

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: P333411-935

Luminaire Tested: **S125DIW-S850D770U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333411-935
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-S850D770U935-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5234.8 lumens
Efficiency: N/A
Efficacy: 116.3 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

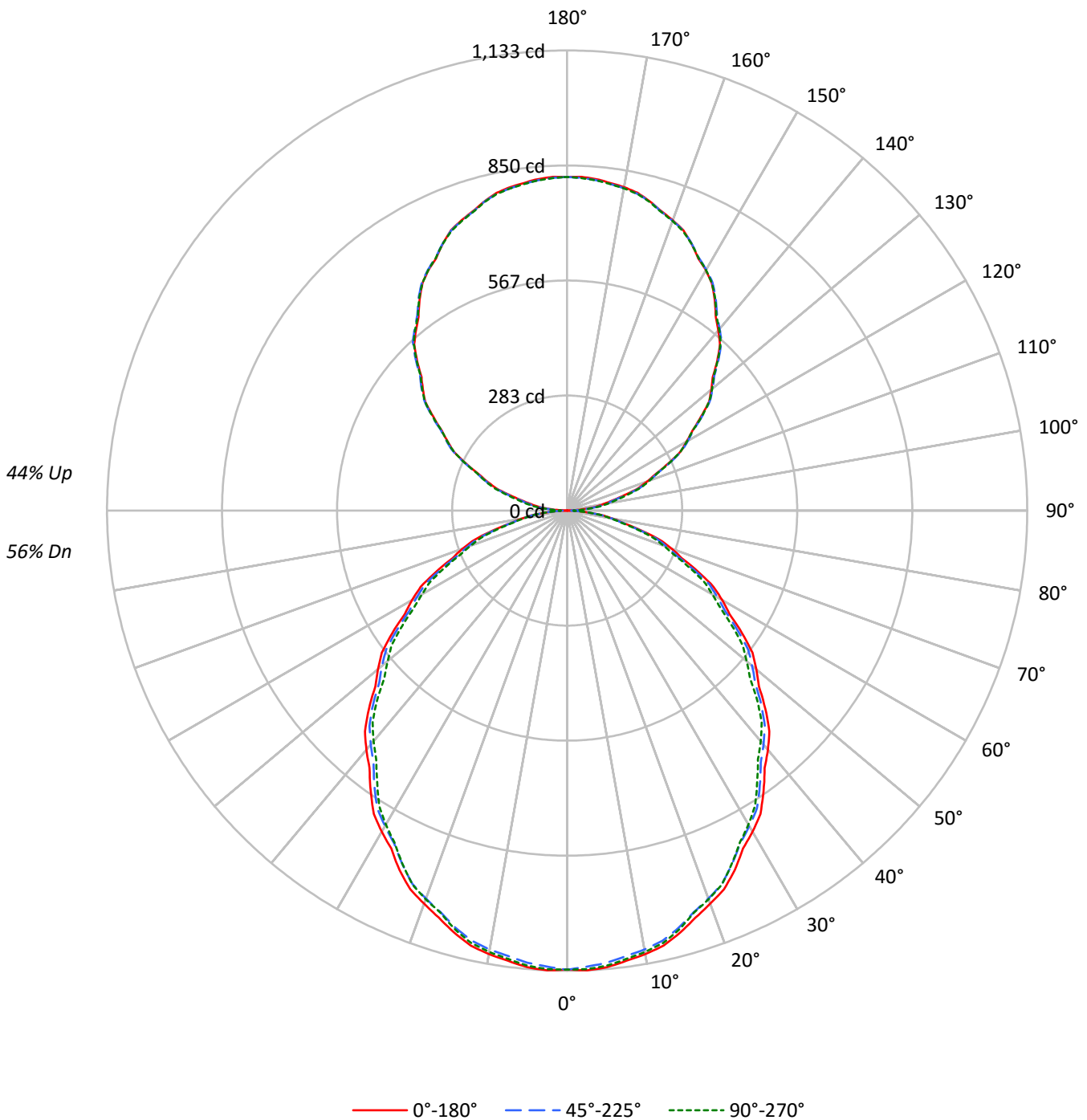
Input Watts (W): 45
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	99	95	91	87	92	88	85	82	76	73	71	65	63	61	55	53	52	47
2	90	83	76	71	84	77	72	67	67	62	59	57	54	51	48	46	44	39
3	82	73	65	59	76	68	61	56	59	54	49	50	46	43	42	40	37	33
4	75	64	56	50	70	60	53	47	52	47	42	45	41	37	38	35	32	29
5	69	57	49	43	64	54	46	41	47	41	36	40	36	32	34	31	28	25
6	64	51	43	37	59	48	41	35	42	36	32	36	32	28	31	27	25	22
7	59	46	38	33	55	44	36	31	38	32	28	33	28	25	28	25	22	19
8	55	42	34	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	31	26	47	36	29	25	32	26	22	28	23	20	24	20	18	16
10	48	35	28	23	44	33	27	22	29	24	20	26	21	18	22	19	16	14

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	2.0
10°-20°	301.0	5.8
20°-30°	444.5	8.5
30°-40°	518.7	9.9
40°-50°	520.9	10.0
50°-60°	457.3	8.7
60°-70°	340.7	6.5
70°-80°	194.8	3.7
80°-90°	58.5	1.1
90°-100°	55.0	1.1
100°-110°	162.4	3.1
110°-120°	275.1	5.3
120°-130°	362.1	6.9
130°-140°	405.7	7.8
140°-150°	397.7	7.6
150°-160°	334.0	6.4
160°-170°	222.0	4.2
170°-180°	77.7	1.5
0°-30°	852.1	16.3
0°-40°	1370.8	26.2
0°-60°	2348.9	44.9
0°-90°	2942.9	56.2
90°-120°	492.6	9.4
90°-150°	1658.1	31.7
90°-180°	2292.0	43.8
0°-180°	5234.8	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	6	10	13	15	5
95°	42	43	49	54	55	44
105°	146	149	153	156	158	156
115°	276	278	279	279	278	272
125°	402	406	406	405	405	360
135°	523	526	527	527	525	403
145°	633	636	638	638	636	396
155°	725	725	726	728	725	334
165°	788	787	788	790	786	222
175°	819	817	817	820	816	78
180°	821	821	821	821	821	



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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	19.6	19.9	20.1	20.3	20.5	20.5	20.6	20.6	20.7	20.8
90°	0.6	1.8	2.9	4.0	5.2	6.3	7.2	8.3	9.2	10.2	10.9
92.5°	15.5	16.3	17.0	17.8	18.7	19.6	20.9	22.1	23.3	24.5	25.5
95°	41.6	41.8	42.1	42.4	42.7	43.6	44.9	46.4	47.8	49.2	50.2
97.5°	69.1	69.1	69.2	69.4	69.5	70.5	72.5	74.5	76.4	78.4	79.3
100°	89.5	89.5	89.5	89.5	89.5	90.4	92.2	94.1	95.9	97.8	99.1
102.5°	111.5	112.0	112.6	113.1	113.7	114.5	115.5	116.4	117.3	118.2	119.7
105°	145.8	146.5	147.1	147.8	148.6	149.4	150.2	151.0	151.9	152.7	153.6
107.5°	183.6	184.3	185.0	185.7	186.4	187.1	187.8	188.4	189.1	189.7	190.1
110°	209.7	210.3	211.0	211.8	212.5	213.0	213.4	213.9	214.3	214.7	215.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	236.3	236.6	236.9	237.4	237.7	238.2	238.7	239.3	239.8	240.3	240.6
115°	275.5	276.0	276.6	277.2	277.8	278.2	278.4	278.7	279.1	279.3	279.1
117.5°	314.9	315.1	315.4	315.6	315.9	316.2	316.4	316.7	316.9	317.2	317.3
120°	339.4	340.1	340.8	341.6	342.2	342.7	342.8	342.9	343.1	343.2	343.2
122.5°	366.0	366.3	366.5	366.8	367.0	367.3	367.6	368.1	368.4	368.8	368.7
125°	402.0	402.9	403.7	404.6	405.4	406.0	406.0	406.2	406.4	406.5	406.2
127.5°	440.4	440.8	441.3	441.9	442.3	442.6	442.8	443.0	443.2	443.3	443.2
130°	463.4	464.1	464.9	465.5	466.2	466.7	467.0	467.3	467.6	467.9	467.7
132.5°	486.4	487.6	488.7	489.9	491.0	491.6	491.5	491.5	491.5	491.4	491.3
135°	522.8	523.7	524.5	525.4	526.2	526.8	526.8	527.0	527.2	527.3	527.3
137.5°	557.1	557.9	558.7	559.6	560.4	560.9	561.3	561.5	561.9	562.2	562.4
140°	579.1	579.8	580.5	581.2	581.9	582.5	582.9	583.3	583.8	584.2	584.4
142.5°	601.1	601.7	602.3	602.9	603.5	604.0	604.6	605.1	605.6	606.1	606.3
145°	633.4	634.0	634.6	635.1	635.7	636.2	636.6	637.1	637.5	637.9	637.9
147.5°	663.3	663.7	663.9	664.3	664.6	664.9	665.2	665.6	665.9	666.2	666.6
150°	683.3	683.1	682.9	682.9	682.7	682.9	683.5	684.1	684.6	685.2	685.2
152.5°	699.6	699.8	700.0	700.3	700.4	700.6	700.9	701.1	701.3	701.5	701.9
155°	724.8	724.8	724.8	724.8	724.8	724.9	725.0	725.1	725.3	725.5	726.0
157.5°	747.3	747.0	746.7	746.4	746.1	746.0	746.1	746.2	746.4	746.6	747.1
160°	760.6	760.2	759.7	759.3	758.9	758.7	758.9	759.1	759.1	759.3	759.9
162.5°	772.4	772.1	771.7	771.5	771.1	770.9	771.0	771.0	771.0	771.1	771.8
165°	788.1	787.8	787.6	787.2	787.0	786.9	787.0	787.1	787.3	787.5	788.0
167.5°	801.4	800.8	800.2	799.7	799.1	798.8	798.8	798.8	798.8	798.8	799.7
170°	808.6	808.0	807.4	806.8	806.2	806.0	806.0	806.0	806.0	806.0	806.8
172.5°	813.6	813.0	812.5	811.9	811.4	811.1	811.1	811.1	811.1	811.1	811.9
175°	819.4	818.8	818.3	817.7	817.1	816.8	816.8	816.8	816.8	816.8	817.7
177.5°	822.3	821.9	821.4	821.0	820.5	820.3	820.1	820.0	819.9	819.8	820.4
180°	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3



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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°	20.9	21.1	21.2	21.2	20.9	20.7	20.5	20.2
90°	11.6	12.4	13.1	13.6	14.0	14.5	14.9	15.3
92.5°	26.4	27.4	28.3	28.9	29.3	29.5	29.9	30.1
95°	51.2	52.2	53.2	53.8	54.2	54.4	54.7	54.9
97.5°	80.2	81.2	82.1	82.7	82.8	83.0	83.2	83.3
100°	100.3	101.6	102.9	103.7	104.0	104.3	104.5	104.8
102.5°	121.1	122.4	123.8	124.7	125.1	125.5	125.9	126.3
105°	154.5	155.3	156.2	156.8	157.2	157.6	158.1	158.5
107.5°	190.5	191.0	191.4	191.6	191.6	191.6	191.5	191.5
110°	215.6	216.0	216.5	216.6	216.5	216.3	216.2	216.0



TEST NUMBER: P333411-935

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	240.7	240.9	241.1	241.1	240.8	240.6	240.3	240.0
115°	279.1	278.9	278.7	278.6	278.4	278.4	278.2	278.0
117.5°	317.4	317.5	317.6	317.4	316.8	316.2	315.6	315.1
120°	343.2	343.2	343.2	342.9	342.4	341.8	341.2	340.7
122.5°	368.6	368.4	368.3	368.1	367.6	367.1	366.7	366.3
125°	406.0	405.6	405.4	405.2	405.0	404.8	404.8	404.6
127.5°	443.1	442.9	442.7	442.6	442.3	442.0	441.7	441.4
130°	467.6	467.4	467.3	467.1	466.8	466.5	466.2	466.0
132.5°	491.1	490.9	490.9	490.5	490.2	489.7	489.4	489.0
135°	527.3	527.3	527.3	527.0	526.4	525.9	525.3	524.8
137.5°	562.6	562.7	562.9	562.6	561.9	561.2	560.5	559.7
140°	584.8	585.0	585.3	585.1	584.4	583.7	583.0	582.3
142.5°	606.5	606.7	606.8	606.6	605.9	605.2	604.4	603.7
145°	637.9	637.9	637.9	637.7	637.2	636.8	636.4	635.9
147.5°	666.9	667.3	667.6	667.3	666.3	665.4	664.4	663.5
150°	685.2	685.2	685.2	685.0	684.8	684.5	684.2	683.9
152.5°	702.2	702.6	702.9	702.8	702.3	701.8	701.3	700.8
155°	726.6	727.1	727.7	727.6	726.9	726.3	725.5	724.8
157.5°	747.7	748.2	748.8	748.6	747.7	746.7	745.8	744.9
160°	760.4	761.0	761.6	761.6	760.8	760.1	759.4	758.7
162.5°	772.5	773.1	773.8	773.8	772.9	772.1	771.3	770.4
165°	788.6	789.2	789.7	789.5	788.8	787.9	787.0	786.2
167.5°	800.6	801.4	802.2	802.2	801.3	800.5	799.6	798.7
170°	807.7	808.6	809.4	809.3	808.3	807.4	806.3	805.4
172.5°	812.8	813.6	814.5	814.5	813.6	812.7	811.8	811.0
175°	818.6	819.4	820.3	820.2	819.2	818.2	817.2	816.2
177.5°	821.1	821.8	822.5	822.4	821.7	820.9	820.1	819.2
180°	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3

(END OF REPORT)