

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

LT03IND24 25L 35K LA xx xx MW

Specline Linear, 1.8" aperture x 2' Long, Matte White Refl

Test Number

SP-01545_3

Test Date

6/3/2022

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

Summary of Results

Power

Input Watts	39 W
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Lumen Output

Output Lumens	3704
Efficacy	94.98 lm/W

Luminous Dimensions

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

Spacing Criterion

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

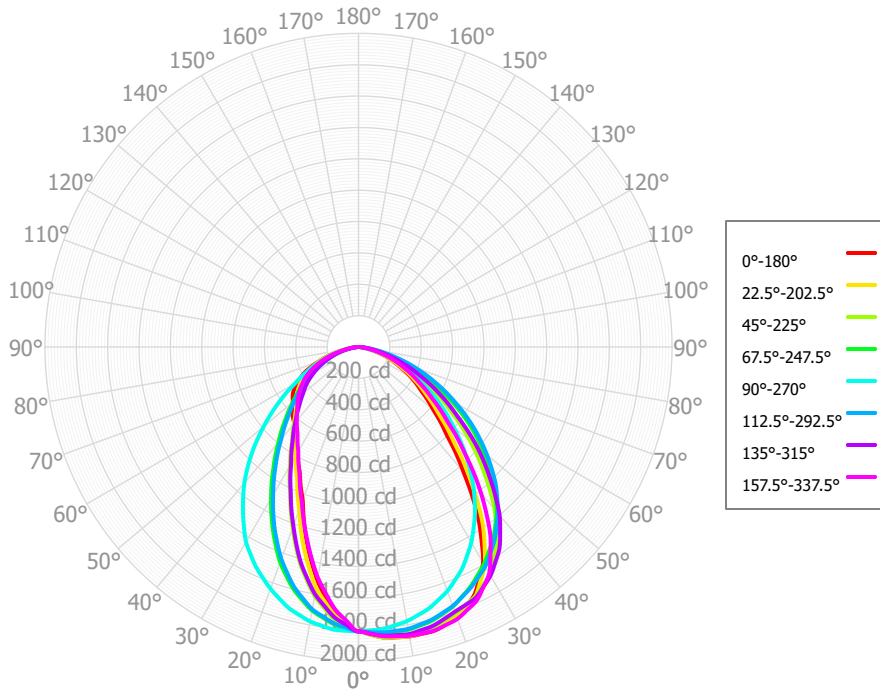
Full Beam Angle

0° - 180°	66°
90° - 270°	92°

IES File Header Contents

Keyword	Value
TEST	SP-01545_3
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	3/23/2023
LUMCAT	LT03IND24 25L 35K 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 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°	171.48	4.63%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	460.50	12.43%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	649.25	17.53%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	712.39	19.23%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	649.15	17.52%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	516.54	13.94%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	347.82	9.39%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	163.97	4.43%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	33.08	0.89%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	3704.18	100.00%	0.00° - 180.00°	3704.18	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°	1814.28	1814.28	1814.28	1814.28	1814.28	1814.28	1814.28	1814.28	1814.28	1814.28	1814.28	1814.28	1814.28	1814.28	1814.28	1814.28	1814.28
2.50°	1837.35	1837.39	1836.72	1823.09	1809.67	1792.41	1773.69	1748.63	1762.93	1766.45	1780.08	1794.97	1811.88	1820.74	1831.46	1833.27	1837.35
5.00°	1860.43	1860.50	1859.15	1831.91	1805.07	1770.54	1733.11	1682.98	1711.59	1718.63	1745.88	1775.67	1809.48	1827.19	1848.64	1852.26	1860.43
7.50°	1867.80	1867.22	1860.47	1831.60	1790.64	1734.76	1666.72	1588.25	1611.14	1639.58	1678.70	1741.31	1793.69	1826.46	1854.19	1861.43	1867.80
10.00°	1875.15	1873.94	1861.78	1831.29	1776.21	1698.97	1600.33	1493.52	1510.68	1560.53	1611.53	1706.95	1777.90	1825.72	1859.74	1870.59	1875.15
12.50°	1874.19	1869.03	1855.78	1819.72	1752.18	1642.03	1511.38	1381.17	1394.76	1449.24	1522.72	1653.42	1750.46	1813.44	1850.19	1871.36	1874.19
15.00°	1873.22	1864.12	1849.78	1808.15	1728.15	1585.09	1422.42	1268.82	1278.83	1337.93	1433.90	1599.89	1723.01	1801.17	1840.64	1872.12	1873.22
17.50°	1855.44	1847.14	1828.53	1784.86	1692.51	1512.11	1318.54	1162.13	1159.72	1221.85	1330.66	1530.67	1682.15	1779.54	1819.04	1858.76	1855.44
20.00°	1837.65	1830.15	1807.28	1761.57	1656.86	1439.13	1214.65	1055.44	1040.62	1105.78	1227.42	1461.45	1641.29	1757.92	1797.44	1845.39	1837.65
22.50°	1792.04	1794.96	1782.36	1724.95	1609.20	1353.96	1118.78	973.17	963.62	1016.19	1129.07	1375.92	1594.31	1726.02	1782.02	1814.88	1792.04
25.00°	1746.42	1759.77	1757.44	1688.33	1561.54	1268.80	1022.91	890.90	886.61	926.61	1030.71	1290.38	1547.32	1694.13	1766.60	1784.37	1746.42
27.50°	1667.93	1685.07	1716.42	1643.78	1500.36	1179.03	941.48	829.70	833.50	865.30	952.60	1202.96	1491.48	1655.42	1725.24	1726.14	1667.93
30.00°	1589.45	1610.38	1675.40	1599.23	1439.17	1089.26	860.04	768.50	780.38	803.98	874.49	1115.53	1435.65	1616.71	1683.88	1667.91	1589.45
32.50°	1460.70	1496.58	1605.01	1547.85	1367.26	1005.57	796.49	723.60	734.68	755.74	806.20	1031.02	1360.01	1563.67	1625.88	1567.21	1460.70
35.00°	1331.95	1382.79	1534.63	1496.46	1295.35	921.86	732.94	678.68	688.98	707.49	737.90	946.50	1284.36	1510.62	1567.89	1466.52	1331.95
37.50°	1187.53	1248.59	1442.67	1433.90	1215.51	844.50	679.99	645.26	662.76	670.47	690.23	870.51	1208.47	1446.79	1484.11	1340.85	1187.53
40.00°	1043.12	1114.39	1350.70	1371.34	1135.67	767.13	627.03	611.84	636.54	633.45	642.54	794.52	1132.57	1382.97	1400.34	1215.18	1043.12
42.50°	921.54	989.46	1242.23	1294.83	1050.57	703.48	581.79	582.41	617.53	598.89	597.86	728.31	1048.45	1310.21	1294.00	1087.05	921.54
45.00°	799.95	864.53	1133.76	1218.32	965.46	639.84	536.54	552.98	598.51	564.33	553.17	662.09	964.32	1237.46	1187.66	958.91	799.95
47.50°	711.61	769.05	1030.68	1131.21	878.18	584.51	499.25	527.35	573.00	538.71	517.64	603.78	876.64	1153.47	1086.11	851.13	711.61
50.00°	623.27	673.56	927.61	1044.09	790.90	529.18	461.95	501.72	547.48	513.09	482.11	545.46	788.95	1069.48	984.56	743.34	623.27
52.50°	556.98	600.38	827.15	955.38	711.38	480.13	431.04	476.11	528.68	491.11	443.05	496.70	706.81	983.45	877.45	659.52	556.98
55.00°	490.68	527.19	726.69	866.67	631.86	431.07	400.13	450.49	509.87	469.13	403.99	447.94	624.67	897.42	770.34	575.71	490.68
57.50°	439.72	467.80	639.49	773.80	554.68	385.17	364.65	421.02	481.13	441.21	374.83	401.85	547.60	807.79	682.29	508.91	439.72
60.00°	388.77	408.41	552.29	680.93	477.50	339.27	329.18	391.54	452.39	413.28	345.67	355.77	470.53	718.16	594.25	442.10	388.77
62.50°	336.53	352.96	478.60	591.02	413.59	296.53	296.13	355.27	412.25	380.88	308.57	315.33	411.28	632.46	513.93	385.59	336.53
65.00°	284.30	297.51	404.90	501.11	349.68	253.80	263.07	319.00	372.11	348.48	271.46	274.88	352.02	546.75	433.60	329.08	284.30
67.50°	241.80	249.68	337.65	422.37	294.95	220.49	224.92	277.53	320.71	306.62	240.31	238.83	298.70	466.02	365.85	280.21	241.80
70.00°	199.29	201.85	270.40	343.63	240.22	187.19	186.78	236.05	269.31	264.77	209.16	202.78	245.38	385.30	298.10	231.35	199.29
72.50°	157.75	161.66	212.93	271.33	190.07	152.09	153.12	192.44	222.43	219.85	170.23	167.38	202.24	309.72	237.95	186.41	157.75
75.00°	116.21	121.47	155.46	199.04	139.92	117.00	119.45	148.82	175.55	174.93	131.30	131.98	159.09	234.15	177.79	141.47	116.21
77.50°	78.86	87.38	110.23	140.34	101.72	83.57	90.12	108.55	125.55	131.38	98.50	100.26	110.91	175.32	132.06	103.81	78.86
80.00°	41.52	53.30	65.00	81.65	63.51	50.14	60.80	68.28	75.56	87.83	65.69	68.54	62.73	116.49	86.33	66.14	41.52
82.50°	27.78	34.65	41.74	52.15	44.05	33.47	38.88	44.47	48.63	58.91	42.63	46.80	42.28	78.57	55.29	44.21	27.78
85.00°	14.05	15.99	18.48	22.66	24.60	16.80	16.95	20.65	21.70	29.99	19.56	25.06	21.84	40.65	24.24	22.28	14.05
87.50°	10.14	11.32	12.32	15.08	15.82	12.40	12.44	13.85	13.42	19.97	13.81	16.98	13.94	25.92	16.16	15.36	10.14
90.00°	6.23	6.64	6.15	7.50	7.04	8.01	7.92	7.04	5.14	9.95	8.05	8.90	6.05	11.20	8.08	8.44	6.23

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	4410	4410	4410	4410	4307	4307	4307	4307	4116	4116	4116	3941	3941	3941	3780	3780	3704
	1	4077	3920	3780	3654	3979	3837	3710	3594	3682	3577	3482	3539	3454	3376	3407	3339	3270
	2	3744	3469	3242	3051	3650	3400	3192	3015	3272	3096	2945	3153	3007	2879	3043	2923	2816
	3	3443	3086	2810	2590	3354	3029	2773	2568	2921	2703	2523	2822	2636	2480	2729	2573	2438
	4	3174	2764	2464	2235	3093	2716	2436	2220	2626	2383	2190	2542	2332	2161	2464	2283	2133
	5	2936	2493	2183	1955	2861	2453	2162	1944	2376	2120	1924	2305	2080	1904	2239	2042	1884
	6	2725	2263	1953	1730	2657	2229	1936	1722	2164	1903	1708	2103	1871	1694	2047	1841	1680
	7	2538	2066	1761	1546	2477	2037	1747	1541	1982	1721	1530	1930	1695	1520	1882	1671	1509
	8	2372	1897	1599	1394	2316	1872	1588	1390	1825	1566	1382	1780	1546	1374	1738	1526	1366
	9	2223	1751	1462	1266	2173	1730	1453	1263	1688	1435	1257	1650	1418	1251	1613	1401	1245
	10	2090	1623	1344	1158	2045	1605	1336	1155	1569	1321	1151	1535	1307	1146	1504	1293	1141

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	60.0 fc	7.4 ft
6.5 ft	42.9 fc	8.7 ft
7.5 ft	32.3 fc	10.0 ft
8.0 ft	28.3 fc	10.7 ft
10.0 ft	18.1 fc	13.4 ft
12.0 ft	12.6 fc	16.0 ft
14.0 ft	9.3 fc	18.7 ft
16.0 ft	7.1 fc	21.4 ft
20.0 ft	4.5 fc	26.7 ft
24.0 ft	3.1 fc	32.1 ft
28.0 ft	2.3 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