

## Indoor Distribution Test Report

### Spectrum Lighting Inc.

994 Jefferson Street  
Fall River, MA 02721  
+1.508.678.2303

### Spectrum Lighting Photometric Lab

#### Luminaire

STL4 - 40L - 30HK - LW - xx - xx - MW

Track light for accent, display and general illumination.

#### Test Number

STL4-3

#### Test Date

2/18/25

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

## Summary of Results

### Power

Input Watts	39.6 W
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### Lumen Output

Output Lumens	3045
Efficacy	76.89 lm/W

### Luminous Dimensions

0° - 180° Size	0.1
90° - 270° Size	3.7
Height	0.1

### Spacing Criterion

Two luminaires, plane 0°	1.87
Two luminaires, plane 90°	1.11
Four luminaires	1.93

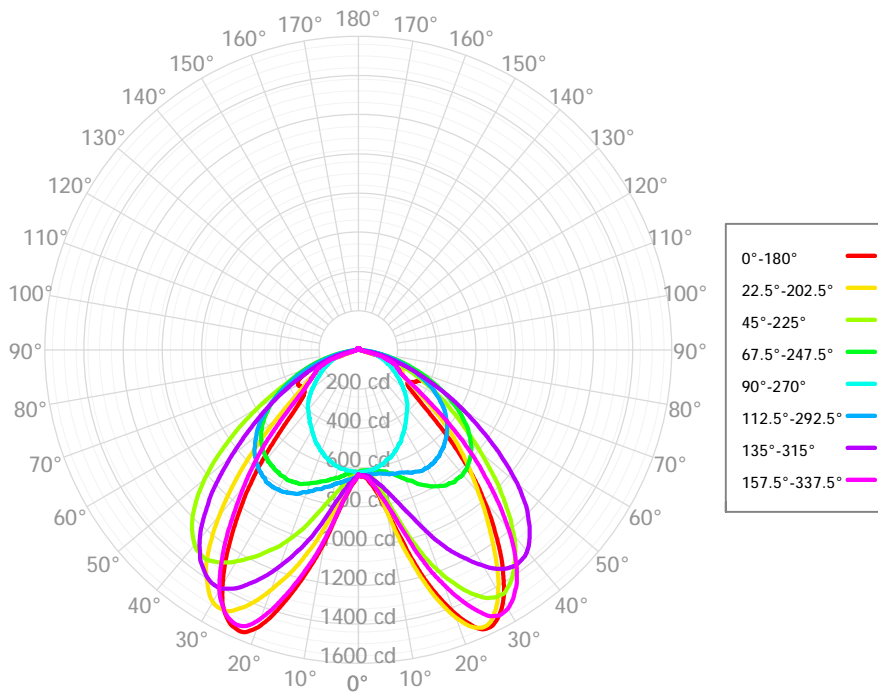
### Full Beam Angle

0° - 180°	84°
90° - 270°	N/A°

## IES File Header Contents

Keyword	Value
TEST	STL4-3
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	STL4 - 40L - 30HK - LW - xx - xx - MW
LUMINAIRE	Track light for accent, display and general illumination.

### Candela Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	67.01	2.20%	90.00° - 100.00°	7.30	0.24%
10.00° - 20.00°	261.79	8.60%	100.00° - 110.00°	7.20	0.24%
20.00° - 30.00°	518.92	17.04%	100.00° - 120.00°	14.08	0.46%
30.00° - 40.00°	654.63	21.50%	120.00° - 130.00°	6.44	0.21%
40.00° - 50.00°	599.00	19.67%	130.00° - 140.00°	5.68	0.19%
50.00° - 60.00°	446.60	14.67%	140.00° - 150.00°	4.72	0.15%
60.00° - 70.00°	308.08	10.12%	150.00° - 160.00°	3.52	0.12%
70.00° - 80.00°	124.77	4.10%	160.00° - 170.00°	2.23	0.07%
80.00° - 90.00°	19.17	0.63%	170.00° - 180.00°	0.76	0.02%
0.00° - 90.00°	2999.97	98.53%	0.00° - 180.00°	3044.69	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°	635.14	635.14	635.14	635.14	635.14	635.14	635.14	635.14	635.14	635.14	635.14	635.14	635.14	635.14	635.14	635.14	635.14
1.00°	646.55	620.15	620.08	616.91	624.68	648.74	652.54	660.79	660.68	645.06	623.00	621.25	622.90	643.38	641.85	644.75	646.55
2.00°	644.62	620.00	618.42	615.68	621.62	655.18	660.66	671.30	679.04	660.54	632.20	622.87	622.11	642.26	640.59	643.64	644.62
3.00°	650.08	628.57	622.11	616.02	624.26	659.28	678.58	695.24	696.60	680.49	644.85	625.83	619.64	641.58	639.76	648.22	650.08
4.00°	661.81	632.11	626.95	615.73	620.59	664.35	686.61	718.76	725.21	703.49	657.72	628.68	617.49	639.12	645.58	655.34	661.81
5.00°	681.11	649.47	638.20	615.24	617.08	667.27	708.13	749.25	754.72	724.71	669.99	634.67	618.43	637.34	648.18	671.47	681.11
6.00°	697.28	669.83	654.57	616.91	616.78	673.55	724.97	782.97	788.92	751.38	689.32	640.08	615.71	636.56	661.74	689.30	697.28
7.00°	723.85	696.35	666.58	618.43	614.69	679.35	750.16	827.04	832.56	776.83	704.91	648.63	612.58	639.08	672.11	706.78	723.85
8.00°	751.33	736.65	690.99	620.28	611.68	685.34	773.70	873.86	881.37	814.25	724.38	653.35	613.82	640.76	682.69	729.94	751.33
9.00°	788.36	778.60	715.97	623.84	607.81	689.29	803.35	926.91	940.87	849.37	743.58	662.69	610.90	638.41	696.50	759.17	788.36
10.00°	830.56	837.02	749.85	629.67	604.01	696.20	837.53	979.42	997.97	892.66	762.11	662.74	603.93	640.57	709.18	785.95	830.56
11.00°	881.40	901.86	788.94	630.56	598.68	704.67	871.29	1031.32	1052.79	932.83	783.57	671.70	601.35	643.41	729.00	819.96	881.40
12.00°	940.49	974.26	830.78	633.75	595.16	713.38	909.77	1084.48	1107.21	980.57	806.36	674.25	598.15	646.58	745.90	858.29	940.49
13.00°	1000.42	1042.23	874.76	638.46	591.65	717.38	944.33	1131.57	1160.25	1025.87	834.40	683.75	590.77	648.55	767.84	906.06	1000.42
14.00°	1074.52	1106.80	922.49	650.62	582.47	723.80	983.43	1181.48	1216.04	1064.15	860.25	689.55	586.12	654.33	790.68	954.89	1074.52
15.00°	1140.80	1176.68	975.75	653.52	577.15	736.33	1015.01	1231.89	1269.68	1109.74	888.96	694.26	582.95	653.59	814.98	1007.55	1140.80
16.00°	1208.93	1240.28	1022.06	660.50	575.30	738.93	1049.69	1282.54	1323.75	1152.62	920.65	698.35	574.10	657.33	843.77	1072.72	1208.93
17.00°	1267.29	1304.08	1069.70	670.71	570.08	744.63	1079.04	1329.30	1376.34	1191.96	951.32	707.28	573.13	660.59	870.58	1121.96	1267.29
18.00°	1323.83	1356.69	1119.43	680.48	563.84	757.85	1114.45	1378.17	1427.72	1229.45	976.72	712.67	563.50	660.54	900.30	1179.23	1323.83
19.00°	1376.08	1408.53	1164.42	691.47	557.33	763.16	1144.91	1420.87	1471.43	1264.92	1003.16	718.08	557.19	661.89	934.11	1228.50	1376.08
20.00°	1425.94	1453.05	1202.09	701.73	548.05	773.29	1176.75	1460.25	1509.60	1304.54	1029.03	725.42	550.29	666.24	968.33	1273.87	1425.94
21.00°	1469.33	1489.42	1242.65	713.74	543.13	776.48	1208.05	1494.22	1534.12	1341.79	1055.43	731.36	546.27	671.12	1004.87	1321.94	1469.33
22.00°	1506.49	1521.34	1276.38	719.01	535.13	788.62	1238.63	1518.97	1554.04	1377.16	1081.65	736.27	535.64	673.67	1041.64	1366.09	1506.49
23.00°	1541.04	1540.24	1312.01	733.95	525.29	799.01	1265.17	1530.52	1557.35	1408.27	1102.24	744.35	528.91	682.45	1072.81	1407.27	1541.04
24.00°	1560.71	1551.28	1344.76	749.12	520.83	802.35	1292.46	1534.30	1551.58	1437.31	1121.94	747.59	524.03	684.11	1107.49	1444.98	1560.71
25.00°	1566.56	1551.98	1372.94	758.56	516.25	806.89	1316.22	1528.13	1544.22	1459.12	1145.16	748.06	517.58	686.09	1137.18	1478.60	1566.56
26.00°	1564.12	1542.05	1396.07	768.60	501.85	812.01	1342.54	1517.53	1525.52	1483.45	1168.68	750.84	506.49	690.96	1165.67	1510.06	1564.12
27.00°	1550.38	1518.92	1419.51	777.44	493.43	815.34	1364.57	1501.54	1502.63	1493.30	1188.12	752.21	498.56	695.03	1191.07	1524.50	1550.38
28.00°	1532.13	1495.71	1432.74	789.32	485.89	820.40	1380.36	1475.77	1473.67	1496.02	1207.04	755.10	490.61	697.99	1219.60	1534.43	1532.13
29.00°	1508.66	1464.87	1443.13	796.47	477.79	821.11	1393.04	1451.57	1432.45	1494.96	1227.98	755.69	481.33	695.40	1246.49	1531.49	1508.66
30.00°	1478.78	1427.09	1445.67	804.28	468.85	821.10	1406.63	1418.59	1385.22	1484.69	1245.72	751.70	475.78	696.13	1269.92	1525.43	1478.78
31.00°	1444.28	1389.71	1447.87	810.87	461.70	824.37	1407.49	1375.08	1335.94	1468.77	1265.86	751.32	463.79	697.79	1296.46	1510.40	1444.28
32.00°	1400.37	1342.53	1434.30	818.10	450.36	823.93	1405.78	1329.20	1283.68	1443.85	1279.31	752.80	457.23	693.81	1316.37	1493.52	1400.37
33.00°	1355.96	1294.06	1421.47	824.53	444.66	823.90	1398.98	1279.25	1225.32	1415.25	1294.38	746.04	448.83	693.61	1332.64	1467.50	1355.96
34.00°	1313.45	1244.02	1403.34	823.84	433.72	821.53	1388.97	1228.52	1164.17	1387.86	1304.20	746.72	445.69	691.63	1346.87	1445.11	1313.45
35.00°	1263.12	1194.41	1380.83	828.23	426.19	821.41	1372.97	1175.73	1105.67	1356.20	1313.80	744.15	431.28	687.23	1354.31	1409.69	1263.12
36.00°	1210.60	1144.85	1355.72	833.73	418.78	810.88	1357.34	1120.16	1045.32	1312.16	1321.23	739.02	426.60	682.65	1361.46	1375.09	1210.60
37.00°	1158.01	1097.58	1328.52	829.21	409.25	809.66	1340.93	1062.59	986.14	1264.66	1320.24	737.95	419.62	681.48	1360.44	1333.31	1158.01
38.00°	1106.53	1052.54	1302.07	830.44	402.87	802.78	1311.97	1008.89	930.82	1212.71	1315.34	732.99	410.28	676.29	1357.15	1289.90	1106.53
39.00°	1053.15	1004.81	1270.93	830.87	394.40	798.26	1287.90	958.45	865.12	1160.32	1310.93	731.98	404.66	668.38	1352.28	1243.57	1053.15
40.00°	993.78	954.46	1235.24	830.33	387.69	791.33	1258.39	907.31	809.27	1103.42	1299.50	724.10	397.48	664.58	1340.27	1191.36	993.78
41.00°	943.13	914.94	1194.18	823.69	381.24	783.14	1227.50	860.42	743.68	1046.71	1282.64	722.33	394.05	660.34	1325.30	1137.85	943.13
42.00°	882.54	872.21	1160.59	823.38	373.88	777.72	1190.64	809.78	680.17	988.50	1264.96	714.00	383.84	654.13	1304.66	1087.00	882.54
43.00°	819.78	834.06	1113.91	815.42	364.02	764.36	1150.58	762.83	616.06	929.30	1244.45	710.86	376.29	646.20	1282.30	1029.60	819.78

### 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	3614	3614	3614	3614	3525	3525	3525	3525	3358	3358	3358	3206	3206	3206	3066	3066	3000
	1	3334	3203	3085	2979	3248	3130	3023	2926	2994	2906	2826	2869	2798	2732	2753	2697	2636
	2	3049	2816	2624	2462	2967	2756	2579	2430	2642	2494	2367	2537	2414	2307	2440	2339	2285
	3	2789	2486	2252	2065	2712	2435	2218	2044	2340	2155	2002	2251	2094	1962	2169	2037	1990
	4	2557	2208	1952	1757	2486	2165	1927	1743	2084	1878	1714	2009	1831	1686	1939	1786	1745
	5	2352	1974	1709	1514	2286	1937	1689	1504	1869	1651	1484	1804	1614	1464	1745	1578	1543
	6	2170	1775	1510	1320	2110	1744	1494	1312	1685	1463	1297	1630	1433	1282	1579	1405	1374
	7	2009	1606	1344	1161	1954	1579	1332	1155	1529	1306	1144	1482	1282	1133	1437	1258	1232
	8	1866	1461	1206	1030	1817	1438	1195	1026	1394	1174	1017	1353	1154	1008	1315	1135	1111
	9	1739	1336	1088	921	1694	1316	1079	918	1278	1062	911	1242	1045	904	1209	1029	1009
	10	1626	1227	988	829	1585	1210	981	826	1177	966	821	1145	952	815	1116	938	920

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	21.0 fc	9.9 ft
6.5 ft	15.0 fc	11.7 ft
7.5 ft	11.3 fc	13.5 ft
8.0 ft	9.9 fc	14.4 ft
10.0 ft	6.4 fc	18.0 ft
12.0 ft	4.4 fc	21.6 ft
14.0 ft	3.2 fc	25.2 ft
16.0 ft	2.5 fc	28.8 ft
20.0 ft	1.6 fc	36.0 ft
24.0 ft	1.1 fc	43.2 ft
28.0 ft	0.8 fc	50.4 ft

### Average Luminaire Luminance [cd/m<sup>2</sup>]

	0.00°	45.00°	90.00°
0.00°	18854	18854	18854
45.00°	14522	25094	14181
55.00°	6510	16125	12453
65.00°	7847	9606	10911
75.00°	973	3982	9233
85.00°	401	412	4559

### 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		Viewing C0-180					Viewing C90-270				
2H	2H	17.2	18.8	17.6	19.1	19.5	22.0	23.5	22.4	23.9	24.2
	3H	19.4	20.8	19.8	21.1	21.5	23.1	24.5	23.5	24.8	25.2
	4H	19.5	20.8	19.9	21.2	21.6	23.4	24.7	23.8	25.0	25.5
	6H	19.5	20.7	19.9	21.1	21.5	23.5	24.7	24.0	25.1	25.5
	8H	19.4	20.6	19.9	21.0	21.4	23.5	24.7	24.0	25.1	25.5
	12H	19.4	20.5	19.9	20.9	21.4	23.5	24.6	24.0	25.0	25.5
4H	2H	19.1	20.3	19.5	20.7	21.1	22.3	23.6	22.8	24.0	24.4
	3H	20.8	21.9	21.2	22.3	22.7	23.6	24.7	24.1	25.1	25.6
	4H	20.9	21.9	21.4	22.3	22.8	24.1	25.0	24.5	25.5	25.9
	6H	20.9	21.7	21.3	22.2	22.7	24.3	25.1	24.8	25.6	26.1
	8H	20.8	21.6	21.3	22.1	22.6	24.3	25.1	24.8	25.6	26.1
	12H	20.8	21.5	21.3	22.0	22.5	24.3	25.0	24.8	25.5	26.0
8H	4H	21.2	22.0	21.7	22.5	23.0	24.1	24.8	24.5	25.3	25.8
	6H	21.2	21.8	21.7	22.3	22.8	24.3	24.9	24.8	25.5	26.0
	8H	21.1	21.7	21.7	22.2	22.8	24.3	24.9	24.9	25.4	26.0
	12H	21.1	21.6	21.6	22.1	22.7	24.3	24.8	24.9	25.4	26.0
12H	4H	21.2	21.9	21.7	22.4	22.9	24.0	24.7	24.5	25.2	25.7
	6H	21.2	21.8	21.7	22.2	22.8	24.3	24.8	24.8	25.3	25.9
	8H	21.2	21.7	21.7	22.2	22.8	24.3	24.8	24.8	25.3	25.9

Corrected UGR values based on total output energy  
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0