

## Indoor Distribution Test Report

### Spectrum Lighting Inc.

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### Spectrum Lighting Photometric Lab

#### Luminaire

SL03IND8 05L 35HK LA xx xx MW

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

#### Test Number

SP-01373

#### Test Date

6/3/2022

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

### Summary of Results

#### Power

Input Watts	38 W
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#### Lumen Output

Output Lumens	2645
Efficacy	69.6 lm/W

#### Luminous Dimensions

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

#### Spacing Criterion

Two luminaires, plane 0°	1.37
Two luminaires, plane 90°	1.14
Four luminaires	1.24

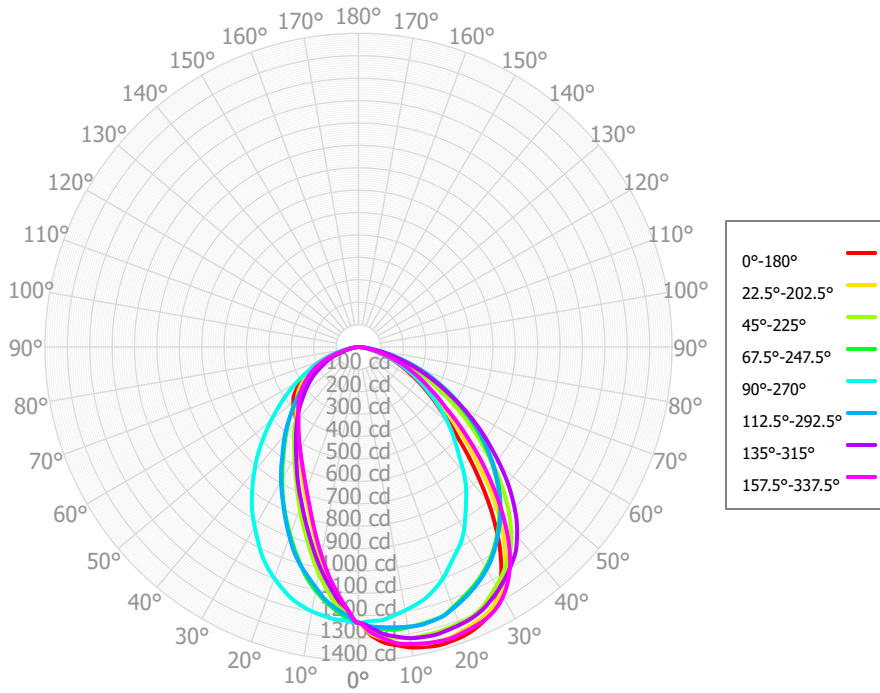
#### Full Beam Angle

0° - 180°	65°
90° - 270°	83°

### IES File Header Contents

Keyword	Value
TEST	SP-01373
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	11/2/2022
LUMCAT	SL03IND8 05L 35HK 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 Degree x 85 Deg Beam Angle
LAMP	N/A, Min. 90 CRI
LAMPCAT	N/A
OTHER	Reference project SL473
OTHER	05L designation for Spectrum linear product indicates 335 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°	116.21	4.39%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	312.57	11.82%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	451.23	17.06%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	512.90	19.39%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	480.39	18.16%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	383.65	14.51%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	254.69	9.63%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	113.04	4.27%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	20.19	0.76%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	2644.88	100.00%	0.00° - 180.00°	2644.88	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°	1231.83	1231.83	1231.83	1231.83	1231.83	1231.83	1231.83	1231.83	1231.83	1231.83	1231.83	1231.83	1231.83	1231.83	1231.83	1231.83	1231.83
2.50°	1288.50	1283.16	1270.70	1252.82	1225.38	1200.06	1173.20	1169.26	1189.51	1183.96	1197.70	1211.20	1223.34	1248.35	1254.89	1276.20	1288.50
5.00°	1325.26	1308.69	1298.02	1263.75	1223.78	1170.72	1123.08	1098.90	1125.78	1116.22	1153.90	1179.08	1220.02	1256.27	1286.16	1306.77	1325.26
7.50°	1344.28	1332.85	1310.19	1273.32	1209.28	1137.40	1059.85	1026.68	1044.55	1045.67	1090.74	1144.45	1210.11	1262.92	1304.42	1335.54	1344.28
10.00°	1362.38	1345.93	1319.63	1271.49	1194.63	1091.94	995.76	947.12	962.71	964.38	1026.94	1104.34	1198.86	1268.17	1320.38	1346.00	1362.38
12.50°	1371.90	1357.65	1321.15	1268.96	1179.20	1047.80	926.97	869.85	879.03	886.22	956.99	1058.32	1181.83	1272.35	1326.82	1355.80	1371.90
15.00°	1379.31	1361.22	1320.90	1264.92	1160.70	1006.26	860.06	798.20	802.22	815.52	888.58	1003.46	1161.20	1267.28	1330.17	1361.82	1379.31
17.50°	1377.52	1361.34	1317.24	1258.59	1133.04	958.26	799.10	733.23	738.59	751.64	827.05	948.44	1131.04	1259.60	1325.72	1364.91	1377.52
20.00°	1373.00	1350.05	1313.06	1236.11	1100.81	901.36	742.05	679.26	683.11	698.69	766.95	893.26	1099.03	1240.96	1320.34	1358.46	1373.00
22.50°	1361.18	1338.51	1308.18	1213.63	1059.66	845.58	692.89	631.36	638.40	648.48	710.77	839.52	1063.76	1221.27	1313.36	1351.05	1361.18
25.00°	1341.63	1326.45	1290.79	1191.21	1021.58	790.86	644.74	590.40	597.21	601.37	658.36	786.81	1022.60	1198.88	1299.35	1341.60	1341.63
27.50°	1308.33	1304.32	1261.81	1166.76	987.62	740.12	597.96	554.28	559.34	560.18	612.69	734.18	974.30	1174.21	1277.07	1322.40	1308.33
30.00°	1258.12	1267.45	1231.10	1137.62	943.06	692.06	556.51	522.02	528.56	523.67	571.00	681.60	927.35	1145.61	1250.90	1289.29	1258.12
32.50°	1187.09	1214.29	1199.28	1104.84	888.42	642.56	520.23	492.89	502.44	496.49	534.27	632.35	881.54	1111.82	1221.50	1241.85	1187.09
35.00°	1101.65	1144.48	1160.75	1066.27	837.42	592.40	486.74	465.51	477.18	474.42	501.13	584.20	830.68	1071.80	1188.26	1180.12	1101.65
37.50°	1003.75	1063.28	1119.30	1024.84	788.81	550.62	455.18	440.72	452.31	451.81	471.12	542.55	776.84	1030.01	1152.80	1102.59	1003.75
40.00°	901.48	973.84	1058.47	980.24	730.38	511.32	425.95	416.90	433.27	429.02	436.55	502.14	723.56	986.74	1101.64	1013.90	901.48
42.50°	796.58	875.02	992.23	931.60	667.52	469.25	397.82	397.92	415.89	410.63	399.19	465.70	670.50	938.09	1044.45	921.14	796.58
45.00°	699.50	771.60	917.98	879.83	615.52	426.74	368.36	380.04	404.15	393.19	374.98	429.56	615.84	886.27	976.72	826.41	699.50
47.50°	605.60	681.24	842.55	823.90	566.66	392.49	338.51	361.70	393.28	376.19	356.20	393.77	560.78	830.34	906.53	734.50	605.60
50.00°	531.57	595.09	762.35	765.70	517.35	358.63	312.52	343.30	379.64	359.24	331.42	358.36	509.12	772.78	829.83	643.46	531.57
52.50°	462.55	524.42	682.26	706.96	467.98	323.26	287.17	322.87	365.42	340.90	305.10	326.32	457.87	714.68	752.38	561.20	462.55
55.00°	408.17	456.59	609.03	648.03	418.04	288.92	262.25	302.19	341.44	321.99	280.09	294.43	411.90	656.44	679.61	480.49	408.17
57.50°	355.65	398.32	536.09	584.71	368.29	262.04	237.28	278.80	317.14	297.06	255.26	263.19	366.20	595.16	606.74	421.56	355.65
60.00°	309.49	340.96	465.04	520.45	323.39	233.98	210.42	255.32	290.79	271.84	231.52	232.70	322.60	533.50	531.72	364.38	309.49
62.50°	264.02	295.50	396.78	458.38	279.00	201.44	184.13	231.34	264.05	245.18	207.48	204.12	279.78	471.40	458.25	318.04	264.02
65.00°	226.47	250.60	338.39	396.53	238.02	171.48	162.10	205.74	235.92	217.30	178.10	175.68	241.30	409.59	393.04	271.90	226.47
67.50°	189.27	210.46	281.98	337.68	197.73	147.51	139.30	175.40	205.81	185.95	149.91	147.48	204.00	351.88	329.38	227.20	189.27
70.00°	154.01	170.59	229.96	278.92	159.97	122.24	113.58	144.05	171.24	153.97	128.72	120.59	170.41	293.89	270.44	183.28	154.01
72.50°	119.02	131.87	179.10	221.08	124.24	94.88	88.26	110.71	135.36	120.81	105.77	95.26	137.36	234.44	214.06	142.44	119.02
75.00°	84.90	95.58	129.98	165.24	93.16	69.78	63.88	80.12	97.46	89.46	77.08	71.95	105.38	177.13	162.80	104.90	84.90
77.50°	55.30	65.53	87.54	118.73	65.22	47.19	42.55	53.18	64.79	60.48	51.77	50.34	75.73	126.47	115.76	75.51	55.30
80.00°	35.03	40.54	52.24	75.94	42.15	30.20	26.12	31.94	37.79	37.62	33.56	33.11	49.35	81.09	74.46	50.26	35.03
82.50°	19.54	24.17	29.09	43.53	24.77	17.57	15.22	16.00	20.13	20.36	19.54	18.45	29.88	46.41	43.24	31.86	19.54
85.00°	10.86	13.14	15.06	19.67	13.62	10.68	10.49	8.29	9.55	11.18	11.59	11.32	17.21	21.72	21.65	18.12	10.86
87.50°	6.38	8.40	8.68	11.68	7.70	6.88	7.42	5.98	5.52	7.16	7.06	7.15	10.24	10.92	10.57	9.75	6.38
90.00°	6.09	5.89	6.24	6.69	5.80	5.70	5.66	5.12	4.93	5.88	6.01	6.23	7.21	5.53	6.58	5.51	6.09

### 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>	3149	3149	3149	3149	3075	3075	3075	3075	2939	2939	2939	2814	2814	2814	2699	2699	2645
	<b>1</b>	2911	2799	2699	2608	2841	2740	2649	2566	2629	2554	2485	2526	2466	2410	2432	2384	2334
	<b>2</b>	2671	2474	2311	2174	2604	2425	2275	2148	2333	2207	2098	2248	2143	2051	2169	2083	2038
	<b>3</b>	2453	2197	1999	1841	2390	2156	1973	1825	2079	1922	1793	2008	1874	1762	1942	1829	1790
	<b>4</b>	2259	1965	1749	1584	2201	1930	1729	1573	1865	1691	1552	1805	1654	1531	1749	1619	1585
	<b>5</b>	2088	1769	1546	1381	2034	1740	1530	1374	1685	1501	1359	1634	1472	1345	1587	1445	1415
	<b>6</b>	1936	1603	1379	1219	1887	1578	1367	1214	1532	1344	1203	1488	1321	1193	1448	1299	1273
	<b>7</b>	1801	1461	1241	1087	1757	1440	1231	1083	1401	1212	1075	1363	1194	1068	1329	1177	1154
	<b>8</b>	1681	1340	1125	977	1641	1322	1117	974	1288	1102	969	1256	1087	963	1226	1072	1052
	<b>9</b>	1574	1235	1026	886	1538	1219	1020	883	1190	1007	879	1162	995	875	1136	983	965
	<b>10</b>	1479	1143	942	808	1446	1130	937	806	1104	926	803	1080	916	800	1057	906	890

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	40.7 fc	7.5 ft
6.5 ft	29.2 fc	8.9 ft
7.5 ft	21.9 fc	10.3 ft
8.0 ft	19.2 fc	10.9 ft
10.0 ft	12.3 fc	13.7 ft
12.0 ft	8.6 fc	16.4 ft
14.0 ft	6.3 fc	19.1 ft
16.0 ft	4.8 fc	21.9 ft
20.0 ft	3.1 fc	27.3 ft
24.0 ft	2.1 fc	32.8 ft
28.0 ft	1.6 fc	38.3 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	11049	11049	11049
<b>45.00°</b>	8873	11645	7808
<b>55.00°</b>	6383	9524	6538
<b>65.00°</b>	4807	7182	5052
<b>75.00°</b>	2942	4505	3229
<b>85.00°</b>	1118	1550	1401

### 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>	18.6	20.1	18.9	20.4	20.7	16.1	17.7	16.5	18.0	18.3
	<b>3H</b>	19.7	21.1	20.1	21.4	21.7	17.7	19.1	18.1	19.4	19.8
	<b>4H</b>	20.0	21.2	20.4	21.6	22.0	18.2	19.5	18.6	19.8	20.2
	<b>6H</b>	20.1	21.2	20.5	21.6	22.0	18.4	19.6	18.9	20.0	20.4
	<b>8H</b>	20.1	21.2	20.5	21.6	22.0	18.5	19.6	18.9	20.0	20.4
	<b>12H</b>	20.0	21.1	20.5	21.5	21.9	18.5	19.6	18.9	20.0	20.4
<b>4H</b>	<b>2H</b>	19.6	20.9	20.0	21.2	21.6	16.5	17.8	16.9	18.2	18.5
	<b>3H</b>	20.8	21.9	21.3	22.3	22.7	18.2	19.3	18.6	19.7	20.1
	<b>4H</b>	21.2	22.1	21.6	22.5	23.0	18.8	19.7	19.2	20.1	20.6
	<b>6H</b>	21.3	22.1	21.8	22.6	23.0	19.1	19.9	19.5	20.3	20.8
	<b>8H</b>	21.3	22.1	21.8	22.5	23.0	19.1	19.9	19.6	20.3	20.8
	<b>12H</b>	21.3	22.0	21.8	22.5	22.9	19.2	19.9	19.6	20.3	20.8
<b>8H</b>	<b>4H</b>	21.5	22.3	22.0	22.7	23.2	18.9	19.7	19.3	20.1	20.6
	<b>6H</b>	21.7	22.3	22.2	22.8	23.3	19.2	19.9	19.7	20.3	20.8
	<b>8H</b>	21.7	22.3	22.2	22.8	23.3	19.3	19.9	19.8	20.4	20.9
	<b>12H</b>	21.7	22.2	22.2	22.7	23.3	19.3	19.9	19.9	20.3	20.9
<b>12H</b>	<b>4H</b>	21.5	22.2	22.0	22.7	23.1	18.9	19.6	19.4	20.0	20.5
	<b>6H</b>	21.7	22.3	22.2	22.7	23.3	19.2	19.8	19.7	20.2	20.8
	<b>8H</b>	21.8	22.3	22.3	22.8	23.3	19.3	19.8	19.8	20.3	20.9

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0