

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: P#

Luminaire Tested: **2SNLED-LD5-45HL-LN-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33519)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U  
Description: 2FT LINEAR SNLED LED FIXTURE  
NARROW LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

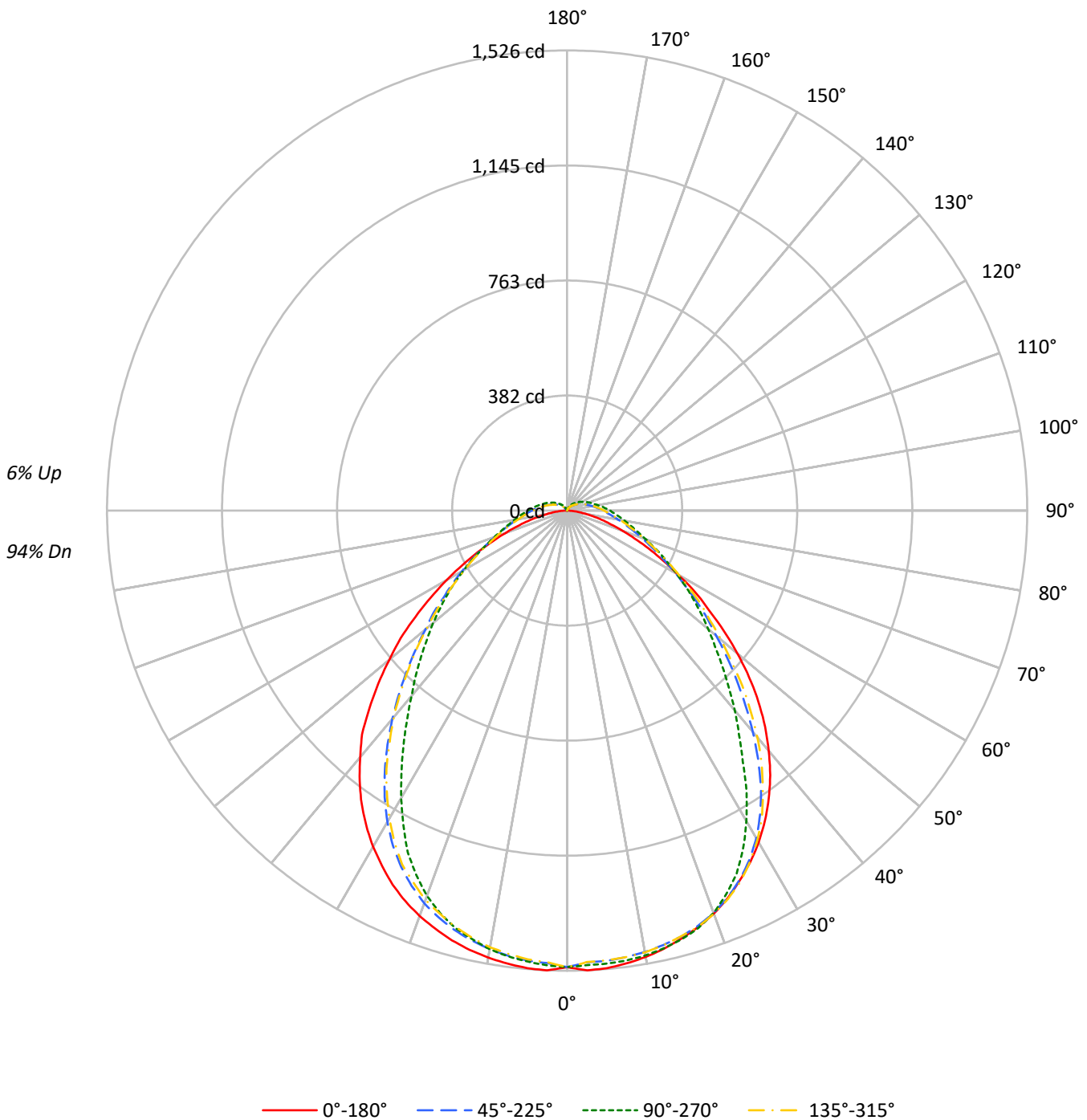
Lumens per Lamp: N/A  
Luminaire Lumens: 3831.0 lumens  
Efficiency: N/A  
Efficacy: 106.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 2' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 36  
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: 25 FT



TEST NUMBER: P#  
CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	107	103	98	95	104	100	96	92	94	91	88	89	87	85	85	83	81	79
2	98	90	84	78	95	88	82	77	83	78	74	79	75	72	75	72	69	67
3	90	80	72	66	87	78	71	65	74	68	63	71	66	61	67	63	60	57
4	83	72	63	57	80	70	62	56	67	60	55	64	58	53	61	56	52	50
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	55	50	46	44
6	71	58	50	44	69	57	49	43	55	48	42	52	46	42	50	45	41	39
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37	35
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33	31
9	58	45	37	32	56	44	37	31	42	36	31	41	35	30	40	34	30	28
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	37	31	27	26

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

	0°	90°	180°	270°
0°	24466	24466	24466	24466
5°	24573	23688	24573	23582
10°	24397	23058	24438	22738
15°	24171	22368	24282	21786
20°	23917	21483	24056	20575
25°	23460	20168	23720	18981
30°	22886	18237	23187	16884
35°	22035	15872	22460	14778
40°	20849	13880	21400	12879
45°	19309	12067	19937	11375
50°	17244	10602	18004	10067
55°	14820	9363	15896	8889
60°	12361	8221	13478	7747
65°	10026	7269	11034	6740
70°	7856	6451	8800	5967
75°	6031	5956	6790	5480
80°	4178	5747	4920	5250
85°	2336	5780	3148	5310



TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.5	3.7
10°-20°	411.5	10.7
20°-30°	609.9	15.9
30°-40°	677.6	17.7
40°-50°	614.2	16.0
50°-60°	475.9	12.4
60°-70°	323.2	8.4
70°-80°	205.6	5.4
80°-90°	131.5	3.4
90°-100°	88.6	2.3
100°-110°	60.7	1.6
110°-120°	40.5	1.1
120°-130°	25.2	0.7
130°-140°	13.9	0.4
140°-150°	6.5	0.2
150°-160°	2.4	0.1
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1164.9	30.4
0°-40°	1842.5	48.1
0°-60°	2932.7	76.6
0°-90°	3592.9	93.8
90°-120°	189.8	5.0
90°-150°	235.5	6.1
90°-180°	238.0	6.2
0°-180°	3831.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1514	1514	1514	1514	1514	
5°	1523	1508	1523	1501	1523	145
15°	1469	1471	1476	1433	1469	415
25°	1354	1329	1369	1251	1354	624
35°	1166	1016	1188	946	1166	727
45°	898	726	927	684	898	689
55°	573	510	614	485	573	516
65°	297	343	327	318	297	298
75°	119	229	134	211	119	128
85°	22	165	29	152	22	26
90°	0	142	2	130	0	1
95°	1	122	0	113	1	1
105°	1	89	0	84	1	1
115°	1	67	0	62	1	1
125°	1	50	1	44	1	1
135°	1	35	1	28	1	1
145°	1	22	1	16	1	1
155°	1	12	1	6	1	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8
2.5°	1526.3	1524.6	1522.9	1520.4	1522.9	1529.6	1525.4	1516.3	1514.6	1499.6	1506.3
5°	1522.9	1520.4	1518.8	1516.3	1519.6	1527.9	1523.8	1515.5	1513.0	1498.8	1506.3
7.5°	1514.6	1513.0	1510.5	1510.5	1513.8	1522.1	1518.8	1509.6	1508.0	1493.8	1502.1
10°	1503.0	1502.1	1500.5	1500.5	1503.8	1513.8	1509.6	1501.3	1499.6	1486.3	1495.5
12.5°	1488.0	1488.8	1486.3	1486.3	1491.3	1501.3	1498.0	1488.8	1487.1	1475.5	1484.6
15°	1468.8	1469.7	1468.0	1468.8	1473.8	1485.5	1481.3	1473.0	1471.3	1462.2	1469.7
17.5°	1447.2	1448.0	1448.0	1447.2	1453.0	1464.7	1461.3	1453.8	1451.3	1443.8	1453.0
20°	1422.2	1422.2	1422.2	1422.2	1428.9	1440.5	1436.4	1430.5	1425.5	1419.7	1427.2
22.5°	1391.4	1390.6	1391.4	1393.9	1400.5	1409.7	1407.2	1400.5	1393.1	1389.7	1395.5
25°	1353.9	1356.4	1357.2	1359.7	1368.1	1375.6	1373.1	1366.4	1354.7	1352.3	1353.9
27.5°	1314.8	1316.4	1318.9	1318.1	1329.8	1337.3	1332.3	1326.4	1309.8	1307.3	1305.6
30°	1270.6	1273.1	1274.8	1274.0	1283.1	1291.5	1286.5	1279.0	1256.5	1254.8	1241.5
32.5°	1220.7	1223.2	1224.9	1224.9	1238.2	1241.5	1232.3	1221.5	1197.4	1191.5	1179.9
35°	1165.7	1168.2	1169.1	1169.1	1182.4	1181.6	1169.9	1154.9	1128.3	1120.8	1100.8
37.5°	1106.6	1108.3	1109.1	1114.1	1119.9	1114.9	1100.0	1080.8	1060.8	1040.0	1018.4
40°	1040.0	1042.5	1044.2	1047.5	1053.3	1047.5	1025.8	1002.5	980.9	957.6	935.9
42.5°	971.7	979.2	977.6	976.7	980.0	964.2	947.6	920.9	899.3	875.1	853.5
45°	897.6	896.8	900.9	902.6	901.8	888.5	865.1	841.0	819.3	794.4	776.0
47.5°	819.3	818.5	821.8	823.5	818.5	804.4	786.0	758.6	740.2	718.6	704.4
50°	736.9	736.9	741.9	736.9	734.4	720.3	705.3	677.8	663.6	644.5	636.2
52.5°	654.5	662.0	657.0	655.3	652.8	638.7	627.0	604.5	592.9	584.5	574.5
55°	572.9	581.2	577.9	575.4	574.5	562.9	552.1	535.4	527.9	522.1	516.3
57.5°	503.8	502.9	501.3	498.8	499.6	490.4	479.6	470.5	467.1	464.6	466.3
60°	423.8	430.5	428.0	428.8	429.7	428.0	418.8	413.0	413.8	414.7	417.2
62.5°	358.0	363.9	368.0	364.7	366.4	368.9	363.9	362.2	365.5	368.9	372.2
65°	297.3	303.1	307.3	306.4	311.4	316.4	315.6	317.2	324.7	328.9	333.1
67.5°	242.3	248.1	254.0	254.8	262.3	269.8	273.1	278.9	287.3	293.1	298.1
70°	194.8	199.8	206.5	210.7	220.7	230.6	236.5	248.1	253.1	261.5	264.8
72.5°	152.4	156.5	165.7	175.7	184.0	196.5	208.2	218.2	225.7	234.8	239.0
75°	119.1	120.7	130.7	142.4	154.0	168.2	180.7	191.5	201.5	210.7	217.3
77.5°	87.4	89.9	99.1	114.9	128.2	143.2	157.4	169.0	179.9	189.0	198.2
80°	60.8	65.8	75.8	91.6	106.6	123.2	136.6	149.9	161.5	170.7	179.9
82.5°	39.1	43.3	57.5	73.3	89.1	105.7	119.9	133.2	145.7	155.7	164.0
85°	21.6	27.5	41.6	58.3	74.1	90.8	105.7	119.1	131.6	140.7	149.0
87.5°	8.3	16.7	30.0	45.8	61.6	77.4	93.3	105.7	118.2	128.2	135.7
90°	0.0	10.0	22.5	38.3	54.1	69.9	84.9	98.3	109.9	119.1	127.4
92.5°	0.8	6.7	17.5	30.8	45.8	60.8	74.9	88.3	99.9	109.1	116.6
95°	0.8	5.0	14.2	26.6	40.0	54.1	67.4	79.9	90.8	99.9	107.4
97.5°	0.8	3.3	11.7	23.3	35.0	49.1	61.6	73.3	83.3	92.4	98.3
100°	0.8	3.3	10.0	20.0	31.6	44.1	55.8	67.4	76.6	84.1	90.8
102.5°	0.8	2.5	8.3	17.5	28.3	39.1	50.8	61.6	69.9	77.4	84.1
105°	0.8	2.5	7.5	15.0	25.0	35.8	45.8	55.8	64.9	71.6	77.4
107.5°	0.8	1.7	6.7	12.5	21.6	32.5	42.5	50.8	59.1	65.8	71.6
110°	0.8	1.7	5.8	11.7	19.2	29.1	38.3	46.6	54.1	60.8	65.8



TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.8	1.7	5.0	10.8	17.5	25.8	35.0	42.5	50.0	55.8	60.8
115°	0.8	1.7	5.0	10.0	15.8	22.5	30.8	39.1	45.0	51.6	55.8
117.5°	0.8	1.7	4.2	8.3	15.0	20.8	28.3	35.0	41.6	47.5	51.6
120°	0.8	1.7	4.2	7.5	13.3	19.2	25.0	31.6	38.3	42.5	46.6
122.5°	0.8	1.7	3.3	7.5	11.7	17.5	22.5	28.3	34.1	39.1	43.3
125°	0.8	1.7	3.3	6.7	10.8	15.8	20.8	25.0	30.8	35.0	39.1
127.5°	0.8	1.7	3.3	5.8	10.0	14.2	19.2	23.3	27.5	31.6	35.0
130°	0.8	1.7	2.5	5.0	9.2	12.5	16.7	21.6	25.0	28.3	31.6
132.5°	0.8	1.7	2.5	5.0	7.5	10.8	15.0	19.2	22.5	25.8	28.3
135°	0.8	1.7	2.5	4.2	6.7	10.0	12.5	16.7	20.0	23.3	25.8
137.5°	0.8	1.7	2.5	4.2	5.8	8.3	10.8	14.2	17.5	20.0	23.3
140°	0.8	1.7	2.5	3.3	5.0	7.5	10.0	11.7	15.0	17.5	20.0
142.5°	0.8	1.7	2.5	3.3	5.0	6.7	8.3	10.0	12.5	15.0	17.5
145°	0.8	1.7	2.5	3.3	4.2	5.8	7.5	9.2	10.0	12.5	14.2
147.5°	0.8	1.7	2.5	3.3	3.3	5.0	6.7	7.5	9.2	10.0	11.7
150°	0.8	1.7	2.5	2.5	3.3	4.2	5.8	6.7	7.5	9.2	10.0
152.5°	0.8	1.7	2.5	2.5	3.3	4.2	5.0	5.8	6.7	7.5	8.3
155°	0.8	1.7	2.5	2.5	2.5	3.3	4.2	5.0	5.8	6.7	7.5
157.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	5.0	5.0	5.8
160°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	3.3	4.2	4.2	5.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8
2.5°	1504.6	1507.1	1514.6	1514.6	1513.0	1511.3	1511.3	1508.8	1510.5	1513.8	1512.1
5°	1504.6	1507.1	1514.6	1514.6	1513.0	1511.3	1510.5	1508.0	1510.5	1513.8	1512.1
7.5°	1499.6	1503.0	1510.5	1510.5	1508.8	1508.0	1506.3	1504.6	1507.1	1510.5	1508.8
10°	1493.0	1496.3	1503.8	1503.8	1502.1	1502.1	1499.6	1498.0	1501.3	1503.8	1503.0
12.5°	1483.0	1487.1	1493.8	1493.0	1491.3	1492.1	1489.6	1486.3	1489.6	1492.1	1493.0
15°	1468.8	1473.8	1480.5	1478.8	1476.3	1478.0	1473.8	1471.3	1473.8	1478.8	1478.0
17.5°	1450.5	1453.8	1458.8	1458.8	1456.3	1454.7	1453.0	1450.5	1452.2	1455.5	1456.3
20°	1424.7	1428.9	1431.4	1428.9	1428.0	1425.5	1422.2	1419.7	1423.0	1428.0	1428.9
22.5°	1390.6	1391.4	1397.2	1391.4	1387.2	1386.4	1383.1	1378.1	1383.1	1387.2	1388.1
25°	1348.1	1352.3	1349.8	1339.8	1339.8	1333.1	1331.4	1328.9	1329.8	1337.3	1340.6
27.5°	1294.0	1295.6	1289.0	1280.6	1273.1	1269.0	1263.2	1264.0	1264.0	1274.0	1277.3
30°	1234.8	1225.7	1219.9	1206.5	1200.7	1190.7	1189.0	1189.0	1187.4	1192.4	1207.4
32.5°	1164.1	1151.6	1142.4	1129.9	1119.9	1109.9	1104.9	1107.4	1106.6	1119.1	1124.1
35°	1086.6	1079.1	1060.0	1044.2	1038.3	1023.3	1023.3	1015.9	1020.8	1035.0	1040.8
37.5°	1005.0	993.4	977.6	960.1	955.9	944.2	940.1	935.9	946.7	949.2	955.1
40°	921.8	910.9	895.9	879.3	879.3	865.1	865.1	865.1	866.0	871.0	881.8
42.5°	842.7	831.0	817.7	806.0	804.4	793.5	793.5	792.7	794.4	798.5	808.5
45°	766.1	756.9	742.7	736.9	737.7	726.1	728.6	726.1	729.4	733.6	736.9
47.5°	695.3	689.4	683.6	675.3	672.8	672.0	667.8	664.5	670.3	670.3	675.3
50°	629.5	626.2	622.8	617.8	618.7	615.3	610.3	610.3	614.5	615.3	618.7
52.5°	572.0	567.9	563.7	564.5	565.4	563.7	561.2	558.7	561.2	562.9	567.0
55°	514.6	511.3	515.4	513.8	515.4	513.8	512.1	510.4	514.6	512.1	516.3
57.5°	463.0	466.3	468.0	464.6	467.1	465.5	466.3	463.8	467.1	468.8	468.0
60°	415.5	420.5	418.0	418.8	422.2	420.5	417.2	419.7	423.0	423.8	423.0
62.5°	372.2	378.0	380.5	378.9	379.7	378.0	380.5	377.2	381.4	383.0	380.5
65°	333.1	339.7	341.4	341.4	341.4	339.7	342.2	343.1	344.7	344.7	343.1
67.5°	299.8	305.6	307.3	308.9	307.3	305.6	305.6	306.4	309.8	311.4	309.8
70°	269.8	275.6	276.4	276.4	277.3	278.9	275.6	277.3	279.8	280.6	279.8
72.5°	244.0	249.8	251.5	250.6	251.5	252.3	252.3	250.6	253.1	254.8	254.8
75°	223.2	226.5	228.2	228.2	229.0	229.8	229.8	229.0	230.6	231.5	232.3
77.5°	204.0	206.5	209.0	209.0	209.8	209.0	210.7	210.7	211.5	212.3	213.2
80°	184.9	188.2	189.8	190.7	192.3	193.2	193.2	193.2	194.0	194.8	194.8
82.5°	169.9	172.4	174.9	177.4	177.4	178.2	178.2	178.2	179.0	179.0	179.9
85°	154.9	158.2	160.7	162.4	163.2	164.0	164.0	164.9	164.9	164.9	165.7
87.5°	141.6	145.7	147.4	149.0	149.9	151.5	151.5	151.5	152.4	152.4	152.4
90°	132.4	136.6	138.2	139.9	140.7	141.6	141.6	142.4	142.4	143.2	143.2
92.5°	121.6	125.7	129.1	129.1	129.9	131.6	130.7	130.7	131.6	132.4	132.4
95°	113.2	116.6	119.1	119.9	120.7	120.7	120.7	121.6	120.7	121.6	121.6
97.5°	103.3	106.6	109.1	110.7	111.6	111.6	111.6	112.4	111.6	112.4	112.4
100°	94.9	98.3	100.8	101.6	103.3	103.3	103.3	103.3	103.3	103.3	104.1
102.5°	88.3	91.6	93.3	94.1	94.9	95.8	95.8	95.8	95.8	96.6	96.6
105°	81.6	84.9	86.6	87.4	88.3	89.1	89.1	89.1	89.9	89.9	89.1
107.5°	75.8	78.3	79.9	81.6	82.4	82.4	83.3	83.3	83.3	83.3	83.3
110°	69.9	72.4	74.9	76.6	76.6	77.4	77.4	78.3	78.3	77.4	78.3





TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	64.1	67.4	69.1	70.8	71.6	72.4	72.4	72.4	72.4	72.4	72.4
115°	59.1	62.5	64.1	65.8	66.6	67.4	67.4	67.4	67.4	67.4	67.4
117.5°	55.0	58.3	60.0	60.8	61.6	62.5	63.3	63.3	63.3	63.3	62.5
120°	50.8	53.3	55.0	56.6	57.5	58.3	58.3	58.3	58.3	58.3	58.3
122.5°	46.6	49.1	50.8	52.5	53.3	54.1	54.1	54.1	54.1	54.1	54.1
125°	42.5	45.0	46.6	48.3	49.1	50.0	50.0	50.0	50.0	50.0	50.0
127.5°	38.3	40.8	43.3	44.1	45.0	45.8	45.8	45.8	46.6	45.8	45.8
130°	34.1	36.6	39.1	40.0	40.8	41.6	42.5	42.5	42.5	42.5	41.6
132.5°	30.8	33.3	35.0	35.8	37.5	37.5	38.3	38.3	38.3	38.3	37.5
135°	28.3	30.0	31.6	32.5	34.1	34.1	34.1	35.0	35.0	34.1	33.3
137.5°	25.0	26.6	28.3	29.1	30.0	30.8	30.8	31.6	30.8	30.8	30.8
140°	23.3	24.1	25.8	26.6	27.5	27.5	27.5	28.3	28.3	27.5	27.5
142.5°	20.0	21.6	23.3	24.1	25.0	25.0	25.0	25.0	25.0	25.0	25.0
145°	16.7	19.2	20.0	21.6	21.6	22.5	22.5	22.5	22.5	22.5	21.6
147.5°	14.2	15.8	18.3	19.2	19.2	20.0	20.0	20.0	20.0	20.0	19.2
150°	10.8	12.5	15.0	16.7	16.7	17.5	17.5	17.5	17.5	16.7	16.7
152.5°	9.2	10.8	11.7	13.3	14.2	14.2	14.2	15.0	14.2	14.2	14.2
155°	8.3	9.2	10.0	10.8	11.7	12.5	12.5	12.5	12.5	11.7	11.7
157.5°	6.7	7.5	8.3	9.2	10.0	10.8	10.8	10.8	10.8	10.8	10.0
160°	5.0	5.8	6.7	6.7	7.5	8.3	9.2	8.3	8.3	8.3	8.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8
2.5°	1510.5	1509.6	1512.1	1508.0	1495.5	1498.8	1497.1	1504.6	1506.3	1508.0	1515.5
5°	1510.5	1509.6	1511.3	1508.0	1494.6	1497.1	1495.5	1503.0	1504.6	1505.5	1513.0
7.5°	1507.1	1506.3	1508.8	1504.6	1490.5	1493.8	1491.3	1498.8	1499.6	1500.5	1507.1
10°	1500.5	1499.6	1501.3	1498.0	1483.8	1487.1	1483.8	1491.3	1491.3	1493.0	1498.0
12.5°	1490.5	1488.8	1492.1	1488.0	1472.2	1476.3	1474.7	1479.6	1480.5	1481.3	1486.3
15°	1476.3	1474.7	1477.2	1474.7	1460.5	1461.3	1458.8	1466.3	1467.2	1465.5	1470.5
17.5°	1455.5	1453.8	1458.8	1457.2	1443.0	1446.3	1445.5	1447.2	1449.7	1445.5	1452.2
20°	1429.7	1431.4	1433.0	1433.9	1423.0	1423.0	1422.2	1425.5	1428.0	1424.7	1429.7
22.5°	1391.4	1395.5	1400.5	1402.2	1394.7	1393.9	1398.9	1397.2	1399.7	1398.0	1401.4
25°	1343.1	1351.4	1356.4	1361.4	1357.2	1358.9	1366.4	1368.1	1368.1	1367.2	1370.6
27.5°	1283.1	1294.0	1303.1	1313.9	1309.8	1313.1	1325.6	1327.3	1330.6	1327.3	1333.9
30°	1211.5	1221.5	1239.0	1254.8	1256.5	1261.5	1279.0	1280.6	1289.8	1286.5	1289.0
32.5°	1139.9	1144.9	1164.9	1180.7	1190.7	1203.2	1222.4	1225.7	1238.2	1240.7	1240.7
35°	1050.0	1064.1	1082.5	1104.9	1117.4	1130.8	1156.6	1161.6	1179.9	1185.7	1192.4
37.5°	974.2	987.5	999.2	1022.5	1045.0	1060.0	1080.8	1093.3	1112.4	1123.3	1131.6
40°	893.5	904.3	916.8	940.1	959.2	981.7	1002.5	1017.5	1041.7	1054.2	1065.0
42.5°	816.8	825.2	838.5	855.1	875.1	900.1	920.1	937.6	963.4	980.9	993.4
45°	748.6	753.6	765.2	777.7	795.2	821.0	840.2	862.6	883.5	901.8	916.8
47.5°	684.5	691.1	696.9	705.3	721.1	736.9	759.4	781.0	801.9	821.8	836.8
50°	625.3	625.3	634.5	640.3	651.1	665.3	682.8	697.8	723.6	737.7	756.9
52.5°	567.9	571.2	576.2	579.5	587.9	597.0	611.2	623.7	645.3	658.6	677.0
55°	517.1	520.4	522.9	524.6	529.6	540.4	545.4	555.4	570.4	581.2	597.0
57.5°	468.8	470.5	473.0	473.8	474.6	481.3	485.4	487.9	502.9	513.8	527.1
60°	424.7	424.7	427.2	426.3	425.5	428.8	428.0	430.5	439.6	446.3	452.1
62.5°	383.0	383.0	383.9	382.2	381.4	381.4	378.0	380.5	383.0	383.9	388.0
65°	344.7	348.9	345.6	346.4	341.4	339.7	338.1	333.1	332.2	328.9	330.6
67.5°	310.6	313.9	310.6	310.6	306.4	303.1	298.9	290.6	288.1	281.4	279.8
70°	283.1	280.6	282.3	279.8	274.8	270.6	264.8	258.1	249.8	241.5	235.6
72.5°	256.5	256.5	254.8	252.3	249.8	241.5	234.8	227.3	217.3	206.5	198.2
75°	230.6	231.5	231.5	229.0	224.8	217.3	209.8	199.0	188.2	175.7	164.9
77.5°	212.3	212.3	212.3	208.2	204.0	197.3	188.2	176.5	164.9	149.9	137.4
80°	194.8	194.0	194.0	189.0	184.9	177.4	168.2	156.5	144.1	128.2	114.1
82.5°	180.7	179.9	178.2	174.0	168.2	160.7	151.5	139.1	125.7	111.6	94.1
85°	165.7	164.9	163.2	159.0	153.2	146.5	136.6	124.1	110.7	94.9	78.3
87.5°	152.4	151.5	149.0	146.5	139.9	132.4	122.4	110.7	96.6	81.6	64.9
90°	143.2	141.6	139.9	136.6	130.7	122.4	112.4	99.9	85.8	70.8	54.1
92.5°	132.4	131.6	129.1	125.7	120.7	112.4	102.4	90.8	76.6	62.5	46.6
95°	121.6	120.7	119.1	115.7	110.7	103.3	94.1	82.4	69.1	55.0	40.8
97.5°	111.6	111.6	109.1	106.6	100.8	94.9	85.8	74.9	62.5	50.0	36.6
100°	103.3	103.3	100.8	97.4	93.3	87.4	78.3	68.3	56.6	45.0	31.6
102.5°	95.8	94.9	93.3	89.9	85.8	79.9	71.6	62.5	51.6	40.0	28.3
105°	89.1	88.3	86.6	83.3	79.9	73.3	66.6	57.5	46.6	35.8	25.0
107.5°	82.4	81.6	80.8	77.4	73.3	67.4	60.8	51.6	42.5	32.5	22.5
110°	76.6	75.8	74.1	70.8	66.6	61.6	55.0	47.5	38.3	29.1	20.0



TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	71.6	70.8	69.1	65.8	62.5	56.6	50.8	42.5	35.0	26.6	17.5
115°	66.6	65.8	64.1	60.8	56.6	51.6	45.8	39.1	30.8	23.3	15.8
117.5°	61.6	60.8	59.1	56.6	52.5	47.5	41.6	35.0	27.5	21.6	14.2
120°	57.5	55.8	54.1	51.6	47.5	43.3	37.5	31.6	25.0	19.2	12.5
122.5°	53.3	51.6	50.0	47.5	43.3	39.1	33.3	28.3	23.3	17.5	11.7
125°	48.3	47.5	45.8	43.3	39.1	35.0	30.8	25.8	20.8	15.8	10.0
127.5°	44.1	43.3	41.6	38.3	35.0	31.6	27.5	23.3	18.3	13.3	9.2
130°	40.8	39.1	37.5	35.0	32.5	29.1	25.0	20.8	16.7	11.7	8.3
132.5°	36.6	35.0	33.3	31.6	29.1	25.8	22.5	18.3	15.0	10.8	7.5
135°	33.3	31.6	30.0	28.3	25.8	23.3	20.0	16.7	13.3	10.0	6.7
137.5°	29.1	28.3	27.5	25.8	23.3	20.8	18.3	14.2	11.7	9.2	5.8
140°	26.6	25.8	25.0	22.5	20.8	18.3	15.8	12.5	10.0	7.5	5.0
142.5°	24.1	23.3	21.6	20.0	18.3	16.7	13.3	11.7	9.2	6.7	5.0
145°	20.8	20.0	19.2	17.5	15.8	13.3	11.7	10.0	8.3	5.8	4.2
147.5°	19.2	18.3	16.7	15.0	13.3	11.7	10.8	9.2	6.7	5.0	3.3
150°	15.8	15.0	14.2	12.5	11.7	10.8	9.2	7.5	5.8	4.2	3.3
152.5°	13.3	12.5	11.7	11.7	10.0	9.2	7.5	6.7	5.0	4.2	2.5
155°	11.7	11.7	10.8	10.0	8.3	7.5	6.7	5.0	4.2	3.3	2.5
157.5°	10.0	9.2	8.3	8.3	7.5	6.7	5.0	4.2	3.3	3.3	2.5
160°	8.3	7.5	7.5	6.7	5.8	5.0	4.2	4.2	3.3	2.5	2.5
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8
2.5°	1516.3	1507.1	1515.5	1526.3	1526.3	1524.6	1522.9	1526.3	1534.6	1531.3	1521.3
5°	1513.8	1504.6	1512.1	1522.9	1522.9	1520.4	1518.8	1521.3	1530.4	1526.3	1517.1
7.5°	1508.8	1500.5	1505.5	1515.5	1515.5	1513.0	1511.3	1514.6	1522.1	1518.0	1508.0
10°	1499.6	1490.5	1496.3	1505.5	1504.6	1503.0	1500.5	1504.6	1511.3	1505.5	1493.8
12.5°	1488.0	1478.8	1483.8	1492.1	1491.3	1488.0	1486.3	1488.8	1494.6	1491.3	1478.8
15°	1472.2	1463.0	1467.2	1475.5	1473.0	1470.5	1467.2	1468.0	1475.5	1469.7	1456.3
17.5°	1453.0	1443.0	1446.3	1453.8	1451.3	1448.8	1444.7	1445.5	1453.8	1445.5	1431.4
20°	1429.7	1418.9	1421.4	1430.5	1426.4	1422.2	1418.0	1418.0	1426.4	1417.2	1401.4
22.5°	1404.7	1393.9	1395.5	1402.2	1398.9	1391.4	1387.2	1389.7	1393.9	1382.2	1365.6
25°	1373.9	1359.7	1362.2	1368.9	1366.4	1356.4	1352.3	1353.9	1352.3	1343.1	1325.6
27.5°	1338.1	1323.1	1324.8	1328.9	1325.6	1316.4	1311.5	1312.3	1309.0	1297.3	1277.3
30°	1293.1	1285.6	1284.8	1287.3	1282.3	1273.1	1267.3	1265.7	1264.8	1248.2	1224.0
32.5°	1247.3	1240.7	1236.5	1239.8	1234.0	1224.9	1214.9	1214.9	1206.5	1190.7	1169.9
35°	1200.7	1189.9	1185.7	1188.2	1181.6	1169.9	1161.6	1157.4	1144.9	1124.9	1102.5
37.5°	1140.8	1133.3	1128.3	1130.8	1123.3	1114.9	1099.1	1095.0	1081.6	1054.2	1025.8
40°	1075.8	1070.0	1065.0	1067.5	1059.2	1046.7	1032.5	1025.8	1010.9	980.0	957.6
42.5°	1005.9	1003.4	997.5	1006.7	990.0	977.6	963.4	952.6	937.6	904.3	878.5
45°	931.8	937.6	924.3	926.8	915.9	905.1	890.1	874.3	859.3	827.7	798.5
47.5°	853.5	857.6	848.5	850.2	838.5	828.5	815.2	795.2	778.5	751.1	725.3
50°	772.7	771.0	771.0	769.4	760.2	747.7	734.4	716.1	699.4	674.5	652.8
52.5°	687.0	690.3	691.9	696.1	684.5	677.0	656.1	640.3	627.8	602.0	583.7
55°	604.5	616.2	612.8	614.5	601.2	595.4	578.7	566.2	547.9	532.9	521.2
57.5°	529.6	532.1	533.7	536.2	530.4	518.8	505.4	495.4	481.3	468.8	460.5
60°	457.1	457.1	458.0	462.1	456.3	446.3	436.3	428.8	418.8	411.3	406.3
62.5°	388.9	394.7	395.5	392.2	384.7	379.7	373.0	368.9	362.2	359.7	358.0
65°	325.6	325.6	325.6	327.2	323.1	319.7	315.6	314.7	317.2	313.9	315.6
67.5°	272.3	269.8	268.1	269.0	267.3	265.6	264.8	267.3	272.3	272.3	276.4
70°	226.5	221.5	218.2	218.2	218.2	219.0	221.5	226.5	234.8	238.1	244.0
72.5°	189.0	178.2	173.2	173.2	174.0	177.4	184.9	194.0	201.5	208.2	215.7
75°	153.2	142.4	134.9	134.1	135.7	140.7	151.5	159.9	172.4	181.5	190.7
77.5°	124.1	110.7	101.6	100.8	103.3	110.7	124.1	134.9	149.0	159.0	169.0
80°	99.1	84.1	76.6	71.6	75.8	84.9	99.9	113.2	126.6	139.9	152.4
82.5°	79.1	64.9	53.3	48.3	53.3	65.8	79.9	95.8	109.1	123.2	135.7
85°	62.5	47.5	34.1	29.1	35.0	48.3	64.1	79.9	94.9	109.1	121.6
87.5°	49.1	34.1	20.8	14.2	21.6	35.8	50.8	66.6	82.4	96.6	109.1
90°	38.3	24.1	11.7	1.7	12.5	25.8	40.8	55.8	71.6	85.8	98.3
92.5°	32.5	18.3	6.7	0.0	7.5	19.2	33.3	48.3	62.5	76.6	89.1
95°	27.5	15.0	5.0	0.0	5.0	15.0	27.5	40.8	55.0	69.1	81.6
97.5°	23.3	11.7	3.3	0.0	3.3	11.7	22.5	35.8	48.3	61.6	73.3
100°	20.0	10.0	2.5	0.0	2.5	9.2	19.2	30.8	43.3	55.8	66.6
102.5°	17.5	8.3	1.7	0.0	1.7	7.5	15.8	26.6	37.5	49.1	60.0
105°	15.0	6.7	1.7	0.0	0.8	5.8	13.3	23.3	33.3	44.1	54.1
107.5°	13.3	5.8	1.7	0.0	0.8	5.0	11.7	20.0	30.0	39.1	48.3
110°	11.7	5.0	1.7	0.0	0.8	3.3	10.0	17.5	25.8	35.0	44.1



TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	10.0	4.2	0.8	0.0	0.0	2.5	8.3	15.0	22.5	31.6	39.1
115°	9.2	4.2	0.8	0.0	0.0	1.7	6.7	13.3	20.0	28.3	35.0
117.5°	8.3	3.3	0.8	0.0	0.8	1.7	5.8	11.7	17.5	24.1	31.6
120°	7.5	3.3	0.8	0.0	0.8	0.8	4.2	10.0	15.0	21.6	27.5
122.5°	6.7	3.3	0.8	0.0	0.8	0.8	3.3	8.3	13.3	19.2	24.1
125°	5.8	2.5	1.7	0.8	0.8	0.8	2.5	6.7	11.7	15.8	21.6
127.5°	5.8	2.5	1.7	0.8	0.8	0.8	1.7	5.8	9.2	14.2	19.2
130°	5.0	2.5	1.7	0.8	0.8	0.8	0.8	4.2	8.3	11.7	15.8
132.5°	4.2	2.5	1.7	0.8	0.8	0.8	0.8	2.5	5.8	10.0	13.3
135°	4.2	2.5	1.7	0.8	0.8	0.8	0.8	1.7	4.2	7.5	10.8
137.5°	3.3	1.7	1.7	0.8	0.8	0.8	0.8	0.8	3.3	5.8	8.3
140°	3.3	1.7	1.7	0.8	0.8	0.8	0.8	0.8	2.5	4.2	6.7
142.5°	2.5	1.7	1.7	0.8	0.8	0.8	0.8	0.8	1.7	3.3	5.0
145°	2.5	1.7	1.7	0.8	0.8	0.8	0.8	0.8	0.8	1.7	3.3
147.5°	2.5	2.5	1.7	0.8	0.8	0.8	0.8	0.8	0.8	1.7	2.5
150°	2.5	1.7	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7
152.5°	2.5	1.7	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7
155°	2.5	1.7	1.7	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7
157.5°	2.5	1.7	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7
160°	2.5	1.7	1.7	0.8	1.7	0.8	1.7	1.7	1.7	1.7	1.7
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8
2.5°	1518.0	1502.1	1510.5	1508.0	1511.3	1518.0	1517.1	1515.5	1515.5	1513.0	1509.6
5°	1513.0	1498.0	1505.5	1501.3	1505.5	1511.3	1510.5	1508.0	1509.6	1505.5	1501.3
7.5°	1503.0	1489.6	1496.3	1493.0	1496.3	1502.1	1499.6	1498.8	1500.5	1493.8	1491.3
10°	1491.3	1476.3	1483.8	1479.6	1483.8	1488.0	1486.3	1483.0	1486.3	1479.6	1477.2
12.5°	1473.0	1460.5	1465.5	1463.8	1466.3	1470.5	1467.2	1464.7	1466.3	1460.5	1455.5
15°	1453.0	1440.5	1444.7	1442.2	1443.8	1448.8	1443.0	1442.2	1440.5	1434.7	1433.0
17.5°	1427.2	1415.5	1419.7	1415.5	1418.0	1416.4	1415.5	1411.4	1411.4	1404.7	1399.7
20°	1395.5	1385.6	1383.1	1379.7	1383.1	1379.7	1374.7	1371.4	1370.6	1363.9	1359.7
22.5°	1358.9	1347.3	1348.9	1339.8	1340.6	1335.6	1327.3	1323.9	1320.6	1313.1	1307.3
25°	1314.8	1303.1	1294.8	1289.0	1281.5	1280.6	1269.8	1261.5	1260.7	1251.5	1250.7
27.5°	1264.8	1251.5	1244.8	1230.7	1221.5	1214.0	1204.9	1196.5	1192.4	1182.4	1175.7
30°	1207.4	1192.4	1175.7	1165.7	1151.6	1145.7	1129.9	1119.9	1116.6	1105.8	1100.8
32.5°	1142.4	1126.6	1113.3	1094.1	1078.3	1070.0	1054.2	1044.2	1040.0	1028.3	1021.7
35°	1071.6	1054.2	1038.3	1020.0	1007.5	993.4	974.2	964.2	955.1	950.9	945.9
37.5°	997.5	978.4	960.1	941.7	930.9	914.3	897.6	891.0	880.1	876.0	871.0
40°	920.9	901.8	884.3	866.8	854.3	839.3	824.3	821.8	810.2	806.0	802.7
42.5°	845.2	825.2	805.2	792.7	783.5	768.6	758.6	756.1	746.1	743.6	743.6
45°	776.9	751.9	735.2	724.4	716.9	704.4	696.1	694.4	686.1	684.5	684.5
47.5°	703.6	680.3	667.8	661.1	654.5	645.3	640.3	640.3	632.0	630.3	629.5
50°	635.3	613.7	604.5	597.9	597.0	590.4	586.2	584.5	584.5	578.7	579.5
52.5°	570.4	559.6	552.1	547.9	542.9	538.7	535.4	535.4	532.9	528.7	530.4
55°	510.4	497.9	498.8	495.4	492.9	490.4	491.3	486.3	485.4	482.1	484.6
57.5°	450.5	450.5	448.8	446.3	442.1	443.8	443.8	443.8	439.6	437.2	439.6
60°	399.7	402.2	398.0	400.5	398.8	399.7	398.0	398.0	395.5	394.7	395.5
62.5°	354.7	358.9	357.2	360.5	358.9	359.7	361.4	358.0	356.4	354.7	356.4
65°	314.7	319.7	318.9	321.4	322.2	323.1	323.9	322.2	320.6	318.9	318.1
67.5°	279.8	284.8	288.1	288.9	289.8	292.3	291.4	289.8	288.1	285.6	284.8
70°	248.1	254.8	259.0	260.6	264.0	262.3	262.3	261.5	259.8	257.3	256.5
72.5°	221.5	229.0	233.1	234.8	238.1	238.1	237.3	236.5	234.8	232.3	231.5
75°	198.2	204.8	210.7	214.0	216.5	216.5	215.7	214.8	213.2	211.5	210.7
77.5°	179.9	185.7	190.7	194.8	196.5	197.3	196.5	194.8	194.8	194.0	193.2
80°	161.5	168.2	173.2	177.4	179.9	179.9	179.0	179.9	178.2	177.4	176.5
82.5°	145.7	153.2	159.0	163.2	164.9	165.7	164.9	165.7	164.0	164.0	164.0
85°	131.6	139.1	145.7	149.0	151.5	152.4	152.4	152.4	151.5	151.5	151.5
87.5°	119.9	127.4	134.1	137.4	139.9	140.7	140.7	141.6	139.9	139.9	139.9
90°	109.1	116.6	123.2	126.6	129.1	130.7	130.7	131.6	130.7	129.9	129.9
92.5°	99.1	107.4	114.1	117.4	119.9	122.4	122.4	123.2	121.6	121.6	121.6
95°	90.8	99.1	104.9	109.1	111.6	113.2	114.1	114.1	113.2	113.2	113.2
97.5°	83.3	90.8	96.6	100.8	103.3	104.1	104.9	105.7	104.9	104.9	104.9
100°	75.8	83.3	89.1	92.4	95.8	96.6	97.4	98.3	98.3	97.4	97.4
102.5°	69.1	76.6	81.6	85.8	88.3	89.9	90.8	90.8	90.8	90.8	90.8
105°	62.5	69.9	74.9	79.1	81.6	83.3	84.1	84.9	84.9	84.1	84.1
107.5°	56.6	63.3	69.1	72.4	75.8	77.4	78.3	78.3	79.1	78.3	78.3
110°	50.8	58.3	63.3	66.6	69.9	71.6	72.4	73.3	73.3	73.3	73.3



TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	46.6	52.5	57.5	60.8	64.1	65.8	66.6	67.4	68.3	67.4	67.4
115°	41.6	47.5	52.5	55.8	58.3	60.0	61.6	62.5	62.5	63.3	62.5
117.5°	37.5	42.5	47.5	50.8	53.3	55.8	56.6	57.5	58.3	57.5	57.5
120°	33.3	38.3	42.5	45.8	48.3	50.8	51.6	52.5	53.3	52.5	52.5
122.5°	30.0	34.1	38.3	41.6	44.1	45.8	47.5	47.5	48.3	48.3	48.3
125°	26.6	30.8	34.1	37.5	40.0	41.6	42.5	43.3	43.3	44.1	44.1
127.5°	23.3	26.6	30.8	33.3	35.8	37.5	38.3	39.1	39.1	40.0	40.0
130°	20.0	23.3	26.6	29.1	31.6	33.3	34.1	35.0	35.8	35.8	35.8
132.5°	17.5	20.8	23.3	25.8	27.5	29.1	30.8	31.6	31.6	31.6	31.6
135°	14.2	17.5	20.0	22.5	24.1	25.8	26.6	28.3	28.3	28.3	28.3
137.5°	11.7	15.0	17.5	19.2	20.8	22.5	23.3	24.1	25.0	25.0	25.0
140°	9.2	11.7	14.2	16.7	18.3	19.2	20.8	20.8	21.6	21.6	21.6
142.5°	6.7	9.2	10.8	13.3	15.0	16.7	17.5	18.3	18.3	18.3	18.3
145°	5.0	6.7	8.3	10.0	12.5	13.3	14.2	15.0	15.8	15.8	15.8
147.5°	3.3	5.0	5.8	7.5	9.2	10.8	11.7	12.5	13.3	13.3	13.3
150°	2.5	3.3	5.0	5.8	6.7	8.3	10.0	10.0	10.8	10.8	10.0
152.5°	1.7	2.5	3.3	4.2	5.0	5.8	7.5	7.5	8.3	8.3	8.3
155°	1.7	1.7	1.7	2.5	3.3	4.2	5.0	5.8	5.8	5.8	5.8
157.5°	1.7	1.7	1.7	1.7	1.7	2.5	3.3	4.2	4.2	4.2	4.2
160°	1.7	1.7	0.8	0.8	1.7	1.7	1.7	1.7	2.5	2.5	2.5
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8
2.5°	1512.1	1513.8	1513.8	1512.1	1511.3	1514.6	1510.5	1494.6	1499.6	1501.3	1506.3
5°	1504.6	1506.3	1506.3	1506.3	1504.6	1508.0	1503.8	1488.0	1493.8	1496.3	1499.6
7.5°	1493.8	1494.6	1496.3	1495.5	1493.8	1498.8	1494.6	1478.8	1483.0	1487.1	1491.3
10°	1479.6	1479.6	1480.5	1482.1	1480.5	1484.6	1480.5	1466.3	1470.5	1473.0	1478.0
12.5°	1460.5	1462.2	1463.0	1462.2	1461.3	1464.7	1463.0	1449.7	1451.3	1456.3	1461.3
15°	1434.7	1434.7	1438.8	1437.2	1437.2	1440.5	1442.2	1427.2	1429.7	1437.2	1442.2
17.5°	1403.0	1403.9	1407.2	1408.9	1408.0	1413.9	1414.7	1403.0	1402.2	1411.4	1416.4
20°	1362.2	1363.9	1368.1	1371.4	1371.4	1378.1	1380.6	1373.1	1373.9	1383.9	1385.6
22.5°	1312.3	1312.3	1319.8	1324.8	1328.9	1333.1	1340.6	1333.9	1333.9	1347.3	1354.7
25°	1250.7	1256.5	1259.0	1269.0	1274.8	1286.5	1293.1	1294.0	1294.8	1307.3	1312.3
27.5°	1182.4	1184.1	1191.5	1203.2	1209.9	1220.7	1233.2	1235.7	1239.8	1256.5	1264.0
30°	1104.9	1109.9	1113.3	1129.9	1139.1	1153.2	1169.1	1174.9	1178.2	1200.7	1209.9
32.5°	1025.8	1027.5	1041.7	1050.8	1061.7	1076.6	1095.0	1105.8	1112.4	1135.8	1149.1
35°	946.7	950.1	961.7	973.4	984.2	999.2	1018.4	1033.3	1045.0	1065.8	1083.3
37.5°	874.3	882.6	885.1	896.8	905.1	920.1	933.4	955.1	966.7	988.4	1010.9
40°	809.4	811.9	813.5	825.2	831.0	845.2	864.3	878.5	894.3	910.1	936.8
42.5°	745.2	746.9	749.4	756.1	762.7	772.7	786.9	801.0	817.7	841.0	858.5
45°	686.1	687.8	689.4	693.6	699.4	708.6	717.8	727.8	744.4	764.4	782.7
47.5°	631.2	634.5	634.5	635.3	639.5	647.0	653.6	666.1	675.3	686.1	706.9
50°	578.7	581.2	582.0	582.0	584.5	589.5	591.2	599.5	607.8	617.8	632.8
52.5°	529.6	529.6	528.7	532.1	532.1	535.4	536.2	541.2	547.1	557.9	564.5
55°	482.9	482.9	485.4	483.8	483.8	485.4	484.6	485.4	490.4	497.1	502.9
57.5°	438.0	437.2	439.6	438.0	437.2	438.8	440.5	437.2	438.0	444.6	444.6
60°	393.0	393.9	396.3	394.7	394.7	394.7	393.0	391.4	389.7	393.9	395.5
62.5°	357.2	354.7	357.2	354.7	356.4	355.5	353.9	350.6	351.4	349.7	348.1
65°	319.7	319.7	320.6	318.1	319.7	319.7	317.2	316.4	311.4	309.8	305.6
67.5°	287.3	287.3	288.1	286.4	286.4	287.3	284.8	282.3	277.3	274.8	269.0
70°	259.0	259.0	259.0	258.1	258.1	258.1	256.5	253.1	248.1	244.0	236.5
72.5°	233.1	234.0	233.1	233.1	235.6	233.1	230.6	227.3	223.2	214.8	208.2
75°	212.3	213.2	212.3	212.3	212.3	211.5	210.7	205.7	200.7	194.0	184.0
77.5°	194.0	194.0	194.8	194.0	194.0	193.2	190.7	186.5	180.7	174.9	163.2
80°	176.5	177.4	178.2	179.0	177.4	176.5	174.0	170.7	163.2	156.5	144.9
82.5°	164.0	163.2	164.0	164.9	163.2	162.4	159.9	155.7	149.9	140.7	129.1
85°	151.5	150.7	150.7	151.5	150.7	149.0	146.5	142.4	136.6	127.4	115.7
87.5°	139.1	139.9	140.7	139.9	139.1	137.4	134.9	130.7	124.1	116.6	104.1
90°	129.9	129.9	129.9	129.9	129.1	127.4	124.9	119.9	114.1	104.9	94.1
92.5°	121.6	121.6	121.6	121.6	120.7	118.2	115.7	111.6	104.9	95.8	85.8
95°	113.2	114.1	113.2	113.2	111.6	110.7	106.6	102.4	96.6	87.4	76.6
97.5°	104.1	104.9	104.1	104.1	103.3	101.6	99.1	94.1	88.3	79.9	69.9
100°	97.4	97.4	96.6	96.6	95.8	94.1	90.8	86.6	80.8	72.4	62.5
102.5°	89.9	90.8	89.9	89.9	88.3	86.6	84.1	79.9	74.1	65.8	56.6
105°	84.1	84.1	83.3	83.3	81.6	79.9	77.4	72.4	67.4	60.0	50.8
107.5°	78.3	78.3	77.4	77.4	75.8	74.1	70.8	66.6	61.6	54.1	45.8
110°	72.4	72.4	72.4	71.6	69.9	67.4	64.9	60.8	55.8	49.1	40.8





TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	68.3	67.4	66.6	65.8	64.1	62.5	59.1	55.0	50.0	44.1	36.6
115°	62.5	62.5	61.6	60.8	59.1	56.6	54.1	50.8	45.8	39.1	32.5
117.5°	57.5	57.5	56.6	55.8	54.1	51.6	49.1	45.8	40.8	35.0	29.1
120°	52.5	52.5	51.6	50.8	49.1	46.6	45.0	40.8	36.6	30.8	25.8
122.5°	48.3	47.5	47.5	45.8	45.0	42.5	40.0	36.6	32.5	27.5	22.5
125°	43.3	43.3	42.5	41.6	40.8	38.3	35.8	32.5	28.3	24.1	20.0
127.5°	39.1	39.1	38.3	37.5	36.6	34.1	31.6	29.1	25.0	20.8	16.7
130°	35.0	35.0	34.1	33.3	32.5	30.0	28.3	25.0	21.6	18.3	14.2
132.5°	31.6	31.6	30.8	30.0	28.3	26.6	25.0	21.6	19.2	15.8	12.5
135°	28.3	27.5	27.5	26.6	25.0	23.3	21.6	19.2	15.8	13.3	10.0
137.5°	25.0	24.1	23.3	22.5	21.6	20.0	18.3	16.7	14.2	10.8	8.3
140°	21.6	20.8	20.8	20.0	18.3	17.5	15.8	13.3	11.7	9.2	6.7
142.5°	18.3	18.3	17.5	16.7	15.8	15.0	13.3	11.7	9.2	7.5	5.0
145°	15.8	15.0	15.0	14.2	13.3	11.7	10.8	9.2	7.5	5.8	4.2
147.5°	12.5	12.5	12.5	11.7	10.8	10.0	9.2	7.5	5.8	4.2	2.5
150°	10.0	10.0	10.0	9.2	8.3	7.5	6.7	5.8	4.2	2.5	1.7
152.5°	8.3	8.3	7.5	7.5	6.7	5.8	5.0	4.2	2.5	1.7	1.7
155°	5.8	5.8	5.8	5.0	5.0	4.2	3.3	2.5	1.7	1.7	1.7
157.5°	4.2	4.2	4.2	3.3	3.3	2.5	2.5	1.7	1.7	1.7	1.7
160°	2.5	2.5	2.5	2.5	1.7	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8	1513.8
2.5°	1503.8	1503.0	1509.6	1509.6	1502.1	1513.8	1526.3
5°	1498.8	1498.0	1504.6	1504.6	1498.0	1509.6	1522.9
7.5°	1488.8	1489.6	1496.3	1498.0	1489.6	1500.5	1514.6
10°	1478.0	1477.2	1484.6	1486.3	1479.6	1489.6	1503.0
12.5°	1460.5	1460.5	1468.0	1470.5	1463.8	1475.5	1488.0
15°	1442.2	1442.2	1447.2	1451.3	1445.5	1456.3	1468.8
17.5°	1418.9	1418.0	1423.0	1428.0	1422.2	1433.9	1447.2
20°	1388.9	1388.9	1394.7	1400.5	1396.4	1407.2	1422.2
22.5°	1357.2	1353.9	1363.9	1368.1	1365.6	1376.4	1391.4
25°	1317.3	1316.4	1326.4	1332.3	1328.9	1340.6	1353.9
27.5°	1274.0	1273.1	1283.1	1290.6	1289.0	1299.8	1314.8
30°	1221.5	1225.7	1234.8	1247.3	1243.2	1254.8	1270.6
32.5°	1166.6	1170.7	1181.6	1194.9	1195.7	1204.9	1220.7
35°	1100.8	1111.6	1119.1	1136.6	1139.9	1149.1	1165.7
37.5°	1031.7	1044.2	1060.0	1073.3	1080.0	1087.5	1106.6
40°	954.2	972.6	990.0	1005.9	1014.2	1021.7	1040.0
42.5°	884.3	898.4	915.1	930.9	945.9	952.6	971.7
45°	805.2	821.8	836.8	856.0	871.0	878.5	897.6
47.5°	727.8	744.4	764.4	777.7	793.5	801.0	819.3
50°	653.6	668.6	685.3	701.1	714.4	721.1	736.9
52.5°	580.4	596.2	612.0	622.0	636.2	641.2	654.5
55°	515.4	526.2	540.4	546.2	560.4	563.7	572.9
57.5°	453.0	460.5	465.5	475.5	485.4	492.9	503.8
60°	396.3	399.7	403.0	408.8	417.2	419.7	423.8
62.5°	345.6	344.7	351.4	353.1	353.9	362.2	358.0
65°	300.6	301.4	295.6	293.1	296.4	298.9	297.3
67.5°	263.1	258.1	253.1	247.3	242.3	244.8	242.3
70°	226.5	222.3	214.0	205.7	202.3	197.3	194.8
72.5°	197.3	187.4	179.0	168.2	162.4	156.5	152.4
75°	174.9	160.7	149.0	137.4	129.1	120.7	119.1
77.5°	151.5	138.2	124.9	112.4	99.9	90.8	87.4
80°	133.2	120.7	104.9	89.9	76.6	64.9	60.8
82.5°	116.6	103.3	87.4	71.6	56.6	44.1	39.1
85°	102.4	88.3	72.4	56.6	41.6	28.3	21.6
87.5°	91.6	75.8	60.0	45.0	29.1	15.8	8.3
90°	81.6	66.6	51.6	35.8	20.8	8.3	0.0
92.5°	72.4	58.3	43.3	29.1	15.8	5.0	0.8
95°	64.1	51.6	36.6	23.3	11.7	3.3	0.8
97.5°	57.5	45.0	31.6	19.2	9.2	2.5	0.8
100°	51.6	39.1	27.5	15.8	7.5	1.7	0.8
102.5°	45.8	35.0	23.3	13.3	5.8	0.8	0.8
105°	40.8	30.8	20.0	11.7	5.0	0.8	0.8
107.5°	36.6	27.5	17.5	10.0	3.3	0.8	0.8
110°	32.5	23.3	15.0	8.3	2.5	0.8	0.8



TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	29.1	20.8	13.3	6.7	1.7	0.8	0.8
115°	25.8	18.3	11.7	5.8	1.7	0.8	0.8
117.5°	22.5	15.8	10.0	4.2	0.8	0.8	0.8
120°	20.0	14.2	8.3	3.3	0.8	0.8	0.8
122.5°	17.5	11.7	6.7	2.5	0.8	0.8	0.8
125°	15.0	10.0	5.8	1.7	0.8	0.8	0.8
127.5°	12.5	8.3	4.2	1.7	0.8	0.8	0.8
130°	10.8	6.7	3.3	0.8	0.8	0.8	0.8
132.5°	9.2	5.0	2.5	0.8	0.8	0.8	0.8
135°	7.5	4.2	1.7	0.8	0.8	0.8	0.8
137.5°	5.8	3.3	1.7	0.8	0.8	0.8	0.8
140°	4.2	2.5	0.8	0.8	0.8	0.8	0.8
142.5°	3.3	1.7	0.8	0.8	0.8	0.8	0.8
145°	2.5	1.7	0.8	0.8	0.8	0.8	0.8
147.5°	1.7	1.7	1.7	1.7	0.8	0.8	0.8
150°	1.7	1.7	0.8	0.8	1.7	0.8	0.8
152.5°	1.7	0.8	0.8	0.8	1.7	0.8	0.8
155°	1.7	1.7	1.7	1.7	1.7	1.7	0.8
157.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7
160°	1.7	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)