

## Indoor Distribution Test Report

### Spectrum Lighting Inc.

994 Jefferson Street  
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### Spectrum Lighting Photometric Lab

#### Luminaire

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

Track light for accent, display and general illumination.

#### Test Number

STL4-8

#### Test Date

2/18/25

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

## Summary of Results

### Power

Input Watts	37.74 W
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### Lumen Output

Output Lumens	3391
Efficacy	89.86 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°	1.09
Four luminaires	1.95

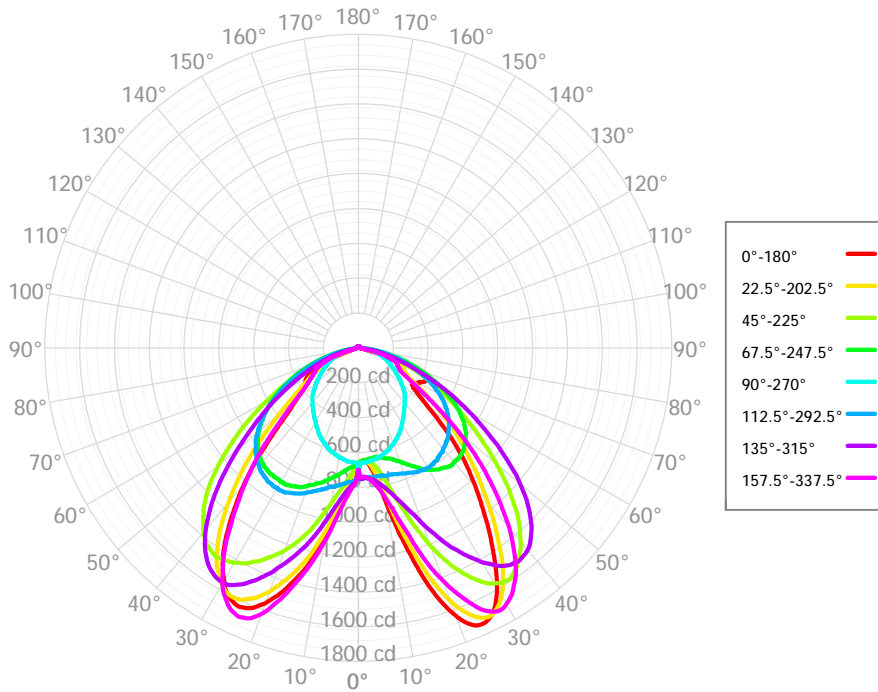
### Full Beam Angle

0° - 180°	86°
90° - 270°	N/A°

## IES File Header Contents

Keyword	Value
TEST	STL4-8
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	STL4 - 40L - 35HK - 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°	74.12	2.19%	90.00° - 100.00°	7.53	0.22%
10.00° - 20.00°	289.61	8.54%	100.00° - 110.00°	7.40	0.22%
20.00° - 30.00°	571.57	16.85%	100.00° - 120.00°	14.44	0.43%
30.00° - 40.00°	726.78	21.43%	120.00° - 130.00°	6.61	0.19%
40.00° - 50.00°	674.75	19.90%	130.00° - 140.00°	5.76	0.17%
50.00° - 60.00°	504.81	14.89%	140.00° - 150.00°	4.82	0.14%
60.00° - 70.00°	341.61	10.07%	150.00° - 160.00°	3.70	0.11%
70.00° - 80.00°	139.61	4.12%	160.00° - 170.00°	2.30	0.07%
80.00° - 90.00°	22.34	0.66%	170.00° - 180.00°	0.77	0.02%
0.00° - 90.00°	3345.21	98.65%	0.00° - 180.00°	3391.15	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°	701.31	701.31	701.31	701.31	701.31	701.31	701.31	701.31	701.31	701.31	701.31	701.31	701.31	701.31	701.31	701.31	701.31
1.00°	662.14	660.60	657.03	653.10	660.83	756.82	771.46	770.28	702.90	695.02	683.31	666.73	658.99	753.16	753.99	744.65	662.14
2.00°	653.83	647.88	649.87	649.27	658.62	765.78	780.63	792.41	734.62	721.69	698.70	673.60	659.26	751.41	750.22	741.50	653.83
3.00°	651.97	643.98	645.66	643.56	661.25	772.54	795.42	815.45	768.08	751.49	720.62	683.33	656.11	747.25	748.05	740.94	651.97
4.00°	657.86	648.48	646.09	643.35	657.71	770.08	811.99	846.53	800.36	785.17	744.11	690.88	656.85	745.13	749.94	749.55	657.86
5.00°	668.40	661.41	647.00	641.68	656.37	779.39	832.73	877.81	843.10	822.92	765.37	698.11	656.35	744.16	755.72	755.51	668.40
6.00°	693.64	677.27	653.81	637.83	652.40	782.92	855.69	920.81	890.91	863.41	793.54	708.16	652.39	744.02	759.94	772.27	693.64
7.00°	721.73	702.52	666.47	639.54	651.45	791.64	883.91	967.36	940.16	908.24	817.85	716.64	647.09	746.49	767.76	789.31	721.73
8.00°	766.05	735.68	684.53	635.96	646.89	796.49	913.78	1020.42	994.86	958.27	847.13	728.50	644.43	744.30	779.43	809.96	766.05
9.00°	821.70	783.44	702.25	633.05	646.22	802.00	947.77	1081.15	1052.20	1004.56	875.25	737.00	637.92	746.23	792.03	834.01	821.70
10.00°	892.87	840.16	727.71	637.18	640.22	811.00	986.95	1136.29	1111.39	1059.59	909.76	747.94	638.92	745.04	806.37	867.09	892.87
11.00°	966.98	905.67	757.44	642.00	636.63	810.86	1023.01	1191.76	1170.49	1112.68	942.63	757.25	630.41	745.98	820.93	905.97	966.98
12.00°	1051.00	978.31	795.49	645.01	632.99	819.01	1065.31	1248.62	1221.42	1163.82	977.05	766.81	627.37	752.68	841.36	943.93	1051.00
13.00°	1134.59	1054.35	837.55	648.38	629.05	828.52	1103.32	1301.15	1278.21	1215.74	1015.63	778.73	621.65	751.25	860.39	997.85	1134.59
14.00°	1213.99	1130.65	886.60	655.39	622.36	836.42	1142.14	1350.68	1325.72	1262.16	1053.65	786.55	616.90	749.40	884.62	1050.49	1213.99
15.00°	1301.93	1202.40	937.58	656.91	618.33	843.27	1180.36	1401.53	1367.51	1302.97	1090.07	799.44	613.87	753.01	909.60	1106.85	1301.93
16.00°	1386.64	1281.05	988.54	661.22	615.51	852.34	1212.52	1451.33	1411.02	1345.57	1120.00	807.38	604.86	753.36	935.00	1179.48	1386.64
17.00°	1460.73	1361.86	1046.49	667.64	608.10	859.55	1247.59	1501.23	1455.21	1382.10	1152.55	813.45	601.65	758.32	966.97	1246.36	1460.73
18.00°	1528.42	1427.36	1097.45	677.53	599.78	868.56	1280.14	1542.99	1493.24	1417.35	1183.88	826.19	592.13	759.05	996.21	1312.52	1528.42
19.00°	1586.42	1489.22	1150.77	687.17	591.33	875.59	1312.63	1589.51	1524.34	1452.95	1211.54	832.90	584.14	763.19	1030.00	1370.23	1586.42
20.00°	1637.81	1547.72	1207.23	692.75	588.52	887.66	1341.52	1625.74	1560.20	1489.05	1238.07	840.94	578.12	766.48	1071.74	1422.33	1637.81
21.00°	1680.11	1595.84	1258.16	706.26	579.67	894.87	1379.10	1653.05	1583.42	1516.41	1262.18	853.32	571.25	771.28	1110.64	1477.00	1680.11
22.00°	1710.88	1635.58	1304.38	716.50	572.33	902.25	1404.79	1675.49	1609.37	1543.49	1284.93	862.84	563.24	773.04	1145.41	1523.98	1710.88
23.00°	1731.68	1667.83	1350.77	728.07	564.80	908.72	1434.21	1682.71	1623.49	1562.87	1307.30	869.34	555.53	779.72	1185.43	1568.93	1731.68
24.00°	1737.85	1693.98	1390.34	739.11	556.69	913.59	1461.76	1688.89	1631.25	1579.05	1328.65	871.89	547.57	781.98	1225.61	1613.44	1737.85
25.00°	1735.36	1708.77	1428.57	750.31	548.16	919.22	1484.24	1681.45	1636.41	1596.03	1351.40	876.20	539.03	785.73	1262.80	1653.13	1735.36
26.00°	1722.60	1716.87	1464.13	761.61	541.98	923.76	1509.35	1671.13	1628.60	1600.22	1364.78	883.46	526.89	789.17	1292.50	1680.16	1722.60
27.00°	1705.15	1708.71	1493.94	773.19	530.34	930.94	1525.72	1651.24	1617.46	1602.61	1387.08	882.53	518.18	788.64	1327.72	1699.44	1705.15
28.00°	1674.56	1693.96	1523.28	790.11	524.48	930.91	1542.87	1625.05	1599.59	1596.93	1400.89	889.69	511.54	795.21	1358.94	1711.31	1674.56
29.00°	1635.61	1673.05	1546.06	800.01	511.91	934.45	1553.51	1599.42	1577.52	1585.58	1412.44	885.82	501.36	793.84	1388.06	1711.11	1635.61
30.00°	1593.41	1643.68	1560.95	808.37	501.19	929.75	1554.42	1560.31	1540.58	1567.25	1423.88	888.36	488.96	796.60	1421.19	1699.30	1593.41
31.00°	1542.69	1610.04	1575.07	817.37	494.44	932.32	1554.71	1512.85	1507.88	1544.79	1431.98	884.04	484.21	796.06	1444.34	1683.25	1542.69
32.00°	1488.53	1569.97	1581.37	823.57	484.36	930.55	1548.05	1465.98	1470.73	1517.35	1439.02	883.04	474.56	792.55	1469.13	1665.76	1488.53
33.00°	1432.01	1523.91	1586.96	833.89	475.43	925.70	1537.43	1416.25	1428.51	1492.12	1443.58	883.72	465.43	792.58	1493.36	1636.81	1432.01
34.00°	1374.89	1478.58	1579.05	838.91	465.25	927.87	1525.08	1362.93	1375.79	1455.58	1449.13	880.46	457.36	785.78	1508.34	1608.82	1374.89
35.00°	1322.04	1422.87	1562.55	841.05	454.84	919.51	1507.11	1298.15	1324.00	1412.35	1446.11	881.55	448.64	788.59	1520.62	1578.16	1322.04
36.00°	1265.48	1366.96	1548.30	850.15	447.70	915.71	1484.40	1237.79	1263.47	1369.55	1438.53	877.07	442.10	778.39	1525.82	1535.75	1265.48
37.00°	1206.72	1315.88	1526.01	854.77	438.49	909.38	1460.39	1180.43	1203.60	1322.52	1430.12	874.00	433.22	774.68	1531.38	1491.92	1206.72
38.00°	1153.34	1264.20	1502.69	860.32	429.30	904.65	1430.52	1119.39	1142.92	1269.83	1420.34	871.17	423.65	768.88	1527.25	1445.03	1153.34
39.00°	1101.93	1208.67	1481.27	859.61	421.87	897.37	1397.93	1064.92	1083.05	1215.69	1402.25	864.12	419.66	767.95	1522.17	1397.24	1101.93
40.00°	1048.77	1157.08	1449.39	856.76	416.41	885.71	1363.15	1007.08	1019.38	1160.92	1383.04	859.26	412.03	756.55	1513.56	1346.84	1048.77
41.00°	999.02	1101.62	1416.28	855.52	404.85	878.34	1322.93	950.34	954.07	1104.76	1358.15	852.51	402.35	752.89	1500.02	1288.21	999.02
42.00°	950.97	1051.68	1385.08	856.50	398.73	871.46	1280.94	894.38	883.64	1046.21	1332.08	842.61	393.35	747.66	1478.58	1231.13	950.97
43.00°	899.55	1009.53	1347.42	853.79	389.79	856.84	1240.39	838.13	809.53	991.85	1303.17	832.90	386.45	739.27	1455.49	1176.34	899.55

### 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%	10%
	0	4026	4026	4026	4026	3927	3927	3927	3927	3742	3742	3742	3573	3573	3573	3418	3418	3345
	1	3714	3567	3435	3317	3618	3486	3367	3259	3335	3238	3148	3196	3117	3044	3068	3005	2938
	2	3396	3136	2921	2740	3304	3068	2871	2704	2942	2777	2635	2826	2689	2568	2718	2606	2546
	3	3105	2767	2505	2297	3019	2711	2469	2274	2605	2398	2228	2506	2331	2184	2415	2268	2215
	4	2847	2457	2171	1953	2767	2409	2143	1937	2319	2089	1906	2236	2037	1876	2159	1988	1942
	5	2617	2195	1900	1683	2544	2155	1878	1671	2079	1835	1649	2008	1794	1627	1941	1755	1716
	6	2415	1974	1678	1465	2348	1939	1660	1457	1874	1626	1441	1813	1593	1425	1756	1561	1527
	7	2235	1785	1493	1289	2174	1756	1479	1282	1700	1451	1270	1647	1424	1258	1598	1398	1369
	8	2076	1623	1339	1143	2021	1598	1327	1138	1550	1304	1128	1504	1282	1119	1462	1260	1235
	9	1934	1484	1208	1021	1884	1462	1198	1018	1420	1179	1010	1380	1160	1002	1343	1142	1120
	10	1808	1363	1096	919	1763	1344	1088	916	1307	1072	910	1273	1056	903	1240	1041	1021

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	23.2 fc	10.2 ft
6.5 ft	16.6 fc	12.1 ft
7.5 ft	12.5 fc	13.9 ft
8.0 ft	11.0 fc	14.9 ft
10.0 ft	7.0 fc	18.6 ft
12.0 ft	4.9 fc	22.3 ft
14.0 ft	3.6 fc	26.0 ft
16.0 ft	2.7 fc	29.7 ft
20.0 ft	1.8 fc	37.2 ft
24.0 ft	1.2 fc	44.6 ft
28.0 ft	0.9 fc	52.0 ft

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

	0.00°	45.00°	90.00°
0.00°	20819	20819	20819
45.00°	16599	30703	15371
55.00°	8129	20557	13694
65.00°	9661	12314	12470
75.00°	1149	5663	11177
85.00°	417	477	5766

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	18.2	19.7	18.6	20.1	20.4	22.3	23.9	22.7	24.2	24.6
	3H	20.3	21.7	20.7	22.1	22.5	23.3	24.7	23.7	25.1	25.5
	4H	20.4	21.7	20.8	22.1	22.5	23.6	24.9	24.0	25.3	25.7
	6H	20.4	21.6	20.8	22.0	22.4	23.7	24.9	24.2	25.3	25.7
	8H	20.3	21.5	20.8	21.9	22.3	23.7	24.9	24.2	25.3	25.7
	12H	20.3	21.4	20.8	21.8	22.3	23.7	24.8	24.2	25.2	25.7
4H	2H	20.1	21.4	20.5	21.7	22.1	22.6	23.9	23.0	24.3	24.7
	3H	21.8	22.8	22.2	23.3	23.7	23.8	24.9	24.3	25.3	25.7
	4H	21.9	22.8	22.3	23.3	23.8	24.2	25.2	24.7	25.6	26.1
	6H	21.9	22.7	22.3	23.2	23.6	24.4	25.2	24.9	25.7	26.2
	8H	21.8	22.6	22.3	23.1	23.6	24.4	25.2	24.9	25.7	26.2
	12H	21.8	22.5	22.3	23.0	23.5	24.4	25.1	24.9	25.6	26.1
8H	4H	22.2	23.0	22.7	23.5	24.0	24.2	24.9	24.7	25.4	25.9
	6H	22.2	22.8	22.7	23.3	23.9	24.4	25.0	24.9	25.5	26.0
	8H	22.1	22.7	22.7	23.3	23.8	24.4	25.0	24.9	25.5	26.0
	12H	22.1	22.6	22.7	23.1	23.7	24.4	24.9	24.9	25.4	26.0
12H	4H	22.2	22.9	22.8	23.4	23.9	24.1	24.8	24.6	25.3	25.8
	6H	22.2	22.8	22.8	23.3	23.9	24.3	24.9	24.9	25.4	26.0
	8H	22.2	22.7	22.7	23.2	23.8	24.4	24.9	24.9	25.4	26.0

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0