

## Indoor Distribution Test Report

### Spectrum Lighting Inc.

994 Jefferson Street  
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### Spectrum Lighting Photometric Lab

#### Luminaire

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

Track light for accent, display and general illumination.

#### Test Number

STL4-2

#### Test Date

2/18/25

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

## Summary of Results

### Power

Input Watts	39.63 W
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### Lumen Output

Output Lumens	2969
Efficacy	74.93 lm/W

### Luminous Dimensions

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

### Spacing Criterion

Two luminaires, plane 0°	2.2
Two luminaires, plane 90°	1.24
Four luminaires	1.76

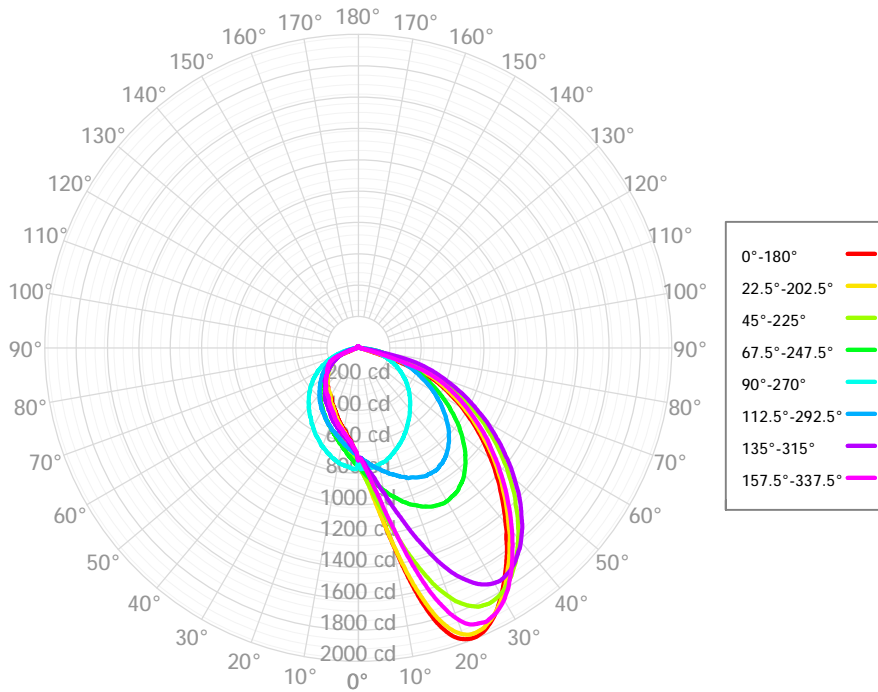
### Full Beam Angle

0° - 180°	47°
90° - 270°	N/A°

## IES File Header Contents

Keyword	Value
TEST	STL4-2
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	STL4 - 40L - 30HK - 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°	72.93	2.46%	90.00° - 100.00°	7.29	0.25%
10.00° - 20.00°	257.58	8.67%	100.00° - 110.00°	7.23	0.24%
20.00° - 30.00°	449.16	15.13%	100.00° - 120.00°	14.12	0.48%
30.00° - 40.00°	552.33	18.60%	120.00° - 130.00°	6.47	0.22%
40.00° - 50.00°	561.50	18.91%	130.00° - 140.00°	5.58	0.19%
50.00° - 60.00°	497.26	16.75%	140.00° - 150.00°	4.68	0.16%
60.00° - 70.00°	366.99	12.36%	150.00° - 160.00°	3.53	0.12%
70.00° - 80.00°	145.73	4.91%	160.00° - 170.00°	2.16	0.07%
80.00° - 90.00°	21.24	0.72%	170.00° - 180.00°	0.74	0.02%
0.00° - 90.00°	2924.72	98.50%	0.00° - 180.00°	2969.29	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°	717.67	717.67	717.67	717.67	717.67	717.67	717.67	717.67	717.67	717.67	717.67	717.67	717.67	717.67	717.67	717.67	717.67
1.00°	726.76	747.98	772.15	773.61	773.31	683.86	668.24	663.28	673.93	691.44	720.98	745.48	773.39	700.57	700.00	706.10	726.76
2.00°	762.25	783.04	802.11	788.57	771.87	673.25	655.74	645.91	654.41	663.97	699.39	730.73	773.55	708.34	718.92	727.24	762.25
3.00°	801.57	825.16	830.94	803.95	773.90	665.78	641.32	631.34	627.27	646.06	677.35	714.44	770.12	719.56	737.39	757.28	801.57
4.00°	845.12	864.56	865.32	821.56	771.62	654.93	627.96	610.08	608.58	627.48	663.13	703.20	766.37	727.20	763.37	790.42	845.12
5.00°	894.72	915.75	901.38	836.75	771.62	648.07	615.84	596.23	589.07	605.59	646.21	692.04	758.48	738.55	788.06	825.58	894.72
6.00°	954.39	974.13	942.34	855.71	768.44	638.40	601.58	587.16	577.81	589.70	629.27	680.50	760.13	749.72	811.77	868.68	954.39
7.00°	1021.12	1036.36	985.36	869.25	768.61	630.68	590.74	577.86	566.29	576.17	612.93	662.71	753.42	758.67	836.46	917.96	1021.12
8.00°	1099.76	1105.43	1032.67	887.89	766.43	623.11	581.95	564.28	550.85	561.22	597.31	653.85	751.47	769.89	870.58	968.82	1099.76
9.00°	1186.07	1182.63	1081.21	900.31	760.83	613.65	572.28	555.82	536.31	548.69	582.58	640.45	748.60	777.67	907.22	1036.02	1186.07
10.00°	1275.10	1268.57	1136.15	921.25	755.79	605.20	563.64	547.51	528.42	538.32	570.24	629.18	741.28	785.40	938.79	1100.87	1275.10
11.00°	1370.07	1353.19	1189.75	935.82	750.05	597.51	555.97	531.58	518.53	530.83	561.65	621.11	735.78	797.99	981.56	1170.91	1370.07
12.00°	1471.78	1445.99	1247.93	956.25	748.13	586.40	547.86	525.31	507.55	515.96	549.43	608.11	727.30	806.91	1024.68	1250.95	1471.78
13.00°	1572.38	1536.50	1310.76	970.66	744.69	579.04	541.41	518.94	497.71	508.12	538.79	597.01	721.81	815.09	1070.87	1337.46	1572.38
14.00°	1667.85	1619.82	1369.55	984.06	739.20	572.23	530.34	512.21	488.56	496.70	527.11	587.01	715.36	828.00	1114.24	1422.44	1667.85
15.00°	1752.13	1700.55	1427.97	1000.60	729.01	564.17	524.53	501.89	478.03	488.50	517.60	576.82	704.64	834.39	1165.52	1506.87	1752.13
16.00°	1825.82	1774.26	1484.97	1019.42	726.49	557.12	513.38	492.54	469.59	479.58	511.46	568.32	700.90	842.96	1218.51	1589.64	1825.82
17.00°	1884.05	1832.12	1543.95	1031.06	714.98	552.71	507.75	482.48	455.23	467.46	500.33	558.86	692.52	852.31	1271.89	1666.56	1884.05
18.00°	1929.50	1881.11	1600.46	1047.10	710.05	547.52	498.72	477.10	447.15	461.11	492.91	548.58	682.99	863.04	1320.47	1729.09	1929.50
19.00°	1959.23	1917.90	1645.29	1058.67	700.99	536.60	493.08	463.94	436.58	448.23	485.61	538.94	677.19	871.00	1374.69	1790.22	1959.23
20.00°	1977.69	1943.04	1688.02	1067.60	692.69	531.43	484.47	455.62	428.27	435.52	476.87	530.67	667.73	877.80	1428.74	1838.11	1977.69
21.00°	1987.37	1959.58	1729.27	1080.09	685.97	524.27	477.29	445.74	419.97	429.27	467.48	525.80	662.47	889.76	1477.53	1877.34	1987.37
22.00°	1991.34	1965.44	1758.08	1092.18	678.08	519.28	468.38	438.13	415.69	417.81	457.44	515.28	650.19	891.81	1522.99	1902.89	1991.34
23.00°	1985.76	1963.07	1785.29	1099.26	669.20	510.26	458.42	433.15	404.00	411.31	450.50	507.04	641.74	896.74	1566.94	1914.10	1985.76
24.00°	1976.38	1958.97	1804.32	1108.48	662.38	502.67	446.29	422.41	398.95	401.71	444.31	502.99	633.06	905.79	1602.53	1920.34	1976.38
25.00°	1958.38	1942.55	1821.38	1116.42	653.10	496.24	441.55	418.18	392.91	398.28	432.12	490.53	625.26	910.27	1635.11	1927.71	1958.38
26.00°	1937.94	1928.52	1826.18	1120.45	644.51	488.34	435.90	411.42	384.27	393.41	422.66	482.97	618.87	914.99	1665.69	1919.05	1937.94
27.00°	1914.49	1909.91	1831.64	1124.55	636.53	478.68	423.84	403.82	371.37	385.74	413.60	475.85	609.22	920.74	1691.14	1911.09	1914.49
28.00°	1887.33	1887.13	1829.09	1127.89	625.29	472.45	417.26	394.71	365.74	375.01	406.10	469.94	598.80	924.44	1709.07	1897.32	1887.33
29.00°	1854.97	1862.74	1823.16	1131.41	617.75	466.83	413.44	386.81	355.94	363.89	399.77	459.76	589.88	921.82	1723.50	1878.38	1854.97
30.00°	1821.30	1836.45	1814.68	1129.16	609.22	459.10	406.54	373.35	351.32	354.64	390.90	453.92	579.06	924.27	1732.61	1858.95	1821.30
31.00°	1789.29	1806.42	1802.34	1127.20	597.96	454.94	400.30	369.26	350.67	346.11	383.48	444.77	570.27	924.21	1738.16	1830.53	1789.29
32.00°	1754.39	1773.32	1786.30	1120.70	587.77	445.54	395.14	365.28	346.30	343.98	377.97	437.94	565.34	925.35	1737.22	1805.93	1754.39
33.00°	1718.68	1738.81	1767.72	1119.03	578.73	439.41	389.12	358.87	342.48	335.78	371.73	432.52	551.82	923.71	1729.96	1770.71	1718.68
34.00°	1684.42	1703.73	1748.78	1114.36	567.70	429.70	379.56	358.27	340.11	337.13	364.01	424.01	541.62	918.51	1722.26	1740.19	1684.42
35.00°	1647.42	1673.46	1723.18	1108.52	560.73	424.11	373.39	353.17	335.34	332.51	358.21	415.75	534.16	910.69	1709.75	1705.86	1647.42
36.00°	1613.30	1638.03	1701.96	1096.23	549.88	418.39	362.15	345.44	325.83	326.17	350.12	407.67	527.25	910.04	1695.23	1670.24	1613.30
37.00°	1573.65	1602.37	1674.51	1087.58	544.06	407.68	352.41	340.61	320.07	323.86	340.42	403.47	517.77	901.57	1675.97	1632.26	1573.65
38.00°	1533.21	1567.97	1646.60	1077.50	531.47	404.76	343.37	336.84	312.44	321.26	330.86	391.57	508.40	895.47	1656.23	1598.08	1533.21
39.00°	1501.93	1534.98	1616.35	1065.88	522.27	391.46	335.64	327.11	310.07	313.50	323.43	384.09	500.22	886.64	1637.97	1560.86	1501.93
40.00°	1461.51	1493.65	1586.71	1051.01	511.80	385.79	328.88	315.71	304.38	308.30	315.78	375.34	493.66	877.16	1612.78	1525.79	1461.51
41.00°	1425.40	1456.34	1556.40	1034.15	500.65	378.98	320.75	312.39	300.89	298.11	308.86	366.41	479.36	866.39	1586.58	1487.19	1425.40
42.00°	1388.67	1422.69	1522.94	1018.73	493.70	368.61	315.16	311.01	296.49	294.78	303.30	360.95	474.26	857.09	1561.30	1451.60	1388.67
43.00°	1351.93	1385.92	1491.69	1002.86	485.27	360.14	310.93	301.31	290.33	291.57	301.66	352.48	464.63	842.43	1532.34	1414.84	1351.93

### 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	3524	3524	3524	3524	3437	3437	3437	3437	3274	3274	3274	3126	3126	3126	2989	2989	2925
	1	3238	3104	2984	2876	3153	3033	2924	2825	2899	2810	2728	2776	2704	2637	2663	2605	2546
	2	2948	2711	2516	2351	2866	2652	2472	2320	2539	2389	2259	2436	2311	2201	2341	2237	2185
	3	2686	2380	2142	1953	2609	2329	2110	1933	2235	2047	1893	2147	1988	1854	2066	1932	1887
	4	2456	2104	1846	1649	2385	2062	1821	1635	1982	1773	1608	1907	1727	1581	1838	1683	1644
	5	2254	1874	1609	1413	2189	1838	1589	1403	1770	1552	1384	1707	1515	1365	1648	1480	1446
	6	2077	1682	1417	1227	2017	1652	1401	1219	1593	1371	1205	1539	1342	1191	1488	1314	1284
	7	1922	1520	1259	1077	1868	1494	1247	1071	1444	1222	1060	1397	1198	1049	1353	1175	1150
	8	1785	1382	1129	954	1736	1360	1118	950	1317	1098	942	1276	1078	933	1238	1059	1037
	9	1664	1264	1019	853	1620	1245	1010	850	1207	993	843	1172	977	836	1139	960	941
	10	1557	1162	926	769	1516	1145	919	766	1112	904	760	1082	890	755	1053	876	860

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	23.7 fc	7.4 ft
6.5 ft	17.0 fc	8.7 ft
7.5 ft	12.8 fc	10.0 ft
8.0 ft	11.2 fc	10.7 ft
10.0 ft	7.2 fc	13.4 ft
12.0 ft	5.0 fc	16.0 ft
14.0 ft	3.7 fc	18.7 ft
16.0 ft	2.8 fc	21.4 ft
20.0 ft	1.8 fc	26.7 ft
24.0 ft	1.2 fc	32.1 ft
28.0 ft	0.9 fc	37.4 ft

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

	0.00°	45.00°	90.00°
0.00°	21304	21304	21304
45.00°	26868	34532	19082
55.00°	19905	27369	18557
65.00°	13355	19727	17367
75.00°	1465	10831	14351
85.00°	375	371	6402

### 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	24.5	26.1	24.9	26.4	26.8	17.7	19.3	18.1	19.7	20.0
	3H	25.6	27.0	26.0	27.4	27.8	19.7	21.1	20.1	21.5	21.9
	4H	25.5	26.9	26.0	27.3	27.7	20.4	21.7	20.8	22.1	22.5
	6H	25.5	26.7	25.9	27.1	27.6	20.8	22.0	21.2	22.4	22.9
	8H	25.5	26.6	25.9	27.1	27.5	20.9	22.1	21.3	22.5	22.9
	12H	25.4	26.6	25.9	27.0	27.4	20.9	22.1	21.4	22.5	22.9
4H	2H	25.3	26.7	25.7	27.0	27.5	17.9	19.2	18.3	19.6	20.0
	3H	26.5	27.7	27.0	28.1	28.5	19.9	21.0	20.3	21.5	21.9
	4H	26.5	27.5	27.0	28.0	28.4	20.6	21.6	21.1	22.1	22.6
	6H	26.5	27.3	27.0	27.8	28.3	21.1	22.0	21.6	22.4	22.9
	8H	26.4	27.3	26.9	27.7	28.2	21.2	22.0	21.7	22.5	23.0
	12H	26.4	27.1	26.9	27.6	28.2	21.3	22.0	21.8	22.5	23.0
8H	4H	26.7	27.6	27.2	28.0	28.5	20.6	21.4	21.1	21.9	22.4
	6H	26.7	27.4	27.2	27.9	28.4	21.1	21.7	21.6	22.2	22.8
	8H	26.6	27.2	27.2	27.8	28.3	21.2	21.8	21.7	22.3	22.8
	12H	26.6	27.1	27.2	27.7	28.3	21.2	21.8	21.8	22.3	22.9
12H	4H	26.7	27.5	27.2	28.0	28.5	20.6	21.3	21.1	21.8	22.3
	6H	26.7	27.3	27.2	27.8	28.3	21.0	21.6	21.6	22.1	22.7
	8H	26.6	27.2	27.2	27.7	28.3	21.2	21.7	21.7	22.2	22.8

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0