

## Indoor Distribution Test Report

### Spectrum Lighting Inc.

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### Spectrum Lighting Photometric Lab

**Luminaire**

LT03IND2 11L 35DK LW xx MW  
Specline Linear, 1.8" aperture x 2' Long, Matte White Refl

**Test Number**

SP-01378\_1

**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>	19 W
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#### Lumen Output

<b>Output Lumens</b>	1401
<b>Efficacy</b>	73.74 lm/W

#### Luminous Dimensions

<b>0° - 180° Size</b>	0.15
<b>90° - 270° Size</b>	2
<b>Height</b>	0

#### Spacing Criterion

<b>Two luminaires, plane 0°</b>	1.88
<b>Two luminaires, plane 90°</b>	1.21
<b>Four luminaires</b>	1.69

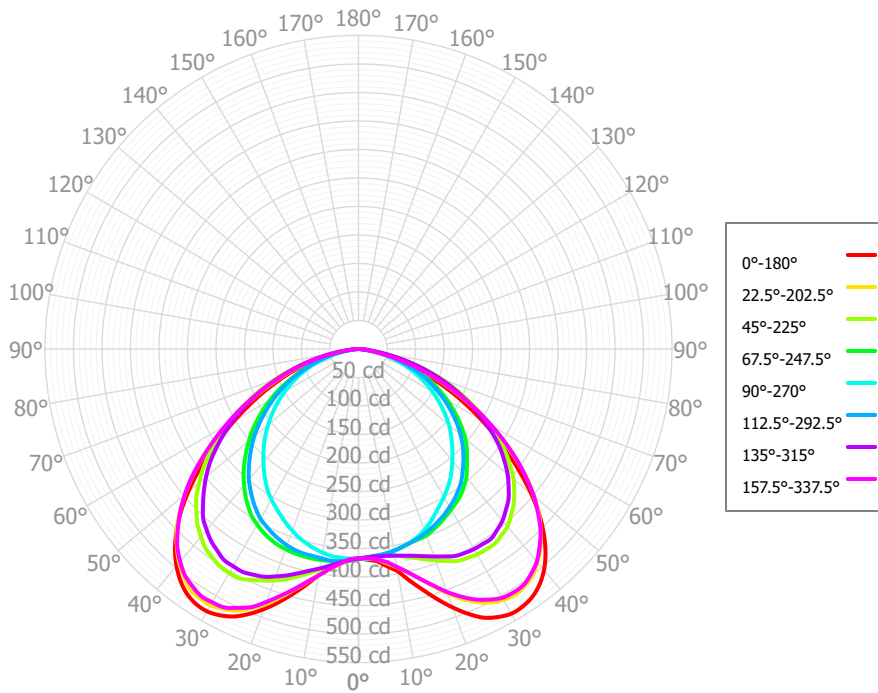
#### Full Beam Angle

<b>0° - 180°</b>	117°
<b>90° - 270°</b>	76°

### IES File Header Contents

Keyword	Value
TEST	SP-01378_1
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	3/27/2023
LUMCAT	LT03IND2 11L 35DK LW xx MW
LUMINAIRE	SpecLine Linear, 1.8" aperture x 2' Long, Matte White Refl
OTHER	Wide Extruded Acrylic Lens, Batwing Distribution
OTHER	Data for 2' IND fixture, Ceiling mount
OTHER	76 Degree x 118 Degree Beam Angle
LAMP	N/A, Min. 90 CRI
LAMPCAT	N/A
OTHER	Reference project SL473
OTHER	11L designation for Spectrum linear product indicates 700 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°	36.35	2.59%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	112.59	8.04%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	194.61	13.89%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	258.58	18.46%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	278.96	19.91%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	246.55	17.60%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	173.91	12.41%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	84.57	6.04%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	14.89	1.06%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1400.99	100.00%	0.00° - 180.00°	1400.99	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°	367.59	367.59	367.59	367.59	367.59	367.59	367.59	367.59	367.59	367.59	367.59	367.59	367.59	367.59	367.59	367.59	367.59
2.50°	370.16	367.51	365.12	366.04	368.76	371.10	370.88	369.49	371.62	371.52	371.75	371.46	368.17	365.56	365.86	367.30	370.16
5.00°	373.98	370.89	364.42	364.55	367.72	373.84	376.39	378.43	377.11	378.99	377.15	373.94	367.30	363.69	365.34	370.92	373.98
7.50°	384.50	378.99	365.75	362.12	365.26	374.75	383.48	389.20	389.26	390.11	383.64	375.01	366.32	362.18	366.14	377.00	384.50
10.00°	396.04	388.76	368.13	359.36	360.16	373.01	390.87	403.61	402.79	401.87	392.27	375.84	362.64	359.00	368.17	388.12	396.04
12.50°	416.61	401.72	373.19	355.80	355.43	371.94	398.42	418.60	423.76	419.30	402.79	376.36	358.44	355.35	371.46	401.24	416.61
15.00°	437.54	417.31	379.31	352.04	351.25	371.61	407.20	436.10	444.74	437.30	413.21	376.22	352.88	351.70	375.65	417.40	437.54
17.50°	460.27	436.70	386.80	349.96	345.49	369.78	416.42	453.79	465.75	457.07	423.54	375.42	347.19	348.05	381.15	434.76	460.27
20.00°	482.46	455.81	394.66	348.12	337.98	366.63	424.61	472.11	485.79	476.72	432.09	373.80	339.23	343.35	387.37	453.54	482.46
22.50°	502.85	474.62	402.47	342.92	328.93	362.13	432.54	490.06	503.30	492.11	439.71	371.56	331.20	338.54	393.97	470.17	502.85
25.00°	520.17	489.65	410.26	337.48	318.56	356.74	436.88	501.04	517.79	506.67	446.74	367.44	322.40	332.71	400.73	484.83	520.17
27.50°	530.07	501.40	413.40	331.32	308.94	350.51	440.64	510.98	526.59	513.62	453.53	362.26	313.62	326.81	403.55	495.75	530.07
30.00°	536.22	508.12	416.09	325.16	299.81	343.86	439.96	513.13	531.42	519.27	453.73	355.56	305.01	319.83	405.25	504.02	536.22
32.50°	535.67	511.50	416.59	319.09	290.04	334.17	438.94	513.85	530.47	518.30	452.14	348.18	295.86	312.71	405.70	506.26	535.67
35.00°	531.25	508.15	416.80	312.68	279.96	323.34	431.95	507.97	524.49	514.82	446.83	337.37	284.00	304.26	405.90	505.17	531.25
37.50°	521.42	501.42	411.97	303.87	268.33	311.45	424.71	500.22	512.89	502.96	440.88	325.48	271.97	295.31	399.78	497.30	521.42
40.00°	506.35	488.35	406.55	294.28	256.14	299.27	414.44	486.71	496.75	489.36	429.74	312.15	259.39	283.80	392.98	486.68	506.35
42.50°	485.69	472.88	396.02	281.45	243.88	284.79	403.29	470.53	476.71	471.59	418.09	298.53	246.73	272.19	382.76	470.13	485.69
45.00°	460.02	451.99	384.87	268.99	231.60	269.93	385.68	448.46	451.41	451.04	402.22	283.02	233.91	260.21	372.30	451.88	460.02
47.50°	430.27	429.67	370.63	257.58	219.43	254.51	367.85	424.66	422.57	425.43	386.03	267.28	220.72	247.67	357.11	427.44	430.27
50.00°	395.98	401.73	355.10	244.83	207.29	239.05	349.00	397.91	389.96	397.83	364.77	250.92	206.86	233.72	341.58	401.78	395.98
52.50°	358.76	372.86	335.36	229.19	193.03	221.73	329.00	368.46	355.42	367.48	343.19	234.50	192.87	219.06	322.75	370.81	358.76
55.00°	321.80	337.71	314.32	213.25	178.59	204.38	305.45	335.54	319.88	335.15	318.90	216.41	178.70	203.12	303.33	339.25	321.80
57.50°	284.98	301.98	290.17	196.80	164.47	187.07	281.55	302.73	283.97	300.72	293.99	198.23	164.12	187.12	280.81	304.95	284.98
60.00°	249.80	267.88	264.99	180.01	150.32	169.72	256.87	270.03	251.28	267.45	265.95	179.02	149.10	171.05	257.49	270.57	249.80
62.50°	215.20	233.82	238.00	162.79	135.25	152.01	231.48	238.29	219.46	235.15	238.11	159.60	134.36	154.75	231.31	236.47	215.20
65.00°	182.16	199.96	211.27	145.23	120.16	134.18	204.89	207.31	189.91	203.70	210.85	138.89	119.86	138.21	205.22	202.41	182.16
67.50°	149.51	166.30	184.87	127.35	104.83	115.78	177.65	177.43	160.75	172.80	183.32	118.52	104.72	120.86	179.37	168.75	149.51
70.00°	120.98	134.23	157.34	109.21	89.54	97.90	149.56	148.20	135.09	144.22	155.13	99.35	89.18	102.86	152.71	135.64	120.98
72.50°	93.07	103.17	128.60	90.89	74.40	81.70	122.96	121.02	109.74	116.75	127.16	80.48	73.04	84.88	124.59	105.47	93.07
75.00°	69.23	76.87	99.51	73.73	59.23	65.24	97.83	94.74	85.32	90.46	99.58	62.39	56.60	66.93	96.84	76.57	69.23
77.50°	45.68	51.98	70.15	57.22	43.97	48.17	73.56	69.64	61.11	64.60	73.63	45.24	41.97	50.48	69.61	52.22	45.68
80.00°	29.63	31.61	45.63	40.76	29.86	32.32	49.96	44.93	40.83	43.06	49.88	29.98	27.98	34.77	45.18	30.63	29.63
82.50°	14.15	15.00	24.10	24.31	18.40	18.62	29.98	27.53	21.68	22.56	29.82	17.15	17.05	21.27	23.82	15.98	14.15
85.00°	7.22	7.22	11.59	13.48	9.47	8.78	12.16	11.75	11.53	12.12	13.63	7.96	6.88	8.54	10.68	5.57	7.22
87.50°	1.15	2.09	3.41	4.36	4.85	4.06	4.88	6.33	2.95	3.17	4.91	2.52	3.57	4.10	4.47	3.00	1.15
90.00°	1.22	1.57	1.16	2.05	2.02	1.53	2.28	2.26	2.02	1.77	2.27	1.47	1.33	1.67	1.70	1.42	1.22

### Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

<b>RCR</b>	<b>ptc</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%	0%
	<b>pw</b>	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	<b>0</b>	1668	1668	1668	1668	1629	1629	1629	1629	1557	1557	1557	1490	1490	1490	1430	1430	1401
	<b>1</b>	1527	1462	1403	1350	1489	1430	1377	1328	1370	1326	1286	1316	1280	1247	1265	1237	1210
	<b>2</b>	1387	1272	1177	1097	1350	1245	1158	1084	1195	1122	1058	1149	1088	1034	1107	1056	1011
	<b>3</b>	1261	1113	998	906	1226	1091	984	898	1049	957	882	1010	932	866	974	908	851
	<b>4</b>	1151	982	857	762	1119	963	847	757	927	826	746	894	807	736	864	788	726
	<b>5</b>	1056	873	745	651	1026	857	737	647	827	721	640	799	706	633	773	691	626
	<b>6</b>	972	782	654	563	945	768	648	560	743	635	555	719	623	550	697	612	545
	<b>7</b>	898	705	580	493	874	694	575	491	672	565	487	652	555	483	632	546	480
	<b>8</b>	834	641	519	436	811	631	515	434	612	507	431	594	499	429	578	491	426
	<b>9</b>	777	585	468	389	757	577	464	388	561	458	385	545	451	383	531	445	381
	<b>10</b>	726	538	425	349	708	530	422	349	516	416	347	503	410	345	490	405	344

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	12.2 fc	18.1 ft
6.5 ft	8.7 fc	21.4 ft
7.5 ft	6.5 fc	24.7 ft
8.0 ft	5.7 fc	26.3 ft
10.0 ft	3.7 fc	32.9 ft
12.0 ft	2.6 fc	39.5 ft
14.0 ft	1.9 fc	46.1 ft
16.0 ft	1.4 fc	52.6 ft
20.0 ft	0.9 fc	65.8 ft
24.0 ft	0.6 fc	79.0 ft
28.0 ft	0.5 fc	92.1 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	13189	13189	13189
<b>45.00°</b>	23342	19529	11752
<b>55.00°</b>	20130	19662	11171
<b>65.00°</b>	15465	17936	10201
<b>75.00°</b>	9597	13795	8211
<b>85.00°</b>	2972	4773	3897

### 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	23.5	25.1	23.8	25.4	25.7	20.2	21.8	20.6	22.2	22.5
	3H	24.6	26.1	25.0	26.5	26.8	21.7	23.2	22.1	23.5	23.9
	4H	24.9	26.4	25.3	26.7	27.1	22.2	23.6	22.6	23.9	24.3
	6H	25.1	26.4	25.5	26.7	27.1	22.5	23.8	22.9	24.1	24.5
	8H	25.1	26.3	25.5	26.7	27.1	22.5	23.8	22.9	24.2	24.6
	12H	25.1	26.2	25.5	26.6	27.1	22.5	23.7	23.0	24.1	24.5
4H	2H	24.0	25.4	24.4	25.8	26.1	21.7	23.1	22.1	23.4	23.8
	3H	25.4	26.6	25.8	27.0	27.4	23.2	24.4	23.6	24.8	25.2
	4H	25.8	26.9	26.2	27.3	27.7	23.7	24.8	24.2	25.2	25.6
	6H	26.0	26.9	26.4	27.4	27.8	24.1	25.0	24.5	25.4	25.9
	8H	26.0	26.9	26.5	27.3	27.8	24.1	25.0	24.6	25.4	25.9
	12H	26.0	26.8	26.5	27.2	27.7	24.1	24.9	24.6	25.4	25.9
8H	4H	26.0	26.9	26.5	27.3	27.8	24.2	25.1	24.7	25.6	26.0
	6H	26.3	27.0	26.8	27.5	27.9	24.6	25.3	25.1	25.8	26.3
	8H	26.3	26.9	26.8	27.4	27.9	24.7	25.4	25.2	25.9	26.3
	12H	26.3	26.9	26.8	27.3	27.9	24.8	25.3	25.3	25.8	26.4
12H	4H	26.0	26.8	26.5	27.3	27.8	24.3	25.1	24.8	25.5	26.0
	6H	26.3	26.9	26.8	27.4	27.9	24.7	25.4	25.2	25.8	26.3
	8H	26.3	26.9	26.8	27.4	27.9	24.8	25.4	25.3	25.9	26.4

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0