

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

994 Jefferson Street  
Fall River, MA 02721  
+1.508.678.2303

## **Spectrum Lighting Photometric Lab**

### **Luminaire**

SLO3IND4 20L 35K LW xx xx MW

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

### **Test Number**

SP-01433\_2

### **Test Date**

6/3/2022

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

### Summary of Results

#### Power

Input Watts	60 W
-------------	------

#### Lumen Output

Output Lumens	5596
Efficacy	93.26 lm/W

#### Luminous Dimensions

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

#### Spacing Criterion

Two luminaires, plane 0°	1.88
Two luminaires, plane 90°	1.21
Four luminaires	1.72

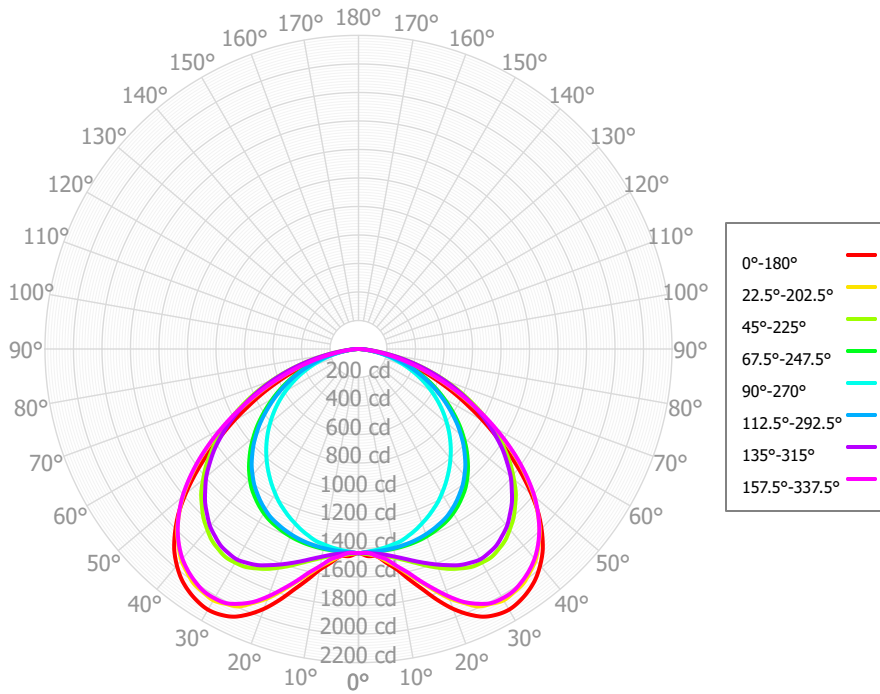
#### Full Beam Angle

0° - 180°	118°
90° - 270°	74°

### IES File Header Contents

Keyword	Value
TEST	SP-01433_2
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUE DATE	11/1/2022
LUMCAT	SLO3IND4 20L 35K LW xx xx MW
LUMINAIRE	Specline Linear Pendant, 1.8" aperture x 4' Long, Matte White Refl
OTHER	Wide Extruded Acrylic Lens, Batwing Distribution
OTHER	Data for 4' IND fixture, or 4' module for continuous ROW
OTHER	118 deg x 73 deg Beam Angle
LAMP	N/A, Min. 80 CRI
LAMPCAT	N/A
OTHER	Reference project SL473
OTHER	O5L designation for Spectrum linear product indicates 1399 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	Zone	Lumens	% Fixture
0.00° - 10.00°	141.30	2.53%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	442.08	7.90%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	770.39	13.77%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1020.80	18.24%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	1108.27	19.81%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	989.14	17.68%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	704.16	12.58%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	351.77	6.29%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	67.89	1.21%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	5595.83	100.00%	0.00° - 180.00°	5595.83	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°	1432.65	1432.65	1432.65	1432.65	1432.65	1432.65	1432.65	1432.65	1432.65	1432.65	1432.65	1432.65	1432.65	1432.65	1432.65	1432.65	1432.65
2.50°	1454.66	1440.78	1439.52	1427.01	1423.64	1426.13	1433.79	1430.93	1454.66	1440.78	1439.52	1427.01	1423.64	1426.13	1433.79	1430.93	1454.66
5.00°	1460.44	1460.07	1446.68	1426.69	1415.85	1425.09	1442.03	1458.46	1460.44	1460.07	1446.68	1426.69	1415.85	1425.09	1442.03	1458.46	1460.44
7.50°	1514.47	1500.57	1464.82	1425.43	1405.56	1422.27	1456.62	1488.12	1514.47	1500.57	1464.82	1425.43	1405.56	1422.27	1456.62	1488.12	1514.47
10.00°	1573.70	1550.20	1488.50	1423.58	1392.88	1418.39	1479.87	1546.23	1573.70	1550.20	1488.50	1423.58	1392.88	1418.39	1479.87	1546.23	1573.70
12.50°	1658.73	1618.66	1518.61	1420.49	1379.69	1413.14	1508.08	1607.07	1658.73	1618.66	1518.61	1420.49	1379.69	1413.14	1508.08	1607.07	1658.73
15.00°	1747.39	1692.84	1554.17	1415.84	1356.20	1405.74	1541.42	1686.14	1747.39	1692.84	1554.17	1415.84	1356.20	1405.74	1541.42	1686.14	1747.39
17.50°	1847.84	1776.30	1594.55	1408.75	1331.47	1396.19	1575.25	1765.63	1847.84	1776.30	1594.55	1408.75	1331.47	1396.19	1575.25	1765.63	1847.84
20.00°	1940.46	1861.58	1632.95	1399.03	1302.66	1383.64	1609.49	1846.82	1940.46	1861.58	1632.95	1399.03	1302.66	1383.64	1609.49	1846.82	1940.46
22.50°	2015.15	1928.49	1669.98	1386.18	1273.59	1368.81	1641.99	1920.30	2015.15	1928.49	1669.98	1386.18	1273.59	1368.81	1641.99	1920.30	2015.15
25.00°	2072.71	1993.27	1698.59	1370.98	1241.37	1351.28	1673.42	1972.66	2072.71	1993.27	1698.59	1370.98	1241.37	1351.28	1673.42	1972.66	2072.71
27.50°	2101.37	2016.36	1722.86	1353.64	1208.59	1332.20	1692.33	2010.79	2101.37	2016.36	1722.86	1353.64	1208.59	1332.20	1692.33	2010.79	2101.37
30.00°	2112.40	2036.87	1730.89	1329.67	1170.06	1304.90	1705.55	2020.24	2112.40	2036.87	1730.89	1329.67	1170.06	1304.90	1705.55	2020.24	2112.40
32.50°	2100.38	2026.01	1732.84	1301.01	1131.11	1273.99	1698.48	2017.27	2100.38	2026.01	1732.84	1301.01	1131.11	1273.99	1698.48	2017.27	2100.38
35.00°	2075.72	2012.54	1714.76	1267.60	1089.79	1238.47	1684.59	1995.38	2075.72	2012.54	1714.76	1267.60	1089.79	1238.47	1684.59	1995.38	2075.72
37.50°	2038.49	1975.69	1691.31	1231.68	1047.87	1201.51	1654.78	1964.05	2038.49	1975.69	1691.31	1231.68	1047.87	1201.51	1654.78	1964.05	2038.49
40.00°	1982.99	1934.35	1651.94	1186.27	1003.81	1156.45	1621.40	1921.83	1982.99	1934.35	1651.94	1186.27	1003.81	1156.45	1621.40	1921.83	1982.99
42.50°	1913.70	1869.68	1609.92	1137.17	958.63	1109.76	1572.81	1864.64	1913.70	1869.68	1609.92	1137.17	958.63	1109.76	1572.81	1864.64	1913.70
45.00°	1820.94	1798.71	1554.21	1081.85	910.69	1055.31	1522.23	1794.29	1820.94	1798.71	1554.21	1081.85	910.69	1055.31	1522.23	1794.29	1820.94
47.50°	1714.44	1706.63	1497.39	1024.87	861.48	999.92	1458.86	1708.78	1714.44	1706.63	1497.39	1024.87	861.48	999.92	1458.86	1708.78	1714.44
50.00°	1585.09	1607.15	1423.56	962.50	809.95	938.49	1394.66	1612.88	1585.09	1607.15	1423.56	962.50	809.95	938.49	1394.66	1612.88	1585.09
52.50°	1445.88	1490.23	1348.83	899.19	757.45	876.63	1316.09	1498.53	1445.88	1490.23	1348.83	899.19	757.45	876.63	1316.09	1498.53	1445.88
55.00°	1299.65	1366.62	1262.73	830.76	703.61	808.92	1236.46	1374.75	1299.65	1366.62	1262.73	830.76	703.61	808.92	1236.46	1374.75	1299.65
57.50°	1151.28	1231.02	1174.98	761.87	648.05	741.23	1144.99	1242.58	1151.28	1231.02	1174.98	761.87	648.05	741.23	1144.99	1242.58	1151.28
60.00°	1011.88	1094.86	1075.41	692.62	590.66	673.79	1052.22	1107.30	1011.88	1094.86	1075.41	692.62	590.66	673.79	1052.22	1107.30	1011.88
62.50°	874.34	957.95	974.60	623.35	532.67	606.12	952.13	971.37	874.34	957.95	974.60	623.35	532.67	606.12	952.13	971.37	874.34
65.00°	750.28	825.11	868.23	553.81	474.21	537.22	850.85	835.26	750.28	825.11	868.23	553.81	474.21	537.22	850.85	835.26	750.28
67.50°	627.79	696.41	760.36	484.08	414.41	468.65	745.09	706.41	627.79	696.41	760.36	484.08	414.41	468.65	745.09	706.41	627.79
70.00°	518.00	575.44	648.04	412.88	353.77	401.20	638.08	578.74	518.00	575.44	648.04	412.88	353.77	401.20	638.08	578.74	518.00
72.50°	409.09	460.65	535.78	342.42	294.19	333.76	527.82	466.34	409.09	460.65	535.78	342.42	294.19	333.76	527.82	466.34	409.09
75.00°	316.02	353.86	423.61	275.23	235.11	266.35	418.98	355.13	316.02	353.86	423.61	275.23	235.11	266.35	418.98	355.13	316.02
77.50°	224.62	251.88	315.63	208.60	179.57	201.14	312.79	259.77	224.62	251.88	315.63	208.60	179.57	201.14	312.79	259.77	224.62
80.00°	149.55	169.18	214.45	143.68	125.22	139.91	214.21	166.15	149.55	169.18	214.45	143.68	125.22	139.91	214.21	166.15	149.55
82.50°	80.26	95.04	128.85	86.10	80.32	86.38	126.64	98.67	80.26	95.04	128.85	86.10	80.32	86.38	126.64	98.67	80.26
85.00°	41.05	49.78	62.43	44.64	37.63	43.34	63.92	37.33	41.05	49.78	62.43	44.64	37.63	43.34	63.92	37.33	41.05
87.50°	9.84	13.97	23.26	16.01	19.50	17.00	28.51	19.29	9.84	13.97	23.26	16.01	19.50	17.00	28.51	19.29	9.84
90.00°	6.61	5.75	9.59	8.22	4.76	7.96	9.92	4.46	6.61	5.75	9.59	8.22	4.76	7.96	9.92	4.46	6.61

### 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>	6662	6662	6662	6662	6507	6507	6507	6507	6218	6218	6218	5953	5953	5953	5710	5710	5710	5596
	<b>1</b>	6093	5828	5591	5377	5940	5701	5485	5289	5463	5285	5122	5244	5099	4965	5043	4926	4818	4822
	<b>2</b>	5529	5065	4682	4360	5381	4959	4606	4307	4759	4462	4206	4576	4327	4109	4405	4200	4017	4107
	<b>3</b>	5026	4428	3966	3598	4886	4339	3910	3565	4171	3803	3501	4016	3702	3439	3872	3606	3379	3526
	<b>4</b>	4586	3903	3403	3022	4456	3828	3361	3000	3686	3280	2958	3555	3202	2916	3432	3128	2876	3058
	<b>5</b>	4203	3469	2956	2577	4083	3405	2923	2563	3285	2860	2534	3173	2799	2505	3069	2741	2477	2681
	<b>6</b>	3868	3106	2595	2228	3759	3052	2569	2218	2950	2519	2197	2855	2470	2177	2765	2424	2157	2372
	<b>7</b>	3575	2802	2300	1949	3476	2756	2279	1941	2668	2239	1926	2586	2200	1911	2509	2162	1897	2118
	<b>8</b>	3318	2544	2057	1722	3228	2504	2040	1716	2429	2007	1705	2358	1975	1694	2292	1944	1683	1905
	<b>9</b>	3091	2323	1853	1535	3010	2289	1839	1531	2224	1812	1522	2163	1785	1514	2106	1759	1505	1726
	<b>10</b>	2889	2134	1681	1380	2816	2104	1669	1377	2048	1647	1370	1995	1624	1363	1944	1603	1356	1574

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	47.4 fc	18.5 ft
6.5 ft	33.9 fc	21.8 ft
7.5 ft	25.5 fc	25.2 ft
8.0 ft	22.4 fc	26.8 ft
10.0 ft	14.3 fc	33.6 ft
12.0 ft	9.9 fc	40.3 ft
14.0 ft	7.3 fc	47.0 ft
16.0 ft	5.6 fc	53.7 ft
20.0 ft	3.6 fc	67.1 ft
24.0 ft	2.5 fc	80.5 ft
28.0 ft	1.8 fc	94.0 ft

### Average Luminaire Luminance [cd/m<sup>2</sup>]

	0.00°	45.00°	90.00°
<b>0.00°</b>	25701	25701	25701
<b>45.00°</b>	46199	39431	23105
<b>55.00°</b>	40649	39495	22007
<b>65.00°</b>	31849	36856	20130
<b>75.00°</b>	21905	29362	16296
<b>85.00°</b>	8450	12850	7746

### UGR CIE 190:2010

<b>Ceiling reflectance</b>		<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>
<b>Wall reflectance</b>		<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>
<b>Plane reflectance</b>		<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>
<b>Room dimensions</b>		<b>Viewed crosswise</b>					<b>Viewed endwise</b>				
<b>2H</b>	<b>2H</b>	26.0	27.6	26.3	28.0	28.3	22.4	24.1	22.8	24.4	24.7
	<b>3H</b>	27.3	28.8	27.6	29.1	29.4	24.0	25.5	24.4	25.8	26.2
	<b>4H</b>	27.6	29.0	28.0	29.4	29.8	24.6	26.0	25.0	26.3	26.7
	<b>6H</b>	27.8	29.1	28.2	29.5	29.9	24.9	26.2	25.3	26.6	26.9
	<b>8H</b>	27.8	29.1	28.3	29.5	29.9	25.0	26.2	25.4	26.6	27.0
	<b>12H</b>	27.8	29.0	28.3	29.4	29.8	25.0	26.2	25.4	26.6	27.0
<b>4H</b>	<b>2H</b>	26.6	28.0	26.9	28.3	28.7	24.0	25.5	24.4	25.8	26.2
	<b>3H</b>	28.1	29.2	28.5	29.6	30.0	25.7	26.9	26.1	27.3	27.7
	<b>4H</b>	28.5	29.6	29.0	30.0	30.5	26.2	27.3	26.7	27.7	28.2
	<b>6H</b>	28.8	29.7	29.3	30.2	30.6	26.6	27.5	27.1	28.0	28.4
	<b>8H</b>	28.9	29.7	29.3	30.2	30.6	26.7	27.5	27.1	28.0	28.5
	<b>12H</b>	28.9	29.7	29.4	30.1	30.6	26.7	27.5	27.2	28.0	28.4
<b>8H</b>	<b>4H</b>	28.8	29.7	29.2	30.1	30.6	26.8	27.6	27.2	28.1	28.6
	<b>6H</b>	29.1	29.9	29.6	30.3	30.8	27.2	28.0	27.7	28.4	28.9
	<b>8H</b>	29.2	29.8	29.7	30.4	30.8	27.3	28.0	27.9	28.5	29.0
	<b>12H</b>	29.2	29.8	29.7	30.3	30.9	27.4	28.0	27.9	28.5	29.0
<b>12H</b>	<b>4H</b>	28.8	29.6	29.3	30.0	30.5	26.8	27.6	27.3	28.1	28.5
	<b>6H</b>	29.2	29.8	29.7	30.3	30.8	27.3	28.0	27.8	28.4	29.0
	<b>8H</b>	29.3	29.8	29.8	30.3	30.9	27.5	28.0	28.0	28.5	29.1

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0