

## 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 - DW - xx - xx - MW

Track light for accent, display and general illumination.

#### Test Number

STL4-1

#### Test Date

2/18/25

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

## Summary of Results

### Power

Input Watts	39.83 W
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### Lumen Output

Output Lumens	2730
Efficacy	68.53 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

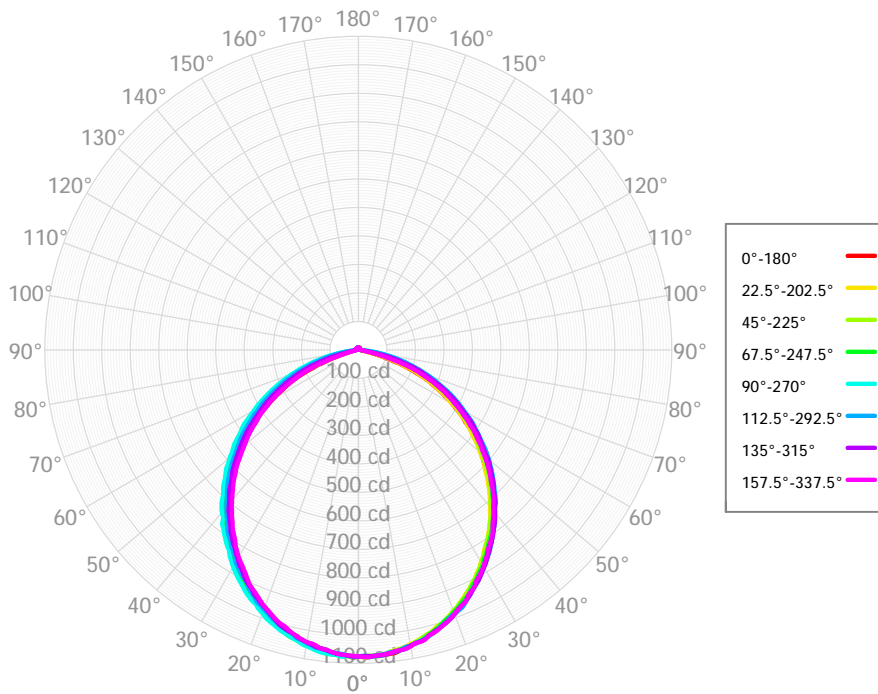
### Full Beam Angle

0° - 180°	101°
90° - 270°	106°

## IES File Header Contents

Keyword	Value
TEST	STL4-1
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	STL4 - 40L - 30HK - 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°	101.75	3.73%	90.00° - 100.00°	6.97	0.26%
10.00° - 20.00°	287.07	10.52%	100.00° - 110.00°	6.91	0.25%
20.00° - 30.00°	425.84	15.60%	100.00° - 120.00°	13.45	0.49%
30.00° - 40.00°	498.77	18.27%	120.00° - 130.00°	6.09	0.22%
40.00° - 50.00°	499.59	18.30%	130.00° - 140.00°	5.36	0.20%
50.00° - 60.00°	430.52	15.77%	140.00° - 150.00°	4.46	0.16%
60.00° - 70.00°	300.71	11.02%	150.00° - 160.00°	3.33	0.12%
70.00° - 80.00°	123.80	4.54%	160.00° - 170.00°	2.10	0.08%
80.00° - 90.00°	19.01	0.70%	170.00° - 180.00°	0.71	0.03%
0.00° - 90.00°	2687.06	98.44%	0.00° - 180.00°	2729.53	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°	1075.76	1075.76	1075.76	1075.76	1075.76	1075.76	1075.76	1075.76	1075.76	1075.76	1075.76	1075.76	1075.76	1075.76	1075.76	1075.76	1075.76
1.00°	1076.42	1077.52	1079.49	1073.74	1076.15	1074.47	1076.68	1073.21	1079.63	1077.54	1077.77	1077.89	1078.64	1073.31	1074.29	1078.03	1076.42
2.00°	1076.61	1079.30	1073.96	1075.24	1079.11	1072.58	1073.51	1072.12	1073.93	1075.04	1076.30	1074.59	1074.64	1075.36	1074.82	1079.08	1076.61
3.00°	1075.58	1073.49	1073.18	1077.66	1076.08	1068.93	1070.88	1071.13	1072.67	1074.71	1075.10	1074.94	1078.24	1073.76	1075.99	1074.77	1075.58
4.00°	1075.70	1074.57	1072.72	1076.55	1075.74	1066.91	1068.96	1068.40	1071.71	1071.79	1073.65	1071.64	1074.18	1072.12	1075.47	1073.87	1075.70
5.00°	1074.40	1070.12	1073.24	1073.54	1073.17	1066.76	1064.77	1064.32	1066.79	1066.87	1071.87	1071.01	1073.45	1071.05	1073.24	1072.16	1074.40
6.00°	1072.16	1068.21	1064.29	1068.11	1069.03	1060.62	1059.82	1058.00	1062.86	1062.69	1070.42	1071.07	1071.01	1066.66	1069.90	1069.60	1072.16
7.00°	1070.88	1060.24	1063.20	1066.80	1067.47	1056.63	1054.91	1057.32	1058.67	1062.56	1060.71	1067.36	1069.72	1066.20	1066.83	1064.57	1070.88
8.00°	1063.98	1059.56	1061.85	1059.97	1063.88	1055.55	1053.46	1049.02	1057.33	1060.89	1062.17	1060.96	1065.50	1063.70	1064.22	1063.48	1063.98
9.00°	1059.74	1053.72	1056.61	1058.07	1060.72	1049.93	1046.60	1042.92	1046.10	1052.94	1057.48	1057.96	1059.72	1055.17	1061.75	1062.55	1059.74
10.00°	1054.57	1048.74	1052.03	1053.47	1053.60	1044.98	1041.85	1041.36	1041.98	1047.43	1049.59	1052.18	1055.23	1054.03	1053.81	1056.70	1054.57
11.00°	1047.27	1043.38	1045.34	1048.56	1049.76	1037.33	1036.66	1034.49	1040.06	1041.36	1047.84	1045.29	1050.36	1046.78	1049.66	1048.54	1047.27
12.00°	1042.52	1037.53	1038.76	1043.38	1044.50	1034.76	1029.83	1029.16	1027.58	1037.12	1041.36	1041.24	1041.86	1045.18	1046.02	1047.30	1042.52
13.00°	1034.59	1032.38	1030.33	1036.59	1039.47	1022.83	1021.57	1021.32	1024.83	1027.78	1033.90	1036.79	1036.74	1040.90	1040.91	1043.31	1034.59
14.00°	1030.27	1026.40	1024.46	1028.16	1031.43	1017.61	1016.60	1012.40	1018.42	1021.11	1026.61	1031.36	1030.19	1033.83	1031.32	1030.84	1030.27
15.00°	1023.31	1016.90	1019.89	1021.18	1025.69	1010.85	1010.71	1002.73	1007.67	1010.05	1020.30	1020.64	1025.30	1027.05	1023.94	1028.25	1023.31
16.00°	1012.71	1007.70	1010.04	1014.46	1019.02	1004.56	1003.07	997.34	1000.22	1007.00	1011.65	1013.72	1018.02	1018.05	1018.79	1020.48	1012.71
17.00°	1003.64	1005.18	1003.63	1003.94	1012.15	995.79	992.44	988.70	992.57	998.78	1005.68	1004.84	1010.35	1009.66	1011.40	1012.06	1003.64
18.00°	997.19	993.22	994.95	994.76	1005.37	988.41	981.29	978.58	980.96	990.03	996.63	998.94	1003.24	1004.23	1002.87	1005.73	997.19
19.00°	989.35	984.84	984.67	988.88	993.95	977.29	971.68	968.04	972.98	980.03	989.38	990.46	995.47	990.24	997.31	995.11	989.35
20.00°	980.70	975.66	973.68	978.17	986.37	969.55	961.77	958.99	965.78	967.67	975.08	982.81	983.83	986.89	987.27	985.01	980.70
21.00°	972.01	965.58	966.56	970.57	976.89	959.96	952.95	948.49	952.13	958.84	969.83	970.75	974.92	980.37	975.29	976.21	972.01
22.00°	963.27	954.57	955.74	960.02	969.76	953.24	942.00	936.08	944.08	948.49	958.90	958.40	962.60	974.31	967.38	967.92	963.27
23.00°	950.68	943.95	946.05	951.09	960.35	938.11	933.79	925.38	931.49	939.20	946.76	950.41	956.34	962.89	959.80	961.16	950.68
24.00°	937.49	932.92	933.83	943.78	949.30	929.33	919.30	915.43	923.27	925.32	936.75	942.92	947.18	947.80	950.86	944.56	937.49
25.00°	931.54	923.01	923.80	929.79	937.84	915.64	909.26	904.72	908.85	914.16	925.57	928.77	937.25	935.62	939.66	934.76	931.54
26.00°	916.51	911.19	910.42	917.08	927.68	901.57	899.64	889.99	898.83	904.02	911.83	918.32	924.27	927.89	927.12	926.35	916.51
27.00°	903.67	900.75	900.79	907.17	915.08	892.94	886.26	875.72	881.68	892.58	902.30	908.26	913.58	917.56	917.61	910.73	903.67
28.00°	894.57	885.37	889.34	894.57	904.49	883.70	871.98	862.39	869.11	878.93	891.79	894.31	902.86	905.58	906.82	900.46	894.57
29.00°	881.33	874.54	877.54	882.52	891.08	871.83	862.41	851.42	857.10	864.25	879.06	882.84	891.09	894.23	894.23	889.42	881.33
30.00°	866.25	859.96	862.17	873.09	878.01	861.05	846.08	839.34	844.68	853.83	866.28	871.77	879.13	881.03	881.78	877.79	866.25
31.00°	854.73	848.73	848.46	855.90	864.54	843.64	833.70	825.39	828.73	841.14	854.41	860.67	865.26	868.61	870.12	863.32	854.73
32.00°	838.49	831.44	835.63	845.47	853.77	831.41	819.18	811.60	819.76	826.86	841.98	846.75	852.14	856.30	856.02	851.04	838.49
33.00°	827.30	819.49	819.77	831.28	841.91	819.81	807.35	793.83	802.44	810.99	826.25	831.96	835.22	845.92	842.15	834.91	827.30
34.00°	812.62	809.89	807.09	817.76	827.72	803.56	792.90	780.91	788.62	796.17	813.89	819.57	825.60	830.36	829.75	822.97	812.62
35.00°	798.19	793.79	795.87	805.46	816.87	794.76	781.20	767.41	771.32	781.09	799.87	805.66	812.25	817.07	817.13	812.22	798.19
36.00°	784.96	779.56	783.19	793.56	801.73	780.98	764.27	750.29	758.78	767.27	784.85	792.11	799.75	802.54	804.17	800.16	784.96
37.00°	771.90	764.98	766.58	780.93	788.70	765.51	750.53	735.69	741.03	753.44	772.04	778.40	786.54	789.43	789.85	781.41	771.90
38.00°	753.65	751.84	753.02	765.53	772.89	749.56	737.34	720.03	727.30	739.50	757.66	764.50	775.67	775.96	776.63	766.15	753.65
39.00°	744.24	734.52	739.91	751.18	759.76	735.27	723.51	705.24	710.78	723.78	739.50	748.44	754.19	762.70	762.48	752.68	744.24
40.00°	723.80	719.59	724.57	738.25	746.79	721.14	706.41	689.33	698.13	705.36	727.28	734.24	744.85	746.08	745.88	736.95	723.80
41.00°	710.65	704.16	706.20	722.33	730.71	705.60	690.16	672.93	679.61	690.18	712.89	720.56	732.75	728.95	731.73	721.25	710.65
42.00°	693.35	688.30	696.20	704.89	716.88	689.38	678.11	657.05	664.58	676.29	695.70	704.97	716.67	718.40	719.87	708.79	693.35
43.00°	679.37	673.03	681.85	688.11	703.05	675.87	661.50	643.09	649.44	659.09	678.04	690.23	695.92	705.74	701.92	692.93	679.37

### 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%	10%
	0	3239	3239	3239	3239	3159	3159	3159	3159	3009	3009	3009	2872	2872	2872	2746	2746	2687
	1	2986	2867	2760	2664	2908	2801	2704	2617	2678	2599	2527	2566	2502	2442	2462	2411	2356
	2	2729	2519	2345	2199	2655	2464	2305	2170	2362	2228	2113	2267	2157	2059	2180	2089	2041
	3	2497	2224	2014	1846	2427	2179	1984	1826	2092	1926	1789	2013	1872	1753	1939	1820	1778
	4	2292	1979	1749	1574	2227	1940	1726	1561	1867	1682	1535	1799	1640	1510	1736	1599	1563
	5	2111	1773	1537	1362	2052	1740	1519	1353	1678	1484	1334	1621	1450	1316	1567	1418	1386
	6	1952	1600	1363	1194	1898	1572	1349	1187	1519	1321	1173	1470	1294	1160	1424	1268	1240
	7	1812	1453	1221	1057	1763	1429	1209	1052	1384	1186	1042	1342	1164	1032	1302	1143	1119
	8	1688	1328	1101	946	1644	1307	1092	942	1268	1073	933	1232	1055	925	1197	1037	1016
	9	1578	1220	1001	853	1538	1203	993	850	1169	977	843	1137	962	837	1107	947	929
	10	1480	1127	916	775	1444	1112	909	772	1082	896	767	1054	883	762	1028	870	854

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	35.6 fc	13.3 ft
6.5 ft	25.5 fc	15.7 ft
7.5 ft	19.1 fc	18.1 ft
8.0 ft	16.8 fc	19.3 ft
10.0 ft	10.8 fc	24.2 ft
12.0 ft	7.5 fc	29.0 ft
14.0 ft	5.5 fc	33.8 ft
16.0 ft	4.2 fc	38.7 ft
20.0 ft	2.7 fc	48.3 ft
24.0 ft	1.9 fc	58.0 ft
28.0 ft	1.4 fc	67.7 ft

### Average Luminaire Luminance [cd/m<sup>2</sup>]

	0.00°	45.00°	90.00°
0.00°	31934	31934	31934
45.00°	13544	15788	27448
55.00°	10107	12346	25553
65.00°	6397	8463	22908
75.00°	1649	3734	18042
85.00°	334	407	7406

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	21.5	20.3	21.8	22.2	21.9	23.4	22.3	23.8	24.1
	3H	20.9	22.2	21.3	22.6	23.0	23.5	24.9	23.9	25.3	25.7
	4H	20.9	22.2	21.4	22.6	23.0	24.1	25.4	24.5	25.7	26.2
	6H	20.9	22.1	21.3	22.5	22.9	24.4	25.6	24.8	26.0	26.4
	8H	20.9	22.0	21.3	22.4	22.9	24.4	25.6	24.9	26.0	26.4
	12H	20.8	21.9	21.3	22.3	22.8	24.5	25.5	24.9	26.0	26.4
4H	2H	20.5	21.8	21.0	22.2	22.6	22.1	23.4	22.5	23.8	24.2
	3H	21.6	22.7	22.1	23.1	23.6	23.8	24.9	24.3	25.4	25.8
	4H	21.7	22.7	22.2	23.1	23.6	24.5	25.4	24.9	25.9	26.3
	6H	21.7	22.5	22.2	23.0	23.5	24.8	25.7	25.3	26.1	26.6
	8H	21.7	22.5	22.2	22.9	23.4	24.9	25.7	25.4	26.2	26.7
	12H	21.6	22.3	22.1	22.8	23.4	24.9	25.6	25.4	26.1	26.6
8H	4H	21.9	22.7	22.4	23.2	23.7	24.4	25.2	24.9	25.7	26.2
	6H	21.9	22.5	22.4	23.0	23.6	24.8	25.4	25.3	26.0	26.5
	8H	21.8	22.4	22.4	23.0	23.5	24.9	25.5	25.4	26.0	26.5
	12H	21.8	22.3	22.4	22.9	23.5	24.9	25.4	25.4	25.9	26.5
12H	4H	21.9	22.6	22.4	23.1	23.6	24.4	25.1	24.9	25.6	26.1
	6H	21.9	22.5	22.4	23.0	23.5	24.8	25.3	25.3	25.8	26.4
	8H	21.9	22.4	22.4	22.9	23.5	24.8	25.4	25.4	25.9	26.5

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0