

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

STL4 - 40L - 40HK - LA - xx - xx - MW

Track light for accent, display and general illumination.

Test Number

STL4-12

Test Date

2/18/25

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

Summary of Results

Power

Input Watts	39.79 W
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Lumen Output

Output Lumens	3194
Efficacy	80.26 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	2.18
Two luminaires, plane 90°	1.26
Four luminaires	1.76

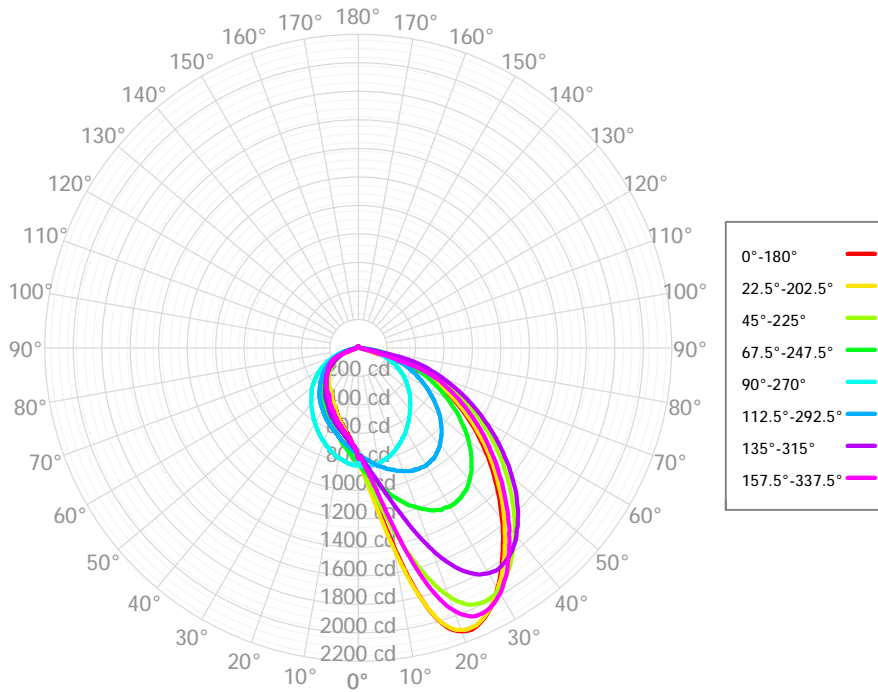
Full Beam Angle

0° - 180°	47°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	STL4-12
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	STL4 - 40L - 40HK - LA - 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°	79.01	2.47%	90.00° - 100.00°	7.34	0.23%
10.00° - 20.00°	278.21	8.71%	100.00° - 110.00°	7.27	0.23%
20.00° - 30.00°	481.83	15.09%	100.00° - 120.00°	14.21	0.44%
30.00° - 40.00°	592.50	18.55%	120.00° - 130.00°	6.39	0.20%
40.00° - 50.00°	604.08	18.92%	130.00° - 140.00°	5.66	0.18%
50.00° - 60.00°	535.35	16.76%	140.00° - 150.00°	4.70	0.15%
60.00° - 70.00°	395.08	12.37%	150.00° - 160.00°	3.54	0.11%
70.00° - 80.00°	159.92	5.01%	160.00° - 170.00°	2.16	0.07%
80.00° - 90.00°	22.83	0.71%	170.00° - 180.00°	0.74	0.02%
0.00° - 90.00°	3148.80	98.60%	0.00° - 180.00°	3193.54	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°	778.13	778.13	778.13	778.13	778.13	778.13	778.13	778.13	778.13	778.13	778.13	778.13	778.13	778.13	778.13	778.13	778.13
1.00°	795.82	824.50	829.93	832.04	831.44	738.67	728.44	721.86	730.53	756.66	775.88	794.93	826.53	753.11	757.07	764.35	795.82
2.00°	831.16	865.20	863.19	850.16	829.79	729.55	707.32	695.64	706.49	729.90	749.92	780.36	823.84	764.80	778.77	792.27	831.16
3.00°	877.92	912.35	899.37	868.80	829.42	720.57	693.74	679.82	683.34	702.17	729.55	764.09	819.78	774.16	800.07	826.35	877.92
4.00°	923.20	964.19	938.14	885.51	835.09	710.50	679.38	663.40	661.93	680.28	705.20	752.50	817.78	783.90	826.29	859.87	923.20
5.00°	983.14	1020.19	976.56	907.83	833.45	702.06	668.90	644.49	638.61	654.99	686.05	733.66	814.01	791.16	848.87	895.80	983.14
6.00°	1048.69	1089.46	1021.36	925.73	831.99	691.36	652.74	633.46	626.26	637.55	666.38	722.34	806.87	803.13	879.91	942.19	1048.69
7.00°	1120.27	1163.66	1070.85	944.06	829.20	684.76	641.44	621.04	607.59	621.63	649.33	707.41	801.80	812.39	904.88	992.55	1120.27
8.00°	1206.44	1247.43	1124.25	961.18	827.72	675.25	628.55	610.27	596.32	605.70	633.28	694.92	793.57	824.30	938.72	1050.31	1206.44
9.00°	1296.54	1335.25	1178.63	981.45	823.33	669.88	621.74	597.74	583.52	588.20	619.71	684.63	789.20	835.26	972.54	1117.13	1296.54
10.00°	1397.71	1427.77	1240.35	1002.11	823.05	658.80	609.81	590.36	571.99	575.65	605.89	670.56	784.10	842.87	1011.06	1191.11	1397.71
11.00°	1498.20	1524.40	1305.87	1023.32	816.92	651.84	600.81	579.06	557.76	563.75	595.70	656.91	778.94	849.36	1050.96	1267.44	1498.20
12.00°	1609.57	1625.69	1369.24	1044.65	809.75	638.98	592.19	566.17	545.54	550.81	580.12	642.41	771.15	857.65	1093.01	1353.23	1609.57
13.00°	1709.30	1722.59	1438.09	1064.97	807.16	634.39	582.45	556.82	537.39	541.09	571.04	628.48	764.21	870.16	1138.00	1443.40	1709.30
14.00°	1805.60	1810.14	1502.60	1085.55	805.22	619.11	573.87	551.60	523.65	530.91	560.37	620.28	755.88	877.73	1185.25	1533.09	1805.60
15.00°	1895.17	1892.56	1567.57	1103.41	794.88	616.08	566.65	542.20	515.70	518.13	547.20	608.04	747.69	882.75	1234.20	1623.25	1895.17
16.00°	1967.86	1962.28	1633.08	1121.75	791.51	606.53	557.03	531.59	504.39	506.11	536.79	599.86	738.89	890.52	1290.22	1707.23	1967.86
17.00°	2025.66	2020.34	1695.13	1143.70	782.12	601.69	548.55	521.46	493.75	499.62	527.59	590.44	728.42	901.02	1342.70	1786.12	2025.66
18.00°	2071.08	2059.84	1754.66	1162.32	776.77	590.90	542.08	513.59	483.29	485.40	520.44	576.43	724.36	907.60	1399.16	1855.40	2071.08
19.00°	2098.18	2090.76	1806.94	1174.39	769.07	584.53	533.65	502.03	469.04	475.03	507.04	570.83	711.83	912.32	1450.14	1916.40	2098.18
20.00°	2116.62	2104.75	1852.66	1189.49	760.22	578.57	524.33	490.56	459.54	462.57	496.83	559.98	701.84	920.65	1504.36	1960.45	2116.62
21.00°	2126.53	2117.21	1896.65	1206.53	753.20	565.50	519.48	481.05	449.01	451.20	490.62	548.70	693.75	924.98	1555.86	1999.49	2126.53
22.00°	2130.49	2117.68	1927.22	1218.92	742.79	562.93	509.82	473.43	441.63	444.41	479.19	541.56	686.44	933.79	1601.90	2026.04	2130.49
23.00°	2123.74	2114.95	1956.36	1232.41	734.26	553.15	501.99	468.82	438.72	432.11	471.48	537.30	677.05	937.92	1645.36	2046.82	2123.74
24.00°	2108.45	2101.70	1972.01	1247.42	727.00	549.81	493.32	458.51	429.24	427.17	461.24	526.21	666.68	942.85	1687.33	2055.45	2108.45
25.00°	2092.60	2086.29	1980.19	1258.29	716.82	540.96	482.45	452.01	420.80	418.53	447.00	515.30	656.72	941.39	1722.65	2055.89	2092.60
26.00°	2069.30	2065.89	1988.57	1264.31	706.62	531.99	473.58	445.15	412.42	413.41	437.46	509.14	648.25	948.60	1752.02	2052.21	2069.30
27.00°	2046.19	2042.61	1988.09	1277.11	698.12	525.61	464.05	435.70	399.49	405.07	429.62	500.54	638.09	949.19	1777.92	2043.32	2046.19
28.00°	2016.15	2015.52	1982.84	1275.30	689.95	518.42	455.87	426.97	389.36	392.74	421.84	492.85	628.30	947.77	1800.95	2028.61	2016.15
29.00°	1987.07	1988.74	1976.87	1279.04	681.06	508.65	449.09	416.25	383.36	383.76	412.19	486.06	617.92	952.89	1813.97	2009.47	1987.07
30.00°	1950.40	1955.72	1962.21	1285.47	669.70	499.47	439.95	405.97	377.73	375.50	407.47	476.95	607.33	952.06	1826.07	1989.65	1950.40
31.00°	1918.11	1925.15	1948.32	1283.88	658.92	494.44	432.20	396.01	376.37	367.40	400.53	464.78	596.75	947.53	1832.17	1964.00	1918.11
32.00°	1879.55	1895.33	1929.43	1283.90	648.08	486.41	427.35	387.71	371.83	363.53	391.80	457.95	589.91	945.80	1837.51	1931.73	1879.55
33.00°	1844.51	1857.72	1905.99	1277.63	637.08	480.76	420.42	385.65	366.75	353.62	385.02	453.19	580.19	939.78	1832.04	1905.05	1844.51
34.00°	1802.84	1820.49	1884.10	1275.35	628.02	472.43	413.74	382.38	360.16	351.82	379.10	439.36	569.48	939.81	1824.45	1870.33	1802.84
35.00°	1764.40	1788.09	1857.82	1267.73	618.53	463.83	404.28	377.09	357.71	349.10	369.24	435.30	558.66	935.25	1814.92	1830.61	1764.40
36.00°	1724.42	1746.78	1826.23	1259.02	606.70	457.30	396.29	371.91	351.30	343.94	359.06	424.51	551.26	926.06	1802.73	1797.94	1724.42
37.00°	1686.52	1708.90	1799.33	1252.79	596.41	447.73	381.92	363.55	343.34	342.76	348.85	418.34	542.78	917.64	1787.78	1757.96	1686.52
38.00°	1647.90	1670.02	1771.73	1242.98	584.15	444.43	376.38	361.55	335.63	333.07	341.81	409.62	532.17	909.94	1767.24	1722.36	1647.90
39.00°	1609.88	1631.55	1741.44	1227.25	573.87	431.44	369.12	350.05	331.10	325.14	336.09	400.70	523.57	900.07	1749.51	1682.90	1609.88
40.00°	1568.53	1597.48	1706.08	1215.00	566.39	427.01	356.44	346.81	326.38	319.99	327.05	388.80	512.43	891.54	1725.54	1649.15	1568.53
41.00°	1526.63	1555.93	1671.39	1197.28	556.27	418.74	349.75	335.64	318.37	314.23	321.71	382.92	504.31	876.75	1694.82	1604.88	1526.63
42.00°	1488.86	1519.44	1639.35	1182.18	545.46	407.68	343.67	329.94	317.84	308.07	316.37	373.55	491.70	864.56	1672.69	1569.17	1488.86
43.00°	1453.09	1481.14	1602.21	1165.37	537.43	398.34	335.97	323.30	311.15	303.34	312.26	363.60	484.43	852.80	1641.63	1527.54	1453.09

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	3791	3791	3791	3791	3698	3698	3698	3698	3524	3524	3524	3364	3364	3364	3218	3218	3149
	1	3483	3339	3209	3093	3392	3262	3145	3038	3119	3023	2935	2987	2909	2837	2866	2804	2741
	2	3170	2915	2705	2528	3083	2851	2658	2494	2731	2569	2429	2621	2486	2367	2518	2407	2351
	3	2889	2559	2303	2099	2806	2505	2268	2078	2404	2201	2035	2310	2138	1994	2223	2078	2030
	4	2641	2262	1985	1773	2565	2217	1958	1758	2131	1906	1729	2052	1857	1700	1977	1811	1769
	5	2424	2015	1730	1519	2354	1977	1709	1508	1904	1668	1488	1836	1630	1467	1773	1592	1556
	6	2234	1809	1523	1319	2170	1776	1507	1311	1714	1474	1296	1656	1443	1281	1601	1413	1382
	7	2067	1635	1354	1158	2009	1606	1341	1152	1553	1314	1140	1503	1289	1129	1456	1264	1237
	8	1920	1486	1214	1026	1867	1462	1202	1022	1416	1181	1013	1373	1160	1004	1332	1139	1116
	9	1790	1359	1096	918	1742	1339	1086	914	1299	1068	907	1261	1051	900	1226	1034	1013
	10	1674	1250	996	827	1631	1232	988	824	1197	973	818	1164	958	812	1133	943	925

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	25.7 fc	7.3 ft
6.5 ft	18.4 fc	8.7 ft
7.5 ft	13.8 fc	10.0 ft
8.0 ft	12.2 fc	10.7 ft
10.0 ft	7.8 fc	13.4 ft
12.0 ft	5.4 fc	16.0 ft
14.0 ft	4.0 fc	18.7 ft
16.0 ft	3.0 fc	21.4 ft
20.0 ft	1.9 fc	26.7 ft
24.0 ft	1.4 fc	32.1 ft
28.0 ft	1.0 fc	37.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	23099	23099	23099
45.00°	28836	37182	21047
55.00°	21330	29459	20469
65.00°	14273	21293	19104
75.00°	1613	12078	15988
85.00°	418	468	7798

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	24.7	26.3	25.1	26.6	27.0	18.0	19.5	18.3	19.9	20.2
	3H	25.8	27.2	26.2	27.6	28.0	20.0	21.4	20.4	21.7	22.1
	4H	25.8	27.1	26.2	27.5	27.9	20.7	22.0	21.1	22.4	22.8
	6H	25.7	27.0	26.2	27.4	27.8	21.1	22.3	21.5	22.7	23.1
	8H	25.7	26.9	26.2	27.3	27.7	21.2	22.4	21.6	22.8	23.2
	12H	25.7	26.8	26.1	27.2	27.7	21.2	22.4	21.7	22.8	23.2
4H	2H	25.6	26.9	26.0	27.3	27.7	18.1	19.4	18.5	19.8	20.2
	3H	26.8	27.9	27.2	28.3	28.8	20.2	21.3	20.6	21.7	22.1
	4H	26.8	27.8	27.2	28.2	28.7	20.9	21.9	21.4	22.4	22.8
	6H	26.7	27.6	27.2	28.1	28.6	21.4	22.3	21.9	22.7	23.2
	8H	26.7	27.5	27.2	28.0	28.5	21.5	22.3	22.0	22.8	23.3
	12H	26.7	27.4	27.2	27.9	28.4	21.5	22.3	22.0	22.8	23.3
8H	4H	27.0	27.8	27.5	28.3	28.8	20.9	21.7	21.3	22.1	22.6
	6H	27.0	27.6	27.5	28.2	28.7	21.3	22.0	21.8	22.5	23.0
	8H	26.9	27.5	27.5	28.1	28.6	21.4	22.0	22.0	22.6	23.1
	12H	26.9	27.4	27.4	28.0	28.6	21.5	22.0	22.0	22.6	23.2
12H	4H	27.0	27.8	27.5	28.3	28.8	20.8	21.6	21.3	22.1	22.6
	6H	27.0	27.6	27.5	28.1	28.6	21.3	21.9	21.8	22.4	23.0
	8H	26.9	27.5	27.5	28.0	28.6	21.4	21.9	22.0	22.5	23.1

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0