

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Track light for accent, display and general illumination.

Test Number

STL4-6

Test Date

2/18/25

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

Summary of Results

Power

Input Watts	36.9 W
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Lumen Output

Output Lumens	3043
Efficacy	82.47 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.19
Two luminaires, plane 90°	1.21
Four luminaires	1.31

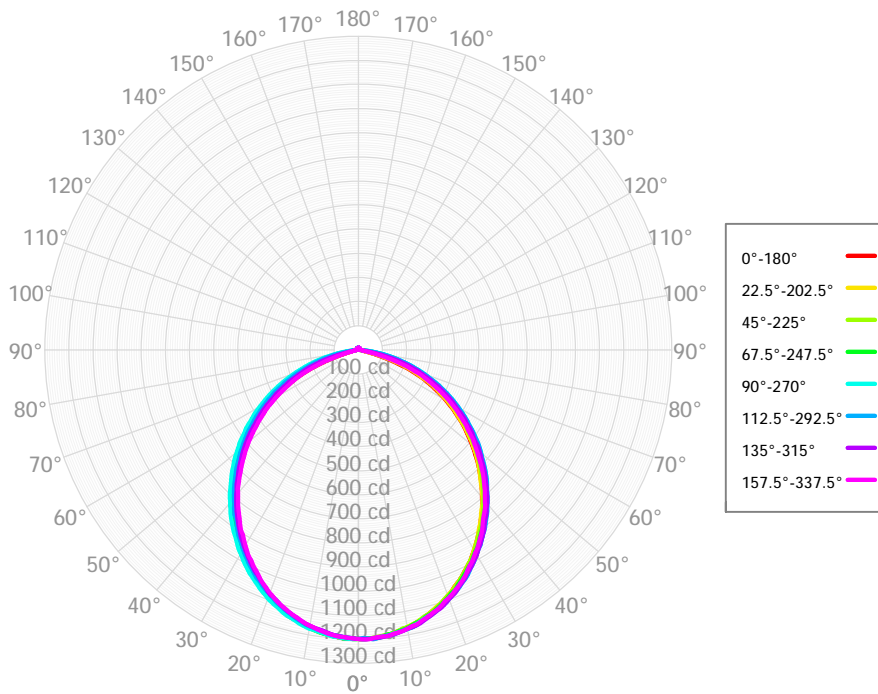
Full Beam Angle

0° - 180°	101°
90° - 270°	107°

IES File Header Contents

Keyword	Value
TEST	STL4-6
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	STL4 - 40L - 35HK - DW - 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°	113.24	3.72%	90.00° - 100.00°	7.00	0.23%
10.00° - 20.00°	319.66	10.50%	100.00° - 110.00°	6.81	0.22%
20.00° - 30.00°	474.26	15.58%	100.00° - 120.00°	13.40	0.44%
30.00° - 40.00°	555.62	18.26%	120.00° - 130.00°	6.13	0.20%
40.00° - 50.00°	556.98	18.30%	130.00° - 140.00°	5.43	0.18%
50.00° - 60.00°	481.21	15.81%	140.00° - 150.00°	4.49	0.15%
60.00° - 70.00°	337.66	11.10%	150.00° - 160.00°	3.47	0.11%
70.00° - 80.00°	140.69	4.62%	160.00° - 170.00°	2.14	0.07%
80.00° - 90.00°	21.06	0.69%	170.00° - 180.00°	0.73	0.02%
0.00° - 90.00°	3000.38	98.59%	0.00° - 180.00°	3043.18	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°	1199.12	1199.12	1199.12	1199.12	1199.12	1199.12	1199.12	1199.12	1199.12	1199.12	1199.12	1199.12	1199.12	1199.12	1199.12	1199.12	1199.12
1.00°	1200.29	1199.63	1200.14	1199.03	1200.82	1196.16	1196.31	1196.77	1199.19	1199.78	1196.42	1196.44	1199.54	1195.12	1198.39	1201.90	1200.29
2.00°	1198.74	1198.48	1197.65	1197.37	1199.51	1193.45	1194.96	1194.52	1198.92	1194.43	1194.85	1197.08	1198.69	1197.97	1199.79	1200.84	1198.74
3.00°	1197.08	1198.40	1194.84	1196.24	1200.03	1191.96	1192.00	1192.21	1197.51	1194.82	1193.81	1198.27	1197.13	1201.08	1197.97	1196.24	1197.08
4.00°	1196.49	1195.28	1191.71	1194.91	1195.91	1188.90	1189.13	1191.79	1195.11	1194.79	1193.96	1192.04	1194.59	1197.56	1196.75	1193.40	1196.49
5.00°	1191.73	1191.24	1189.46	1191.23	1192.47	1187.81	1186.24	1187.58	1190.73	1188.52	1191.81	1188.12	1193.42	1193.64	1194.59	1192.59	1191.73
6.00°	1187.69	1188.03	1186.64	1185.99	1190.34	1184.44	1181.00	1183.29	1185.82	1187.41	1188.33	1186.73	1188.74	1190.80	1191.91	1192.60	1187.69
7.00°	1184.46	1183.24	1183.50	1184.87	1185.56	1178.50	1174.73	1177.89	1183.17	1183.57	1183.68	1185.86	1183.73	1189.14	1189.46	1186.50	1184.46
8.00°	1178.81	1181.98	1177.38	1180.13	1182.29	1173.87	1170.76	1173.12	1177.77	1178.72	1180.51	1181.25	1179.76	1184.00	1184.61	1183.84	1178.81
9.00°	1173.53	1175.35	1170.25	1175.66	1178.89	1168.77	1166.48	1166.29	1169.99	1172.23	1176.83	1174.71	1176.00	1178.81	1179.97	1180.07	1173.53
10.00°	1169.21	1167.12	1167.57	1171.17	1174.84	1164.03	1161.18	1160.86	1165.62	1166.56	1170.76	1170.57	1173.54	1174.96	1174.59	1173.66	1169.21
11.00°	1163.84	1160.89	1161.96	1163.25	1168.24	1159.03	1155.82	1154.67	1161.15	1161.40	1164.82	1163.68	1168.09	1172.44	1171.03	1167.19	1163.84
12.00°	1156.09	1155.62	1155.51	1157.13	1162.37	1150.61	1147.20	1146.63	1152.14	1152.19	1156.85	1155.60	1162.11	1165.24	1167.26	1163.34	1156.09
13.00°	1151.01	1147.55	1147.66	1151.72	1154.14	1144.24	1139.49	1137.94	1143.68	1146.17	1150.35	1150.04	1154.22	1156.62	1160.62	1155.37	1151.01
14.00°	1141.71	1141.09	1138.53	1143.36	1145.79	1135.10	1131.04	1131.05	1137.76	1138.67	1142.05	1146.05	1146.73	1149.73	1151.66	1147.32	1141.71
15.00°	1132.73	1132.46	1133.06	1136.70	1140.37	1127.19	1123.40	1122.12	1129.44	1129.06	1134.38	1139.34	1141.03	1142.85	1144.05	1139.91	1132.73
16.00°	1124.38	1122.49	1124.64	1129.78	1135.50	1118.40	1114.98	1112.72	1119.61	1121.90	1127.18	1129.44	1133.73	1135.69	1136.04	1131.47	1124.38
17.00°	1115.98	1112.90	1116.82	1120.04	1126.33	1108.98	1104.81	1104.52	1111.45	1108.79	1119.25	1118.39	1123.36	1126.08	1129.00	1124.49	1115.98
18.00°	1106.12	1106.30	1105.96	1111.23	1117.43	1100.50	1093.13	1095.03	1101.64	1101.27	1108.51	1108.71	1114.59	1118.64	1121.47	1114.86	1106.12
19.00°	1096.75	1095.45	1094.13	1101.30	1106.13	1088.75	1084.12	1083.41	1090.71	1094.15	1097.31	1100.22	1106.59	1110.84	1111.34	1102.62	1096.75
20.00°	1085.44	1083.76	1085.18	1090.70	1097.03	1076.69	1076.98	1072.14	1078.74	1081.25	1088.23	1093.09	1096.89	1100.03	1100.13	1094.38	1085.44
21.00°	1074.86	1073.58	1077.29	1079.21	1086.06	1068.16	1063.26	1059.77	1067.67	1072.11	1079.87	1083.26	1085.24	1089.93	1091.08	1085.10	1074.86
22.00°	1061.49	1061.89	1065.07	1073.26	1078.01	1057.84	1049.71	1048.46	1056.51	1059.90	1067.24	1071.53	1074.97	1080.68	1081.95	1073.62	1061.49
23.00°	1050.35	1050.70	1053.07	1057.44	1066.41	1045.34	1037.91	1035.72	1042.41	1048.76	1055.22	1058.64	1063.37	1070.39	1067.53	1062.94	1050.35
24.00°	1039.83	1040.23	1040.52	1046.26	1056.83	1036.29	1024.36	1020.24	1030.45	1035.56	1043.72	1045.76	1051.53	1057.82	1056.92	1051.97	1039.83
25.00°	1026.85	1027.79	1028.05	1033.49	1043.31	1022.48	1014.24	1006.75	1019.81	1020.92	1032.21	1032.20	1040.48	1048.49	1045.68	1039.87	1026.85
26.00°	1013.83	1014.29	1015.36	1020.79	1030.77	1009.09	1000.80	994.29	1005.41	1007.88	1018.47	1021.31	1029.33	1036.52	1031.22	1026.01	1013.83
27.00°	1001.95	1000.58	1001.51	1009.39	1014.98	997.94	987.00	978.79	990.05	996.44	1007.53	1011.43	1016.06	1021.56	1019.60	1010.67	1001.95
28.00°	989.26	988.80	989.56	998.22	1003.41	982.59	973.16	968.58	978.10	982.92	994.43	996.62	1003.60	1008.79	1008.07	998.96	989.26
29.00°	974.01	974.90	976.68	982.45	991.70	969.93	959.82	951.79	964.44	967.31	979.57	983.30	989.85	995.68	994.53	985.47	974.01
30.00°	959.71	957.64	963.55	968.18	979.55	956.10	945.50	936.68	946.85	952.93	965.21	974.28	975.58	980.16	982.65	970.61	959.71
31.00°	944.21	942.59	945.38	956.88	964.91	940.47	931.28	920.36	931.30	938.42	951.57	958.78	964.01	966.56	965.72	958.60	944.21
32.00°	928.82	929.34	930.88	942.69	950.84	926.98	917.91	903.69	918.00	922.18	937.81	944.72	948.04	955.30	952.49	942.80	928.82
33.00°	913.39	911.68	915.55	926.14	937.73	914.01	901.75	892.44	903.33	905.61	918.57	926.28	932.42	939.38	938.39	928.45	913.39
34.00°	898.81	894.71	901.86	911.65	922.76	897.00	886.11	875.86	888.28	891.31	903.86	911.26	919.68	924.75	923.87	914.57	898.81
35.00°	882.82	880.14	888.26	897.60	909.14	879.95	870.08	857.54	871.07	874.40	890.56	901.57	905.46	911.68	910.17	897.15	882.82
36.00°	864.83	863.61	873.60	883.38	890.54	863.48	854.10	841.80	853.31	856.86	874.13	884.08	890.44	896.99	891.56	878.60	864.83
37.00°	850.55	845.94	854.82	866.32	877.37	854.10	838.68	826.21	838.01	839.98	858.36	869.89	876.05	880.45	876.34	863.06	850.55
38.00°	835.72	831.63	840.67	851.74	861.85	836.74	821.62	810.10	821.51	821.63	842.22	847.18	860.61	866.13	863.54	850.16	835.72
39.00°	816.52	816.83	822.02	835.60	845.46	818.21	805.80	792.99	803.46	808.23	825.04	834.27	843.66	851.11	845.24	835.07	816.52
40.00°	797.85	799.32	806.76	820.88	828.31	802.35	787.57	775.79	785.18	792.05	808.55	817.36	826.63	833.53	831.81	816.48	797.85
41.00°	781.24	781.55	790.55	802.80	812.46	785.79	769.79	761.09	767.39	770.75	792.23	800.91	812.13	817.61	816.67	800.03	781.24
42.00°	763.77	762.95	771.35	785.98	798.77	769.98	755.36	740.61	749.31	756.34	776.06	783.22	795.66	799.08	797.11	783.81	763.77
43.00°	747.42	743.56	754.71	768.84	781.59	752.37	735.78	722.58	732.96	741.98	758.99	769.66	777.09	782.07	780.60	765.18	747.42

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	3613	3613	3613	3613	3524	3524	3524	3524	3358	3358	3358	3206	3206	3206	3066	3066	3000
	1	3329	3196	3077	2970	3243	3124	3016	2918	2988	2899	2818	2863	2791	2725	2747	2690	2630
	2	3043	2808	2614	2451	2960	2747	2569	2418	2634	2485	2356	2529	2405	2296	2432	2330	2277
	3	2783	2479	2243	2056	2706	2428	2210	2035	2333	2147	1994	2244	2086	1954	2162	2029	1982
	4	2554	2205	1949	1753	2483	2162	1923	1739	2081	1874	1710	2006	1828	1683	1936	1783	1742
	5	2353	1975	1711	1517	2287	1939	1692	1506	1871	1653	1486	1807	1616	1467	1747	1581	1545
	6	2176	1782	1518	1329	2116	1751	1502	1321	1693	1472	1306	1638	1442	1292	1587	1413	1383
	7	2019	1619	1359	1177	1965	1592	1346	1171	1542	1321	1160	1495	1297	1149	1451	1274	1247
	8	1881	1479	1226	1053	1832	1457	1216	1048	1413	1195	1039	1373	1175	1031	1335	1156	1133
	9	1759	1359	1115	949	1714	1340	1106	946	1302	1089	939	1267	1072	932	1234	1056	1035
	10	1650	1255	1019	862	1609	1238	1012	859	1206	997	854	1175	983	848	1146	970	952

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	39.6 fc	13.3 ft
6.5 ft	28.4 fc	15.7 ft
7.5 ft	21.3 fc	18.1 ft
8.0 ft	18.7 fc	19.3 ft
10.0 ft	12.0 fc	24.2 ft
12.0 ft	8.3 fc	29.0 ft
14.0 ft	6.1 fc	33.8 ft
16.0 ft	4.7 fc	38.7 ft
20.0 ft	3.0 fc	48.4 ft
24.0 ft	2.1 fc	58.0 ft
28.0 ft	1.5 fc	67.7 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	35596	35596	35596
45.00°	14911	17533	30722
55.00°	11125	13646	28612
65.00°	7030	9549	25637
75.00°	1749	4399	20335
85.00°	377	408	7810

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	20.3	21.8	20.6	22.1	22.5	22.2	23.8	22.6	24.1	24.5
	3H	21.2	22.6	21.6	22.9	23.3	23.9	25.3	24.3	25.6	26.0
	4H	21.3	22.6	21.7	22.9	23.4	24.5	25.8	24.9	26.1	26.6
	6H	21.2	22.4	21.7	22.8	23.3	24.8	26.0	25.2	26.4	26.8
	8H	21.2	22.3	21.6	22.8	23.2	24.9	26.0	25.3	26.4	26.9
	12H	21.2	22.3	21.6	22.7	23.1	24.9	26.0	25.3	26.4	26.8
4H	2H	20.9	22.2	21.3	22.6	23.0	22.5	23.8	22.9	24.2	24.6
	3H	22.0	23.1	22.4	23.5	23.9	24.2	25.3	24.7	25.8	26.2
	4H	22.1	23.1	22.5	23.5	24.0	24.9	25.8	25.3	26.3	26.8
	6H	22.1	22.9	22.5	23.4	23.9	25.2	26.1	25.7	26.6	27.1
	8H	22.0	22.8	22.5	23.3	23.8	25.3	26.1	25.8	26.6	27.1
	12H	22.0	22.7	22.5	23.2	23.7	25.3	26.0	25.8	26.5	27.1
8H	4H	22.3	23.1	22.8	23.5	24.0	24.8	25.6	25.3	26.1	26.6
	6H	22.2	22.9	22.8	23.4	23.9	25.2	25.9	25.7	26.4	26.9
	8H	22.2	22.8	22.7	23.3	23.8	25.3	25.9	25.8	26.4	26.9
	12H	22.2	22.7	22.7	23.2	23.8	25.3	25.8	25.9	26.4	26.9
12H	4H	22.3	23.0	22.8	23.5	24.0	24.8	25.5	25.3	26.0	26.5
	6H	22.2	22.8	22.8	23.3	23.9	25.2	25.8	25.7	26.3	26.8
	8H	22.2	22.7	22.7	23.2	23.8	25.3	25.8	25.8	26.3	26.9

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0