

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Track light for accent, display and general illumination.

Test Number

STL4-11

Test Date

2/18/25

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

Summary of Results

Power

Input Watts	39.74 W
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Lumen Output

Output Lumens	2931
Efficacy	73.76 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.2
Two luminaires, plane 90°	1.21
Four luminaires	1.31

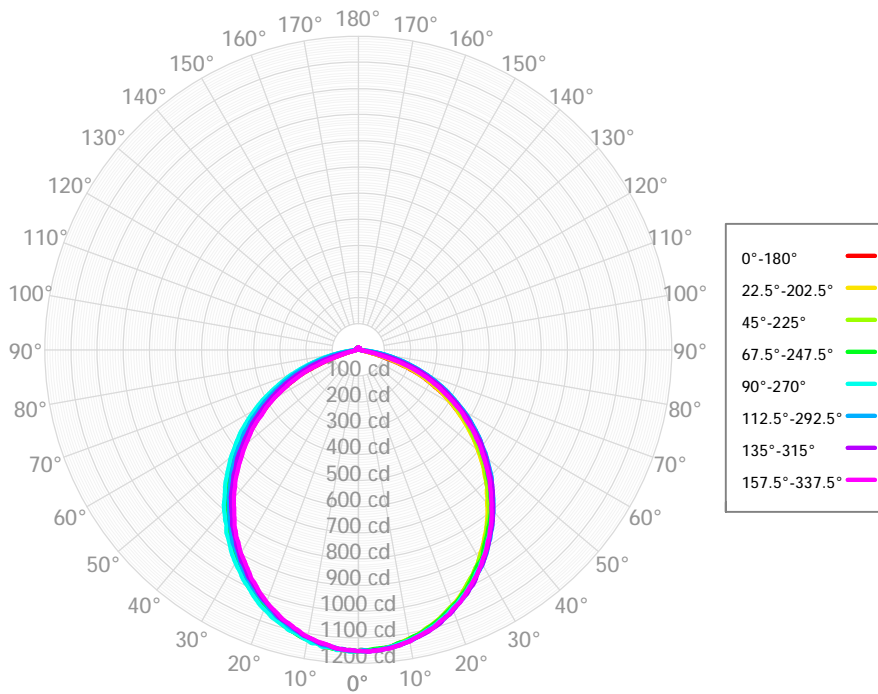
Full Beam Angle

0° - 180°	101°
90° - 270°	107°

IES File Header Contents

Keyword	Value
TEST	STL4-11
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	STL4 - 40L - 40HK - 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°	108.95	3.72%	90.00° - 100.00°	6.96	0.24%
10.00° - 20.00°	307.46	10.49%	100.00° - 110.00°	6.90	0.24%
20.00° - 30.00°	456.40	15.57%	100.00° - 120.00°	13.56	0.46%
30.00° - 40.00°	535.29	18.26%	120.00° - 130.00°	6.19	0.21%
40.00° - 50.00°	536.05	18.29%	130.00° - 140.00°	5.43	0.19%
50.00° - 60.00°	463.35	15.81%	140.00° - 150.00°	4.54	0.15%
60.00° - 70.00°	325.05	11.09%	150.00° - 160.00°	3.36	0.11%
70.00° - 80.00°	135.31	4.62%	160.00° - 170.00°	2.12	0.07%
80.00° - 90.00°	20.47	0.70%	170.00° - 180.00°	0.72	0.02%
0.00° - 90.00°	2888.32	98.54%	0.00° - 180.00°	2931.21	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°	1153.07	1153.07	1153.07	1153.07	1153.07	1153.07	1153.07	1153.07	1153.07	1153.07	1153.07	1153.07	1153.07	1153.07	1153.07	1153.07	1153.07
1.00°	1153.31	1151.62	1151.28	1152.00	1155.83	1150.98	1151.01	1150.08	1154.80	1153.11	1154.85	1150.55	1155.55	1149.37	1152.63	1153.81	1153.31
2.00°	1152.75	1152.65	1151.09	1149.37	1153.82	1151.94	1150.23	1149.97	1152.14	1152.44	1152.82	1150.70	1153.94	1152.86	1156.30	1154.32	1152.75
3.00°	1151.73	1150.80	1148.99	1146.45	1150.36	1150.68	1146.58	1148.39	1147.65	1150.77	1150.45	1148.16	1145.65	1154.39	1150.73	1154.40	1151.73
4.00°	1150.55	1150.01	1147.45	1145.07	1150.05	1145.17	1146.81	1145.66	1148.97	1146.65	1148.44	1148.84	1152.15	1151.06	1152.87	1151.77	1150.55
5.00°	1147.13	1146.51	1145.15	1144.63	1147.68	1140.76	1142.82	1140.35	1145.44	1145.86	1143.60	1147.33	1145.20	1147.46	1150.42	1149.20	1147.13
6.00°	1143.65	1145.15	1142.27	1144.55	1143.33	1140.31	1135.01	1134.51	1140.47	1139.54	1145.57	1143.60	1143.87	1145.22	1148.11	1149.42	1143.65
7.00°	1138.56	1139.64	1141.13	1137.23	1140.19	1138.13	1134.44	1130.56	1134.92	1134.73	1138.82	1137.57	1144.66	1144.19	1144.36	1144.63	1138.56
8.00°	1136.49	1132.61	1136.40	1131.33	1136.74	1131.61	1128.72	1126.58	1128.84	1131.81	1134.21	1134.30	1135.55	1141.18	1140.40	1142.15	1136.49
9.00°	1133.33	1127.62	1128.20	1130.76	1131.63	1124.66	1121.33	1120.81	1125.38	1127.44	1130.98	1129.59	1136.84	1136.83	1136.94	1135.39	1133.33
10.00°	1127.35	1122.02	1123.19	1123.24	1128.01	1117.32	1116.88	1115.42	1119.59	1123.02	1126.35	1125.71	1128.75	1131.91	1131.10	1133.82	1127.35
11.00°	1120.67	1117.61	1118.20	1116.41	1122.48	1112.19	1111.94	1108.15	1113.68	1113.41	1119.84	1122.23	1122.56	1127.14	1125.61	1125.10	1120.67
12.00°	1114.43	1112.43	1111.52	1113.69	1116.72	1104.72	1101.81	1098.65	1104.80	1108.01	1113.68	1116.02	1113.86	1119.41	1121.35	1119.91	1114.43
13.00°	1108.12	1104.93	1103.39	1105.73	1110.16	1099.23	1093.98	1091.09	1100.95	1100.98	1107.92	1108.36	1107.99	1115.19	1116.55	1113.08	1108.12
14.00°	1102.32	1096.62	1094.77	1098.93	1103.17	1092.62	1084.59	1082.13	1092.25	1092.17	1100.74	1102.16	1104.87	1105.73	1110.99	1107.84	1102.32
15.00°	1094.14	1089.08	1089.83	1091.38	1096.82	1082.53	1077.76	1075.38	1080.69	1087.28	1093.93	1095.01	1094.75	1101.51	1103.04	1102.31	1094.14
16.00°	1085.58	1081.08	1081.11	1083.60	1089.41	1073.48	1072.00	1067.26	1073.46	1081.63	1085.95	1086.19	1088.98	1095.11	1097.88	1092.44	1085.58
17.00°	1077.91	1073.10	1072.18	1075.52	1080.00	1068.20	1062.99	1055.53	1065.29	1070.89	1075.50	1077.15	1081.50	1086.69	1089.14	1083.37	1077.91
18.00°	1068.66	1064.70	1062.41	1065.25	1072.50	1056.87	1051.01	1046.41	1055.24	1059.40	1067.20	1067.81	1075.09	1078.55	1075.88	1078.21	1068.66
19.00°	1061.20	1054.09	1051.94	1056.88	1062.96	1047.76	1039.37	1037.50	1042.41	1050.24	1059.88	1057.39	1063.82	1069.83	1071.47	1068.59	1061.20
20.00°	1048.99	1045.71	1043.08	1047.36	1051.65	1035.32	1029.41	1026.19	1034.30	1039.65	1049.56	1049.22	1055.94	1060.30	1061.60	1056.72	1048.99
21.00°	1040.79	1035.63	1035.41	1038.63	1044.99	1026.29	1020.97	1014.04	1022.73	1028.80	1036.98	1040.02	1047.28	1049.22	1050.05	1048.37	1040.79
22.00°	1028.21	1023.50	1028.43	1029.18	1033.96	1016.56	1010.43	1003.59	1011.52	1016.43	1026.73	1025.66	1036.12	1040.25	1041.74	1040.52	1028.21
23.00°	1016.63	1013.34	1012.99	1017.33	1023.88	1005.85	996.86	989.72	1001.53	1008.09	1014.66	1019.31	1025.01	1031.33	1028.12	1030.05	1016.63
24.00°	1006.63	1000.17	1000.59	1007.85	1014.43	994.84	985.36	976.26	988.80	994.68	1003.02	1007.43	1011.88	1020.19	1023.33	1016.29	1006.63
25.00°	990.80	987.97	987.41	994.99	1001.52	982.12	973.89	966.66	972.53	979.65	991.92	998.56	999.19	1009.37	1008.80	1004.98	990.80
26.00°	982.80	977.36	975.07	982.54	993.15	972.11	963.84	950.31	961.16	971.27	979.44	984.35	990.15	997.44	1001.03	993.31	982.80
27.00°	970.54	964.66	966.08	968.03	978.83	958.61	947.88	936.63	947.41	958.79	969.26	972.31	978.69	983.17	987.65	981.94	970.54
28.00°	953.34	951.76	950.03	955.96	963.84	945.60	934.06	923.12	936.62	943.60	957.09	958.07	963.47	971.31	970.36	971.56	953.34
29.00°	941.97	938.81	940.31	941.93	955.09	932.09	924.23	909.94	922.01	931.78	942.78	947.07	952.77	960.52	957.84	956.95	941.97
30.00°	928.34	924.67	924.31	934.32	939.96	918.30	908.92	898.65	911.85	917.84	929.40	933.97	940.87	950.05	949.07	943.24	928.34
31.00°	918.20	907.55	912.33	923.65	928.09	904.77	893.46	883.30	897.27	903.12	913.68	921.39	928.33	935.72	935.45	928.19	918.20
32.00°	899.32	894.54	896.60	903.70	913.92	892.25	881.36	867.05	876.99	886.78	902.86	908.05	915.60	923.50	919.92	917.14	899.32
33.00°	885.37	880.22	882.63	887.73	900.60	882.15	863.51	856.26	861.22	872.48	889.07	894.03	899.97	908.38	907.00	901.74	885.37
34.00°	872.78	863.45	867.71	874.30	884.03	866.33	850.22	838.72	846.20	858.00	873.40	878.57	884.86	891.97	892.76	885.46	872.78
35.00°	858.05	849.89	854.35	861.25	871.60	848.99	835.73	825.47	834.39	842.38	856.11	862.54	871.78	880.78	876.38	873.40	858.05
36.00°	842.45	834.93	836.69	845.76	858.92	833.82	823.21	804.81	813.97	826.23	843.21	849.86	860.76	863.91	862.29	855.54	842.45
37.00°	825.74	818.07	823.35	834.25	843.72	819.05	803.36	789.51	799.91	811.47	827.22	834.19	838.81	851.41	848.59	842.48	825.74
38.00°	808.32	803.04	810.25	818.91	830.20	801.70	788.36	771.64	784.35	793.92	815.48	820.87	827.75	834.73	834.98	826.45	808.32
39.00°	793.91	785.73	794.80	805.63	816.40	786.59	773.34	757.02	765.96	777.90	797.20	803.28	812.50	819.39	818.78	811.13	793.91
40.00°	778.12	766.49	775.70	789.30	797.69	770.49	758.08	740.31	748.23	761.31	779.69	787.06	799.61	805.04	801.91	792.16	778.12
41.00°	761.25	752.84	758.22	774.67	782.35	755.98	743.44	723.88	730.96	742.88	768.86	771.07	784.58	788.13	786.13	776.65	761.25
42.00°	742.34	734.28	742.25	754.73	768.83	738.32	724.66	705.17	716.07	726.50	748.97	754.03	765.46	772.94	769.37	758.63	742.34
43.00°	723.16	722.17	725.42	740.41	751.83	721.36	706.20	690.28	699.49	711.97	732.26	739.23	749.13	755.46	755.44	743.38	723.16

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	3479	3479	3479	3479	3393	3393	3393	3393	3233	3233	3233	3086	3086	3086	2952	2952	2888
	1	3206	3078	2964	2860	3124	3008	2904	2810	2877	2792	2714	2756	2687	2623	2645	2590	2532
	2	2930	2704	2517	2360	2851	2646	2474	2329	2536	2392	2268	2435	2315	2211	2341	2243	2191
	3	2681	2387	2160	1980	2606	2338	2128	1959	2246	2067	1919	2161	2009	1881	2082	1954	1908
	4	2460	2123	1876	1688	2391	2082	1852	1674	2004	1805	1647	1931	1759	1620	1864	1716	1677
	5	2266	1902	1648	1460	2202	1867	1629	1451	1801	1592	1431	1739	1556	1412	1682	1522	1488
	6	2095	1716	1462	1280	2037	1687	1447	1272	1630	1417	1258	1577	1388	1244	1528	1361	1331
	7	1945	1559	1309	1133	1892	1533	1296	1128	1485	1272	1117	1440	1249	1106	1397	1226	1200
	8	1812	1424	1181	1014	1764	1403	1171	1009	1361	1151	1001	1322	1131	992	1285	1113	1090
	9	1694	1309	1073	914	1651	1290	1065	910	1254	1048	904	1220	1032	897	1187	1016	996
	10	1589	1209	982	830	1550	1192	974	827	1161	960	822	1131	947	816	1103	933	916

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	38.1 fc	13.3 ft
6.5 ft	27.3 fc	15.7 ft
7.5 ft	20.5 fc	18.2 ft
8.0 ft	18.0 fc	19.4 ft
10.0 ft	11.5 fc	24.2 ft
12.0 ft	8.0 fc	29.1 ft
14.0 ft	5.9 fc	33.9 ft
16.0 ft	4.5 fc	38.7 ft
20.0 ft	2.9 fc	48.4 ft
24.0 ft	2.0 fc	58.1 ft
28.0 ft	1.5 fc	67.8 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	34229	34229	34229
45.00°	14486	16791	29474
55.00°	10909	13118	27518
65.00°	6946	9167	24556
75.00°	1858	4170	19423
85.00°	321	358	7774

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	22.1	22.4	22.1	23.7	22.5	24.0	24.4
	3H	21.2	22.6	21.6	22.9	23.3	23.8	25.2	24.2	25.5	25.9
	4H	21.3	22.6	21.7	23.0	23.4	24.3	25.6	24.7	26.0	26.4
	6H	21.2	22.4	21.7	22.8	23.3	24.6	25.8	25.1	26.2	26.7
	8H	21.2	22.3	21.6	22.8	23.2	24.7	25.9	25.2	26.3	26.7
	12H	21.2	22.3	21.6	22.7	23.1	24.7	25.8	25.2	26.2	26.7
4H	2H	20.8	22.1	21.2	22.5	22.9	22.3	23.7	22.8	24.0	24.4
	3H	22.0	23.0	22.4	23.5	23.9	24.1	25.2	24.6	25.6	26.1
	4H	22.1	23.0	22.5	23.5	24.0	24.7	25.7	25.2	26.1	26.6
	6H	22.0	22.9	22.5	23.4	23.9	25.1	25.9	25.6	26.4	26.9
	8H	22.0	22.8	22.5	23.3	23.8	25.2	26.0	25.7	26.4	26.9
	12H	22.0	22.7	22.5	23.2	23.7	25.2	25.9	25.7	26.4	26.9
8H	4H	22.3	23.1	22.7	23.5	24.0	24.7	25.5	25.2	26.0	26.5
	6H	22.2	22.9	22.8	23.4	23.9	25.1	25.7	25.6	26.2	26.8
	8H	22.2	22.8	22.7	23.3	23.8	25.1	25.7	25.7	26.3	26.8
	12H	22.2	22.7	22.7	23.2	23.8	25.2	25.7	25.7	26.2	26.8
12H	4H	22.3	23.0	22.8	23.5	24.0	24.7	25.4	25.2	25.9	26.4
	6H	22.2	22.8	22.8	23.3	23.9	25.0	25.6	25.6	26.1	26.7
	8H	22.2	22.7	22.7	23.2	23.8	25.1	25.6	25.7	26.2	26.8

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0