Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SL03IND8 11L 35K DW xx xx MW

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

Test Number

SP-01434_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	5477
Efficacy	80.54 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.25
Two luminaires, plane 90°	1.25
Four luminaires	1.37

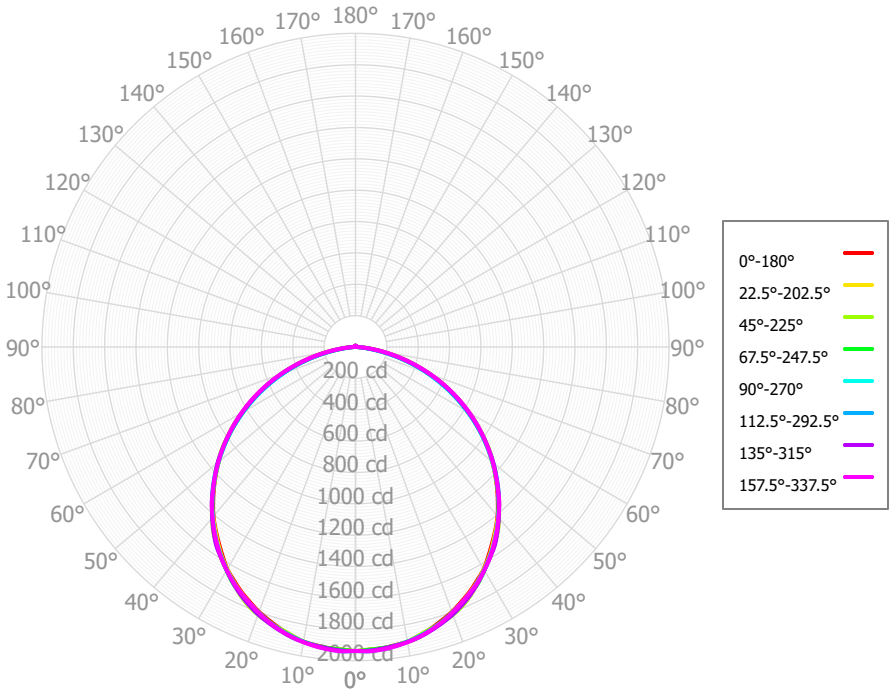
Full Beam Angle

0° - 180°	111°
90° - 270°	111°

IES File Header Contents

Keyword	Value
TEST	SP-01434_1
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	11/10/2022
LUMCAT	SL03IND8 11L 35K 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. 80 CRI
LAMPCAT	N/A
OTHER	Reference project SL473
OTHER	11L designation for Spectrum linear product indicates 685 Source Lm/Ft.
OTHER	CCT Output Multipliers: 40K x 1.02, 30K x 0.97
OTHER	Total Luminaire Watts is approximate
OTHER	This report prepared by Spectrum Lighting

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture
0.00° - 10.00°	186.52	3.41%
10.00° - 20.00°	526.26	9.61%
20.00° - 30.00°	797.81	14.57%
30.00° - 40.00°	960.23	17.53%
40.00° - 50.00°	989.74	18.07%
50.00° - 60.00°	884.78	16.16%
60.00° - 70.00°	659.25	12.04%
70.00° - 80.00°	351.98	6.43%
80.00° - 90.00°	76.51	1.40%
0.00° - 90.00°	5433.07	99.20%

Zone	Lumens	% Fixture
90.00° - 100.00°	8.05	0.15%
100.00° - 110.00°	7.00	0.13%
100.00° - 120.00°	13.82	0.25%
120.00° - 130.00°	6.06	0.11%
130.00° - 140.00°	5.24	0.10%
140.00° - 150.00°	4.47	0.08%
150.00° - 160.00°	3.36	0.06%
160.00° - 170.00°	1.99	0.04%
170.00° - 180.00°	0.68	0.01%
0.00° - 180.00°	5476.75	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°	1939.59	1939.59	1939.59	1939.59	1939.59	1939.59	1939.59	1939.59	1939.59	1939.59	1939.59	1939.59	1939.59	1939.59	1939.59	1939.59	1939.59
2.50°	1933.53	1939.73	1932.04	1934.15	1943.13	1939.89	1939.76	1943.53	1933.53	1939.73	1932.04	1934.15	1943.13	1939.89	1939.76	1943.53	1933.53
5.00°	1929.14	1933.39	1930.03	1928.47	1934.95	1936.38	1931.58	1937.80	1929.14	1933.39	1930.03	1928.47	1934.95	1936.38	1931.58	1937.80	1929.14
7.50°	1919.67	1923.11	1923.10	1921.88	1924.91	1923.93	1922.22	1927.35	1919.67	1923.11	1923.10	1921.88	1924.91	1923.93	1922.22	1927.35	1919.67
10.00°	1908.91	1907.79	1909.51	1908.69	1909.66	1909.55	1911.33	1911.95	1908.91	1907.79	1909.51	1908.69	1909.66	1909.55	1911.33	1911.95	1908.91
12.50°	1885.36	1889.96	1883.15	1894.89	1891.44	1888.69	1894.56	1893.22	1885.36	1889.96	1883.15	1894.89	1891.44	1888.69	1894.56	1893.22	1885.36
15.00°	1859.41	1865.62	1860.16	1865.54	1866.50	1866.84	1871.70	1867.59	1859.41	1865.62	1860.16	1865.54	1866.50	1866.84	1871.70	1867.59	1859.41
17.50°	1829.15	1838.73	1842.50	1835.48	1838.53	1840.72	1844.99	1838.26	1829.15	1838.73	1842.50	1835.48	1838.53	1840.72	1844.99	1838.26	1829.15
20.00°	1798.39	1804.35	1818.30	1803.17	1805.14	1814.23	1815.05	1803.48	1798.39	1804.35	1818.30	1803.17	1805.14	1814.23	1815.05	1803.48	1798.39
22.50°	1760.64	1767.64	1785.69	1770.63	1769.80	1775.08	1779.50	1766.40	1760.64	1767.64	1785.69	1770.63	1769.80	1775.08	1779.50	1766.40	1760.64
25.00°	1722.48	1727.40	1743.56	1734.47	1731.62	1735.45	1740.11	1728.59	1722.48	1727.40	1743.56	1734.47	1731.62	1735.45	1740.11	1728.59	1722.48
27.50°	1679.57	1686.36	1691.51	1696.69	1689.50	1689.81	1693.76	1690.54	1679.57	1686.36	1691.51	1696.69	1689.50	1689.81	1693.76	1690.54	1679.57
30.00°	1636.03	1637.13	1642.10	1645.20	1642.64	1643.80	1643.47	1643.71	1636.03	1637.13	1642.10	1645.20	1642.64	1643.80	1643.47	1643.71	1636.03
32.50°	1578.82	1586.64	1595.00	1593.09	1591.43	1592.70	1595.24	1594.66	1578.82	1586.64	1595.00	1593.09	1591.43	1592.70	1595.24	1594.66	1578.82
35.00°	1521.79	1528.60	1543.87	1537.68	1535.94	1540.58	1547.94	1537.98	1521.79	1528.60	1543.87	1537.68	1535.94	1540.58	1547.94	1537.98	1521.79
37.50°	1466.51	1469.82	1489.88	1480.63	1477.49	1480.71	1487.09	1479.95	1466.51	1469.82	1489.88	1480.63	1477.49	1480.71	1487.09	1479.95	1466.51
40.00°	1409.80	1413.33	1424.65	1417.31	1416.68	1420.11	1421.52	1419.12	1409.80	1413.33	1424.65	1417.31	1416.68	1420.11	1421.52	1419.12	1409.80
42.50°	1343.94	1356.72	1353.01	1352.28	1351.95	1355.72	1353.34	1357.97	1343.94	1356.72	1353.01	1352.28	1351.95	1355.72	1353.34	1357.97	1343.94
45.00°	1277.62	1283.15	1284.36	1282.21	1284.63	1289.85	1284.45	1286.69	1277.62	1283.15	1284.36	1282.21	1284.63	1289.85	1284.45	1286.69	1277.62
47.50°	1209.29	1209.86	1217.10	1211.61	1213.36	1218.53	1215.74	1214.82	1209.29	1209.86	1217.10	1211.61	1213.36	1218.53	1215.74	1214.82	1209.29
50.00°	1139.62	1141.04	1146.39	1139.76	1139.99	1145.27	1147.06	1142.33	1139.62	1141.04	1146.39	1139.76	1139.99	1145.27	1147.06	1142.33	1139.62
52.50°	1065.66	1071.15	1074.41	1065.44	1064.33	1066.62	1070.87	1069.72	1065.66	1071.15	1074.41	1065.44	1064.33	1066.62	1070.87	1069.72	1065.66
55.00°	991.08	992.35	997.10	986.61	987.71	988.30	993.75	994.58	991.08	992.35	997.10	986.61	987.71	988.30	993.75	994.58	991.08
57.50°	914.95	913.28	918.32	906.72	906.40	910.69	912.97	919.04	914.95	913.28	918.32	906.72	906.40	910.69	912.97	919.04	914.95
60.00°	836.76	832.79	833.95	825.23	823.52	830.69	831.93	839.46	836.76	832.79	833.95	825.23	823.52	830.69	831.93	839.46	836.76
62.50°	754.47	752.20	748.48	744.32	739.48	746.43	751.59	759.50	754.47	752.20	748.48	744.32	739.48	746.43	751.59	759.50	754.47
65.00°	671.70	671.14	667.52	664.12	655.16	662.14	671.17	677.32	671.70	671.14	667.52	664.12	655.16	662.14	671.17	677.32	671.70
67.50°	588.15	588.93	587.19	580.77	570.77	577.80	588.33	594.34	588.15	588.93	587.19	580.77	570.77	577.80	588.33	594.34	588.15
70.00°	504.55	503.35	502.61	494.29	486.37	493.13	505.27	507.94	504.55	503.35	502.61	494.29	486.37	493.13	505.27	507.94	504.55
72.50°	420.85	419.28	417.73	408.93	403.41	408.07	419.77	422.96	420.85	419.28	417.73	408.93	403.41	408.07	419.77	422.96	420.85
75.00°	338.60	338.63	336.63	324.46	320.62	324.04	334.78	342.55	338.60	338.63	336.63	324.46	320.62	324.04	334.78	342.55	338.60
77.50°	257.93	260.90	255.68	243.30	238.63	241.02	253.19	263.79	257.93	260.90	255.68	243.30	238.63	241.02	253.19	263.79	257.93
80.00°	183.98	188.40	177.72	164.36	156.68	166.14	174.50	189.10	183.98	188.40	177.72	164.36	156.68	166.14	174.50	189.10	183.98
82.50°	115.93	122.73	102.43	99.78	96.04	97.71	108.82	121.19	115.93	122.73	102.43	99.78	96.04	97.71	108.82	121.19	115.93
85.00°	65.95	67.21	58.62	42.97	37.67	52.23	52.29	66.80	65.95	67.21	58.62	42.97	37.67	52.23	52.29	66.80	65.95
87.50°	28.85	30.03	19.58	19.48	22.57	21.49	26.96	28.56	28.85	30.03	19.58	19.48	22.57	21.49	26.96	28.56	28.85
90.00°	12.42	14.91	12.66	10.26	8.73	9.35	8.37	16.07	12.42	14.91	12.66	10.26	8.73	9.35	8.37	16.07	12.42
92.50°	8.24	7.00	6.94	7.49	7.07	7.09	7.29	8.49	8.24	7.00	6.94	7.49	7.07	7.09	7.29	8.49	8.24
95.00°	6.73	6.12	6.95	6.93	5.73	6.34	6.54	7.24	6.73	6.12	6.95	6.93	5.73	6.34	6.54	7.24	6.73
97.50°	6.47	5.78	6.96	6.96	6.19	6.23	6.43	6.42	6.47	5.78	6.96	6.96	6.19	6.23	6.43	6.42	6.47
100.00°	6.29	5.89	6.98	7.14	6.55	6.76	6.47	6.05	6.29	5.89	6.98	7.14	6.55	6.76	6.47	6.05	6.29

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	6510	6510	6510	6510	6353	6353	6353	6353	6061	6061	6061	5794	5794	5794	5548	5548	5548	5433
	1	5959	5703	5474	5267	5806	5575	5366	5177	5334	5162	5005	5113	4973	4844	4909	4798	4693	4692
	2	5421	4975	4607	4297	5274	4868	4529	4242	4667	4382	4136	4481	4244	4035	4309	4113	3939	4020
	3	4943	4371	3927	3574	4804	4281	3870	3539	4111	3760	3470	3954	3655	3404	3809	3556	3340	3475
	4	4526	3873	3394	3029	4397	3797	3350	3005	3654	3266	2958	3521	3185	2913	3397	3108	2869	3038
RCR	5	4162	3460	2969	2607	4043	3396	2935	2591	3275	2869	2558	3162	2806	2526	3056	2745	2495	2684
	6	3843	3115	2626	2275	3735	3060	2599	2263	2957	2546	2240	2861	2495	2216	2770	2447	2193	2394
	7	3563	2824	2345	2009	3466	2778	2323	2000	2689	2280	1982	2606	2239	1964	2529	2199	1947	2153
	8	3317	2577	2111	1791	3229	2537	2093	1784	2461	2058	1771	2389	2024	1757	2322	1991	1744	1951
	9	3099	2365	1915	1611	3019	2330	1900	1606	2265	1871	1595	2203	1843	1584	2144	1815	1574	1780
	10	2905	2182	1749	1461	2833	2152	1736	1456	2095	1712	1448	2040	1688	1439	1989	1665	1430	1634

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	64.1 fc	16.1 ft
6.5 ft	45.9 fc	19.0 ft
7.5 ft	34.5 fc	21.9 ft
8.0 ft	30.3 fc	23.4 ft
10.0 ft	19.4 fc	29.2 ft
12.0 ft	13.5 fc	35.1 ft
14.0 ft	9.9 fc	40.9 ft
16.0 ft	7.6 fc	46.8 ft
20.0 ft	4.8 fc	58.5 ft
24.0 ft	3.4 fc	70.2 ft
28.0 ft	2.5 fc	81.9 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	17398	17398	17398
45.00°	16207	16293	16296
55.00°	15499	15593	15446
65.00°	14257	14168	13905
75.00°	11735	11666	11112
85.00°	6787	6033	3876

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	21.7	23.3	22.0	23.6	23.9	21.6	23.2	22.0	23.6	23.9
	3H	23.4	24.9	23.8	25.2	25.6	23.3	24.7	23.7	25.1	25.5
	4H	24.0	25.4	24.4	25.7	26.1	23.9	25.2	24.3	25.6	26.0
	6H	24.4	25.7	24.8	26.0	26.5	24.2	25.5	24.6	25.8	26.2
	8H	24.5	25.7	24.9	26.1	26.5	24.3	25.5	24.7	25.9	26.3
	12H	24.5	25.7	25.0	26.1	26.6	24.3	25.4	24.7	25.8	26.3
4H	2H	22.3	23.7	22.7	24.0	24.4	22.2	23.6	22.6	24.0	24.4
	3H	24.2	25.4	24.7	25.8	26.2	24.1	25.3	24.6	25.7	26.1
	4H	25.0	26.0	25.4	26.4	26.9	24.8	25.8	25.3	26.3	26.7
	6H	25.5	26.4	25.9	26.8	27.3	25.2	26.1	25.7	26.6	27.1
	8H	25.6	26.4	26.1	26.9	27.4	25.3	26.2	25.8	26.6	27.1
	12H	25.7	26.4	26.2	26.9	27.4	25.4	26.1	25.8	26.6	27.1
8H	4H	25.2	26.1	25.7	26.5	27.0	25.1	25.9	25.6	26.4	26.9
	6H	25.8	26.5	26.3	27.0	27.5	25.6	26.3	26.1	26.8	27.3
	8H	26.0	26.6	26.5	27.1	27.6	25.7	26.3	26.2	26.9	27.4
	12H	26.1	26.7	26.6	27.2	27.8	25.8	26.3	26.3	26.8	27.4
12H	4H	25.2	26.0	25.7	26.5	27.0	25.1	25.9	25.6	26.3	26.8
	6H	25.8	26.5	26.4	26.9	27.5	25.6	26.3	26.2	26.7	27.3
	8H	26.1	26.6	26.6	27.1	27.7	25.8	26.3	26.3	26.8	27.4

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0