

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: P333711-830

Luminaire Tested: **S125RDIW-S1090D1050U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333711-830
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-S1090D1050U830-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7407.1 lumens
Efficiency: N/A
Efficacy: 121.0 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

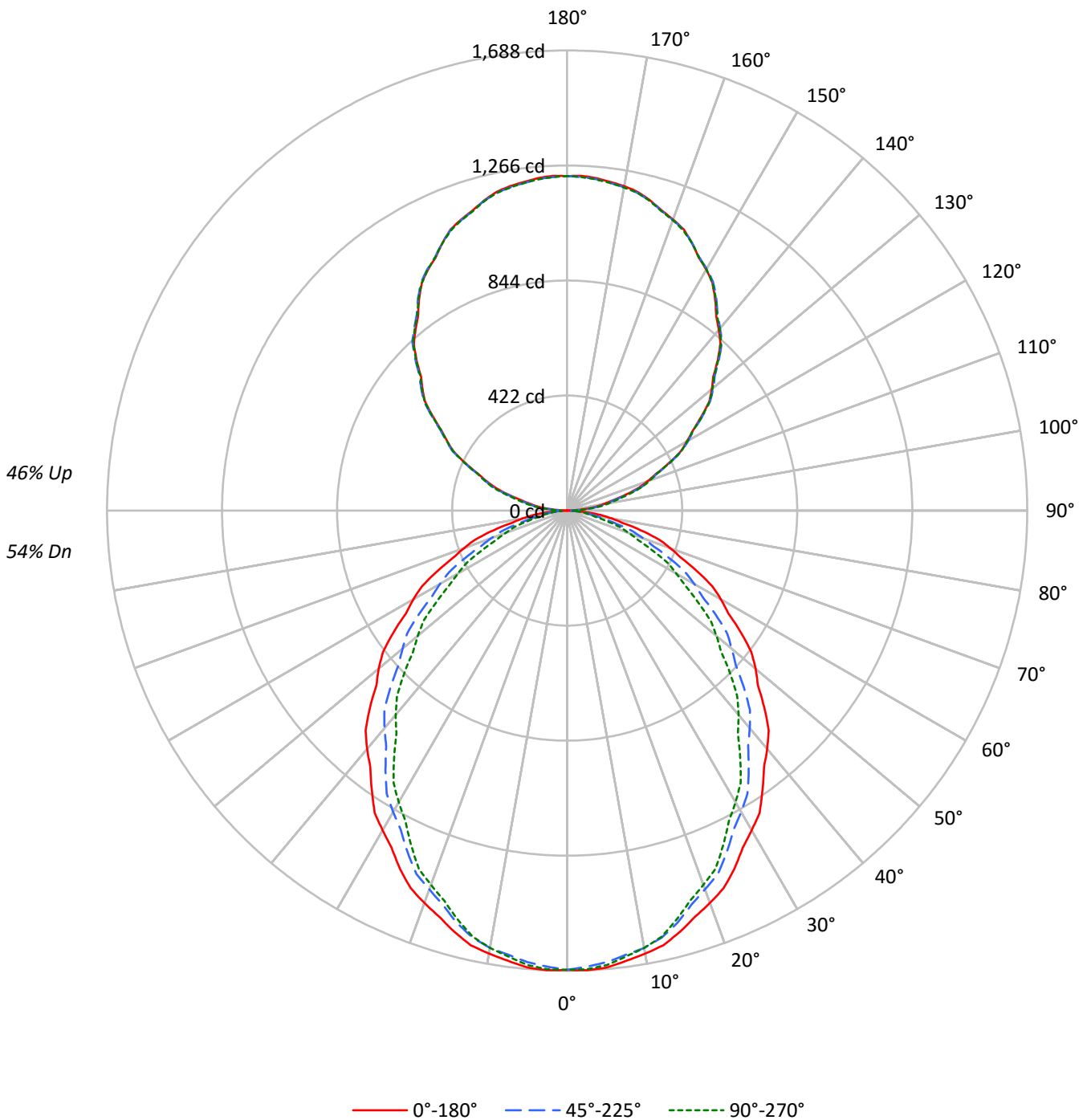
Input Watts (W): 61.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	60	60	60	54
1	99	95	91	87	92	88	85	82	75	73	71	64	62	60	53	52	51	46
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	39
3	82	73	66	60	76	68	62	57	59	54	50	50	46	43	42	39	37	33
4	76	65	57	51	70	60	53	48	52	47	43	45	41	37	37	34	32	28
5	69	58	50	44	64	54	47	41	47	41	37	40	36	32	34	31	28	25
6	64	52	44	38	59	49	41	36	42	37	32	36	32	28	31	27	25	22
7	59	47	39	34	55	44	37	32	38	33	29	33	29	25	28	25	22	20
8	55	43	35	30	51	40	33	28	35	29	25	30	26	23	26	22	20	18
9	51	39	32	27	48	37	30	25	32	27	23	28	24	20	24	20	18	16
10	48	36	29	24	45	34	27	23	30	24	21	26	22	18	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10880	10880	10880
5°	10906	10781	10847
10°	10823	10681	10681
15°	10694	10465	10380
20°	10529	10162	10040
25°	10337	9865	9648
30°	10097	9517	9214
35°	9851	9159	8728
40°	9622	8786	8250
45°	9344	8368	7728
50°	9064	7913	7185
55°	8740	7479	6604
60°	8415	6952	5983
65°	8031	6339	5269
70°	7593	5574	4539
75°	6984	4699	3778
80°	6152	3689	3169
85°	5180	3016	2831



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	2.1
10°-20°	442.7	6.0
20°-30°	642.0	8.7
30°-40°	731.6	9.9
40°-50°	713.2	9.6
50°-60°	600.3	8.1
60°-70°	420.8	5.7
70°-80°	216.3	2.9
80°-90°	57.3	0.8
90°-100°	82.2	1.1
100°-110°	242.7	3.3
110°-120°	411.1	5.6
120°-130°	541.1	7.3
130°-140°	606.3	8.2
140°-150°	594.2	8.0
150°-160°	499.1	6.7
160°-170°	331.7	4.5
170°-180°	116.1	1.6
0°-30°	1243.1	16.8
0°-40°	1974.7	26.7
0°-60°	3288.2	44.4
0°-90°	3982.6	53.8
90°-120°	736.0	9.9
90°-150°	2477.6	33.4
90°-180°	3424.0	46.2
0°-180°	7407.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1685	1685	1685	1685	1685	
5°	1682	1677	1663	1675	1673	159
15°	1599	1591	1565	1563	1552	451
25°	1451	1430	1384	1368	1354	667
35°	1250	1218	1162	1126	1107	782
45°	1023	984	916	867	846	789
55°	776	734	664	609	586	694
65°	526	481	415	366	345	520
75°	280	241	188	161	151	296
85°	70	48	41	39	38	79
90°	1	8	15	20	23	7
95°	62	64	74	80	82	66
105°	218	223	228	234	237	233
115°	412	415	417	416	416	407
125°	601	606	607	606	604	538
135°	781	787	788	788	784	602
145°	946	950	953	953	950	591
155°	1083	1083	1084	1087	1083	499
165°	1178	1176	1177	1180	1175	332
175°	1224	1221	1220	1226	1220	116
180°	1227	1227	1227	1227	1227	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7
2.5°	1687.7	1687.1	1686.4	1685.6	1685.0	1683.6	1681.3	1679.0	1676.8	1674.5	1676.8
5°	1682.2	1681.0	1679.9	1678.8	1677.6	1675.5	1672.4	1669.2	1666.1	1663.0	1665.8
7.5°	1665.6	1664.5	1663.4	1662.4	1661.2	1658.9	1655.1	1651.4	1647.7	1644.0	1646.0
10°	1650.3	1649.4	1648.6	1647.8	1646.9	1644.5	1640.6	1636.6	1632.7	1628.7	1629.6
12.5°	1633.0	1631.9	1630.9	1629.8	1628.7	1625.5	1620.2	1614.9	1609.6	1604.2	1604.9
15°	1599.4	1597.7	1596.0	1594.3	1592.6	1588.8	1582.9	1577.0	1571.0	1565.1	1564.8
17.5°	1561.5	1558.9	1556.3	1553.7	1551.0	1546.1	1538.6	1531.2	1523.6	1516.2	1514.8
20°	1532.0	1529.2	1526.4	1523.5	1520.7	1514.8	1505.7	1496.7	1487.6	1478.6	1477.2
22.5°	1499.4	1496.6	1493.7	1490.9	1488.1	1482.0	1472.4	1462.9	1453.4	1443.9	1441.1
25°	1450.6	1446.3	1442.1	1437.8	1433.6	1426.3	1415.8	1405.3	1394.9	1384.4	1380.7
27.5°	1394.6	1389.4	1384.2	1379.1	1373.9	1365.8	1354.6	1343.4	1332.2	1321.0	1315.9
30°	1353.9	1348.5	1343.1	1337.8	1332.4	1323.7	1311.8	1300.0	1288.1	1276.2	1269.7
32.5°	1314.1	1307.9	1301.6	1295.3	1289.0	1279.9	1267.7	1255.7	1243.5	1231.4	1224.3
35°	1249.5	1242.7	1236.0	1229.2	1222.4	1212.6	1199.9	1187.1	1174.4	1161.7	1153.5
37.5°	1186.1	1177.9	1169.6	1161.4	1153.1	1142.5	1129.3	1116.2	1103.1	1090.0	1080.1
40°	1141.3	1132.8	1124.4	1115.9	1107.4	1096.4	1082.8	1069.2	1055.6	1042.1	1031.3
42.5°	1094.5	1085.8	1077.1	1068.4	1059.7	1048.3	1034.3	1020.3	1006.3	992.2	981.9
45°	1023.0	1014.8	1006.6	998.4	990.2	978.4	962.8	947.3	931.7	916.2	904.8
47.5°	949.0	940.3	931.6	923.0	914.4	902.2	886.6	870.8	855.2	839.5	827.8
50°	902.1	892.8	883.4	874.1	864.8	852.1	835.9	819.8	803.7	787.6	775.7
52.5°	851.2	841.7	832.1	822.6	813.0	800.6	785.4	770.2	755.0	739.8	727.0
55°	776.2	767.1	758.1	749.0	740.0	727.5	711.7	695.9	680.0	664.2	651.5
57.5°	700.3	690.7	681.0	671.3	661.7	649.2	634.0	618.7	603.4	588.1	575.7
60°	651.5	641.6	631.7	621.8	611.9	599.3	584.0	568.7	553.5	538.2	525.8
62.5°	599.6	590.1	580.7	571.2	561.8	549.3	533.9	518.3	502.8	487.3	475.8
65°	525.5	515.9	506.2	496.6	487.0	474.8	459.8	444.8	429.8	414.8	403.5
67.5°	451.9	442.3	432.7	423.1	413.5	401.5	387.1	372.8	358.4	344.0	333.8
70°	402.1	392.5	382.9	373.2	363.6	351.8	337.6	323.5	309.3	295.2	286.4
72.5°	353.3	343.8	334.4	325.1	315.7	304.3	291.2	277.9	264.7	251.5	243.4
75°	279.9	271.5	263.0	254.5	246.0	235.8	223.9	212.1	200.2	188.3	182.1
77.5°	207.2	200.4	193.6	186.8	180.0	171.8	162.4	152.9	143.4	133.8	129.5
80°	165.4	158.6	151.8	145.1	138.3	130.9	123.0	115.1	107.2	99.2	96.7
82.5°	124.7	118.6	112.4	106.4	100.3	94.5	89.1	83.6	78.2	72.8	71.6
85°	69.9	64.8	59.8	54.7	49.6	46.4	45.0	43.5	42.1	40.7	40.4
87.5°	23.6	22.3	21.1	19.9	18.7	18.0	18.1	18.2	18.3	18.3	18.6
90°	0.9	2.6	4.3	6.0	7.7	9.3	10.8	12.3	13.8	15.3	16.3
92.5°	23.1	24.3	25.4	26.7	27.9	29.4	31.2	33.0	34.9	36.7	38.1
95°	62.1	62.5	63.0	63.3	63.8	65.0	67.2	69.3	71.4	73.5	75.0
97.5°	103.1	103.3	103.5	103.7	103.9	105.4	108.3	111.2	114.1	117.1	118.5
100°	133.7	133.7	133.7	133.7	133.7	135.1	137.8	140.6	143.4	146.1	148.1
102.5°	166.5	167.4	168.2	169.1	169.9	171.1	172.5	173.9	175.3	176.7	178.8
105°	217.7	218.8	219.9	220.9	222.0	223.2	224.4	225.7	227.0	228.3	229.5
107.5°	274.3	275.3	276.4	277.5	278.5	279.6	280.5	281.5	282.5	283.4	284.1
110°	313.2	314.3	315.4	316.4	317.5	318.4	319.0	319.6	320.3	320.9	321.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	353.0	353.5	354.1	354.7	355.2	355.9	356.7	357.5	358.3	359.1	359.4
115°	411.6	412.5	413.3	414.2	415.0	415.7	416.0	416.5	416.9	417.4	417.2
117.5°	470.4	470.8	471.2	471.6	472.0	472.4	472.8	473.2	473.5	473.9	474.1
120°	507.1	508.2	509.3	510.3	511.3	512.0	512.2	512.5	512.6	512.8	512.8
122.5°	546.9	547.2	547.6	548.0	548.4	548.8	549.4	550.0	550.5	551.1	550.9
125°	600.7	602.0	603.2	604.5	605.8	606.5	606.8	607.0	607.2	607.4	607.0
127.5°	658.0	658.7	659.5	660.2	660.9	661.4	661.7	661.9	662.1	662.4	662.2
130°	692.4	693.4	694.6	695.6	696.6	697.4	697.9	698.2	698.7	699.1	698.9
132.5°	726.8	728.5	730.3	732.0	733.8	734.6	734.5	734.4	734.3	734.2	734.1
135°	781.2	782.5	783.7	785.0	786.4	787.0	787.3	787.5	787.7	787.9	787.9
137.5°	832.5	833.7	834.9	836.1	837.4	838.2	838.7	839.1	839.6	840.1	840.3
140°	865.3	866.3	867.4	868.5	869.5	870.3	871.0	871.7	872.2	872.9	873.4
142.5°	898.1	899.0	899.9	900.8	901.7	902.6	903.3	904.2	904.9	905.8	906.0
145°	946.4	947.3	948.1	949.0	949.8	950.6	951.2	951.9	952.5	953.1	953.1
147.5°	991.2	991.6	992.1	992.5	993.0	993.5	994.0	994.5	995.0	995.5	996.1
150°	1021.0	1020.8	1020.5	1020.3	1020.1	1020.4	1021.2	1022.1	1022.9	1023.8	1023.8
152.5°	1045.4	1045.7	1045.9	1046.3	1046.6	1046.9	1047.3	1047.5	1047.9	1048.3	1048.8
155°	1083.0	1083.0	1083.0	1083.0	1083.0	1083.1	1083.4	1083.5	1083.7	1084.0	1084.9
157.5°	1116.6	1116.2	1115.7	1115.2	1114.7	1114.7	1114.8	1115.0	1115.3	1115.5	1116.3
160°	1136.5	1135.9	1135.2	1134.6	1134.0	1133.8	1134.0	1134.2	1134.3	1134.6	1135.5
162.5°	1154.0	1153.6	1153.1	1152.6	1152.2	1152.0	1152.1	1152.1	1152.2	1152.2	1153.2
165°	1177.6	1177.1	1176.7	1176.3	1175.8	1175.7	1176.0	1176.2	1176.4	1176.6	1177.4
167.5°	1197.4	1196.6	1195.7	1194.9	1194.0	1193.6	1193.6	1193.6	1193.6	1193.6	1194.9
170°	1208.2	1207.3	1206.5	1205.6	1204.8	1204.3	1204.3	1204.3	1204.3	1204.3	1205.6
172.5°	1215.8	1214.9	1214.1	1213.2	1212.4	1211.9	1211.9	1211.9	1211.9	1211.9	1213.2
175°	1224.4	1223.5	1222.7	1221.8	1221.0	1220.5	1220.5	1220.5	1220.5	1220.5	1221.8
177.5°	1228.8	1228.0	1227.4	1226.7	1226.1	1225.6	1225.4	1225.3	1225.1	1224.9	1226.0
180°	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7
2.5°	1679.0	1681.3	1683.6	1684.5	1684.3	1684.1	1683.9	1683.7
5°	1668.7	1671.5	1674.3	1675.5	1674.9	1674.3	1673.8	1673.2
7.5°	1647.9	1649.9	1651.9	1652.6	1651.9	1651.3	1650.7	1650.0
10°	1630.4	1631.3	1632.1	1632.1	1631.3	1630.4	1629.6	1628.7
12.5°	1605.5	1606.1	1606.8	1606.4	1605.1	1603.8	1602.5	1601.2
15°	1564.5	1564.2	1564.0	1562.5	1560.0	1557.5	1554.9	1552.4
17.5°	1513.3	1511.9	1510.5	1508.8	1506.7	1504.6	1502.5	1500.4
20°	1475.7	1474.3	1472.9	1470.9	1468.4	1465.8	1463.3	1460.8
22.5°	1438.4	1435.6	1432.9	1430.4	1428.3	1426.3	1424.1	1422.0
25°	1377.1	1373.4	1369.7	1366.3	1363.2	1360.1	1357.0	1353.9
27.5°	1310.7	1305.6	1300.4	1296.4	1293.4	1290.3	1287.3	1284.4
30°	1263.2	1256.7	1250.2	1245.7	1243.1	1240.6	1238.0	1235.5
32.5°	1217.1	1209.8	1202.7	1197.5	1194.3	1191.1	1187.8	1184.6
35°	1145.3	1137.1	1128.9	1122.9	1118.9	1114.9	1111.0	1107.0
37.5°	1070.3	1060.5	1050.6	1043.8	1039.9	1036.0	1032.2	1028.3
40°	1020.6	1009.8	999.1	992.0	988.6	985.2	981.8	978.5
42.5°	971.7	961.3	951.0	943.4	938.4	933.5	928.5	923.5
45°	893.5	882.2	870.9	863.1	858.8	854.6	850.4	846.1
47.5°	816.2	804.6	793.0	784.8	780.0	775.3	770.7	766.0
50°	763.8	752.0	740.1	732.1	727.8	723.6	719.3	715.1
52.5°	714.3	701.4	688.6	680.1	675.9	671.7	667.4	663.2
55°	638.8	626.0	613.3	604.6	600.1	595.6	591.1	586.5
57.5°	563.3	550.8	538.4	530.1	526.1	522.1	518.0	514.1
60°	513.3	500.9	488.4	480.1	475.9	471.6	467.4	463.2
62.5°	464.3	452.7	441.2	433.3	429.0	424.8	420.6	416.3
65°	392.2	380.9	369.6	361.7	357.5	353.3	349.0	344.8
67.5°	323.4	313.0	302.7	295.8	292.4	289.0	285.6	282.2
70°	277.7	268.9	260.1	254.0	250.6	247.2	243.8	240.4
72.5°	235.3	227.2	219.0	213.9	211.6	209.3	207.1	204.8
75°	175.9	169.7	163.4	159.3	157.3	155.3	153.4	151.4
77.5°	125.2	120.8	116.4	113.5	112.1	110.6	109.1	107.6
80°	94.2	91.6	89.1	87.5	86.9	86.3	85.8	85.2
82.5°	70.4	69.2	68.1	67.3	66.9	66.5	66.3	65.9
85°	40.2	39.9	39.6	39.3	39.0	38.7	38.5	38.2
87.5°	18.8	18.9	19.1	19.2	19.1	19.0	18.9	18.9
90°	17.4	18.5	19.5	20.4	21.0	21.7	22.2	22.9
92.5°	39.5	40.9	42.3	43.2	43.6	44.1	44.6	45.1
95°	76.5	77.9	79.5	80.4	80.9	81.2	81.7	82.1
97.5°	119.9	121.3	122.7	123.5	123.8	124.0	124.3	124.5
100°	150.0	151.8	153.7	155.0	155.3	155.8	156.2	156.7
102.5°	180.9	182.9	185.0	186.3	186.9	187.6	188.1	188.7
105°	230.8	232.1	233.4	234.3	235.0	235.5	236.2	236.9
107.5°	284.7	285.4	286.0	286.3	286.3	286.3	286.2	286.2
110°	322.2	322.8	323.5	323.7	323.5	323.2	323.0	322.8



TEST NUMBER: P333711-830

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	359.7	360.0	360.2	360.2	359.9	359.5	359.1	358.7
115°	416.9	416.7	416.5	416.3	416.0	415.8	415.7	415.5
117.5°	474.2	474.4	474.6	474.2	473.3	472.5	471.6	470.8
120°	512.8	512.8	512.8	512.5	511.6	510.8	509.9	509.1
122.5°	550.7	550.5	550.4	550.0	549.3	548.6	547.9	547.2
125°	606.5	606.1	605.7	605.4	605.2	604.9	604.7	604.5
127.5°	661.9	661.8	661.6	661.3	660.8	660.4	660.0	659.6
130°	698.7	698.4	698.2	698.0	697.5	697.1	696.6	696.3
132.5°	733.8	733.6	733.4	733.0	732.4	731.8	731.2	730.6
135°	787.9	787.9	787.9	787.5	786.6	785.8	784.9	784.1
137.5°	840.6	840.8	841.0	840.7	839.6	838.6	837.4	836.4
140°	873.7	874.2	874.6	874.3	873.3	872.1	871.1	870.1
142.5°	906.3	906.5	906.8	906.3	905.3	904.3	903.2	902.1
145°	953.1	953.1	953.1	952.8	952.2	951.5	950.9	950.3
147.5°	996.6	997.0	997.6	997.1	995.7	994.2	992.8	991.4
150°	1023.8	1023.8	1023.8	1023.6	1023.1	1022.8	1022.3	1021.9
152.5°	1049.2	1049.8	1050.3	1050.2	1049.4	1048.7	1047.8	1047.1
155°	1085.7	1086.6	1087.4	1087.2	1086.2	1085.1	1084.1	1083.0
157.5°	1117.2	1118.0	1118.9	1118.6	1117.2	1115.8	1114.4	1113.0
160°	1136.3	1137.2	1138.0	1137.8	1136.8	1135.8	1134.7	1133.6
162.5°	1154.2	1155.2	1156.2	1156.1	1154.9	1153.7	1152.4	1151.2
165°	1178.3	1179.1	1180.0	1179.8	1178.6	1177.2	1176.0	1174.7
167.5°	1196.2	1197.4	1198.7	1198.7	1197.4	1196.1	1194.8	1193.4
170°	1206.8	1208.2	1209.4	1209.3	1207.8	1206.4	1204.9	1203.3
172.5°	1214.5	1215.8	1217.0	1217.0	1215.7	1214.4	1213.1	1211.7
175°	1223.0	1224.4	1225.7	1225.5	1224.1	1222.6	1221.1	1219.6
177.5°	1227.0	1228.0	1229.0	1228.9	1227.8	1226.5	1225.4	1224.2
180°	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2

(END OF REPORT)