

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

LT03IND48 25L 35HK xx LW xx xx MW

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

Test Number

SP-01381_3

Test Date

6/3/2022

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

Summary of Results

Power

Input Watts	78 W
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Lumen Output

Output Lumens	6058
Efficacy	77.67 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.91
Two luminaires, plane 90°	1.21
Four luminaires	1.69

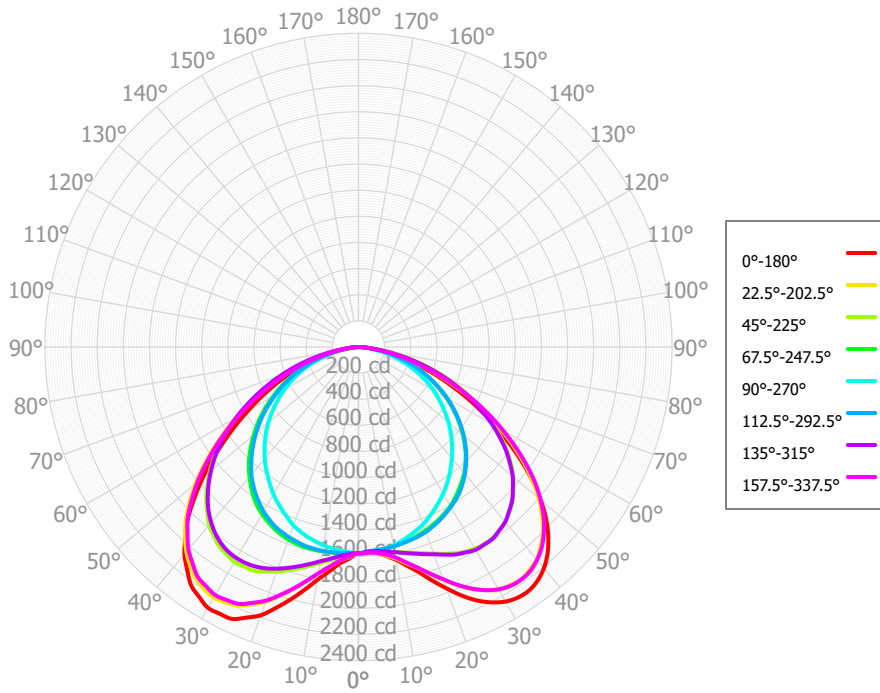
Full Beam Angle

0° - 180°	118°
90° - 270°	76°

IES File Header Contents

Keyword	Value
TEST	SP-01381_3
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	3/27/2023
LUMCAT	LT03IND48 25L 35HK xx LW xx xx MW
LUMINAIRE	SpecLine Linear Pendant, 1.8" aperture x 4' Long, Matte White Refl
OTHER	Extruded Acrylic Lens, Batwing Distribution
OTHER	Data for 4' IND fixture, Ceiling mount
OTHER	76 Degree x 118 Degree Beam Angle
LAMP	N/A, Min. 90 CRI
LAMPCAT	N/A
OTHER	Reference project SL473
OTHER	25L designation for Spectrum linear product indicates 1515 Source Lm/Ft.
OTHER	CCT Output Multipliers: 40DK x 1.0, 30DK x 1.0, 27DK x 1.0
OTHER	Total Luminaire Watts is approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	90
_LAMPMULT	05L x 0.22, 11L x 0.46, 20L x 0.81

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	155.98	2.57%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	482.33	7.96%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	830.85	13.71%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1103.65	18.22%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	1195.60	19.73%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	1065.50	17.59%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	763.66	12.61%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	385.99	6.37%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	74.83	1.24%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	6058.39	100.00%	0.00° - 180.00°	6058.39	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°	1579.76	1579.76	1579.76	1579.76	1579.76	1579.76	1579.76	1579.76	1579.76	1579.76	1579.76	1579.76	1579.76	1579.76	1579.76	1579.76	1579.76
2.50°	1579.39	1580.56	1578.61	1573.59	1575.40	1577.43	1588.55	1606.39	1621.54	1610.13	1600.38	1580.40	1572.18	1566.30	1569.29	1577.32	1579.39
5.00°	1581.86	1581.54	1576.27	1566.82	1571.15	1583.13	1607.22	1641.98	1664.31	1641.71	1619.27	1582.53	1564.97	1560.96	1568.81	1582.20	1581.86
7.50°	1613.91	1611.28	1582.97	1558.75	1558.07	1584.59	1634.71	1696.34	1734.26	1697.93	1647.30	1585.58	1553.62	1556.22	1579.88	1603.34	1613.91
10.00°	1653.90	1643.81	1593.35	1550.20	1544.64	1585.64	1664.90	1757.55	1809.95	1758.48	1678.19	1587.82	1541.42	1550.47	1594.42	1636.21	1653.90
12.50°	1714.45	1696.65	1610.79	1539.69	1521.36	1581.20	1700.44	1832.98	1903.22	1837.14	1715.54	1588.74	1524.06	1540.54	1615.10	1688.85	1714.45
15.00°	1784.32	1750.58	1630.77	1528.58	1497.96	1576.46	1736.19	1912.67	1999.27	1916.46	1754.53	1586.56	1505.50	1530.50	1637.26	1748.39	1784.32
17.50°	1874.36	1824.52	1654.86	1512.67	1471.85	1563.94	1772.32	1989.48	2092.54	1997.97	1791.43	1580.02	1481.20	1520.09	1662.74	1817.88	1874.36
20.00°	1965.53	1898.87	1682.05	1495.49	1445.07	1551.16	1805.59	2065.58	2185.47	2073.73	1827.90	1569.01	1454.12	1507.13	1688.86	1891.16	1965.53
22.50°	2058.83	1972.45	1713.69	1476.12	1409.18	1533.30	1834.66	2119.79	2242.28	2133.18	1858.95	1552.47	1416.56	1486.94	1720.29	1969.26	2058.83
25.00°	2140.60	2044.94	1741.86	1456.29	1373.09	1514.80	1855.45	2169.77	2296.38	2181.91	1889.17	1531.62	1379.08	1465.25	1752.48	2038.86	2140.60
27.50°	2203.88	2098.14	1765.77	1432.18	1335.26	1485.04	1865.76	2183.90	2301.73	2205.38	1895.50	1506.19	1341.85	1440.02	1773.22	2099.15	2203.88
30.00°	2250.31	2148.01	1781.81	1407.41	1296.66	1454.42	1866.53	2192.90	2305.46	2215.26	1899.26	1476.47	1302.20	1413.62	1792.84	2141.73	2250.31
32.50°	2273.58	2161.45	1789.51	1372.45	1253.40	1414.29	1856.89	2171.35	2269.21	2198.13	1880.61	1442.81	1256.20	1384.87	1792.80	2167.60	2273.58
35.00°	2276.04	2170.74	1785.82	1336.33	1209.22	1373.28	1834.55	2146.59	2231.42	2167.89	1860.35	1400.45	1210.25	1351.74	1791.52	2172.79	2276.04
37.50°	2253.20	2150.04	1771.44	1297.92	1160.63	1325.89	1799.92	2086.82	2153.47	2114.85	1820.33	1351.02	1164.39	1311.00	1770.10	2160.67	2253.20
40.00°	2209.04	2123.24	1745.94	1259.36	1111.63	1276.39	1754.31	2024.89	2072.97	2049.45	1779.52	1298.16	1116.30	1266.97	1747.92	2126.66	2209.04
42.50°	2142.56	2064.15	1711.46	1210.23	1061.08	1215.63	1699.58	1937.54	1959.82	1965.73	1714.47	1242.91	1064.11	1218.05	1705.96	2076.92	2142.56
45.00°	2054.79	1998.26	1665.17	1160.79	1009.61	1154.15	1632.59	1849.36	1843.53	1868.52	1648.84	1180.99	1011.37	1166.00	1663.19	2006.14	2054.79
47.50°	1947.85	1903.21	1610.69	1102.48	955.34	1089.58	1556.83	1729.97	1699.89	1754.12	1568.58	1115.09	957.71	1109.94	1603.29	1922.42	1947.85
50.00°	1820.48	1801.45	1544.99	1043.91	899.74	1024.03	1473.87	1609.82	1555.22	1629.63	1487.36	1047.00	901.39	1050.29	1541.65	1818.06	1820.48
52.50°	1676.82	1676.75	1472.44	978.79	840.64	955.11	1386.38	1474.51	1404.13	1493.78	1394.36	977.77	841.38	986.65	1460.83	1702.89	1676.82
55.00°	1523.45	1547.15	1386.93	913.48	781.38	884.66	1290.79	1338.97	1254.78	1356.18	1299.50	904.92	780.90	921.25	1377.97	1568.40	1523.45
57.50°	1363.44	1403.85	1294.68	845.79	721.76	809.94	1190.86	1201.01	1113.49	1216.87	1189.97	830.48	719.85	854.14	1280.24	1425.08	1363.44
60.00°	1208.69	1260.05	1192.57	777.47	661.27	735.75	1080.75	1063.48	976.07	1078.76	1079.36	754.00	657.62	783.60	1180.53	1278.22	1208.69
62.50°	1057.02	1115.05	1086.14	703.89	599.16	662.84	966.02	929.18	853.16	941.65	962.47	676.77	594.15	710.20	1069.66	1130.02	1057.02
65.00°	909.64	969.11	974.55	630.03	535.32	588.32	851.93	797.33	732.77	812.57	845.93	598.81	529.49	635.54	957.90	983.18	909.64
67.50°	764.44	821.28	861.06	554.50	468.77	510.55	738.08	679.14	620.18	689.35	731.02	520.64	463.74	559.96	842.30	836.76	764.44
70.00°	633.61	679.53	741.75	478.89	403.52	433.31	626.21	562.79	510.50	571.89	615.87	442.89	397.48	483.24	725.03	695.32	633.61
72.50°	509.00	548.19	620.63	402.94	340.09	356.99	514.96	454.29	408.21	458.08	499.82	365.24	330.82	405.79	602.07	555.19	509.00
75.00°	396.94	424.55	499.82	327.24	275.93	282.87	406.91	347.91	309.38	352.18	387.28	291.54	264.34	329.08	480.22	433.36	396.94
77.50°	289.40	312.20	379.09	252.40	210.91	212.01	299.69	249.05	217.92	250.55	284.99	218.63	197.96	252.77	361.58	315.31	289.40
80.00°	201.64	211.45	268.85	180.30	151.66	146.66	207.66	157.17	135.38	162.56	187.99	153.73	139.47	182.75	248.71	217.07	201.64
82.50°	119.71	125.73	160.64	116.43	98.33	88.46	118.74	85.51	69.46	80.80	104.27	90.01	85.63	115.60	149.80	121.90	119.71
85.00°	64.85	62.22	88.49	61.35	55.41	44.75	62.56	30.07	24.24	38.17	40.18	49.58	46.63	65.27	70.37	65.93	64.85
87.50°	16.64	23.48	21.84	28.17	21.94	17.20	11.70	13.60	11.83	11.00	17.33	11.66	15.05	21.58	30.53	14.50	16.64
90.00°	6.24	4.25	9.49	5.29	5.72	3.47	5.20	2.51	4.52	3.92	2.75	6.91	4.73	7.78	4.77	7.23	6.24

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	7212	7212	7212	7212	7045	7045	7045	7045	6732	6732	6732	6445	6445	6445	6182	6182	6058
	1	6595	6308	6051	5819	6430	6171	5937	5724	5913	5720	5543	5676	5519	5373	5458	5332	5218
	2	5984	5482	5066	4717	5824	5367	4985	4661	5151	4829	4551	4952	4683	4447	4768	4545	4445
	3	5440	4793	4292	3893	5288	4696	4232	3858	4515	4116	3788	4346	4007	3721	4190	3903	3816
	4	4965	4225	3684	3271	4823	4144	3638	3247	3990	3550	3201	3848	3466	3157	3715	3386	3310
	5	4550	3755	3200	2790	4421	3687	3165	2774	3557	3096	2743	3435	3030	2712	3322	2967	2902
	6	4188	3364	2810	2413	4070	3305	2782	2402	3195	2728	2380	3091	2675	2358	2994	2625	2569
	7	3871	3034	2492	2111	3765	2985	2469	2103	2890	2425	2087	2801	2383	2071	2718	2342	2294
	8	3593	2756	2229	1866	3496	2713	2210	1860	2632	2174	1848	2555	2140	1836	2483	2106	2064
	9	3348	2517	2008	1665	3260	2481	1993	1660	2410	1964	1651	2344	1935	1641	2282	1907	1871
	10	3130	2312	1823	1497	3051	2280	1810	1493	2219	1785	1486	2162	1761	1478	2107	1738	1706

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	52.2 fc	18.3 ft
6.5 ft	37.4 fc	21.6 ft
7.5 ft	28.1 fc	25.0 ft
8.0 ft	24.7 fc	26.6 ft
10.0 ft	15.8 fc	33.3 ft
12.0 ft	11.0 fc	39.9 ft
14.0 ft	8.1 fc	46.6 ft
16.0 ft	6.2 fc	53.2 ft
20.0 ft	3.9 fc	66.5 ft
24.0 ft	2.7 fc	79.8 ft
28.0 ft	2.0 fc	93.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	28341	28341	28341
45.00°	52132	42247	25615
55.00°	47649	43379	24439
65.00°	38614	41369	22724
75.00°	27513	34645	19126
85.00°	13348	18214	11405

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	26.7	28.3	27.0	28.7	29.0	22.8	24.5	23.2	24.8	25.1
	3H	28.1	29.6	28.4	29.9	30.2	24.4	25.9	24.8	26.2	26.6
	4H	28.5	29.9	28.9	30.2	30.6	24.9	26.4	25.3	26.7	27.1
	6H	28.7	30.0	29.1	30.4	30.8	25.3	26.6	25.7	27.0	27.3
	8H	28.8	30.0	29.2	30.4	30.8	25.4	26.6	25.8	27.0	27.4
	12H	28.8	30.0	29.2	30.4	30.8	25.4	26.6	25.8	27.0	27.4
4H	2H	27.2	28.6	27.6	29.0	29.4	24.1	25.5	24.5	25.9	26.3
	3H	28.8	30.0	29.2	30.4	30.8	25.8	27.0	26.2	27.4	27.8
	4H	29.4	30.4	29.8	30.9	31.3	26.4	27.5	26.8	27.9	28.3
	6H	29.7	30.6	30.2	31.1	31.5	26.8	27.7	27.2	28.1	28.6
	8H	29.8	30.6	30.2	31.1	31.5	26.9	27.7	27.3	28.2	28.6
	12H	29.8	30.6	30.3	31.1	31.5	26.9	27.7	27.4	28.2	28.6
8H	4H	29.6	30.5	30.1	30.9	31.4	26.8	27.7	27.3	28.1	28.6
	6H	30.0	30.7	30.5	31.2	31.7	27.3	28.0	27.8	28.5	29.0
	8H	30.1	30.8	30.6	31.3	31.8	27.4	28.1	27.9	28.6	29.0
	12H	30.2	30.8	30.7	31.2	31.8	27.5	28.1	28.0	28.6	29.1
12H	4H	29.6	30.4	30.1	30.9	31.3	26.8	27.6	27.3	28.1	28.6
	6H	30.1	30.7	30.6	31.2	31.7	27.3	28.0	27.9	28.4	29.0
	8H	30.2	30.8	30.7	31.2	31.8	27.5	28.1	28.0	28.6	29.1

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0