

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

LT03IND48 05L 35HK xx LA xx xx MW
Specline Linear, 1.8" aperture x 4' Long, Matte White Refl

Test Number

SP-01380

Test Date

6/3/2022

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

Summary of Results

Power

Input Watts	21 W
--------------------	------

Lumen Output

Output Lumens	1322
Efficacy	62.97 lm/W

Luminous Dimensions

0° - 180° Size	0.15
90° - 270° Size	4
Height	0

Spacing Criterion

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

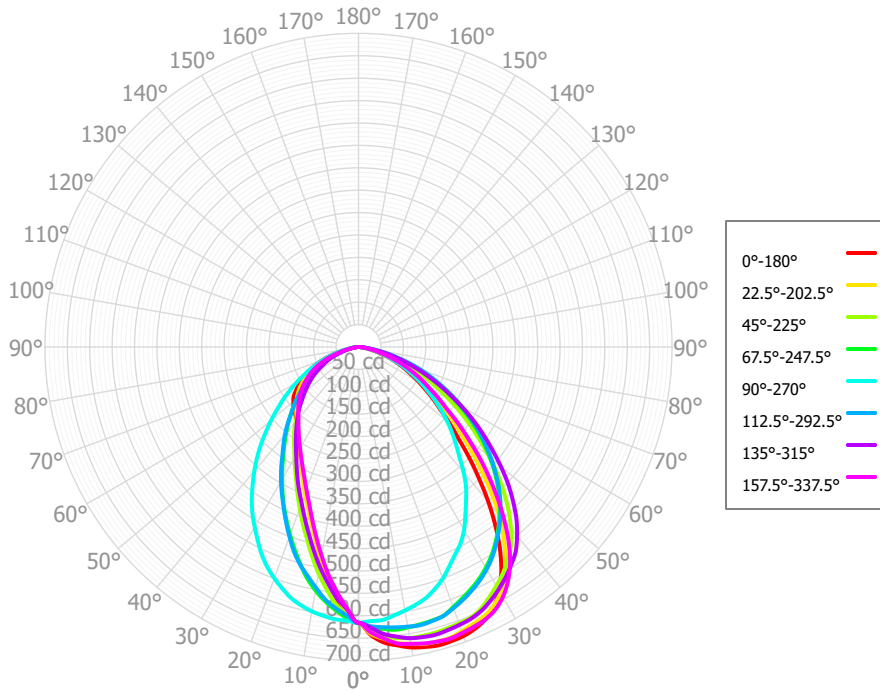
Full Beam Angle

0° - 180°	65°
90° - 270°	83°

IES File Header Contents

Keyword	Value
TEST	SP-01380
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	3/27/2023
LUMCAT	LT03IND48 05L 35HK xx LA xx xx MW
LUMINAIRE	Specline Linear, 1.8" aperture x 4' Long, Matte White Refl
OTHER	Extruded Acrylic Lens, Asymmetric Distribution
OTHER	Data for 4' IND fixture, Ceiling mount
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°	58.11	4.39%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	156.29	11.82%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	225.62	17.06%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	256.45	19.39%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	240.20	18.16%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	191.82	14.51%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	127.35	9.63%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	56.52	4.27%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	10.10	0.76%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1322.44	100.00%	0.00° - 180.00°	1322.44	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°	615.92	615.92	615.92	615.92	615.92	615.92	615.92	615.92	615.92	615.92	615.92	615.92	615.92	615.92	615.92	615.92	615.92
2.50°	644.25	641.58	635.35	626.41	612.69	600.03	586.60	584.63	594.75	591.98	598.85	605.60	611.67	624.18	627.44	638.10	644.25
5.00°	662.63	654.35	649.01	631.87	611.89	585.36	561.54	549.45	562.89	558.11	576.95	589.54	610.01	628.14	643.08	653.38	662.63
7.50°	672.14	666.43	655.10	636.66	604.64	568.70	529.92	513.34	522.28	522.83	545.37	572.22	605.06	631.46	652.21	667.77	672.14
10.00°	681.19	672.97	659.82	635.74	597.31	545.97	497.88	473.56	481.35	482.19	513.47	552.17	599.43	634.09	660.19	673.00	681.19
12.50°	685.95	678.83	660.58	634.48	589.60	523.90	463.48	434.92	439.52	443.11	478.49	529.16	590.91	636.18	663.41	677.90	685.95
15.00°	689.66	680.61	660.45	632.46	580.35	503.13	430.03	399.10	401.11	407.76	444.29	501.73	580.60	633.64	665.09	680.91	689.66
17.50°	688.76	680.67	658.62	629.30	566.52	479.13	399.55	366.62	369.30	375.82	413.52	474.22	565.52	629.80	662.86	682.45	688.76
20.00°	686.50	675.02	656.53	618.05	550.40	450.68	371.02	339.63	341.55	349.34	383.48	446.63	549.51	620.48	660.17	679.23	686.50
22.50°	680.59	669.25	654.09	606.82	529.83	422.79	346.45	315.68	319.20	324.24	355.38	419.76	531.88	610.64	656.68	675.52	680.59
25.00°	670.81	663.23	645.40	595.60	510.79	395.43	322.37	295.20	298.61	300.68	329.18	393.41	511.30	599.44	649.67	670.80	670.81
27.50°	654.16	652.16	630.91	583.38	493.81	370.06	298.98	277.14	279.67	280.09	306.34	367.09	487.15	587.10	638.53	661.20	654.16
30.00°	629.06	633.72	615.55	568.81	471.53	346.03	278.26	261.01	264.28	261.83	285.50	340.80	463.67	572.80	625.45	644.65	629.06
32.50°	593.55	607.15	599.64	552.42	444.21	321.28	260.11	246.45	251.22	248.25	267.13	316.18	440.77	555.91	610.75	620.93	593.55
35.00°	550.82	572.24	580.38	533.13	418.71	296.20	243.37	232.76	238.59	237.21	250.56	292.10	415.34	535.90	594.13	590.06	550.82
37.50°	501.87	531.64	559.65	512.42	394.40	275.31	227.59	220.36	226.15	225.91	235.56	271.28	388.42	515.01	576.40	551.29	501.87
40.00°	450.74	486.92	529.23	490.12	365.19	255.66	212.98	208.45	216.63	214.51	218.27	251.07	361.78	493.37	550.82	506.95	450.74
42.50°	398.29	437.51	496.11	465.80	333.76	234.63	198.91	198.96	207.94	205.31	199.60	232.85	335.25	469.04	522.22	460.57	398.29
45.00°	349.75	385.80	458.99	439.91	307.76	213.37	184.18	190.02	202.07	196.59	187.49	214.78	307.92	443.14	488.36	413.21	349.75
47.50°	302.80	340.62	421.27	411.95	283.33	196.24	169.26	180.85	196.64	188.10	178.10	196.88	280.39	415.17	453.26	367.25	302.80
50.00°	265.79	297.55	381.18	382.85	258.68	179.32	156.26	171.65	189.82	179.62	165.71	179.18	254.56	386.39	414.92	321.73	265.79
52.50°	231.28	262.21	341.13	353.48	233.99	161.63	143.59	161.44	182.71	170.45	152.55	163.16	228.93	357.34	376.19	280.60	231.28
55.00°	204.09	228.29	304.52	324.02	209.02	144.46	131.12	151.09	170.72	160.99	140.04	147.22	205.95	328.22	339.80	240.25	204.09
57.50°	177.83	199.16	268.05	292.35	184.14	131.02	118.64	139.40	158.57	148.53	127.63	131.60	183.10	297.58	303.37	210.78	177.83
60.00°	154.74	170.48	232.52	260.23	161.70	116.99	105.21	127.66	145.40	135.92	115.76	116.35	161.30	266.75	265.86	182.19	154.74
62.50°	132.01	147.75	198.39	229.19	139.50	100.72	92.06	115.67	132.03	122.59	103.74	102.06	139.89	235.70	229.13	159.02	132.01
65.00°	113.24	125.30	169.20	198.27	119.01	85.74	81.05	102.87	117.96	108.65	89.05	87.84	120.65	204.79	196.52	135.95	113.24
67.50°	94.63	105.23	140.99	168.84	98.86	73.75	69.65	87.70	102.90	92.98	74.95	73.74	102.00	175.94	164.69	113.60	94.63
70.00°	77.01	85.29	114.98	139.46	79.99	61.12	56.79	72.02	85.62	76.98	64.36	60.30	85.21	146.95	135.22	91.64	77.01
72.50°	59.51	65.93	89.55	110.54	62.12	47.44	44.13	55.36	67.68	60.40	52.89	47.63	68.68	117.22	107.03	71.22	59.51
75.00°	42.45	47.79	64.99	82.62	46.58	34.89	31.94	40.06	48.73	44.73	38.54	35.98	52.69	88.57	81.40	52.45	42.45
77.50°	27.65	32.77	43.77	59.36	32.61	23.59	21.27	26.59	32.39	30.24	25.88	25.17	37.87	63.24	57.88	37.76	27.65
80.00°	17.52	20.27	26.12	37.97	21.08	15.10	13.06	15.97	18.90	18.81	16.78	16.56	24.67	40.54	37.23	25.13	17.52
82.50°	9.77	12.09	14.55	21.77	12.38	8.78	7.61	8.00	10.06	10.18	9.77	9.22	14.94	23.20	21.62	15.93	9.77
85.00°	5.43	6.57	7.53	9.83	6.81	5.34	5.25	4.15	4.77	5.59	5.80	5.66	8.61	10.86	10.82	9.06	5.43
87.50°	3.19	4.20	4.34	5.84	3.85	3.44	3.71	2.99	2.76	3.58	3.53	3.57	5.12	5.46	5.29	4.88	3.19
90.00°	3.05	2.94	3.12	3.35	2.90	2.85	2.83	2.56	2.46	2.94	3.00	3.12	3.60	2.77	3.29	2.76	3.05

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	1574	1574	1574	1574	1538	1538	1538	1538	1469	1469	1469	1407	1407	1407	1349	1349	1322
	1	1455	1399	1349	1304	1420	1370	1324	1283	1314	1277	1243	1263	1233	1205	1216	1192	1167
	2	1336	1237	1155	1087	1302	1212	1137	1074	1166	1103	1049	1124	1071	1026	1084	1041	1019
	3	1227	1099	999	920	1195	1078	986	912	1040	961	896	1004	937	881	971	915	895
	4	1130	982	874	792	1100	965	864	787	933	845	776	903	827	766	875	810	792
	5	1044	884	773	691	1017	870	765	687	843	750	680	817	736	673	793	722	708
	6	968	801	690	610	943	789	684	607	766	672	602	744	661	597	724	650	637
	7	900	731	620	543	878	720	616	541	700	606	538	682	597	534	664	588	577
	8	841	670	562	489	820	661	558	487	644	551	484	628	543	482	613	536	526
	9	787	617	513	443	769	610	510	442	595	504	440	581	497	437	568	491	483
	10	740	572	471	404	723	565	468	403	552	463	402	540	458	400	529	453	445

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	20.4 fc	7.5 ft
6.5 ft	14.6 fc	8.9 ft
7.5 ft	10.9 fc	10.3 ft
8.0 ft	9.6 fc	10.9 ft
10.0 ft	6.2 fc	13.7 ft
12.0 ft	4.3 fc	16.4 ft
14.0 ft	3.1 fc	19.1 ft
16.0 ft	2.4 fc	21.9 ft
20.0 ft	1.5 fc	27.3 ft
24.0 ft	1.1 fc	32.8 ft
28.0 ft	0.8 fc	38.3 ft

Average Luminaire Luminance [cd/m²]

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

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