

## Indoor Distribution Test Report

### Spectrum Lighting Inc.

994 Jefferson Street  
Fall River, MA 02721  
+1.508.678.2303

### Spectrum Lighting Photometric Lab

**Luminaire**

SL03IND8 25L 35K LA xx xx MW

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

**Test Number**

SP-01435\_3

**Test Date**

6/3/2022

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

### Summary of Results

#### Power

Input Watts	148 W
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#### Lumen Output

Output Lumens	14817
Efficacy	100.11 lm/W

#### Luminous Dimensions

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

#### Spacing Criterion

Two luminaires, plane 0°	1.24
Two luminaires, plane 90°	1.18
Four luminaires	1.18

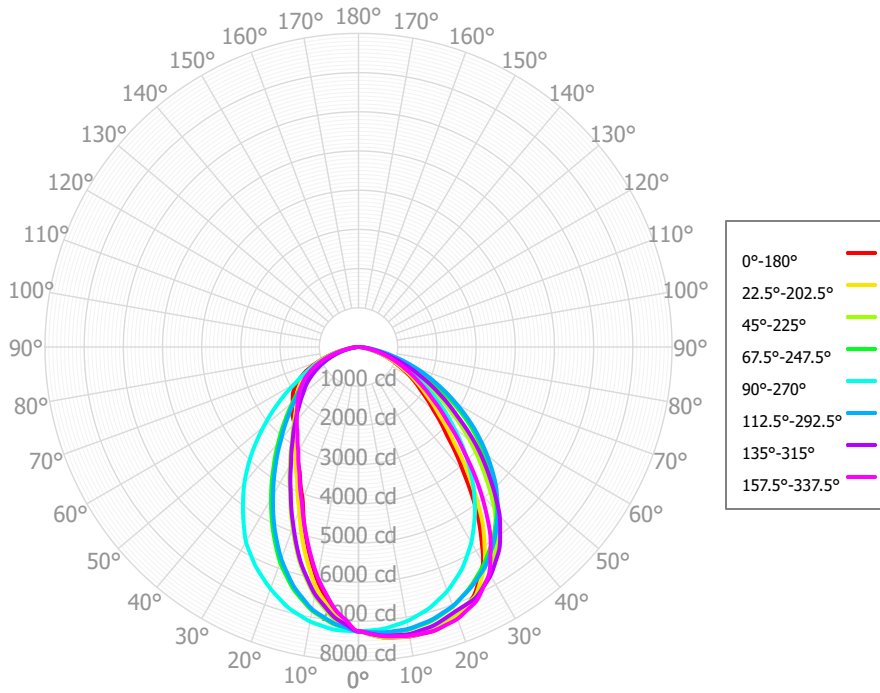
#### Full Beam Angle

0° - 180°	66°
90° - 270°	92°

### IES File Header Contents

Keyword	Value
TEST	SP-01435_3
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	11/11/2022
LUMCAT	SL03IND8 25L 35K 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 deg x 96 deg Beam Angle
LAMP	N/A, Min. 80 CRI
LAMPCAT	N/A
OTHER	Reference project SL473
OTHER	25L designation for Spectrum linear product indicates 1874 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
_CRI	80
_CCTMULT	30K x 0.97, 40K x 1.02

### Candela Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	685.93	4.63%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	1842.00	12.43%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	2596.99	17.53%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	2849.58	19.23%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	2596.59	17.52%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	2066.18	13.94%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	1391.29	9.39%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	655.88	4.43%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	132.31	0.89%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	14816.74	100.00%	0.00° - 180.00°	14816.74	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°	7257.10	7257.10	7257.10	7257.10	7257.10	7257.10	7257.10	7257.10	7257.10	7257.10	7257.10	7257.10	7257.10	7257.10	7257.10	7257.10	7257.10
2.50°	7349.41	7349.55	7346.86	7292.37	7238.69	7169.63	7094.76	6994.50	7051.74	7065.81	7120.32	7179.90	7247.50	7282.94	7325.84	7333.08	7349.41
5.00°	7441.73	7442.00	7436.60	7327.62	7220.28	7082.15	6932.43	6731.90	6846.36	6874.52	6983.52	7102.68	7237.90	7308.77	7394.57	7409.05	7441.73
7.50°	7471.18	7468.88	7441.86	7326.39	7162.56	6939.03	6666.87	6352.99	6444.56	6558.34	6714.82	6965.24	7174.75	7305.83	7416.77	7445.70	7471.18
10.00°	7500.61	7495.76	7447.10	7325.15	7104.84	6795.90	6401.32	5974.08	6042.74	6242.13	6446.11	6827.79	7111.60	7302.89	7438.96	7482.36	7500.61
12.50°	7496.76	7476.13	7423.12	7278.87	7008.73	6568.13	6045.50	5524.68	5579.02	5796.94	6090.87	6613.67	7001.84	7253.78	7400.77	7485.43	7496.76
15.00°	7492.90	7456.49	7399.12	7232.60	6912.61	6340.36	5689.69	5075.27	5115.30	5351.73	5735.62	6399.55	6892.05	7204.67	7362.57	7488.48	7492.90
17.50°	7421.76	7388.56	7314.12	7139.44	6770.04	6048.44	5274.16	4648.51	4638.89	4887.42	5322.64	6122.69	6728.60	7118.17	7276.17	7435.03	7421.76
20.00°	7350.60	7320.61	7229.11	7046.28	6627.46	5756.51	4858.62	4221.75	4162.48	4423.10	4909.67	5845.80	6565.15	7031.67	7189.77	7381.57	7350.60
22.50°	7168.15	7179.86	7129.44	6899.81	6436.80	5415.86	4475.14	3892.68	3854.48	4064.77	4516.26	5503.66	6377.22	6904.09	7128.08	7259.52	7168.15
25.00°	6985.67	7039.08	7029.75	6753.33	6246.14	5075.21	4091.64	3563.62	3546.45	3706.43	4122.85	5161.52	6189.27	6776.51	7066.39	7137.47	6985.67
27.50°	6671.73	6740.29	6865.67	6575.12	6001.42	4716.13	3765.91	3318.82	3333.98	3461.18	3810.41	4811.83	5965.94	6621.68	6900.96	6904.55	6671.73
30.00°	6357.79	6441.50	6701.59	6396.90	5756.68	4357.06	3440.18	3074.02	3121.52	3215.92	3497.95	4462.14	5742.60	6466.85	6735.51	6671.64	6357.79
32.50°	5842.81	5986.33	6420.06	6191.39	5469.04	4022.27	3185.97	2894.38	2938.71	3022.94	3224.79	4124.08	5440.03	6254.67	6503.54	6268.86	5842.81
35.00°	5327.81	5531.16	6138.53	5985.85	5181.39	3687.46	2931.76	2714.73	2755.91	2829.95	2951.62	3786.01	5137.44	6042.47	6271.55	5866.06	5327.81
37.50°	4750.14	4994.36	5770.68	5735.62	4862.04	3377.99	2719.95	2581.06	2651.04	2681.88	2760.90	3482.05	4833.87	5787.17	5936.45	5363.39	4750.14
40.00°	4172.47	4457.57	5402.80	5485.36	4542.68	3068.51	2508.13	2447.37	2546.17	2533.80	2570.17	3178.10	4530.28	5531.87	5601.35	4860.71	4172.47
42.50°	3686.15	3957.85	4968.92	5179.33	4202.27	2813.93	2327.16	2329.65	2470.12	2395.56	2391.44	2913.24	4193.80	5240.85	5175.99	4348.19	3686.15
45.00°	3199.81	3458.11	4535.04	4873.29	3861.85	2559.34	2146.16	2211.94	2394.05	2257.31	2212.68	2648.35	3857.30	4949.84	4750.64	3835.64	3199.81
47.50°	2846.46	3076.19	4122.74	4524.83	3512.72	2338.04	1996.99	2109.41	2292.00	2154.84	2070.57	2415.11	3506.55	4613.88	4344.44	3404.51	2846.46
50.00°	2493.08	2694.26	3710.44	4176.35	3163.58	2116.72	1847.81	2006.88	2189.93	2052.35	1928.45	2181.85	3155.79	4277.91	3938.23	2973.37	2493.08
52.50°	2227.91	2401.52	3308.60	3821.51	2845.52	1920.52	1724.16	1904.43	2114.71	1964.43	1772.22	1986.82	2827.24	3933.79	3509.80	2638.10	2227.91
55.00°	1962.74	2108.76	2906.75	3466.68	2527.43	1724.29	1600.51	1801.98	2039.48	1876.51	1615.97	1791.76	2498.67	3589.67	3081.35	2302.83	1962.74
57.50°	1758.89	1871.19	2557.96	3095.19	2218.71	1540.68	1458.60	1684.07	1924.51	1764.83	1499.33	1607.40	2190.39	3231.15	2729.16	2035.62	1758.89
60.00°	1555.07	1633.63	2209.17	2723.73	1910.00	1357.09	1316.72	1566.14	1809.54	1653.12	1382.69	1423.07	1882.14	2872.65	2377.00	1768.42	1555.07
62.50°	1346.13	1411.83	1914.39	2364.08	1654.37	1186.14	1184.51	1421.09	1648.99	1523.52	1234.27	1261.31	1645.11	2529.83	2055.71	1542.37	1346.13
65.00°	1137.20	1190.04	1619.60	2004.42	1398.74	1015.18	1052.28	1276.01	1488.42	1393.92	1085.84	1099.53	1408.07	2187.00	1734.41	1316.31	1137.20
67.50°	967.18	998.73	1350.60	1689.48	1179.80	881.97	899.69	1110.11	1282.83	1226.50	961.25	955.33	1194.80	1864.09	1463.40	1120.86	967.18
70.00°	797.16	807.42	1081.59	1374.53	960.86	748.74	747.11	944.20	1077.24	1059.07	836.64	811.12	981.52	1541.18	1192.40	925.40	797.16
72.50°	631.01	646.66	851.73	1085.34	760.28	608.37	612.46	769.75	889.73	879.40	680.93	669.52	808.95	1238.90	951.78	745.65	631.01
75.00°	464.85	485.88	621.85	796.15	559.68	467.98	477.79	595.28	702.20	699.71	525.22	527.90	636.36	936.60	711.15	565.88	464.85
77.50°	315.46	349.54	440.93	561.37	406.87	334.27	360.50	434.19	502.21	525.50	393.98	401.05	443.64	701.28	528.23	415.24	315.46
80.00°	166.06	213.20	259.99	326.59	254.04	200.56	243.21	273.10	302.23	351.30	262.75	274.18	250.91	465.95	345.31	264.58	166.06
82.50°	111.13	138.59	166.96	208.61	176.22	133.88	155.50	177.87	194.52	235.64	170.52	187.22	169.13	314.27	221.15	176.85	111.13
85.00°	56.20	63.97	73.94	90.62	98.38	67.18	67.80	82.62	86.80	119.96	78.26	100.24	87.34	162.59	96.96	89.11	56.20
87.50°	40.57	45.27	49.29	60.31	63.28	49.61	49.75	55.39	53.68	79.87	55.24	67.93	55.78	103.70	64.65	61.44	40.57
90.00°	24.92	26.55	24.61	29.99	28.17	32.04	31.68	28.15	20.54	39.78	32.20	35.60	24.21	44.79	32.33	33.75	24.92

### Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	<b>pfc</b>	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%
	<b>pw</b>	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%
	<b>0</b>	17639	17639	17639	17639	17229	17229	17229	17229	16463	16463	16463	15762	15762	15762	15119	15119	15119
	<b>1</b>	16308	15682	15120	14614	15915	15349	14839	14377	14727	14309	13926	14155	13816	13503	13628	13357	13104
	<b>2</b>	14977	13876	12967	12202	14602	13602	12767	12058	13086	12385	11780	12611	12027	11515	12171	11690	11262
	<b>3</b>	13770	12344	11241	10362	13418	12115	11094	10270	11685	10811	10092	11286	10544	9920	10917	10290	9754
	<b>4</b>	12696	11057	9857	8940	12370	10865	9745	8879	10504	9531	8761	10168	9326	8645	9855	9131	8533
	<b>5</b>	11745	9972	8734	7819	11446	9811	8648	7778	9505	8481	7696	9221	8322	7616	8955	8169	7538
	<b>6</b>	10901	9052	7810	6919	10630	8915	7742	6890	8656	7611	6832	8414	7485	6775	8187	7363	6719
	<b>7</b>	10153	8266	7042	6184	9907	8149	6988	6163	7928	6882	6120	7721	6780	6079	7526	6682	6037
	<b>8</b>	9487	7590	6396	5575	9264	7490	6352	5559	7300	6266	5528	7121	6183	5496	6953	6102	5465
	<b>9</b>	8893	7004	5846	5064	8691	6918	5810	5052	6754	5739	5028	6599	5671	5004	6453	5604	4980
	<b>10</b>	8362	6493	5375	4631	8178	6419	5345	4621	6276	5286	4602	6142	5229	4584	6014	5173	4565

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	239.9 fc	7.4 ft
6.5 ft	171.8 fc	8.7 ft
7.5 ft	129.0 fc	10.0 ft
8.0 ft	113.4 fc	10.7 ft
10.0 ft	72.6 fc	13.4 ft
12.0 ft	50.4 fc	16.0 ft
14.0 ft	37.0 fc	18.7 ft
16.0 ft	28.3 fc	21.4 ft
20.0 ft	18.1 fc	26.7 ft
24.0 ft	12.6 fc	32.1 ft
28.0 ft	9.3 fc	37.4 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	65096	65096	65096
<b>45.00°</b>	40591	57529	48989
<b>55.00°</b>	30694	45457	39525
<b>65.00°</b>	24137	34375	29688
<b>75.00°</b>	16110	21552	19397
<b>85.00°</b>	5784	7610	10125

### 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>	23.5	25.0	23.9	25.3	25.6	22.6	24.1	23.0	24.4	24.8
	<b>3H</b>	24.7	26.1	25.1	26.4	26.7	24.2	25.6	24.6	25.9	26.3
	<b>4H</b>	25.0	26.3	25.4	26.7	27.0	24.7	26.0	25.1	26.4	26.8
	<b>6H</b>	25.2	26.3	25.6	26.7	27.1	25.0	26.2	25.4	26.6	26.9
	<b>8H</b>	25.2	26.3	25.6	26.7	27.1	25.1	26.2	25.5	26.6	27.0
	<b>12H</b>	25.2	26.2	25.6	26.6	27.0	25.1	26.2	25.5	26.5	27.0
<b>4H</b>	<b>2H</b>	24.4	25.7	24.8	26.0	26.4	23.0	24.3	23.4	24.7	25.0
	<b>3H</b>	25.8	26.8	26.2	27.2	27.6	24.8	25.9	25.2	26.3	26.7
	<b>4H</b>	26.1	27.1	26.6	27.5	28.0	25.4	26.4	25.8	26.8	27.2
	<b>6H</b>	26.3	27.2	26.8	27.6	28.1	25.8	26.6	26.2	27.0	27.5
	<b>8H</b>	26.3	27.1	26.8	27.6	28.0	25.8	26.6	26.3	27.0	27.5
	<b>12H</b>	26.3	27.0	26.8	27.5	28.0	25.9	26.6	26.4	27.0	27.5
<b>8H</b>	<b>4H</b>	26.5	27.2	26.9	27.7	28.2	25.6	26.4	26.1	26.8	27.3
	<b>6H</b>	26.7	27.3	27.2	27.8	28.3	26.0	26.7	26.5	27.1	27.6
	<b>8H</b>	26.7	27.3	27.3	27.8	28.3	26.1	26.7	26.6	27.2	27.7
	<b>12H</b>	26.8	27.3	27.3	27.8	28.3	26.2	26.7	26.7	27.2	27.8
<b>12H</b>	<b>4H</b>	26.5	27.2	27.0	27.7	28.1	25.6	26.3	26.1	26.8	27.3
	<b>6H</b>	26.7	27.3	27.3	27.8	28.3	26.0	26.6	26.6	27.1	27.6
	<b>8H</b>	26.8	27.3	27.3	27.8	28.4	26.2	26.7	26.7	27.2	27.7

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0