

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

LT03IND48 25L 35K LA xx xx MW

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

Test Number

SP-01548_3

Test Date

6/3/2022

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

Summary of Results

Power

Input Watts	76 W
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Lumen Output

Output Lumens	7408
Efficacy	97.48 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

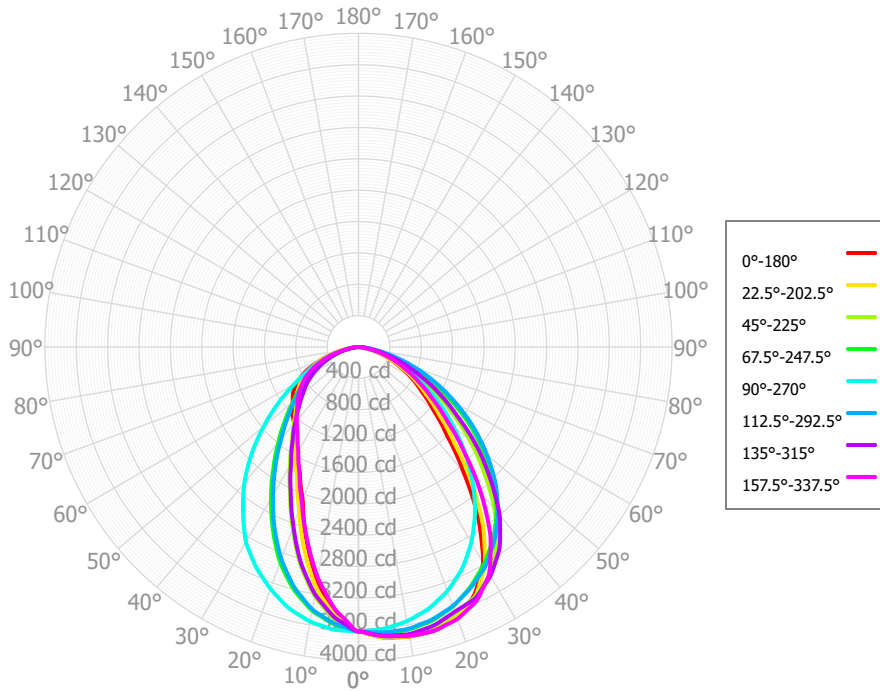
Full Beam Angle

0° - 180°	66°
90° - 270°	92°

IES File Header Contents

Keyword	Value
TEST	SP-01548_3
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	3/27/2023
LUMCAT	LT03IND48 25L 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	25L designation for Spectrum linear product indicates 1874 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
_CRI	80
_CCTMULT	30K x 0.97, 40K x 1.02

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	342.97	4.63%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	921.00	12.43%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	1298.50	17.53%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1424.79	19.23%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	1298.30	17.52%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	1033.09	13.94%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	695.64	9.39%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	327.94	4.43%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	66.15	0.89%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	7408.37	100.00%	0.00° - 180.00°	7408.37	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°	3628.55	3628.55	3628.55	3628.55	3628.55	3628.55	3628.55	3628.55	3628.55	3628.55	3628.55	3628.55	3628.55	3628.55	3628.55	3628.55	3628.55
2.50°	3674.71	3674.77	3673.43	3646.19	3619.34	3584.81	3547.38	3497.25	3525.87	3532.91	3560.16	3589.95	3623.75	3641.47	3662.92	3666.54	3674.71
5.00°	3720.86	3721.00	3718.30	3663.81	3610.14	3541.08	3466.21	3365.95	3423.18	3437.26	3491.76	3551.34	3618.95	3654.38	3697.29	3704.52	3720.86
7.50°	3735.59	3734.44	3720.93	3663.20	3581.28	3469.52	3333.44	3176.50	3222.28	3279.17	3357.41	3482.62	3587.38	3652.92	3708.38	3722.85	3735.59
10.00°	3750.31	3747.88	3723.55	3662.57	3552.42	3397.95	3200.66	2987.04	3021.37	3121.07	3223.06	3413.89	3555.80	3651.45	3719.48	3741.18	3750.31
12.50°	3748.38	3738.07	3711.56	3639.44	3504.36	3284.06	3022.75	2762.34	2789.51	2898.47	3045.44	3306.84	3500.92	3626.89	3700.39	3742.71	3748.38
15.00°	3746.45	3728.25	3699.56	3616.30	3456.31	3170.18	2844.84	2537.64	2557.65	2675.87	2867.81	3199.78	3446.03	3602.33	3681.28	3744.24	3746.45
17.50°	3710.88	3694.28	3657.06	3569.72	3385.02	3024.22	2637.08	2324.26	2319.45	2443.71	2661.32	3061.34	3364.30	3559.08	3638.08	3717.51	3710.88
20.00°	3675.30	3660.31	3614.55	3523.14	3313.73	2878.25	2429.31	2110.88	2081.24	2211.55	2454.84	2922.90	3282.58	3515.84	3594.88	3690.79	3675.30
22.50°	3584.07	3589.93	3564.72	3449.90	3218.40	2707.93	2237.57	1946.34	1927.24	2032.39	2258.13	2751.83	3188.61	3452.04	3564.04	3629.76	3584.07
25.00°	3492.84	3519.54	3514.88	3376.67	3123.07	2537.61	2045.82	1781.81	1773.23	1853.21	2061.43	2580.76	3094.64	3388.25	3533.19	3568.73	3492.84
27.50°	3335.87	3370.15	3432.84	3287.56	3000.71	2358.07	1882.95	1659.41	1666.99	1730.59	1905.21	2405.91	2982.97	3310.84	3450.48	3452.28	3335.87
30.00°	3178.90	3220.75	3350.79	3198.45	2878.34	2178.53	1720.09	1537.01	1560.76	1607.96	1748.98	2231.07	2871.30	3233.42	3367.76	3335.82	3178.90
32.50°	2921.40	2993.16	3210.03	3095.69	2734.52	2011.13	1592.99	1447.19	1469.36	1511.47	1612.40	2062.04	2720.02	3127.33	3251.77	3134.43	2921.40
35.00°	2663.90	2765.58	3069.26	2992.92	2590.69	1843.73	1465.88	1357.36	1377.96	1414.97	1475.81	1893.00	2568.72	3021.24	3135.77	2933.03	2663.90
37.50°	2375.07	2497.18	2885.34	2867.81	2431.02	1689.00	1359.97	1290.53	1325.52	1340.94	1380.45	1741.03	2416.93	2893.58	2968.22	2681.69	2375.07
40.00°	2086.23	2228.78	2701.40	2742.68	2271.34	1534.25	1254.07	1223.68	1273.08	1266.90	1285.08	1589.05	2265.14	2765.93	2800.68	2430.36	2086.23
42.50°	1843.08	1978.92	2484.46	2589.67	2101.13	1406.97	1163.58	1164.83	1235.06	1197.78	1195.72	1456.62	2096.90	2620.43	2588.00	2174.09	1843.08
45.00°	1599.91	1729.06	2267.52	2436.64	1930.92	1279.67	1073.08	1105.97	1197.02	1128.65	1106.34	1324.18	1928.65	2474.92	2375.32	1917.82	1599.91
47.50°	1423.23	1538.09	2061.37	2262.41	1756.36	1169.02	998.50	1054.70	1146.00	1077.42	1035.28	1207.56	1753.28	2306.94	2172.22	1702.25	1423.23
50.00°	1246.54	1347.13	1855.22	2088.17	1581.79	1058.36	923.90	1003.44	1094.97	1026.17	964.22	1090.92	1577.89	2138.96	1969.11	1486.68	1246.54
52.50°	1113.96	1200.76	1654.30	1910.76	1422.76	960.26	862.08	952.21	1057.35	982.21	886.11	993.41	1413.62	1966.90	1754.90	1319.05	1113.96
55.00°	981.37	1054.38	1453.37	1733.34	1263.72	862.15	800.26	900.99	1019.74	938.26	807.98	895.88	1249.33	1794.84	1540.68	1151.41	981.37
57.50°	879.45	935.60	1278.98	1547.60	1109.36	770.34	729.30	842.04	962.26	882.41	749.66	803.70	1095.20	1615.57	1364.58	1017.81	879.45
60.00°	777.53	816.82	1104.59	1361.87	955.00	678.55	658.36	783.07	904.77	826.56	691.34	711.53	941.07	1436.32	1188.50	884.21	777.53
62.50°	673.07	705.92	957.20	1182.04	827.18	593.07	592.25	710.54	824.50	761.76	617.14	630.65	822.56	1264.92	1027.85	771.19	673.07
65.00°	568.60	595.02	809.80	1002.21	699.37	507.59	526.14	638.01	744.21	696.96	542.92	549.76	704.04	1093.50	867.21	658.16	568.60
67.50°	483.59	499.36	675.30	844.74	589.90	440.99	449.85	555.05	641.41	613.25	480.62	477.67	597.40	932.04	731.70	560.43	483.59
70.00°	398.58	403.71	540.80	687.26	480.43	374.37	373.56	472.10	538.62	529.54	418.32	405.56	490.76	770.59	596.20	462.70	398.58
72.50°	315.50	323.33	425.87	542.67	380.14	304.19	306.23	384.87	444.86	439.70	340.46	334.76	404.48	619.45	475.89	372.83	315.50
75.00°	232.43	242.94	310.92	398.07	279.84	233.99	238.90	297.64	351.10	349.85	262.61	263.95	318.18	468.30	355.57	282.94	232.43
77.50°	157.73	174.77	220.46	280.68	203.43	167.14	180.25	217.09	251.11	262.75	196.99	200.52	221.82	350.64	264.12	207.62	157.73
80.00°	83.03	106.60	129.99	163.30	127.02	100.28	121.60	136.55	151.11	175.65	131.38	137.09	125.45	232.97	172.66	132.29	83.03
82.50°	55.56	69.29	83.48	104.30	88.11	66.94	77.75	88.93	97.26	117.82	85.26	93.61	84.57	157.13	110.57	88.43	55.56
85.00°	28.10	31.99	36.97	45.31	49.19	33.59	33.90	41.31	43.40	59.98	39.13	50.12	43.67	81.29	48.48	44.55	28.10
87.50°	20.28	22.64	24.64	30.15	31.64	24.81	24.87	27.70	26.84	39.94	27.62	33.96	27.89	51.85	32.32	30.72	20.28
90.00°	12.46	13.28	12.31	15.00	14.08	16.02	15.84	14.07	10.27	19.89	16.10	17.80	12.11	22.40	16.17	16.88	12.46

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	8819	8819	8819	8819	8614	8614	8614	8614	8232	8232	8232	7881	7881	7881	7560	7560	7408
	1	8154	7841	7560	7307	7957	7675	7420	7189	7363	7155	6963	7078	6908	6751	6814	6679	6539
	2	7489	6938	6483	6101	7301	6801	6383	6029	6543	6193	5890	6305	6014	5758	6085	5845	5631
	3	6885	6172	5620	5181	6709	6058	5547	5135	5842	5406	5046	5643	5272	4960	5458	5145	4877
	4	6348	5528	4928	4470	6185	5433	4873	4440	5252	4765	4380	5084	4663	4322	4928	4566	4266
	5	5872	4986	4367	3910	5723	4905	4324	3889	4753	4240	3848	4610	4161	3808	4478	4084	3769
	6	5451	4526	3905	3460	5315	4458	3871	3445	4328	3805	3416	4207	3742	3387	4094	3682	3359
	7	5077	4133	3521	3092	4953	4075	3494	3081	3964	3441	3060	3860	3390	3039	3763	3341	3019
	8	4744	3795	3198	2788	4632	3745	3176	2780	3650	3133	2764	3561	3091	2748	3477	3051	2733
	9	4447	3502	2923	2532	4346	3459	2905	2526	3377	2870	2514	3300	2835	2502	3227	2802	2490
	10	4181	3247	2688	2315	4089	3209	2672	2311	3138	2643	2301	3071	2614	2292	3007	2586	2283

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	120.0 fc	7.4 ft
6.5 ft	85.9 fc	8.7 ft
7.5 ft	64.5 fc	10.0 ft
8.0 ft	56.7 fc	10.7 ft
10.0 ft	36.3 fc	13.4 ft
12.0 ft	25.2 fc	16.0 ft
14.0 ft	18.5 fc	18.7 ft
16.0 ft	14.2 fc	21.4 ft
20.0 ft	9.1 fc	26.7 ft
24.0 ft	6.3 fc	32.1 ft
28.0 ft	4.6 fc	37.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	65096	65096	65096
45.00°	40591	57529	48989
55.00°	30694	45457	39525
65.00°	24137	34375	29688
75.00°	16110	21552	19397
85.00°	5784	7610	10125

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	23.5	25.0	23.9	25.3	25.6	22.6	24.1	23.0	24.4	24.8
	3H	24.7	26.1	25.1	26.4	26.7	24.2	25.6	24.6	25.9	26.3
	4H	25.0	26.3	25.4	26.7	27.0	24.7	26.0	25.1	26.4	26.8
	6H	25.2	26.3	25.6	26.7	27.1	25.0	26.2	25.4	26.6	26.9
	8H	25.2	26.3	25.6	26.7	27.1	25.1	26.2	25.5	26.6	27.0
	12H	25.2	26.2	25.6	26.6	27.0	25.1	26.2	25.5	26.5	27.0
4H	2H	24.4	25.7	24.8	26.0	26.4	23.0	24.3	23.4	24.7	25.0
	3H	25.8	26.8	26.2	27.2	27.6	24.8	25.9	25.2	26.3	26.7
	4H	26.1	27.1	26.6	27.5	28.0	25.4	26.4	25.8	26.8	27.2
	6H	26.3	27.2	26.8	27.6	28.1	25.8	26.6	26.2	27.0	27.5
	8H	26.3	27.1	26.8	27.6	28.0	25.8	26.6	26.3	27.0	27.5
	12H	26.3	27.0	26.8	27.5	28.0	25.9	26.6	26.4	27.0	27.5
8H	4H	26.5	27.2	26.9	27.7	28.2	25.6	26.4	26.1	26.8	27.3
	6H	26.7	27.3	27.2	27.8	28.3	26.0	26.7	26.5	27.1	27.6
	8H	26.7	27.3	27.3	27.8	28.3	26.1	26.7	26.6	27.2	27.7
	12H	26.8	27.3	27.3	27.8	28.3	26.2	26.7	26.7	27.2	27.8
12H	4H	26.5	27.2	27.0	27.7	28.1	25.6	26.3	26.1	26.8	27.3
	6H	26.7	27.3	27.3	27.8	28.3	26.0	26.6	26.6	27.1	27.6
	8H	26.8	27.3	27.3	27.8	28.4	26.2	26.7	26.7	27.2	27.7

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0