

## Indoor Distribution Test Report

### Spectrum Lighting Inc.

994 Jefferson Street  
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### Spectrum Lighting Photometric Lab

#### Luminaire

STL4 - 40L - 35HK - LA - xx - xx - MW

Track light for accent, display and general illumination.

#### Test Number

STL4-7

#### Test Date

2/18/25

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

## Summary of Results

### Power

Input Watts	37.76 W
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### Lumen Output

Output Lumens	3309
Efficacy	87.64 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°	1.23
Four luminaires	1.76

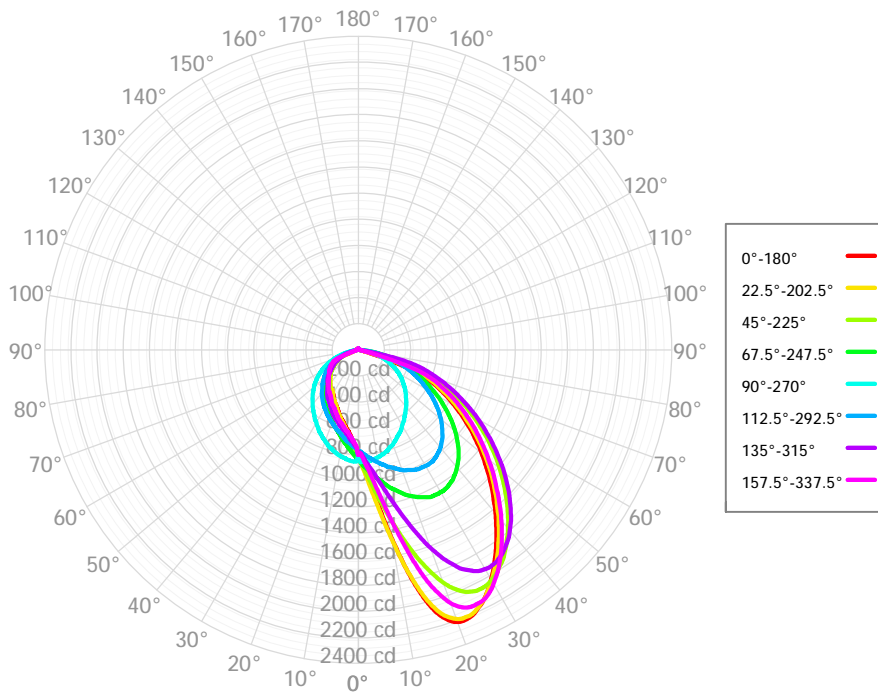
### Full Beam Angle

0° - 180°	47°
90° - 270°	N/A°

## IES File Header Contents

Keyword	Value
TEST	STL4-7
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	STL4 - 40L - 35HK - 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°	81.69	2.47%	90.00° - 100.00°	7.41	0.22%
10.00° - 20.00°	288.49	8.72%	100.00° - 110.00°	7.18	0.22%
20.00° - 30.00°	500.50	15.12%	100.00° - 120.00°	14.12	0.43%
30.00° - 40.00°	614.98	18.58%	120.00° - 130.00°	6.46	0.20%
40.00° - 50.00°	625.89	18.91%	130.00° - 140.00°	5.75	0.17%
50.00° - 60.00°	554.56	16.76%	140.00° - 150.00°	4.79	0.14%
60.00° - 70.00°	409.32	12.37%	150.00° - 160.00°	3.55	0.11%
70.00° - 80.00°	165.35	5.00%	160.00° - 170.00°	2.21	0.07%
80.00° - 90.00°	23.63	0.71%	170.00° - 180.00°	0.74	0.02%
0.00° - 90.00°	3264.41	98.64%	0.00° - 180.00°	3309.45	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°	804.25	804.25	804.25	804.25	804.25	804.25	804.25	804.25	804.25	804.25	804.25	804.25	804.25	804.25	804.25	804.25	804.25
1.00°	821.09	850.39	855.87	857.18	859.87	760.31	747.53	742.24	755.52	782.01	801.21	823.13	854.63	774.91	785.44	790.07	821.09
2.00°	861.62	897.42	890.31	877.63	854.62	749.04	733.06	718.58	730.25	753.80	775.59	809.31	855.17	788.15	807.99	818.70	861.62
3.00°	910.42	941.75	924.81	894.04	857.96	741.47	713.65	702.05	705.16	724.77	749.13	794.54	853.73	799.22	830.87	854.91	910.42
4.00°	959.41	994.23	964.73	913.52	856.12	732.14	702.55	683.15	682.36	703.34	731.41	779.45	852.41	808.64	860.01	893.04	959.41
5.00°	1020.50	1054.72	1001.67	929.08	856.52	719.72	691.91	665.04	658.88	678.95	712.70	763.22	845.79	822.64	887.05	928.54	1020.50
6.00°	1092.71	1125.45	1047.19	950.05	854.75	711.40	673.35	654.86	642.94	654.14	691.46	751.90	844.80	829.60	914.43	981.95	1092.71
7.00°	1166.34	1198.33	1102.06	968.69	849.97	704.06	656.21	636.19	625.34	643.46	672.82	734.21	834.89	842.73	943.04	1033.74	1166.34
8.00°	1256.50	1281.38	1154.90	986.36	845.97	692.49	647.83	629.27	614.23	624.20	655.61	723.06	832.14	854.45	980.94	1096.14	1256.50
9.00°	1354.49	1375.49	1204.94	1003.49	841.43	684.80	636.77	618.33	599.23	612.96	643.38	709.01	827.25	865.31	1020.31	1166.96	1354.49
10.00°	1459.09	1469.62	1271.16	1022.20	837.45	674.34	625.56	606.56	588.21	599.46	630.68	699.82	820.80	875.47	1060.67	1244.45	1459.09
11.00°	1563.33	1572.82	1331.84	1042.18	833.37	665.02	620.08	597.30	573.38	582.48	615.47	685.13	817.54	886.90	1104.97	1329.69	1563.33
12.00°	1677.61	1678.12	1396.37	1062.34	826.96	652.53	607.46	583.44	560.39	568.96	605.93	668.45	809.21	897.35	1154.31	1416.79	1677.61
13.00°	1789.47	1775.20	1462.70	1081.99	820.81	646.00	602.27	573.81	552.23	558.99	592.41	656.97	801.02	905.98	1204.60	1513.19	1789.47
14.00°	1889.06	1871.59	1530.15	1097.55	817.84	639.92	592.51	568.48	540.45	549.26	578.65	644.87	794.94	922.81	1261.16	1610.88	1889.06
15.00°	1981.73	1959.27	1596.66	1111.76	808.67	633.43	579.46	556.48	529.69	532.39	568.54	634.78	784.89	927.70	1317.79	1705.07	1981.73
16.00°	2060.38	2030.91	1664.47	1130.07	802.31	623.64	570.26	549.47	517.83	522.78	558.29	624.73	779.48	937.27	1374.23	1797.89	2060.38
17.00°	2120.84	2091.57	1724.19	1147.07	793.35	614.64	565.31	536.72	507.55	512.39	547.92	615.30	772.18	947.28	1436.06	1879.24	2120.84
18.00°	2164.96	2137.51	1786.34	1165.75	783.07	607.08	556.82	525.45	494.31	503.41	538.85	606.61	762.40	957.19	1494.87	1948.73	2164.96
19.00°	2197.79	2169.00	1841.92	1178.73	779.24	598.85	549.31	515.42	481.37	489.16	529.44	593.49	752.62	968.85	1555.07	2010.07	2197.79
20.00°	2217.77	2191.53	1894.16	1191.38	770.99	590.77	538.59	505.98	473.44	476.39	515.10	585.72	743.25	979.07	1611.84	2061.53	2217.77
21.00°	2224.15	2204.39	1938.80	1203.41	760.33	583.22	531.16	494.26	464.22	466.99	504.41	576.32	732.80	986.20	1664.36	2099.11	2224.15
22.00°	2222.21	2205.32	1974.01	1215.92	751.80	577.26	521.00	485.07	453.29	457.99	496.77	565.66	724.96	992.70	1718.02	2125.95	2222.21
23.00°	2215.20	2205.01	2003.76	1226.00	742.30	568.29	513.38	480.55	447.60	449.60	491.75	557.19	715.24	999.41	1761.68	2141.83	2215.20
24.00°	2199.79	2193.44	2028.01	1235.25	730.53	560.19	501.94	468.96	443.10	440.20	479.82	547.30	704.11	1007.01	1803.44	2148.70	2199.79
25.00°	2177.36	2173.95	2041.21	1244.39	720.78	554.50	493.74	466.64	432.25	431.15	468.28	540.28	696.86	1014.94	1845.72	2146.43	2177.36
26.00°	2157.55	2154.04	2053.29	1253.87	712.82	548.27	484.93	458.53	422.54	426.17	456.42	532.37	688.06	1017.41	1871.88	2145.68	2157.55
27.00°	2131.27	2134.06	2055.71	1256.62	704.45	537.76	473.98	448.82	411.66	417.57	443.49	522.40	673.83	1023.67	1895.27	2136.14	2131.27
28.00°	2100.02	2101.09	2054.83	1256.57	695.35	529.49	465.05	437.19	400.07	411.15	435.62	513.38	663.99	1021.98	1918.87	2119.20	2100.02
29.00°	2067.82	2071.99	2048.95	1260.26	684.17	520.01	459.94	429.74	391.39	395.37	431.39	503.39	655.78	1024.57	1931.88	2097.65	2067.82
30.00°	2031.53	2041.36	2035.73	1257.57	669.26	514.24	449.95	417.16	390.22	385.61	423.80	498.93	641.59	1026.24	1938.23	2068.92	2031.53
31.00°	1996.39	2005.93	2021.76	1260.04	660.82	508.38	443.52	412.36	385.14	378.59	414.59	486.60	633.53	1028.68	1944.03	2038.98	1996.39
32.00°	1957.40	1972.55	2006.13	1255.42	650.28	497.97	437.52	403.08	381.95	371.68	406.11	481.63	627.30	1026.99	1940.58	2010.09	1957.40
33.00°	1916.99	1940.35	1981.24	1251.76	642.98	492.95	435.15	398.99	377.58	364.75	401.93	474.26	614.76	1026.21	1937.25	1975.68	1916.99
34.00°	1879.10	1902.11	1962.89	1243.42	627.13	483.66	421.64	394.12	373.63	367.24	392.81	462.45	602.61	1024.33	1925.03	1939.57	1879.10
35.00°	1838.11	1866.53	1939.29	1235.43	619.02	476.44	414.42	388.49	369.87	360.96	383.27	452.86	593.74	1017.56	1914.03	1903.27	1838.11
36.00°	1796.69	1824.32	1907.75	1229.62	607.94	466.09	405.44	383.72	361.49	357.32	373.59	444.84	582.73	1012.25	1895.55	1864.59	1796.69
37.00°	1756.94	1787.56	1880.10	1214.77	600.22	458.61	392.38	378.31	357.41	351.80	366.41	435.86	574.53	1002.86	1875.33	1825.36	1756.94
38.00°	1714.16	1747.24	1845.13	1203.82	587.36	450.95	384.25	370.19	348.26	347.70	357.28	429.20	564.39	995.21	1855.85	1785.38	1714.16
39.00°	1673.86	1707.12	1816.79	1190.38	578.45	443.16	373.69	362.87	342.26	340.11	348.84	420.00	554.30	987.75	1833.74	1746.06	1673.86
40.00°	1633.96	1670.86	1780.07	1174.59	570.13	435.31	364.15	355.36	336.74	333.01	340.67	411.19	542.25	977.64	1803.62	1702.91	1633.96
41.00°	1592.99	1624.82	1749.06	1159.05	559.58	423.90	359.18	347.35	330.60	321.87	333.14	401.92	533.56	965.59	1775.81	1664.07	1592.99
42.00°	1548.13	1584.88	1711.18	1142.62	548.14	413.31	351.22	341.75	326.19	319.83	328.13	393.95	521.18	951.83	1747.23	1621.87	1548.13
43.00°	1511.96	1549.95	1676.00	1125.96	538.44	404.11	345.10	334.72	320.05	314.09	321.49	384.78	514.86	940.30	1712.22	1579.39	1511.96

### 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	3929	3929	3929	3929	3832	3832	3832	3832	3652	3652	3652	3487	3487	3487	3336	3336	3264
	1	3610	3460	3326	3206	3516	3381	3260	3149	3233	3133	3042	3097	3016	2941	2971	2907	2842
	2	3286	3022	2804	2620	3196	2956	2755	2585	2832	2663	2518	2717	2577	2454	2611	2496	2438
	3	2994	2652	2387	2176	2909	2597	2351	2154	2492	2282	2110	2395	2217	2068	2305	2155	2105
	4	2738	2345	2057	1838	2658	2298	2030	1822	2209	1977	1792	2127	1926	1763	2051	1878	1834
	5	2513	2089	1793	1575	2440	2049	1772	1564	1974	1730	1543	1904	1690	1522	1838	1651	1614
	6	2316	1875	1579	1367	2249	1841	1562	1359	1777	1529	1343	1717	1496	1328	1661	1465	1433
	7	2143	1694	1404	1200	2082	1665	1390	1194	1610	1363	1182	1559	1336	1170	1510	1311	1283
	8	1990	1541	1258	1064	1936	1516	1247	1059	1468	1224	1050	1424	1202	1041	1382	1181	1157
	9	1855	1409	1136	951	1806	1388	1126	948	1346	1108	940	1308	1089	933	1271	1072	1051
	10	1736	1296	1032	857	1691	1277	1024	854	1241	1009	848	1207	993	842	1175	978	960

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	26.6 fc	7.3 ft
6.5 ft	19.0 fc	8.6 ft
7.5 ft	14.3 fc	10.0 ft
8.0 ft	12.6 fc	10.6 ft
10.0 ft	8.0 fc	13.3 ft
12.0 ft	5.6 fc	16.0 ft
14.0 ft	4.1 fc	18.6 ft
16.0 ft	3.1 fc	21.3 ft
20.0 ft	2.0 fc	26.6 ft
24.0 ft	1.4 fc	31.9 ft
28.0 ft	1.0 fc	37.2 ft

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

	0.00°	45.00°	90.00°
0.00°	23875	23875	23875
45.00°	29990	38954	21077
55.00°	22117	30922	20544
65.00°	14818	22453	19066
75.00°	1692	13029	16087
85.00°	404	517	8066

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	24.9	26.5	25.3	26.8	27.2	18.1	19.7	18.5	20.0	20.4
	3H	26.0	27.4	26.4	27.7	28.1	20.1	21.5	20.5	21.9	22.3
	4H	25.9	27.3	26.4	27.7	28.1	20.8	22.1	21.2	22.5	22.9
	6H	25.9	27.1	26.3	27.5	27.9	21.2	22.5	21.6	22.9	23.3
	8H	25.8	27.0	26.3	27.5	27.9	21.3	22.5	21.8	22.9	23.3
	12H	25.8	27.0	26.3	27.4	27.8	21.4	22.5	21.8	22.9	23.4
4H	2H	25.7	27.1	26.1	27.4	27.9	18.2	19.6	18.6	19.9	20.4
	3H	26.9	28.1	27.4	28.5	28.9	20.3	21.4	20.7	21.8	22.3
	4H	26.9	27.9	27.4	28.4	28.8	21.0	22.0	21.5	22.5	22.9
	6H	26.9	27.8	27.4	28.2	28.7	21.5	22.4	22.0	22.9	23.3
	8H	26.9	27.7	27.3	28.1	28.6	21.6	22.4	22.1	22.9	23.4
	12H	26.8	27.6	27.3	28.1	28.6	21.7	22.4	22.2	22.9	23.4
8H	4H	27.2	28.0	27.7	28.5	29.0	21.0	21.8	21.5	22.3	22.8
	6H	27.1	27.8	27.6	28.3	28.8	21.5	22.1	22.0	22.7	23.2
	8H	27.1	27.7	27.6	28.2	28.7	21.6	22.2	22.1	22.7	23.2
	12H	27.1	27.6	27.6	28.1	28.7	21.7	22.2	22.2	22.7	23.3
12H	4H	27.2	27.9	27.7	28.4	28.9	20.9	21.7	21.5	22.2	22.7
	6H	27.1	27.7	27.6	28.2	28.8	21.4	22.0	22.0	22.5	23.1
	8H	27.1	27.6	27.6	28.1	28.7	21.6	22.1	22.1	22.6	23.2

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0