

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: P333459-940

Luminaire Tested: **S125DIW-S1090D1560U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333459-940
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: S125DIW-S1090D1560U940-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8785.4 lumens
Efficiency: N/A
Efficacy: 114.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

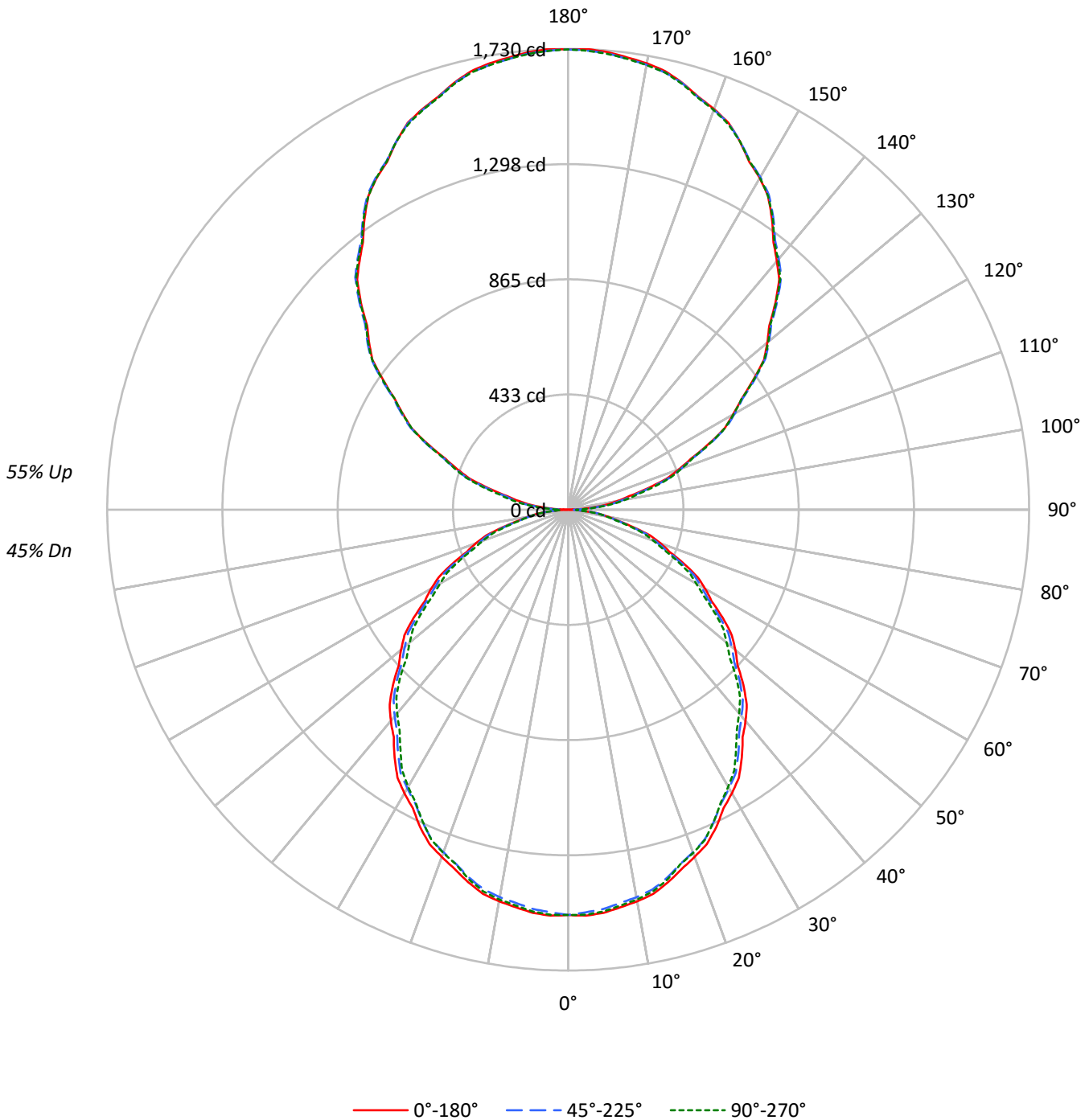
Input Watts (W): 76.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45
1	97	92	88	85	88	85	81	78	71	68	66	58	56	54	46	44	43	38
2	88	81	74	69	80	74	69	64	62	58	55	50	48	45	40	38	37	32
3	80	71	63	58	73	65	59	54	54	50	46	45	41	38	35	33	31	27
4	73	63	55	49	67	58	51	45	48	43	39	40	36	33	32	29	27	23
5	67	56	48	42	61	51	44	39	43	38	34	36	32	28	29	26	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	21	18	16
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16	14
9	49	37	30	25	45	35	28	23	29	24	20	25	20	18	20	17	15	13
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9827	9827	9827
5°	9849	9756	9818
10°	9789	9686	9742
15°	9682	9570	9610
20°	9531	9407	9423
25°	9368	9213	9204
30°	9165	9004	8959
35°	8949	8779	8656
40°	8728	8535	8413
45°	8488	8312	8147
50°	8225	8043	7801
55°	7970	7739	7523
60°	7665	7432	7167
65°	7303	7065	6825
70°	6956	6637	6411
75°	6338	6128	5916
80°	5642	5553	5415
85°	4905	4994	4728



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.5	1.6
10°-20°	405.3	4.6
20°-30°	598.4	6.8
30°-40°	698.2	7.9
40°-50°	701.3	8.0
50°-60°	615.6	7.0
60°-70°	458.7	5.2
70°-80°	262.3	3.0
80°-90°	80.1	0.9
90°-100°	115.7	1.3
100°-110°	341.8	3.9
110°-120°	578.9	6.6
120°-130°	761.9	8.7
130°-140°	853.7	9.7
140°-150°	836.7	9.5
150°-160°	702.8	8.0
160°-170°	467.2	5.3
170°-180°	163.5	1.9
0°-30°	1147.1	13.1
0°-40°	1845.3	21.0
0°-60°	3162.2	36.0
0°-90°	3963.2	45.1
90°-120°	1036.5	11.8
90°-150°	3488.8	39.7
90°-180°	4822.0	54.9
0°-180°	8785.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1519	1516	1505	1515	1514	144
15°	1448	1444	1431	1437	1437	408
25°	1315	1308	1293	1295	1292	605
35°	1135	1130	1114	1107	1098	710
45°	929	924	910	896	892	716
55°	708	703	687	677	668	632
65°	478	475	462	452	447	474
75°	254	251	246	242	237	271
85°	66	67	67	66	64	74
90°	1	12	22	28	32	8
95°	87	91	104	113	116	93
105°	307	313	322	329	334	327
115°	580	585	588	586	585	573
125°	846	854	855	853	851	757
135°	1100	1108	1110	1109	1104	848
145°	1333	1338	1342	1342	1338	833
155°	1525	1525	1526	1531	1525	702
165°	1658	1656	1657	1661	1654	468
175°	1724	1719	1719	1726	1717	164
180°	1728	1728	1728	1728	1728	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6
2.5°	1525.4	1524.8	1524.1	1523.5	1522.9	1521.4	1519.3	1517.2	1515.0	1512.9	1515.0
5°	1519.2	1518.7	1518.1	1517.6	1517.1	1515.5	1512.8	1510.1	1507.4	1504.8	1507.2
7.5°	1505.2	1504.7	1504.1	1503.6	1503.1	1501.3	1498.3	1495.4	1492.5	1489.5	1491.9
10°	1492.7	1492.2	1491.7	1491.1	1490.6	1488.8	1485.9	1482.9	1480.0	1477.0	1479.2
12.5°	1477.3	1476.3	1475.3	1474.4	1473.5	1471.6	1468.8	1466.2	1463.4	1460.6	1462.4
15°	1448.1	1447.3	1446.5	1445.7	1444.9	1443.1	1440.1	1437.2	1434.2	1431.3	1432.6
17.5°	1414.7	1413.5	1412.3	1411.1	1410.0	1407.8	1404.8	1401.8	1398.7	1395.6	1397.3
20°	1386.8	1386.3	1385.7	1385.2	1384.6	1382.6	1379.1	1375.6	1372.2	1368.7	1370.6
22.5°	1358.8	1357.9	1356.9	1355.9	1355.0	1352.8	1349.6	1346.3	1343.1	1339.8	1341.0
25°	1314.6	1313.2	1311.9	1310.5	1309.2	1306.8	1303.3	1299.8	1296.4	1292.9	1293.4
27.5°	1262.8	1261.9	1261.1	1260.3	1259.5	1257.4	1253.7	1250.2	1246.6	1243.0	1243.1
30°	1229.0	1228.2	1227.4	1226.6	1225.8	1223.4	1219.4	1215.4	1211.4	1207.4	1206.8
32.5°	1192.5	1191.2	1190.0	1188.7	1187.6	1185.2	1181.5	1177.9	1174.4	1170.8	1169.8
35°	1135.1	1134.1	1133.0	1131.9	1130.9	1128.5	1124.7	1121.0	1117.2	1113.5	1112.1
37.5°	1075.7	1074.3	1073.0	1071.7	1070.3	1067.9	1064.3	1060.9	1057.3	1053.8	1051.8
40°	1035.3	1033.9	1032.6	1031.3	1029.9	1027.3	1023.6	1019.8	1016.1	1012.4	1010.0
42.5°	991.9	990.8	989.7	988.6	987.4	985.0	981.2	977.5	973.7	970.0	967.8
45°	929.3	928.3	927.2	926.1	925.1	922.9	919.7	916.5	913.3	910.1	906.9
47.5°	861.9	861.9	862.0	862.1	862.1	860.2	856.4	852.5	848.6	844.8	841.5
50°	818.6	817.8	817.0	816.2	815.4	813.3	810.1	806.9	803.7	800.5	797.0
52.5°	774.3	773.6	773.1	772.5	772.0	769.9	766.5	763.0	759.6	756.2	753.1
55°	707.8	707.0	706.2	705.4	704.6	702.3	698.6	694.8	691.1	687.3	684.9
57.5°	637.8	637.3	636.9	636.5	636.1	634.3	631.1	627.9	624.8	621.6	618.5
60°	593.4	592.4	591.3	590.2	589.2	587.2	584.2	581.3	578.4	575.4	572.7
62.5°	547.2	546.4	545.5	544.7	543.9	542.2	539.6	537.1	534.6	532.1	529.1
65°	477.9	477.3	476.8	476.3	475.7	474.0	471.1	468.1	465.2	462.3	459.9
67.5°	410.7	409.6	408.5	407.3	406.3	404.6	402.3	400.2	398.0	395.8	393.8
70°	368.4	367.0	365.7	364.4	363.0	361.1	358.7	356.3	353.9	351.5	349.9
72.5°	322.2	321.2	320.3	319.4	318.5	317.3	315.8	314.1	312.6	311.0	309.2
75°	254.0	253.4	252.9	252.4	251.8	250.9	249.6	248.3	246.9	245.6	244.8
77.5°	191.2	190.9	190.7	190.6	190.3	189.8	189.0	188.3	187.6	186.8	186.4
80°	151.7	151.7	151.7	151.7	151.7	151.4	150.9	150.3	149.8	149.3	149.0
82.5°	117.0	116.5	116.2	115.7	115.3	115.0	114.9	114.9	114.7	114.6	114.1
85°	66.2	66.4	66.7	67.0	67.2	67.4	67.4	67.4	67.4	67.4	67.1
87.5°	26.3	26.8	27.2	27.7	28.2	28.5	28.7	28.9	29.2	29.3	29.6
90°	1.3	3.7	6.2	8.6	10.9	13.1	15.2	17.3	19.4	21.5	23.0
92.5°	32.5	34.2	35.9	37.5	39.2	41.4	44.0	46.5	49.0	51.6	53.6
95°	87.4	88.0	88.6	89.2	89.8	91.6	94.6	97.6	100.6	103.5	105.7
97.5°	145.3	145.4	145.7	146.0	146.2	148.4	152.5	156.7	160.8	164.9	166.8
100°	188.2	188.2	188.2	188.2	188.2	190.2	194.1	198.0	201.9	205.7	208.5
102.5°	234.5	235.8	236.9	238.1	239.3	240.9	242.9	244.9	246.8	248.8	251.7
105°	306.7	308.1	309.6	311.1	312.6	314.2	316.0	317.8	319.6	321.5	323.2
107.5°	386.2	387.7	389.2	390.7	392.2	393.7	395.0	396.4	397.8	399.1	400.0
110°	441.1	442.6	444.1	445.6	447.1	448.3	449.2	450.0	450.9	451.8	452.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	497.0	497.8	498.6	499.4	500.2	501.1	502.2	503.4	504.5	505.7	506.0
115°	579.6	580.9	582.0	583.2	584.4	585.3	585.9	586.5	587.1	587.7	587.4
117.5°	662.5	663.0	663.5	664.1	664.6	665.1	665.7	666.2	666.7	667.4	667.5
120°	714.1	715.6	717.1	718.6	720.1	720.9	721.3	721.6	721.8	722.2	722.2
122.5°	770.1	770.6	771.2	771.7	772.2	772.8	773.6	774.5	775.2	776.0	775.7
125°	845.9	847.7	849.5	851.3	853.1	854.2	854.4	854.7	855.1	855.3	854.7
127.5°	926.6	927.6	928.6	929.6	930.7	931.4	931.7	932.1	932.5	932.8	932.5
130°	975.0	976.5	978.0	979.5	981.0	982.0	982.7	983.2	983.8	984.4	984.1
132.5°	1023.4	1025.9	1028.3	1030.8	1033.2	1034.4	1034.3	1034.1	1034.0	1033.9	1033.6
135°	1100.1	1101.9	1103.7	1105.5	1107.2	1108.3	1108.6	1108.9	1109.2	1109.5	1109.5
137.5°	1172.2	1173.9	1175.6	1177.3	1179.1	1180.3	1181.0	1181.6	1182.2	1182.9	1183.3
140°	1218.4	1219.9	1221.4	1222.9	1224.4	1225.6	1226.5	1227.4	1228.3	1229.2	1229.8
142.5°	1264.7	1266.0	1267.2	1268.5	1269.7	1270.9	1272.0	1273.2	1274.3	1275.4	1275.8
145°	1332.8	1333.9	1335.2	1336.3	1337.6	1338.5	1339.4	1340.3	1341.2	1342.1	1342.1
147.5°	1395.7	1396.3	1397.0	1397.7	1398.3	1399.0	1399.7	1400.4	1401.1	1401.9	1402.6
150°	1437.6	1437.3	1437.1	1436.7	1436.5	1436.9	1438.1	1439.3	1440.5	1441.7	1441.7
152.5°	1472.0	1472.5	1472.9	1473.3	1473.7	1474.2	1474.7	1475.2	1475.6	1476.1	1476.9
155°	1525.1	1525.1	1525.1	1525.1	1525.1	1525.2	1525.5	1525.8	1526.1	1526.4	1527.6
157.5°	1572.4	1571.7	1571.1	1570.4	1569.8	1569.6	1569.9	1570.2	1570.5	1570.7	1572.0
160°	1600.4	1599.5	1598.6	1597.7	1596.8	1596.5	1596.8	1597.1	1597.4	1597.7	1598.8
162.5°	1625.1	1624.4	1623.8	1623.2	1622.5	1622.2	1622.2	1622.3	1622.4	1622.4	1623.9
165°	1658.2	1657.6	1657.0	1656.4	1655.8	1655.6	1656.0	1656.3	1656.5	1656.9	1658.0
167.5°	1686.1	1685.0	1683.8	1682.6	1681.4	1680.8	1680.8	1680.8	1680.8	1680.8	1682.6
170°	1701.2	1700.0	1698.8	1697.6	1696.5	1695.9	1695.9	1695.9	1695.9	1695.9	1697.6
172.5°	1712.0	1710.8	1709.6	1708.4	1707.2	1706.6	1706.6	1706.6	1706.6	1706.6	1708.4
175°	1724.1	1722.9	1721.7	1720.5	1719.3	1718.7	1718.7	1718.7	1718.7	1718.7	1720.5
177.5°	1730.3	1729.3	1728.4	1727.4	1726.4	1725.8	1725.6	1725.4	1725.1	1724.9	1726.4
180°	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6
2.5°	1517.2	1519.3	1521.4	1522.4	1522.2	1522.0	1521.8	1521.6
5°	1509.6	1512.0	1514.4	1515.5	1515.2	1514.9	1514.7	1514.4
7.5°	1494.2	1496.6	1499.0	1500.0	1499.8	1499.5	1499.2	1499.0
10°	1481.3	1483.5	1485.6	1486.6	1486.3	1486.0	1485.8	1485.5
12.5°	1464.1	1465.8	1467.5	1468.4	1468.3	1468.2	1468.2	1468.1
15°	1434.0	1435.3	1436.6	1437.3	1437.3	1437.3	1437.3	1437.3
17.5°	1399.0	1400.6	1402.3	1402.5	1401.1	1399.8	1398.5	1397.1
20°	1372.4	1374.3	1376.2	1376.4	1375.1	1373.8	1372.4	1371.1
22.5°	1342.3	1343.5	1344.7	1344.9	1344.0	1343.1	1342.2	1341.2
25°	1294.0	1294.5	1295.0	1294.9	1294.1	1293.2	1292.4	1291.6
27.5°	1243.2	1243.3	1243.5	1243.1	1242.3	1241.5	1240.7	1239.9
30°	1206.3	1205.8	1205.2	1204.6	1203.8	1203.0	1202.2	1201.4
32.5°	1168.9	1167.9	1167.0	1165.7	1164.3	1162.9	1161.4	1159.9
35°	1110.8	1109.5	1108.1	1106.4	1104.3	1102.2	1100.0	1097.9
37.5°	1049.8	1047.8	1045.9	1044.3	1043.0	1041.8	1040.5	1039.4
40°	1007.5	1005.1	1002.7	1001.1	1000.3	999.5	998.7	997.9
42.5°	965.6	963.4	961.3	959.5	958.3	957.1	955.8	954.6
45°	903.7	900.4	897.2	895.2	894.4	893.6	892.8	892.0
47.5°	838.3	835.0	831.8	829.2	827.3	825.5	823.6	821.7
50°	793.5	790.1	786.6	783.9	782.0	780.2	778.3	776.4
52.5°	750.1	747.1	744.0	741.5	739.3	737.3	735.2	733.1
55°	682.5	680.1	677.7	675.6	673.7	671.8	669.9	668.1
57.5°	615.5	612.3	609.2	607.2	606.2	605.1	604.1	603.1
60°	570.1	567.4	564.7	562.4	560.5	558.7	556.8	554.9
62.5°	526.3	523.4	520.5	518.4	516.9	515.5	514.0	512.6
65°	457.4	455.0	452.6	450.8	449.8	448.7	447.6	446.6
67.5°	391.7	389.7	387.6	386.3	385.7	385.0	384.4	383.8
70°	348.3	346.7	345.1	343.8	342.7	341.6	340.5	339.5
72.5°	307.5	305.6	303.8	302.4	301.3	300.2	299.2	298.1
75°	244.0	243.2	242.4	241.4	240.3	239.2	238.2	237.1
77.5°	185.8	185.4	184.9	184.3	183.5	182.8	182.0	181.3
80°	148.7	148.5	148.2	147.8	147.2	146.7	146.2	145.6
82.5°	113.6	113.2	112.7	112.4	112.3	112.2	112.1	111.9
85°	66.9	66.6	66.3	65.9	65.4	64.8	64.3	63.8
87.5°	30.0	30.2	30.5	30.6	30.3	30.1	29.8	29.6
90°	24.5	26.0	27.5	28.7	29.6	30.5	31.4	32.3
92.5°	55.6	57.5	59.6	60.8	61.5	62.2	62.8	63.5
95°	107.7	109.9	111.9	113.2	113.9	114.5	115.0	115.7
97.5°	168.8	170.8	172.7	174.0	174.3	174.7	175.0	175.4
100°	211.2	213.8	216.5	218.2	218.7	219.4	220.0	220.5
102.5°	254.7	257.6	260.5	262.4	263.2	264.0	264.9	265.7
105°	325.0	326.8	328.6	329.9	330.8	331.7	332.6	333.5
107.5°	400.9	401.8	402.7	403.1	403.1	403.1	403.0	402.9
110°	453.7	454.6	455.5	455.8	455.5	455.1	454.9	454.6



TEST NUMBER: P333459-940

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	506.5	506.9	507.3	507.3	506.8	506.2	505.7	505.2
115°	587.1	586.8	586.5	586.2	585.9	585.6	585.3	585.1
117.5°	667.8	668.1	668.2	667.8	666.6	665.4	664.2	663.0
120°	722.2	722.2	722.2	721.6	720.4	719.2	718.0	716.8
122.5°	775.5	775.3	775.0	774.5	773.5	772.5	771.5	770.6
125°	854.2	853.5	852.9	852.5	852.2	851.9	851.6	851.3
127.5°	932.2	931.9	931.6	931.1	930.5	930.0	929.3	928.7
130°	983.8	983.6	983.2	982.8	982.2	981.6	981.0	980.4
132.5°	1033.3	1033.0	1032.7	1032.2	1031.4	1030.5	1029.7	1028.8
135°	1109.5	1109.5	1109.5	1108.9	1107.7	1106.5	1105.3	1104.1
137.5°	1183.7	1184.0	1184.4	1183.8	1182.3	1180.8	1179.3	1177.8
140°	1230.4	1231.0	1231.5	1231.1	1229.7	1228.2	1226.6	1225.1
142.5°	1276.1	1276.5	1276.9	1276.3	1274.8	1273.4	1271.8	1270.3
145°	1342.1	1342.1	1342.1	1341.7	1340.8	1339.9	1339.0	1338.1
147.5°	1403.3	1404.0	1404.7	1404.1	1402.0	1400.0	1398.0	1396.0
150°	1441.7	1441.7	1441.7	1441.4	1440.7	1440.2	1439.6	1439.0
152.5°	1477.6	1478.3	1479.0	1478.8	1477.7	1476.7	1475.6	1474.5
155°	1528.7	1530.0	1531.2	1531.1	1529.6	1528.0	1526.5	1525.1
157.5°	1573.2	1574.4	1575.6	1575.2	1573.2	1571.2	1569.2	1567.3
160°	1600.1	1601.2	1602.5	1602.3	1600.8	1599.3	1597.9	1596.3
162.5°	1625.3	1626.7	1628.2	1628.0	1626.3	1624.5	1622.8	1621.0
165°	1659.2	1660.5	1661.6	1661.3	1659.6	1657.8	1656.0	1654.1
167.5°	1684.4	1686.1	1687.9	1687.9	1686.0	1684.3	1682.4	1680.5
170°	1699.4	1701.2	1703.0	1702.9	1700.8	1698.7	1696.6	1694.5
172.5°	1710.2	1712.0	1713.8	1713.8	1711.9	1710.0	1708.2	1706.4
175°	1722.3	1724.1	1725.9	1725.7	1723.7	1721.5	1719.5	1717.3
177.5°	1727.8	1729.2	1730.6	1730.5	1728.8	1727.2	1725.5	1723.9
180°	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1

(END OF REPORT)