

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P288464

Luminaire Tested: **4WNLED-LD4-50SL-F-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P288464  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1902-121-2)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4WNLED-LD4-50SL-F-UNV-L850-CD1-U  
Description: 4FT WNLED WRAPAROUND  
Light Source: (112) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

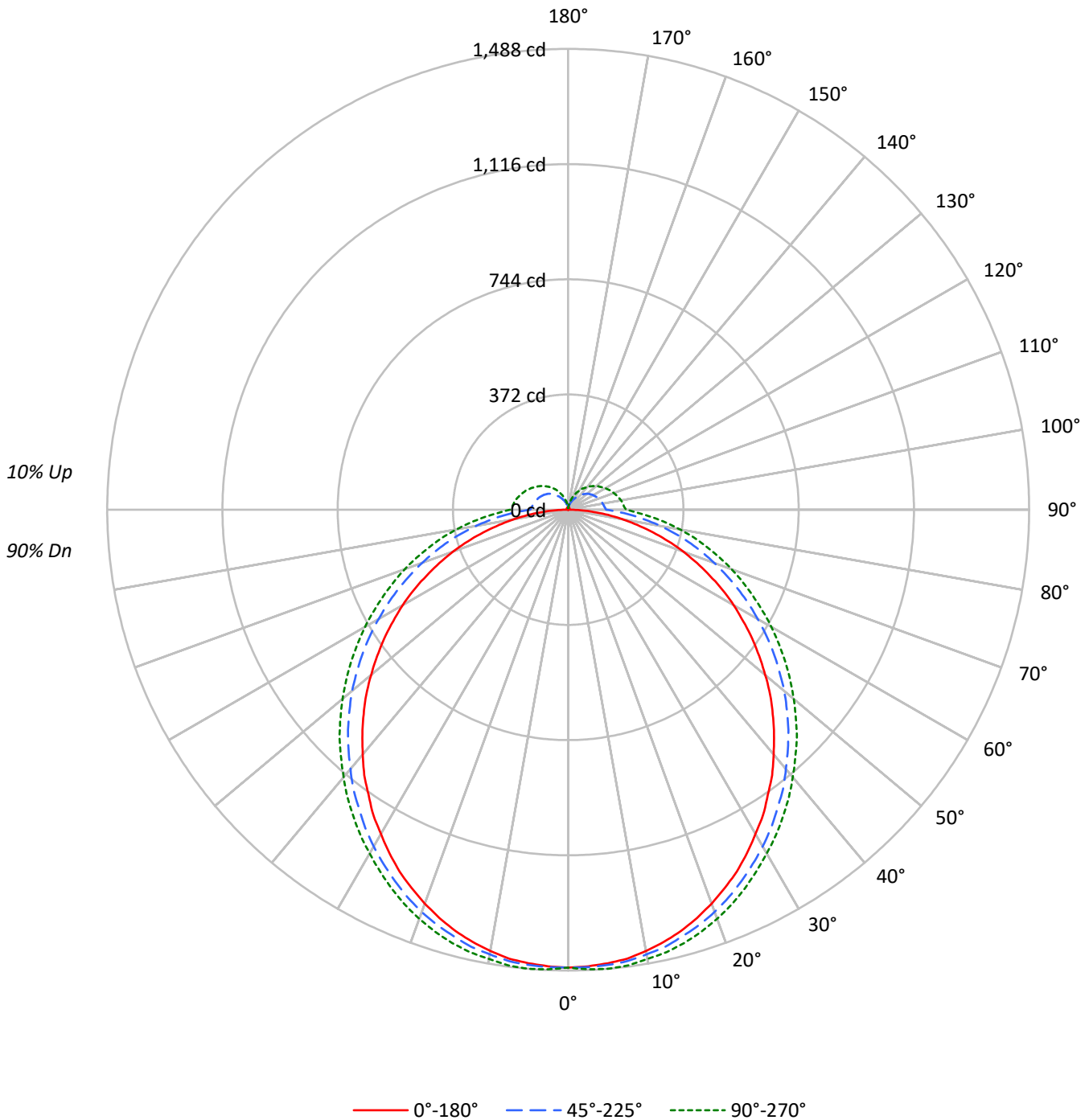
Lumens per Lamp: N/A  
Luminaire Lumens: 5064.0 lumens  
Efficiency: N/A  
Efficacy: 119.4 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 42.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

TEST NUMBER: P288464

CATALOG NUMBER: 4WNLED-LD4-50SL-F-UNV-L850-CD1-U

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	105	100	95	91	101	97	92	89	91	87	84	85	82	80	80	78	76	73
2	95	86	79	73	92	84	77	71	78	73	68	74	69	65	69	66	62	60
3	86	75	67	60	83	73	65	59	69	62	57	65	59	54	61	56	52	50
4	79	67	58	51	76	65	56	50	61	54	48	57	51	46	54	49	45	42
5	73	59	50	43	70	58	49	43	54	47	41	51	45	40	49	43	39	36
6	67	53	44	38	64	52	43	37	49	42	36	46	40	35	44	38	34	32
7	62	48	39	33	60	47	39	33	45	37	32	42	36	31	40	34	30	28
8	58	44	35	29	55	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	22	32	26	22	20

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3979	3979	3979
5°	3961	3948	3976
10°	3932	3908	3938
15°	3891	3859	3904
20°	3832	3805	3850
25°	3771	3736	3785
30°	3690	3668	3715
35°	3612	3590	3652
40°	3531	3515	3586
45°	3446	3445	3531
50°	3353	3368	3463
55°	3255	3283	3406
60°	3153	3193	3353
65°	3012	3108	3301
70°	2860	3021	3286
75°	2638	2956	3276
80°	2372	2883	3317
85°	1877	2834	3427



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.2	2.8
10°-20°	402.0	7.9
20°-30°	607.3	12.0
30°-40°	732.0	14.5
40°-50°	767.6	15.2
50°-60°	715.4	14.1
60°-70°	588.8	11.6
70°-80°	411.5	8.1
80°-90°	213.9	4.2
90°-100°	116.3	2.3
100°-110°	104.6	2.1
110°-120°	89.0	1.8
120°-130°	70.6	1.4
130°-140°	50.6	1.0
140°-150°	31.5	0.6
150°-160°	16.1	0.3
160°-170°	5.8	0.1
170°-180°	1.0	0.0
0°-30°	1149.5	22.7
0°-40°	1881.4	37.2
0°-60°	3364.4	66.4
0°-90°	4578.6	90.4
90°-120°	309.9	6.1
90°-150°	462.5	9.1
90°-180°	485.0	9.6
0°-180°	5064.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1478	1478	1478	1478	1478	
5°	1470	1458	1476	1473	1488	140
15°	1408	1400	1426	1430	1448	397
25°	1289	1289	1323	1330	1349	593
35°	1124	1135	1177	1192	1209	704
45°	934	957	1005	1027	1044	721
55°	725	756	810	840	856	648
65°	505	545	604	644	657	501
75°	283	337	402	446	462	300
85°	82	140	208	253	270	88
90°	1	56	122	170	187	6
95°	1	54	117	164	179	1
105°	1	50	109	151	165	2
115°	3	47	99	136	148	3
125°	4	41	87	120	128	4
135°	4	33	72	100	107	3
145°	6	25	52	77	84	4
155°	7	18	34	51	58	3
165°	7	12	19	26	32	2
175°	7	8	10	8	10	1
180°	7	7	7	7	7	



TEST NUMBER: P288464

CATALOG NUMBER: 4WNLED-LD4-50SL-F-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1478.5	1478.5	1478.5	1478.5	1478.5	1478.5	1478.5	1478.5	1478.5	1478.5	1478.5
2.5°	1475.7	1482.6	1474.4	1477.1	1468.9	1463.4	1486.7	1471.6	1473.0	1486.7	1478.5
5°	1470.2	1477.1	1468.9	1471.6	1464.7	1457.9	1482.6	1468.9	1470.2	1482.6	1475.7
7.5°	1462.0	1467.5	1459.2	1462.0	1456.5	1449.6	1473.0	1462.0	1463.4	1474.4	1470.2
10°	1446.9	1452.4	1448.2	1449.6	1444.1	1437.2	1462.0	1448.2	1451.0	1463.4	1457.9
12.5°	1429.0	1435.9	1429.0	1431.7	1427.6	1420.7	1444.1	1433.1	1435.9	1448.2	1445.5
15°	1408.3	1412.5	1408.3	1411.1	1407.0	1400.1	1423.5	1415.2	1418.0	1430.4	1426.2
17.5°	1382.2	1387.7	1383.6	1387.7	1383.6	1376.7	1400.1	1391.8	1394.6	1408.3	1405.6
20°	1353.3	1360.2	1354.7	1360.2	1356.1	1350.6	1374.0	1367.1	1369.8	1383.6	1382.2
22.5°	1321.7	1328.6	1323.1	1327.2	1327.2	1321.7	1343.7	1339.6	1342.3	1354.7	1354.7
25°	1288.7	1292.8	1290.1	1294.2	1292.8	1288.7	1310.7	1307.9	1309.3	1320.3	1323.1
27.5°	1250.2	1257.1	1252.9	1258.4	1257.1	1254.3	1274.9	1272.2	1276.3	1288.7	1290.1
30°	1208.9	1215.8	1213.1	1219.9	1218.6	1215.8	1237.8	1236.4	1239.2	1250.2	1255.7
32.5°	1170.4	1173.2	1173.2	1178.7	1180.0	1177.3	1197.9	1197.9	1202.0	1211.7	1218.6
35°	1123.7	1130.5	1127.8	1138.8	1137.4	1134.7	1155.3	1156.7	1160.8	1171.8	1177.3
37.5°	1081.0	1083.8	1083.8	1093.4	1096.1	1092.0	1109.9	1115.4	1119.5	1129.2	1138.8
40°	1031.5	1037.0	1037.0	1048.0	1050.8	1048.0	1067.3	1072.8	1076.9	1087.9	1093.4
42.5°	983.4	987.5	990.2	999.9	1005.4	1002.6	1020.5	1027.4	1031.5	1043.9	1049.4
45°	933.9	938.0	939.4	951.7	957.2	957.2	972.4	982.0	987.5	997.1	1005.4
47.5°	884.3	885.7	889.8	900.8	909.1	909.1	924.2	932.5	939.4	949.0	957.2
50°	830.7	833.5	839.0	851.3	858.2	858.2	873.3	884.3	891.2	900.8	910.5
52.5°	777.1	781.2	786.7	799.1	807.3	808.7	821.1	834.8	839.0	850.0	859.6
55°	724.8	727.6	734.4	748.2	756.4	756.4	771.6	783.9	790.8	800.4	810.1
57.5°	669.8	673.9	680.8	694.5	702.8	704.2	717.9	730.3	738.6	748.2	759.2
60°	617.5	617.5	625.8	642.3	650.5	653.3	664.3	678.0	686.3	695.9	706.9
62.5°	562.5	562.5	572.1	585.9	595.5	598.3	613.4	625.8	634.0	643.7	656.0
65°	504.8	508.9	517.1	532.3	543.3	544.6	555.6	570.8	581.8	591.4	603.8
67.5°	449.7	455.2	460.7	475.9	488.2	491.0	503.4	518.5	528.1	537.8	552.9
70°	394.7	400.2	407.1	422.2	433.2	440.1	449.7	464.9	475.9	486.9	500.6
72.5°	339.7	345.2	352.1	368.6	381.0	387.8	397.5	415.4	425.0	436.0	451.1
75°	283.3	287.4	298.4	315.0	328.7	337.0	345.2	361.7	374.1	385.1	401.6
77.5°	228.3	235.2	244.8	261.3	275.1	281.9	291.6	312.2	323.2	337.0	352.1
80°	180.2	184.3	193.9	210.4	224.2	233.8	242.1	261.3	272.3	286.1	302.6
82.5°	130.7	136.2	145.8	162.3	178.8	187.0	193.9	213.2	225.6	239.3	253.1
85°	82.5	89.4	99.0	115.5	132.0	140.3	148.5	165.0	180.2	192.5	207.7
87.5°	38.5	45.4	56.4	71.5	86.6	96.3	103.2	121.0	134.8	148.5	162.3
90°	1.4	6.9	17.9	33.0	49.5	56.4	64.6	81.1	94.9	108.7	122.4
92.5°	0.0	5.5	16.5	31.6	46.8	55.0	61.9	78.4	92.1	105.9	119.7
95°	1.4	5.5	16.5	30.3	45.4	53.6	60.5	77.0	90.8	104.5	116.9
97.5°	1.4	5.5	16.5	30.3	45.4	52.3	60.5	75.6	89.4	103.2	115.5
100°	1.4	5.5	16.5	30.3	44.0	52.3	59.1	74.3	88.0	100.4	112.8
102.5°	1.4	5.5	16.5	28.9	44.0	50.9	57.8	72.9	86.6	99.0	111.4
105°	1.4	6.9	16.5	28.9	42.6	49.5	57.8	71.5	83.9	96.3	108.7
107.5°	2.8	6.9	16.5	28.9	42.6	49.5	56.4	70.1	82.5	94.9	105.9
110°	2.8	6.9	16.5	27.5	41.3	48.1	55.0	68.8	81.1	92.1	104.5



TEST NUMBER: P288464

CATALOG NUMBER: 4WNLED-LD4-50SL-F-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	2.8	6.9	16.5	27.5	41.3	48.1	53.6	67.4	79.8	90.8	101.8
115°	2.8	6.9	15.1	27.5	39.9	46.8	52.3	66.0	77.0	88.0	99.0
117.5°	2.8	6.9	15.1	26.1	38.5	45.4	50.9	64.6	75.6	85.3	96.3
120°	4.1	6.9	15.1	26.1	37.1	44.0	49.5	61.9	72.9	83.9	93.5
122.5°	4.1	8.3	15.1	24.8	37.1	42.6	48.1	60.5	70.1	81.1	90.8
125°	4.1	8.3	15.1	24.8	35.8	41.3	46.8	57.8	68.8	78.4	86.6
127.5°	4.1	8.3	15.1	23.4	34.4	38.5	44.0	55.0	66.0	74.3	83.9
130°	4.1	8.3	13.8	22.0	31.6	37.1	41.3	52.3	61.9	71.5	79.8
132.5°	4.1	8.3	13.8	22.0	30.3	34.4	39.9	49.5	59.1	67.4	75.6
135°	4.1	6.9	12.4	20.6	28.9	33.0	37.1	46.8	55.0	63.3	71.5
137.5°	4.1	6.9	12.4	19.3	26.1	30.3	34.4	42.6	50.9	59.1	66.0
140°	5.5	6.9	12.4	17.9	24.8	28.9	31.6	39.9	46.8	53.6	61.9
142.5°	5.5	6.9	11.0	16.5	23.4	26.1	28.9	37.1	44.0	49.5	56.4
145°	5.5	6.9	11.0	16.5	22.0	24.8	27.5	34.4	39.9	45.4	52.3
147.5°	5.5	6.9	11.0	15.1	20.6	23.4	24.8	31.6	37.1	41.3	46.8
150°	6.9	8.3	11.0	15.1	19.3	20.6	23.4	28.9	33.0	38.5	42.6
152.5°	6.9	8.3	11.0	13.8	17.9	19.3	22.0	26.1	30.3	34.4	38.5
155°	6.9	8.3	9.6	12.4	16.5	17.9	20.6	23.4	27.5	30.3	34.4
157.5°	6.9	8.3	9.6	12.4	15.1	16.5	17.9	22.0	24.8	27.5	30.3
160°	6.9	8.3	9.6	11.0	13.8	15.1	16.5	19.3	22.0	24.8	26.1
162.5°	6.9	8.3	9.6	11.0	12.4	13.8	15.1	16.5	19.3	20.6	23.4
165°	6.9	8.3	8.3	9.6	12.4	12.4	13.8	15.1	16.5	17.9	19.3
167.5°	6.9	6.9	8.3	9.6	11.0	11.0	12.4	13.8	15.1	15.1	16.5
170°	6.9	6.9	8.3	8.3	9.6	9.6	11.0	11.0	12.4	13.8	13.8
172.5°	6.9	6.9	8.3	8.3	8.3	9.6	9.6	9.6	11.0	11.0	11.0
175°	6.9	6.9	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	9.6
177.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
180°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9



TEST NUMBER: P288464

CATALOG NUMBER: 4WNLED-LD4-50SL-F-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1478.5	1478.5	1478.5	1478.5	1478.5	1478.5	1478.5	1478.5	1478.5	1478.5
2.5°	1479.9	1482.6	1484.0	1479.9	1474.4	1478.5	1485.4	1477.1	1470.2	1485.4
5°	1477.1	1479.9	1479.9	1477.1	1473.0	1477.1	1484.0	1477.1	1470.2	1488.1
7.5°	1471.6	1473.0	1473.0	1470.2	1467.5	1473.0	1479.9	1473.0	1466.1	1484.0
10°	1462.0	1463.4	1463.4	1462.0	1457.9	1462.0	1468.9	1463.4	1456.5	1473.0
12.5°	1448.2	1449.6	1451.0	1448.2	1445.5	1452.4	1457.9	1451.0	1444.1	1463.4
15°	1430.4	1433.1	1433.1	1434.5	1430.4	1437.2	1442.7	1437.2	1430.4	1448.2
17.5°	1409.7	1412.5	1413.9	1413.9	1411.1	1416.6	1422.1	1416.6	1411.1	1429.0
20°	1385.0	1385.0	1389.1	1389.1	1387.7	1394.6	1400.1	1393.2	1387.7	1405.6
22.5°	1358.8	1358.8	1360.2	1360.2	1360.2	1367.1	1374.0	1367.1	1361.6	1379.5
25°	1325.8	1327.2	1328.6	1332.7	1330.0	1336.8	1343.7	1336.8	1330.0	1349.2
27.5°	1294.2	1294.2	1295.6	1299.7	1298.3	1305.2	1310.7	1303.8	1299.7	1316.2
30°	1259.8	1259.8	1261.2	1265.3	1265.3	1272.2	1276.3	1269.4	1266.7	1281.8
32.5°	1222.7	1222.7	1224.1	1229.6	1229.6	1235.1	1240.6	1235.1	1232.3	1247.4
35°	1181.4	1182.8	1185.5	1191.0	1192.4	1197.9	1203.4	1197.9	1193.8	1208.9
37.5°	1141.5	1141.5	1142.9	1151.2	1152.5	1159.4	1164.9	1159.4	1155.3	1170.4
40°	1098.9	1098.9	1101.6	1109.9	1112.7	1116.8	1123.7	1118.2	1114.0	1127.8
42.5°	1054.9	1056.3	1060.4	1067.3	1070.0	1075.5	1081.0	1076.9	1071.4	1085.1
45°	1009.5	1012.3	1015.0	1024.6	1027.4	1031.5	1038.4	1032.9	1030.1	1043.9
47.5°	964.1	964.1	968.2	979.2	982.0	984.7	991.6	988.9	984.7	997.1
50°	916.0	917.4	921.5	931.1	935.2	938.0	946.2	943.5	939.4	950.4
52.5°	866.5	867.8	874.7	884.3	888.5	892.6	899.5	898.1	892.6	903.6
55°	817.0	819.7	828.0	837.6	840.3	844.5	852.7	848.6	848.6	855.5
57.5°	766.1	770.2	778.4	788.1	790.8	794.9	803.2	800.4	799.1	805.9
60°	715.2	720.7	728.9	738.6	744.1	745.4	755.1	753.7	750.9	757.8
62.5°	665.7	671.2	679.4	690.4	693.2	697.3	706.9	704.2	702.8	706.9
65°	613.4	618.9	629.9	640.9	643.7	647.8	657.4	654.7	651.9	657.4
67.5°	562.5	570.8	579.0	590.0	594.1	596.9	607.9	606.5	603.8	609.3
70°	511.6	519.9	529.5	540.5	544.6	548.8	558.4	557.0	557.0	561.1
72.5°	462.1	470.4	481.4	492.4	497.9	499.2	507.5	507.5	508.9	511.6
75°	412.6	420.9	431.9	442.9	445.6	451.1	459.4	458.0	459.4	462.1
77.5°	363.1	372.7	383.7	394.7	398.8	400.2	409.9	409.9	411.2	415.4
80°	315.0	324.6	335.6	346.6	350.7	350.7	360.3	361.7	363.1	365.8
82.5°	265.4	275.1	286.1	297.1	302.6	305.3	313.6	313.6	315.0	317.7
85°	218.7	226.9	239.3	248.9	253.1	255.8	264.1	265.4	266.8	269.6
87.5°	173.3	184.3	193.9	204.9	209.1	211.8	218.7	220.1	222.8	224.2
90°	134.8	145.8	156.8	166.4	170.5	173.3	181.5	184.3	185.7	187.0
92.5°	132.0	143.0	152.7	162.3	166.4	169.2	176.0	178.8	181.5	181.5
95°	130.7	140.3	149.9	160.9	163.7	166.4	173.3	176.0	178.8	178.8
97.5°	127.9	137.5	148.5	158.2	160.9	165.0	170.5	173.3	176.0	176.0
100°	125.2	136.2	145.8	155.4	158.2	160.9	167.8	170.5	173.3	173.3
102.5°	122.4	133.4	143.0	151.3	155.4	158.2	163.7	166.4	169.2	169.2
105°	121.0	130.7	140.3	148.5	151.3	154.0	160.9	163.7	166.4	165.0
107.5°	118.3	126.5	136.2	145.8	148.5	151.3	156.8	159.5	162.3	160.9
110°	115.5	123.8	133.4	141.7	144.4	147.2	152.7	155.4	158.2	156.8





TEST NUMBER: P288464

CATALOG NUMBER: 4WNLED-LD4-50SL-F-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	112.8	121.0	129.3	137.5	140.3	143.0	148.5	151.3	154.0	152.7
115°	108.7	116.9	126.5	133.4	136.2	138.9	144.4	147.2	148.5	148.5
117.5°	105.9	114.2	122.4	130.7	132.0	134.8	138.9	141.7	144.4	143.0
120°	103.2	110.0	118.3	125.2	127.9	130.7	134.8	137.5	138.9	138.9
122.5°	99.0	107.3	114.2	121.0	123.8	125.2	130.7	132.0	134.8	133.4
125°	96.3	103.2	110.0	116.9	119.7	121.0	125.2	127.9	129.3	127.9
127.5°	92.1	99.0	105.9	112.8	114.2	116.9	119.7	122.4	123.8	123.8
130°	88.0	94.9	101.8	108.7	110.0	111.4	115.5	116.9	118.3	118.3
132.5°	83.9	90.8	97.6	103.2	104.5	107.3	110.0	112.8	114.2	112.8
135°	79.8	85.3	92.1	97.6	100.4	101.8	104.5	105.9	108.7	107.3
137.5°	74.3	81.1	86.6	92.1	94.9	96.3	99.0	100.4	101.8	101.8
140°	70.1	75.6	82.5	88.0	89.4	90.8	93.5	94.9	96.3	96.3
142.5°	64.6	70.1	75.6	81.1	83.9	85.3	88.0	89.4	90.8	89.4
145°	59.1	63.3	70.1	75.6	77.0	78.4	82.5	83.9	83.9	83.9
147.5°	53.6	57.8	63.3	68.8	71.5	72.9	75.6	77.0	78.4	78.4
150°	48.1	52.3	57.8	61.9	64.6	66.0	70.1	70.1	71.5	71.5
152.5°	42.6	46.8	50.9	56.4	57.8	60.5	63.3	64.6	64.6	64.6
155°	38.5	41.3	45.4	49.5	50.9	52.3	56.4	57.8	59.1	57.8
157.5°	33.0	37.1	39.9	42.6	44.0	45.4	49.5	50.9	52.3	52.3
160°	28.9	31.6	34.4	37.1	37.1	39.9	42.6	44.0	45.4	44.0
162.5°	24.8	26.1	28.9	30.3	31.6	33.0	35.8	37.1	38.5	38.5
165°	22.0	22.0	23.4	24.8	26.1	27.5	28.9	30.3	31.6	31.6
167.5°	17.9	19.3	19.3	20.6	20.6	22.0	22.0	24.8	26.1	26.1
170°	15.1	15.1	15.1	16.5	16.5	16.5	16.5	17.9	20.6	20.6
172.5°	12.4	12.4	12.4	12.4	12.4	12.4	12.4	13.8	13.8	15.1
175°	9.6	9.6	9.6	9.6	8.3	9.6	8.3	8.3	9.6	9.6
177.5°	6.9	6.9	6.9	6.9	6.9	6.9	5.5	5.5	5.5	5.5
180°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9

(END OF REPORT)