

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Track light for accent, display and general illumination.

Test Number

STL4-15

Test Date

2/18/25

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

Summary of Results

Power

Input Watts	39.87 W
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Lumen Output

Output Lumens	3511
Efficacy	88.06 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.34
Two luminaires, plane 90°	1.24
Four luminaires	1.35

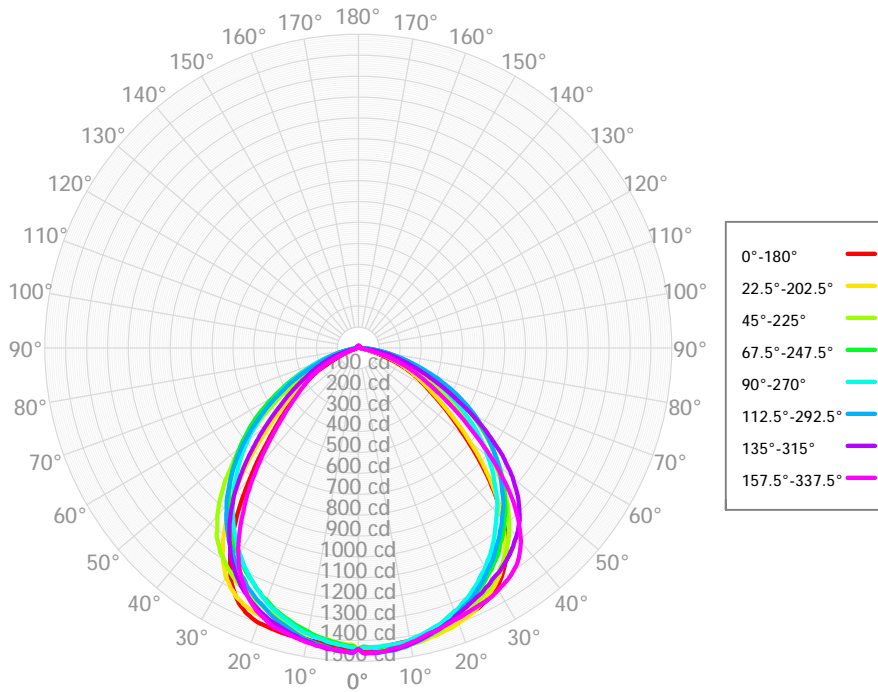
Full Beam Angle

0° - 180°	90°
90° - 270°	102°

IES File Header Contents

Keyword	Value
TEST	STL4-15
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	STL4 - 40L - 40HK - 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°	136.82	3.90%	90.00° - 100.00°	6.99	0.20%
10.00° - 20.00°	392.91	11.19%	100.00° - 110.00°	6.79	0.19%
20.00° - 30.00°	601.01	17.12%	100.00° - 120.00°	13.34	0.38%
30.00° - 40.00°	708.79	20.19%	120.00° - 130.00°	6.10	0.17%
40.00° - 50.00°	666.08	18.97%	130.00° - 140.00°	5.47	0.16%
50.00° - 60.00°	507.57	14.46%	140.00° - 150.00°	4.58	0.13%
60.00° - 70.00°	307.67	8.76%	150.00° - 160.00°	3.49	0.10%
70.00° - 80.00°	123.77	3.53%	160.00° - 170.00°	2.21	0.06%
80.00° - 90.00°	23.52	0.67%	170.00° - 180.00°	0.76	0.02%
0.00° - 90.00°	3468.14	98.78%	0.00° - 180.00°	3511.07	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°	1442.22	1442.22	1442.22	1442.22	1442.22	1442.22	1442.22	1442.22	1442.22	1442.22	1442.22	1442.22	1442.22	1442.22	1442.22	1442.22	1442.22
1.00°	1440.13	1432.69	1435.37	1429.80	1435.08	1459.54	1457.76	1457.31	1435.40	1421.45	1428.40	1427.75	1432.62	1460.50	1461.21	1460.18	1440.13
2.00°	1440.04	1434.82	1434.33	1435.30	1435.05	1456.40	1454.37	1455.85	1435.91	1420.97	1422.91	1425.70	1430.38	1460.84	1459.29	1461.55	1440.04
3.00°	1442.81	1435.82	1434.95	1434.00	1433.31	1453.54	1453.80	1451.88	1435.43	1416.93	1419.73	1421.89	1425.32	1462.86	1461.07	1458.88	1442.81
4.00°	1436.87	1438.96	1436.38	1436.03	1432.80	1449.32	1451.07	1447.10	1430.66	1414.83	1414.27	1415.45	1422.22	1462.25	1458.58	1458.89	1436.87
5.00°	1434.38	1438.72	1437.85	1432.78	1429.88	1445.66	1446.48	1447.20	1430.14	1409.85	1409.36	1411.52	1417.50	1457.61	1456.85	1456.52	1434.38
6.00°	1431.26	1442.86	1438.33	1435.39	1429.20	1439.54	1447.63	1442.88	1422.85	1407.15	1402.64	1406.63	1414.18	1456.86	1455.01	1449.26	1431.26
7.00°	1427.86	1441.78	1439.03	1433.79	1428.33	1434.75	1440.56	1439.14	1420.11	1404.78	1402.20	1400.26	1405.32	1455.98	1452.59	1446.63	1427.86
8.00°	1425.61	1441.45	1437.77	1430.95	1426.87	1428.41	1438.11	1437.80	1419.65	1400.87	1396.81	1394.26	1400.45	1450.80	1447.67	1444.91	1425.61
9.00°	1424.06	1441.74	1436.91	1430.92	1424.51	1423.18	1429.17	1432.82	1419.30	1395.66	1393.84	1388.03	1397.08	1448.55	1444.00	1438.97	1424.06
10.00°	1423.31	1440.05	1437.68	1426.45	1419.03	1416.67	1424.79	1429.34	1416.71	1393.17	1388.98	1378.26	1388.34	1441.16	1438.66	1432.63	1423.31
11.00°	1421.24	1438.79	1433.54	1422.23	1411.65	1409.58	1419.99	1424.50	1413.61	1392.43	1383.32	1370.69	1383.04	1435.94	1432.07	1427.50	1421.24
12.00°	1418.13	1437.21	1429.80	1415.60	1407.09	1400.53	1411.65	1419.60	1411.92	1388.53	1376.97	1363.59	1373.66	1430.21	1425.59	1420.83	1418.13
13.00°	1415.61	1432.79	1425.52	1412.35	1400.75	1391.13	1405.97	1414.11	1414.23	1385.18	1370.48	1356.49	1365.18	1422.59	1419.24	1413.65	1415.61
14.00°	1411.67	1426.33	1418.00	1405.76	1393.36	1381.13	1398.70	1408.46	1412.86	1382.28	1360.81	1346.04	1354.96	1415.48	1411.96	1407.06	1411.67
15.00°	1409.01	1425.19	1415.59	1399.48	1385.90	1371.77	1391.01	1403.47	1411.29	1381.77	1355.37	1337.93	1344.23	1408.36	1404.34	1404.61	1409.01
16.00°	1409.01	1420.17	1409.95	1396.19	1380.73	1363.52	1382.67	1399.10	1408.99	1377.95	1351.30	1328.62	1334.41	1401.62	1399.41	1400.51	1409.01
17.00°	1403.52	1415.61	1400.86	1389.22	1372.44	1355.47	1376.01	1394.82	1406.34	1373.72	1342.61	1318.78	1324.76	1390.79	1392.10	1394.03	1403.52
18.00°	1398.83	1412.91	1395.72	1383.56	1361.42	1345.33	1369.80	1384.92	1403.94	1370.22	1335.42	1310.23	1314.50	1382.94	1382.52	1388.77	1398.83
19.00°	1394.20	1408.11	1390.57	1373.09	1350.99	1332.39	1358.76	1372.27	1400.57	1367.15	1329.53	1296.14	1304.19	1373.96	1377.27	1383.72	1394.20
20.00°	1391.08	1400.81	1382.38	1363.73	1341.97	1318.73	1349.71	1361.42	1399.07	1364.27	1322.58	1283.40	1291.09	1361.35	1364.02	1379.49	1391.08
21.00°	1386.79	1394.35	1375.41	1355.69	1334.83	1307.88	1338.20	1350.46	1392.57	1362.42	1313.84	1275.43	1277.84	1351.07	1356.96	1376.66	1386.79
22.00°	1384.69	1388.06	1367.03	1344.67	1320.98	1297.55	1327.31	1334.96	1384.80	1356.87	1306.57	1259.46	1261.78	1337.24	1348.27	1370.81	1384.69
23.00°	1377.99	1382.25	1358.44	1331.99	1310.59	1283.29	1315.71	1318.77	1376.49	1350.61	1298.52	1249.05	1247.34	1328.98	1340.19	1367.15	1377.99
24.00°	1374.11	1373.72	1354.85	1319.54	1299.16	1270.22	1300.54	1301.00	1363.07	1344.75	1291.09	1232.92	1233.60	1319.38	1332.28	1364.32	1374.11
25.00°	1369.62	1363.85	1343.65	1309.45	1285.17	1257.85	1287.66	1278.70	1349.39	1334.69	1282.98	1220.17	1217.10	1306.97	1323.98	1360.70	1369.62
26.00°	1361.27	1355.15	1333.58	1299.51	1272.28	1237.97	1273.61	1255.36	1330.91	1328.21	1273.99	1208.01	1201.77	1291.89	1316.98	1358.38	1361.27
27.00°	1356.09	1347.69	1323.85	1285.46	1258.27	1226.41	1255.20	1234.08	1308.79	1312.64	1266.41	1193.60	1186.46	1278.07	1310.83	1354.74	1356.09
28.00°	1343.77	1335.48	1313.86	1275.97	1240.69	1210.01	1238.15	1208.12	1285.99	1301.06	1256.42	1177.49	1170.83	1265.08	1299.03	1351.76	1343.77
29.00°	1334.02	1321.70	1303.81	1261.41	1226.91	1194.73	1219.58	1178.84	1258.62	1280.95	1244.50	1160.61	1151.72	1249.01	1292.86	1345.33	1334.02
30.00°	1324.23	1309.19	1290.64	1247.45	1214.98	1177.24	1199.48	1146.59	1226.24	1267.35	1231.89	1146.29	1135.40	1232.85	1280.42	1338.41	1324.23
31.00°	1309.17	1293.33	1279.48	1236.44	1194.76	1159.53	1179.61	1115.89	1190.57	1240.88	1220.50	1132.91	1117.90	1219.29	1272.75	1330.69	1309.17
32.00°	1292.50	1278.13	1266.27	1220.80	1181.70	1138.96	1154.91	1079.06	1155.85	1218.75	1206.34	1116.46	1096.85	1205.64	1267.80	1324.34	1292.50
33.00°	1274.32	1258.35	1249.26	1206.81	1164.65	1126.30	1127.60	1041.32	1117.13	1190.46	1191.43	1099.46	1079.06	1190.00	1258.22	1317.60	1274.32
34.00°	1253.60	1238.95	1236.95	1193.43	1145.95	1108.77	1103.05	1002.51	1079.70	1157.88	1181.07	1080.12	1060.03	1171.64	1248.24	1308.76	1253.60
35.00°	1233.03	1216.35	1219.67	1176.08	1128.54	1086.58	1074.19	960.27	1027.62	1129.09	1159.87	1060.10	1040.81	1154.97	1237.60	1296.84	1233.03
36.00°	1207.33	1191.36	1204.60	1155.54	1108.34	1068.51	1048.60	922.51	986.66	1092.10	1144.36	1041.14	1017.99	1140.02	1227.23	1286.31	1207.33
37.00°	1178.54	1166.23	1184.31	1142.37	1087.33	1047.27	1018.09	884.04	937.18	1053.99	1126.07	1021.52	998.05	1122.45	1215.64	1271.43	1178.54
38.00°	1148.86	1135.88	1166.62	1124.56	1068.63	1026.80	988.86	841.00	890.73	1013.98	1094.94	1000.38	977.20	1104.40	1203.25	1252.45	1148.86
39.00°	1113.78	1106.52	1145.72	1108.60	1049.61	1001.85	954.45	798.53	843.48	976.34	1073.27	982.39	953.41	1089.00	1188.46	1231.45	1113.78
40.00°	1077.59	1073.26	1122.96	1088.21	1030.19	980.73	926.76	756.84	797.40	935.88	1049.21	964.94	930.04	1069.10	1177.08	1209.94	1077.59
41.00°	1040.87	1040.09	1099.68	1068.51	1012.75	959.11	889.15	716.31	754.67	892.05	1020.97	944.91	907.53	1051.47	1162.67	1181.36	1040.87
42.00°	1000.29	1004.08	1074.34	1053.14	993.39	932.75	854.15	677.75	712.18	846.39	993.57	922.10	886.64	1035.59	1146.56	1151.83	1000.29
43.00°	958.88	967.26	1049.96	1031.15	970.56	906.61	819.57	639.54	666.88	801.87	961.57	900.65	861.50	1017.47	1131.07	1122.07	958.88

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	4170	4170	4170	4170	4068	4068	4068	4068	3877	3877	3877	3703	3703	3703	3543	3543	3468
	1	3860	3714	3584	3466	3763	3632	3513	3406	3477	3380	3291	3334	3256	3184	3203	3141	3071
	2	3546	3287	3074	2895	3453	3219	3023	2857	3090	2926	2785	2971	2835	2716	2861	2750	2688
	3	3257	2921	2661	2454	3170	2864	2623	2429	2756	2551	2382	2656	2482	2336	2563	2417	2362
	4	2999	2611	2327	2110	2918	2563	2298	2093	2472	2242	2060	2387	2189	2029	2308	2138	2091
	5	2769	2348	2054	1837	2695	2307	2032	1825	2230	1988	1802	2158	1946	1779	2091	1906	1865
	6	2565	2125	1829	1617	2498	2090	1811	1609	2024	1777	1592	1963	1743	1575	1905	1711	1675
	7	2384	1934	1642	1438	2323	1904	1628	1431	1848	1600	1419	1795	1572	1406	1745	1546	1514
	8	2223	1770	1485	1289	2167	1744	1473	1284	1696	1450	1274	1650	1427	1265	1607	1406	1378
	9	2079	1628	1352	1165	2029	1606	1342	1161	1564	1322	1153	1524	1303	1145	1486	1285	1261
	10	1951	1505	1237	1059	1905	1485	1229	1056	1448	1213	1050	1414	1197	1044	1381	1181	1160

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	47.7 fc	11.1 ft
6.5 ft	34.1 fc	13.1 ft
7.5 ft	25.6 fc	15.1 ft
8.0 ft	22.5 fc	16.1 ft
10.0 ft	14.4 fc	20.2 ft
12.0 ft	10.0 fc	24.2 ft
14.0 ft	7.4 fc	28.2 ft
16.0 ft	5.6 fc	32.3 ft
20.0 ft	3.6 fc	40.3 ft
24.0 ft	2.5 fc	48.4 ft
28.0 ft	1.8 fc	56.5 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	42813	42813	42813
45.00°	18431	24199	37753
55.00°	10776	16958	34248
65.00°	6115	10152	29165
75.00°	1652	5308	22408
85.00°	376	530	13501

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	19.9	21.4	20.3	21.7	22.1	22.2	23.6	22.5	24.0	24.3
	3H	20.6	21.9	21.0	22.3	22.7	23.4	24.7	23.8	25.1	25.5
	4H	20.7	21.9	21.1	22.3	22.7	23.8	25.0	24.2	25.4	25.8
	6H	20.6	21.8	21.1	22.2	22.6	24.0	25.2	24.4	25.6	26.0
	8H	20.6	21.7	21.0	22.1	22.5	24.1	25.2	24.5	25.6	26.0
	12H	20.6	21.6	21.0	22.0	22.5	24.1	25.1	24.5	25.6	26.0
4H	2H	20.7	22.0	21.1	22.3	22.7	22.2	23.4	22.6	23.8	24.2
	3H	21.6	22.6	22.0	23.0	23.5	23.5	24.5	23.9	24.9	25.4
	4H	21.7	22.6	22.1	23.0	23.5	23.9	24.8	24.3	25.3	25.7
	6H	21.6	22.4	22.1	22.9	23.4	24.2	25.0	24.6	25.4	25.9
	8H	21.6	22.3	22.1	22.8	23.3	24.2	25.0	24.7	25.4	25.9
	12H	21.6	22.2	22.1	22.7	23.2	24.2	24.9	24.8	25.4	25.9
8H	4H	22.0	22.7	22.5	23.2	23.7	23.8	24.5	24.3	25.0	25.5
	6H	22.0	22.6	22.5	23.1	23.6	24.1	24.7	24.6	25.2	25.7
	8H	21.9	22.5	22.5	23.0	23.5	24.1	24.6	24.6	25.2	25.7
	12H	21.9	22.4	22.4	22.9	23.5	24.1	24.6	24.7	25.1	25.7
12H	4H	22.0	22.7	22.5	23.2	23.7	23.8	24.4	24.3	24.9	25.4
	6H	22.0	22.6	22.6	23.1	23.6	24.0	24.6	24.6	25.1	25.6
	8H	22.0	22.5	22.5	23.0	23.6	24.1	24.6	24.6	25.1	25.7

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0