

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

SLO3IND2 05L 35K LA xx xx MW

Specline Linear Pendant, 1.8" aperture x 2' Long, Matte White Refl

### **Test Number**

SP-01429

### **Test Date**

6/3/2022

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

### Summary of Results

#### Power

Input Watts	9.5 W
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#### Lumen Output

Output Lumens	772
Efficacy	81.23 lm/W

#### Luminous Dimensions

0° - 180° Size	0.15
90° - 270° Size	2
Height	0

#### Spacing Criterion

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

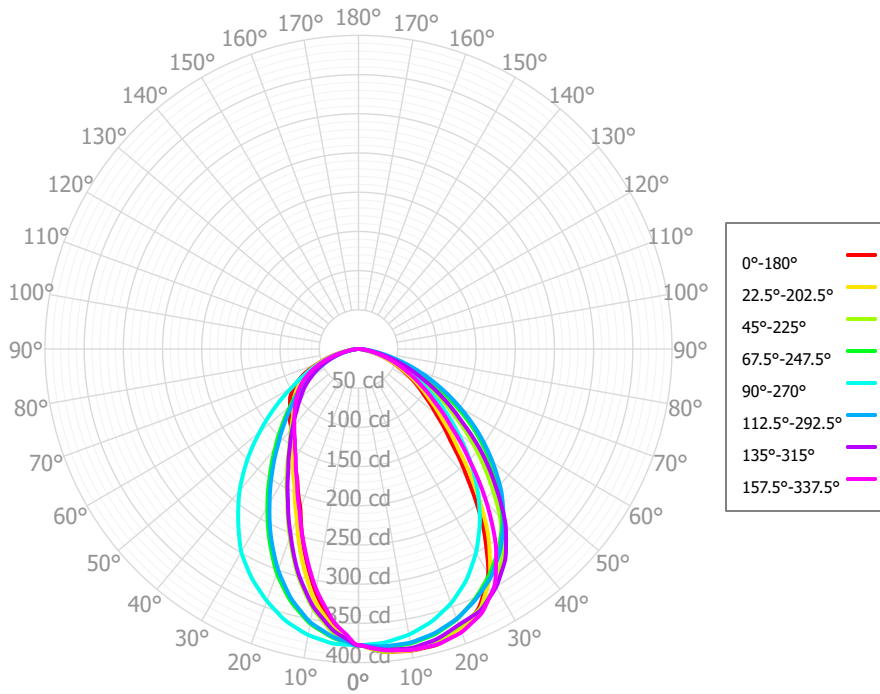
#### Full Beam Angle

0° - 180°	66°
90° - 270°	92°

### IES File Header Contents

Keyword	Value
TEST	SP-01429
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	11/11/2022
LUMCAT	SL03IND2 05L 35K LA xx xx MW
LUMINAIRE	Specline Linear Pendant, 1.8" aperture x 2' Long, Matte White Refl
OTHER	Extruded Acrylic Lens, Asymmetric Distribution
OTHER	Data for 2' IND fixture, or 2' 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	05L designation for Spectrum linear product indicates 390 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°	35.73	4.63%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	95.94	12.43%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	135.26	17.53%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	148.42	19.23%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	135.24	17.52%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	107.61	13.94%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	72.46	9.39%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	34.16	4.43%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	6.89	0.89%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	771.71	100.00%	0.00° - 180.00°	771.71	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°	377.97	377.97	377.97	377.97	377.97	377.97	377.97	377.97	377.97	377.97	377.97	377.97	377.97	377.97	377.97	377.97	377.97
2.50°	382.78	382.79	382.65	379.81	377.02	373.42	369.52	364.30	367.28	368.01	370.85	373.95	377.47	379.32	381.55	381.93	382.78
5.00°	387.59	387.60	387.32	381.65	376.06	368.86	361.06	350.62	356.58	358.05	363.73	369.93	376.97	380.67	385.13	385.89	387.59
7.50°	389.12	389.00	387.60	381.58	373.05	361.41	347.23	330.89	335.65	341.58	349.73	362.77	373.69	380.51	386.29	387.80	389.12
10.00°	390.66	390.40	387.87	381.52	370.04	353.95	333.40	311.15	314.73	325.11	335.74	355.61	370.40	380.36	387.45	389.71	390.66
12.50°	390.46	389.38	386.62	379.11	365.04	342.09	314.87	287.74	290.57	301.92	317.23	344.46	364.68	377.80	385.46	389.87	390.46
15.00°	390.26	388.36	385.37	376.70	360.03	330.23	296.34	264.34	266.42	278.74	298.73	333.31	358.96	375.24	383.47	390.03	390.26
17.50°	386.55	384.82	380.94	371.85	352.61	315.02	274.70	242.11	241.61	254.55	277.22	318.89	350.45	370.74	378.97	387.24	386.55
20.00°	382.84	381.28	376.52	366.99	345.18	299.82	253.05	219.88	216.80	230.37	255.71	304.47	341.94	366.23	374.47	384.46	382.84
22.50°	373.34	373.95	371.33	359.37	335.25	282.08	233.08	202.74	200.75	211.71	235.22	286.65	332.15	359.59	371.25	378.10	373.34
25.00°	363.84	366.62	366.13	351.74	325.32	264.33	213.11	185.61	184.71	193.04	214.73	268.83	322.36	352.94	368.04	371.74	363.84
27.50°	347.49	351.06	357.59	342.45	312.57	245.63	196.14	172.86	173.65	180.27	198.46	250.62	310.73	344.88	359.43	359.61	347.49
30.00°	331.14	335.50	349.04	333.17	299.83	226.93	179.18	160.10	162.58	167.50	182.19	232.40	299.09	336.82	350.81	347.48	331.14
32.50°	304.31	311.79	334.38	322.47	284.85	209.49	165.94	150.75	153.06	157.44	167.96	214.80	283.33	325.76	338.73	326.50	304.31
35.00°	277.49	288.08	319.71	311.76	269.86	192.06	152.70	141.39	143.54	147.39	153.73	197.19	267.58	314.71	326.64	305.52	277.49
37.50°	247.40	260.12	300.56	298.73	253.23	175.94	141.66	134.43	138.07	139.68	143.80	181.36	251.76	301.42	309.19	279.34	247.40
40.00°	217.32	232.17	281.40	285.70	236.60	159.82	130.63	127.47	132.61	131.97	133.86	165.53	235.95	288.12	291.74	253.16	217.32
42.50°	191.99	206.14	258.80	269.76	218.87	146.56	121.21	121.34	128.65	124.77	124.55	151.73	218.43	272.96	269.58	226.47	191.99
45.00°	166.66	180.11	236.20	253.82	201.14	133.30	111.78	115.21	124.69	117.57	115.24	137.94	200.90	257.80	247.43	199.77	166.66
47.50°	148.25	160.22	214.73	235.67	182.95	121.77	104.01	109.87	119.38	112.23	107.84	125.79	182.63	240.31	226.27	177.32	148.25
50.00°	129.85	140.33	193.25	217.52	164.77	110.25	96.24	104.53	114.06	106.89	100.44	113.64	164.36	222.81	205.12	154.86	129.85
52.50°	116.04	125.08	172.32	199.04	148.20	100.03	89.80	99.19	110.14	102.31	92.30	103.48	147.25	204.89	182.80	137.40	116.04
55.00°	102.23	109.83	151.39	180.56	131.64	89.81	83.36	93.85	106.22	97.74	84.17	93.32	130.14	186.96	160.49	119.94	102.23
57.50°	91.61	97.46	133.23	161.21	115.56	80.24	75.97	87.71	100.24	91.92	78.09	83.72	114.08	168.29	142.14	106.02	91.61
60.00°	80.99	85.09	115.06	141.86	99.48	70.68	68.58	81.57	94.25	86.10	72.02	74.12	98.03	149.62	123.80	92.11	80.99
62.50°	70.11	73.53	99.71	123.13	86.17	61.78	61.69	74.02	85.89	79.35	64.28	65.69	85.68	131.76	107.07	80.33	70.11
65.00°	59.23	61.98	84.35	104.40	72.85	52.87	54.81	66.46	77.52	72.60	56.55	57.27	73.34	113.91	90.33	68.56	59.23
67.50°	50.37	52.02	70.34	87.99	61.45	45.94	46.86	57.82	66.81	63.88	50.07	49.76	62.23	97.09	76.22	58.38	50.37
70.00°	41.52	42.05	56.33	71.59	50.05	39.00	38.91	49.18	56.11	55.16	43.58	42.25	51.12	80.27	62.10	48.20	41.52
72.50°	32.87	33.68	44.36	56.53	39.60	31.69	31.90	40.09	46.34	45.80	35.47	34.87	42.13	64.53	49.57	38.84	32.87
75.00°	24.21	25.31	32.39	41.47	29.15	24.37	24.89	31.00	36.57	36.44	27.36	27.50	33.14	48.78	37.04	29.47	24.21
77.50°	16.43	18.20	22.97	29.24	21.19	17.41	18.78	22.61	26.16	27.37	20.52	20.89	23.11	36.53	27.51	21.63	16.43
80.00°	8.65	11.10	13.54	17.01	13.23	10.45	12.67	14.22	15.74	18.30	13.69	14.28	13.07	24.27	17.99	13.78	8.65
82.50°	5.79	7.22	8.70	10.87	9.18	6.97	8.10	9.26	10.13	12.27	8.88	9.75	8.81	16.37	11.52	9.21	5.79
85.00°	2.93	3.33	3.85	4.72	5.12	3.50	3.53	4.30	4.52	6.25	4.08	5.22	4.55	8.47	5.05	4.64	2.93
87.50°	2.11	2.36	2.57	3.14	3.30	2.58	2.59	2.89	2.80	4.16	2.88	3.54	2.91	5.40	3.37	3.20	2.11
90.00°	1.30	1.38	1.28	1.56	1.47	1.67	1.65	1.47	1.07	2.07	1.68	1.85	1.26	2.33	1.68	1.76	1.30

### 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%	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>	919	919	919	919	897	897	897	897	857	857	857	821	821	821	787	787	772
	<b>1</b>	849	817	788	761	829	799	773	749	767	745	725	737	720	703	710	696	681
	<b>2</b>	780	723	675	636	761	708	665	628	682	645	614	657	626	600	634	609	596
	<b>3</b>	717	643	585	540	699	631	578	535	609	563	526	588	549	517	569	536	524
	<b>4</b>	661	576	513	466	644	566	508	462	547	496	456	530	486	450	513	476	466
	<b>5</b>	612	519	455	407	596	511	450	405	495	442	401	480	433	397	466	425	417
	<b>6</b>	568	471	407	360	554	464	403	359	451	396	356	438	390	353	426	383	376
	<b>7</b>	529	431	367	322	516	424	364	321	413	358	319	402	353	317	392	348	341
	<b>8</b>	494	395	333	290	483	390	331	290	380	326	288	371	322	286	362	318	312
	<b>9</b>	463	365	304	264	453	360	303	263	352	299	262	344	295	261	336	292	287
	<b>10</b>	436	338	280	241	426	334	278	241	327	275	240	320	272	239	313	269	265

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	12.5 fc	7.4 ft
6.5 ft	8.9 fc	8.7 ft
7.5 ft	6.7 fc	10.0 ft
8.0 ft	5.9 fc	10.7 ft
10.0 ft	3.8 fc	13.4 ft
12.0 ft	2.6 fc	16.0 ft
14.0 ft	1.9 fc	18.7 ft
16.0 ft	1.5 fc	21.4 ft
20.0 ft	0.9 fc	26.7 ft
24.0 ft	0.7 fc	32.1 ft
28.0 ft	0.5 fc	37.4 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	13562	13562	13562
<b>45.00°</b>	8456	11985	10206
<b>55.00°</b>	6395	9470	8234
<b>65.00°</b>	5028	7162	6185
<b>75.00°</b>	3356	4490	4041
<b>85.00°</b>	1205	1585	2109

### 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>	18.0	19.6	18.4	19.9	20.2	17.2	18.7	17.5	19.0	19.3
	<b>3H</b>	19.2	20.6	19.6	20.9	21.3	18.8	20.1	19.2	20.5	20.8
	<b>4H</b>	19.6	20.9	20.0	21.2	21.6	19.3	20.6	19.7	20.9	21.3
	<b>6H</b>	19.7	20.9	20.1	21.3	21.6	19.6	20.7	20.0	21.1	21.5
	<b>8H</b>	19.7	20.8	20.1	21.2	21.6	19.6	20.7	20.0	21.1	21.5
	<b>12H</b>	19.7	20.8	20.1	21.2	21.6	19.6	20.7	20.1	21.1	21.5
<b>4H</b>	<b>2H</b>	19.0	20.2	19.4	20.6	21.0	17.6	18.9	18.0	19.2	19.6
	<b>3H</b>	20.3	21.4	20.7	21.8	22.2	19.4	20.4	19.8	20.8	21.2
	<b>4H</b>	20.7	21.7	21.1	22.1	22.5	20.0	20.9	20.4	21.3	21.8
	<b>6H</b>	20.9	21.7	21.3	22.2	22.6	20.3	21.1	20.8	21.6	22.0
	<b>8H</b>	20.9	21.7	21.4	22.1	22.6	20.4	21.2	20.8	21.6	22.1
	<b>12H</b>	20.9	21.6	21.4	22.1	22.5	20.4	21.1	20.9	21.6	22.1
<b>8H</b>	<b>4H</b>	21.0	21.8	21.5	22.2	22.7	20.2	20.9	20.6	21.4	21.9
	<b>6H</b>	21.3	21.9	21.8	22.4	22.9	20.6	21.2	21.1	21.7	22.2
	<b>8H</b>	21.3	21.9	21.8	22.4	22.9	20.7	21.2	21.2	21.8	22.2
	<b>12H</b>	21.3	21.8	21.8	22.3	22.9	20.7	21.3	21.3	21.7	22.3
<b>12H</b>	<b>4H</b>	21.0	21.7	21.5	22.2	22.7	20.2	20.9	20.7	21.3	21.8
	<b>6H</b>	21.3	21.9	21.8	22.3	22.9	20.6	21.2	21.1	21.6	22.2
	<b>8H</b>	21.4	21.9	21.9	22.4	22.9	20.7	21.2	21.2	21.7	22.3

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0