

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 - WF - xx - xx - MW

Track light for accent, display and general illumination.

Test Number

STL4-5

Test Date

2/18/25

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

Summary of Results

Power

Input Watts	38.77 W
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Lumen Output

Output Lumens	3241
Efficacy	83.58 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.29
Two luminaires, plane 90°	1.21
Four luminaires	1.37

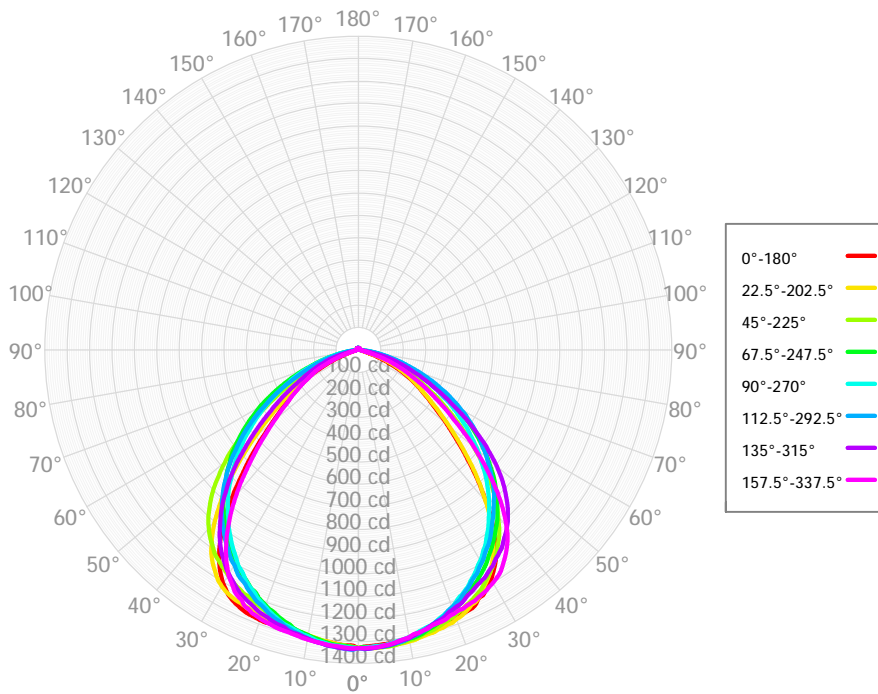
Full Beam Angle

0° - 180°	91°
90° - 270°	102°

IES File Header Contents

Keyword	Value
TEST	STL4-5
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	STL4 - 40L - 30HK - WF - 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°	126.10	3.89%	90.00° - 100.00°	7.46	0.23%
10.00° - 20.00°	361.51	11.16%	100.00° - 110.00°	7.34	0.23%
20.00° - 30.00°	555.58	17.14%	100.00° - 120.00°	14.34	0.44%
30.00° - 40.00°	661.59	20.42%	120.00° - 130.00°	6.57	0.20%
40.00° - 50.00°	620.60	19.15%	130.00° - 140.00°	5.86	0.18%
50.00° - 60.00°	466.74	14.40%	140.00° - 150.00°	4.91	0.15%
60.00° - 70.00°	280.66	8.66%	150.00° - 160.00°	3.71	0.11%
70.00° - 80.00°	104.38	3.22%	160.00° - 170.00°	2.30	0.07%
80.00° - 90.00°	17.50	0.54%	170.00° - 180.00°	0.78	0.02%
0.00° - 90.00°	3194.65	98.58%	0.00° - 180.00°	3240.58	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°	1331.53	1331.53	1331.53	1331.53	1331.53	1331.53	1331.53	1331.53	1331.53	1331.53	1331.53	1331.53	1331.53	1331.53	1331.53	1331.53	1331.53
1.00°	1325.55	1329.34	1330.43	1327.07	1331.17	1339.02	1336.31	1333.40	1321.19	1325.99	1328.86	1328.14	1329.85	1336.10	1334.40	1332.14	1325.55
2.00°	1324.42	1332.96	1331.58	1327.69	1328.57	1337.68	1335.97	1331.67	1320.75	1323.68	1324.66	1324.37	1328.56	1335.48	1335.29	1330.76	1324.42
3.00°	1322.65	1334.49	1331.70	1329.18	1325.75	1334.31	1334.26	1329.35	1320.00	1320.01	1320.95	1323.04	1326.12	1332.62	1333.03	1331.55	1322.65
4.00°	1321.21	1332.61	1331.44	1325.87	1324.89	1331.89	1332.25	1326.36	1317.13	1317.42	1320.04	1322.11	1324.53	1330.70	1330.00	1329.45	1321.21
5.00°	1319.30	1331.14	1331.87	1328.08	1323.65	1329.43	1327.75	1325.82	1313.47	1313.12	1318.96	1319.28	1323.94	1330.24	1328.36	1324.82	1319.30
6.00°	1317.91	1330.57	1330.27	1328.12	1319.78	1326.54	1327.59	1323.49	1311.45	1308.67	1315.24	1314.65	1319.95	1326.42	1324.99	1322.86	1317.91
7.00°	1315.94	1328.47	1328.56	1323.80	1314.64	1321.52	1321.53	1320.64	1309.41	1307.85	1307.67	1311.32	1314.96	1322.62	1320.74	1317.46	1315.94
8.00°	1314.36	1325.10	1324.56	1316.59	1310.52	1317.02	1319.20	1317.88	1304.22	1303.26	1303.36	1304.78	1311.75	1319.33	1314.94	1312.20	1314.36
9.00°	1311.03	1324.74	1320.44	1314.19	1307.33	1314.46	1313.84	1316.15	1303.57	1297.46	1300.00	1299.75	1304.54	1315.08	1311.03	1306.90	1311.03
10.00°	1309.21	1321.28	1316.62	1309.68	1302.36	1308.70	1308.11	1312.88	1302.43	1295.27	1292.50	1293.70	1297.90	1307.93	1307.37	1303.23	1309.21
11.00°	1304.43	1319.76	1314.55	1307.94	1297.21	1301.28	1303.77	1310.48	1302.95	1292.03	1289.65	1287.85	1294.34	1301.56	1299.71	1293.71	1304.43
12.00°	1300.91	1314.04	1310.47	1303.26	1287.78	1295.37	1298.01	1305.50	1295.27	1287.28	1283.56	1283.46	1285.91	1295.48	1292.89	1291.77	1300.91
13.00°	1296.86	1310.28	1300.70	1297.13	1280.77	1289.45	1296.41	1302.44	1293.97	1284.09	1279.44	1276.21	1280.06	1288.18	1286.83	1285.89	1296.86
14.00°	1296.05	1306.40	1298.32	1287.08	1275.08	1281.37	1291.54	1298.78	1289.42	1277.37	1270.50	1264.51	1273.90	1282.88	1278.85	1282.37	1296.05
15.00°	1291.91	1305.33	1294.21	1281.96	1271.18	1275.06	1281.93	1297.01	1286.74	1277.50	1264.05	1258.10	1269.30	1271.67	1271.58	1274.29	1291.91
16.00°	1287.44	1297.96	1287.99	1273.83	1261.25	1263.25	1278.34	1295.33	1287.28	1273.99	1261.40	1249.67	1260.85	1262.50	1264.13	1271.00	1287.44
17.00°	1282.43	1296.51	1280.52	1263.01	1250.48	1257.89	1274.42	1290.72	1286.39	1271.95	1253.47	1239.87	1249.81	1255.56	1259.90	1269.27	1282.43
18.00°	1283.31	1289.80	1274.07	1258.13	1242.24	1249.20	1267.84	1286.35	1284.54	1269.40	1246.25	1228.86	1240.71	1246.18	1252.07	1265.32	1283.31
19.00°	1281.76	1288.87	1268.99	1247.66	1232.51	1239.93	1260.07	1282.58	1286.00	1264.52	1241.23	1222.96	1230.34	1231.86	1239.83	1256.52	1281.76
20.00°	1274.85	1279.76	1261.53	1237.59	1222.82	1227.79	1255.48	1278.19	1283.73	1262.71	1235.36	1212.26	1218.23	1223.41	1234.12	1252.66	1274.85
21.00°	1268.22	1275.63	1253.80	1232.61	1209.66	1218.05	1248.88	1271.75	1281.10	1260.61	1227.90	1202.43	1206.88	1213.77	1227.07	1246.82	1268.22
22.00°	1265.90	1266.62	1247.58	1217.14	1194.78	1211.14	1240.15	1267.39	1278.13	1258.97	1221.85	1191.68	1197.10	1205.32	1222.31	1246.20	1265.90
23.00°	1262.53	1256.77	1237.79	1207.78	1185.69	1198.51	1231.53	1256.75	1276.17	1253.00	1212.70	1175.26	1181.06	1190.92	1212.52	1240.97	1262.53
24.00°	1259.46	1245.68	1230.58	1194.17	1173.64	1186.13	1224.13	1250.77	1271.13	1250.33	1205.52	1169.79	1170.45	1178.59	1200.56	1237.28	1259.46
25.00°	1247.69	1241.31	1221.46	1183.31	1162.40	1173.75	1216.10	1233.16	1263.82	1246.92	1203.74	1156.57	1158.30	1167.13	1193.27	1234.55	1247.69
26.00°	1231.33	1230.14	1212.26	1171.87	1145.81	1159.11	1207.39	1225.30	1256.99	1244.87	1194.82	1143.22	1145.86	1151.44	1184.57	1227.70	1231.33
27.00°	1228.11	1218.34	1203.75	1161.96	1133.16	1150.45	1194.41	1213.92	1248.09	1240.80	1188.66	1131.68	1127.65	1138.91	1176.23	1223.04	1228.11
28.00°	1213.74	1197.39	1189.70	1149.12	1117.99	1140.69	1181.67	1194.60	1237.96	1235.08	1181.35	1119.58	1114.15	1130.33	1169.53	1217.04	1213.74
29.00°	1198.56	1181.93	1175.00	1137.32	1101.12	1124.36	1168.47	1177.72	1221.07	1228.24	1173.47	1105.45	1103.66	1112.49	1163.92	1207.96	1198.56
30.00°	1185.77	1166.18	1162.86	1124.16	1088.13	1108.27	1156.21	1159.98	1206.34	1219.06	1162.84	1090.24	1085.25	1099.74	1152.92	1202.05	1185.77
31.00°	1166.16	1149.55	1148.39	1110.79	1073.08	1097.98	1141.94	1134.99	1186.52	1208.24	1152.57	1076.46	1068.27	1086.27	1142.33	1192.92	1166.16
32.00°	1146.39	1126.14	1136.17	1093.90	1054.56	1082.16	1125.26	1112.41	1164.75	1193.72	1143.95	1063.62	1052.48	1068.20	1134.65	1184.75	1146.39
33.00°	1125.62	1103.26	1119.77	1079.17	1041.17	1065.52	1107.74	1084.21	1139.30	1175.65	1133.89	1047.93	1036.26	1055.16	1120.87	1171.47	1125.62
34.00°	1098.93	1079.65	1102.49	1065.21	1021.46	1050.42	1091.85	1055.77	1111.90	1159.30	1124.55	1033.67	1018.29	1042.30	1110.97	1154.95	1098.93
35.00°	1070.51	1050.72	1082.26	1048.87	1003.14	1036.15	1072.52	1025.88	1081.40	1139.16	1115.51	1018.02	1000.66	1026.45	1100.77	1138.78	1070.51
36.00°	1034.73	1021.15	1062.89	1033.39	986.30	1018.43	1051.92	992.73	1047.66	1117.29	1100.54	1000.81	983.29	1008.39	1090.55	1121.39	1034.73
37.00°	1001.62	989.39	1044.20	1015.88	966.69	1001.73	1029.25	958.17	1011.84	1089.33	1085.31	986.01	963.31	990.03	1075.09	1102.49	1001.62
38.00°	969.79	957.59	1023.11	1000.33	946.37	984.30	1003.63	923.97	973.15	1060.99	1072.19	968.87	944.22	972.08	1060.81	1081.97	969.79
39.00°	931.92	923.36	996.22	984.80	927.86	965.86	979.08	887.19	931.65	1029.50	1056.56	951.06	926.07	956.63	1047.24	1058.39	931.92
40.00°	891.25	885.69	971.88	966.32	908.85	948.41	955.24	849.02	889.94	996.01	1038.89	935.79	906.26	938.69	1032.29	1029.15	891.25
41.00°	849.14	848.38	947.66	945.16	889.40	929.50	927.63	812.04	849.15	959.32	1020.93	918.38	886.79	921.39	1017.06	999.67	849.14
42.00°	809.49	813.49	922.54	927.65	869.14	909.73	899.94	772.22	803.94	922.02	1000.36	899.38	867.77	904.73	998.72	968.33	809.49
43.00°	770.25	775.82	893.83	910.57	847.72	888.58	868.43	731.37	761.49	885.50	975.83	879.74	847.99	888.89	979.69	935.82	770.25

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	3847	3847	3847	3847	3752	3752	3752	3752	3575	3575	3575	3413	3413	3413	3265	3265	3195
	1	3565	3432	3312	3205	3475	3355	3247	3149	3211	3123	3042	3078	3007	2941	2956	2900	2836
	2	3276	3040	2844	2680	3190	2976	2797	2645	2856	2707	2577	2746	2622	2513	2644	2542	2484
	3	3011	2702	2463	2273	2930	2649	2428	2250	2548	2360	2206	2455	2296	2162	2369	2235	2185
	4	2772	2416	2154	1955	2697	2371	2127	1939	2286	2075	1909	2207	2026	1879	2134	1978	1934
	5	2560	2173	1902	1703	2491	2135	1881	1691	2063	1840	1669	1996	1801	1648	1933	1763	1725
	6	2371	1966	1694	1499	2308	1934	1677	1491	1872	1644	1475	1815	1613	1459	1761	1583	1549
	7	2203	1789	1521	1332	2147	1761	1507	1326	1709	1480	1314	1660	1455	1302	1613	1430	1401
	8	2054	1637	1375	1194	2003	1613	1363	1190	1568	1342	1180	1525	1320	1171	1485	1300	1274
	9	1921	1506	1251	1079	1874	1485	1242	1075	1445	1223	1067	1408	1206	1060	1373	1188	1166
	10	1802	1391	1145	981	1760	1373	1137	978	1339	1122	972	1306	1107	966	1275	1092	1072

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	44.0 fc	11.2 ft
6.5 ft	31.5 fc	13.2 ft
7.5 ft	23.7 fc	15.2 ft
8.0 ft	20.8 fc	16.2 ft
10.0 ft	13.3 fc	20.3 ft
12.0 ft	9.2 fc	24.4 ft
14.0 ft	6.8 fc	28.4 ft
16.0 ft	5.2 fc	32.5 ft
20.0 ft	3.3 fc	40.6 ft
24.0 ft	2.3 fc	48.7 ft
28.0 ft	1.7 fc	56.8 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	39527	39527	39527
45.00°	14441	20280	32973
55.00°	8149	13150	28852
65.00°	4080	7394	23258
75.00°	666	3209	16098
85.00°	261	373	6013

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	18.3	19.7	18.6	20.1	20.4	22.6	24.1	23.0	24.5	24.8
	3H	18.7	20.0	19.1	20.4	20.8	23.9	25.2	24.3	25.6	26.0
	4H	18.7	19.9	19.1	20.3	20.7	24.2	25.5	24.6	25.8	26.3
	6H	18.6	19.8	19.1	20.2	20.6	24.4	25.6	24.8	26.0	26.4
	8H	18.6	19.7	19.0	20.1	20.5	24.4	25.5	24.9	25.9	26.4
	12H	18.6	19.6	19.0	20.0	20.5	24.4	25.5	24.9	25.9	26.3
4H	2H	19.1	20.3	19.5	20.7	21.1	22.7	23.9	23.1	24.3	24.7
	3H	19.7	20.7	20.1	21.1	21.6	24.0	25.1	24.5	25.5	25.9
	4H	19.6	20.6	20.1	21.0	21.5	24.5	25.4	24.9	25.8	26.3
	6H	19.6	20.4	20.1	20.9	21.4	24.7	25.5	25.2	26.0	26.5
	8H	19.6	20.3	20.0	20.8	21.3	24.7	25.5	25.2	26.0	26.5
	12H	19.5	20.2	20.0	20.7	21.2	24.7	25.4	25.2	25.9	26.4
8H	4H	19.9	20.7	20.4	21.1	21.6	24.4	25.1	24.9	25.6	26.1
	6H	19.9	20.5	20.4	21.0	21.5	24.6	25.3	25.2	25.8	26.3
	8H	19.8	20.4	20.3	20.9	21.4	24.7	25.2	25.2	25.8	26.3
	12H	19.8	20.3	20.3	20.8	21.4	24.7	25.2	25.2	25.7	26.3
12H	4H	19.9	20.6	20.4	21.1	21.6	24.4	25.0	24.9	25.5	26.0
	6H	19.9	20.4	20.4	20.9	21.5	24.6	25.2	25.1	25.6	26.2
	8H	19.8	20.3	20.4	20.8	21.4	24.6	25.1	25.2	25.6	26.2

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0