

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

LT03IND48 05L 35HK xx LW xx xx MW

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

Test Number

SP-01381

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	1343
Efficacy	63.97 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.88
Two luminaires, plane 90°	1.21
Four luminaires	1.69

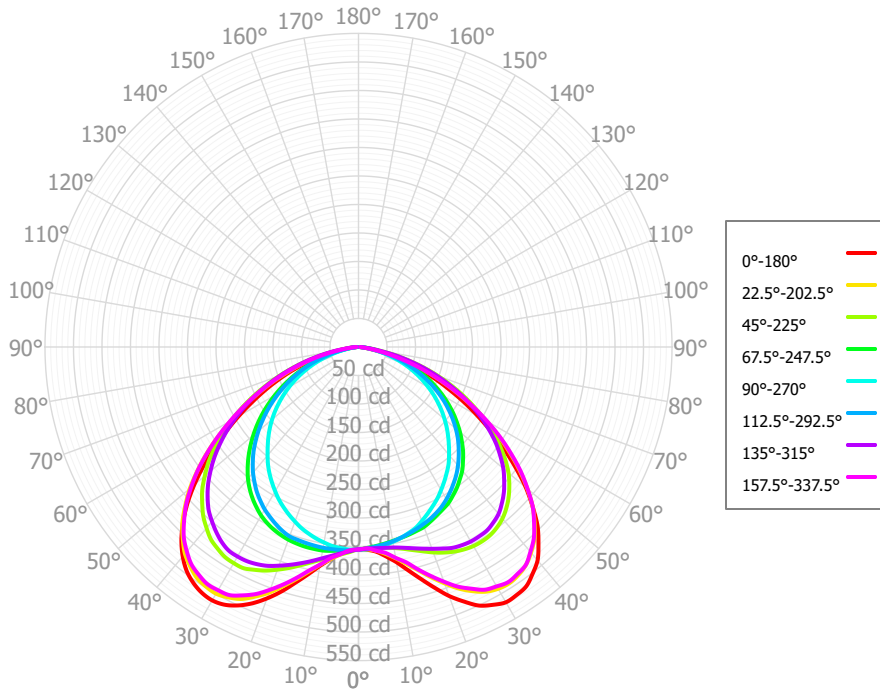
Full Beam Angle

0° - 180°	118°
90° - 270°	76°

IES File Header Contents

Keyword	Value
TEST	SP-01381
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	3/27/2023
LUMCAT	LT03IND48 05L 35HK xx LW xx xx MW
LUMINAIRE	Specline Linear, 1.8" aperture x 4' Long, Matte White Refl
OTHER	Wide Extruded Acrylic Lens, Batwing Distribution
OTHER	Data for 4' IND fixture, Ceiling mount
OTHER	76 Deg x 118 Degree Beam Angle
LAMP	N/A, Min. 90 CRI
LAMPCAT	N/A
OTHER	Reference project SL473
OTHER	05L designation for Spectrum linear product indicates 340 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°	35.06	2.61%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	108.60	8.08%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	187.69	13.97%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	249.19	18.55%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	269.10	20.03%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	237.39	17.67%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	165.90	12.35%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	77.33	5.76%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	13.15	0.98%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1343.41	100.00%	0.00° - 180.00°	1343.41	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°	355.27	355.27	355.27	355.27	355.27	355.27	355.27	355.27	355.27	355.27	355.27	355.27	355.27	355.27	355.27	355.27	355.27
2.50°	356.21	355.34	353.30	352.79	355.25	357.09	358.84	357.10	357.40	358.63	360.17	356.55	355.67	353.60	353.92	353.62	356.21
5.00°	360.63	358.86	353.40	350.50	353.20	357.56	363.63	365.07	363.71	365.29	365.45	358.36	354.19	351.31	354.28	358.87	360.63
7.50°	370.60	366.17	354.79	348.05	350.84	357.69	369.82	373.62	375.46	375.38	371.29	360.76	352.18	349.00	355.45	364.45	370.60
10.00°	383.30	376.39	358.05	345.57	347.10	357.61	376.91	387.49	389.94	387.82	378.83	362.57	348.24	346.19	357.22	375.63	383.30
12.50°	401.01	389.76	362.61	343.22	343.14	356.97	384.91	401.79	408.45	403.60	387.23	362.76	343.99	342.82	360.75	386.95	401.01
15.00°	420.91	405.49	368.85	340.90	338.08	356.00	392.85	419.19	428.23	421.44	396.65	362.57	338.79	339.19	365.48	404.03	420.91
17.50°	442.55	423.51	375.78	338.41	332.88	354.84	400.73	436.48	449.71	439.86	406.52	361.44	333.06	335.29	370.89	421.10	442.55
20.00°	464.87	441.19	383.53	335.89	324.85	353.58	408.28	453.16	469.34	458.59	415.67	359.72	325.86	331.20	376.72	438.15	464.87
22.50°	483.36	458.57	390.33	330.96	316.56	349.06	415.56	468.99	486.73	473.99	424.55	356.71	318.46	326.92	382.74	454.97	483.36
25.00°	500.55	472.60	396.11	325.70	308.08	343.03	420.48	480.78	500.28	487.73	431.32	352.97	310.53	321.74	388.86	467.81	500.55
27.50°	510.00	483.93	400.41	320.76	299.59	336.19	423.67	490.67	509.63	495.12	437.35	347.80	302.04	315.78	392.12	480.03	510.00
30.00°	517.13	489.80	403.27	315.86	289.77	329.02	424.43	492.77	513.31	499.68	437.79	341.49	292.28	308.46	394.00	484.90	517.13
32.50°	516.03	491.71	404.01	308.55	279.90	320.17	423.60	493.27	511.39	498.23	436.53	333.21	282.31	300.08	393.91	488.99	516.03
35.00°	512.79	488.63	402.88	301.06	269.70	310.72	418.03	488.14	505.19	494.42	431.43	324.06	271.89	291.21	392.96	486.15	512.79
37.50°	501.64	482.29	398.99	292.11	259.47	299.57	409.64	481.15	495.18	485.01	425.33	313.58	260.69	282.00	388.34	482.04	501.64
40.00°	488.75	470.94	392.89	283.08	247.11	287.87	399.69	468.47	479.74	473.66	414.67	301.67	248.10	271.51	382.29	469.19	488.75
42.50°	467.32	456.65	383.80	271.30	234.75	274.45	388.91	453.61	459.93	456.29	402.99	287.77	235.69	260.22	372.18	455.30	467.32
45.00°	444.33	436.89	372.53	259.46	222.46	260.55	374.36	432.89	435.43	437.09	387.76	273.04	223.56	248.40	360.67	435.64	444.33
47.50°	414.27	414.26	358.83	245.95	210.12	245.03	357.99	410.36	407.50	412.32	371.86	257.26	211.03	236.28	346.59	414.61	414.27
50.00°	383.15	386.64	343.55	232.41	197.10	229.14	339.06	383.54	376.17	386.09	352.07	240.96	197.90	222.82	331.75	387.13	383.15
52.50°	347.49	356.68	324.43	217.75	184.01	212.56	319.03	355.25	342.60	355.85	331.68	224.07	184.25	208.69	313.50	358.80	347.49
55.00°	311.29	324.69	303.07	203.03	170.24	195.86	296.85	323.84	308.86	324.71	307.84	206.46	169.93	193.82	294.37	327.08	311.29
57.50°	275.99	291.86	279.68	187.19	156.38	178.58	273.87	292.14	275.02	291.60	283.58	188.11	155.39	178.62	272.37	294.80	275.99
60.00°	240.77	258.43	255.24	171.28	141.75	161.22	249.16	259.88	242.80	258.12	257.00	169.54	140.58	162.35	249.73	260.63	240.77
62.50°	207.45	224.78	229.61	154.43	127.11	143.78	223.89	228.35	211.46	226.95	230.21	150.75	125.42	145.66	224.07	226.55	207.45
65.00°	174.26	191.83	203.41	137.49	112.45	126.33	197.78	198.07	182.51	196.15	202.37	131.77	109.89	128.51	197.85	192.76	174.26
67.50°	144.41	159.12	176.14	119.75	97.73	109.16	171.44	168.74	154.70	166.73	174.47	112.62	94.33	111.21	171.23	159.60	144.41
70.00°	114.68	128.15	148.41	101.90	82.60	92.01	144.84	140.86	128.17	137.48	147.16	93.62	78.73	94.24	144.55	128.14	114.68
72.50°	88.38	97.68	119.95	83.27	67.41	74.26	118.19	113.74	102.17	110.85	119.86	74.74	63.07	77.37	117.24	97.79	88.38
75.00°	62.22	71.34	91.21	64.81	51.94	56.47	93.09	87.65	77.71	84.47	93.35	56.54	47.37	59.38	89.85	70.06	62.22
77.50°	42.21	46.01	64.77	47.24	37.30	40.54	68.32	63.11	53.82	59.92	66.90	38.81	33.66	41.09	63.46	45.36	42.21
80.00°	22.67	28.44	39.08	30.76	25.79	24.70	46.41	40.50	34.89	35.48	43.99	24.97	21.50	27.29	37.15	26.96	22.67
82.50°	13.54	12.48	22.62	19.28	15.56	15.72	25.00	23.19	17.60	21.66	21.63	13.57	12.99	14.52	22.02	12.92	13.54
85.00°	4.95	7.10	8.79	9.37	9.49	6.89	14.39	11.86	9.69	8.22	12.53	7.30	7.05	8.40	7.56	6.98	4.95
87.50°	3.75	3.53	4.68	5.61	4.69	4.58	5.32	5.32	4.47	5.39	3.97	3.92	4.02	3.57	4.98	3.16	3.75
90.00°	2.66	2.92	2.95	2.67	3.52	2.34	3.68	3.67	3.10	2.69	3.19	2.62	2.84	2.59	2.78	2.86	2.66

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	1599	1599	1599	1599	1562	1562	1562	1562	1493	1493	1493	1429	1429	1429	1371	1371	1343
	1	1466	1403	1347	1297	1429	1373	1322	1276	1316	1274	1236	1263	1229	1198	1215	1188	1163
	2	1332	1222	1131	1055	1296	1196	1113	1042	1149	1078	1018	1105	1046	995	1064	1016	993
	3	1211	1070	960	873	1178	1048	947	865	1008	921	849	971	897	834	937	874	854
	4	1106	944	825	734	1075	926	815	729	892	795	719	860	776	709	831	759	742
	5	1014	839	717	627	985	824	709	623	795	694	616	768	679	609	743	665	651
	6	933	752	630	542	907	739	624	540	714	612	535	692	600	530	670	589	576
	7	863	678	559	475	839	667	554	473	646	544	469	627	535	466	608	526	515
	8	801	616	500	420	780	607	496	418	589	488	416	572	480	413	556	473	463
	9	746	563	450	375	727	555	447	373	539	441	371	524	434	369	511	428	420
	10	698	517	409	337	680	510	406	336	496	401	334	484	395	333	472	390	383

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	11.7 fc	18.1 ft
6.5 ft	8.4 fc	21.4 ft
7.5 ft	6.3 fc	24.7 ft
8.0 ft	5.6 fc	26.4 ft
10.0 ft	3.6 fc	33.0 ft
12.0 ft	2.5 fc	39.6 ft
14.0 ft	1.8 fc	46.2 ft
16.0 ft	1.4 fc	52.7 ft
20.0 ft	0.9 fc	65.9 ft
24.0 ft	0.6 fc	79.1 ft
28.0 ft	0.5 fc	92.3 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	6374	6374	6374
45.00°	11273	9451	5644
55.00°	9736	9479	5325
65.00°	7397	8635	4774
75.00°	4313	6322	3600
85.00°	1019	1809	1953

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	21.0	22.6	21.3	22.9	23.2	17.6	19.2	18.0	19.6	19.9
	3H	22.1	23.6	22.5	23.9	24.3	19.0	20.5	19.4	20.8	21.2
	4H	22.4	23.8	22.8	24.1	24.5	19.5	20.9	19.9	21.2	21.6
	6H	22.5	23.8	22.9	24.1	24.5	19.7	21.0	20.1	21.3	21.7
	8H	22.5	23.7	22.9	24.1	24.5	19.7	20.9	20.1	21.3	21.7
	12H	22.5	23.7	22.9	24.0	24.5	19.7	20.9	20.1	21.3	21.7
4H	2H	21.5	22.9	21.9	23.3	23.6	19.1	20.5	19.5	20.8	21.2
	3H	22.9	24.1	23.3	24.5	24.9	20.6	21.8	21.0	22.2	22.6
	4H	23.2	24.3	23.7	24.7	25.1	21.0	22.1	21.5	22.5	22.9
	6H	23.4	24.3	23.8	24.7	25.2	21.3	22.2	21.7	22.6	23.1
	8H	23.4	24.2	23.8	24.7	25.2	21.3	22.2	21.8	22.6	23.1
	12H	23.4	24.1	23.9	24.6	25.1	21.3	22.1	21.8	22.6	23.0
8H	4H	23.4	24.3	23.9	24.7	25.2	21.5	22.4	22.0	22.8	23.3
	6H	23.6	24.3	24.1	24.8	25.3	21.8	22.5	22.3	23.0	23.5
	8H	23.6	24.3	24.1	24.8	25.3	21.9	22.5	22.4	23.0	23.5
	12H	23.6	24.2	24.1	24.7	25.2	21.9	22.5	22.4	23.0	23.5
12H	4H	23.4	24.2	23.9	24.7	25.1	21.6	22.3	22.1	22.8	23.3
	6H	23.6	24.3	24.1	24.7	25.3	21.9	22.5	22.4	23.0	23.5
	8H	23.7	24.2	24.2	24.7	25.3	22.0	22.5	22.5	23.0	23.6

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0