

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

LT03IND24 20L 35K LA xx xx MW

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

Test Number

SP-01545_2

Test Date

6/3/2022

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

Summary of Results

Power

Input Watts	32 W
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Lumen Output

Output Lumens	2948
Efficacy	92.12 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

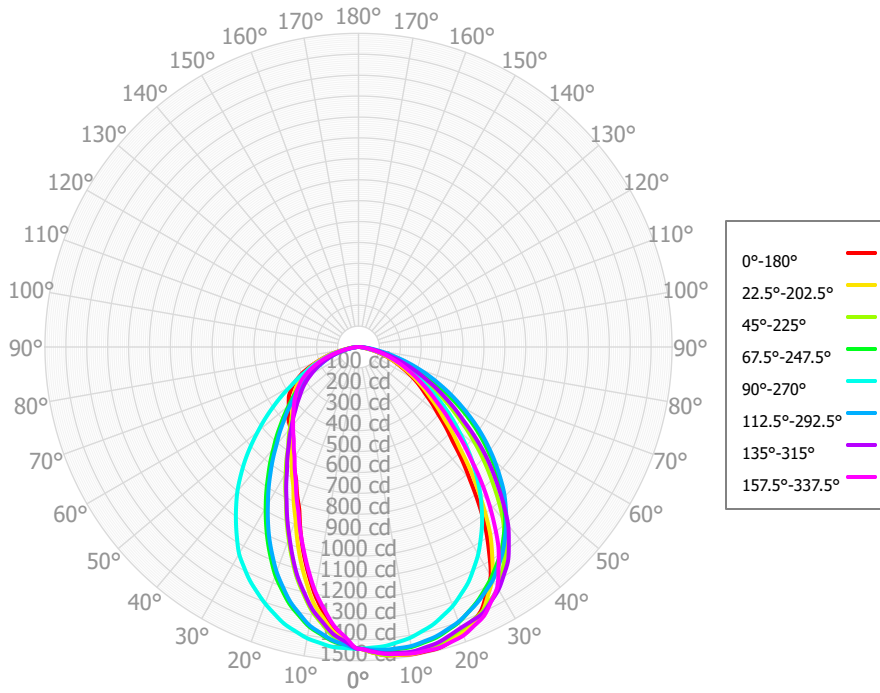
Full Beam Angle

0° - 180°	66°
90° - 270°	92°

IES File Header Contents

Keyword	Value
TEST	SP-01545_2
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	3/23/2023
LUMCAT	LT03IND24 20L 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	05L designation for Spectrum linear product indicates 1489 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°	136.47	4.63%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	366.48	12.43%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	516.69	17.53%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	566.95	19.23%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	516.61	17.52%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	411.08	13.94%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	276.81	9.39%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	130.49	4.43%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	26.32	0.89%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	2947.91	100.00%	0.00° - 180.00°	2947.91	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°	1443.86	1443.86	1443.86	1443.86	1443.86	1443.86	1443.86	1443.86	1443.86	1443.86	1443.86	1443.86	1443.86	1443.86	1443.86	1443.86	1443.86
2.50°	1462.23	1462.25	1461.72	1450.88	1440.20	1426.46	1411.56	1391.61	1403.00	1405.80	1416.65	1428.50	1441.95	1449.00	1457.54	1458.98	1462.23
5.00°	1480.59	1480.65	1479.57	1457.89	1436.53	1409.05	1379.26	1339.37	1362.14	1367.74	1389.43	1413.14	1440.04	1454.14	1471.21	1474.09	1480.59
7.50°	1486.45	1486.00	1480.62	1457.65	1425.05	1380.58	1326.43	1263.98	1282.20	1304.84	1335.97	1385.79	1427.48	1453.56	1475.63	1481.38	1486.45
10.00°	1492.31	1491.34	1481.66	1457.40	1413.57	1352.10	1273.60	1188.59	1202.25	1241.92	1282.51	1358.45	1414.91	1452.97	1480.04	1488.68	1492.31
12.50°	1491.54	1487.44	1476.89	1448.19	1394.45	1306.78	1202.80	1099.18	1109.99	1153.35	1211.83	1315.84	1393.07	1443.20	1472.45	1489.29	1491.54
15.00°	1490.77	1483.53	1472.12	1438.99	1375.32	1261.47	1132.01	1009.77	1017.73	1064.77	1141.15	1273.24	1371.23	1433.43	1464.84	1489.90	1490.77
17.50°	1476.62	1470.02	1455.21	1420.45	1346.95	1203.39	1049.34	924.86	922.95	972.39	1058.98	1218.16	1338.71	1416.22	1447.65	1479.26	1476.62
20.00°	1462.46	1456.50	1438.29	1401.92	1318.59	1145.30	966.66	839.95	828.16	880.01	976.82	1163.07	1306.19	1399.01	1430.46	1468.63	1462.46
22.50°	1426.16	1428.49	1418.46	1372.77	1280.66	1077.53	890.37	774.48	766.88	808.72	898.55	1095.00	1268.80	1373.63	1418.19	1444.34	1426.16
25.00°	1389.86	1400.48	1398.63	1343.63	1242.72	1009.76	814.06	709.01	705.60	737.42	820.28	1026.93	1231.41	1348.24	1405.92	1420.06	1389.86
27.50°	1327.40	1341.04	1365.98	1308.17	1194.03	938.31	749.26	660.31	663.32	688.63	758.11	957.35	1186.97	1317.44	1373.00	1373.72	1327.40
30.00°	1264.94	1281.59	1333.34	1272.72	1145.34	866.87	684.45	611.60	621.05	639.83	695.95	887.78	1142.54	1286.63	1340.09	1327.38	1264.94
32.50°	1162.48	1191.03	1277.32	1231.83	1088.11	800.26	633.88	575.86	584.68	601.44	641.60	820.52	1082.34	1244.42	1293.93	1247.24	1162.48
35.00°	1060.01	1100.47	1221.31	1190.93	1030.88	733.65	583.30	540.12	548.31	563.04	587.25	753.26	1022.14	1202.20	1247.78	1167.10	1060.01
37.50°	945.08	993.67	1148.12	1141.15	967.34	672.08	541.16	513.52	527.45	533.58	549.30	692.78	961.74	1151.41	1181.11	1067.09	945.08
40.00°	830.15	886.87	1074.93	1091.36	903.80	610.50	499.01	486.92	506.58	504.12	511.36	632.31	901.34	1100.61	1114.44	967.08	830.15
42.50°	733.39	787.45	988.61	1030.47	836.08	559.86	463.01	463.50	491.45	476.62	475.80	579.61	834.39	1042.71	1029.81	865.11	733.39
45.00°	636.63	688.02	902.28	969.58	768.35	509.20	427.00	440.08	476.32	449.11	440.23	526.91	767.44	984.81	945.18	763.13	636.63
47.50°	566.33	612.03	820.25	900.25	698.88	465.17	397.32	419.68	456.01	428.72	411.96	480.51	697.66	917.97	864.36	677.35	566.33
50.00°	496.02	536.05	738.22	830.92	629.42	421.14	367.64	399.29	435.71	408.33	383.68	434.10	627.87	851.13	783.54	591.58	496.02
52.50°	443.26	477.80	658.27	760.32	566.14	382.10	343.04	378.90	420.74	390.84	352.60	395.29	562.50	782.66	698.30	524.87	443.26
55.00°	390.50	419.55	578.32	689.72	502.85	343.06	318.44	358.52	405.77	373.35	321.51	356.49	497.13	714.19	613.06	458.17	390.50
57.50°	349.95	372.29	508.93	615.81	441.43	306.53	290.20	335.06	382.90	351.13	298.30	319.81	435.80	642.86	542.99	405.00	349.95
60.00°	309.39	325.02	439.53	541.91	380.01	270.01	261.97	311.60	360.02	328.90	275.10	283.13	374.47	571.54	472.92	351.84	309.39
62.50°	267.82	280.90	380.88	470.35	329.15	235.99	235.67	282.74	328.08	303.12	245.57	250.95	327.31	503.33	409.00	306.87	267.82
65.00°	226.25	236.77	322.23	398.80	278.29	201.98	209.36	253.87	296.13	277.33	216.04	218.76	280.15	435.12	345.08	261.89	226.25
67.50°	192.43	198.70	268.71	336.14	234.73	175.48	179.00	220.86	255.23	244.02	191.25	190.07	237.71	370.88	291.16	223.00	192.43
70.00°	158.60	160.64	215.19	273.47	191.17	148.97	148.64	187.86	214.32	210.71	166.46	161.38	195.28	306.63	237.24	184.12	158.60
72.50°	125.54	128.66	169.46	215.94	151.26	121.04	121.85	153.15	177.02	174.96	135.48	133.21	160.95	246.49	189.37	148.35	125.54
75.00°	92.49	96.67	123.72	158.40	111.35	93.11	95.06	118.44	139.71	139.21	104.50	105.03	126.61	186.34	141.49	112.59	92.49
77.50°	62.76	69.54	87.73	111.69	80.95	66.51	71.72	86.39	99.92	104.55	78.39	79.79	88.26	139.53	105.10	82.62	62.76
80.00°	33.04	42.42	51.73	64.98	50.54	39.90	48.39	54.34	60.13	69.89	52.28	54.55	49.92	92.70	68.70	52.64	33.04
82.50°	22.11	27.57	33.22	41.50	35.06	26.64	30.94	35.39	38.70	46.88	33.93	37.25	33.65	62.53	44.00	35.19	22.11
85.00°	11.18	12.73	14.71	18.03	19.57	13.37	13.49	16.44	17.27	23.87	15.57	19.94	17.38	32.35	19.29	17.73	11.18
87.50°	8.07	9.01	9.81	12.00	12.59	9.87	9.90	11.02	10.68	15.89	10.99	13.52	11.10	20.63	12.86	12.22	8.07
90.00°	4.96	5.28	4.90	5.97	5.60	6.38	6.30	5.60	4.09	7.92	6.41	7.08	4.82	8.91	6.43	6.72	4.96

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	3509	3509	3509	3509	3428	3428	3428	3428	3275	3275	3275	3136	3136	3136	3008	3008	2948
	1	3245	3120	3008	2908	3166	3054	2952	2861	2930	2847	2771	2816	2749	2686	2711	2658	2602
	2	2980	2761	2580	2428	2905	2706	2540	2399	2604	2464	2344	2509	2393	2291	2421	2326	2241
	3	2740	2456	2236	2062	2670	2410	2207	2043	2325	2151	2008	2246	2098	1974	2172	2047	1941
	4	2526	2200	1961	1779	2461	2162	1939	1767	2090	1896	1743	2023	1856	1720	1961	1817	1698
	5	2337	1984	1738	1556	2277	1952	1720	1547	1891	1687	1531	1835	1656	1515	1782	1625	1500
	6	2169	1801	1554	1377	2115	1774	1540	1371	1722	1514	1359	1674	1489	1348	1629	1465	1337
	7	2020	1645	1401	1230	1971	1621	1390	1226	1577	1369	1218	1536	1349	1209	1497	1329	1201
	8	1888	1510	1272	1109	1843	1490	1264	1106	1452	1247	1100	1417	1230	1094	1383	1214	1087
	9	1769	1393	1163	1008	1729	1376	1156	1005	1344	1142	1000	1313	1128	996	1284	1115	991
	10	1664	1292	1069	921	1627	1277	1063	919	1249	1052	916	1222	1040	912	1197	1029	908

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	47.7 fc	7.4 ft
6.5 ft	34.2 fc	8.7 ft
7.5 ft	25.7 fc	10.0 ft
8.0 ft	22.6 fc	10.7 ft
10.0 ft	14.4 fc	13.4 ft
12.0 ft	10.0 fc	16.0 ft
14.0 ft	7.4 fc	18.7 ft
16.0 ft	5.6 fc	21.4 ft
20.0 ft	3.6 fc	26.7 ft
24.0 ft	2.5 fc	32.1 ft
28.0 ft	1.8 fc	37.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	51805	51805	51805
45.00°	32304	45783	38987
55.00°	24428	36177	31456
65.00°	19209	27357	23627
75.00°	12821	17151	15437
85.00°	4603	6056	8058

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	22.7	24.2	23.1	24.5	24.9	21.8	23.3	22.2	23.7	24.0
	3H	23.9	25.3	24.3	25.6	26.0	23.4	24.8	23.8	25.1	25.5
	4H	24.2	25.5	24.6	25.9	26.2	24.0	25.2	24.4	25.6	26.0
	6H	24.4	25.5	24.8	25.9	26.3	24.2	25.4	24.6	25.8	26.2
	8H	24.4	25.5	24.8	25.9	26.3	24.3	25.4	24.7	25.8	26.2
	12H	24.4	25.4	24.8	25.8	26.2	24.3	25.4	24.7	25.7	26.2
4H	2H	23.6	24.9	24.0	25.3	25.6	22.2	23.5	22.6	23.9	24.2
	3H	25.0	26.0	25.4	26.4	26.8	24.0	25.1	24.4	25.5	25.9
	4H	25.4	26.3	25.8	26.7	27.2	24.6	25.6	25.1	26.0	26.4
	6H	25.5	26.4	26.0	26.8	27.3	25.0	25.8	25.4	26.2	26.7
	8H	25.6	26.3	26.0	26.8	27.2	25.0	25.8	25.5	26.3	26.7
	12H	25.6	26.2	26.0	26.7	27.2	25.1	25.8	25.6	26.2	26.7
8H	4H	25.7	26.4	26.1	26.9	27.4	24.8	25.6	25.3	26.0	26.5
	6H	25.9	26.5	26.4	27.0	27.5	25.2	25.9	25.7	26.3	26.8
	8H	26.0	26.5	26.5	27.0	27.5	25.3	25.9	25.8	26.4	26.9
	12H	26.0	26.5	26.5	27.0	27.5	25.4	25.9	25.9	26.4	27.0
12H	4H	25.7	26.4	26.2	26.9	27.3	24.8	25.5	25.3	26.0	26.5
	6H	25.9	26.5	26.5	27.0	27.5	25.2	25.8	25.8	26.3	26.8
	8H	26.0	26.5	26.5	27.0	27.6	25.4	25.9	25.9	26.4	26.9

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0