Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SL03IND4 25L 35HK LA xx xx MW

Specline Linear Pendant, 1.8" aperture x 4' Long, Matte White Refl

Test Number

SP-01370_3

Test Date

6/3/2022

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

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Summary of Results

Power

Input Watts	76 W

Lumen Output

Output Lumens	6282
Efficacy	82.66 lm/W

Luminous Dimensions

0° - 180° Size	0.15
90° - 270° Size	4
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.4
Two luminaires, plane 90°	1.15
Four luminaires	1.24

Full Beam Angle

0° - 180°	67°
90° - 270°	87°

IES File Header Contents

Keyword	Value
TEST	SP-01370_3
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	11/2/2022
LUMCAT	SL03IND4 25L 35HK LA xx xx MW
LUMINAIRE	Specline Linear Pendant, 1.8" aperture x 4' Long, Matte White Refl
OTHER	Extruded Acrylic Lens, Asymmetric Distribution
OTHER	Data for 4' IND fixture, or 4' 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	25L designation for Spectrum linear product indicates 1570 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

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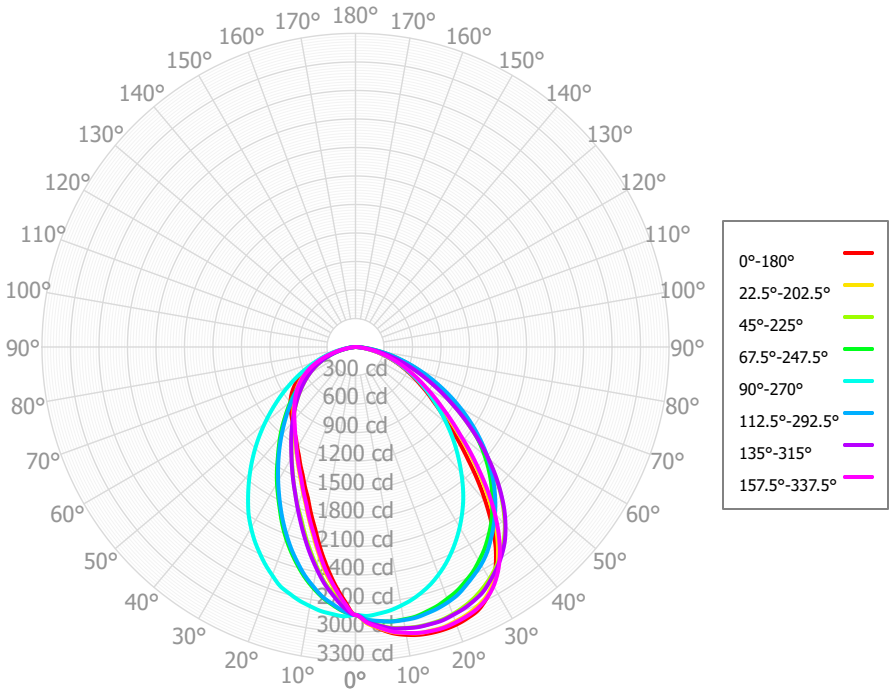
Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	266.52	4.24%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	719.21	11.45%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	1043.07	16.60%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1191.30	18.96%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	1126.48	17.93%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	916.35	14.59%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	635.88	10.12%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	320.38	5.10%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	62.84	1.00%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	6282.02	100.00%	0.00° - 180.00°	6282.02	100.00%

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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°	2820.36	2820.36	2820.36	2820.36	2820.36	2820.36	2820.36	2820.36	2820.36	2820.36	2820.36	2820.36	2820.36	2820.36	2820.36	2820.36	2820.36
2.50°	2905.77	2915.82	2896.32	2876.28	2833.27	2784.06	2747.67	2694.36	2671.35	2705.68	2734.26	2788.64	2836.83	2873.15	2900.91	2907.15	2905.77
5.00°	2979.66	2973.67	2943.70	2897.53	2817.18	2719.24	2632.28	2536.59	2505.56	2555.61	2618.66	2727.79	2821.15	2894.76	2945.97	2967.91	2979.66
7.50°	3039.59	3027.53	2982.32	2913.45	2796.69	2652.34	2511.04	2375.53	2326.03	2399.09	2495.81	2658.68	2802.88	2914.34	2988.64	3023.30	3039.59
10.00°	3076.54	3057.20	3002.46	2912.17	2764.03	2559.36	2366.65	2197.24	2144.21	2218.07	2347.64	2573.23	2768.83	2918.52	3005.41	3055.41	3076.54
12.50°	3102.39	3085.21	3015.91	2907.99	2726.10	2463.62	2220.82	2020.92	1961.86	2043.23	2195.68	2478.55	2733.51	2919.03	3021.03	3082.31	3102.39
15.00°	3114.35	3089.24	3018.79	2884.27	2677.55	2350.98	2071.05	1871.12	1811.95	1884.68	2047.31	2370.16	2686.72	2903.18	3022.03	3093.89	3114.35
17.50°	3116.46	3090.99	3011.94	2858.88	2620.85	2236.39	1925.52	1725.34	1666.50	1738.93	1899.20	2257.59	2638.19	2884.38	3020.76	3097.85	3116.46
20.00°	3108.85	3073.65	2993.04	2821.01	2551.41	2114.00	1788.71	1606.85	1559.21	1618.70	1778.23	2140.14	2559.03	2856.31	3002.00	3085.06	3108.85
22.50°	3087.64	3053.14	2964.68	2782.19	2473.87	1990.94	1661.90	1493.96	1454.53	1508.56	1657.90	2015.47	2478.75	2819.33	2980.71	3066.07	3087.64
25.00°	3056.15	3017.51	2927.31	2727.87	2386.70	1866.01	1550.53	1404.21	1371.54	1413.53	1546.73	1884.33	2389.94	2762.33	2948.03	3036.93	3056.15
27.50°	2986.19	2969.72	2877.58	2671.55	2292.68	1744.07	1445.34	1317.64	1289.80	1326.71	1437.76	1764.64	2299.01	2704.43	2906.55	2985.42	2986.19
30.00°	2894.16	2883.36	2818.86	2599.42	2192.40	1628.17	1347.44	1240.11	1224.75	1249.27	1343.88	1652.80	2198.65	2645.03	2838.25	2906.01	2894.16
32.50°	2745.65	2774.88	2748.32	2524.47	2086.41	1516.24	1258.82	1167.80	1161.89	1181.28	1253.11	1539.42	2093.02	2571.58	2764.99	2793.96	2745.65
35.00°	2572.28	2615.32	2671.07	2436.24	1976.31	1410.49	1178.85	1106.61	1113.39	1121.83	1175.32	1425.21	1971.22	2479.76	2680.45	2649.77	2572.28
37.50°	2358.97	2439.50	2564.67	2344.11	1856.95	1308.27	1103.42	1049.70	1067.23	1066.36	1099.24	1326.15	1849.53	2384.42	2580.99	2475.27	2358.97
40.00°	2133.09	2235.39	2446.03	2239.46	1732.55	1210.24	1031.22	999.59	1030.74	1013.64	1028.23	1233.03	1728.11	2285.52	2456.28	2277.90	2133.09
42.50°	1904.73	2025.94	2303.73	2132.02	1611.06	1118.00	963.87	953.25	995.16	967.09	960.02	1141.79	1606.72	2177.38	2317.43	2066.03	1904.73
45.00°	1675.84	1809.46	2154.36	2018.18	1490.73	1031.06	899.13	911.50	962.17	923.76	897.80	1051.07	1485.41	2062.12	2160.42	1845.85	1675.84
47.50°	1478.18	1604.70	1988.13	1899.58	1370.53	949.80	838.48	869.47	928.44	882.06	836.87	969.05	1364.53	1942.06	1996.31	1639.97	1478.18
50.00°	1284.55	1411.80	1818.41	1772.85	1250.37	872.62	779.50	827.16	893.19	841.00	778.01	888.65	1244.21	1819.11	1825.02	1440.36	1284.55
52.50°	1143.96	1243.63	1648.05	1641.99	1136.34	798.84	722.98	784.46	854.56	796.89	721.01	811.38	1128.01	1686.12	1652.92	1273.05	1143.96
55.00°	1006.56	1095.19	1477.61	1505.64	1023.48	726.91	667.18	741.46	810.58	751.94	666.35	734.43	1015.96	1548.64	1480.19	1115.87	1006.56
57.50°	896.31	964.46	1314.34	1368.97	920.12	658.14	612.27	692.98	760.91	702.46	611.91	666.87	909.10	1408.19	1313.79	986.09	896.31
60.00°	787.40	844.48	1151.70	1231.98	817.75	590.65	557.53	641.46	704.37	652.17	557.67	599.62	806.24	1266.80	1151.14	862.02	787.40
62.50°	694.62	738.99	1005.80	1095.87	720.90	525.47	502.75	585.43	640.51	596.99	501.62	534.59	708.45	1126.05	1002.43	756.03	694.62
65.00°	603.08	640.07	861.83	960.44	624.55	460.97	447.97	527.50	569.86	541.31	444.23	469.83	613.63	985.44	859.93	652.35	603.08
67.50°	519.04	547.93	738.27	826.88	537.75	397.68	390.53	462.48	494.41	474.00	385.61	407.49	525.01	851.04	731.31	561.06	519.04
70.00°	436.31	458.08	616.55	694.46	451.90	334.63	332.97	395.33	415.44	406.27	326.27	345.57	439.16	717.49	607.22	470.52	436.31
72.50°	358.56	374.85	505.04	573.05	374.88	275.64	274.44	323.26	336.10	335.88	268.19	285.76	361.78	592.53	494.90	386.30	358.56
75.00°	283.26	293.13	397.19	456.67	298.54	217.08	216.21	250.22	256.56	265.14	210.67	226.34	287.12	468.15	385.16	302.80	283.26
77.50°	214.68	221.15	302.94	348.42	225.88	162.20	160.80	180.15	180.77	191.12	155.11	168.27	217.70	358.17	287.53	227.88	214.68
80.00°	149.92	150.50	212.56	242.83	156.97	107.84	107.07	110.44	106.51	120.20	100.17	113.80	149.41	249.72	191.50	155.48	149.92
82.50°	92.79	94.84	132.24	157.42	101.28	66.85	62.25	60.58	57.70	65.03	58.51	68.04	93.79	160.74	120.67	98.18	92.79
85.00°	47.58	40.31	66.36	76.71	53.25	28.45	24.67	12.67	16.53	20.32	19.67	32.18	39.86	78.45	51.80	47.59	47.58
87.50°	20.26	21.06	28.07	38.26	24.21	14.34	12.21	7.15	6.67	10.50	9.62	14.10	20.42	37.52	26.26	22.28	20.26
90.00°	4.82	3.16	4.72	5.71	4.82	2.52	3.06	2.13	3.01	3.58	3.08	3.48	3.12	4.43	2.70	3.57	4.82

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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	7479	7479	7479	7479	7305	7305	7305	7305	6980	6980	6980	6683	6683	6683	6410	6410	6410	6282
	1	6895	6621	6375	6154	6727	6479	6256	6054	6214	6031	5863	5971	5822	5685	5747	5628	5517	5510
	2	6314	5833	5436	5103	6153	5716	5351	5042	5496	5190	4925	5293	5038	4814	5106	4895	4708	4790
	3	5790	5169	4689	4307	5639	5072	4627	4268	4888	4507	4193	4717	4394	4121	4559	4286	4052	4193
	4	5327	4615	4094	3696	5187	4533	4047	3670	4379	3956	3621	4235	3869	3572	4101	3786	3525	3705
RCR	5	4919	4150	3614	3217	4790	4081	3577	3200	3951	3506	3166	3829	3439	3132	3715	3374	3099	3303
	6	4558	3758	3221	2835	4441	3699	3192	2823	3588	3136	2798	3484	3082	2774	3387	3030	2751	2969
	7	4239	3424	2895	2524	4133	3374	2872	2515	3279	2827	2498	3190	2784	2480	3107	2742	2463	2688
	8	3956	3137	2622	2268	3860	3094	2603	2261	3013	2567	2248	2937	2531	2235	2865	2497	2222	2450
	9	3704	2890	2391	2054	3617	2853	2375	2049	2783	2345	2039	2716	2316	2028	2654	2288	2019	2247
	10	3479	2675	2193	1873	3401	2643	2180	1869	2582	2155	1861	2524	2131	1853	2470	2107	1845	2071

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	93.2 fc	7.8 ft
6.5 ft	66.8 fc	9.2 ft
7.5 ft	50.1 fc	10.6 ft
8.0 ft	44.1 fc	11.3 ft
10.0 ft	28.2 fc	14.2 ft
12.0 ft	19.6 fc	17.0 ft
14.0 ft	14.4 fc	19.8 ft
16.0 ft	11.0 fc	22.7 ft
20.0 ft	7.1 fc	28.4 ft
24.0 ft	4.9 fc	34.0 ft
28.0 ft	3.6 fc	39.7 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	50597	50597	50597
45.00°	42517	54658	37821
55.00°	31482	46215	32011
65.00°	25600	36584	26512
75.00°	19634	27531	20693
85.00°	9795	13659	10960

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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	24.0	25.6	24.4	25.9	26.2	21.9	23.5	22.3	23.8	24.1
	3H	25.4	26.8	25.8	27.1	27.5	23.7	25.1	24.1	25.4	25.8
	4H	25.8	27.1	26.2	27.5	27.9	24.3	25.6	24.7	26.0	26.4
	6H	26.1	27.3	26.5	27.7	28.1	24.7	25.9	25.1	26.3	26.7
	8H	26.2	27.3	26.6	27.7	28.1	24.8	26.0	25.3	26.4	26.8
	12H	26.2	27.3	26.6	27.7	28.1	24.9	26.0	25.3	26.4	26.8
4H	2H	25.0	26.3	25.4	26.7	27.0	22.3	23.7	22.7	24.0	24.4
	3H	26.5	27.6	26.9	28.0	28.4	24.3	25.4	24.7	25.8	26.2
	4H	27.0	28.0	27.4	28.4	28.8	25.0	26.0	25.4	26.4	26.8
	6H	27.3	28.2	27.8	28.6	29.1	25.5	26.3	25.9	26.8	27.2
	8H	27.4	28.2	27.9	28.6	29.1	25.6	26.4	26.1	26.8	27.3
	12H	27.4	28.2	27.9	28.6	29.1	25.7	26.4	26.1	26.8	27.3
8H	4H	27.4	28.2	27.9	28.6	29.1	25.2	26.0	25.6	26.4	26.9
	6H	27.8	28.5	28.3	28.9	29.4	25.7	26.4	26.2	26.8	27.3
	8H	27.9	28.5	28.4	29.0	29.5	25.8	26.4	26.4	26.9	27.4
	12H	28.0	28.5	28.5	29.0	29.5	25.9	26.5	26.4	27.0	27.5
12H	4H	27.4	28.1	27.9	28.6	29.1	25.2	25.9	25.6	26.4	26.8
	6H	27.9	28.5	28.4	28.9	29.5	25.7	26.3	26.2	26.8	27.3
	8H	28.0	28.5	28.5	29.0	29.6	25.9	26.4	26.4	26.9	27.5

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0

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