

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

LT03IND48 05L 35K LA xx xx MW

Specline Linear, 1.8" aperture x 4' Long, Matte White Refl

Test Number

SP-01548

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
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Lumen Output

Output Lumens	1543
Efficacy	73.5 lm/W

Luminous Dimensions

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

Spacing Criterion

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

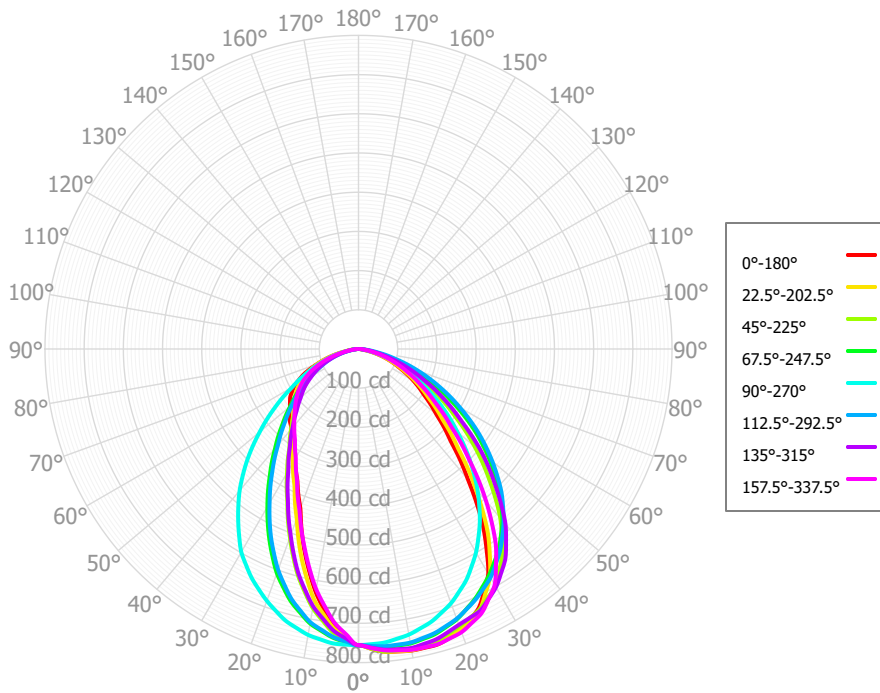
Full Beam Angle

0° - 180°	66°
90° - 270°	92°

IES File Header Contents

Keyword	Value
TEST	SP-01548
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	3/27/2023
LUMCAT	LT03IND48 05L 35K 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 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°	71.45	4.63%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	191.87	12.43%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	270.52	17.53%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	296.83	19.23%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	270.48	17.52%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	215.23	13.94%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	144.93	9.39%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	68.32	4.43%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	13.78	0.89%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1543.41	100.00%	0.00° - 180.00°	1543.41	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°	755.95	755.95	755.95	755.95	755.95	755.95	755.95	755.95	755.95	755.95	755.95	755.95	755.95	755.95	755.95	755.95	755.95
2.50°	765.56	765.58	765.30	759.62	754.03	746.84	739.04	728.59	734.56	736.02	741.70	747.91	754.95	758.64	763.11	763.86	765.56
5.00°	775.18	775.21	774.65	763.29	752.11	737.72	722.13	701.24	713.16	716.10	727.45	739.86	753.95	761.33	770.27	771.78	775.18
7.50°	778.25	778.01	775.19	763.17	746.10	722.82	694.47	661.77	671.31	683.16	699.46	725.55	747.37	761.02	772.58	775.59	778.25
10.00°	781.31	780.81	775.74	763.04	740.09	707.91	666.80	622.30	629.45	650.22	671.47	711.23	740.79	760.72	774.89	779.41	781.31
12.50°	780.91	778.76	773.24	758.22	730.08	684.18	629.74	575.49	581.15	603.85	634.47	688.92	729.36	755.60	770.91	779.73	780.91
15.00°	780.51	776.72	770.74	753.40	720.06	660.45	592.68	528.67	532.84	557.47	597.46	666.62	717.92	750.49	766.93	780.05	780.51
17.50°	773.10	769.64	761.89	743.69	705.21	630.05	549.39	484.22	483.22	509.11	554.44	637.78	700.90	741.48	757.93	774.48	773.10
20.00°	765.69	762.56	753.03	733.99	690.36	599.64	506.11	439.77	433.59	460.74	511.42	608.94	683.87	732.47	748.93	768.91	765.69
22.50°	746.68	747.90	742.65	718.73	670.50	564.15	466.16	405.49	401.51	423.41	470.44	573.30	664.29	719.18	742.51	756.20	746.68
25.00°	727.67	733.24	732.27	703.47	650.64	528.67	426.21	371.21	369.42	386.09	429.46	537.66	644.72	705.89	736.08	743.49	727.67
27.50°	694.97	702.11	715.17	684.91	625.15	491.26	392.28	345.71	347.29	360.54	396.92	501.23	621.45	689.76	718.85	719.22	694.97
30.00°	662.27	670.99	698.08	666.34	599.65	453.86	358.35	320.21	325.16	334.99	364.37	464.81	598.19	673.63	701.62	694.96	662.27
32.50°	608.63	623.58	668.76	644.94	569.69	418.99	331.87	301.50	306.12	314.89	335.92	429.59	566.67	651.53	677.45	653.01	608.63
35.00°	554.98	576.16	639.43	623.53	539.73	384.11	305.39	282.78	287.07	294.79	307.46	394.38	535.15	629.42	653.29	611.05	554.98
37.50°	494.81	520.25	601.11	597.46	506.46	351.87	283.33	268.86	276.15	279.36	287.59	362.71	503.53	602.83	618.38	558.69	494.81
40.00°	434.63	464.33	562.79	571.39	473.20	319.64	261.26	254.93	265.23	263.94	267.73	331.05	471.90	576.24	583.47	506.32	434.63
42.50°	383.97	412.28	517.60	539.51	437.74	293.12	242.41	242.67	257.30	249.54	249.11	303.46	436.85	545.92	539.17	452.94	383.97
45.00°	333.31	360.22	472.40	507.63	402.28	266.60	223.56	230.41	249.38	235.14	230.49	275.87	401.80	515.61	494.86	399.55	333.31
47.50°	296.51	320.44	429.45	471.34	365.91	243.55	208.02	219.73	238.75	224.46	215.68	251.57	365.27	480.61	452.55	354.64	296.51
50.00°	259.70	280.65	386.50	435.04	329.54	220.49	192.48	209.05	228.12	213.79	200.88	227.28	328.73	445.62	410.23	309.73	259.70
52.50°	232.07	250.16	344.65	398.07	296.41	200.05	179.60	198.38	220.28	204.63	184.61	206.96	294.50	409.77	365.60	274.80	232.07
55.00°	204.45	219.66	302.79	361.11	263.27	179.61	166.72	187.71	212.45	195.47	168.33	186.64	260.28	373.92	320.97	239.88	204.45
57.50°	183.22	194.92	266.45	322.42	231.12	160.49	151.94	175.42	200.47	183.84	156.18	167.44	228.17	336.58	284.29	212.04	183.22
60.00°	161.99	170.17	230.12	283.72	198.96	141.36	137.16	163.14	188.49	172.20	144.03	148.24	196.06	299.23	247.60	184.21	161.99
62.50°	140.22	147.07	199.42	246.26	172.33	123.56	123.39	148.03	171.77	158.70	128.57	131.39	171.37	263.52	214.14	160.66	140.22
65.00°	118.46	123.96	168.71	208.79	145.70	105.75	109.61	132.92	155.04	145.20	113.11	114.53	146.67	227.81	180.67	137.12	118.46
67.50°	100.75	104.03	140.69	175.99	122.90	91.87	93.72	115.64	133.63	127.76	100.13	99.51	124.46	194.18	152.44	116.76	100.75
70.00°	83.04	84.11	112.67	143.18	100.09	77.99	77.82	98.35	112.21	110.32	87.15	84.49	102.24	160.54	124.21	96.40	83.04
72.50°	65.73	67.36	88.72	113.06	79.20	63.37	63.80	80.18	92.68	91.60	70.93	69.74	84.27	129.05	99.14	77.67	65.73
75.00°	48.42	50.61	64.78	82.93	58.30	48.75	49.77	62.01	73.15	72.89	54.71	54.99	66.29	97.56	74.08	58.95	48.42
77.50°	32.86	36.41	45.93	58.48	42.38	34.82	37.55	45.23	52.31	54.74	41.04	41.78	46.21	73.05	55.02	43.25	32.86
80.00°	17.30	22.21	27.08	34.02	26.46	20.89	25.33	28.45	31.48	36.59	27.37	28.56	26.14	48.54	35.97	27.56	17.30
82.50°	11.58	14.44	17.39	21.73	18.36	13.95	16.20	18.53	20.26	24.55	17.76	19.50	17.62	32.74	23.04	18.42	11.58
85.00°	5.85	6.66	7.70	9.44	10.25	7.00	7.06	8.61	9.04	12.50	8.15	10.44	9.10	16.94	10.10	9.28	5.85
87.50°	4.23	4.72	5.13	6.28	6.59	5.17	5.18	5.77	5.59	8.32	5.75	7.08	5.81	10.80	6.73	6.40	4.23
90.00°	2.60	2.77	2.56	3.12	2.93	3.34	3.30	2.93	2.14	4.14	3.35	3.71	2.52	4.67	3.37	3.52	2.60

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	1837	1837	1837	1837	1795	1795	1795	1795	1715	1715	1715	1642	1642	1642	1575	1575	1543
	1	1699	1633	1575	1522	1658	1599	1546	1498	1534	1491	1451	1474	1439	1407	1420	1391	1362
	2	1560	1445	1351	1271	1521	1417	1330	1256	1363	1290	1227	1314	1253	1200	1268	1218	1192
	3	1434	1286	1171	1079	1398	1262	1156	1070	1217	1126	1051	1176	1098	1033	1137	1072	1049
	4	1323	1152	1027	931	1289	1132	1015	925	1094	993	913	1059	972	901	1027	951	899
	5	1223	1039	910	815	1192	1022	901	810	990	883	802	961	867	793	933	851	833
	6	1136	943	814	721	1107	929	807	718	902	793	712	876	780	706	853	767	752
	7	1058	861	734	644	1032	849	728	642	826	717	638	804	706	633	784	696	683
	8	988	791	666	581	965	780	662	579	760	653	576	742	644	573	724	636	624
	9	926	730	609	528	905	721	605	526	704	598	524	687	591	521	672	584	573
	10	871	676	560	482	852	669	557	481	654	551	479	640	545	477	626	539	530

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	25.0 fc	7.4 ft
6.5 ft	17.9 fc	8.7 ft
7.5 ft	13.4 fc	10.0 ft
8.0 ft	11.8 fc	10.7 ft
10.0 ft	7.6 fc	13.4 ft
12.0 ft	5.2 fc	16.0 ft
14.0 ft	3.9 fc	18.7 ft
16.0 ft	3.0 fc	21.4 ft
20.0 ft	1.9 fc	26.7 ft
24.0 ft	1.3 fc	32.1 ft
28.0 ft	1.0 fc	37.4 ft

Average Luminaire Luminance [cd/m²]

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

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