

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

STL4 - 40L - 30HK - NF - xx - xx - MW

Track light for accent, display and general illumination.

Test Number

STL4-4

Test Date

2/18/25

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

Summary of Results

Power

Input Watts	39.6 W
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Lumen Output

Output Lumens	3206
Efficacy	80.95 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.57
Two luminaires, plane 90°	1.15
Four luminaires	0.78

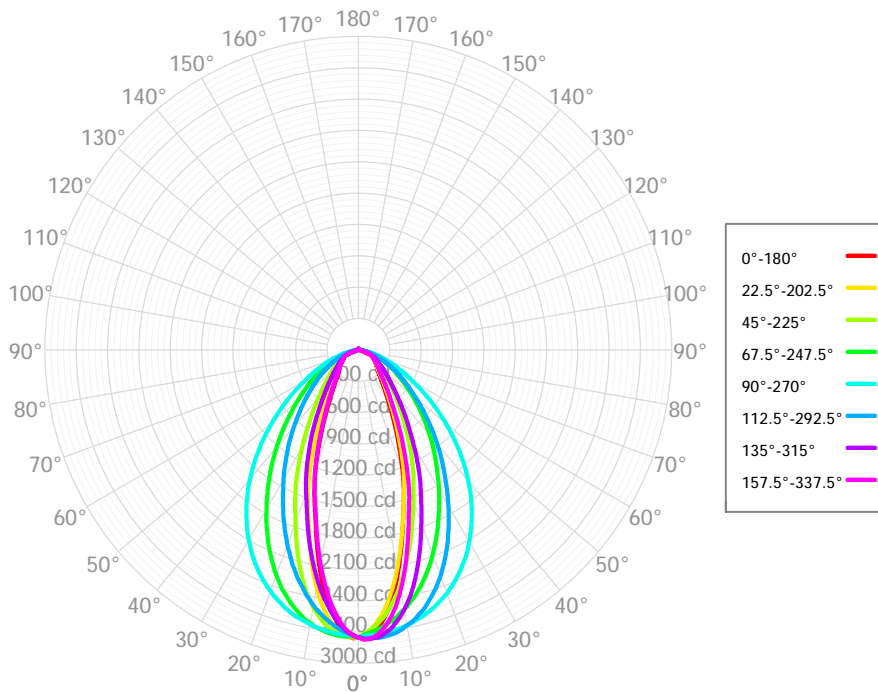
Full Beam Angle

0° - 180°	36°
90° - 270°	89°

IES File Header Contents

Keyword	Value
TEST	STL4-4
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	STL4 - 40L - 30HK - NF - 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°	245.53	7.66%	90.00° - 100.00°	7.83	0.24%
10.00° - 20.00°	575.62	17.96%	100.00° - 110.00°	7.79	0.24%
20.00° - 30.00°	653.48	20.39%	100.00° - 120.00°	15.14	0.47%
30.00° - 40.00°	577.42	18.01%	120.00° - 130.00°	6.94	0.22%
40.00° - 50.00°	458.77	14.31%	130.00° - 140.00°	6.26	0.20%
50.00° - 60.00°	333.66	10.41%	140.00° - 150.00°	5.20	0.16%
60.00° - 70.00°	212.92	6.64%	150.00° - 160.00°	4.07	0.13%
70.00° - 80.00°	83.33	2.60%	160.00° - 170.00°	2.58	0.08%
80.00° - 90.00°	15.96	0.50%	170.00° - 180.00°	0.90	0.03%
0.00° - 90.00°	3156.69	98.47%	0.00° - 180.00°	3205.62	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°	2750.12	2750.12	2750.12	2750.12	2750.12	2750.12	2750.12	2750.12	2750.12	2750.12	2750.12	2750.12	2750.12	2750.12	2750.12	2750.12	2750.12
1.00°	2767.13	2726.42	2721.61	2726.93	2738.66	2729.73	2729.11	2737.28	2760.72	2754.65	2748.20	2741.77	2738.16	2754.23	2766.52	2771.34	2767.13
2.00°	2748.87	2702.04	2693.46	2713.43	2733.78	2715.53	2706.59	2699.40	2737.33	2748.73	2748.05	2743.69	2731.93	2762.39	2771.18	2765.92	2748.87
3.00°	2711.63	2656.17	2664.83	2696.89	2733.35	2697.77	2666.56	2656.60	2696.36	2727.28	2740.28	2744.28	2730.92	2762.32	2760.11	2754.75	2711.63
4.00°	2668.36	2606.62	2627.56	2681.41	2726.39	2674.70	2622.21	2594.94	2645.35	2698.78	2726.03	2739.85	2724.60	2762.46	2754.25	2724.64	2668.36
5.00°	2611.89	2550.01	2585.30	2661.74	2723.21	2649.20	2573.10	2525.53	2577.60	2657.35	2703.92	2730.39	2717.87	2756.61	2733.25	2683.93	2611.89
6.00°	2545.35	2479.39	2540.38	2637.56	2716.84	2619.41	2516.64	2450.93	2500.05	2601.67	2675.01	2724.61	2710.55	2747.43	2707.88	2632.99	2545.35
7.00°	2466.70	2403.92	2488.95	2611.75	2708.83	2588.02	2450.22	2366.22	2416.95	2539.91	2639.73	2708.66	2698.12	2738.17	2671.76	2573.27	2466.70
8.00°	2372.83	2318.20	2421.40	2587.70	2697.67	2553.49	2387.07	2274.20	2326.58	2469.39	2596.46	2693.71	2689.56	2723.73	2626.69	2503.08	2372.83
9.00°	2277.69	2229.87	2363.34	2552.27	2688.58	2519.19	2316.78	2178.91	2232.29	2393.90	2548.29	2679.80	2680.67	2702.99	2581.06	2421.22	2277.69
10.00°	2175.93	2135.23	2295.85	2521.58	2676.33	2481.03	2242.75	2081.94	2125.88	2303.58	2497.43	2651.65	2667.03	2677.13	2526.16	2333.24	2175.93
11.00°	2068.20	2035.24	2219.22	2490.86	2664.47	2436.15	2163.15	1978.20	2016.28	2216.66	2436.78	2633.99	2649.78	2655.61	2465.09	2240.91	2068.20
12.00°	1960.99	1939.30	2143.08	2449.49	2644.91	2395.34	2084.31	1876.85	1905.84	2121.23	2377.47	2605.34	2636.18	2629.56	2400.58	2145.15	1960.99
13.00°	1860.91	1841.71	2067.01	2415.31	2630.83	2344.22	2002.91	1772.97	1796.76	2020.77	2307.04	2571.23	2622.30	2594.09	2329.25	2042.04	1860.91
14.00°	1756.04	1747.83	1989.71	2369.95	2614.03	2299.10	1919.86	1673.91	1690.89	1921.51	2229.25	2539.67	2603.47	2565.20	2252.06	1939.61	1756.04
15.00°	1657.32	1654.97	1914.26	2328.18	2595.55	2254.40	1836.84	1582.92	1600.24	1818.83	2156.93	2505.72	2582.82	2525.09	2172.98	1840.73	1657.32
16.00°	1569.26	1569.87	1834.99	2281.66	2576.15	2199.25	1756.33	1504.18	1517.68	1720.75	2078.11	2465.94	2561.89	2483.45	2091.94	1744.12	1569.26
17.00°	1492.69	1490.91	1757.52	2232.37	2552.35	2152.25	1671.72	1433.04	1437.83	1642.93	1997.82	2427.58	2534.80	2440.53	2009.51	1650.64	1492.69
18.00°	1408.00	1422.75	1679.43	2186.40	2528.12	2093.61	1595.39	1356.37	1354.49	1559.08	1916.94	2386.67	2511.63	2399.01	1927.28	1569.26	1408.00
19.00°	1326.78	1350.03	1608.90	2135.39	2503.70	2038.17	1523.15	1276.97	1273.34	1483.71	1835.76	2339.02	2486.12	2348.84	1842.84	1494.62	1326.78
20.00°	1239.58	1274.55	1538.54	2083.07	2479.24	1984.89	1461.58	1199.57	1188.44	1404.75	1758.41	2295.77	2455.62	2300.86	1763.00	1414.53	1239.58
21.00°	1153.18	1203.30	1473.70	2026.65	2447.01	1925.49	1396.05	1121.15	1102.36	1319.05	1683.13	2246.16	2428.17	2245.41	1686.21	1332.22	1153.18
22.00°	1072.75	1125.54	1410.98	1975.56	2419.78	1872.61	1336.05	1046.83	1020.80	1237.76	1613.76	2192.34	2397.91	2193.39	1609.63	1248.69	1072.75
23.00°	993.90	1054.05	1352.24	1919.40	2385.28	1812.65	1269.97	970.45	943.64	1159.67	1545.18	2142.71	2366.27	2136.78	1536.81	1166.46	993.90
24.00°	925.57	979.69	1297.17	1866.45	2352.80	1759.78	1207.29	897.81	869.28	1076.57	1477.17	2091.40	2332.96	2081.36	1467.43	1088.70	925.57
25.00°	857.44	913.96	1230.81	1807.94	2318.88	1702.20	1139.03	830.32	803.22	998.62	1411.97	2038.18	2297.74	2025.13	1405.28	1015.81	857.44
26.00°	792.47	853.54	1171.19	1754.91	2280.35	1643.38	1076.35	768.60	738.22	924.90	1340.35	1979.61	2260.43	1960.16	1335.00	949.88	792.47
27.00°	735.26	795.31	1113.36	1700.49	2245.83	1588.45	1020.29	712.29	683.30	860.38	1269.44	1925.98	2220.64	1904.50	1268.05	882.19	735.26
28.00°	680.47	738.53	1050.36	1648.57	2209.81	1533.83	963.00	661.66	633.59	799.33	1199.76	1873.36	2183.08	1842.02	1197.99	816.42	680.47
29.00°	631.07	688.36	992.77	1596.43	2165.03	1481.34	905.39	616.81	583.61	740.11	1139.64	1814.39	2138.13	1781.49	1135.94	761.58	631.07
30.00°	584.54	638.28	938.75	1543.17	2122.97	1429.78	851.15	574.41	543.03	689.47	1075.27	1756.91	2096.74	1725.02	1064.34	705.92	584.54
31.00°	544.10	595.91	887.54	1490.58	2077.76	1383.62	798.62	535.85	508.74	637.19	1016.60	1703.30	2056.57	1663.24	1003.89	655.14	544.10
32.00°	506.81	556.71	836.62	1435.98	2033.54	1330.67	750.40	498.81	473.87	595.30	952.79	1644.44	2009.64	1605.97	944.43	610.72	506.81
33.00°	476.65	523.13	791.91	1386.75	1986.72	1278.58	699.35	465.56	443.62	556.57	895.40	1590.83	1961.01	1546.79	888.04	569.94	476.65
34.00°	450.45	488.64	745.68	1338.76	1939.27	1230.04	658.72	437.33	413.63	518.66	841.39	1536.73	1915.37	1489.33	841.48	535.82	450.45
35.00°	416.84	458.89	701.52	1289.86	1890.35	1182.69	619.02	410.93	392.22	485.47	791.58	1480.44	1866.13	1434.30	793.27	501.59	416.84
36.00°	391.61	431.67	664.73	1243.89	1843.74	1138.98	583.11	388.99	367.08	454.00	745.89	1427.65	1820.42	1381.49	744.80	472.39	391.61
37.00°	370.23	410.15	623.80	1196.40	1793.38	1093.33	548.52	366.02	346.69	430.41	699.94	1376.32	1766.12	1328.60	700.32	441.55	370.23
38.00°	349.21	388.51	590.55	1155.55	1744.63	1044.91	518.55	348.76	329.29	401.28	659.40	1318.75	1716.15	1278.46	657.33	415.31	349.21
39.00°	333.87	367.79	560.37	1108.57	1689.81	1002.43	490.53	328.77	312.04	380.31	619.09	1269.09	1667.89	1225.41	615.89	391.72	333.87
40.00°	316.23	345.31	524.30	1061.07	1635.05	957.15	462.85	312.73	300.30	358.27	581.46	1215.56	1610.74	1174.73	581.44	370.56	316.23
41.00°	300.30	328.03	496.89	1016.87	1583.47	912.51	438.74	298.79	288.79	339.83	549.31	1165.98	1558.99	1122.61	548.73	346.27	300.30
42.00°	287.46	314.44	471.96	976.45	1530.71	874.88	415.67	289.27	277.80	317.51	517.22	1118.76	1505.02	1075.93	516.13	330.41	287.46
43.00°	277.19	296.16	444.02	934.44	1475.55	834.53	391.15	275.10	270.58	307.57	490.62	1066.67	1450.02	1024.85	485.85	315.62	277.19

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	3805	3805	3805	3805	3710	3710	3710	3710	3535	3535	3535	3374	3374	3374	3226	3226	3157
	1	3555	3436	3330	3233	3467	3361	3264	3177	3219	3141	3069	3088	3026	2968	2968	2919	2855
	2	3304	3094	2920	2775	3221	3032	2873	2739	2915	2783	2669	2807	2699	2603	2708	2619	2561
	3	3071	2798	2586	2418	2995	2747	2551	2394	2650	2484	2348	2560	2420	2303	2477	2360	2308
	4	2861	2545	2314	2137	2791	2502	2287	2120	2421	2235	2088	2345	2186	2057	2275	2139	2093
	5	2672	2328	2088	1911	2608	2292	2067	1899	2223	2027	1876	2160	1988	1853	2100	1951	1910
	6	2502	2141	1899	1726	2444	2111	1883	1717	2052	1850	1700	1998	1820	1683	1947	1790	1754
	7	2349	1980	1740	1572	2297	1953	1726	1565	1904	1700	1552	1857	1675	1539	1813	1651	1619
	8	2212	1838	1603	1442	2164	1816	1592	1437	1773	1571	1427	1733	1550	1417	1695	1530	1502
	9	2088	1715	1486	1331	2045	1695	1477	1327	1658	1459	1319	1623	1441	1311	1590	1425	1400
	10	1976	1605	1383	1236	1937	1588	1376	1232	1556	1361	1226	1525	1346	1220	1496	1332	1309

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	90.9 fc	3.6 ft
6.5 ft	65.1 fc	4.2 ft
7.5 ft	48.9 fc	4.9 ft
8.0 ft	43.0 fc	5.2 ft
10.0 ft	27.5 fc	6.5 ft
12.0 ft	19.1 fc	7.8 ft
14.0 ft	14.0 fc	9.1 ft
16.0 ft	10.7 fc	10.4 ft
20.0 ft	6.9 fc	13.0 ft
24.0 ft	4.8 fc	15.6 ft
28.0 ft	3.5 fc	18.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	81638	81638	81638
45.00°	5479	9711	55840
55.00°	4155	6240	41610
65.00°	3297	4061	28231
75.00°	655	1952	18116
85.00°	265	342	6052

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	13.5	14.8	13.9	15.2	15.5	22.3	23.6	22.7	24.0	24.3
	3H	14.8	16.0	15.2	16.4	16.8	23.6	24.8	24.0	25.2	25.6
	4H	14.8	16.0	15.3	16.3	16.8	24.0	25.2	24.5	25.5	26.0
	6H	14.8	15.8	15.2	16.2	16.7	24.2	25.3	24.7	25.7	26.1
	8H	14.8	15.7	15.2	16.2	16.6	24.3	25.2	24.7	25.7	26.1
	12H	14.7	15.7	15.2	16.1	16.6	24.2	25.2	24.7	25.6	26.1
4H	2H	14.3	15.4	14.7	15.8	16.2	22.1	23.2	22.6	23.6	24.0
	3H	15.7	16.6	16.1	17.0	17.5	23.6	24.5	24.0	24.9	25.4
	4H	15.7	16.5	16.2	17.0	17.5	24.0	24.9	24.5	25.3	25.8
	6H	15.7	16.4	16.2	16.9	17.4	24.3	25.0	24.8	25.5	26.0
	8H	15.6	16.3	16.1	16.8	17.3	24.3	25.0	24.8	25.5	26.0
	12H	15.6	16.2	16.1	16.7	17.2	24.3	24.9	24.8	25.4	25.9
8H	4H	16.1	16.7	16.6	17.2	17.7	23.9	24.6	24.4	25.1	25.6
	6H	16.0	16.6	16.6	17.1	17.6	24.2	24.7	24.7	25.3	25.8
	8H	16.0	16.5	16.6	17.0	17.6	24.2	24.7	24.8	25.3	25.8
	12H	16.0	16.4	16.5	16.9	17.5	24.2	24.7	24.8	25.2	25.8
12H	4H	16.1	16.7	16.6	17.2	17.7	23.9	24.5	24.4	25.0	25.5
	6H	16.1	16.6	16.6	17.1	17.6	24.1	24.6	24.7	25.1	25.7
	8H	16.1	16.5	16.6	17.0	17.6	24.2	24.6	24.7	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