

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1214232

Luminaire Tested: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1214232
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33520)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

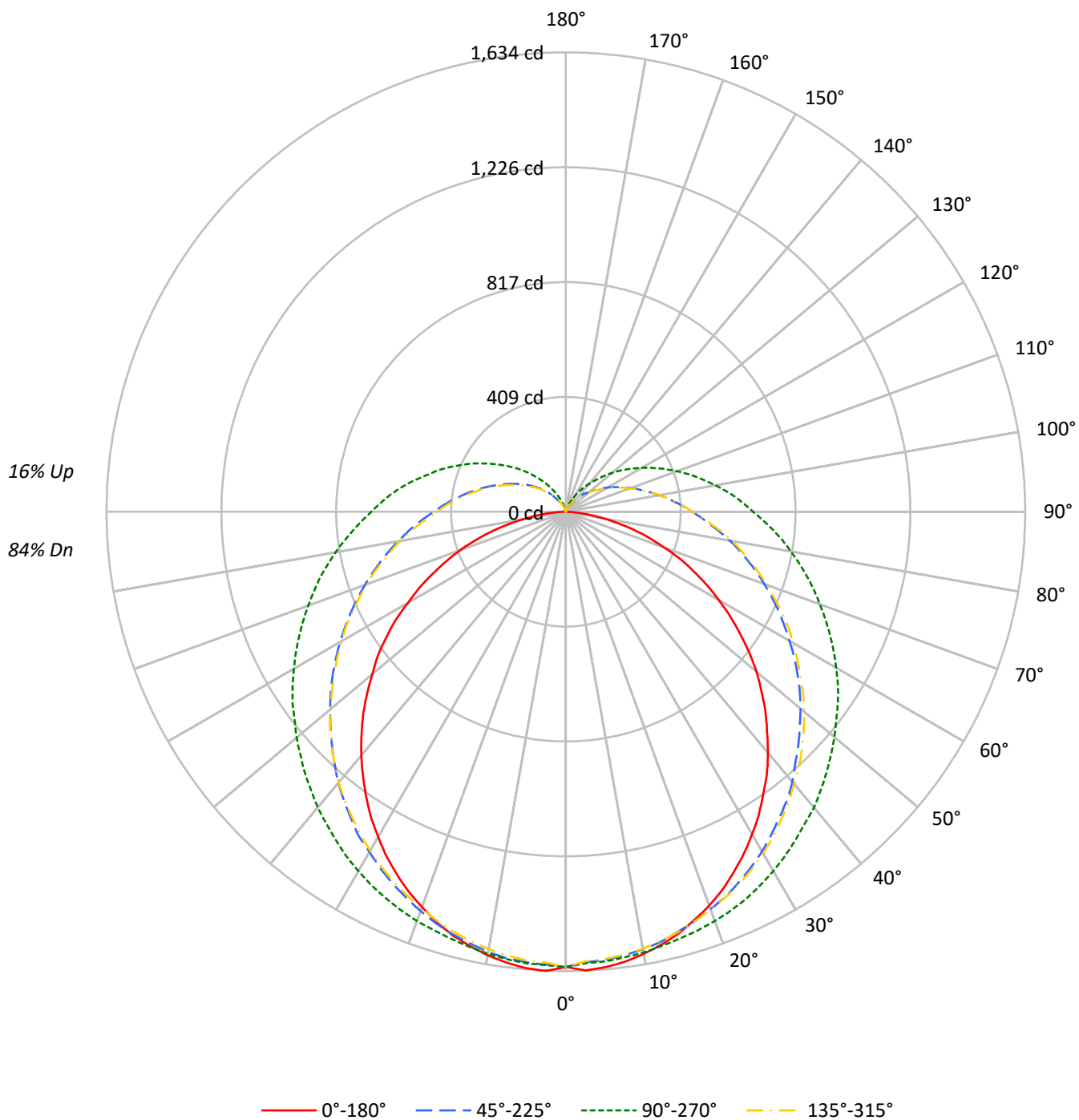
Lumens per Lamp: N/A
Luminaire Lumens: 7034.0 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 85
Input Voltage (V): NR
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: 24 FT

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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	50	30	10
RCR																				
0	115	115	115	115	111	111	111	111	102	102	102	94	94	94	87	87	87	84		
1	102	96	91	86	98	92	87	83	85	81	77	78	75	72	72	70	67	64		
2	92	82	74	68	87	79	72	66	73	67	62	67	62	58	62	58	54	51		
3	83	71	62	55	79	69	60	54	63	56	51	58	52	48	54	49	45	42		
4	76	63	53	46	72	60	52	45	56	48	42	51	45	40	47	42	38	35		
5	69	56	46	39	66	54	45	38	50	42	36	46	39	34	42	37	33	30		
6	64	50	41	34	61	48	39	33	45	37	31	41	35	30	38	33	28	26		
7	59	45	36	30	56	43	35	29	40	33	28	38	31	26	35	29	25	23		
8	55	41	32	26	52	40	31	26	37	30	24	34	28	23	32	26	22	20		
9	51	37	29	23	49	36	28	23	34	27	22	32	25	21	30	24	20	18		
10	48	34	26	21	46	33	26	21	31	24	20	29	23	19	27	22	18	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	13083	13083	13083	13083
5°	13153	12609	13181	12662
10°	13031	12250	13073	12289
15°	12880	11943	12936	11956
20°	12677	11720	12721	11720
25°	12428	11521	12502	11508
30°	12147	11317	12241	11317
35°	11821	11126	11953	11140
40°	11499	11015	11639	11015
45°	11129	10898	11299	10912
50°	10744	10829	10888	10858
55°	10204	10839	10527	10886
60°	9636	10873	9951	10939
65°	8998	10982	9396	11090
70°	8101	11184	8732	11343
75°	7069	11549	7737	11770
80°	5467	12091	6210	12370
85°	3266	12960	4085	13319

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 270°

Vertical Angle: 90°

Luminance: 14891 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.4	2.2
10°-20°	440.8	6.3
20°-30°	675.8	9.6
30°-40°	833.7	11.9
40°-50°	904.5	12.9
50°-60°	891.6	12.7
60°-70°	806.1	11.5
70°-80°	671.5	9.5
80°-90°	520.1	7.4
90°-100°	394.5	5.6
100°-110°	291.9	4.1
110°-120°	203.0	2.9
120°-130°	129.6	1.8
130°-140°	72.7	1.0
140°-150°	33.2	0.5
150°-160°	10.3	0.1
160°-170°	1.3	0.0
170°-180°	0.0	0.0
0°-30°	1270.0	18.1
0°-40°	2103.7	29.9
0°-60°	3899.8	55.4
0°-90°	5897.5	83.8
90°-120°	889.4	12.6
90°-150°	1124.9	16.0
90°-180°	1136.0	16.2
0°-180°	7034.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1619	1619	1619	1619	1619	
5°	1626	1605	1629	1612	1626	154
15°	1552	1571	1559	1573	1552	437
25°	1414	1518	1423	1517	1414	651
35°	1224	1424	1238	1426	1224	767
45°	1004	1312	1020	1313	1004	774
55°	757	1182	780	1187	757	677
65°	502	1037	524	1047	502	498
75°	253	888	277	905	253	268
85°	48	740	60	760	48	58
90°	2	666	3	692	2	3
95°	2	605	2	634	2	1
105°	2	480	2	509	2	2
115°	2	366	2	398	2	2
125°	2	263	2	292	2	2
135°	2	171	2	202	2	1
145°	2	99	2	121	2	1
155°	2	41	2	56	2	1
165°	2	7	2	10	2	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0
2.5°	1632.7	1632.7	1631.0	1627.6	1629.3	1634.4	1631.0	1622.4	1617.3	1603.6	1607.1
5°	1625.9	1625.9	1624.1	1620.7	1622.4	1629.3	1625.9	1619.0	1612.2	1600.2	1605.4
7.5°	1613.9	1613.9	1612.2	1608.8	1612.2	1619.0	1615.6	1608.8	1603.6	1591.7	1596.8
10°	1596.8	1598.5	1596.8	1591.7	1598.5	1605.4	1603.6	1595.1	1590.0	1579.7	1584.9
12.5°	1576.3	1578.0	1576.3	1574.6	1578.0	1588.3	1584.9	1578.0	1574.6	1566.1	1571.2
15°	1552.4	1554.1	1550.7	1550.7	1554.1	1564.4	1564.4	1557.5	1554.1	1545.6	1555.8
17.5°	1521.7	1523.4	1521.7	1521.7	1525.1	1535.3	1537.0	1533.6	1530.2	1526.8	1537.0
20°	1490.9	1489.2	1489.2	1487.5	1494.3	1509.7	1508.0	1508.0	1504.6	1504.6	1516.6
22.5°	1455.1	1455.1	1453.4	1453.4	1461.9	1475.6	1475.6	1479.0	1475.6	1482.4	1492.6
25°	1414.1	1415.8	1414.1	1417.5	1424.3	1439.7	1441.4	1446.5	1448.2	1455.1	1467.0
27.5°	1371.4	1373.1	1371.4	1374.8	1386.8	1398.7	1407.2	1414.1	1415.8	1426.0	1441.4
30°	1325.3	1325.3	1327.0	1330.4	1344.1	1362.8	1369.7	1378.2	1378.2	1395.3	1410.7
32.5°	1277.5	1277.5	1277.5	1284.3	1299.7	1321.9	1330.4	1340.6	1344.1	1361.1	1378.2
35°	1224.5	1226.2	1226.2	1231.3	1251.8	1274.0	1286.0	1297.9	1304.8	1325.3	1342.4
37.5°	1175.0	1178.4	1173.3	1180.1	1209.1	1227.9	1241.6	1253.5	1265.5	1292.8	1306.5
40°	1118.6	1122.0	1120.3	1134.0	1157.9	1181.8	1197.2	1209.1	1226.2	1253.5	1268.9
42.5°	1058.9	1062.3	1065.7	1081.1	1106.7	1130.6	1149.4	1164.7	1185.2	1209.1	1234.8
45°	1004.2	1004.2	1009.3	1028.1	1055.4	1081.1	1103.3	1120.3	1144.2	1169.9	1195.5
47.5°	942.7	944.4	951.3	973.5	1002.5	1033.2	1053.7	1075.9	1101.5	1128.9	1157.9
50°	886.4	886.4	896.6	920.5	947.8	982.0	1004.2	1029.8	1057.1	1089.6	1118.6
52.5°	821.5	824.9	840.3	862.5	898.3	929.1	954.7	982.0	1014.4	1048.6	1081.1
55°	756.6	763.4	775.4	806.1	843.7	872.7	903.4	937.6	968.3	1005.9	1043.5
57.5°	693.4	698.5	717.3	748.0	787.3	823.2	855.6	888.1	925.6	963.2	1002.5
60°	628.5	635.3	657.5	688.3	731.0	768.5	806.1	840.3	879.5	918.8	959.8
62.5°	567.0	572.1	597.7	633.6	676.3	717.3	754.9	795.8	838.5	876.1	917.1
65°	502.1	510.6	539.7	572.1	621.6	662.6	705.3	749.7	794.1	835.1	874.4
67.5°	442.3	447.5	478.2	515.8	565.3	611.4	655.8	703.6	749.7	792.4	831.7
70°	372.3	389.4	420.1	459.4	512.3	560.2	608.0	657.5	707.0	751.4	789.0
72.5°	314.2	327.9	362.1	404.8	456.0	512.3	561.9	614.8	664.3	710.5	749.7
75°	252.8	266.4	305.7	353.5	406.5	466.2	517.5	572.1	623.4	669.5	710.5
77.5°	193.0	210.1	252.8	302.3	360.4	421.8	474.8	529.4	582.4	631.9	672.9
80°	138.3	157.1	203.2	259.6	315.9	377.4	435.5	490.1	543.1	592.6	635.3
82.5°	88.8	109.3	158.8	215.2	275.0	336.4	396.2	450.9	503.8	553.3	597.7
85°	47.8	70.0	121.3	177.6	237.4	298.9	358.6	416.7	467.9	514.1	561.9
87.5°	13.7	41.0	90.5	146.9	208.4	264.7	322.8	380.8	432.1	481.6	524.3
90°	1.7	23.9	68.3	121.3	181.0	235.7	293.7	348.4	399.6	449.2	491.9
92.5°	1.7	15.4	52.9	100.8	155.4	211.8	269.8	322.8	370.6	420.1	462.8
95°	1.7	12.0	42.7	85.4	136.6	189.6	244.2	295.5	345.0	391.1	433.8
97.5°	1.7	8.5	34.2	73.4	119.5	169.1	222.0	273.3	321.1	365.5	404.8
100°	1.7	6.8	27.3	63.2	104.2	152.0	199.8	249.3	295.5	338.1	379.1
102.5°	1.7	5.1	23.9	52.9	92.2	134.9	181.0	227.1	271.5	312.5	353.5
105°	1.7	5.1	20.5	46.1	82.0	121.3	164.0	208.4	249.3	288.6	326.2
107.5°	1.7	3.4	17.1	39.3	71.7	109.3	148.6	191.3	228.8	266.4	302.3
110°	1.7	3.4	13.7	35.9	63.2	97.3	134.9	174.2	210.1	245.9	280.1

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.7	3.4	12.0	30.7	54.7	87.1	121.3	157.1	191.3	227.1	257.9
115°	1.7	3.4	10.2	27.3	51.2	75.1	109.3	141.7	175.9	208.4	237.4
117.5°	1.7	3.4	8.5	22.2	44.4	68.3	95.6	128.1	158.8	189.6	216.9
120°	1.7	3.4	6.8	20.5	39.3	61.5	85.4	114.4	143.5	172.5	201.5
122.5°	1.7	1.7	6.8	17.1	34.2	54.7	78.6	100.8	128.1	155.4	181.0
125°	1.7	1.7	6.8	15.4	29.0	49.5	70.0	90.5	114.4	138.3	160.5
127.5°	1.7	1.7	5.1	12.0	25.6	42.7	61.5	83.7	100.8	123.0	145.2
130°	1.7	1.7	5.1	10.2	22.2	35.9	54.7	73.4	93.9	109.3	128.1
132.5°	1.7	1.7	5.1	8.5	17.1	29.0	46.1	63.2	82.0	99.1	114.4
135°	1.7	1.7	3.4	6.8	13.7	23.9	37.6	52.9	71.7	88.8	104.2
137.5°	1.7	1.7	3.4	6.8	10.2	20.5	29.0	42.7	59.8	75.1	90.5
140°	1.7	1.7	3.4	5.1	8.5	15.4	23.9	34.2	47.8	61.5	78.6
142.5°	1.7	1.7	1.7	5.1	6.8	12.0	18.8	27.3	37.6	49.5	63.2
145°	1.7	1.7	1.7	5.1	6.8	8.5	15.4	22.2	29.0	37.6	49.5
147.5°	1.7	1.7	1.7	3.4	5.1	6.8	12.0	17.1	22.2	29.0	35.9
150°	1.7	1.7	1.7	3.4	5.1	6.8	8.5	12.0	17.1	23.9	29.0
152.5°	1.7	1.7	1.7	3.4	3.4	5.1	6.8	8.5	12.0	17.1	20.5
155°	1.7	1.7	1.7	1.7	3.4	5.1	6.8	6.8	8.5	12.0	15.4
157.5°	1.7	1.7	1.7	1.7	3.4	3.4	5.1	5.1	6.8	6.8	10.2
160°	1.7	1.7	1.7	1.7	1.7	3.4	3.4	5.1	5.1	5.1	5.1
162.5°	1.7	1.7	1.7	1.7	1.7	1.7	3.4	3.4	3.4	5.1	5.1
165°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.4	3.4	3.4
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0
2.5°	1607.1	1608.8	1613.9	1613.9	1610.5	1610.5	1608.8	1607.1	1608.8	1612.2	1612.2
5°	1603.6	1605.4	1610.5	1612.2	1608.8	1607.1	1607.1	1605.4	1607.1	1610.5	1610.5
7.5°	1596.8	1598.5	1603.6	1605.4	1601.9	1601.9	1600.2	1598.5	1601.9	1603.6	1603.6
10°	1586.6	1588.3	1595.1	1596.8	1595.1	1593.4	1593.4	1591.7	1593.4	1596.8	1596.8
12.5°	1572.9	1576.3	1584.9	1584.9	1584.9	1583.2	1583.2	1581.4	1583.2	1586.6	1584.9
15°	1557.5	1564.4	1571.2	1574.6	1574.6	1574.6	1572.9	1571.2	1574.6	1576.3	1574.6
17.5°	1540.5	1549.0	1559.2	1562.7	1562.7	1564.4	1562.7	1561.0	1564.4	1564.4	1562.7
20°	1523.4	1531.9	1542.2	1545.6	1549.0	1550.7	1550.7	1549.0	1550.7	1552.4	1550.7
22.5°	1501.2	1511.4	1523.4	1528.5	1531.9	1535.3	1535.3	1535.3	1537.0	1538.8	1535.3
25°	1477.3	1489.2	1502.9	1508.0	1514.8	1516.6	1518.3	1518.3	1520.0	1521.7	1516.6
27.5°	1451.7	1465.3	1479.0	1487.5	1492.6	1496.1	1496.1	1497.8	1499.5	1501.2	1496.1
30°	1420.9	1441.4	1453.4	1460.2	1467.0	1472.1	1473.9	1475.6	1477.3	1479.0	1473.9
32.5°	1393.6	1410.7	1426.0	1434.6	1443.1	1449.9	1451.7	1451.7	1455.1	1455.1	1449.9
35°	1361.1	1381.6	1397.0	1405.5	1415.8	1420.9	1424.3	1424.3	1427.7	1427.7	1422.6
37.5°	1328.7	1349.2	1366.3	1376.5	1388.5	1395.3	1397.0	1397.0	1400.4	1400.4	1393.6
40°	1294.5	1316.7	1335.5	1347.5	1357.7	1366.3	1368.0	1373.1	1373.1	1371.4	1364.6
42.5°	1260.4	1280.9	1301.4	1315.0	1328.7	1337.2	1340.6	1342.4	1342.4	1340.6	1335.5
45°	1222.8	1246.7	1265.5	1282.6	1296.2	1304.8	1309.9	1311.6	1311.6	1308.2	1303.1
47.5°	1186.9	1210.8	1229.6	1248.4	1262.1	1272.3	1277.5	1279.2	1277.5	1275.7	1270.6
50°	1149.4	1176.7	1195.5	1214.3	1227.9	1236.5	1245.0	1246.7	1245.0	1243.3	1233.1
52.5°	1110.1	1139.1	1159.6	1178.4	1193.8	1204.0	1210.8	1212.6	1212.6	1209.1	1202.3
55°	1070.8	1096.4	1122.0	1142.5	1159.6	1169.9	1178.4	1181.8	1178.4	1175.0	1166.4
57.5°	1034.9	1058.9	1084.5	1106.7	1123.8	1137.4	1144.2	1147.7	1144.2	1139.1	1130.6
60°	992.2	1017.9	1046.9	1067.4	1086.2	1099.8	1103.3	1110.1	1106.7	1101.5	1093.0
62.5°	951.3	982.0	1007.6	1033.2	1048.6	1064.0	1070.8	1074.2	1070.8	1065.7	1057.1
65°	908.6	942.7	968.3	994.0	1011.0	1026.4	1034.9	1036.7	1033.2	1028.1	1019.6
67.5°	869.3	901.7	929.1	956.4	971.8	987.1	995.7	999.1	995.7	988.8	980.3
70°	830.0	862.5	894.9	915.4	934.2	951.3	956.4	961.5	958.1	951.3	941.0
72.5°	790.7	824.9	857.3	877.8	898.3	913.7	920.5	925.6	922.2	915.4	903.4
75°	749.7	785.6	818.0	840.3	860.7	876.1	882.9	888.1	884.7	877.8	864.2
77.5°	712.2	748.0	778.8	802.7	823.2	836.8	848.8	850.5	847.1	840.3	826.6
80°	672.9	708.7	741.2	765.1	785.6	799.3	807.8	812.9	809.5	802.7	789.0
82.5°	638.7	671.2	703.6	727.5	748.0	765.1	771.9	777.1	775.4	765.1	754.9
85°	601.2	638.7	664.3	690.0	710.5	727.5	732.7	739.5	737.8	729.2	715.6
87.5°	563.6	601.2	631.9	657.5	676.3	690.0	698.5	701.9	700.2	691.7	676.3
90°	532.8	567.0	597.7	625.1	640.4	655.8	664.3	666.1	666.1	655.8	643.9
92.5°	503.8	536.3	567.0	592.6	611.4	625.1	631.9	635.3	633.6	625.1	611.4
95°	471.4	507.2	536.3	561.9	580.7	594.3	601.2	604.6	602.9	594.3	580.7
97.5°	444.0	476.5	505.5	529.4	548.2	561.9	568.7	572.1	572.1	563.6	549.9
100°	416.7	449.2	476.5	500.4	517.5	531.1	538.0	539.7	538.0	531.1	517.5
102.5°	389.4	420.1	447.5	469.7	488.4	500.4	507.2	508.9	508.9	500.4	486.7
105°	362.1	392.8	418.4	442.3	457.7	469.7	474.8	479.9	478.2	471.4	457.7
107.5°	336.4	367.2	391.1	413.3	428.7	440.6	445.7	450.9	449.2	442.3	428.7
110°	312.5	341.6	363.8	386.0	399.6	411.6	420.1	421.8	418.4	411.6	399.6

TEST NUMBER: P1214232

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	290.3	315.9	338.1	358.6	374.0	382.6	389.4	392.8	389.4	382.6	374.0
115°	266.4	292.0	314.2	333.0	346.7	356.9	362.1	365.5	362.1	355.2	346.7
117.5°	244.2	268.1	290.3	309.1	321.1	329.6	334.7	338.1	334.7	329.6	321.1
120°	225.4	245.9	266.4	283.5	297.2	304.0	309.1	312.5	310.8	304.0	295.5
122.5°	203.2	225.4	244.2	261.3	273.3	280.1	283.5	286.9	285.2	280.1	271.5
125°	184.4	203.2	222.0	237.4	249.3	256.2	259.6	263.0	261.3	256.2	245.9
127.5°	164.0	184.4	199.8	215.2	223.7	234.0	235.7	239.1	237.4	232.3	223.7
130°	148.6	164.0	179.3	193.0	203.2	210.1	213.5	215.2	211.8	208.4	199.8
132.5°	129.8	146.9	160.5	172.5	179.3	186.2	189.6	191.3	191.3	186.2	179.3
135°	116.1	128.1	140.0	152.0	158.8	165.7	169.1	170.8	169.1	165.7	158.8
137.5°	104.2	114.4	123.0	133.2	141.7	145.2	148.6	148.6	146.9	145.2	140.0
140°	90.5	102.5	111.0	117.8	124.7	126.4	129.8	129.8	128.1	126.4	123.0
142.5°	76.9	87.1	95.6	104.2	109.3	112.7	114.4	116.1	114.4	112.7	107.6
145°	61.5	73.4	82.0	87.1	93.9	95.6	97.3	99.1	97.3	95.6	90.5
147.5°	47.8	58.1	66.6	73.4	78.6	80.3	82.0	83.7	82.0	78.6	76.9
150°	34.2	42.7	52.9	59.8	63.2	66.6	66.6	66.6	68.3	64.9	61.5
152.5°	27.3	30.7	37.6	44.4	49.5	51.2	52.9	52.9	51.2	51.2	47.8
155°	18.8	22.2	27.3	32.4	37.6	39.3	41.0	41.0	39.3	39.3	37.6
157.5°	12.0	15.4	18.8	22.2	27.3	29.0	30.7	30.7	30.7	29.0	27.3
160°	6.8	8.5	10.2	13.7	17.1	18.8	20.5	20.5	20.5	20.5	18.8
162.5°	5.1	5.1	5.1	6.8	8.5	10.2	12.0	12.0	12.0	12.0	10.2
165°	3.4	3.4	3.4	3.4	3.4	5.1	6.8	6.8	6.8	6.8	6.8
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1214232

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0
2.5°	1610.5	1610.5	1612.2	1608.8	1598.5	1600.2	1600.2	1607.1	1610.5	1612.2	1620.7
5°	1607.1	1607.1	1610.5	1605.4	1596.8	1596.8	1596.8	1603.6	1605.4	1608.8	1615.6
7.5°	1601.9	1601.9	1603.6	1598.5	1588.3	1588.3	1586.6	1593.4	1596.8	1598.5	1605.4
10°	1593.4	1593.4	1595.1	1590.0	1578.0	1578.0	1576.3	1581.4	1583.2	1586.6	1591.7
12.5°	1581.4	1581.4	1581.4	1576.3	1564.4	1562.7	1561.0	1566.1	1566.1	1567.8	1572.9
15°	1571.2	1567.8	1567.8	1562.7	1550.7	1547.3	1543.9	1545.6	1549.0	1547.3	1550.7
17.5°	1559.2	1555.8	1552.4	1547.3	1531.9	1526.8	1523.4	1525.1	1523.4	1521.7	1525.1
20°	1545.6	1540.5	1538.8	1530.2	1514.8	1506.3	1499.5	1496.1	1497.8	1492.6	1494.3
22.5°	1530.2	1523.4	1520.0	1509.7	1494.3	1484.1	1475.6	1468.7	1467.0	1460.2	1461.9
25°	1511.4	1502.9	1497.8	1489.2	1472.1	1460.2	1449.9	1439.7	1434.6	1426.0	1424.3
27.5°	1489.2	1480.7	1473.9	1465.3	1448.2	1432.9	1420.9	1407.2	1400.4	1390.2	1385.0
30°	1467.0	1456.8	1446.5	1439.7	1420.9	1403.8	1385.0	1373.1	1362.8	1350.9	1342.4
32.5°	1439.7	1429.5	1419.2	1409.0	1391.9	1371.4	1356.0	1337.2	1325.3	1311.6	1301.4
35°	1412.4	1398.7	1388.5	1374.8	1359.4	1335.5	1316.7	1297.9	1282.6	1267.2	1255.3
37.5°	1381.6	1371.4	1356.0	1344.1	1325.3	1301.4	1280.9	1257.0	1243.3	1222.8	1207.4
40°	1352.6	1340.6	1325.3	1309.9	1291.1	1263.8	1241.6	1214.3	1198.9	1175.0	1159.6
42.5°	1323.6	1306.5	1291.1	1274.0	1253.5	1227.9	1200.6	1173.3	1152.8	1130.6	1108.4
45°	1291.1	1272.3	1253.5	1234.8	1214.3	1188.6	1159.6	1130.6	1105.0	1084.5	1057.1
47.5°	1257.0	1238.2	1216.0	1195.5	1173.3	1147.7	1116.9	1086.2	1058.9	1034.9	1005.9
50°	1222.8	1204.0	1180.1	1157.9	1132.3	1106.7	1074.2	1038.4	1009.3	978.6	953.0
52.5°	1186.9	1168.2	1146.0	1116.9	1089.6	1064.0	1029.8	992.2	959.8	934.2	901.7
55°	1151.1	1132.3	1106.7	1077.6	1050.3	1017.9	985.4	947.8	912.0	881.2	848.8
57.5°	1113.5	1096.4	1067.4	1043.5	1009.3	975.2	941.0	905.1	865.9	830.0	792.4
60°	1075.9	1057.1	1029.8	1000.8	966.6	932.5	896.6	857.3	816.3	777.1	742.9
62.5°	1041.8	1017.9	992.2	961.5	925.6	893.2	852.2	809.5	768.5	727.5	686.5
65°	1002.5	976.9	953.0	922.2	884.7	847.1	806.1	763.4	719.0	674.6	633.6
67.5°	963.2	937.6	912.0	881.2	842.0	802.7	760.0	717.3	667.8	625.1	577.2
70°	923.9	903.4	871.0	838.5	802.7	760.0	717.3	671.2	619.9	573.8	524.3
72.5°	884.7	864.2	831.7	797.6	763.4	719.0	672.9	626.8	579.0	526.0	473.1
75°	847.1	821.5	792.4	760.0	724.1	678.0	631.9	584.1	527.7	478.2	423.5
77.5°	811.2	787.3	758.3	722.4	683.1	638.7	590.9	541.4	485.0	432.1	372.3
80°	771.9	748.0	719.0	683.1	643.9	601.2	549.9	498.7	444.0	386.0	324.5
82.5°	734.4	712.2	679.7	647.3	604.6	561.9	510.6	459.4	401.3	345.0	285.2
85°	695.1	672.9	642.1	608.0	567.0	520.9	473.1	421.8	363.8	305.7	245.9
87.5°	660.9	635.3	604.6	570.4	529.4	485.0	438.9	384.3	327.9	271.5	210.1
90°	625.1	601.2	570.4	536.3	495.3	450.9	403.0	351.8	297.2	239.1	181.0
92.5°	594.3	568.7	539.7	505.5	464.5	421.8	374.0	322.8	269.8	213.5	157.1
95°	563.6	538.0	510.6	476.5	435.5	392.8	345.0	295.5	244.2	189.6	136.6
97.5°	529.4	507.2	479.9	447.5	406.5	365.5	319.4	271.5	222.0	169.1	119.5
100°	502.1	476.5	450.9	416.7	379.1	339.9	293.7	247.6	199.8	150.3	104.2
102.5°	471.4	447.5	421.8	389.4	351.8	312.5	269.8	225.4	181.0	134.9	90.5
105°	442.3	420.1	392.8	362.1	326.2	288.6	247.6	206.6	164.0	119.5	80.3
107.5°	413.3	391.1	365.5	336.4	302.3	264.7	227.1	186.2	146.9	107.6	71.7
110°	384.3	363.8	339.9	310.8	278.4	244.2	208.4	170.8	131.5	95.6	63.2

TEST NUMBER: P1214232

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	358.6	338.1	314.2	286.9	256.2	223.7	189.6	153.7	117.8	85.4	54.7
115°	333.0	314.2	290.3	266.4	235.7	204.9	172.5	138.3	105.9	76.9	47.8
117.5°	307.4	288.6	266.4	242.5	215.2	186.2	155.4	123.0	95.6	68.3	42.7
120°	281.8	264.7	244.2	222.0	198.1	169.1	138.3	111.0	85.4	59.8	37.6
122.5°	257.9	242.5	223.7	203.2	177.6	150.3	124.7	100.8	76.9	52.9	30.7
125°	235.7	220.3	203.2	182.7	158.8	134.9	112.7	90.5	66.6	46.1	25.6
127.5°	213.5	198.1	181.0	162.2	143.5	121.3	100.8	80.3	59.8	41.0	22.2
130°	191.3	177.6	162.2	146.9	128.1	107.6	90.5	70.0	51.2	32.4	18.8
132.5°	169.1	158.8	145.2	129.8	112.7	97.3	78.6	61.5	44.4	29.0	17.1
135°	150.3	140.0	128.1	114.4	100.8	85.4	68.3	52.9	37.6	23.9	13.7
137.5°	133.2	124.7	112.7	100.8	88.8	73.4	59.8	44.4	30.7	20.5	10.2
140°	117.8	109.3	99.1	87.1	76.9	63.2	49.5	35.9	27.3	17.1	8.5
142.5°	102.5	93.9	85.4	75.1	64.9	52.9	41.0	30.7	22.2	13.7	8.5
145°	87.1	80.3	71.7	63.2	52.9	42.7	34.2	25.6	17.1	10.2	6.8
147.5°	71.7	66.6	58.1	51.2	42.7	34.2	27.3	20.5	13.7	8.5	5.1
150°	58.1	52.9	46.1	39.3	34.2	27.3	22.2	15.4	10.2	8.5	5.1
152.5°	44.4	41.0	35.9	32.4	27.3	20.5	15.4	12.0	8.5	6.8	3.4
155°	35.9	32.4	29.0	23.9	20.5	15.4	12.0	8.5	6.8	5.1	3.4
157.5°	25.6	23.9	20.5	17.1	13.7	10.2	8.5	8.5	5.1	3.4	1.7
160°	17.1	15.4	13.7	10.2	8.5	8.5	6.8	5.1	3.4	3.4	1.7
162.5°	10.2	8.5	8.5	8.5	6.8	6.8	5.1	3.4	3.4	1.7	1.7
165°	6.8	6.8	6.8	5.1	5.1	5.1	3.4	1.7	1.7	1.7	1.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1214232

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0
2.5°	1620.7	1615.6	1622.4	1634.4	1636.1	1634.4	1631.0	1636.1	1642.9	1641.2	1629.3
5°	1617.3	1610.5	1617.3	1629.3	1629.3	1627.6	1625.9	1631.0	1637.8	1636.1	1625.9
7.5°	1607.1	1600.2	1607.1	1617.3	1619.0	1615.6	1615.6	1620.7	1627.6	1625.9	1617.3
10°	1593.4	1586.6	1590.0	1601.9	1605.4	1601.9	1601.9	1607.1	1615.6	1613.9	1603.6
12.5°	1572.9	1567.8	1571.2	1581.4	1584.9	1583.2	1581.4	1588.3	1596.8	1596.8	1586.6
15°	1550.7	1543.9	1547.3	1559.2	1561.0	1557.5	1559.2	1564.4	1574.6	1574.6	1566.1
17.5°	1525.1	1516.6	1521.7	1530.2	1531.9	1531.9	1531.9	1538.8	1550.7	1549.0	1542.2
20°	1496.1	1484.1	1487.5	1496.1	1499.5	1499.5	1499.5	1511.4	1520.0	1520.0	1513.1
22.5°	1461.9	1453.4	1453.4	1461.9	1467.0	1465.3	1465.3	1475.6	1487.5	1485.8	1485.8
25°	1422.6	1415.8	1412.4	1422.6	1424.3	1426.0	1429.5	1439.7	1453.4	1453.4	1455.1
27.5°	1381.6	1374.8	1373.1	1381.6	1383.3	1385.0	1388.5	1400.4	1414.1	1415.8	1419.2
30°	1342.4	1332.1	1328.7	1335.5	1338.9	1340.6	1340.6	1359.4	1371.4	1376.5	1383.3
32.5°	1296.2	1286.0	1277.5	1289.4	1291.1	1294.5	1296.2	1315.0	1328.7	1337.2	1347.5
35°	1250.1	1233.1	1229.6	1238.2	1241.6	1243.3	1246.7	1267.2	1286.0	1292.8	1306.5
37.5°	1198.9	1186.9	1176.7	1185.2	1188.6	1190.4	1200.6	1219.4	1238.2	1248.4	1262.1
40°	1151.1	1135.7	1127.2	1132.3	1135.7	1137.4	1149.4	1169.9	1192.1	1204.0	1221.1
42.5°	1098.1	1077.6	1070.8	1075.9	1077.6	1082.8	1093.0	1120.3	1142.5	1159.6	1173.3
45°	1045.2	1029.8	1014.4	1019.6	1021.3	1024.7	1040.1	1069.1	1093.0	1113.5	1128.9
47.5°	990.5	971.8	956.4	959.8	966.6	968.3	985.4	1019.6	1041.8	1064.0	1084.5
50°	935.9	910.3	898.3	898.3	901.7	910.3	932.5	966.6	990.5	1016.2	1038.4
52.5°	879.5	855.6	842.0	843.7	847.1	857.3	877.8	912.0	939.3	966.6	994.0
55°	823.2	797.6	783.9	780.5	783.9	797.6	821.5	857.3	884.7	917.1	946.1
57.5°	766.8	736.1	724.1	719.0	722.4	739.5	763.4	801.0	835.1	865.9	900.0
60°	705.3	681.4	660.9	649.0	657.5	679.7	705.3	744.6	780.5	814.6	852.2
62.5°	652.4	621.6	599.4	587.5	596.0	614.8	650.7	688.3	727.5	766.8	804.4
65°	592.6	561.9	536.3	524.3	532.8	555.0	590.9	631.9	674.6	713.9	758.3
67.5°	534.5	502.1	471.4	459.4	469.7	493.6	532.8	579.0	625.1	666.1	713.9
70°	478.2	442.3	409.9	401.3	408.2	440.6	478.2	524.3	572.1	619.9	669.5
72.5°	427.0	382.6	348.4	338.1	346.7	382.6	425.2	473.1	524.3	575.5	628.5
75°	367.2	326.2	288.6	276.7	286.9	319.4	372.3	423.5	478.2	532.8	582.4
77.5°	319.4	271.5	232.3	213.5	230.6	271.5	322.8	377.4	433.8	490.1	546.5
80°	269.8	220.3	177.6	157.1	175.9	220.3	271.5	331.3	394.5	450.9	502.1
82.5°	225.4	172.5	128.1	105.9	126.4	175.9	232.3	292.0	353.5	409.9	469.7
85°	184.4	129.8	83.7	59.8	88.8	133.2	193.0	254.5	317.7	375.7	433.8
87.5°	150.3	97.3	51.2	25.6	54.7	104.2	160.5	222.0	285.2	343.3	397.9
90°	123.0	70.0	27.3	3.4	32.4	78.6	133.2	193.0	252.8	312.5	367.2
92.5°	100.8	52.9	15.4	1.7	20.5	63.2	114.4	170.8	228.8	286.9	339.9
95°	83.7	41.0	10.2	1.7	15.4	49.5	97.3	152.0	206.6	263.0	315.9
97.5°	71.7	34.2	8.5	1.7	12.0	42.7	83.7	134.9	187.9	240.8	292.0
100°	61.5	27.3	6.8	1.7	10.2	35.9	73.4	119.5	169.1	220.3	269.8
102.5°	52.9	22.2	5.1	1.7	8.5	30.7	64.9	107.6	152.0	201.5	249.3
105°	46.1	18.8	5.1	1.7	6.8	27.3	58.1	95.6	140.0	184.4	230.6
107.5°	39.3	15.4	3.4	1.7	5.1	22.2	51.2	87.1	126.4	169.1	211.8
110°	34.2	13.7	3.4	1.7	5.1	20.5	44.4	78.6	114.4	153.7	194.7

TEST NUMBER: P1214232

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	29.0	10.2	3.4	1.7	3.4	17.1	39.3	70.0	104.2	140.0	179.3
115°	25.6	8.5	1.7	1.7	3.4	15.4	35.9	63.2	93.9	128.1	164.0
117.5°	20.5	6.8	1.7	1.7	1.7	12.0	30.7	56.4	85.4	117.8	150.3
120°	17.1	6.8	1.7	1.7	1.7	10.2	27.3	49.5	76.9	105.9	136.6
122.5°	15.4	5.1	1.7	1.7	1.7	8.5	23.9	44.4	68.3	95.6	124.7
125°	13.7	5.1	1.7	1.7	1.7	6.8	20.5	39.3	61.5	85.4	112.7
127.5°	10.2	5.1	1.7	1.7	1.7	5.1	18.8	34.2	54.7	76.9	100.8
130°	8.5	3.4	1.7	1.7	1.7	5.1	15.4	30.7	47.8	68.3	90.5
132.5°	6.8	3.4	1.7	1.7	1.7	3.4	12.0	23.9	41.0	59.8	80.3
135°	6.8	3.4	1.7	1.7	1.7	3.4	8.5	20.5	34.2	51.2	68.3
137.5°	6.8	1.7	1.7	1.7	1.7	3.4	6.8	15.4	27.3	41.0	56.4
140°	5.1	1.7	1.7	1.7	1.7	1.7	5.1	12.0	22.2	34.2	47.8
142.5°	5.1	1.7	1.7	1.7	1.7	1.7	5.1	8.5	17.1	27.3	37.6
145°	3.4	1.7	1.7	1.7	1.7	1.7	3.4	6.8	13.7	20.5	30.7
147.5°	3.4	1.7	1.7	1.7	1.7	1.7	3.4	5.1	10.2	17.1	23.9
150°	3.4	1.7	1.7	1.7	1.7	1.7	3.4	5.1	6.8	12.0	18.8
152.5°	1.7	1.7	1.7	1.7	1.7	1.7	3.4	3.4	5.1	8.5	12.0
155°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.4	5.1	6.8	8.5
157.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.4	3.4	5.1	6.8
160°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.4	3.4	5.1
162.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.4	3.4
165°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1214232

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0
2.5°	1624.1	1612.2	1615.6	1613.9	1617.3	1622.4	1622.4	1620.7	1620.7	1617.3	1613.9
5°	1620.7	1608.8	1613.9	1612.2	1615.6	1620.7	1620.7	1619.0	1619.0	1613.9	1612.2
7.5°	1610.5	1601.9	1605.4	1605.4	1608.8	1613.9	1613.9	1612.2	1612.2	1607.1	1605.4
10°	1600.2	1590.0	1595.1	1595.1	1598.5	1605.4	1605.4	1603.6	1603.6	1598.5	1596.8
12.5°	1583.2	1572.9	1581.4	1583.2	1586.6	1593.4	1591.7	1591.7	1591.7	1586.6	1584.9
15°	1562.7	1555.8	1564.4	1566.1	1571.2	1579.7	1579.7	1579.7	1579.7	1574.6	1572.9
17.5°	1540.5	1535.3	1543.9	1547.3	1554.1	1562.7	1562.7	1564.4	1566.1	1562.7	1561.0
20°	1514.8	1511.4	1520.0	1526.8	1537.0	1545.6	1549.0	1550.7	1554.1	1550.7	1549.0
22.5°	1485.8	1485.8	1497.8	1504.6	1516.6	1525.1	1530.2	1535.3	1538.8	1535.3	1533.6
25°	1453.4	1458.5	1470.4	1482.4	1496.1	1504.6	1509.7	1516.6	1520.0	1518.3	1516.6
27.5°	1422.6	1429.5	1444.8	1456.8	1468.7	1482.4	1487.5	1496.1	1499.5	1499.5	1497.8
30°	1386.8	1397.0	1414.1	1427.7	1443.1	1456.8	1463.6	1472.1	1477.3	1473.9	1475.6
32.5°	1352.6	1369.7	1383.3	1398.7	1415.8	1429.5	1438.0	1448.2	1453.4	1451.7	1453.4
35°	1315.0	1332.1	1350.9	1366.3	1386.8	1400.4	1412.4	1420.9	1427.7	1426.0	1426.0
37.5°	1274.0	1296.2	1315.0	1335.5	1354.3	1369.7	1381.6	1391.9	1398.7	1398.7	1398.7
40°	1234.8	1258.7	1277.5	1301.4	1325.3	1338.9	1352.6	1362.8	1369.7	1371.4	1373.1
42.5°	1192.1	1217.7	1239.9	1265.5	1289.4	1306.5	1321.9	1333.8	1340.6	1344.1	1342.4
45°	1152.8	1176.7	1202.3	1231.3	1253.5	1270.6	1289.4	1303.1	1309.9	1311.6	1313.3
47.5°	1108.4	1135.7	1164.7	1193.8	1216.0	1238.2	1255.3	1268.9	1275.7	1280.9	1280.9
50°	1065.7	1094.7	1127.2	1157.9	1181.8	1204.0	1221.1	1236.5	1245.0	1248.4	1250.1
52.5°	1026.4	1053.7	1087.9	1118.6	1142.5	1164.7	1186.9	1204.0	1212.6	1216.0	1216.0
55°	978.6	1012.7	1050.3	1079.3	1105.0	1130.6	1152.8	1169.9	1178.4	1183.5	1186.9
57.5°	934.2	970.0	1009.3	1040.1	1070.8	1094.7	1115.2	1137.4	1144.2	1151.1	1152.8
60°	891.5	927.4	964.9	999.1	1029.8	1055.4	1079.3	1098.1	1110.1	1113.5	1116.9
62.5°	847.1	884.7	923.9	958.1	990.5	1021.3	1043.5	1060.6	1074.2	1079.3	1082.8
65°	804.4	843.7	882.9	918.8	953.0	983.7	1005.9	1023.0	1036.7	1045.2	1046.9
67.5°	758.3	801.0	842.0	879.5	913.7	946.1	968.3	985.4	999.1	1009.3	1011.0
70°	715.6	760.0	801.0	842.0	876.1	908.6	932.5	949.6	964.9	971.8	975.2
72.5°	674.6	720.7	763.4	804.4	838.5	871.0	896.6	913.7	929.1	937.6	939.3
75°	635.3	681.4	727.5	766.8	802.7	835.1	860.7	879.5	893.2	901.7	905.1
77.5°	596.0	643.9	690.0	729.2	766.8	799.3	821.5	843.7	857.3	867.6	867.6
80°	556.8	606.3	654.1	693.4	731.0	760.0	785.6	807.8	821.5	831.7	831.7
82.5°	522.6	570.4	616.5	655.8	693.4	725.8	751.4	771.9	787.3	794.1	795.8
85°	483.3	536.3	579.0	621.6	657.5	688.3	713.9	736.1	749.7	756.6	760.0
87.5°	450.9	502.1	548.2	585.8	621.6	652.4	681.4	700.2	713.9	722.4	725.8
90°	420.1	469.7	515.8	553.3	590.9	619.9	647.3	666.1	681.4	688.3	691.7
92.5°	392.8	442.3	486.7	524.3	560.2	592.6	618.2	637.0	650.7	657.5	662.6
95°	367.2	415.0	457.7	498.7	532.8	561.9	589.2	608.0	623.4	628.5	633.6
97.5°	341.6	387.7	430.4	469.7	505.5	532.8	558.5	577.2	589.2	597.7	602.9
100°	319.4	363.8	404.8	442.3	476.5	502.1	529.4	546.5	558.5	565.3	572.1
102.5°	295.5	339.9	379.1	415.0	450.9	474.8	500.4	517.5	527.7	539.7	539.7
105°	275.0	315.9	355.2	389.4	420.1	449.2	471.4	488.4	500.4	508.9	508.9
107.5°	252.8	293.7	331.3	367.2	396.2	423.5	444.0	459.4	473.1	478.2	483.3
110°	235.7	271.5	309.1	343.3	370.6	396.2	416.7	433.8	445.7	450.9	454.3

TEST NUMBER: P1214232

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	215.2	252.8	286.9	319.4	346.7	370.6	391.1	404.8	416.7	423.5	425.2
115°	198.1	234.0	264.7	295.5	324.5	345.0	363.8	377.4	389.4	394.5	397.9
117.5°	182.7	215.2	245.9	271.5	298.9	321.1	339.9	351.8	362.1	368.9	372.3
120°	167.4	198.1	225.4	251.1	276.7	297.2	314.2	326.2	338.1	343.3	343.3
122.5°	152.0	181.0	206.6	230.6	254.5	273.3	292.0	302.3	312.5	317.7	317.7
125°	138.3	165.7	189.6	211.8	234.0	251.1	266.4	278.4	288.6	292.0	292.0
127.5°	124.7	150.3	172.5	193.0	211.8	228.8	244.2	256.2	264.7	268.1	268.1
130°	112.7	134.9	155.4	175.9	194.7	208.4	223.7	234.0	239.1	244.2	245.9
132.5°	100.8	121.3	140.0	157.1	175.9	189.6	201.5	211.8	216.9	222.0	223.7
135°	88.8	107.6	124.7	141.7	157.1	170.8	181.0	189.6	196.4	199.8	201.5
137.5°	75.1	95.6	111.0	124.7	141.7	152.0	164.0	169.1	175.9	179.3	179.3
140°	63.2	78.6	95.6	109.3	123.0	133.2	143.5	152.0	157.1	158.8	158.8
142.5°	51.2	64.9	78.6	95.6	107.6	116.1	126.4	133.2	136.6	138.3	140.0
145°	41.0	51.2	63.2	78.6	92.2	102.5	107.6	114.4	117.8	119.5	121.3
147.5°	30.7	41.0	51.2	61.5	75.1	85.4	90.5	97.3	100.8	102.5	102.5
150°	23.9	30.7	37.6	47.8	58.1	70.0	76.9	82.0	83.7	85.4	85.4
152.5°	17.1	23.9	29.0	35.9	42.7	52.9	63.2	66.6	68.3	70.0	70.0
155°	12.0	17.1	20.5	25.6	30.7	39.3	47.8	52.9	54.7	56.4	56.4
157.5°	8.5	12.0	13.7	18.8	22.2	25.6	32.4	41.0	42.7	42.7	42.7
160°	5.1	6.8	8.5	12.0	13.7	17.1	20.5	25.6	30.7	30.7	30.7
162.5°	3.4	5.1	5.1	6.8	6.8	10.2	12.0	13.7	18.8	20.5	20.5
165°	1.7	3.4	3.4	3.4	3.4	3.4	5.1	5.1	8.5	10.2	10.2
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1214232

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0
2.5°	1615.6	1619.0	1617.3	1617.3	1617.3	1620.7	1617.3	1601.9	1605.4	1608.8	1612.2
5°	1613.9	1615.6	1615.6	1613.9	1613.9	1617.3	1613.9	1598.5	1601.9	1605.4	1607.1
7.5°	1607.1	1608.8	1608.8	1608.8	1607.1	1610.5	1605.4	1591.7	1591.7	1595.1	1596.8
10°	1598.5	1601.9	1600.2	1598.5	1598.5	1598.5	1595.1	1579.7	1579.7	1581.4	1583.2
12.5°	1588.3	1588.3	1588.3	1586.6	1584.9	1584.9	1581.4	1566.1	1564.4	1567.8	1566.1
15°	1574.6	1578.0	1574.6	1572.9	1569.5	1569.5	1564.4	1549.0	1545.6	1547.3	1545.6
17.5°	1562.7	1564.4	1561.0	1557.5	1554.1	1552.4	1547.3	1530.2	1525.1	1526.8	1523.4
20°	1550.7	1550.7	1547.3	1543.9	1538.8	1533.6	1526.8	1509.7	1501.2	1501.2	1494.3
22.5°	1535.3	1535.3	1531.9	1526.8	1521.7	1514.8	1508.0	1490.9	1477.3	1473.9	1468.7
25°	1518.3	1516.6	1514.8	1509.7	1499.5	1492.6	1485.8	1467.0	1451.7	1444.8	1436.3
27.5°	1497.8	1497.8	1492.6	1487.5	1477.3	1468.7	1460.2	1443.1	1422.6	1414.1	1402.1
30°	1475.6	1475.6	1470.4	1463.6	1453.4	1443.1	1432.9	1412.4	1391.9	1379.9	1366.3
32.5°	1453.4	1451.7	1446.5	1439.7	1429.5	1414.1	1405.5	1385.0	1361.1	1347.5	1328.7
35°	1426.0	1424.3	1419.2	1410.7	1397.0	1385.0	1371.4	1352.6	1325.3	1308.2	1287.7
37.5°	1398.7	1397.0	1393.6	1381.6	1368.0	1354.3	1337.2	1318.4	1292.8	1270.6	1250.1
40°	1371.4	1369.7	1362.8	1354.3	1337.2	1320.2	1303.1	1284.3	1257.0	1231.3	1209.1
42.5°	1342.4	1340.6	1332.1	1321.9	1303.1	1286.0	1265.5	1245.0	1217.7	1186.9	1164.7
45°	1313.3	1309.9	1301.4	1289.4	1268.9	1250.1	1229.6	1205.7	1178.4	1149.4	1120.3
47.5°	1282.6	1277.5	1268.9	1251.8	1234.8	1214.3	1190.4	1164.7	1137.4	1105.0	1074.2
50°	1248.4	1245.0	1234.8	1219.4	1198.9	1178.4	1151.1	1125.5	1093.0	1062.3	1024.7
52.5°	1216.0	1209.1	1200.6	1183.5	1163.0	1140.8	1111.8	1081.1	1048.6	1019.6	980.3
55°	1181.8	1178.4	1166.4	1152.8	1127.2	1101.5	1074.2	1041.8	1005.9	971.8	934.2
57.5°	1149.4	1142.5	1132.3	1113.5	1091.3	1065.7	1036.7	1002.5	963.2	927.4	886.4
60°	1116.9	1106.7	1094.7	1077.6	1053.7	1026.4	995.7	959.8	920.5	881.2	838.5
62.5°	1081.1	1072.5	1058.9	1041.8	1017.9	988.8	956.4	918.8	881.2	840.3	794.1
65°	1045.2	1036.7	1023.0	1005.9	982.0	949.6	915.4	877.8	835.1	795.8	746.3
67.5°	1009.3	1000.8	985.4	966.6	942.7	912.0	876.1	836.8	794.1	751.4	700.2
70°	973.5	963.2	949.6	929.1	905.1	872.7	836.8	795.8	753.2	707.0	655.8
72.5°	937.6	929.1	912.0	893.2	867.6	835.1	799.3	758.3	713.9	666.1	614.8
75°	901.7	891.5	879.5	857.3	830.0	799.3	761.7	720.7	672.9	626.8	573.8
77.5°	865.9	857.3	842.0	819.8	794.1	761.7	724.1	683.1	635.3	587.5	531.1
80°	830.0	819.8	807.8	787.3	758.3	725.8	686.5	645.6	597.7	548.2	491.9
82.5°	794.1	783.9	770.2	749.7	722.4	690.0	652.4	608.0	560.2	508.9	456.0
85°	758.3	749.7	734.4	713.9	684.8	652.4	614.8	575.5	524.3	473.1	420.1
87.5°	722.4	713.9	698.5	678.0	650.7	618.2	580.7	539.7	490.1	442.3	384.3
90°	688.3	681.4	666.1	645.6	618.2	585.8	551.6	507.2	459.4	411.6	356.9
92.5°	657.5	650.7	637.0	616.5	592.6	556.8	522.6	479.9	432.1	382.6	329.6
95°	630.2	621.6	608.0	589.2	560.2	529.4	495.3	452.6	406.5	356.9	305.7
97.5°	599.4	590.9	577.2	556.8	532.8	500.4	466.2	425.2	379.1	333.0	281.8
100°	568.7	560.2	544.8	527.7	503.8	471.4	438.9	397.9	355.2	310.8	261.3
102.5°	538.0	529.4	515.8	498.7	474.8	445.7	413.3	374.0	331.3	286.9	240.8
105°	508.9	500.4	486.7	469.7	447.5	418.4	384.3	350.1	309.1	266.4	222.0
107.5°	479.9	471.4	459.4	442.3	420.1	392.8	360.4	324.5	286.9	245.9	203.2
110°	450.9	444.0	430.4	415.0	392.8	365.5	336.4	302.3	264.7	227.1	186.2

TEST NUMBER: P1214232

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	423.5	416.7	403.0	386.0	367.2	341.6	312.5	280.1	244.2	208.4	169.1
115°	396.2	387.7	375.7	360.4	341.6	317.7	290.3	261.3	225.4	191.3	155.4
117.5°	368.9	362.1	350.1	334.7	317.7	293.7	268.1	240.8	206.6	174.2	141.7
120°	341.6	336.4	324.5	310.8	293.7	271.5	247.6	220.3	189.6	158.8	128.1
122.5°	315.9	310.8	298.9	286.9	269.8	249.3	227.1	201.5	174.2	145.2	117.8
125°	292.0	285.2	275.0	263.0	247.6	228.8	206.6	182.7	157.1	131.5	105.9
127.5°	266.4	261.3	254.5	240.8	225.4	208.4	187.9	167.4	143.5	119.5	95.6
130°	245.9	239.1	230.6	220.3	206.6	189.6	170.8	150.3	129.8	107.6	83.7
132.5°	222.0	215.2	208.4	198.1	186.2	170.8	153.7	134.9	116.1	95.6	75.1
135°	199.8	194.7	187.9	177.6	165.7	153.7	136.6	119.5	102.5	83.7	66.6
137.5°	179.3	174.2	167.4	160.5	148.6	136.6	121.3	105.9	90.5	73.4	58.1
140°	158.8	155.4	148.6	141.7	131.5	119.5	105.9	92.2	78.6	63.2	49.5
142.5°	138.3	134.9	129.8	123.0	114.4	104.2	92.2	80.3	66.6	54.7	42.7
145°	119.5	117.8	112.7	105.9	99.1	88.8	78.6	68.3	56.4	46.1	34.2
147.5°	100.8	99.1	95.6	90.5	83.7	75.1	66.6	56.4	47.8	37.6	27.3
150°	83.7	82.0	80.3	73.4	70.0	61.5	54.7	46.1	39.3	29.0	22.2
152.5°	68.3	68.3	64.9	59.8	56.4	49.5	44.4	37.6	30.7	23.9	17.1
155°	54.7	52.9	51.2	47.8	44.4	39.3	34.2	29.0	23.9	17.1	12.0
157.5°	42.7	41.0	39.3	35.9	32.4	30.7	25.6	20.5	15.4	12.0	8.5
160°	30.7	29.0	27.3	25.6	23.9	20.5	17.1	13.7	10.2	6.8	5.1
162.5°	20.5	18.8	18.8	17.1	15.4	12.0	10.2	8.5	6.8	5.1	3.4
165°	10.2	10.2	8.5	8.5	6.8	5.1	5.1	5.1	3.4	3.4	1.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1214232

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0	1619.0
2.5°	1610.5	1610.5	1617.3	1615.6	1610.5	1620.7	1632.7
5°	1605.4	1605.4	1610.5	1610.5	1605.4	1615.6	1625.9
7.5°	1596.8	1595.1	1600.2	1600.2	1593.4	1601.9	1613.9
10°	1581.4	1579.7	1584.9	1584.9	1578.0	1586.6	1596.8
12.5°	1564.4	1561.0	1566.1	1564.4	1557.5	1566.1	1576.3
15°	1542.2	1540.5	1543.9	1540.5	1533.6	1542.2	1552.4
17.5°	1520.0	1514.8	1516.6	1516.6	1504.6	1513.1	1521.7
20°	1490.9	1484.1	1485.8	1484.1	1475.6	1480.7	1490.9
22.5°	1461.9	1451.7	1451.7	1449.9	1439.7	1446.5	1455.1
25°	1426.0	1414.1	1414.1	1412.4	1400.4	1405.5	1414.1
27.5°	1390.2	1378.2	1373.1	1371.4	1359.4	1359.4	1371.4
30°	1352.6	1335.5	1332.1	1327.0	1315.0	1315.0	1325.3
32.5°	1316.7	1292.8	1286.0	1279.2	1267.2	1265.5	1277.5
35°	1268.9	1250.1	1238.2	1231.3	1217.7	1214.3	1224.5
37.5°	1229.6	1205.7	1188.6	1180.1	1166.4	1161.3	1175.0
40°	1186.9	1161.3	1139.1	1134.0	1113.5	1106.7	1118.6
42.5°	1139.1	1111.8	1089.6	1079.3	1064.0	1057.1	1058.9
45°	1091.3	1062.3	1038.4	1024.7	1009.3	997.4	1004.2
47.5°	1041.8	1016.2	987.1	966.6	947.8	939.3	942.7
50°	992.2	961.5	934.2	912.0	889.8	879.5	886.4
52.5°	942.7	910.3	879.5	855.6	830.0	819.8	821.5
55°	894.9	860.7	824.9	799.3	775.4	760.0	756.6
57.5°	847.1	809.5	771.9	742.9	712.2	698.5	693.4
60°	795.8	756.6	717.3	683.1	650.7	635.3	628.5
62.5°	748.0	705.3	660.9	625.1	592.6	572.1	567.0
65°	701.9	652.4	608.0	567.0	531.1	508.9	502.1
67.5°	652.4	601.2	553.3	508.9	474.8	445.7	442.3
70°	606.3	551.6	498.7	452.6	415.0	386.0	372.3
72.5°	560.2	503.8	449.2	399.6	351.8	324.5	314.2
75°	515.8	457.7	399.6	348.4	295.5	263.0	252.8
77.5°	474.8	415.0	353.5	297.2	247.6	206.6	193.0
80°	435.5	374.0	309.1	251.1	198.1	153.7	138.3
82.5°	394.5	336.4	269.8	208.4	153.7	107.6	88.8
85°	358.6	300.6	234.0	172.5	117.8	68.3	47.8
87.5°	329.6	266.4	206.6	145.2	88.8	39.3	13.7
90°	300.6	239.1	179.3	119.5	66.6	22.2	1.7
92.5°	275.0	216.9	157.1	102.5	51.2	15.4	1.7
95°	251.1	194.7	138.3	85.4	41.0	10.2	1.7
97.5°	228.8	175.9	123.0	73.4	34.2	8.5	1.7
100°	210.1	158.8	109.3	64.9	29.0	6.8	1.7
102.5°	191.3	143.5	97.3	56.4	25.6	5.1	1.7
105°	175.9	129.8	87.1	51.2	22.2	5.1	1.7
107.5°	160.5	117.8	78.6	44.4	18.8	3.4	1.7
110°	145.2	107.6	70.0	39.3	17.1	3.4	1.7



TEST NUMBER: P1214232

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	133.2	97.3	63.2	35.9	13.7	3.4	1.7
115°	121.3	87.1	56.4	30.7	12.0	1.7	1.7
117.5°	109.3	78.6	49.5	27.3	10.2	1.7	1.7
120°	99.1	70.0	44.4	23.9	8.5	1.7	1.7
122.5°	88.8	63.2	39.3	20.5	6.8	1.7	1.7
125°	80.3	56.4	34.2	17.1	5.1	1.7	1.7
127.5°	71.7	49.5	30.7	15.4	5.1	1.7	1.7
130°	63.2	44.4	25.6	12.0	3.4	1.7	1.7
132.5°	56.4	37.6	22.2	10.2	3.4	1.7	1.7
135°	49.5	32.4	18.8	6.8	3.4	1.7	1.7
137.5°	42.7	27.3	15.4	5.1	1.7	1.7	1.7
140°	35.9	23.9	12.0	5.1	1.7	1.7	1.7
142.5°	30.7	18.8	8.5	3.4	1.7	1.7	1.7
145°	23.9	15.4	6.8	3.4	1.7	1.7	1.7
147.5°	18.8	12.0	5.1	3.4	1.7	1.7	1.7
150°	13.7	8.5	5.1	1.7	1.7	1.7	1.7
152.5°	10.2	6.8	3.4	1.7	1.7	1.7	1.7
155°	6.8	5.1	3.4	1.7	1.7	1.7	1.7
157.5°	5.1	3.4	1.7	1.7	1.7	1.7	1.7
160°	3.4	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7
165°	1.7	1.7	1.7	1.7	1.7	1.7	1.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)