

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: P333446-927

Luminaire Tested: **S125DIW-S1090D1050U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333446-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S1090D1050U927-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6838.7 lumens
Efficiency: N/A
Efficacy: 111.7 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

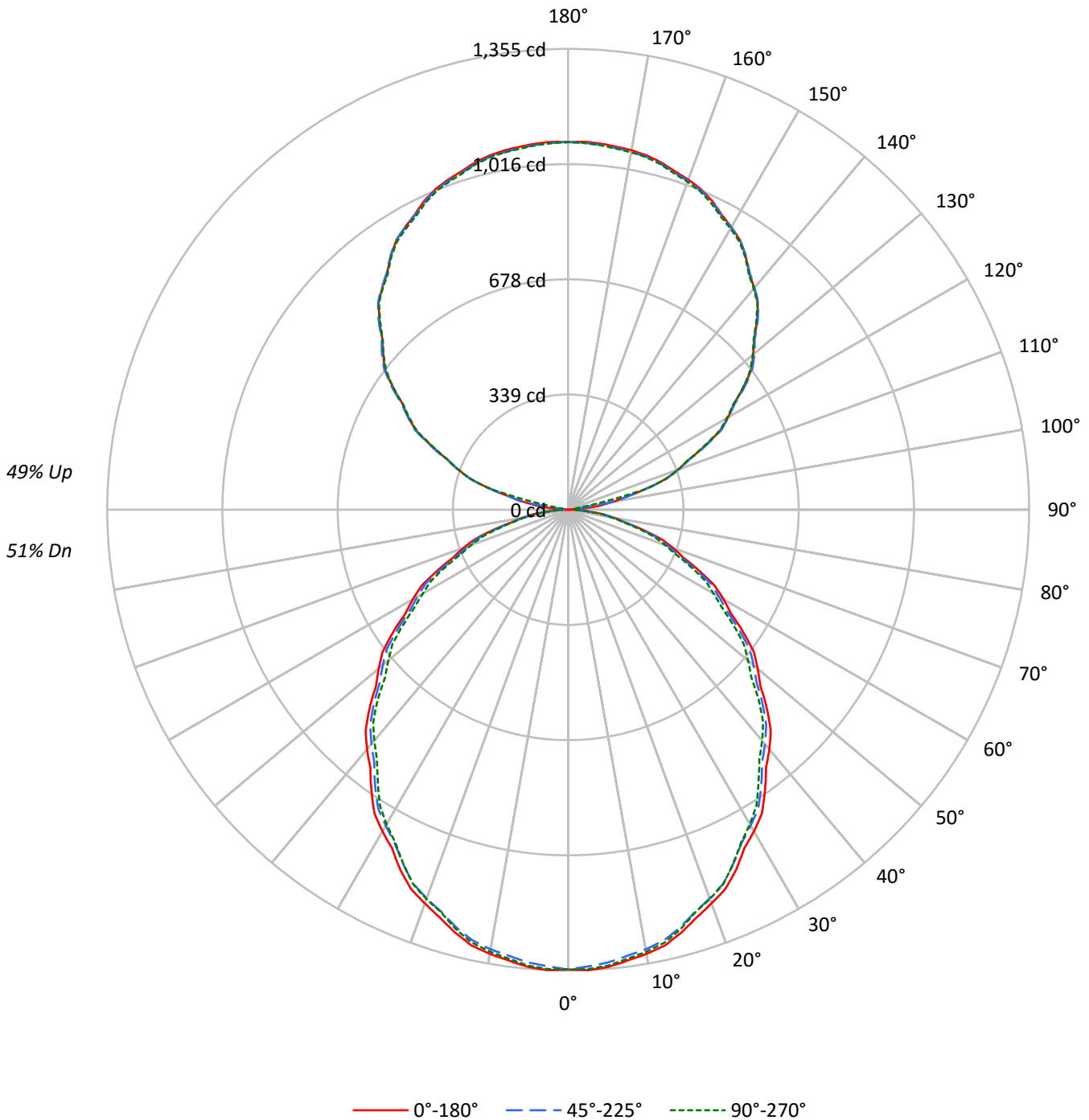
Input Watts (W): 61.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	94	90	86	90	87	83	80	74	71	69	62	60	58	51	50	48	43
2	89	82	76	70	82	76	70	66	65	61	57	54	51	49	45	43	41	36
3	81	72	64	59	75	67	60	55	57	52	48	48	44	41	39	37	35	31
4	74	64	56	50	69	59	52	47	51	45	41	43	39	35	35	32	30	26
5	68	57	48	42	63	53	45	40	45	40	35	38	34	31	32	29	26	23
6	63	51	43	37	58	47	40	35	41	35	31	35	30	27	29	25	23	20
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20	18
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	21	18	16
9	50	38	30	25	46	36	29	24	31	25	22	26	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	21	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8730	8730	8730
5°	8749	8666	8722
10°	8697	8605	8655
15°	8602	8501	8538
20°	8467	8357	8372
25°	8322	8185	8177
30°	8143	7999	7959
35°	7950	7799	7689
40°	7754	7583	7474
45°	7541	7384	7237
50°	7306	7145	6931
55°	7080	6875	6683
60°	6810	6603	6368
65°	6487	6276	6062
70°	6180	5897	5695
75°	5629	5445	5255
80°	5013	4932	4813
85°	4357	4439	4194



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.5	1.9
10°-20°	360.0	5.3
20°-30°	531.6	7.8
30°-40°	620.3	9.1
40°-50°	623.0	9.1
50°-60°	546.9	8.0
60°-70°	407.5	6.0
70°-80°	233.0	3.4
80°-90°	70.0	1.0
90°-100°	39.3	0.6
100°-110°	242.1	3.5
110°-120°	439.0	6.4
120°-130°	563.4	8.2
130°-140°	606.0	8.9
140°-150°	568.8	8.3
150°-160°	460.1	6.7
160°-170°	297.6	4.4
170°-180°	102.6	1.5
0°-30°	1019.1	14.9
0°-40°	1639.4	24.0
0°-60°	2809.2	41.1
0°-90°	3519.7	51.5
90°-120°	720.3	10.5
90°-150°	2458.6	36.0
90°-180°	3319.0	48.5
0°-180°	6838.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1352	1352	1352	1352	1352	
5°	1350	1347	1337	1346	1345	128
15°	1286	1283	1272	1277	1277	362
25°	1168	1162	1149	1150	1148	537
35°	1008	1004	989	984	975	631
45°	826	821	808	796	792	636
55°	629	625	611	601	594	561
65°	424	422	411	401	397	421
75°	226	223	218	215	211	241
85°	59	60	60	59	57	66
90°	1	7	13	17	19	5
95°	46	42	13	17	17	58
105°	236	239	239	239	238	250
115°	442	446	447	444	439	438
125°	629	634	634	631	629	562
135°	784	789	788	786	781	604
145°	909	911	911	911	907	568
155°	1002	997	998	1000	994	461
165°	1057	1052	1053	1057	1051	298
175°	1081	1076	1077	1082	1076	103
180°	1081	1081	1081	1081	1081	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8
2.5°	1355.2	1354.6	1354.0	1353.4	1352.9	1351.6	1349.7	1347.8	1345.9	1344.0	1345.9
5°	1349.6	1349.2	1348.7	1348.2	1347.7	1346.3	1343.9	1341.6	1339.2	1336.8	1338.9
7.5°	1337.2	1336.7	1336.3	1335.8	1335.3	1333.7	1331.1	1328.5	1325.9	1323.3	1325.4
10°	1326.1	1325.6	1325.2	1324.7	1324.2	1322.6	1320.0	1317.4	1314.8	1312.2	1314.1
12.5°	1312.4	1311.5	1310.7	1309.8	1309.0	1307.3	1304.9	1302.5	1300.1	1297.6	1299.2
15°	1286.5	1285.8	1285.1	1284.4	1283.7	1282.0	1279.4	1276.8	1274.1	1271.5	1272.7
17.5°	1256.8	1255.8	1254.7	1253.6	1252.6	1250.7	1248.0	1245.3	1242.6	1239.8	1241.3
20°	1232.0	1231.5	1231.1	1230.6	1230.1	1228.3	1225.2	1222.1	1219.0	1215.9	1217.6
22.5°	1207.1	1206.3	1205.5	1204.6	1203.7	1201.8	1199.0	1196.0	1193.2	1190.3	1191.4
25°	1167.8	1166.6	1165.5	1164.3	1163.1	1160.9	1157.9	1154.8	1151.7	1148.6	1149.1
27.5°	1121.8	1121.1	1120.4	1119.7	1119.0	1117.1	1113.8	1110.6	1107.5	1104.3	1104.4
30°	1091.9	1091.2	1090.4	1089.7	1089.0	1086.9	1083.3	1079.7	1076.2	1072.6	1072.1
32.5°	1059.4	1058.3	1057.2	1056.1	1055.0	1052.9	1049.6	1046.5	1043.3	1040.1	1039.3
35°	1008.4	1007.5	1006.5	1005.6	1004.6	1002.5	999.2	995.9	992.5	989.2	988.0
37.5°	955.6	954.4	953.2	952.0	950.9	948.7	945.5	942.5	939.3	936.2	934.4
40°	919.7	918.5	917.3	916.2	915.0	912.7	909.3	906.0	902.7	899.4	897.2
42.5°	881.2	880.2	879.2	878.2	877.2	875.0	871.7	868.4	865.1	861.7	859.8
45°	825.6	824.7	823.7	822.8	821.8	819.9	817.1	814.2	811.4	808.5	805.6
47.5°	765.7	765.7	765.8	765.9	765.9	764.2	760.8	757.3	753.9	750.5	747.6
50°	727.2	726.5	725.8	725.1	724.4	722.5	719.7	716.8	714.0	711.1	708.1
52.5°	687.9	687.3	686.8	686.3	685.8	684.0	681.0	677.9	674.9	671.8	669.1
55°	628.8	628.1	627.4	626.7	626.0	623.9	620.6	617.3	613.9	610.6	608.5
57.5°	566.6	566.2	565.9	565.5	565.1	563.5	560.6	557.9	555.1	552.2	549.5
60°	527.2	526.2	525.3	524.3	523.4	521.7	519.0	516.4	513.8	511.2	508.8
62.5°	486.2	485.4	484.7	483.9	483.2	481.6	479.3	477.1	474.9	472.7	470.1
65°	424.5	424.1	423.6	423.1	422.6	421.1	418.5	415.9	413.3	410.7	408.5
67.5°	364.9	363.8	362.9	361.9	360.9	359.4	357.4	355.5	353.6	351.6	349.8
70°	327.3	326.1	324.9	323.7	322.5	320.8	318.7	316.6	314.4	312.3	310.9
72.5°	286.2	285.3	284.6	283.8	283.0	281.9	280.5	279.1	277.7	276.3	274.7
75°	225.6	225.1	224.7	224.2	223.7	222.9	221.7	220.5	219.4	218.2	217.5
77.5°	169.8	169.6	169.4	169.3	169.1	168.7	167.9	167.3	166.7	166.0	165.6
80°	134.8	134.8	134.8	134.8	134.8	134.5	134.0	133.6	133.1	132.6	132.4
82.5°	103.9	103.5	103.2	102.8	102.4	102.2	102.1	102.0	101.9	101.8	101.4
85°	58.8	59.0	59.3	59.5	59.7	59.9	59.9	59.9	59.9	59.9	59.7
87.5°	23.3	23.5	23.8	24.1	24.4	24.6	24.6	24.7	24.7	24.8	25.0
90°	0.8	2.2	3.6	5.1	6.5	7.8	9.1	10.3	11.6	12.8	13.7
92.5°	12.4	11.3	10.4	9.3	8.3	8.4	9.5	10.6	11.7	12.8	13.7
95°	45.6	45.2	44.6	44.0	43.6	39.8	33.1	26.4	19.6	12.8	13.7
97.5°	95.4	96.3	97.3	98.2	99.2	93.0	79.6	66.2	52.8	39.5	34.4
100°	133.8	134.4	134.8	135.4	135.9	136.6	137.3	138.0	138.7	139.4	112.9
102.5°	172.9	173.6	174.3	174.9	175.6	176.2	176.6	177.0	177.4	177.8	172.9
105°	235.5	236.2	236.9	237.7	238.4	238.8	238.8	238.8	238.8	238.8	238.8
107.5°	300.6	300.6	300.6	300.6	300.6	300.8	301.1	301.5	301.8	302.2	302.2
110°	342.9	342.9	342.9	342.9	342.9	343.1	343.4	343.8	344.1	344.5	344.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	382.6	383.1	383.5	383.9	384.4	384.7	384.9	385.1	385.3	385.6	384.8
115°	442.3	443.1	444.0	444.9	445.8	446.3	446.6	446.7	446.9	447.0	446.3
117.5°	504.0	503.9	503.9	503.8	503.8	504.1	504.8	505.5	506.1	506.8	505.9
120°	542.4	542.2	542.0	541.9	541.7	541.9	542.4	543.0	543.4	544.0	543.7
122.5°	576.4	577.0	577.7	578.4	579.1	579.6	579.8	580.0	580.3	580.5	580.2
125°	628.9	630.2	631.4	632.6	633.9	634.5	634.5	634.5	634.5	634.5	633.8
127.5°	679.1	680.0	680.9	681.8	682.6	683.0	682.9	682.9	682.7	682.6	682.2
130°	709.9	710.7	711.6	712.5	713.4	713.9	714.2	714.3	714.5	714.6	714.2
132.5°	740.6	741.6	742.7	743.7	744.7	745.0	744.7	744.3	743.9	743.5	743.4
135°	784.3	785.4	786.5	787.6	788.6	789.0	788.6	788.3	787.9	787.6	787.2
137.5°	824.6	825.5	826.4	827.4	828.3	828.6	828.3	828.0	827.6	827.3	827.4
140°	850.9	851.2	851.6	851.9	852.3	852.4	852.2	852.0	851.8	851.7	852.0
142.5°	874.6	874.8	875.0	875.2	875.4	875.7	875.9	876.2	876.4	876.6	876.7
145°	909.3	909.7	910.1	910.5	910.8	910.9	910.9	910.9	910.9	910.9	911.2
147.5°	939.8	939.8	939.7	939.6	939.5	939.6	939.8	940.0	940.2	940.4	940.6
150°	959.0	958.7	958.3	958.0	957.6	957.6	958.0	958.3	958.7	959.0	959.4
152.5°	977.6	976.8	976.0	975.3	974.5	974.3	974.6	975.0	975.3	975.7	976.0
155°	1001.5	1000.4	999.3	998.3	997.2	996.9	997.2	997.6	997.9	998.3	998.8
157.5°	1019.9	1019.3	1018.7	1018.0	1017.3	1017.1	1017.1	1017.1	1017.2	1017.2	1017.8
160°	1032.8	1031.7	1030.6	1029.5	1028.5	1028.0	1028.2	1028.4	1028.6	1028.7	1029.4
162.5°	1043.0	1042.0	1040.8	1039.8	1038.7	1038.2	1038.5	1038.6	1038.8	1038.9	1040.0
165°	1056.8	1055.7	1054.6	1053.6	1052.5	1052.0	1052.3	1052.4	1052.6	1052.7	1053.8
167.5°	1067.0	1066.0	1064.9	1063.7	1062.6	1062.2	1062.3	1062.5	1062.7	1062.9	1064.1
170°	1072.8	1071.6	1070.3	1069.1	1067.8	1067.3	1067.5	1067.6	1067.8	1068.0	1069.4
172.5°	1076.7	1075.4	1074.1	1072.9	1071.7	1071.2	1071.5	1071.8	1072.1	1072.5	1073.7
175°	1080.8	1079.7	1078.6	1077.6	1076.5	1076.1	1076.3	1076.4	1076.7	1076.8	1078.2
177.5°	1082.8	1081.9	1081.0	1080.1	1079.3	1079.0	1079.1	1079.3	1079.3	1079.5	1080.5
180°	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8
2.5°	1347.8	1349.7	1351.6	1352.5	1352.3	1352.1	1351.9	1351.8
5°	1341.1	1343.2	1345.4	1346.3	1346.1	1345.8	1345.6	1345.4
7.5°	1327.5	1329.6	1331.7	1332.6	1332.4	1332.1	1331.9	1331.7
10°	1316.0	1317.9	1319.8	1320.6	1320.4	1320.2	1319.9	1319.7
12.5°	1300.7	1302.2	1303.7	1304.5	1304.4	1304.3	1304.3	1304.2
15°	1273.9	1275.1	1276.3	1276.9	1276.9	1276.9	1276.9	1276.9
17.5°	1242.9	1244.3	1245.8	1245.9	1244.8	1243.6	1242.4	1241.2
20°	1219.2	1220.9	1222.6	1222.8	1221.6	1220.4	1219.2	1218.1
22.5°	1192.5	1193.6	1194.6	1194.8	1194.0	1193.2	1192.4	1191.5
25°	1149.5	1150.0	1150.5	1150.3	1149.6	1148.9	1148.2	1147.5
27.5°	1104.5	1104.5	1104.7	1104.4	1103.7	1103.0	1102.2	1101.5
30°	1071.7	1071.2	1070.7	1070.2	1069.4	1068.7	1068.0	1067.3
32.5°	1038.4	1037.5	1036.7	1035.6	1034.4	1033.1	1031.7	1030.5
35°	986.8	985.6	984.4	982.9	981.0	979.1	977.2	975.3
37.5°	932.6	930.9	929.2	927.7	926.6	925.5	924.4	923.4
40°	895.1	892.9	890.8	889.4	888.7	888.0	887.2	886.5
42.5°	857.9	855.9	854.0	852.4	851.4	850.2	849.1	848.0
45°	802.8	799.9	797.1	795.3	794.6	793.8	793.1	792.4
47.5°	744.7	741.8	738.9	736.7	735.0	733.3	731.7	730.0
50°	705.0	701.9	698.8	696.4	694.7	693.1	691.4	689.8
52.5°	666.4	663.7	661.0	658.7	656.8	655.0	653.2	651.3
55°	606.3	604.2	602.1	600.2	598.5	596.8	595.2	593.5
57.5°	546.8	544.0	541.2	539.4	538.5	537.6	536.7	535.8
60°	506.4	504.1	501.7	499.6	498.0	496.3	494.6	493.0
62.5°	467.5	465.0	462.4	460.5	459.2	458.0	456.6	455.3
65°	406.4	404.3	402.1	400.5	399.6	398.6	397.7	396.7
67.5°	348.0	346.2	344.4	343.2	342.6	342.1	341.5	341.0
70°	309.4	308.0	306.6	305.4	304.4	303.5	302.5	301.6
72.5°	273.1	271.5	269.9	268.6	267.7	266.7	265.8	264.8
75°	216.7	216.0	215.3	214.4	213.5	212.5	211.6	210.6
77.5°	165.1	164.7	164.3	163.7	163.0	162.4	161.7	161.1
80°	132.1	131.9	131.7	131.3	130.8	130.3	129.8	129.4
82.5°	100.9	100.5	100.1	99.8	99.7	99.7	99.6	99.4
85°	59.4	59.2	58.9	58.5	58.1	57.6	57.1	56.6
87.5°	25.2	25.3	25.5	25.5	25.2	25.0	24.6	24.4
90°	14.6	15.5	16.4	17.1	17.7	18.1	18.7	19.3
92.5°	14.6	15.5	16.4	17.0	17.2	17.4	17.7	18.0
95°	14.6	15.5	16.4	16.8	16.8	16.8	16.8	16.8
97.5°	29.4	24.3	19.3	16.8	16.8	16.8	16.8	16.8
100°	86.3	59.8	33.3	19.6	18.9	18.2	17.5	16.8
102.5°	167.8	162.8	157.8	149.2	137.1	125.0	112.9	100.8
105°	238.8	238.8	238.8	238.7	238.5	238.3	238.1	238.0
107.5°	302.3	302.3	302.4	302.1	301.6	301.0	300.5	300.0
110°	343.4	342.9	342.4	342.2	342.4	342.5	342.7	342.9



TEST NUMBER: P333446-927

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	384.2	383.5	382.9	382.4	382.1	381.8	381.6	381.4
115°	445.6	444.9	444.2	443.3	442.3	441.2	440.1	439.0
117.5°	505.0	504.1	503.1	502.4	502.0	501.5	501.1	500.6
120°	543.3	543.0	542.6	541.9	541.1	540.2	539.3	538.4
122.5°	579.8	579.5	579.1	578.5	577.4	576.4	575.4	574.3
125°	633.1	632.4	631.7	631.1	630.6	630.0	629.5	628.9
127.5°	681.8	681.4	681.0	680.2	678.9	677.6	676.2	674.9
130°	713.6	713.0	712.5	711.8	710.9	710.0	709.2	708.3
132.5°	743.3	743.1	743.1	742.6	741.7	740.8	739.9	739.0
135°	786.9	786.5	786.2	785.4	784.3	783.3	782.2	781.2
137.5°	827.4	827.5	827.6	827.2	826.2	825.3	824.4	823.5
140°	852.4	852.7	853.1	852.7	851.7	850.6	849.5	848.4
142.5°	876.8	876.9	876.9	876.5	875.4	874.3	873.2	872.2
145°	911.3	911.5	911.6	911.2	910.1	909.1	908.0	907.0
147.5°	940.9	941.1	941.3	940.8	939.4	938.2	936.9	935.6
150°	959.7	960.1	960.4	959.9	958.5	957.0	955.6	954.2
152.5°	976.4	976.8	977.1	976.7	975.3	974.1	972.8	971.5
155°	999.3	999.9	1000.4	1000.0	998.5	997.1	995.7	994.3
157.5°	1018.4	1018.9	1019.5	1019.1	1017.6	1016.2	1014.8	1013.4
160°	1030.2	1030.9	1031.6	1031.2	1029.8	1028.4	1027.0	1025.6
162.5°	1041.0	1042.0	1043.0	1042.7	1041.1	1039.6	1038.0	1036.4
165°	1054.9	1056.0	1057.0	1056.9	1055.4	1054.0	1052.6	1051.1
167.5°	1065.4	1066.7	1068.0	1067.9	1066.2	1064.6	1063.0	1061.4
170°	1070.9	1072.3	1073.7	1073.6	1072.0	1070.4	1068.8	1067.1
172.5°	1075.1	1076.3	1077.6	1077.4	1075.9	1074.2	1072.6	1071.0
175°	1079.7	1081.1	1082.5	1082.4	1080.8	1079.2	1077.6	1076.0
177.5°	1081.5	1082.5	1083.5	1083.5	1082.3	1081.2	1080.1	1078.9
180°	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8

(END OF REPORT)