Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

SL03IND2 20L 35HK DW xx xx MW

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

Test Number

SP-01320_3

Test Date

6/3/2022

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

© Spectrum Lighting

Summary of Results

Power

Input Watts	30 W

Lumen Output

Output Lumens	2120
Efficacy	70.66 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.25
Two luminaires, plane 90°	1.3
Four luminaires	1.37

Full Beam Angle

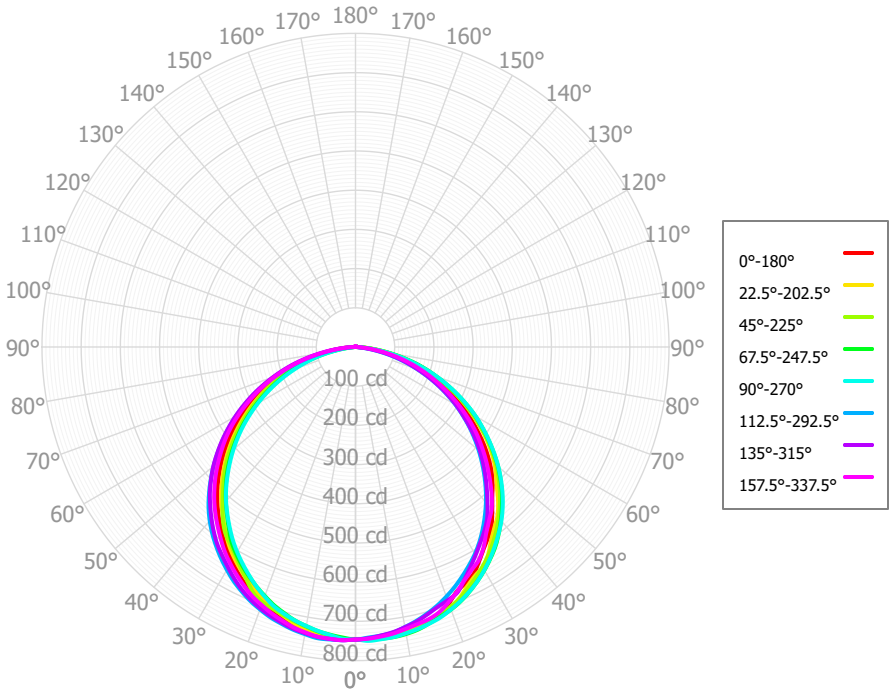
0° - 180°	112°
90° - 270°	111°

IES File Header Contents

Keyword	Value
TEST	SP-01320_3
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	11/2/2022
LUMCAT	SL03IND2 20L 35HK DW xx xx MW
LUMINAIRE	Specline Linear Pendant, 1.8" aperture x 2' Long, Matte White Refl
OTHER	Diffuse White Extruded Acrylic Lens, Symmetric Distribution
OTHER	Data for 2' IND fixture, or 2' module for continuous ROW
OTHER	111 Degree Beam Angle
LAMP	N/A, Min. 90 CRI
LAMPCAT	N/A
OTHER	Reference project SL473
OTHER	20L designation for Spectrum linear product indicates 1060 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

© Spectrum Lighting

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	71.75	3.38%	90.00° - 100.00°	1.61	0.08%
10.00° - 20.00°	202.68	9.56%	100.00° - 110.00°	1.49	0.07%
20.00° - 30.00°	307.12	14.49%	100.00° - 120.00°	2.90	0.14%
30.00° - 40.00°	370.06	17.46%	120.00° - 130.00°	1.32	0.06%
40.00° - 50.00°	382.88	18.06%	130.00° - 140.00°	1.16	0.05%
50.00° - 60.00°	343.96	16.23%	140.00° - 150.00°	0.92	0.04%
60.00° - 70.00°	258.45	12.19%	150.00° - 160.00°	0.71	0.03%
70.00° - 80.00°	142.17	6.71%	160.00° - 170.00°	0.44	0.02%
80.00° - 90.00°	31.44	1.48%	170.00° - 180.00°	0.16	0.01%
0.00° - 90.00°	2110.49	99.56%	0.00° - 180.00°	2119.72	100.00%

© Spectrum Lighting

SPECTRUM LIGHTING INC.

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°	746.62	746.62	746.62	746.62	746.62	746.62	746.62	746.62	746.62	746.62	746.62	746.62	746.62	746.62	746.62	746.62	746.62
2.50°	745.05	746.70	747.93	746.26	750.65	748.91	749.04	748.93	747.69	746.40	745.31	742.21	745.17	742.30	743.97	744.98	745.05
5.00°	741.71	743.91	746.65	747.04	748.64	749.24	747.80	747.53	745.52	742.86	739.24	737.12	738.11	739.24	739.17	741.66	741.71
7.50°	737.88	740.76	745.23	746.67	746.38	749.30	745.65	745.57	741.50	739.02	732.87	731.44	730.97	734.91	733.98	737.47	737.88
10.00°	732.66	736.37	740.87	743.63	741.88	744.04	741.48	739.34	734.56	730.84	725.21	723.22	723.05	725.79	726.04	730.96	732.66
12.50°	727.11	731.90	736.11	738.51	737.06	738.60	735.98	732.73	726.92	722.40	717.34	714.70	714.79	716.03	717.75	724.84	727.11
15.00°	721.95	727.22	726.30	729.72	730.56	731.07	728.31	722.69	718.42	710.63	708.82	702.98	704.81	704.63	706.83	719.46	721.95
17.50°	716.84	720.05	716.42	721.17	723.17	723.20	719.69	712.52	708.23	698.74	700.70	691.04	693.48	692.17	695.79	709.73	716.84
20.00°	696.61	708.36	706.14	712.92	712.68	712.62	709.89	700.76	696.43	685.87	693.44	676.13	677.65	677.73	687.79	693.54	696.61
22.50°	675.37	693.48	694.84	702.06	701.39	701.50	698.07	688.50	682.46	672.31	679.85	661.05	661.04	662.25	678.62	676.11	675.37
25.00°	664.58	674.22	679.46	688.59	688.20	687.92	684.26	672.51	666.94	655.29	656.17	644.43	642.54	645.23	656.18	657.31	664.58
27.50°	652.99	659.10	663.93	673.72	673.79	673.51	668.02	656.23	649.27	638.03	633.88	627.52	623.64	627.70	633.96	641.60	652.99
30.00°	631.03	648.40	647.95	657.75	657.20	656.47	649.98	638.67	630.44	620.00	613.33	609.04	604.01	609.57	612.97	628.56	631.03
32.50°	609.52	629.26	630.70	640.34	639.43	638.90	632.29	620.21	610.53	600.48	595.19	589.08	583.04	588.94	592.38	607.54	609.52
35.00°	591.00	603.17	610.94	622.06	620.04	620.12	614.81	598.95	590.18	577.44	579.33	563.96	560.27	566.19	573.27	581.16	591.00
37.50°	570.64	581.90	590.34	600.30	599.95	600.29	593.98	577.59	568.26	554.34	555.88	539.04	537.21	542.35	551.73	559.55	570.64
40.00°	542.83	563.65	568.47	577.02	579.10	578.72	571.72	556.01	545.89	531.15	526.94	514.62	513.88	517.80	523.78	540.33	542.83
42.50°	516.61	538.76	545.42	552.94	555.90	555.03	548.73	533.40	521.66	506.90	500.29	489.91	488.52	491.85	496.23	514.45	516.61
45.00°	494.79	510.75	521.01	528.61	530.76	528.59	525.51	509.11	497.09	481.23	474.91	464.67	461.54	465.21	469.48	486.12	494.79
47.50°	471.13	486.31	495.53	502.02	503.84	501.16	499.78	483.77	470.53	454.75	448.28	438.23	434.17	437.93	442.53	457.98	471.13
50.00°	443.66	463.11	469.11	474.92	475.83	472.75	473.55	457.10	443.77	427.47	421.12	410.11	406.58	410.43	415.28	429.90	443.66
52.50°	414.81	435.74	440.23	445.01	446.21	443.38	444.57	430.26	415.84	399.13	391.95	381.66	377.90	382.28	386.57	401.43	414.81
55.00°	383.83	407.39	409.66	414.74	415.85	413.29	415.26	403.26	387.75	369.97	362.20	352.87	348.71	353.98	356.24	372.90	383.83
57.50°	353.42	375.93	378.17	384.06	385.24	382.54	384.64	374.10	356.92	340.24	332.73	322.87	318.43	324.38	326.26	341.80	353.42
60.00°	323.69	344.04	346.20	353.32	354.54	351.41	353.92	343.32	326.21	310.16	303.32	291.87	287.80	294.59	296.60	310.51	323.69
62.50°	293.12	313.24	313.87	320.18	321.64	319.19	321.68	312.23	296.51	279.04	272.76	261.13	257.16	263.86	266.00	278.92	293.12
65.00°	261.79	282.50	281.39	286.99	288.23	286.51	289.36	280.96	266.59	247.44	242.08	230.55	226.52	233.07	234.76	247.41	261.79
67.50°	230.27	250.00	248.48	253.28	254.55	251.83	256.20	248.90	235.59	215.54	211.98	201.07	195.54	201.44	203.43	217.19	230.27
70.00°	198.61	217.47	215.44	219.86	220.83	216.55	223.13	216.51	204.51	183.55	181.90	172.11	164.51	169.90	172.05	186.93	198.61
72.50°	166.65	184.49	182.09	188.16	186.26	182.60	190.57	184.07	173.16	153.67	151.99	141.45	135.47	139.85	142.82	156.28	166.65
75.00°	134.53	151.69	148.70	155.65	151.64	148.94	157.75	151.61	141.68	124.27	122.05	110.21	106.53	109.93	114.40	125.93	134.53
77.50°	104.36	119.99	116.28	120.13	118.24	115.46	123.99	119.75	109.87	96.14	91.79	80.73	76.70	80.81	85.75	96.85	104.36
80.00°	74.95	88.79	83.95	85.88	85.04	82.00	90.95	88.01	80.40	68.18	62.31	51.67	47.41	52.55	57.04	68.70	74.95
82.50°	49.45	59.62	54.44	54.95	54.30	52.51	59.69	59.72	55.04	43.87	36.74	29.22	24.87	27.80	33.24	43.35	49.45
85.00°	25.02	33.38	25.79	28.86	25.89	23.54	32.79	31.83	32.39	19.96	15.18	7.71	5.24	8.38	10.22	22.00	25.02
87.50°	12.63	15.14	13.03	12.23	12.42	12.16	13.87	16.43	13.32	10.26	7.36	3.96	3.41	4.53	5.17	9.21	12.63
90.00°	2.36	2.66	1.72	2.22	1.61	1.75	2.57	1.85	3.09	1.32	1.68	1.43	1.90	1.81	1.64	1.41	2.36
92.50°	1.42	1.90	1.50	1.87	1.31	1.48	1.77	1.47	2.02	1.14	1.17	1.51	1.56	1.47	1.54	1.56	1.42
95.00°	1.39	1.50	1.31	1.67	1.09	1.24	1.31	1.14	1.41	1.01	0.93	1.57	1.35	1.28	1.49	1.68	1.39
97.50°	1.44	1.66	1.26	1.64	1.06	1.10	1.23	1.33	1.16	1.15	1.18	1.40	1.46	1.33	1.60	1.79	1.44
100.00°	1.49	1.64	1.21	1.62	1.09	1.01	1.25	1.49	1.21	1.27	1.23	1.26	1.57	1.45	1.72	1.75	1.49

© Spectrum Lighting

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	ρfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	ρcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	ρw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	2521	2521	2521	2521	2462	2462	2462	2462	2350	2350	2350	2248	2248	2248	2155	2155	2155	2110
	1	2306	2206	2117	2036	2248	2157	2076	2002	2065	1998	1937	1981	1926	1876	1903	1859	1818	1819
	2	2097	1923	1779	1658	2040	1882	1750	1638	1805	1694	1598	1734	1642	1560	1669	1592	1524	1556
	3	1911	1688	1516	1378	1858	1654	1494	1365	1589	1452	1339	1529	1413	1315	1474	1375	1291	1344
	4	1749	1495	1309	1167	1700	1466	1293	1158	1412	1261	1141	1361	1230	1124	1314	1201	1108	1174
RCR	5	1608	1335	1145	1004	1563	1311	1132	998	1265	1107	986	1222	1083	974	1182	1060	963	1037
	6	1485	1202	1012	876	1444	1181	1002	872	1142	982	863	1105	963	854	1071	945	846	925
	7	1377	1090	904	773	1339	1072	895	770	1038	879	763	1007	864	757	978	849	751	832
	8	1282	994	813	689	1248	979	807	687	950	794	682	923	781	677	898	769	672	754
	9	1197	912	738	620	1167	899	732	618	874	721	614	851	711	610	829	701	607	687
	10	1122	842	674	562	1095	830	669	560	809	660	557	788	651	554	769	643	551	631

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	24.7 fc	16.2 ft
6.5 ft	17.7 fc	19.2 ft
7.5 ft	13.3 fc	22.1 ft
8.0 ft	11.7 fc	23.6 ft
10.0 ft	7.5 fc	29.5 ft
12.0 ft	5.2 fc	35.4 ft
14.0 ft	3.8 fc	41.3 ft
16.0 ft	2.9 fc	47.2 ft
20.0 ft	1.9 fc	59.0 ft
24.0 ft	1.3 fc	70.8 ft
28.0 ft	1.0 fc	82.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	26789	26789	26789
45.00°	25107	26437	26931
55.00°	24010	25626	26013
65.00°	22225	23890	24470
75.00°	18650	20614	21021
85.00°	10299	10617	10660

© Spectrum Lighting

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	23.3	24.9	23.6	25.2	25.5	23.2	24.8	23.6	25.1	25.5
	3H	25.0	26.5	25.4	26.8	27.2	24.9	26.4	25.3	26.7	27.1
	4H	25.7	27.0	26.1	27.4	27.8	25.5	26.9	25.9	27.3	27.6
	6H	26.1	27.4	26.5	27.7	28.1	25.9	27.2	26.3	27.6	28.0
	8H	26.2	27.4	26.6	27.8	28.2	26.0	27.2	26.4	27.6	28.0
	12H	26.2	27.4	26.7	27.8	28.2	26.0	27.2	26.4	27.6	28.0
4H	2H	23.9	25.2	24.3	25.6	26.0	23.8	25.2	24.2	25.6	26.0
	3H	25.9	27.0	26.3	27.4	27.8	25.8	26.9	26.2	27.3	27.8
	4H	26.6	27.7	27.1	28.1	28.5	26.5	27.5	26.9	28.0	28.4
	6H	27.2	28.1	27.6	28.5	29.0	27.0	27.9	27.4	28.3	28.8
	8H	27.3	28.2	27.8	28.6	29.1	27.1	27.9	27.6	28.4	28.9
	12H	27.4	28.2	27.9	28.7	29.1	27.1	27.9	27.6	28.4	28.9
8H	4H	26.9	27.7	27.4	28.2	28.7	26.8	27.7	27.3	28.1	28.6
	6H	27.5	28.2	28.0	28.7	29.2	27.4	28.1	27.9	28.6	29.1
	8H	27.8	28.4	28.3	28.9	29.4	27.5	28.2	28.0	28.7	29.2
	12H	27.9	28.5	28.4	29.0	29.5	27.6	28.2	28.1	28.7	29.2
12H	4H	26.9	27.7	27.4	28.2	28.6	26.8	27.6	27.3	28.1	28.6
	6H	27.6	28.2	28.1	28.7	29.2	27.4	28.1	28.0	28.5	29.1
	8H	27.8	28.4	28.3	28.9	29.5	27.6	28.2	28.1	28.7	29.2

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0

© Spectrum Lighting