119878	119622	29920
65.00°	150473	118157	21277
75.00°	202971	111265	10000
85.00°	220683	93269	5248

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	29.8	31.1	30.2	31.5	31.8	11.7	13.0	12.0	13.3	13.6
	3H	32.4	33.6	32.8	33.9	34.3	13.5	14.7	13.9	15.0	15.4
	4H	33.6	34.7	34.0	35.1	35.4	14.0	15.1	14.4	15.4	15.8
	6H	34.7	35.7	35.1	36.1	36.5	14.2	15.2	14.6	15.6	16.0
	8H	35.1	36.0	35.5	36.4	36.8	14.3	15.3	14.7	15.6	16.1
	12H	35.4	36.3	35.8	36.7	37.1	14.3	15.3	14.8	15.7	16.1
4H	2H	30.1	31.3	30.6	31.6	32.0	11.4	12.5	11.8	12.9	13.3
	3H	33.0	33.9	33.4	34.3	34.7	13.3	14.2	13.7	14.6	15.0
	4H	34.4	35.2	34.8	35.6	36.1	13.8	14.6	14.2	15.0	15.5
	6H	35.6	36.3	36.0	36.8	37.2	14.1	14.8	14.5	15.2	15.7
	8H	36.1	36.7	36.5	37.2	37.7	14.2	14.8	14.6	15.3	15.8
	12H	36.4	37.0	36.9	37.5	38.0	14.3	14.9	14.8	15.4	15.8
8H	4H	34.5	35.1	34.9	35.6	36.0	13.6	14.3	14.1	14.8	15.2
	6H	35.8	36.4	36.3	36.9	37.3	14.0	14.5	14.5	15.0	15.5
	8H	36.4	36.9	36.9	37.4	37.9	14.1	14.6	14.6	15.1	15.6
	12H	36.9	37.3	37.4	37.8	38.4	14.2	14.7	14.8	15.2	15.8
12H	4H	34.4	35.0	34.9	35.5	36.0	13.6	14.2	14.1	14.7	15.2
	6H	35.8	36.3	36.3	36.8	37.3	13.9	14.4	14.4	14.9	15.4
	8H	36.4	36.9	36.9	37.4	37.9	14.1	14.5	14.6	15.0	15.6

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0