

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: P333284-830

Luminaire Tested: **S125DIP-S1090D1035U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333284-830  
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: S125DIP-S1090D1035U830-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7561.9 lumens  
Efficiency: N/A  
Efficacy: 125.0 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

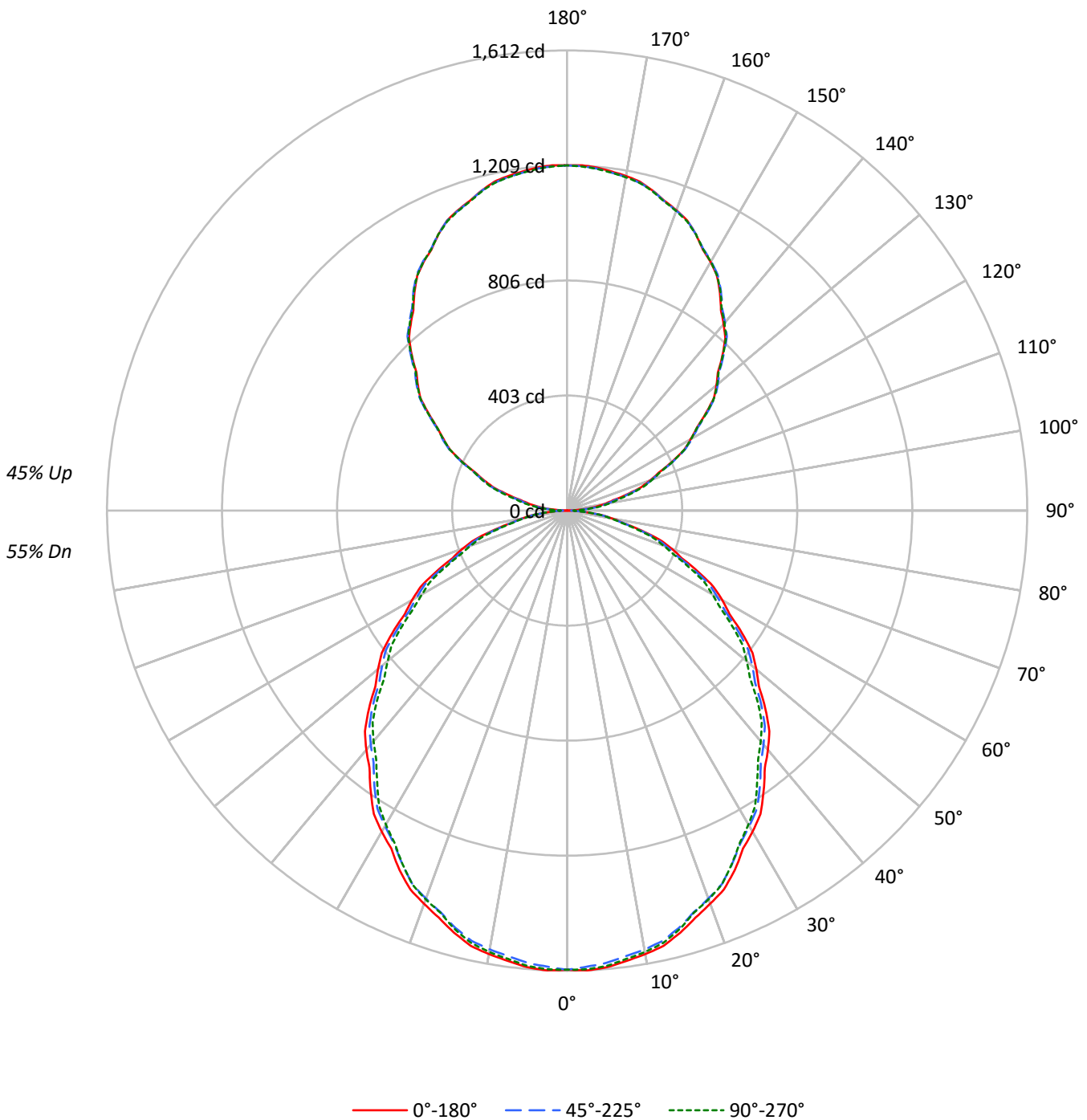
Input Watts (W): 60.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	99	95	91	87	92	88	85	81	76	73	71	64	62	61	54	53	51	46
2	90	83	76	71	83	77	71	67	66	62	59	56	53	51	47	45	43	39
3	82	73	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37	33
4	75	64	56	50	69	60	53	47	52	46	42	44	40	37	37	34	32	28
5	69	57	49	43	64	53	46	41	46	41	36	40	35	32	34	30	28	24
6	64	51	43	37	59	48	41	35	42	36	32	36	31	28	31	27	24	21
7	59	46	38	33	54	43	36	31	38	32	28	33	28	25	28	24	22	19
8	55	42	34	29	51	40	32	28	35	29	25	30	25	22	26	22	19	17
9	51	38	31	26	47	36	29	25	32	26	22	28	23	20	24	20	17	15
10	48	35	28	23	44	33	27	22	29	24	20	26	21	18	22	18	16	14

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

	0°	45°	90°
0°	10388	10388	10388
5°	10410	10311	10377
10°	10347	10238	10297
15°	10235	10116	10158
20°	10074	9943	9961
25°	9902	9738	9729
30°	9688	9517	9470
35°	9460	9280	9150
40°	9226	9022	8893
45°	8972	8786	8611
50°	8694	8501	8246
55°	8425	8180	7952
60°	8103	7856	7576
65°	7719	7467	7213
70°	7353	7017	6775
75°	6697	6478	6253
80°	5962	5869	5724
85°	5180	5283	4994



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.6	2.0
10°-20°	428.4	5.7
20°-30°	632.5	8.4
30°-40°	738.0	9.8
40°-50°	741.2	9.8
50°-60°	650.7	8.6
60°-70°	484.8	6.4
70°-80°	277.2	3.7
80°-90°	83.3	1.1
90°-100°	81.0	1.1
100°-110°	239.1	3.2
110°-120°	405.1	5.4
120°-130°	533.1	7.0
130°-140°	597.3	7.9
140°-150°	585.5	7.7
150°-160°	491.7	6.5
160°-170°	326.9	4.3
170°-180°	114.4	1.5
0°-30°	1212.5	16.0
0°-40°	1950.5	25.8
0°-60°	3342.4	44.2
0°-90°	4187.8	55.4
90°-120°	725.2	9.6
90°-150°	2441.1	32.3
90°-180°	3374.0	44.6
0°-180°	7561.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1608	1608	1608	1608	1608	
5°	1606	1603	1590	1601	1601	152
15°	1531	1526	1513	1519	1519	431
25°	1390	1383	1367	1369	1365	639
35°	1200	1194	1177	1170	1160	750
45°	982	977	962	947	943	757
55°	748	744	726	715	706	668
65°	505	502	489	477	472	501
75°	268	266	260	256	251	286
85°	70	71	71	70	67	78
90°	1	8	15	20	23	7
95°	61	64	72	79	81	65
105°	214	219	225	230	233	229
115°	406	409	411	410	409	401
125°	592	597	598	597	596	530
135°	770	775	776	776	772	593
145°	933	936	939	939	936	583
155°	1067	1067	1068	1071	1067	491
165°	1160	1159	1159	1162	1157	327
175°	1206	1203	1203	1208	1202	115
180°	1209	1209	1209	1209	1209	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4
2.5°	1612.4	1611.7	1611.0	1610.3	1609.7	1608.2	1605.9	1603.6	1601.4	1599.1	1601.4
5°	1605.8	1605.2	1604.7	1604.1	1603.5	1601.9	1599.0	1596.2	1593.4	1590.5	1593.1
7.5°	1591.0	1590.4	1589.9	1589.3	1588.7	1586.9	1583.8	1580.6	1577.5	1574.4	1577.0
10°	1577.8	1577.3	1576.7	1576.1	1575.6	1573.7	1570.6	1567.4	1564.3	1561.2	1563.5
12.5°	1561.5	1560.5	1559.4	1558.4	1557.5	1555.5	1552.6	1549.7	1546.8	1543.9	1545.8
15°	1530.7	1529.8	1529.0	1528.1	1527.3	1525.3	1522.2	1519.1	1516.0	1512.9	1514.3
17.5°	1495.3	1494.1	1492.8	1491.6	1490.3	1488.1	1484.9	1481.7	1478.5	1475.2	1477.0
20°	1465.8	1465.3	1464.7	1464.1	1463.6	1461.4	1457.7	1454.1	1450.4	1446.7	1448.7
22.5°	1436.2	1435.3	1434.3	1433.2	1432.2	1429.9	1426.5	1423.1	1419.7	1416.2	1417.5
25°	1389.5	1388.1	1386.7	1385.3	1383.8	1381.3	1377.6	1373.9	1370.3	1366.6	1367.2
27.5°	1334.7	1333.9	1333.0	1332.2	1331.3	1329.1	1325.2	1321.4	1317.7	1313.9	1314.0
30°	1299.1	1298.3	1297.4	1296.6	1295.7	1293.2	1288.9	1284.7	1280.4	1276.2	1275.6
32.5°	1260.5	1259.1	1257.8	1256.5	1255.3	1252.7	1248.9	1245.1	1241.3	1237.6	1236.5
35°	1199.9	1198.7	1197.6	1196.5	1195.3	1192.8	1188.8	1184.9	1180.9	1177.0	1175.5
37.5°	1137.0	1135.6	1134.2	1132.7	1131.3	1128.8	1125.0	1121.3	1117.6	1113.9	1111.7
40°	1094.3	1092.9	1091.5	1090.1	1088.6	1085.9	1081.9	1078.0	1074.0	1070.1	1067.5
42.5°	1048.5	1047.3	1046.1	1044.9	1043.7	1041.1	1037.2	1033.2	1029.3	1025.3	1022.9
45°	982.3	981.2	980.1	978.9	977.8	975.5	972.1	968.7	965.4	962.0	958.6
47.5°	911.1	911.1	911.2	911.3	911.3	909.3	905.2	901.1	897.0	893.0	889.5
50°	865.3	864.4	863.6	862.7	861.9	859.7	856.3	852.9	849.5	846.1	842.4
52.5°	818.4	817.7	817.2	816.5	816.0	813.8	810.2	806.5	803.0	799.3	796.1
55°	748.2	747.3	746.5	745.6	744.8	742.3	738.4	734.4	730.5	726.5	724.0
57.5°	674.1	673.6	673.3	672.8	672.3	670.4	667.0	663.7	660.4	657.0	653.7
60°	627.3	626.1	625.0	623.9	622.7	620.7	617.6	614.4	611.3	608.2	605.4
62.5°	578.4	577.5	576.6	575.7	574.9	573.1	570.3	567.7	565.1	562.4	559.3
65°	505.1	504.5	504.0	503.4	502.8	501.1	497.9	494.8	491.7	488.6	486.1
67.5°	434.1	432.9	431.8	430.6	429.4	427.6	425.3	423.0	420.7	418.4	416.2
70°	389.4	388.0	386.5	385.1	383.7	381.7	379.2	376.6	374.1	371.6	369.9
72.5°	340.5	339.5	338.6	337.6	336.7	335.4	333.8	332.1	330.5	328.8	326.9
75°	268.4	267.9	267.3	266.7	266.2	265.2	263.8	262.4	261.0	259.6	258.7
77.5°	202.1	201.8	201.6	201.4	201.1	200.7	199.8	199.1	198.3	197.5	197.0
80°	160.3	160.3	160.3	160.3	160.3	160.0	159.5	158.9	158.3	157.8	157.5
82.5°	123.7	123.2	122.8	122.3	121.9	121.6	121.5	121.4	121.2	121.1	120.6
85°	69.9	70.2	70.5	70.8	71.1	71.3	71.3	71.3	71.3	71.3	71.0
87.5°	27.7	28.0	28.4	28.7	29.0	29.2	29.3	29.3	29.4	29.5	29.7
90°	0.9	2.6	4.2	5.9	7.6	9.2	10.7	12.2	13.6	15.1	16.1
92.5°	22.8	23.9	25.1	26.3	27.4	28.9	30.7	32.5	34.3	36.1	37.5
95°	61.2	61.5	62.0	62.4	62.9	64.1	66.2	68.2	70.4	72.5	73.9
97.5°	101.6	101.8	102.0	102.2	102.3	103.9	106.7	109.6	112.4	115.4	116.8
100°	131.8	131.8	131.8	131.8	131.8	133.1	135.8	138.6	141.3	143.9	145.8
102.5°	164.1	164.9	165.8	166.6	167.5	168.5	169.9	171.4	172.7	174.1	176.2
105°	214.5	215.6	216.6	217.7	218.8	219.9	221.1	222.3	223.7	224.9	226.1
107.5°	270.2	271.3	272.3	273.4	274.5	275.4	276.4	277.4	278.3	279.3	279.9
110°	308.7	309.7	310.8	311.8	312.8	313.7	314.2	314.9	315.6	316.1	316.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	347.8	348.4	348.8	349.4	350.0	350.6	351.5	352.2	353.0	353.8	354.1
115°	405.6	406.4	407.3	408.1	408.9	409.5	409.9	410.4	410.8	411.2	411.0
117.5°	463.5	463.9	464.3	464.7	465.1	465.4	465.8	466.2	466.6	466.9	467.1
120°	499.6	500.7	501.7	502.8	503.9	504.4	504.6	504.9	505.1	505.3	505.3
122.5°	538.9	539.2	539.6	540.0	540.4	540.7	541.3	541.9	542.4	542.9	542.8
125°	591.9	593.1	594.4	595.7	596.9	597.7	597.9	598.0	598.2	598.5	598.0
127.5°	648.4	649.0	649.8	650.4	651.2	651.7	652.0	652.1	652.4	652.7	652.4
130°	682.2	683.2	684.3	685.3	686.4	687.1	687.6	688.0	688.3	688.8	688.6
132.5°	716.0	717.8	719.5	721.2	722.9	723.8	723.7	723.6	723.5	723.4	723.2
135°	769.8	771.0	772.2	773.5	774.8	775.5	775.7	775.9	776.1	776.3	776.3
137.5°	820.2	821.3	822.6	823.8	825.0	825.9	826.3	826.8	827.3	827.6	827.9
140°	852.5	853.6	854.6	855.6	856.7	857.5	858.2	858.8	859.4	860.1	860.4
142.5°	884.9	885.8	886.6	887.5	888.4	889.3	890.0	890.9	891.6	892.4	892.7
145°	932.6	933.4	934.2	935.0	935.9	936.6	937.3	937.8	938.5	939.1	939.1
147.5°	976.6	977.0	977.5	978.0	978.4	978.9	979.4	979.9	980.3	980.9	981.4
150°	1005.9	1005.7	1005.5	1005.3	1005.1	1005.4	1006.3	1007.1	1007.9	1008.7	1008.7
152.5°	1030.0	1030.3	1030.6	1030.9	1031.1	1031.5	1031.8	1032.2	1032.5	1032.8	1033.3
155°	1067.1	1067.1	1067.1	1067.1	1067.1	1067.1	1067.4	1067.6	1067.8	1068.0	1068.8
157.5°	1100.2	1099.8	1099.3	1098.8	1098.3	1098.3	1098.4	1098.6	1098.9	1099.1	1099.9
160°	1119.7	1119.2	1118.5	1117.9	1117.3	1117.1	1117.3	1117.5	1117.7	1117.9	1118.7
162.5°	1137.1	1136.6	1136.1	1135.7	1135.3	1135.0	1135.1	1135.1	1135.2	1135.2	1136.2
165°	1160.3	1159.8	1159.4	1159.0	1158.6	1158.5	1158.7	1158.9	1159.0	1159.3	1160.2
167.5°	1179.8	1178.9	1178.2	1177.3	1176.5	1176.0	1176.0	1176.0	1176.0	1176.0	1177.3
170°	1190.3	1189.5	1188.6	1187.9	1187.0	1186.6	1186.6	1186.6	1186.6	1186.6	1187.9
172.5°	1197.9	1197.0	1196.2	1195.3	1194.6	1194.1	1194.1	1194.1	1194.1	1194.1	1195.3
175°	1206.4	1205.5	1204.7	1203.8	1203.0	1202.6	1202.6	1202.6	1202.6	1202.6	1203.8
177.5°	1210.7	1210.0	1209.4	1208.6	1208.0	1207.6	1207.4	1207.2	1207.1	1206.9	1208.0
180°	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4
2.5°	1603.6	1605.9	1608.2	1609.2	1609.0	1608.7	1608.5	1608.4
5°	1595.6	1598.2	1600.7	1601.9	1601.6	1601.3	1601.0	1600.7
7.5°	1579.4	1582.0	1584.4	1585.5	1585.3	1585.0	1584.7	1584.4
10°	1565.8	1568.0	1570.3	1571.3	1571.0	1570.7	1570.5	1570.2
12.5°	1547.6	1549.4	1551.1	1552.1	1552.0	1551.9	1551.9	1551.8
15°	1515.7	1517.1	1518.5	1519.3	1519.3	1519.3	1519.3	1519.3
17.5°	1478.8	1480.5	1482.2	1482.4	1481.0	1479.6	1478.2	1476.8
20°	1450.7	1452.6	1454.6	1454.9	1453.5	1452.1	1450.7	1449.3
22.5°	1418.8	1420.1	1421.4	1421.5	1420.6	1419.7	1418.7	1417.7
25°	1367.7	1368.3	1368.9	1368.7	1367.8	1367.0	1366.1	1365.3
27.5°	1314.1	1314.2	1314.4	1314.0	1313.2	1312.3	1311.5	1310.6
30°	1275.1	1274.5	1273.9	1273.3	1272.4	1271.6	1270.7	1269.9
32.5°	1235.5	1234.4	1233.5	1232.2	1230.7	1229.2	1227.6	1226.1
35°	1174.1	1172.7	1171.3	1169.5	1167.2	1165.0	1162.7	1160.5
37.5°	1109.7	1107.6	1105.5	1103.8	1102.5	1101.2	1099.9	1098.6
40°	1065.0	1062.4	1059.9	1058.2	1057.3	1056.5	1055.6	1054.8
42.5°	1020.7	1018.3	1016.1	1014.2	1013.0	1011.6	1010.3	1009.0
45°	955.2	951.8	948.4	946.2	945.4	944.5	943.7	942.8
47.5°	886.1	882.6	879.2	876.5	874.5	872.5	870.5	868.6
50°	838.8	835.1	831.4	828.6	826.6	824.6	822.7	820.7
52.5°	792.9	789.7	786.5	783.7	781.5	779.3	777.1	774.9
55°	721.4	718.9	716.3	714.1	712.1	710.1	708.1	706.2
57.5°	650.5	647.2	643.9	641.8	640.7	639.6	638.6	637.4
60°	602.6	599.7	596.9	594.5	592.5	590.5	588.5	586.5
62.5°	556.3	553.3	550.2	547.9	546.4	544.9	543.3	541.8
65°	483.5	481.0	478.4	476.5	475.4	474.3	473.2	472.0
67.5°	414.1	411.9	409.7	408.3	407.6	407.0	406.3	405.7
70°	368.2	366.5	364.8	363.4	362.2	361.1	360.0	358.8
72.5°	325.0	323.0	321.1	319.6	318.5	317.4	316.2	315.1
75°	257.9	257.0	256.2	255.1	254.0	252.9	251.8	250.6
77.5°	196.4	196.0	195.5	194.8	194.0	193.2	192.4	191.6
80°	157.2	156.9	156.7	156.2	155.6	155.0	154.5	153.9
82.5°	120.1	119.6	119.1	118.8	118.7	118.6	118.5	118.3
85°	70.7	70.4	70.1	69.7	69.1	68.5	68.0	67.4
87.5°	29.9	30.1	30.3	30.3	30.0	29.6	29.3	28.9
90°	17.2	18.2	19.2	20.1	20.7	21.3	22.0	22.6
92.5°	38.9	40.2	41.7	42.6	43.1	43.5	43.9	44.4
95°	75.4	76.8	78.3	79.3	79.6	80.1	80.5	81.0
97.5°	118.1	119.5	120.9	121.7	122.0	122.2	122.4	122.7
100°	147.7	149.6	151.5	152.7	153.1	153.4	153.9	154.3
102.5°	178.1	180.2	182.3	183.6	184.2	184.7	185.4	186.0
105°	227.4	228.7	229.9	230.8	231.5	232.1	232.7	233.4
107.5°	280.5	281.2	281.8	282.1	282.0	282.0	282.0	281.9
110°	317.4	318.0	318.7	318.9	318.7	318.5	318.3	318.0





TEST NUMBER: P333284-830

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	354.4	354.7	355.0	355.0	354.6	354.2	353.8	353.5
115°	410.8	410.6	410.4	410.2	409.9	409.7	409.5	409.3
117.5°	467.2	467.4	467.6	467.2	466.4	465.6	464.8	463.9
120°	505.3	505.3	505.3	504.9	504.1	503.2	502.4	501.5
122.5°	542.6	542.4	542.2	541.9	541.2	540.5	539.9	539.2
125°	597.7	597.2	596.8	596.4	596.3	596.1	595.9	595.7
127.5°	652.2	652.1	651.9	651.5	651.1	650.6	650.3	649.9
130°	688.3	688.2	688.0	687.7	687.2	686.8	686.4	686.0
132.5°	723.0	722.8	722.6	722.2	721.6	721.0	720.5	719.8
135°	776.3	776.3	776.3	775.9	775.1	774.2	773.4	772.5
137.5°	828.2	828.4	828.7	828.3	827.3	826.2	825.2	824.2
140°	860.9	861.3	861.8	861.4	860.4	859.3	858.3	857.2
142.5°	893.0	893.2	893.4	893.1	892.0	891.0	889.9	888.8
145°	939.1	939.1	939.1	938.8	938.2	937.5	936.9	936.3
147.5°	981.8	982.4	982.9	982.4	981.0	979.6	978.2	976.8
150°	1008.7	1008.7	1008.7	1008.5	1008.1	1007.7	1007.3	1006.8
152.5°	1033.9	1034.3	1034.8	1034.7	1034.0	1033.2	1032.5	1031.7
155°	1069.7	1070.5	1071.4	1071.3	1070.3	1069.1	1068.1	1067.1
157.5°	1100.7	1101.5	1102.4	1102.1	1100.8	1099.4	1098.0	1096.6
160°	1119.6	1120.4	1121.2	1121.2	1120.1	1119.1	1118.0	1116.9
162.5°	1137.2	1138.2	1139.3	1139.2	1137.9	1136.7	1135.5	1134.3
165°	1160.9	1161.8	1162.6	1162.4	1161.2	1159.9	1158.7	1157.4
167.5°	1178.6	1179.8	1181.1	1181.0	1179.8	1178.5	1177.1	1175.8
170°	1189.1	1190.3	1191.6	1191.5	1190.1	1188.5	1187.1	1185.6
172.5°	1196.7	1197.9	1199.1	1199.1	1197.8	1196.6	1195.2	1193.9
175°	1205.1	1206.4	1207.6	1207.5	1206.1	1204.6	1203.1	1201.6
177.5°	1208.9	1209.9	1210.9	1210.9	1209.7	1208.5	1207.3	1206.2
180°	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2

(END OF REPORT)