

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: P333417-935

Luminaire Tested: **S125DIW-S850D1050U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333417-935
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-S850D1050U935-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6071.8 lumens
Efficiency: N/A
Efficacy: 115.4 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

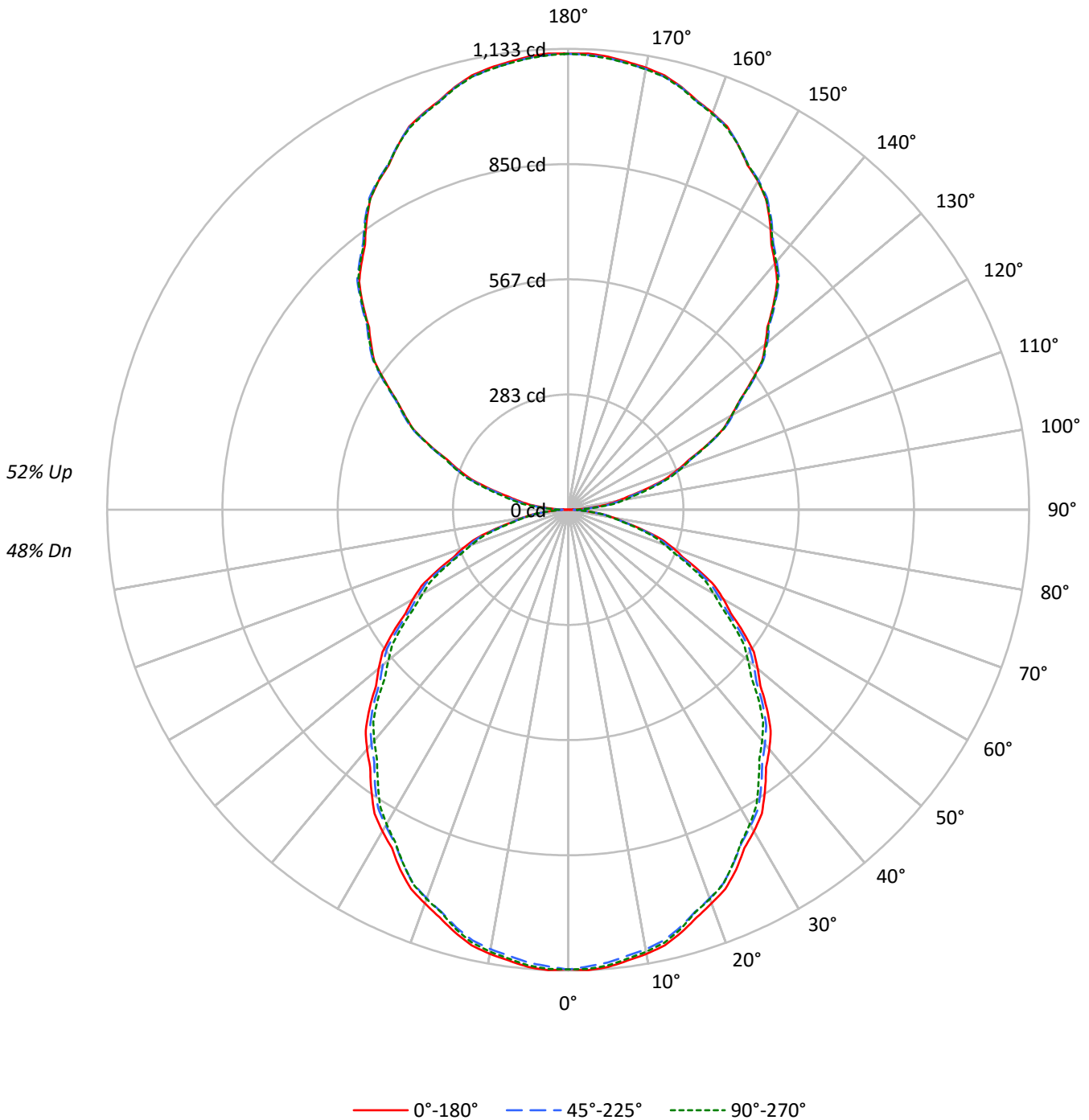
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	107	107	107	107	98	98	98	98	82	82	82	68	68	68	55	55	55	48				48
1	97	93	89	86	89	86	82	79	72	70	68	60	58	56	48	47	46	41				41
2	89	81	75	70	81	75	70	65	63	59	56	52	50	47	42	40	39	34				34
3	81	71	64	58	74	66	60	54	56	51	47	46	43	40	38	35	33	29				29
4	74	63	55	49	68	58	51	46	50	44	40	41	37	34	34	31	28	25				25
5	68	56	48	42	62	52	45	40	44	39	34	37	33	30	30	27	25	21				21
6	62	50	42	36	57	47	40	34	40	34	30	33	29	26	27	24	22	19				19
7	58	45	38	32	53	42	35	30	36	31	26	30	26	23	25	22	19	17				17
8	54	41	34	28	49	38	31	27	33	27	23	28	24	20	23	20	17	15				15
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	13				13
10	47	35	27	23	43	32	26	21	28	23	19	24	19	17	20	16	14	12				12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7299	7299	7299
5°	7316	7247	7293
10°	7271	7195	7237
15°	7192	7109	7138
20°	7080	6988	7000
25°	6959	6844	6837
30°	6809	6689	6655
35°	6649	6522	6430
40°	6483	6340	6250
45°	6305	6175	6052
50°	6109	5974	5795
55°	5920	5749	5588
60°	5694	5521	5324
65°	5425	5248	5069
70°	5166	4930	4762
75°	4706	4551	4397
80°	4192	4125	4024
85°	3646	3712	3512



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.6	1.8
10°-20°	301.0	5.0
20°-30°	444.5	7.3
30°-40°	518.7	8.5
40°-50°	520.9	8.6
50°-60°	457.3	7.5
60°-70°	340.7	5.6
70°-80°	194.8	3.2
80°-90°	59.1	1.0
90°-100°	75.1	1.2
100°-110°	221.7	3.7
110°-120°	375.6	6.2
120°-130°	494.3	8.1
130°-140°	553.8	9.1
140°-150°	542.8	8.9
150°-160°	455.9	7.5
160°-170°	303.0	5.0
170°-180°	106.1	1.7
0°-30°	852.1	14.0
0°-40°	1370.8	22.6
0°-60°	2348.9	38.7
0°-90°	2943.6	48.5
90°-120°	672.4	11.1
90°-150°	2263.2	37.3
90°-180°	3128.0	51.5
0°-180°	6071.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1128	1126	1118	1125	1125	107
15°	1076	1073	1063	1067	1068	303
25°	976	972	960	962	960	449
35°	843	839	827	823	816	527
45°	690	686	676	666	663	532
55°	526	523	511	503	496	469
65°	355	353	343	336	332	352
75°	189	187	182	180	176	201
85°	49	50	50	49	47	55
90°	1	8	14	18	21	6
95°	57	59	67	73	75	61
105°	199	203	208	214	216	212
115°	376	379	381	380	380	372
125°	549	554	555	553	552	491
135°	714	719	720	720	716	550
145°	864	868	871	870	868	540
155°	989	989	990	993	989	455
165°	1076	1074	1075	1078	1073	303
175°	1118	1115	1115	1120	1114	106
180°	1121	1121	1121	1121	1121	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2
2.5°	1133.2	1132.6	1132.2	1131.7	1131.2	1130.1	1128.6	1127.0	1125.4	1123.9	1125.4
5°	1128.5	1128.1	1127.7	1127.3	1126.9	1125.7	1123.7	1121.7	1119.7	1117.8	1119.6
7.5°	1118.1	1117.8	1117.3	1116.9	1116.5	1115.3	1113.0	1110.9	1108.7	1106.5	1108.2
10°	1108.8	1108.5	1108.0	1107.6	1107.2	1106.0	1103.7	1101.6	1099.4	1097.2	1098.8
12.5°	1097.3	1096.7	1096.0	1095.2	1094.5	1093.1	1091.1	1089.1	1087.0	1085.0	1086.3
15°	1075.7	1075.1	1074.5	1073.9	1073.3	1071.9	1069.8	1067.6	1065.4	1063.2	1064.2
17.5°	1050.9	1050.0	1049.1	1048.3	1047.4	1045.8	1043.5	1041.3	1039.0	1036.7	1037.9
20°	1030.1	1029.8	1029.3	1028.9	1028.6	1027.0	1024.4	1021.8	1019.3	1016.7	1018.1
22.5°	1009.4	1008.7	1008.0	1007.2	1006.5	1005.0	1002.5	1000.1	997.6	995.2	996.2
25°	976.5	975.5	974.5	973.4	972.5	970.7	968.1	965.5	962.9	960.4	960.8
27.5°	938.0	937.5	936.9	936.3	935.6	934.0	931.3	928.7	926.0	923.3	923.4
30°	913.0	912.4	911.8	911.2	910.6	908.8	905.9	902.8	899.8	896.9	896.5
32.5°	885.8	884.8	884.0	883.0	882.2	880.4	877.7	875.0	872.4	869.7	869.0
35°	843.3	842.4	841.6	840.9	840.1	838.3	835.5	832.7	829.9	827.2	826.1
37.5°	799.1	798.1	797.0	796.1	795.0	793.2	790.7	788.0	785.4	782.8	781.3
40°	769.0	768.0	767.1	766.0	765.0	763.2	760.3	757.6	754.8	752.0	750.3
42.5°	736.8	736.0	735.1	734.3	733.5	731.7	728.9	726.1	723.3	720.6	718.9
45°	690.3	689.5	688.7	687.9	687.2	685.5	683.2	680.8	678.4	676.1	673.6
47.5°	640.2	640.3	640.3	640.3	640.4	639.0	636.1	633.3	630.4	627.6	625.1
50°	608.0	607.4	606.8	606.2	605.7	604.2	601.8	599.4	597.0	594.6	592.0
52.5°	575.1	574.7	574.3	573.9	573.4	571.9	569.4	566.8	564.3	561.7	559.5
55°	525.8	525.2	524.6	524.0	523.4	521.7	518.9	516.2	513.3	510.6	508.8
57.5°	473.7	473.5	473.1	472.8	472.5	471.1	468.8	466.5	464.1	461.8	459.4
60°	440.8	440.1	439.3	438.4	437.6	436.2	433.9	431.8	429.6	427.4	425.4
62.5°	406.5	405.9	405.3	404.6	404.0	402.7	400.9	399.0	397.1	395.2	393.1
65°	355.0	354.6	354.2	353.8	353.4	352.1	349.9	347.8	345.5	343.4	341.6
67.5°	305.1	304.3	303.4	302.6	301.8	300.5	298.9	297.3	295.7	294.0	292.5
70°	273.6	272.6	271.6	270.6	269.7	268.3	266.5	264.7	262.9	261.1	259.9
72.5°	239.3	238.6	237.9	237.3	236.6	235.7	234.5	233.3	232.2	231.1	229.7
75°	188.6	188.3	187.9	187.5	187.1	186.4	185.4	184.4	183.4	182.4	181.8
77.5°	142.0	141.8	141.7	141.5	141.4	141.0	140.4	139.9	139.3	138.8	138.4
80°	112.7	112.7	112.7	112.7	112.7	112.4	112.1	111.7	111.2	110.9	110.7
82.5°	86.9	86.6	86.3	85.9	85.7	85.4	85.3	85.3	85.2	85.2	84.8
85°	49.2	49.4	49.6	49.8	49.9	50.1	50.1	50.1	50.1	50.1	49.9
87.5°	19.5	19.8	20.1	20.4	20.8	20.9	21.1	21.2	21.3	21.4	21.6
90°	0.9	2.4	4.0	5.5	7.1	8.5	9.9	11.3	12.6	13.9	14.9
92.5°	21.1	22.2	23.2	24.4	25.5	26.9	28.5	30.1	31.9	33.5	34.8
95°	56.7	57.1	57.5	57.9	58.3	59.4	61.4	63.3	65.3	67.2	68.5
97.5°	94.2	94.4	94.5	94.7	94.9	96.3	98.9	101.6	104.3	106.9	108.2
100°	122.2	122.2	122.2	122.2	122.2	123.4	125.9	128.5	131.0	133.5	135.3
102.5°	152.1	152.9	153.7	154.5	155.2	156.3	157.6	158.9	160.1	161.4	163.3
105°	198.9	199.8	200.9	201.8	202.8	203.9	205.0	206.2	207.3	208.5	209.7
107.5°	250.6	251.5	252.5	253.5	254.4	255.4	256.2	257.2	258.0	258.9	259.5
110°	286.1	287.1	288.1	289.0	290.1	290.8	291.4	292.0	292.6	293.2	293.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	322.4	323.0	323.5	324.0	324.4	325.1	325.8	326.6	327.3	328.0	328.3
115°	376.0	376.8	377.5	378.3	379.1	379.7	380.0	380.5	380.8	381.3	381.1
117.5°	429.7	430.1	430.4	430.8	431.2	431.5	431.9	432.2	432.6	432.9	433.1
120°	463.2	464.3	465.2	466.1	467.1	467.7	467.9	468.1	468.3	468.5	468.5
122.5°	499.6	499.9	500.2	500.6	500.9	501.4	501.9	502.4	502.9	503.4	503.3
125°	548.7	549.9	551.0	552.2	553.4	554.1	554.3	554.5	554.7	554.8	554.5
127.5°	601.1	601.8	602.4	603.0	603.7	604.2	604.4	604.7	604.9	605.1	604.9
130°	632.5	633.4	634.5	635.4	636.4	637.1	637.5	637.8	638.3	638.6	638.4
132.5°	663.9	665.5	667.1	668.7	670.3	671.1	671.0	670.9	670.8	670.7	670.5
135°	713.6	714.8	715.9	717.1	718.3	718.9	719.2	719.4	719.5	719.7	719.7
137.5°	760.4	761.6	762.7	763.8	764.9	765.7	766.1	766.5	767.0	767.4	767.6
140°	790.4	791.3	792.4	793.3	794.3	795.0	795.7	796.3	796.8	797.4	797.8
142.5°	820.4	821.2	822.1	822.9	823.7	824.5	825.2	826.0	826.6	827.4	827.6
145°	864.5	865.3	866.1	866.9	867.6	868.3	868.9	869.5	870.1	870.6	870.6
147.5°	905.4	905.9	906.3	906.6	907.1	907.6	908.0	908.4	909.0	909.4	909.9
150°	932.6	932.5	932.2	932.0	931.9	932.1	932.9	933.7	934.4	935.2	935.2
152.5°	954.9	955.2	955.5	955.8	956.1	956.3	956.7	956.9	957.3	957.6	958.0
155°	989.3	989.3	989.3	989.3	989.3	989.4	989.6	989.8	990.0	990.2	991.0
157.5°	1020.0	1019.6	1019.2	1018.7	1018.3	1018.2	1018.4	1018.6	1018.8	1019.0	1019.8
160°	1038.2	1037.6	1037.0	1036.5	1035.9	1035.7	1035.9	1036.0	1036.2	1036.5	1037.2
162.5°	1054.2	1053.8	1053.3	1052.9	1052.5	1052.3	1052.4	1052.4	1052.5	1052.5	1053.4
165°	1075.7	1075.3	1074.9	1074.5	1074.1	1074.0	1074.3	1074.4	1074.6	1074.8	1075.6
167.5°	1093.8	1093.0	1092.3	1091.5	1090.7	1090.4	1090.4	1090.4	1090.4	1090.4	1091.5
170°	1103.6	1102.9	1102.1	1101.3	1100.5	1100.1	1100.1	1100.1	1100.1	1100.1	1101.3
172.5°	1110.6	1109.8	1109.1	1108.3	1107.5	1107.1	1107.1	1107.1	1107.1	1107.1	1108.3
175°	1118.4	1117.7	1116.9	1116.1	1115.3	1114.9	1114.9	1114.9	1114.9	1114.9	1116.1
177.5°	1122.5	1121.8	1121.2	1120.6	1120.0	1119.6	1119.4	1119.3	1119.1	1119.0	1119.9
180°	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2
2.5°	1127.0	1128.6	1130.1	1130.9	1130.8	1130.6	1130.4	1130.2
5°	1121.4	1123.1	1124.9	1125.7	1125.5	1125.3	1125.1	1124.9
7.5°	1110.0	1111.7	1113.4	1114.2	1114.0	1113.9	1113.6	1113.4
10°	1100.4	1102.0	1103.5	1104.2	1104.1	1103.8	1103.6	1103.5
12.5°	1087.5	1088.8	1090.1	1090.7	1090.7	1090.6	1090.6	1090.5
15°	1065.2	1066.2	1067.2	1067.6	1067.6	1067.6	1067.6	1067.6
17.5°	1039.2	1040.4	1041.6	1041.8	1040.8	1039.8	1038.8	1037.8
20°	1019.5	1020.9	1022.3	1022.4	1021.5	1020.5	1019.5	1018.5
22.5°	997.0	998.0	998.9	999.0	998.3	997.6	997.0	996.3
25°	961.1	961.6	962.0	961.8	961.3	960.7	960.1	959.5
27.5°	923.5	923.6	923.7	923.4	922.8	922.2	921.6	921.0
30°	896.1	895.7	895.3	894.8	894.2	893.6	893.0	892.4
32.5°	868.2	867.5	866.9	865.9	864.9	863.8	862.7	861.7
35°	825.2	824.1	823.2	821.9	820.3	818.7	817.1	815.5
37.5°	779.8	778.3	776.9	775.7	774.8	773.9	773.0	772.1
40°	748.5	746.7	744.9	743.6	743.0	742.5	741.9	741.3
42.5°	717.3	715.7	714.0	712.7	711.9	710.9	710.0	709.1
45°	671.2	668.8	666.5	665.0	664.4	663.8	663.2	662.6
47.5°	622.7	620.3	617.9	616.0	614.6	613.2	611.7	610.4
50°	589.4	586.9	584.3	582.3	580.9	579.5	578.2	576.8
52.5°	557.2	554.9	552.7	550.8	549.2	547.7	546.1	544.6
55°	507.0	505.2	503.4	501.9	500.4	499.0	497.7	496.3
57.5°	457.2	454.9	452.5	451.0	450.2	449.5	448.8	448.0
60°	423.4	421.5	419.5	417.8	416.4	415.0	413.6	412.2
62.5°	391.0	388.8	386.7	385.0	384.0	382.9	381.9	380.7
65°	339.8	338.0	336.2	334.9	334.2	333.4	332.5	331.7
67.5°	291.0	289.5	288.0	287.0	286.5	286.0	285.5	285.1
70°	258.7	257.5	256.3	255.4	254.5	253.7	253.0	252.2
72.5°	228.3	227.0	225.7	224.5	223.8	223.0	222.2	221.4
75°	181.2	180.6	180.0	179.3	178.6	177.7	176.9	176.2
77.5°	138.1	137.7	137.3	136.9	136.3	135.8	135.3	134.7
80°	110.5	110.3	110.1	109.8	109.4	109.0	108.6	108.2
82.5°	84.4	84.0	83.7	83.5	83.4	83.3	83.3	83.2
85°	49.7	49.5	49.2	49.0	48.6	48.2	47.8	47.4
87.5°	21.8	22.0	22.1	22.1	22.0	21.8	21.5	21.4
90°	15.9	16.9	17.8	18.6	19.2	19.8	20.3	20.9
92.5°	36.1	37.4	38.7	39.4	39.9	40.3	40.7	41.2
95°	69.9	71.2	72.6	73.4	73.9	74.2	74.6	75.0
97.5°	109.5	110.8	112.1	112.8	113.0	113.3	113.6	113.7
100°	137.0	138.7	140.4	141.5	141.9	142.3	142.7	143.1
102.5°	165.2	167.1	169.0	170.2	170.7	171.3	171.9	172.4
105°	210.9	212.0	213.2	214.0	214.6	215.2	215.8	216.4
107.5°	260.1	260.7	261.2	261.6	261.5	261.5	261.4	261.4
110°	294.3	294.9	295.5	295.7	295.5	295.2	295.1	294.9



TEST NUMBER: P333417-935

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	328.6	328.8	329.1	329.1	328.7	328.4	328.0	327.7
115°	380.8	380.6	380.5	380.3	380.0	379.9	379.7	379.5
117.5°	433.2	433.3	433.5	433.2	432.4	431.6	430.8	430.1
120°	468.5	468.5	468.5	468.1	467.4	466.6	465.8	465.0
122.5°	503.1	502.9	502.7	502.4	501.8	501.1	500.5	499.9
125°	554.1	553.7	553.3	553.0	552.8	552.6	552.4	552.2
127.5°	604.7	604.5	604.3	604.1	603.6	603.3	602.9	602.5
130°	638.3	638.0	637.8	637.6	637.1	636.8	636.4	636.0
132.5°	670.3	670.1	669.9	669.6	669.0	668.5	668.0	667.4
135°	719.7	719.7	719.7	719.4	718.6	717.8	717.0	716.3
137.5°	767.8	768.1	768.3	767.9	767.0	766.0	765.0	764.1
140°	798.1	798.6	798.9	798.7	797.7	796.7	795.7	794.8
142.5°	827.9	828.1	828.4	827.9	827.0	826.0	825.1	824.1
145°	870.6	870.6	870.6	870.4	869.8	869.2	868.7	868.1
147.5°	910.3	910.8	911.3	910.9	909.6	908.2	906.9	905.6
150°	935.2	935.2	935.2	935.0	934.6	934.3	933.8	933.5
152.5°	958.5	959.0	959.4	959.3	958.6	957.9	957.2	956.5
155°	991.8	992.6	993.3	993.2	992.2	991.3	990.3	989.3
157.5°	1020.5	1021.3	1022.1	1021.8	1020.5	1019.3	1018.0	1016.8
160°	1038.0	1038.8	1039.6	1039.4	1038.5	1037.5	1036.6	1035.5
162.5°	1054.4	1055.2	1056.2	1056.1	1055.0	1053.9	1052.7	1051.6
165°	1076.3	1077.1	1077.9	1077.7	1076.6	1075.4	1074.3	1073.1
167.5°	1092.7	1093.8	1095.0	1095.0	1093.8	1092.6	1091.4	1090.2
170°	1102.4	1103.6	1104.7	1104.7	1103.3	1102.0	1100.6	1099.2
172.5°	1109.4	1110.6	1111.7	1111.7	1110.5	1109.3	1108.1	1106.9
175°	1117.2	1118.4	1119.6	1119.5	1118.2	1116.8	1115.4	1114.0
177.5°	1120.8	1121.8	1122.7	1122.6	1121.5	1120.4	1119.4	1118.3
180°	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0

(END OF REPORT)