

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: NEO-RAY

Report Number: P333715-940

Luminaire Tested: **S125RDIW-S1090D1340U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333715-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIW-S1090D1340U940-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7916.1 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

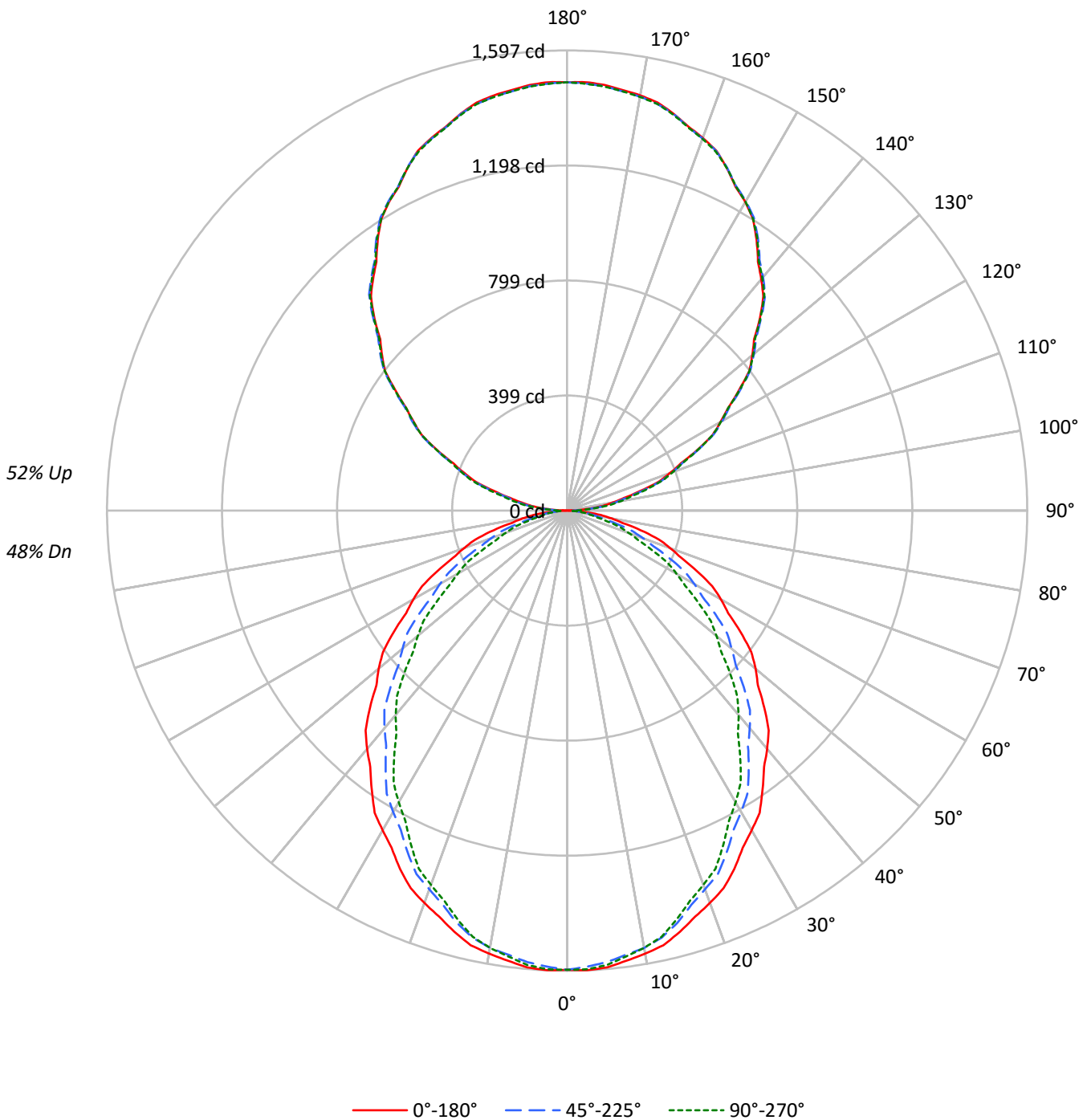
Input Watts (W): 69.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54
1	97	93	89	86	90	86	83	80	72	70	68	60	58	57	48	47	46
2	89	82	76	71	82	75	70	66	63	60	56	53	50	47	42	41	39
3	81	72	65	59	74	66	60	55	56	51	48	47	43	40	38	35	33
4	74	64	56	50	68	59	52	47	50	45	41	42	38	35	34	31	29
5	68	57	49	43	63	53	46	40	45	39	35	37	33	30	31	28	25
6	63	51	43	37	58	47	40	35	40	35	31	34	30	27	28	25	22
7	58	46	38	33	53	43	36	31	37	31	27	31	27	24	25	22	20
8	54	42	34	29	50	39	32	27	33	28	24	28	24	21	23	20	18
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	18	16
10	47	35	28	23	43	33	26	22	28	23	20	24	20	17	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10293	10293	10293
5°	10317	10200	10263
10°	10239	10105	10105
15°	10117	9900	9819
20°	9961	9614	9498
25°	9779	9333	9128
30°	9552	9004	8717
35°	9320	8665	8257
40°	9104	8312	7804
45°	8840	7916	7311
50°	8575	7486	6797
55°	8268	7076	6248
60°	7962	6577	5660
65°	7597	5997	4985
70°	7183	5274	4296
75°	6608	4447	3573
80°	5821	3492	2998
85°	4905	2853	2675



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.9	1.9
10°-20°	418.8	5.3
20°-30°	607.3	7.7
30°-40°	692.2	8.7
40°-50°	674.7	8.5
50°-60°	567.9	7.2
60°-70°	398.1	5.0
70°-80°	204.6	2.6
80°-90°	54.9	0.7
90°-100°	99.5	1.3
100°-110°	294.0	3.7
110°-120°	497.9	6.3
120°-130°	655.3	8.3
130°-140°	734.3	9.3
140°-150°	719.7	9.1
150°-160°	604.5	7.6
160°-170°	401.8	5.1
170°-180°	140.6	1.8
0°-30°	1176.0	14.9
0°-40°	1868.2	23.6
0°-60°	3110.9	39.3
0°-90°	3768.5	47.6
90°-120°	891.4	11.3
90°-150°	3000.7	37.9
90°-180°	4148.0	52.4
0°-180°	7916.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1594	1594	1594	1594	1594	
5°	1591	1586	1573	1585	1583	151
15°	1513	1505	1481	1479	1469	426
25°	1372	1353	1310	1294	1281	631
35°	1182	1152	1099	1065	1047	740
45°	968	931	867	820	800	746
55°	734	694	628	576	555	657
65°	497	455	392	346	326	492
75°	265	228	178	153	143	280
85°	66	45	38	37	36	74
90°	1	10	18	24	28	7
95°	75	78	89	97	100	80
105°	264	270	276	283	287	282
115°	499	503	506	504	503	493
125°	728	734	736	733	732	651
135°	946	953	954	954	950	729
145°	1146	1151	1154	1154	1151	716
155°	1312	1312	1313	1317	1312	604
165°	1426	1424	1425	1429	1423	402
175°	1483	1479	1478	1484	1477	141
180°	1486	1486	1486	1486	1486	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8
2.5°	1596.7	1596.1	1595.4	1594.7	1594.1	1592.8	1590.6	1588.5	1586.4	1584.2	1586.4
5°	1591.4	1590.4	1589.3	1588.2	1587.2	1585.1	1582.2	1579.2	1576.3	1573.3	1576.0
7.5°	1575.7	1574.8	1573.7	1572.7	1571.6	1569.4	1565.8	1562.4	1558.8	1555.3	1557.2
10°	1561.3	1560.5	1559.7	1558.9	1558.1	1555.9	1552.1	1548.4	1544.6	1540.9	1541.7
12.5°	1544.9	1543.9	1542.9	1541.9	1540.9	1537.8	1532.9	1527.8	1522.8	1517.7	1518.3
15°	1513.1	1511.5	1509.9	1508.3	1506.7	1503.2	1497.5	1491.9	1486.3	1480.7	1480.4
17.5°	1477.3	1474.8	1472.4	1469.9	1467.4	1462.7	1455.6	1448.6	1441.5	1434.4	1433.1
20°	1449.4	1446.7	1444.0	1441.4	1438.7	1433.1	1424.5	1415.9	1407.4	1398.8	1397.5
22.5°	1418.5	1415.9	1413.2	1410.5	1407.8	1402.0	1393.0	1384.0	1375.0	1366.0	1363.4
25°	1372.3	1368.3	1364.3	1360.3	1356.3	1349.3	1339.4	1329.5	1319.6	1309.7	1306.3
27.5°	1319.4	1314.5	1309.6	1304.8	1299.8	1292.2	1281.6	1271.0	1260.3	1249.7	1244.9
30°	1280.9	1275.8	1270.7	1265.6	1260.5	1252.3	1241.1	1229.8	1218.6	1207.4	1201.2
32.5°	1243.2	1237.3	1231.4	1225.5	1219.5	1210.9	1199.4	1187.9	1176.4	1165.0	1158.2
35°	1182.1	1175.7	1169.3	1162.9	1156.5	1147.2	1135.1	1123.1	1111.1	1099.0	1091.3
37.5°	1122.1	1114.4	1106.5	1098.8	1090.9	1080.8	1068.4	1056.0	1043.6	1031.2	1021.8
40°	1079.8	1071.7	1063.7	1055.7	1047.7	1037.2	1024.4	1011.6	998.7	985.9	975.7
42.5°	1035.5	1027.3	1019.0	1010.8	1002.6	991.8	978.5	965.3	952.0	938.7	929.0
45°	967.9	960.1	952.3	944.6	936.8	925.6	910.9	896.2	881.5	866.7	856.0
47.5°	897.8	889.6	881.4	873.3	865.0	853.5	838.7	823.9	809.0	794.2	783.2
50°	853.5	844.6	835.8	827.0	818.1	806.1	790.9	775.6	760.4	745.1	733.9
52.5°	805.3	796.3	787.2	778.2	769.2	757.4	743.1	728.6	714.3	699.9	687.8
55°	734.3	725.8	717.2	708.6	700.1	688.3	673.3	658.4	643.4	628.4	616.4
57.5°	662.5	653.4	644.3	635.1	626.0	614.2	599.8	585.3	570.9	556.4	544.7
60°	616.4	607.0	597.6	588.3	578.9	566.9	552.5	538.1	523.6	509.2	497.4
62.5°	567.2	558.3	549.4	540.4	531.5	519.7	505.1	490.4	475.7	461.0	450.1
65°	497.1	488.0	478.9	469.8	460.7	449.2	435.0	420.8	406.6	392.4	381.7
67.5°	427.6	418.5	409.4	400.3	391.2	379.9	366.2	352.7	339.1	325.5	315.8
70°	380.4	371.3	362.2	353.1	344.0	332.8	319.4	306.0	292.7	279.3	271.0
72.5°	334.2	325.3	316.4	307.6	298.6	287.9	275.4	262.9	250.4	237.9	230.2
75°	264.8	256.8	248.8	240.8	232.7	223.1	211.9	200.6	189.4	178.2	172.3
77.5°	196.0	189.6	183.2	176.7	170.3	162.6	153.6	144.6	135.6	126.6	122.5
80°	156.5	150.1	143.7	137.2	130.8	123.9	116.4	108.9	101.4	93.9	91.5
82.5°	118.0	112.2	106.4	100.7	94.9	89.4	84.3	79.1	74.0	68.8	67.8
85°	66.2	61.3	56.5	51.7	46.9	43.9	42.5	41.2	39.9	38.5	38.3
87.5°	22.4	21.3	20.2	19.1	18.0	17.6	17.7	17.8	18.0	18.2	18.4
90°	1.2	3.2	5.3	7.3	9.4	11.3	13.1	14.9	16.7	18.5	19.8
92.5°	28.0	29.4	30.9	32.3	33.7	35.6	37.8	40.0	42.2	44.4	46.1
95°	75.2	75.7	76.2	76.7	77.2	78.8	81.3	83.9	86.5	89.1	90.9
97.5°	124.9	125.1	125.4	125.6	125.7	127.6	131.2	134.7	138.3	141.8	143.5
100°	161.9	161.9	161.9	161.9	161.9	163.6	166.9	170.3	173.6	177.0	179.3
102.5°	201.7	202.8	203.8	204.8	205.8	207.2	208.9	210.6	212.3	214.0	216.5
105°	263.8	265.0	266.3	267.6	268.9	270.3	271.8	273.4	274.9	276.4	278.0
107.5°	332.2	333.5	334.7	336.1	337.3	338.6	339.7	340.9	342.1	343.3	344.1
110°	379.4	380.7	382.0	383.3	384.5	385.6	386.4	387.1	387.9	388.6	389.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	427.5	428.2	428.8	429.5	430.2	431.1	431.9	432.9	433.9	434.9	435.2
115°	498.6	499.5	500.6	501.6	502.7	503.5	503.9	504.4	505.0	505.5	505.2
117.5°	569.8	570.2	570.7	571.1	571.7	572.1	572.6	573.0	573.5	574.0	574.2
120°	614.2	615.5	616.8	618.0	619.4	620.1	620.4	620.6	620.9	621.2	621.2
122.5°	662.4	662.8	663.3	663.7	664.1	664.8	665.4	666.1	666.7	667.4	667.2
125°	727.5	729.1	730.7	732.2	733.7	734.6	734.9	735.1	735.4	735.7	735.1
127.5°	796.9	797.8	798.7	799.6	800.5	801.0	801.4	801.6	802.0	802.3	802.0
130°	838.6	839.9	841.2	842.5	843.7	844.6	845.2	845.7	846.1	846.7	846.4
132.5°	880.2	882.3	884.5	886.5	888.7	889.7	889.6	889.5	889.4	889.3	889.0
135°	946.2	947.7	949.2	950.8	952.3	953.2	953.5	953.8	954.0	954.3	954.3
137.5°	1008.2	1009.7	1011.2	1012.6	1014.1	1015.1	1015.7	1016.3	1016.9	1017.4	1017.7
140°	1047.9	1049.3	1050.5	1051.9	1053.1	1054.1	1054.9	1055.7	1056.4	1057.2	1057.7
142.5°	1087.8	1088.9	1089.9	1091.0	1092.1	1093.1	1094.0	1095.0	1096.0	1097.0	1097.3
145°	1146.3	1147.3	1148.3	1149.3	1150.4	1151.3	1152.1	1152.8	1153.6	1154.4	1154.4
147.5°	1200.4	1201.0	1201.6	1202.1	1202.7	1203.3	1203.9	1204.5	1205.1	1205.8	1206.4
150°	1236.5	1236.3	1236.0	1235.7	1235.5	1235.8	1236.9	1238.0	1238.9	1240.0	1240.0
152.5°	1266.1	1266.5	1266.9	1267.2	1267.6	1267.9	1268.4	1268.7	1269.2	1269.6	1270.2
155°	1311.7	1311.7	1311.7	1311.7	1311.7	1311.8	1312.1	1312.3	1312.6	1312.9	1313.8
157.5°	1352.4	1351.8	1351.3	1350.7	1350.1	1350.0	1350.2	1350.5	1350.8	1351.0	1352.0
160°	1376.4	1375.7	1374.9	1374.1	1373.4	1373.1	1373.4	1373.7	1373.9	1374.1	1375.2
162.5°	1397.8	1397.2	1396.6	1396.1	1395.5	1395.3	1395.3	1395.3	1395.3	1395.4	1396.7
165°	1426.2	1425.7	1425.1	1424.7	1424.2	1424.1	1424.2	1424.5	1424.8	1425.0	1426.1
167.5°	1450.3	1449.2	1448.2	1447.2	1446.2	1445.6	1445.6	1445.6	1445.6	1445.6	1447.2
170°	1463.2	1462.2	1461.2	1460.2	1459.1	1458.6	1458.6	1458.6	1458.6	1458.6	1460.2
172.5°	1472.5	1471.4	1470.4	1469.4	1468.4	1467.8	1467.8	1467.8	1467.8	1467.8	1469.4
175°	1482.9	1481.8	1480.9	1479.8	1478.8	1478.3	1478.3	1478.3	1478.3	1478.3	1479.8
177.5°	1488.2	1487.4	1486.6	1485.8	1484.9	1484.4	1484.2	1484.0	1483.8	1483.5	1484.8
180°	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8
2.5°	1588.5	1590.6	1592.8	1593.7	1593.5	1593.3	1593.0	1592.9
5°	1578.7	1581.4	1584.0	1585.1	1584.6	1584.0	1583.5	1583.0
7.5°	1559.1	1560.9	1562.8	1563.4	1562.8	1562.3	1561.7	1561.0
10°	1542.5	1543.3	1544.1	1544.1	1543.3	1542.5	1541.7	1540.9
12.5°	1518.9	1519.5	1520.1	1519.7	1518.5	1517.3	1516.1	1514.8
15°	1480.2	1479.9	1479.6	1478.3	1475.9	1473.5	1471.1	1468.6
17.5°	1431.7	1430.4	1429.1	1427.5	1425.4	1423.4	1421.5	1419.5
20°	1396.2	1394.8	1393.5	1391.6	1389.2	1386.8	1384.4	1382.0
22.5°	1360.8	1358.2	1355.6	1353.3	1351.3	1349.3	1347.3	1345.3
25°	1302.8	1299.3	1295.8	1292.6	1289.7	1286.7	1283.8	1280.9
27.5°	1240.0	1235.2	1230.3	1226.5	1223.6	1220.8	1217.9	1215.1
30°	1195.1	1188.9	1182.8	1178.5	1176.1	1173.7	1171.3	1168.9
32.5°	1151.5	1144.6	1137.8	1132.9	1129.9	1126.9	1123.7	1120.7
35°	1083.5	1075.8	1068.0	1062.3	1058.5	1054.8	1051.1	1047.3
37.5°	1012.5	1003.3	993.9	987.5	983.8	980.2	976.5	972.9
40°	965.5	955.4	945.2	938.5	935.3	932.1	928.9	925.7
42.5°	919.3	909.5	899.7	892.5	887.8	883.2	878.4	873.7
45°	845.3	834.6	823.9	816.5	812.5	808.5	804.5	800.5
47.5°	772.2	761.2	750.2	742.4	738.0	733.5	729.2	724.7
50°	722.6	711.4	700.2	692.6	688.6	684.6	680.6	676.5
52.5°	675.7	663.6	651.5	643.5	639.4	635.4	631.4	627.4
55°	604.3	592.3	580.2	572.0	567.8	563.5	559.2	554.9
57.5°	532.9	521.1	509.3	501.5	497.8	493.9	490.1	486.3
60°	485.6	473.9	462.1	454.2	450.2	446.2	442.2	438.2
62.5°	439.3	428.3	417.4	409.9	405.9	401.9	397.9	393.9
65°	371.0	360.3	349.6	342.2	338.2	334.2	330.2	326.2
67.5°	305.9	296.1	286.3	279.8	276.6	273.4	270.2	267.0
70°	262.7	254.4	246.1	240.3	237.1	233.9	230.7	227.5
72.5°	222.6	214.9	207.2	202.3	200.2	198.0	195.9	193.8
75°	166.4	160.5	154.6	150.7	148.8	147.0	145.1	143.2
77.5°	118.4	114.3	110.1	107.4	106.0	104.6	103.3	101.8
80°	89.1	86.7	84.3	82.8	82.2	81.7	81.1	80.6
82.5°	66.6	65.5	64.4	63.7	63.3	63.0	62.7	62.3
85°	38.0	37.7	37.5	37.2	36.9	36.6	36.4	36.1
87.5°	18.6	18.9	19.2	19.3	19.2	19.2	19.1	19.0
90°	21.0	22.4	23.6	24.7	25.4	26.2	27.0	27.7
92.5°	47.8	49.5	51.2	52.3	52.9	53.5	54.0	54.6
95°	92.6	94.4	96.3	97.4	97.9	98.4	99.0	99.5
97.5°	145.2	146.9	148.6	149.6	149.9	150.3	150.5	150.9
100°	181.6	183.9	186.2	187.6	188.2	188.7	189.2	189.7
102.5°	219.0	221.5	224.1	225.7	226.4	227.1	227.8	228.5
105°	279.6	281.1	282.6	283.7	284.5	285.3	286.1	286.9
107.5°	344.8	345.6	346.4	346.8	346.7	346.6	346.6	346.5
110°	390.2	390.9	391.7	392.0	391.7	391.5	391.2	390.9



TEST NUMBER: P333715-940

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	435.6	436.0	436.3	436.3	435.9	435.4	434.9	434.4
115°	505.0	504.7	504.4	504.2	503.9	503.6	503.5	503.2
117.5°	574.4	574.5	574.8	574.4	573.4	572.3	571.3	570.2
120°	621.2	621.2	621.2	620.6	619.6	618.6	617.5	616.5
122.5°	667.0	666.8	666.6	666.1	665.2	664.4	663.6	662.8
125°	734.6	734.1	733.6	733.3	733.0	732.7	732.5	732.2
127.5°	801.7	801.5	801.3	800.8	800.4	799.9	799.3	798.8
130°	846.1	846.0	845.7	845.3	844.8	844.3	843.7	843.2
132.5°	888.8	888.5	888.2	887.8	887.1	886.3	885.6	884.8
135°	954.3	954.3	954.3	953.8	952.7	951.7	950.7	949.7
137.5°	1018.1	1018.3	1018.7	1018.2	1016.9	1015.6	1014.3	1013.1
140°	1058.3	1058.7	1059.3	1058.9	1057.6	1056.3	1055.1	1053.7
142.5°	1097.6	1098.0	1098.2	1097.8	1096.4	1095.2	1093.9	1092.6
145°	1154.4	1154.4	1154.4	1154.0	1153.2	1152.4	1151.6	1150.9
147.5°	1206.9	1207.6	1208.2	1207.6	1205.9	1204.2	1202.4	1200.7
150°	1240.0	1240.0	1240.0	1239.7	1239.2	1238.7	1238.1	1237.7
152.5°	1270.8	1271.4	1272.0	1271.9	1271.0	1270.1	1269.1	1268.2
155°	1314.9	1315.9	1317.0	1316.8	1315.5	1314.3	1313.0	1311.7
157.5°	1353.1	1354.1	1355.1	1354.8	1353.1	1351.4	1349.7	1348.0
160°	1376.2	1377.2	1378.2	1378.1	1376.9	1375.6	1374.3	1373.0
162.5°	1397.9	1399.1	1400.3	1400.3	1398.7	1397.2	1395.8	1394.3
165°	1427.1	1428.2	1429.1	1428.9	1427.4	1425.8	1424.2	1422.7
167.5°	1448.8	1450.3	1451.8	1451.8	1450.2	1448.6	1447.0	1445.4
170°	1461.7	1463.2	1464.7	1464.6	1462.9	1461.1	1459.2	1457.4
172.5°	1471.0	1472.5	1474.0	1474.0	1472.4	1470.8	1469.2	1467.6
175°	1481.3	1482.9	1484.4	1484.3	1482.5	1480.7	1478.9	1477.1
177.5°	1486.0	1487.3	1488.5	1488.4	1486.9	1485.5	1484.1	1482.6
180°	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4

(END OF REPORT)