

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: P333248-840

Luminaire Tested: **S125DIP-S850D1205U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333248-840
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-S850D1205U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7660.9 lumens
Efficiency: N/A
Efficacy: 134.6 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

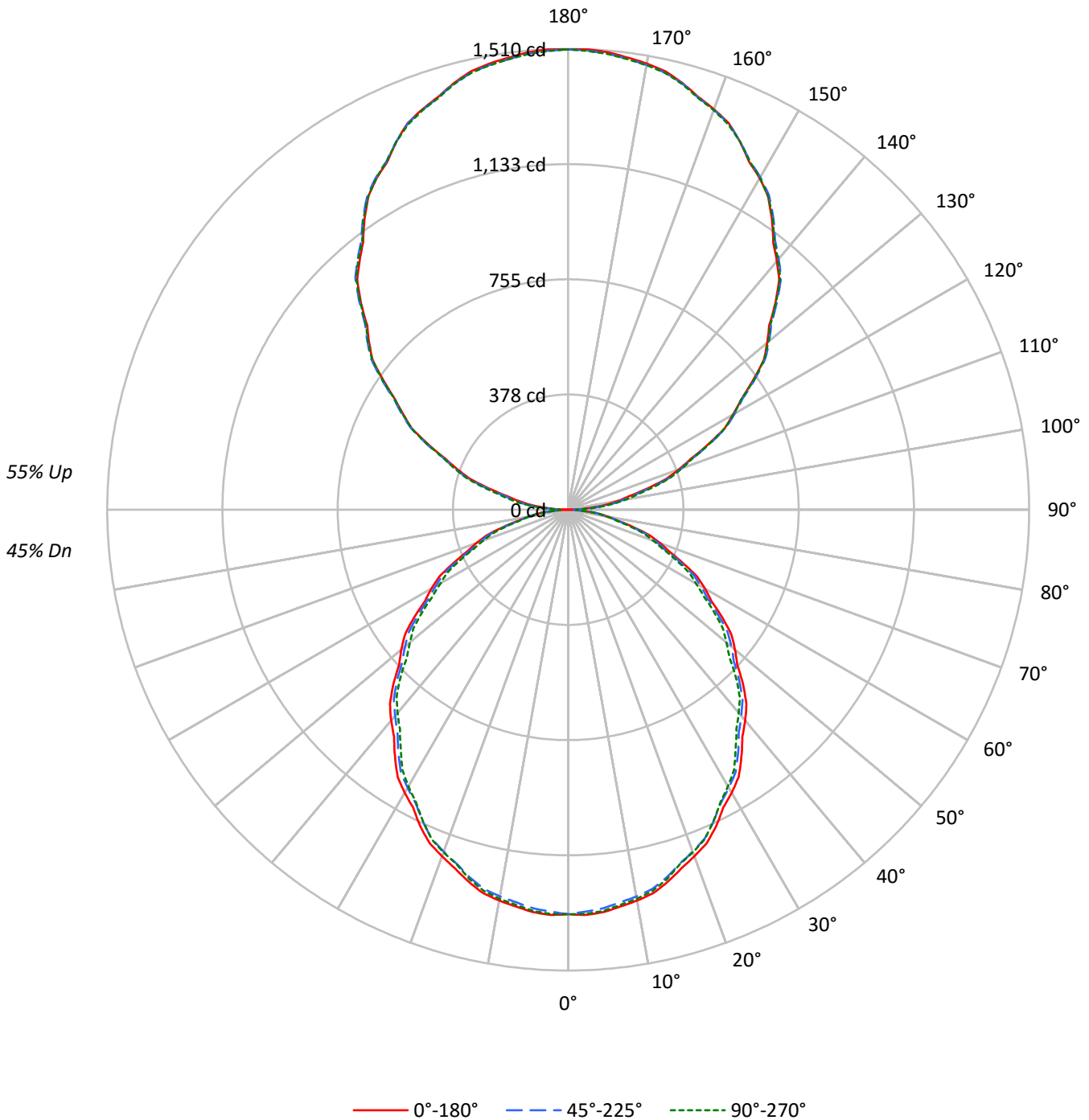
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	65	65	65	52	52	52	45
1	97	92	88	85	88	85	81	78	71	68	66	57	56	54	45	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	28	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	15
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	12
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°	8561	8561	8561
5°	8581	8499	8554
10°	8529	8439	8487
15°	8436	8338	8372
20°	8304	8195	8210
25°	8161	8027	8020
30°	7986	7845	7806
35°	7798	7649	7541
40°	7605	7436	7331
45°	7395	7242	7099
50°	7166	7007	6797
55°	6944	6742	6554
60°	6679	6475	6245
65°	6363	6154	5946
70°	6060	5784	5586
75°	5522	5340	5155
80°	4917	4839	4720
85°	4276	4357	4113



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.0	1.6
10°-20°	353.1	4.6
20°-30°	521.3	6.8
30°-40°	608.3	7.9
40°-50°	611.0	8.0
50°-60°	536.3	7.0
60°-70°	399.6	5.2
70°-80°	228.5	3.0
80°-90°	69.8	0.9
90°-100°	101.0	1.3
100°-110°	298.2	3.9
110°-120°	505.2	6.6
120°-130°	664.8	8.7
130°-140°	745.0	9.7
140°-150°	730.1	9.5
150°-160°	613.2	8.0
160°-170°	407.6	5.3
170°-180°	142.7	1.9
0°-30°	999.4	13.0
0°-40°	1607.8	21.0
0°-60°	2755.1	36.0
0°-90°	3453.0	45.1
90°-120°	904.4	11.8
90°-150°	3044.3	39.7
90°-180°	4208.0	54.9
0°-180°	7660.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1326	1326	1326	1326	1326	
5°	1324	1321	1311	1320	1319	125
15°	1262	1258	1247	1252	1252	355
25°	1145	1140	1126	1128	1125	527
35°	989	984	970	965	956	618
45°	810	805	793	781	777	624
55°	617	613	599	590	582	550
65°	416	414	403	394	389	413
75°	221	219	214	211	207	236
85°	58	59	59	58	56	64
90°	1	10	19	24	28	7
95°	76	79	90	98	101	81
105°	268	274	280	287	291	286
115°	506	510	513	512	510	500
125°	738	745	746	744	743	661
135°	960	967	968	968	963	740
145°	1163	1168	1171	1171	1168	727
155°	1331	1331	1332	1336	1331	613
165°	1447	1445	1446	1450	1443	408
175°	1504	1500	1500	1506	1498	143
180°	1508	1508	1508	1508	1508	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6
2.5°	1329.1	1328.5	1328.0	1327.4	1326.8	1325.5	1323.7	1321.9	1320.0	1318.2	1320.0
5°	1323.6	1323.1	1322.6	1322.2	1321.7	1320.3	1318.0	1315.7	1313.3	1311.0	1313.1
7.5°	1311.4	1311.0	1310.5	1310.0	1309.6	1308.1	1305.5	1302.9	1300.4	1297.8	1299.8
10°	1300.5	1300.1	1299.6	1299.1	1298.7	1297.2	1294.5	1292.0	1289.5	1286.9	1288.8
12.5°	1287.1	1286.3	1285.5	1284.5	1283.7	1282.1	1279.8	1277.4	1275.0	1272.6	1274.1
15°	1261.7	1261.0	1260.3	1259.6	1258.9	1257.3	1254.8	1252.1	1249.6	1247.0	1248.2
17.5°	1232.5	1231.5	1230.5	1229.5	1228.5	1226.6	1224.0	1221.3	1218.6	1216.0	1217.4
20°	1208.2	1207.8	1207.3	1206.8	1206.4	1204.6	1201.5	1198.5	1195.5	1192.4	1194.2
22.5°	1183.9	1183.1	1182.2	1181.3	1180.5	1178.7	1175.9	1173.0	1170.1	1167.3	1168.4
25°	1145.3	1144.2	1143.0	1141.8	1140.6	1138.5	1135.5	1132.5	1129.4	1126.4	1126.9
27.5°	1100.1	1099.5	1098.8	1098.1	1097.4	1095.5	1092.4	1089.2	1086.1	1083.0	1083.1
30°	1070.9	1070.2	1069.4	1068.7	1068.0	1065.9	1062.5	1058.9	1055.4	1052.0	1051.5
32.5°	1038.9	1037.8	1036.8	1035.7	1034.7	1032.6	1029.5	1026.3	1023.2	1020.1	1019.3
35°	989.1	988.1	987.1	986.2	985.3	983.2	980.0	976.6	973.4	970.2	969.0
37.5°	937.3	936.0	934.8	933.7	932.5	930.4	927.4	924.2	921.2	918.2	916.4
40°	902.0	900.8	899.7	898.5	897.3	895.1	891.8	888.6	885.3	882.0	880.0
42.5°	864.2	863.2	862.2	861.3	860.3	858.2	855.0	851.6	848.4	845.2	843.2
45°	809.7	808.7	807.8	806.9	806.0	804.1	801.3	798.5	795.7	792.9	790.1
47.5°	750.9	751.0	751.0	751.0	751.1	749.5	746.1	742.8	739.4	736.1	733.2
50°	713.2	712.5	711.8	711.0	710.4	708.6	705.9	703.1	700.2	697.4	694.4
52.5°	674.6	674.1	673.6	673.1	672.6	670.8	667.8	664.8	661.9	658.8	656.2
55°	616.7	616.0	615.3	614.6	613.9	611.9	608.6	605.4	602.1	598.8	596.7
57.5°	555.6	555.3	554.9	554.5	554.2	552.6	549.9	547.1	544.3	541.6	538.9
60°	517.1	516.1	515.2	514.2	513.3	511.6	509.0	506.4	503.9	501.3	499.0
62.5°	476.8	476.1	475.3	474.5	473.8	472.3	470.2	468.0	465.7	463.5	461.1
65°	416.4	415.9	415.5	415.0	414.5	413.0	410.4	407.9	405.3	402.7	400.6
67.5°	357.9	356.9	355.9	354.9	354.0	352.4	350.6	348.7	346.8	344.9	343.1
70°	320.9	319.7	318.6	317.4	316.3	314.7	312.6	310.4	308.3	306.3	304.9
72.5°	280.6	279.8	279.0	278.3	277.5	276.4	275.1	273.7	272.4	271.0	269.4
75°	221.3	220.9	220.4	219.9	219.4	218.6	217.4	216.3	215.1	214.0	213.3
77.5°	166.5	166.3	166.2	166.0	165.8	165.4	164.7	164.1	163.4	162.8	162.4
80°	132.2	132.2	132.2	132.2	132.2	131.9	131.5	131.0	130.5	130.1	129.9
82.5°	101.9	101.6	101.2	100.8	100.5	100.2	100.1	100.1	100.0	99.9	99.5
85°	57.7	58.0	58.2	58.4	58.6	58.8	58.8	58.8	58.8	58.8	58.5
87.5°	22.9	23.3	23.7	24.1	24.5	24.8	25.0	25.2	25.3	25.5	25.9
90°	1.2	3.2	5.4	7.5	9.5	11.5	13.3	15.1	17.0	18.8	20.1
92.5°	28.4	29.9	31.3	32.8	34.2	36.1	38.4	40.6	42.8	45.0	46.8
95°	76.2	76.7	77.4	77.9	78.4	79.9	82.5	85.1	87.8	90.4	92.2
97.5°	126.7	126.9	127.1	127.3	127.5	129.5	133.1	136.6	140.3	143.9	145.6
100°	164.3	164.3	164.3	164.3	164.3	166.0	169.4	172.8	176.1	179.6	181.9
102.5°	204.7	205.7	206.7	207.8	208.8	210.3	212.0	213.7	215.4	217.1	219.6
105°	267.5	268.8	270.1	271.5	272.8	274.2	275.8	277.3	278.9	280.4	282.1
107.5°	337.0	338.3	339.6	340.9	342.2	343.5	344.7	345.9	347.1	348.3	349.1
110°	385.0	386.2	387.5	388.8	390.1	391.1	391.9	392.7	393.5	394.3	395.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	433.7	434.4	435.0	435.8	436.5	437.3	438.3	439.3	440.2	441.2	441.6
115°	505.7	506.9	507.9	508.9	510.0	510.7	511.3	511.8	512.3	512.8	512.6
117.5°	578.0	578.6	579.1	579.5	580.0	580.4	580.9	581.4	581.8	582.3	582.5
120°	623.1	624.4	625.7	627.0	628.3	629.1	629.3	629.7	630.0	630.2	630.2
122.5°	672.0	672.5	672.9	673.4	673.8	674.4	675.1	675.8	676.4	677.1	676.9
125°	738.1	739.7	741.2	742.9	744.4	745.3	745.6	745.8	746.1	746.4	745.8
127.5°	808.6	809.4	810.3	811.2	812.1	812.7	813.0	813.3	813.6	814.0	813.6
130°	850.8	852.1	853.4	854.7	856.0	857.0	857.5	858.0	858.5	859.0	858.8
132.5°	893.0	895.1	897.4	899.5	901.6	902.6	902.5	902.4	902.3	902.2	901.9
135°	960.0	961.5	963.1	964.6	966.2	967.1	967.3	967.7	967.9	968.2	968.2
137.5°	1022.8	1024.3	1025.8	1027.3	1028.9	1030.0	1030.5	1031.1	1031.7	1032.2	1032.5
140°	1063.2	1064.5	1065.8	1067.1	1068.4	1069.4	1070.3	1071.1	1071.8	1072.6	1073.1
142.5°	1103.6	1104.7	1105.8	1106.8	1107.9	1109.0	1109.9	1111.0	1112.0	1113.0	1113.3
145°	1163.0	1164.0	1165.1	1166.1	1167.1	1168.0	1168.8	1169.6	1170.3	1171.1	1171.1
147.5°	1217.9	1218.4	1219.0	1219.6	1220.1	1220.7	1221.4	1222.0	1222.6	1223.2	1223.9
150°	1254.5	1254.3	1253.9	1253.7	1253.4	1253.8	1254.9	1255.9	1257.0	1258.0	1258.0
152.5°	1284.5	1284.9	1285.3	1285.7	1286.0	1286.4	1286.8	1287.2	1287.7	1288.1	1288.7
155°	1330.8	1330.8	1330.8	1330.8	1330.8	1330.9	1331.2	1331.4	1331.7	1331.9	1333.0
157.5°	1372.1	1371.5	1370.9	1370.4	1369.8	1369.6	1369.9	1370.2	1370.4	1370.7	1371.7
160°	1396.4	1395.7	1394.9	1394.1	1393.3	1393.1	1393.3	1393.6	1393.9	1394.1	1395.1
162.5°	1418.1	1417.5	1416.9	1416.3	1415.7	1415.5	1415.5	1415.6	1415.6	1415.7	1416.9
165°	1446.9	1446.4	1445.9	1445.4	1444.8	1444.7	1445.0	1445.2	1445.5	1445.7	1446.8
167.5°	1471.4	1470.3	1469.3	1468.2	1467.1	1466.6	1466.6	1466.6	1466.6	1466.6	1468.2
170°	1484.5	1483.5	1482.4	1481.4	1480.4	1479.8	1479.8	1479.8	1479.8	1479.8	1481.4
172.5°	1493.9	1492.9	1491.8	1490.8	1489.8	1489.1	1489.1	1489.1	1489.1	1489.1	1490.8
175°	1504.4	1503.4	1502.4	1501.3	1500.3	1499.8	1499.8	1499.8	1499.8	1499.8	1501.3
177.5°	1509.8	1509.0	1508.1	1507.3	1506.5	1506.0	1505.8	1505.6	1505.3	1505.1	1506.4
180°	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6
2.5°	1321.9	1323.7	1325.5	1326.5	1326.3	1326.1	1325.9	1325.6
5°	1315.2	1317.3	1319.4	1320.3	1320.1	1319.9	1319.6	1319.4
7.5°	1301.9	1303.9	1306.0	1306.9	1306.7	1306.5	1306.2	1306.0
10°	1290.6	1292.5	1294.3	1295.2	1294.9	1294.6	1294.4	1294.2
12.5°	1275.6	1277.1	1278.6	1279.3	1279.3	1279.2	1279.2	1279.1
15°	1249.4	1250.5	1251.7	1252.2	1252.2	1252.2	1252.2	1252.2
17.5°	1218.9	1220.3	1221.7	1221.9	1220.7	1219.6	1218.4	1217.3
20°	1195.8	1197.4	1199.0	1199.2	1198.1	1196.9	1195.8	1194.6
22.5°	1169.4	1170.5	1171.6	1171.7	1170.9	1170.1	1169.3	1168.6
25°	1127.3	1127.8	1128.3	1128.1	1127.5	1126.8	1126.1	1125.4
27.5°	1083.2	1083.3	1083.4	1083.1	1082.4	1081.7	1081.0	1080.3
30°	1051.1	1050.6	1050.1	1049.6	1048.8	1048.1	1047.4	1046.7
32.5°	1018.3	1017.5	1016.7	1015.6	1014.4	1013.1	1011.9	1010.7
35°	967.9	966.6	965.5	964.0	962.1	960.3	958.4	956.5
37.5°	914.6	912.9	911.2	909.8	908.8	907.7	906.7	905.5
40°	877.9	875.8	873.6	872.2	871.5	870.9	870.2	869.5
42.5°	841.3	839.4	837.5	836.0	835.0	833.8	832.7	831.7
45°	787.3	784.5	781.7	779.9	779.3	778.6	777.9	777.2
47.5°	730.3	727.5	724.7	722.5	720.8	719.2	717.5	715.9
50°	691.4	688.3	685.3	683.0	681.4	679.7	678.1	676.5
52.5°	653.6	650.9	648.2	646.0	644.2	642.4	640.6	638.7
55°	594.7	592.6	590.5	588.7	586.9	585.3	583.7	582.1
57.5°	536.2	533.5	530.8	529.0	528.1	527.3	526.3	525.4
60°	496.7	494.3	492.0	490.0	488.4	486.8	485.1	483.5
62.5°	458.6	456.1	453.5	451.6	450.4	449.1	447.9	446.6
65°	398.6	396.5	394.4	392.8	391.9	391.0	390.0	389.1
67.5°	341.3	339.5	337.8	336.6	336.1	335.5	334.9	334.4
70°	303.5	302.1	300.6	299.5	298.5	297.6	296.7	295.8
72.5°	267.8	266.3	264.7	263.4	262.5	261.6	260.6	259.6
75°	212.6	211.9	211.2	210.4	209.4	208.4	207.5	206.6
77.5°	162.0	161.5	161.1	160.6	159.9	159.3	158.6	157.9
80°	129.6	129.4	129.2	128.8	128.4	127.8	127.3	126.9
82.5°	99.0	98.6	98.2	98.0	97.9	97.8	97.7	97.6
85°	58.3	58.1	57.8	57.5	57.0	56.6	56.0	55.5
87.5°	26.1	26.4	26.7	26.7	26.5	26.2	26.0	25.8
90°	21.4	22.7	24.0	25.0	25.9	26.6	27.4	28.2
92.5°	48.5	50.2	51.9	53.1	53.6	54.2	54.8	55.3
95°	94.0	95.8	97.7	98.9	99.4	99.9	100.4	100.9
97.5°	147.3	149.1	150.8	151.8	152.1	152.4	152.7	153.0
100°	184.2	186.6	188.9	190.4	190.9	191.4	192.0	192.5
102.5°	222.2	224.8	227.3	228.9	229.7	230.5	231.2	231.9
105°	283.6	285.2	286.7	287.9	288.7	289.4	290.2	291.0
107.5°	349.8	350.6	351.4	351.8	351.7	351.7	351.6	351.5
110°	395.9	396.7	397.4	397.7	397.4	397.2	396.9	396.7



TEST NUMBER: P333248-840

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	442.0	442.3	442.7	442.6	442.2	441.7	441.2	440.8
115°	512.3	512.0	511.8	511.5	511.3	511.0	510.7	510.5
117.5°	582.7	582.9	583.1	582.7	581.7	580.7	579.6	578.6
120°	630.2	630.2	630.2	629.7	628.6	627.5	626.5	625.5
122.5°	676.7	676.5	676.3	675.8	674.9	674.1	673.3	672.5
125°	745.3	744.8	744.3	743.9	743.7	743.4	743.1	742.9
127.5°	813.4	813.1	812.9	812.5	812.0	811.4	810.9	810.4
130°	858.5	858.2	858.0	857.6	857.1	856.6	856.0	855.5
132.5°	901.7	901.4	901.1	900.7	899.9	899.2	898.5	897.8
135°	968.2	968.2	968.2	967.7	966.5	965.5	964.5	963.4
137.5°	1032.9	1033.2	1033.5	1033.0	1031.7	1030.4	1029.1	1027.7
140°	1073.6	1074.2	1074.7	1074.3	1073.0	1071.7	1070.4	1069.0
142.5°	1113.6	1113.9	1114.2	1113.7	1112.4	1111.2	1109.8	1108.5
145°	1171.1	1171.1	1171.1	1170.7	1170.0	1169.2	1168.4	1167.6
147.5°	1224.6	1225.2	1225.8	1225.2	1223.5	1221.6	1219.9	1218.1
150°	1258.0	1258.0	1258.0	1257.8	1257.2	1256.7	1256.2	1255.7
152.5°	1289.3	1289.9	1290.5	1290.4	1289.5	1288.5	1287.6	1286.7
155°	1334.0	1335.0	1336.2	1336.0	1334.6	1333.3	1332.1	1330.8
157.5°	1372.7	1373.8	1374.8	1374.5	1372.8	1371.1	1369.4	1367.7
160°	1396.2	1397.2	1398.3	1398.2	1396.8	1395.5	1394.2	1393.0
162.5°	1418.3	1419.5	1420.8	1420.6	1419.1	1417.5	1416.0	1414.5
165°	1447.8	1448.9	1450.0	1449.7	1448.1	1446.5	1445.0	1443.4
167.5°	1469.8	1471.4	1472.9	1472.9	1471.3	1469.7	1468.0	1466.4
170°	1482.9	1484.5	1486.0	1485.9	1484.1	1482.3	1480.5	1478.6
172.5°	1492.3	1493.9	1495.4	1495.4	1493.8	1492.2	1490.6	1488.9
175°	1502.9	1504.4	1506.0	1505.9	1504.1	1502.3	1500.4	1498.5
177.5°	1507.6	1508.9	1510.2	1510.1	1508.6	1507.1	1505.7	1504.2
180°	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9

(END OF REPORT)