

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Track light for accent, display and general illumination.

Test Number

STL4-10

Test Date

2/18/25

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

Summary of Results

Power

Input Watts	37.04 W
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Lumen Output

Output Lumens	3653
Efficacy	98.64 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.35
Two luminaires, plane 90°	1.25
Four luminaires	1.37

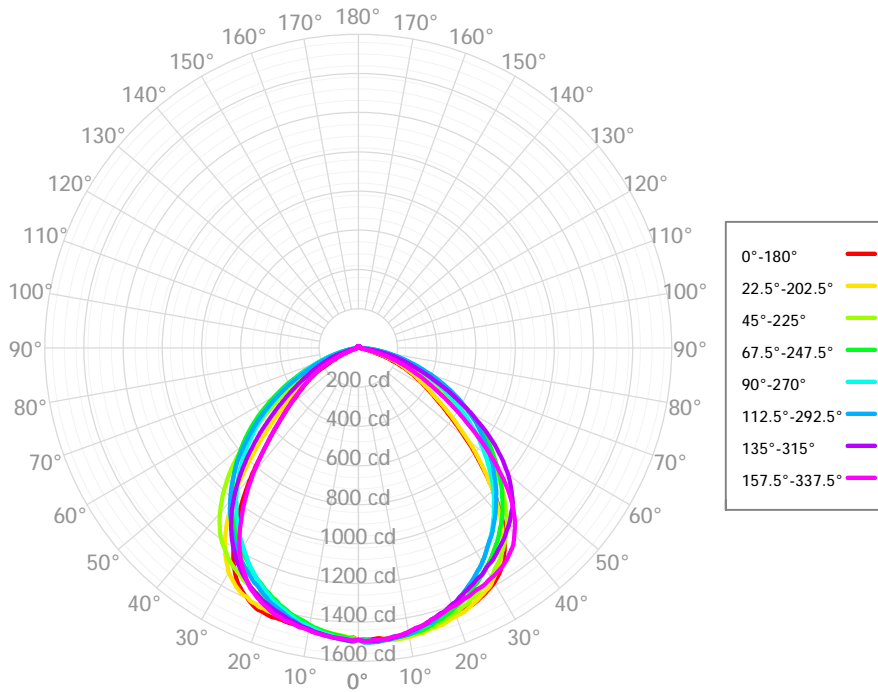
Full Beam Angle

0° - 180°	91°
90° - 270°	102°

IES File Header Contents

Keyword	Value
TEST	STL4-10
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	STL4 - 40L - 35HK - 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°	141.47	3.87%	90.00° - 100.00°	6.66	0.18%
10.00° - 20.00°	406.02	11.11%	100.00° - 110.00°	6.40	0.18%
20.00° - 30.00°	621.94	17.02%	100.00° - 120.00°	12.69	0.35%
30.00° - 40.00°	737.72	20.19%	120.00° - 130.00°	5.91	0.16%
40.00° - 50.00°	697.19	19.08%	130.00° - 140.00°	5.31	0.15%
50.00° - 60.00°	532.12	14.56%	140.00° - 150.00°	4.51	0.12%
60.00° - 70.00°	322.13	8.82%	150.00° - 160.00°	3.39	0.09%
70.00° - 80.00°	129.15	3.53%	160.00° - 170.00°	2.15	0.06%
80.00° - 90.00°	24.34	0.67%	170.00° - 180.00°	0.75	0.02%
0.00° - 90.00°	3612.08	98.87%	0.00° - 180.00°	3653.46	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°	1490.53	1490.53	1490.53	1490.53	1490.53	1490.53	1490.53	1490.53	1490.53	1490.53	1490.53	1490.53	1490.53	1490.53	1490.53	1490.53	1490.53
1.00°	1486.74	1487.76	1492.76	1489.91	1493.83	1499.69	1494.08	1494.95	1478.39	1479.79	1484.31	1484.84	1489.61	1503.20	1495.48	1495.58	1486.74
2.00°	1489.55	1490.61	1494.57	1491.44	1495.60	1496.02	1493.69	1489.40	1477.53	1476.26	1479.10	1481.37	1486.68	1505.38	1497.03	1495.73	1489.55
3.00°	1488.09	1493.79	1495.93	1493.87	1495.70	1491.80	1489.90	1486.09	1479.49	1471.86	1473.39	1475.75	1484.10	1504.42	1497.56	1492.87	1488.09
4.00°	1485.62	1496.96	1498.06	1496.55	1495.93	1487.00	1486.67	1483.67	1477.03	1468.01	1471.71	1470.83	1481.78	1503.44	1496.94	1493.73	1485.62
5.00°	1490.59	1497.31	1498.65	1497.62	1494.51	1483.79	1483.45	1481.96	1469.07	1464.57	1466.74	1466.85	1477.46	1498.07	1493.78	1494.84	1490.59
6.00°	1489.60	1498.16	1496.61	1495.85	1490.17	1480.68	1478.01	1479.56	1462.97	1459.51	1462.72	1462.12	1470.37	1496.86	1492.61	1489.81	1489.60
7.00°	1487.93	1501.01	1495.67	1492.43	1484.61	1477.40	1473.45	1475.66	1459.92	1455.70	1456.65	1456.93	1466.77	1493.17	1488.23	1484.28	1487.93
8.00°	1487.83	1501.52	1497.89	1488.20	1484.00	1470.58	1468.89	1473.06	1455.53	1453.40	1450.68	1449.99	1460.01	1490.34	1485.04	1483.02	1487.83
9.00°	1484.92	1499.27	1495.27	1488.39	1480.60	1463.66	1463.67	1469.25	1455.31	1451.07	1446.50	1443.08	1451.77	1486.88	1482.13	1477.73	1484.92
10.00°	1482.09	1498.61	1493.42	1484.09	1475.75	1457.42	1456.18	1462.97	1455.95	1444.51	1438.07	1435.10	1445.17	1485.18	1473.43	1471.46	1482.09
11.00°	1479.56	1494.14	1489.30	1482.12	1472.64	1450.73	1452.83	1457.79	1451.99	1439.97	1432.43	1424.03	1436.64	1478.21	1466.94	1463.19	1479.56
12.00°	1475.30	1491.58	1487.00	1478.86	1468.72	1443.05	1446.22	1456.29	1450.07	1436.70	1424.63	1416.49	1433.42	1470.16	1460.78	1457.27	1475.30
13.00°	1470.05	1490.63	1479.78	1476.50	1459.82	1432.36	1437.70	1448.98	1448.08	1436.77	1420.03	1409.81	1419.83	1459.22	1454.89	1454.73	1470.05
14.00°	1468.13	1481.80	1477.18	1467.24	1454.76	1424.55	1431.96	1443.59	1447.68	1435.13	1416.55	1402.86	1409.97	1451.62	1449.01	1445.24	1468.13
15.00°	1464.84	1479.00	1474.99	1462.34	1445.59	1413.29	1424.41	1441.91	1445.01	1430.63	1405.57	1391.10	1400.52	1450.73	1436.40	1436.39	1464.84
16.00°	1463.14	1477.68	1465.90	1450.97	1436.26	1402.64	1415.67	1433.02	1441.90	1427.10	1396.47	1379.38	1386.28	1439.87	1429.86	1430.70	1463.14
17.00°	1458.30	1476.69	1461.16	1447.23	1429.53	1392.69	1409.32	1428.38	1440.97	1424.67	1389.43	1371.75	1379.21	1426.55	1419.25	1425.91	1458.30
18.00°	1456.45	1469.30	1455.05	1436.26	1420.57	1382.66	1401.38	1420.74	1442.10	1421.66	1385.34	1355.44	1366.20	1417.82	1415.73	1418.26	1456.45
19.00°	1452.29	1462.19	1444.98	1430.47	1408.42	1375.43	1392.00	1409.11	1438.12	1419.61	1377.76	1346.85	1355.46	1408.57	1404.45	1410.01	1452.29
20.00°	1446.30	1457.37	1440.36	1419.42	1400.73	1360.26	1383.29	1398.62	1432.80	1415.71	1372.94	1332.80	1339.93	1396.97	1393.40	1405.36	1446.30
21.00°	1444.45	1454.48	1435.54	1409.73	1389.37	1348.69	1375.47	1388.01	1430.44	1414.83	1364.62	1322.70	1326.49	1387.28	1388.83	1402.19	1444.45
22.00°	1440.07	1449.80	1424.92	1400.96	1377.68	1334.26	1362.31	1374.62	1422.28	1407.55	1356.57	1306.84	1312.93	1373.68	1375.08	1394.71	1440.07
23.00°	1434.16	1442.73	1420.01	1392.03	1364.04	1318.04	1352.07	1361.03	1410.24	1405.20	1351.29	1293.68	1298.62	1362.90	1366.18	1388.73	1434.16
24.00°	1433.53	1432.12	1407.00	1381.83	1350.57	1309.67	1341.82	1348.61	1396.16	1393.25	1338.79	1282.70	1281.44	1349.24	1356.20	1386.92	1433.53
25.00°	1428.21	1424.91	1401.51	1364.84	1340.94	1293.53	1326.51	1329.27	1384.14	1390.31	1331.71	1267.11	1265.81	1335.41	1347.15	1381.07	1428.21
26.00°	1419.59	1415.48	1391.38	1351.58	1326.26	1279.09	1312.06	1306.79	1367.01	1381.27	1325.58	1253.22	1248.27	1322.45	1339.59	1374.04	1419.59
27.00°	1412.69	1406.36	1380.28	1341.00	1315.41	1264.04	1297.38	1284.77	1351.19	1369.61	1312.84	1235.75	1231.99	1307.96	1327.98	1372.05	1412.69
28.00°	1403.87	1396.98	1372.77	1327.07	1295.09	1250.40	1280.81	1263.29	1328.19	1354.45	1303.06	1220.02	1211.89	1292.27	1321.55	1369.12	1403.87
29.00°	1394.97	1388.41	1362.15	1316.56	1282.35	1233.92	1263.06	1237.45	1301.20	1338.93	1292.50	1207.35	1193.59	1279.42	1313.26	1362.00	1394.97
30.00°	1384.69	1370.60	1353.19	1301.62	1264.56	1217.55	1244.25	1207.95	1272.42	1323.54	1283.98	1191.11	1175.21	1263.65	1300.53	1356.48	1384.69
31.00°	1371.23	1354.74	1338.61	1286.75	1247.21	1202.11	1222.85	1177.82	1238.86	1297.20	1271.86	1174.90	1156.02	1247.82	1290.67	1352.09	1371.23
32.00°	1357.94	1338.34	1321.48	1272.32	1229.73	1182.92	1202.73	1146.82	1203.91	1273.93	1258.18	1155.21	1138.10	1228.92	1284.51	1344.66	1357.94
33.00°	1340.16	1322.30	1309.44	1257.41	1210.94	1163.72	1180.53	1109.95	1164.28	1246.97	1240.96	1139.87	1116.61	1210.73	1274.28	1337.76	1340.16
34.00°	1318.99	1300.70	1294.43	1240.49	1194.98	1142.44	1156.62	1071.29	1122.74	1215.93	1226.40	1120.30	1096.31	1192.90	1262.88	1330.34	1318.99
35.00°	1295.34	1275.68	1276.27	1225.34	1176.79	1124.27	1131.28	1033.72	1079.94	1185.08	1211.84	1103.80	1077.86	1179.32	1250.84	1319.38	1295.34
36.00°	1270.27	1251.77	1259.83	1210.82	1158.90	1104.07	1103.42	996.88	1032.89	1149.72	1194.29	1084.27	1057.48	1164.02	1239.99	1306.93	1270.27
37.00°	1242.78	1224.29	1242.49	1192.38	1138.73	1084.36	1076.16	954.54	985.59	1112.60	1173.73	1066.29	1033.59	1144.78	1229.59	1294.44	1242.78
38.00°	1215.01	1193.18	1221.04	1173.70	1117.75	1063.82	1047.30	914.89	937.12	1069.98	1149.14	1047.72	1010.79	1126.29	1217.07	1281.95	1215.01
39.00°	1180.57	1160.62	1200.96	1157.21	1098.48	1041.04	1014.78	871.75	891.18	1024.81	1124.78	1024.45	989.63	1109.48	1201.90	1261.43	1180.57
40.00°	1143.26	1127.05	1179.62	1139.81	1074.87	1017.30	983.55	829.55	844.66	982.09	1098.53	1003.39	966.42	1090.10	1190.42	1239.05	1143.26
41.00°	1100.15	1090.65	1155.53	1120.65	1053.34	994.46	951.05	785.66	795.55	938.44	1069.32	984.00	942.49	1070.62	1177.20	1217.69	1100.15
42.00°	1059.29	1054.25	1128.19	1098.96	1035.50	969.49	916.59	743.91	746.69	891.12	1039.46	962.62	918.50	1051.54	1161.78	1194.47	1059.29
43.00°	1019.57	1014.87	1099.35	1078.21	1011.86	944.47	881.49	702.42	702.29	843.81	1009.90	939.27	895.56	1031.54	1144.93	1166.34	1019.57

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	ρ_{fc}	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	ρ_{cc}	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	ρ_w	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	4340	4340	4340	4340	4234	4234	4234	4234	4036	4036	4036	3856	3856	3856	3690	3690	3690	3612
	1	4017	3865	3729	3606	3916	3779	3656	3544	3618	3518	3425	3471	3389	3314	3335	3270	3209	3198
	2	3689	3420	3197	3011	3593	3349	3145	2972	3215	3045	2897	3092	2950	2826	2978	2862	2758	2798
	3	3388	3038	2767	2551	3298	2978	2727	2525	2866	2652	2476	2763	2581	2429	2667	2514	2383	2458
	4	3119	2714	2418	2192	3035	2664	2388	2175	2570	2331	2141	2482	2276	2109	2401	2224	2077	2174
	5	2880	2441	2134	1908	2803	2398	2111	1896	2318	2066	1872	2244	2022	1849	2174	1981	1826	1938
	6	2667	2208	1900	1679	2597	2172	1882	1670	2104	1846	1653	2040	1811	1636	1980	1778	1619	1740
	7	2478	2009	1705	1492	2415	1979	1690	1486	1920	1661	1472	1865	1633	1460	1814	1606	1447	1573
	8	2310	1838	1542	1337	2253	1812	1529	1332	1761	1505	1322	1714	1482	1312	1670	1460	1302	1431
	9	2161	1691	1403	1208	2109	1668	1392	1204	1624	1372	1196	1583	1353	1188	1544	1334	1180	1309
	10	2027	1562	1284	1098	1980	1542	1275	1095	1504	1258	1089	1468	1242	1082	1434	1226	1076	1204

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	49.3 fc	11.3 ft
6.5 ft	35.3 fc	13.3 ft
7.5 ft	26.5 fc	15.4 ft
8.0 ft	23.3 fc	16.4 ft
10.0 ft	14.9 fc	20.5 ft
12.0 ft	10.4 fc	24.6 ft
14.0 ft	7.6 fc	28.7 ft
16.0 ft	5.8 fc	32.8 ft
20.0 ft	3.7 fc	41.0 ft
24.0 ft	2.6 fc	49.2 ft
28.0 ft	1.9 fc	57.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	44247	44247	44247
45.00°	19516	25453	39562
55.00°	11267	17694	35754
65.00°	6347	10482	30258
75.00°	1677	5484	23126
85.00°	371	512	14298

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	20.2	21.7	20.6	22.0	22.4	22.3	23.8	22.7	24.2	24.5
	3H	20.9	22.2	21.3	22.6	22.9	23.6	24.9	24.0	25.3	25.7
	4H	20.9	22.2	21.3	22.5	22.9	24.0	25.2	24.4	25.6	26.0
	6H	20.9	22.0	21.3	22.4	22.8	24.2	25.4	24.6	25.8	26.2
	8H	20.8	21.9	21.3	22.4	22.8	24.3	25.4	24.7	25.8	26.2
	12H	20.8	21.9	21.3	22.3	22.7	24.3	25.3	24.7	25.7	26.2
4H	2H	21.0	22.3	21.4	22.6	23.1	22.3	23.6	22.8	24.0	24.4
	3H	21.8	22.9	22.3	23.3	23.7	23.7	24.7	24.1	25.1	25.6
	4H	21.9	22.8	22.4	23.3	23.7	24.1	25.0	24.5	25.5	25.9
	6H	21.9	22.7	22.4	23.2	23.6	24.4	25.2	24.8	25.6	26.1
	8H	21.8	22.6	22.3	23.1	23.6	24.4	25.2	24.9	25.6	26.1
	12H	21.8	22.5	22.3	23.0	23.5	24.5	25.1	25.0	25.6	26.1
8H	4H	22.2	23.0	22.7	23.5	24.0	24.0	24.7	24.5	25.2	25.7
	6H	22.2	22.8	22.7	23.4	23.9	24.3	24.9	24.8	25.4	25.9
	8H	22.2	22.7	22.7	23.3	23.8	24.3	24.9	24.8	25.4	25.9
	12H	22.2	22.6	22.7	23.2	23.7	24.3	24.8	24.9	25.4	25.9
12H	4H	22.3	22.9	22.8	23.4	23.9	24.0	24.6	24.5	25.1	25.6
	6H	22.3	22.8	22.8	23.3	23.9	24.2	24.8	24.8	25.3	25.8
	8H	22.2	22.7	22.8	23.2	23.8	24.3	24.8	24.8	25.3	25.9

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0