Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SL03IND8 11L 35HK LA xx xx MW

Specline Linear Pendant, 1.8" aperture x 8' Long, Matte White Refl

Test Number

SP-01373_1

Test Date

6/3/2022

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

Summary of Results

Power

Input Watts	68 W

Lumen Output

Output Lumens	5772
Efficacy	84.89 lm/W

Luminous Dimensions

0° - 180° Size	0.15
90° - 270° Size	8
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.2
Two luminaires, plane 90°	1.18
Four luminaires	1.19

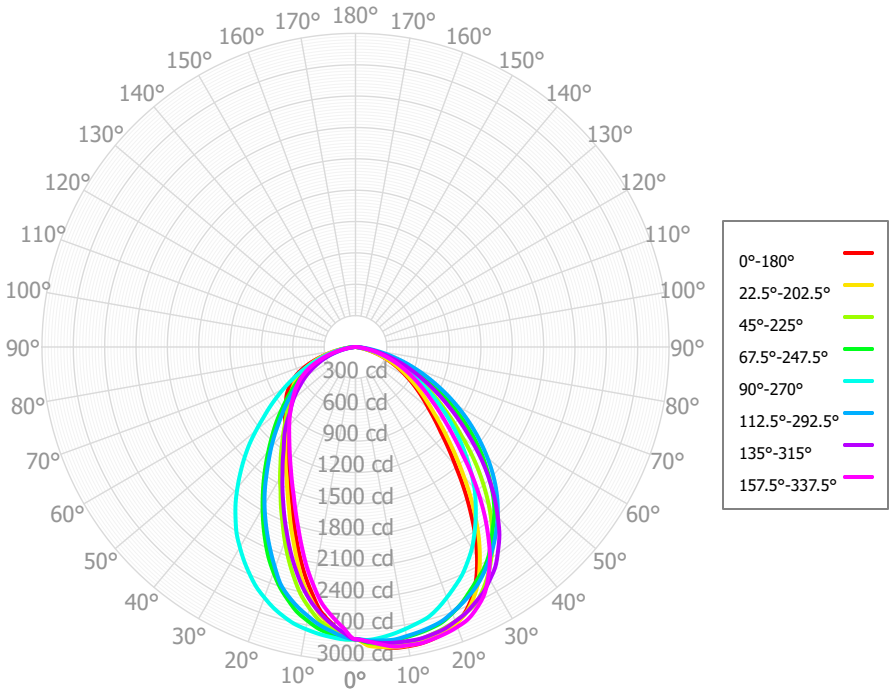
Full Beam Angle

0° - 180°	66°
90° - 270°	92°

IES File Header Contents

Keyword	Value
TEST	SP-01373_1
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	11/2/2022
LUMCAT	SL03IND8 11L 35HK LA xx xx MW
LUMINAIRE	Specline Linear Pendant, 1.8" aperture x 8' Long, Matte White Refl
OTHER	Extruded Acrylic Lens, Asymmetric Distribution
OTHER	Data for 8' IND fixture, or 8' module for continuous ROW
OTHER	66 Degree x 88 Degree Beam Angle
LAMP	N/A, Min. 90 CRI
LAMPCAT	N/A
OTHER	Reference project SL473
OTHER	11L designation for Spectrum linear product indicates 721 Source Lm/Ft.
OTHER	CCT Output Multipliers: 40HK x 1.01, 30HK x 0.98, 27HK x 0.95
OTHER	Total Luminaire Watts is approximate
OTHER	This report prepared by Spectrum Lighting

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	265.74	4.60%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	717.65	12.43%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	1012.04	17.53%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1102.11	19.09%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	1004.43	17.40%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	805.17	13.95%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	552.34	9.57%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	265.16	4.59%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	47.67	0.83%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	5772.32	100.00%	0.00° - 180.00°	5772.32	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°	2796.63	2796.63	2796.63	2796.63	2796.63	2796.63	2796.63	2796.63	2796.63	2796.63	2796.63	2796.63	2796.63	2796.63	2796.63	2796.63	2796.63
2.50°	2849.84	2861.29	2834.71	2829.52	2805.85	2772.46	2732.62	2689.78	2748.14	2763.41	2767.53	2796.02	2799.04	2810.58	2822.83	2821.36	2849.84
5.00°	2879.75	2880.66	2859.61	2831.80	2791.07	2726.78	2659.08	2585.62	2652.22	2677.70	2709.27	2757.66	2784.43	2818.48	2842.50	2857.40	2879.75
7.50°	2903.79	2898.13	2873.11	2832.01	2768.71	2679.22	2572.62	2472.67	2551.74	2587.70	2641.45	2717.86	2765.94	2824.27	2853.61	2891.51	2903.79
10.00°	2907.31	2900.03	2871.34	2818.28	2740.24	2615.14	2470.28	2315.17	2394.70	2452.45	2537.66	2657.92	2740.97	2809.66	2857.82	2898.40	2907.31
12.50°	2905.23	2898.15	2861.99	2803.81	2709.88	2548.80	2348.10	2154.28	2235.60	2311.11	2423.01	2594.10	2712.39	2794.32	2859.69	2903.39	2905.23
15.00°	2889.45	2878.52	2844.91	2786.35	2678.34	2471.30	2206.77	1982.17	2065.67	2136.34	2279.25	2503.27	2667.28	2774.96	2846.02	2889.42	2889.45
17.50°	2862.88	2854.21	2821.39	2760.35	2621.42	2381.09	2061.34	1818.62	1897.06	1965.84	2129.76	2408.09	2615.37	2750.05	2828.80	2873.97	2862.88
20.00°	2816.33	2814.80	2792.73	2710.58	2552.69	2249.79	1912.89	1675.06	1740.33	1811.06	1976.74	2294.74	2550.88	2705.59	2793.89	2850.70	2816.33
22.50°	2745.34	2758.17	2755.00	2653.92	2481.59	2119.72	1772.65	1544.08	1591.33	1664.46	1823.34	2176.26	2482.76	2658.90	2756.60	2817.93	2745.34
25.00°	2640.32	2662.08	2711.76	2582.92	2409.70	1992.59	1636.95	1435.42	1480.71	1538.72	1687.32	2043.23	2397.28	2606.74	2703.07	2752.54	2640.32
27.50°	2501.36	2541.19	2629.92	2515.51	2320.57	1866.14	1514.29	1336.48	1377.21	1425.12	1552.77	1910.37	2308.39	2546.93	2648.32	2669.26	2501.36
30.00°	2326.41	2378.27	2530.71	2453.65	2227.40	1740.89	1397.12	1250.56	1296.88	1334.13	1443.72	1777.88	2212.94	2472.88	2571.24	2541.29	2326.41
32.50°	2130.20	2201.58	2413.79	2370.69	2117.23	1613.51	1295.49	1172.88	1219.74	1247.64	1336.18	1649.08	2116.79	2393.06	2491.42	2395.09	2130.20
35.00°	1916.30	2006.75	2290.99	2262.92	2004.68	1483.32	1198.47	1103.60	1150.22	1167.62	1242.64	1526.10	2001.22	2305.19	2378.78	2215.52	1916.30
37.50°	1704.96	1809.13	2142.55	2162.02	1888.94	1363.52	1122.43	1042.10	1087.85	1096.61	1151.51	1407.49	1884.72	2213.12	2261.85	2029.18	1704.96
40.00°	1495.24	1608.71	1988.39	2067.46	1772.94	1254.47	1050.41	986.83	1038.00	1035.46	1073.15	1294.10	1757.24	2116.58	2117.91	1833.51	1495.24
42.50°	1318.35	1426.08	1825.86	1952.85	1640.67	1148.10	969.07	933.99	992.67	981.02	997.92	1190.99	1629.92	2011.30	1972.07	1638.95	1318.35
45.00°	1156.86	1257.05	1662.24	1824.16	1508.46	1043.84	886.68	882.61	953.32	932.20	933.40	1097.37	1504.14	1898.68	1818.80	1445.58	1156.86
47.50°	1029.27	1110.88	1495.05	1695.74	1377.11	953.43	829.72	833.95	913.30	886.05	869.52	1005.77	1376.72	1776.37	1663.28	1278.67	1029.27
50.00°	913.54	978.32	1327.98	1567.48	1246.49	871.25	773.45	786.50	872.58	841.64	807.20	915.60	1241.07	1647.91	1501.73	1133.55	913.54
52.50°	819.97	869.98	1184.98	1430.79	1120.38	792.51	712.19	742.23	836.72	796.56	748.22	835.88	1111.04	1516.42	1345.12	1005.52	819.97
55.00°	731.64	772.32	1043.33	1290.74	995.57	715.33	651.44	699.00	804.70	751.14	695.38	761.74	1000.14	1383.49	1198.43	888.16	731.64
57.50°	648.93	681.87	917.19	1152.32	875.99	643.49	595.59	653.12	764.49	710.50	640.51	691.98	891.80	1250.24	1058.48	788.39	648.93
60.00°	567.00	593.69	793.21	1014.34	762.21	573.38	539.26	606.64	719.37	671.53	582.84	623.95	789.61	1116.86	928.65	697.06	567.00
62.50°	494.32	516.18	682.36	880.53	664.31	502.21	480.42	552.92	669.44	623.19	524.86	557.90	690.76	985.33	805.04	612.05	494.32
65.00°	422.28	440.93	574.53	747.46	567.63	430.81	422.00	498.26	617.31	572.51	466.56	492.40	597.82	854.24	688.52	529.22	422.28
67.50°	352.92	366.42	478.26	623.88	473.38	374.89	364.99	432.18	549.04	508.91	409.65	429.16	509.06	732.24	581.04	452.60	352.92
70.00°	283.98	292.00	384.19	501.22	383.80	321.03	307.97	365.56	475.48	443.34	353.89	366.34	426.03	611.55	481.65	377.43	283.98
72.50°	220.29	225.84	295.96	394.05	301.39	255.32	250.91	300.96	393.64	374.54	299.16	305.31	347.27	498.67	386.36	304.54	220.29
75.00°	157.63	160.29	214.40	288.08	227.75	189.28	195.11	235.83	310.00	305.52	245.08	244.45	272.98	386.38	293.88	231.99	157.63
77.50°	101.71	104.97	146.07	199.93	164.29	139.72	141.58	164.74	233.84	237.86	187.00	190.05	205.86	289.22	214.20	167.40	101.71
80.00°	52.14	52.32	87.53	115.38	107.53	91.04	92.86	97.52	158.70	170.57	127.08	136.18	144.45	193.88	141.03	103.48	52.14
82.50°	28.20	28.62	43.46	61.33	56.70	52.81	50.66	52.56	96.40	108.54	81.99	90.40	91.57	122.80	83.96	62.24	28.20
85.00°	9.82	8.21	16.24	15.52	26.34	19.02	23.18	16.04	35.54	51.37	42.02	47.14	43.97	57.30	32.96	23.08	9.82
87.50°	6.78	6.26	7.95	9.15	9.97	11.49	11.33	11.64	20.28	26.76	22.34	24.54	21.12	29.06	14.55	13.03	6.78
90.00°	4.73	4.68	4.22	4.22	4.28	5.26	5.83	8.04	6.10	6.65	7.38	5.70	9.67	6.45	4.80	4.34	4.73

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	ρfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	ρcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	ρw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	6872	6872	6872	6872	6712	6712	6712	6712	6414	6414	6414	6141	6141	6141	5890	5890	5890	5772
	1	6352	6108	5888	5691	6199	5978	5779	5599	5736	5572	5423	5513	5381	5258	5307	5202	5103	5093
	2	5832	5402	5046	4748	5685	5295	4968	4692	5094	4820	4584	4908	4680	4480	4737	4549	4382	4452
	3	5360	4803	4373	4029	5223	4714	4315	3994	4546	4205	3924	4391	4101	3857	4247	4002	3793	3916
	4	4942	4302	3833	3475	4814	4227	3790	3451	4086	3706	3405	3955	3626	3360	3833	3550	3317	3475
RCR	5	4571	3879	3396	3039	4454	3816	3362	3023	3697	3297	2991	3586	3235	2960	3483	3176	2929	3110
	6	4243	3521	3036	2689	4137	3468	3010	2677	3367	2959	2655	3272	2910	2632	3184	2862	2611	2805
	7	3951	3215	2738	2403	3855	3170	2717	2395	3083	2675	2378	3003	2636	2362	2927	2598	2346	2547
	8	3692	2952	2487	2167	3605	2913	2469	2160	2839	2436	2148	2770	2403	2136	2704	2372	2124	2328
	9	3461	2724	2273	1968	3382	2691	2259	1963	2627	2231	1954	2567	2205	1945	2510	2179	1935	2140
	10	3254	2526	2090	1800	3183	2497	2078	1796	2441	2055	1789	2389	2033	1781	2339	2011	1774	1977

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	92.5 fc	7.4 ft
6.5 ft	66.2 fc	8.7 ft
7.5 ft	49.7 fc	10.0 ft
8.0 ft	43.7 fc	10.7 ft
10.0 ft	28.0 fc	13.4 ft
12.0 ft	19.4 fc	16.0 ft
14.0 ft	14.3 fc	18.7 ft
16.0 ft	10.9 fc	21.4 ft
20.0 ft	7.0 fc	26.7 ft
24.0 ft	4.9 fc	32.1 ft
28.0 ft	3.6 fc	37.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	25086	25086	25086
45.00°	14675	21086	19135
55.00°	11442	16316	15569
65.00°	8963	12194	12048
75.00°	5463	7431	7893
85.00°	1011	1671	2711

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		Viewed crosswise					Viewed endwise				
2H	2H	20.0	21.5	20.3	21.8	22.1	19.8	21.4	20.2	21.7	22.0
	3H	21.2	22.5	21.5	22.9	23.2	21.5	22.9	21.9	23.2	23.6
	4H	21.5	22.7	21.9	23.1	23.5	22.0	23.3	22.4	23.7	24.0
	6H	21.5	22.7	22.0	23.1	23.5	22.3	23.5	22.8	23.9	24.3
	8H	21.5	22.7	22.0	23.1	23.5	22.4	23.5	22.8	23.9	24.3
	12H	21.5	22.6	21.9	23.0	23.4	22.4	23.5	22.9	23.9	24.3
4H	2H	20.9	22.2	21.3	22.5	22.9	20.3	21.5	20.7	21.9	22.3
	3H	22.2	23.3	22.7	23.7	24.1	22.1	23.2	22.5	23.6	24.0
	4H	22.6	23.6	23.0	24.0	24.4	22.7	23.7	23.2	24.1	24.5
	6H	22.8	23.6	23.2	24.0	24.5	23.1	24.0	23.6	24.4	24.9
	8H	22.7	23.5	23.2	24.0	24.4	23.2	24.0	23.7	24.4	24.9
	12H	22.7	23.4	23.2	23.9	24.4	23.3	24.0	23.8	24.4	24.9
8H	4H	22.9	23.7	23.4	24.2	24.6	22.9	23.7	23.4	24.2	24.6
	6H	23.1	23.8	23.6	24.3	24.7	23.4	24.0	23.9	24.5	25.0
	8H	23.1	23.7	23.7	24.2	24.7	23.5	24.1	24.1	24.6	25.1
	12H	23.1	23.6	23.7	24.1	24.7	23.6	24.1	24.1	24.6	25.2
12H	4H	23.0	23.7	23.5	24.1	24.6	22.9	23.6	23.4	24.1	24.6
	6H	23.2	23.8	23.7	24.2	24.8	23.4	24.0	24.0	24.5	25.0
	8H	23.2	23.7	23.7	24.2	24.8	23.6	24.1	24.1	24.6	25.2

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0