

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

SLO3IND8 20L 35HK DW xx xx MW

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

### **Test Number**

SP-01372\_2

### **Test Date**

6/3/2022

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

## Summary of Results

### Power

<b>Input Watts</b>	120 W
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### Lumen Output

<b>Output Lumens</b>	8479
<b>Efficacy</b>	70.66 lm/W

### Luminous Dimensions

<b>0° - 180° Size</b>	0.15
<b>90° - 270° Size</b>	8
<b>Height</b>	0

### Spacing Criterion

<b>Two luminaires, plane 0°</b>	1.25
<b>Two luminaires, plane 90°</b>	1.3
<b>Four luminaires</b>	1.37

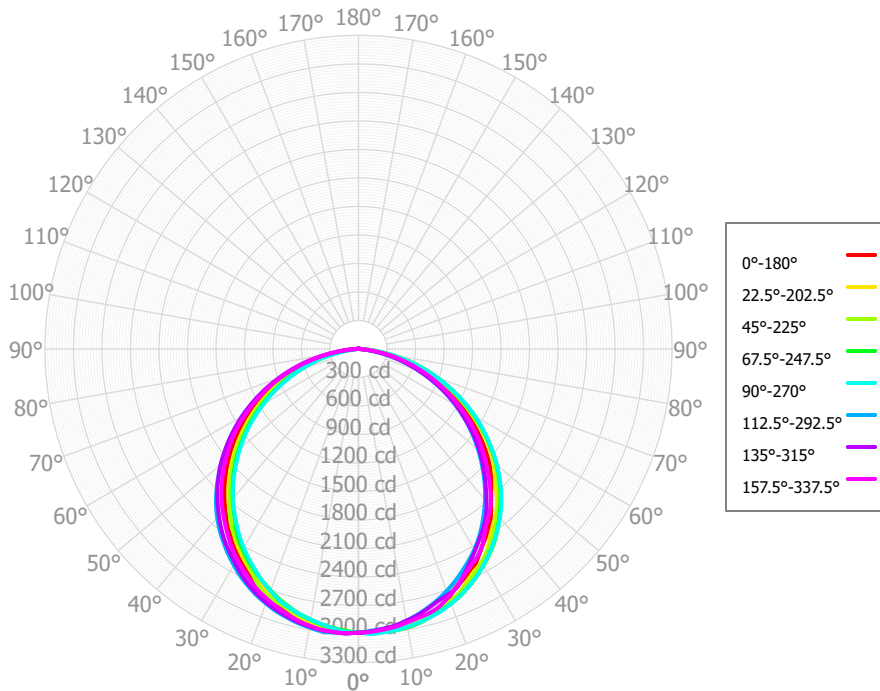
### Full Beam Angle

<b>0° - 180°</b>	112°
<b>90° - 270°</b>	111°

## IES File Header Contents

Keyword	Value
TEST	SP-01372_2
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUE DATE	11/2/2022
LUMCAT	SLO3IND8 20L 35HK DW xx xx MW
LUMINAIRE	Specline Linear Pendant, 1.8" aperture x 8' Long, Matte White Refl
OTHER	Diffuse White Extruded Acrylic Lens, Symmetric Distribution
OTHER	Data for 8' IND fixture, or 8' module for continuous ROW
OTHER	111 Degree Beam Angle
LAMP	N/A, Min. 90 CRI
LAMPCAT	N/A
OTHER	Reference project SL473
OTHER	20L designation for Spectrum linear product indicates 1060 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°	286.98	3.38%	90.00° - 100.00°	6.44	0.08%
10.00° - 20.00°	810.72	9.56%	100.00° - 110.00°	5.98	0.07%
20.00° - 30.00°	1228.47	14.49%	100.00° - 120.00°	11.62	0.14%
30.00° - 40.00°	1480.24	17.46%	120.00° - 130.00°	5.30	0.06%
40.00° - 50.00°	1531.52	18.06%	130.00° - 140.00°	4.65	0.05%
50.00° - 60.00°	1375.82	16.23%	140.00° - 150.00°	3.68	0.04%
60.00° - 70.00°	1033.79	12.19%	150.00° - 160.00°	2.83	0.03%
70.00° - 80.00°	568.67	6.71%	160.00° - 170.00°	1.75	0.02%
80.00° - 90.00°	125.75	1.48%	170.00° - 180.00°	0.65	0.01%
0.00° - 90.00°	8441.97	99.56%	0.00° - 180.00°	8478.88	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°	2986.48	2986.48	2986.48	2986.48	2986.48	2986.48	2986.48	2986.48	2986.48	2986.48	2986.48	2986.48	2986.48	2986.48	2986.48	2986.48	2986.48
2.50°	2980.21	2986.78	2991.73	2985.04	3002.61	2995.62	2996.18	2995.72	2990.77	2985.58	2981.23	2968.82	2980.68	2969.19	2975.89	2979.91	2980.21
5.00°	2966.82	2975.64	2986.62	2988.17	2994.55	2996.95	2991.21	2990.12	2982.07	2971.45	2956.96	2948.46	2952.46	2956.97	2956.67	2966.64	2966.82
7.50°	2951.52	2963.05	2980.90	2986.67	2985.51	2997.18	2982.61	2982.29	2965.99	2956.07	2931.49	2925.77	2923.89	2939.63	2935.91	2949.87	2951.52
10.00°	2930.65	2945.50	2963.47	2974.52	2967.51	2976.16	2965.91	2957.35	2938.26	2923.37	2900.85	2892.88	2892.19	2903.15	2904.17	2923.85	2930.65
12.50°	2908.45	2927.61	2944.45	2954.02	2948.24	2954.41	2943.94	2930.93	2907.68	2889.61	2869.35	2858.80	2859.14	2864.13	2871.01	2899.37	2908.45
15.00°	2887.79	2908.86	2905.21	2918.89	2922.26	2924.30	2913.24	2890.76	2873.69	2842.52	2835.28	2811.92	2819.23	2818.50	2827.31	2877.85	2887.79
17.50°	2867.36	2880.22	2865.70	2884.67	2892.66	2892.81	2878.77	2850.10	2832.91	2794.96	2802.80	2764.18	2773.90	2768.68	2783.18	2838.92	2867.36
20.00°	2786.45	2833.44	2824.56	2851.67	2850.71	2850.48	2839.58	2803.03	2785.73	2743.48	2773.76	2704.50	2710.60	2710.92	2751.15	2774.14	2786.45
22.50°	2701.48	2773.93	2779.34	2808.26	2805.58	2805.99	2792.27	2754.00	2729.85	2689.26	2719.41	2644.21	2644.17	2648.98	2714.47	2704.45	2701.48
25.00°	2658.30	2696.87	2717.85	2754.36	2752.78	2751.67	2737.02	2690.04	2667.75	2621.15	2624.66	2577.72	2570.17	2580.94	2624.74	2629.22	2658.30
27.50°	2611.98	2636.40	2655.72	2694.88	2695.17	2694.03	2672.08	2624.92	2597.07	2552.12	2535.51	2510.08	2494.55	2510.78	2535.82	2566.39	2611.98
30.00°	2524.12	2593.60	2591.81	2631.00	2628.79	2625.88	2599.91	2554.67	2521.78	2480.02	2453.32	2436.16	2416.06	2438.29	2451.88	2514.23	2524.12
32.50°	2438.06	2517.05	2522.82	2561.34	2557.71	2555.59	2529.16	2480.82	2442.13	2401.90	2380.76	2356.33	2332.18	2355.76	2369.50	2430.17	2438.06
35.00°	2364.00	2412.69	2443.75	2488.23	2480.18	2480.47	2459.22	2395.79	2360.71	2309.74	2317.33	2255.85	2241.06	2264.74	2293.09	2324.64	2364.00
37.50°	2282.56	2327.62	2361.35	2401.22	2399.79	2401.16	2375.91	2310.35	2273.03	2217.37	2223.53	2156.17	2148.86	2169.38	2206.92	2238.18	2282.56
40.00°	2171.32	2254.58	2273.87	2308.06	2316.42	2314.87	2286.88	2224.02	2183.55	2124.61	2107.76	2058.46	2055.51	2071.19	2095.11	2161.34	2171.32
42.50°	2066.44	2155.04	2181.68	2211.77	2223.60	2220.11	2194.91	2133.59	2086.64	2027.60	2001.14	1959.63	1954.07	1967.40	1984.92	2057.78	2066.44
45.00°	1979.17	2042.99	2084.03	2114.46	2123.02	2114.36	2102.05	2036.43	1988.37	1924.90	1899.65	1858.70	1846.15	1860.83	1877.92	1944.46	1979.17
47.50°	1884.52	1945.26	1982.11	2008.07	2015.37	2004.65	1999.13	1935.09	1882.14	1819.01	1793.11	1752.93	1736.70	1751.73	1770.11	1831.92	1884.52
50.00°	1774.63	1852.46	1876.42	1899.69	1903.31	1891.00	1894.21	1828.40	1775.08	1709.86	1684.49	1640.43	1626.32	1641.71	1661.10	1719.58	1774.63
52.50°	1659.22	1742.95	1760.93	1780.03	1784.83	1773.53	1778.27	1721.05	1663.34	1596.54	1567.81	1526.63	1511.59	1529.13	1546.29	1605.71	1659.22
55.00°	1535.31	1629.56	1638.63	1658.95	1663.38	1653.17	1661.03	1613.05	1551.01	1479.87	1448.80	1411.46	1394.83	1415.90	1424.96	1491.58	1535.31
57.50°	1413.69	1503.72	1512.67	1536.24	1540.94	1530.18	1538.54	1496.39	1427.69	1360.94	1330.93	1291.48	1273.73	1297.53	1305.05	1367.20	1413.69
60.00°	1294.75	1376.15	1384.79	1413.28	1418.16	1405.63	1415.66	1373.30	1304.83	1240.66	1213.28	1167.49	1151.18	1178.34	1186.40	1242.03	1294.75
62.50°	1172.48	1252.95	1255.46	1280.71	1286.56	1276.77	1286.71	1248.93	1186.04	1116.15	1091.04	1044.52	1028.63	1055.44	1063.99	1115.68	1172.48
65.00°	1047.15	1129.98	1125.58	1147.96	1152.92	1146.02	1157.42	1123.84	1066.37	989.75	968.32	922.19	906.08	932.26	939.04	989.63	1047.15
67.50°	921.07	1000.00	993.91	1013.11	1018.20	1007.34	1024.78	995.61	942.36	862.17	847.91	804.27	782.16	805.75	813.72	868.78	921.07
70.00°	794.45	869.88	861.75	879.43	883.34	866.20	892.52	866.05	818.03	734.20	727.59	688.43	658.04	679.61	688.20	747.71	794.45
72.50°	666.62	737.98	728.38	752.63	745.03	730.41	762.30	736.28	692.65	614.69	607.96	565.81	541.86	559.42	571.28	625.11	666.62
75.00°	538.14	606.75	594.80	622.60	606.54	595.76	631.00	606.45	566.72	497.07	488.19	440.83	426.10	439.70	457.60	503.71	538.14
77.50°	417.43	479.94	465.14	480.51	472.95	461.84	495.98	479.00	439.47	384.56	367.17	322.92	306.82	323.25	343.00	387.39	417.43
80.00°	299.80	355.16	335.81	343.53	340.15	328.01	363.82	352.04	321.60	272.71	249.26	206.69	189.65	210.19	228.17	274.81	299.80
82.50°	197.79	238.46	217.75	219.79	217.22	210.02	238.78	238.88	220.16	175.47	146.95	116.88	99.49	111.21	132.95	173.41	197.79
85.00°	100.07	133.52	103.16	115.46	103.57	94.16	131.17	127.30	129.56	79.83	60.73	30.84	20.95	33.51	40.90	87.98	100.07
87.50°	50.53	60.58	52.12	48.93	49.67	48.64	55.48	65.71	53.26	41.03	29.43	15.82	13.64	18.12	20.68	36.84	50.53
90.00°	9.42	10.63	6.90	8.88	6.43	7.01	10.28	7.40	12.35	5.30	6.73	5.71	7.58	7.25	6.57	5.63	9.42
92.50°	5.68	7.59	6.00	7.48	5.26	5.93	7.07	5.88	8.08	4.57	4.67	6.04	6.25	5.89	6.16	6.23	5.68
95.00°	5.58	6.00	5.22	6.67	4.37	4.94	5.24	4.57	5.64	4.04	3.72	6.30	5.39	5.14	5.95	6.74	5.58
97.50°	5.76	6.62	5.02	6.54	4.24	4.41	4.90	5.34	4.65	4.60	4.73	5.59	5.83	5.32	6.40	7.15	5.76
100.00°	5.96	6.54	4.83	6.48	4.35	4.06	4.98	5.97	4.83	5.08	4.92	5.04	6.28	5.81	6.87	7.01	5.96

SLO3IND8 20L 35HK DW xx xx MW

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### Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

<b>RCR</b>	<b>pfc</b>	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	<b>pcc</b>	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	<b>pw</b>	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	<b>0</b>	10085	10085	10085	10085	9846	9846	9846	9846	9400	9400	9400	8993	8993	8993	8618	8618	8618	8442
	<b>1</b>	9225	8825	8466	8143	8991	8629	8302	8007	8262	7993	7747	7924	7705	7503	7613	7438	7274	7276
	<b>2</b>	8387	7692	7117	6634	8161	7528	7000	6551	7221	6776	6392	6937	6566	6240	6675	6369	6095	6226
	<b>3</b>	7645	6753	6062	5513	7431	6615	5976	5460	6357	5809	5358	6118	5651	5259	5896	5502	5164	5377
	<b>4</b>	6998	5981	5236	4668	6799	5865	5170	4633	5647	5043	4564	5445	4921	4497	5256	4805	4432	4697
	<b>5</b>	6433	5342	4579	4016	6252	5244	4528	3992	5060	4428	3944	4888	4333	3898	4727	4242	3852	4148
	<b>6</b>	5940	4808	4049	3504	5775	4726	4008	3486	4569	3929	3452	4422	3853	3418	4284	3780	3385	3699
	<b>7</b>	5507	4359	3614	3092	5358	4288	3581	3079	4154	3517	3054	4028	3456	3029	3910	3396	3004	3326
	<b>8</b>	5126	3977	3254	2757	4991	3916	3227	2747	3801	3175	2728	3692	3124	2709	3590	3075	2690	3014
	<b>9</b>	4789	3650	2951	2480	4667	3597	2929	2472	3498	2886	2457	3404	2844	2442	3315	2803	2427	2750
	<b>10</b>	4490	3367	2695	2248	4379	3322	2676	2241	3235	2640	2229	3153	2605	2217	3075	2570	2206	2524

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	98.7 fc	16.2 ft
6.5 ft	70.7 fc	19.2 ft
7.5 ft	53.1 fc	22.1 ft
8.0 ft	46.7 fc	23.6 ft
10.0 ft	29.9 fc	29.5 ft
12.0 ft	20.7 fc	35.4 ft
14.0 ft	15.2 fc	41.3 ft
16.0 ft	11.7 fc	47.2 ft
20.0 ft	7.5 fc	59.0 ft
24.0 ft	5.2 fc	70.8 ft
28.0 ft	3.8 fc	82.6 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	26789	26789	26789
<b>45.00°</b>	25107	26437	26931
<b>55.00°</b>	24010	25626	26013
<b>65.00°</b>	22225	23890	24470
<b>75.00°</b>	18650	20614	21021
<b>85.00°</b>	10299	10617	10660

### 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	23.3	24.9	23.6	25.2	25.5	23.2	24.8	23.6	25.1	25.5
	3H	25.0	26.5	25.4	26.8	27.2	24.9	26.4	25.3	26.7	27.1
	4H	25.7	27.0	26.1	27.4	27.8	25.5	26.9	25.9	27.3	27.6
	6H	26.1	27.4	26.5	27.7	28.1	25.9	27.2	26.3	27.6	28.0
	8H	26.2	27.4	26.6	27.8	28.2	26.0	27.2	26.4	27.6	28.0
	12H	26.2	27.4	26.7	27.8	28.2	26.0	27.2	26.4	27.6	28.0
4H	2H	23.9	25.2	24.3	25.6	26.0	23.8	25.2	24.2	25.6	26.0
	3H	25.9	27.0	26.3	27.4	27.8	25.8	26.9	26.2	27.3	27.8
	4H	26.6	27.7	27.1	28.1	28.5	26.5	27.5	26.9	28.0	28.4
	6H	27.2	28.1	27.6	28.5	29.0	27.0	27.9	27.4	28.3	28.8
	8H	27.3	28.2	27.8	28.6	29.1	27.1	27.9	27.6	28.4	28.9
	12H	27.4	28.2	27.9	28.7	29.1	27.1	27.9	27.6	28.4	28.9
8H	4H	26.9	27.7	27.4	28.2	28.7	26.8	27.7	27.3	28.1	28.6
	6H	27.5	28.2	28.0	28.7	29.2	27.4	28.1	27.9	28.6	29.1
	8H	27.8	28.4	28.3	28.9	29.4	27.5	28.2	28.0	28.7	29.2
	12H	27.9	28.5	28.4	29.0	29.5	27.6	28.2	28.1	28.7	29.2
12H	4H	26.9	27.7	27.4	28.2	28.6	26.8	27.6	27.3	28.1	28.6
	6H	27.6	28.2	28.1	28.7	29.2	27.4	28.1	28.0	28.5	29.1
	8H	27.8	28.4	28.3	28.9	29.5	27.6	28.2	28.1	28.7	29.2

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0