

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

SL03IND24 11L 35HK xx LA xx xx MW
Specline Linear, 1.8" aperture x 2' Long, Matte White Refl

Test Number

SP-01377_1

Test Date

6/3/2022

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

Summary of Results

Power

Input Watts	19 W
-------------	------

Lumen Output

Output Lumens	1443
Efficacy	75.95 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.2
Two luminaires, plane 90°	1.18
Four luminaires	1.19

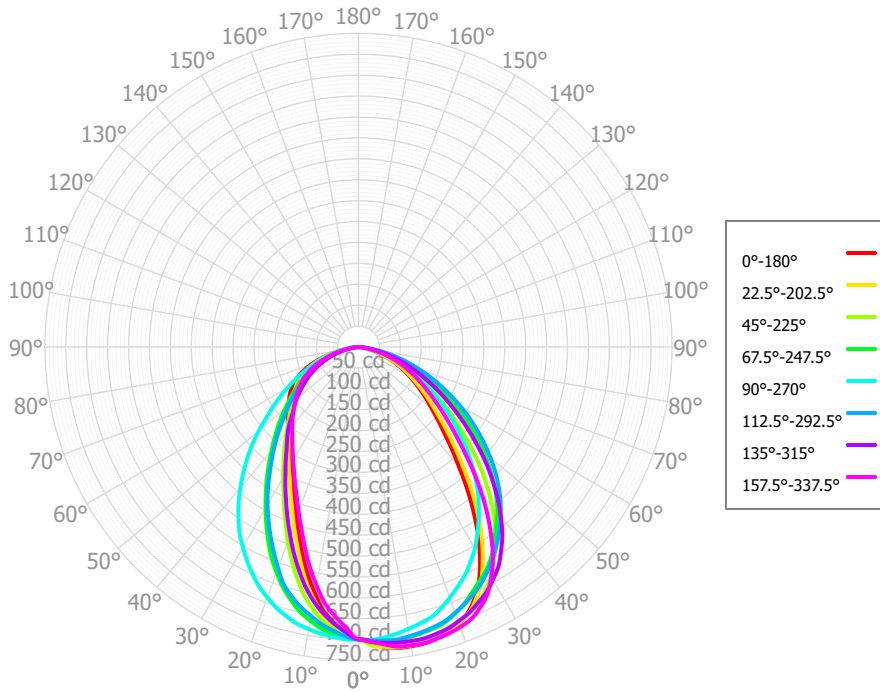
Full Beam Angle

0° - 180°	66°
90° - 270°	92°

IES File Header Contents

Keyword	Value
TEST	SP-01377_1
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	3/27/2023
LUMCAT	SL03IND24 11L 35HK xx LA xx xx MW
LUMINAIRE	Specline Linear, 1.8" aperture x 2' Long, Matte White Refl
OTHER	Extruded Acrylic Lens, Asymmetric Distribution
OTHER	Data for 2' IND fixture, Ceiling mount
OTHER	66 Degree x 88 Degree Beam Angle
LAMP	N/A, Min. 90 CRI
LAMPCAT	N/A
OTHER	Reference project SL473
OTHER	11L designation for Spectrum linear product indicates 721 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°	66.44	4.60%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	179.41	12.43%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	253.01	17.53%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	275.53	19.09%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	251.11	17.40%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	201.29	13.95%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	138.09	9.57%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	66.29	4.59%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	11.92	0.83%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1443.08	100.00%	0.00° - 180.00°	1443.08	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°	699.16	699.16	699.16	699.16	699.16	699.16	699.16	699.16	699.16	699.16	699.16	699.16	699.16	699.16	699.16	699.16	699.16
2.50°	712.46	715.32	708.68	707.38	701.46	693.12	683.16	672.45	687.04	690.85	691.88	699.01	699.76	702.65	705.71	705.34	712.46
5.00°	719.94	720.16	714.90	707.95	697.77	681.69	664.77	646.41	663.05	669.43	677.32	689.42	696.11	704.62	710.63	714.35	719.94
7.50°	725.95	724.53	718.28	708.00	692.18	669.81	643.15	618.17	637.93	646.92	660.36	679.47	691.48	706.07	713.40	722.88	725.95
10.00°	726.83	725.01	717.83	704.57	685.06	653.78	617.57	578.79	598.67	613.11	634.42	664.48	685.24	702.42	714.46	724.60	726.83
12.50°	726.31	724.54	715.50	700.95	677.47	637.20	587.03	538.57	558.90	577.78	605.75	648.53	678.10	698.58	714.92	725.85	726.31
15.00°	722.36	719.63	711.23	696.59	669.58	617.83	551.69	495.54	516.42	534.08	569.81	625.82	666.82	693.74	711.51	722.35	722.36
17.50°	715.72	713.55	705.35	690.09	655.36	595.27	515.33	454.65	474.27	491.46	532.44	602.02	653.84	687.51	707.20	718.49	715.72
20.00°	704.08	703.70	698.18	677.65	638.17	562.45	478.22	418.77	435.08	452.77	494.19	573.69	637.72	676.40	698.47	712.68	704.08
22.50°	686.34	689.54	688.75	663.48	620.40	529.93	443.16	386.02	397.83	416.12	455.84	544.07	620.69	664.73	689.15	704.48	686.34
25.00°	660.08	665.52	677.94	645.73	602.42	498.15	409.24	358.86	370.18	384.68	421.83	510.81	599.32	651.68	675.77	688.14	660.08
27.50°	625.34	635.30	657.48	628.88	580.14	466.54	378.57	334.12	344.30	356.28	388.19	477.59	577.10	636.73	662.08	667.32	625.34
30.00°	581.60	594.57	632.68	613.41	556.85	435.22	349.28	312.64	324.22	333.53	360.93	444.47	553.24	618.22	642.81	635.32	581.60
32.50°	532.55	550.40	603.45	592.67	529.31	403.38	323.87	293.22	304.93	311.91	334.05	412.27	529.20	598.27	622.86	598.77	532.55
35.00°	479.07	501.69	572.75	565.73	501.17	370.83	299.62	275.90	287.56	291.91	310.66	381.52	500.31	576.30	594.70	553.88	479.07
37.50°	426.24	452.28	535.64	540.51	472.24	340.88	280.61	260.53	271.96	274.15	287.88	351.87	471.18	553.28	565.46	507.30	426.24
40.00°	373.81	402.18	497.10	516.87	443.24	313.62	262.60	246.71	259.50	258.87	268.29	323.53	439.31	529.15	529.48	458.38	373.81
42.50°	329.59	356.52	456.46	488.21	410.17	287.02	242.27	233.50	248.17	245.26	249.48	297.75	407.48	502.82	493.02	409.74	329.59
45.00°	289.21	314.26	415.56	456.04	377.12	260.96	221.67	220.65	238.33	233.05	233.35	274.34	376.03	474.67	454.70	361.40	289.21
47.50°	257.32	277.72	373.76	423.94	344.28	238.36	207.43	208.49	228.32	221.51	217.38	251.44	344.18	444.09	415.82	319.67	257.32
50.00°	228.39	244.58	332.00	391.87	311.62	217.81	193.36	196.62	218.15	210.41	201.80	228.90	310.27	411.98	375.43	283.39	228.39
52.50°	204.99	217.50	296.24	357.70	280.09	198.13	178.05	185.56	209.18	199.14	187.06	208.97	277.76	379.10	336.28	251.38	204.99
55.00°	182.91	193.08	260.83	322.69	248.89	178.83	162.86	174.75	201.18	187.79	173.85	190.44	250.03	345.87	299.61	222.04	182.91
57.50°	162.23	170.47	229.30	288.08	219.00	160.87	148.90	163.28	191.12	177.62	160.13	172.99	222.95	312.56	264.62	197.10	162.23
60.00°	141.75	148.42	198.30	253.59	190.55	143.35	134.82	151.66	179.84	167.88	145.71	155.99	197.40	279.21	232.16	174.27	141.75
62.50°	123.58	129.04	170.59	220.13	166.08	125.55	120.10	138.23	167.36	155.80	131.22	139.47	172.69	246.33	201.26	153.01	123.58
65.00°	105.57	110.23	143.63	186.87	141.91	107.70	105.50	124.56	154.33	143.13	116.64	123.10	149.46	213.56	172.13	132.31	105.57
67.50°	88.23	91.61	119.56	155.97	118.34	93.72	91.25	108.04	137.26	127.23	102.41	107.29	127.27	183.06	145.26	113.15	88.23
70.00°	70.99	73.00	96.05	125.31	95.95	80.26	76.99	91.39	118.87	110.83	88.47	91.58	106.51	152.89	120.41	94.36	70.99
72.50°	55.07	56.46	73.99	98.51	75.35	63.83	62.73	75.24	98.41	93.64	74.79	76.33	86.82	124.67	96.59	76.14	55.07
75.00°	39.41	40.07	53.60	72.02	56.94	47.32	48.78	58.96	77.50	76.38	61.27	61.11	68.25	96.60	73.47	58.00	39.41
77.50°	25.43	26.24	36.52	49.98	41.07	34.93	35.40	41.19	58.46	59.47	46.75	47.51	51.47	72.31	53.55	41.85	25.43
80.00°	13.04	13.08	21.88	28.85	26.88	22.76	23.22	24.38	39.67	42.64	31.77	34.04	36.11	48.47	35.26	25.87	13.04
82.50°	7.05	7.15	10.87	15.33	14.17	13.20	12.67	13.14	24.10	27.13	20.50	22.60	22.89	30.70	20.99	15.56	7.05
85.00°	2.46	2.05	4.06	3.88	6.59	4.75	5.80	4.01	8.89	12.84	10.51	11.79	10.99	14.33	8.24	5.77	2.46
87.50°	1.69	1.57	1.99	2.29	2.49	2.87	2.83	2.91	5.07	6.69	5.59	6.14	5.28	7.27	3.64	3.26	1.69
90.00°	1.18	1.17	1.06	1.06	1.07	1.31	1.46	2.01	1.53	1.66	1.85	1.42	2.42	1.61	1.20	1.09	1.18

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	ptc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	0	1718	1718	1718	1718	1678	1678	1678	1678	1603	1603	1603	1535	1535	1535	1473	1473	1443
	1	1588	1527	1472	1423	1550	1495	1445	1400	1434	1393	1356	1378	1345	1315	1327	1300	1273
	2	1458	1350	1262	1187	1421	1324	1242	1173	1273	1205	1146	1227	1170	1120	1184	1137	1095
	3	1340	1201	1093	1007	1306	1179	1079	998	1137	1051	981	1098	1025	964	1062	1001	948
	4	1235	1075	958	869	1204	1057	947	863	1021	927	851	989	907	840	958	888	829
	5	1143	970	849	760	1114	954	841	756	924	824	748	897	809	740	871	794	732
	6	1061	880	759	672	1034	867	753	669	842	740	664	818	727	658	796	716	653
	7	988	804	684	601	964	792	679	599	771	669	595	751	659	590	732	649	586
	8	923	738	622	542	901	728	617	540	710	609	537	692	601	534	676	593	531
	9	865	681	568	492	846	673	565	491	657	558	488	642	551	486	627	545	484
	10	814	631	522	450	796	624	520	449	610	514	447	597	508	445	585	503	444

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	23.1 fc	7.4 ft
6.5 ft	16.5 fc	8.7 ft
7.5 ft	12.4 fc	10.0 ft
8.0 ft	10.9 fc	10.7 ft
10.0 ft	7.0 fc	13.4 ft
12.0 ft	4.9 fc	16.0 ft
14.0 ft	3.6 fc	18.7 ft
16.0 ft	2.7 fc	21.4 ft
20.0 ft	1.7 fc	26.7 ft
24.0 ft	1.2 fc	32.1 ft
28.0 ft	0.9 fc	37.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	25086	25086	25086
45.00°	14675	21086	19135
55.00°	11442	16316	15569
65.00°	8963	12194	12048
75.00°	5463	7431	7893
85.00°	1011	1671	2711

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	20.0	21.5	20.3	21.8	22.1	19.8	21.4	20.2	21.7	22.0
	3H	21.2	22.5	21.5	22.9	23.2	21.5	22.9	21.9	23.2	23.6
	4H	21.5	22.7	21.9	23.1	23.5	22.0	23.3	22.4	23.7	24.0
	6H	21.5	22.7	22.0	23.1	23.5	22.3	23.5	22.8	23.9	24.3
	8H	21.5	22.7	22.0	23.1	23.5	22.4	23.5	22.8	23.9	24.3
	12H	21.5	22.6	21.9	23.0	23.4	22.4	23.5	22.9	23.9	24.3
4H	2H	20.9	22.2	21.3	22.5	22.9	20.3	21.5	20.7	21.9	22.3
	3H	22.2	23.3	22.7	23.7	24.1	22.1	23.2	22.5	23.6	24.0
	4H	22.6	23.6	23.0	24.0	24.4	22.7	23.7	23.2	24.1	24.5
	6H	22.8	23.6	23.2	24.0	24.5	23.1	24.0	23.6	24.4	24.9
	8H	22.7	23.5	23.2	24.0	24.4	23.2	24.0	23.7	24.4	24.9
	12H	22.7	23.4	23.2	23.9	24.4	23.3	24.0	23.8	24.4	24.9
8H	4H	22.9	23.7	23.4	24.2	24.6	22.9	23.7	23.4	24.2	24.6
	6H	23.1	23.8	23.6	24.3	24.7	23.4	24.0	23.9	24.5	25.0
	8H	23.1	23.7	23.7	24.2	24.7	23.5	24.1	24.1	24.6	25.1
	12H	23.1	23.6	23.7	24.1	24.7	23.6	24.1	24.1	24.6	25.2
12H	4H	23.0	23.7	23.5	24.1	24.6	22.9	23.6	23.4	24.1	24.6
	6H	23.2	23.8	23.7	24.2	24.8	23.4	24.0	24.0	24.5	25.0
	8H	23.2	23.7	23.7	24.2	24.8	23.6	24.1	24.1	24.6	25.2

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0