

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: P332798-927

Luminaire Tested: **S124DIW-S795D1340U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332798-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S795D1340U927-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6388.0 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

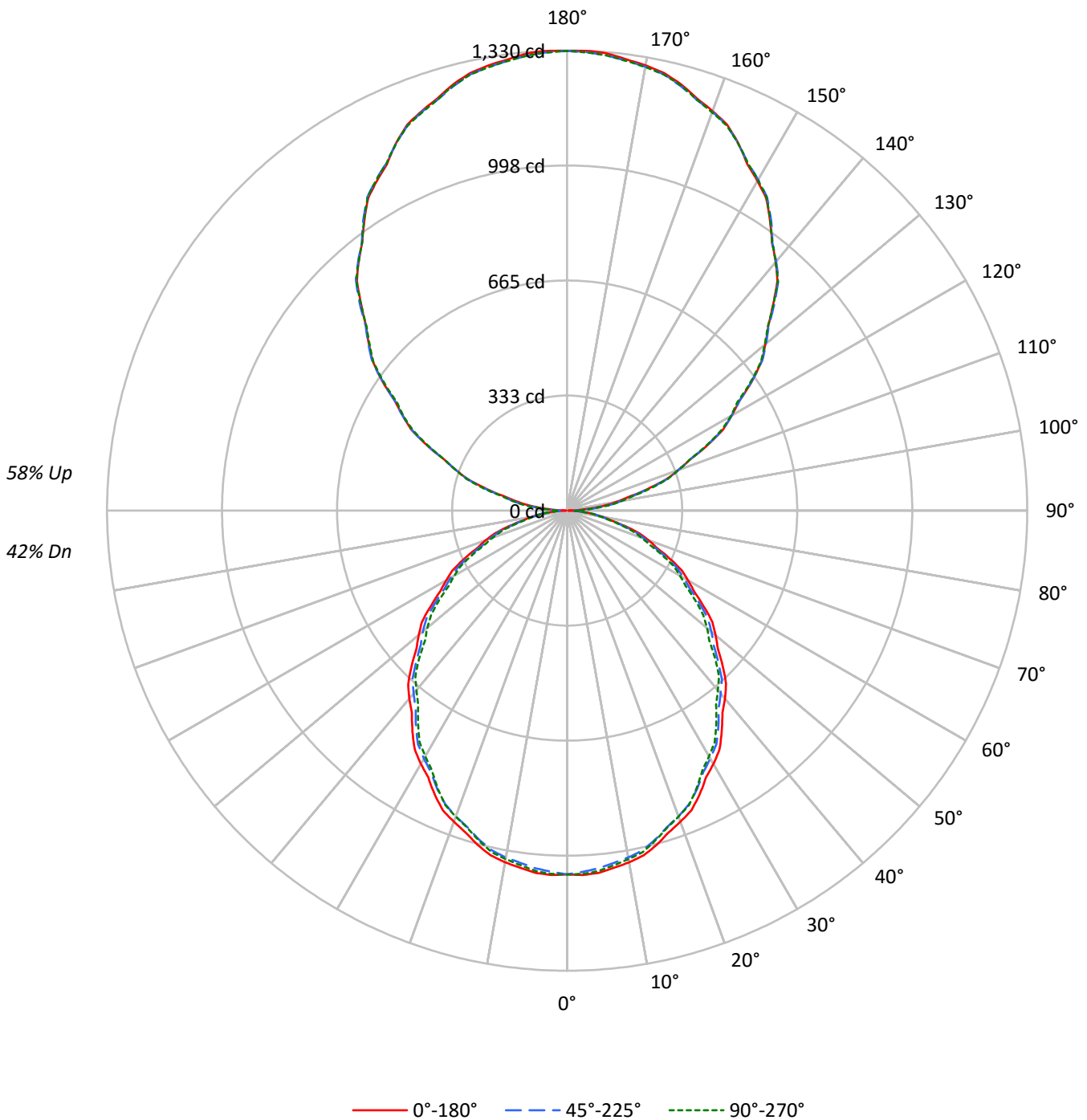
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42
1	96	92	88	84	88	84	81	78	69	67	65	56	54	53	43	42	41	36
2	87	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	34	31	30	25
4	73	62	54	48	66	57	50	45	47	42	38	38	35	32	30	28	25	22
5	67	55	47	41	61	51	44	39	42	37	33	35	31	28	27	24	22	19
6	62	50	42	36	56	46	39	33	38	33	29	31	27	24	25	22	20	16
7	57	45	37	31	52	41	34	29	35	29	25	28	24	21	22	20	17	15
8	53	41	33	28	48	37	31	26	31	26	22	26	22	19	21	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	27	21	18	22	18	15	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8490	8490	8490
5°	8515	8413	8474
10°	8461	8344	8385
15°	8359	8226	8247
20°	8223	8079	8086
25°	8068	7911	7888
30°	7879	7713	7643
35°	7681	7508	7407
40°	7477	7273	7140
45°	7263	7042	6907
50°	7027	6836	6625
55°	6773	6570	6356
60°	6516	6273	6082
65°	6229	5989	5746
70°	5908	5611	5391
75°	5415	5153	5022
80°	4816	4621	4505
85°	4215	4057	3974



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.0	1.6
10°-20°	279.0	4.4
20°-30°	410.7	6.4
30°-40°	477.4	7.5
40°-50°	477.5	7.5
50°-60°	417.6	6.5
60°-70°	310.2	4.9
70°-80°	176.2	2.8
80°-90°	54.8	0.9
90°-100°	87.6	1.4
100°-110°	259.5	4.1
110°-120°	440.5	6.9
120°-130°	580.9	9.1
130°-140°	652.4	10.2
140°-150°	641.1	10.0
150°-160°	539.2	8.4
160°-170°	358.7	5.6
170°-180°	125.6	2.0
0°-30°	788.7	12.3
0°-40°	1266.2	19.8
0°-60°	2161.3	33.8
0°-90°	2702.5	42.3
90°-120°	787.7	12.3
90°-150°	2662.0	41.7
90°-180°	3686.0	57.7
0°-180°	6388.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1052	1052	1052	1052	1052	
5°	1051	1047	1038	1047	1046	100
15°	1000	996	984	989	987	282
25°	906	900	888	889	886	417
35°	779	773	762	756	752	487
45°	636	630	617	608	605	490
55°	481	478	467	457	452	431
65°	326	322	314	305	301	323
75°	174	169	165	162	161	184
85°	46	45	44	44	43	50
90°	3	14	23	28	31	6
95°	62	71	78	81	81	69
105°	239	241	244	248	251	254
115°	448	448	446	445	444	442
125°	652	652	651	649	647	581
135°	841	847	848	845	842	651
145°	1022	1026	1027	1026	1023	639
155°	1171	1171	1170	1174	1170	539
165°	1275	1272	1270	1275	1272	359
175°	1326	1321	1320	1327	1320	126
180°	1328	1328	1328	1328	1328	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6
2.5°	1054.3	1053.8	1053.4	1053.0	1052.5	1051.5	1049.8	1048.1	1046.5	1044.9	1046.3
5°	1050.8	1050.0	1049.2	1048.5	1047.7	1046.3	1044.3	1042.2	1040.1	1038.1	1040.1
7.5°	1041.0	1040.2	1039.5	1038.7	1038.0	1036.5	1034.2	1031.9	1029.6	1027.3	1029.0
10°	1032.2	1031.5	1030.7	1030.0	1029.2	1027.6	1025.2	1022.8	1020.3	1017.9	1019.4
12.5°	1020.7	1020.0	1019.2	1018.5	1017.8	1016.1	1013.5	1010.9	1008.4	1005.8	1007.4
15°	1000.2	999.4	998.7	997.9	997.2	995.5	992.6	989.8	987.0	984.2	985.3
17.5°	975.4	974.5	973.5	972.6	971.7	969.9	967.3	964.6	961.9	959.3	960.0
20°	957.2	956.2	955.4	954.4	953.5	951.6	948.8	945.9	943.2	940.4	941.0
22.5°	937.7	936.4	935.2	934.0	932.7	930.7	927.9	925.1	922.3	919.5	920.5
25°	905.8	904.5	903.2	901.9	900.6	898.6	896.0	893.3	890.7	888.1	888.3
27.5°	869.4	868.1	866.7	865.4	864.0	862.1	859.7	857.3	854.8	852.4	851.9
30°	845.2	843.7	842.2	840.7	839.2	837.2	834.7	832.3	829.9	827.4	826.7
32.5°	819.5	818.2	816.8	815.5	814.1	812.1	809.6	807.0	804.5	801.8	801.0
35°	779.4	778.1	776.8	775.5	774.2	772.2	769.6	767.0	764.4	761.8	760.4
37.5°	737.1	735.9	734.7	733.6	732.3	730.3	727.5	724.7	721.9	719.1	717.6
40°	709.5	708.0	706.5	705.0	703.5	701.3	698.5	695.7	692.9	690.1	688.2
42.5°	679.9	678.9	678.0	677.2	676.2	674.2	671.1	668.0	664.9	661.8	659.7
45°	636.2	634.9	633.6	632.2	631.0	628.8	625.8	622.8	619.8	616.8	614.7
47.5°	590.5	589.6	588.7	587.8	586.9	585.1	582.3	579.6	576.8	574.0	571.6
50°	559.5	558.7	558.0	557.2	556.5	554.8	552.2	549.6	546.9	544.3	541.7
52.5°	529.2	528.3	527.4	526.5	525.5	523.7	520.9	518.2	515.4	512.6	510.3
55°	481.2	480.5	480.0	479.4	478.9	477.3	474.7	472.1	469.4	466.8	464.5
57.5°	435.3	434.7	434.0	433.4	432.8	431.1	428.6	426.0	423.4	420.8	418.7
60°	403.6	402.7	401.7	400.8	399.9	398.2	395.8	393.3	390.9	388.5	386.7
62.5°	372.6	371.9	371.1	370.3	369.5	367.8	365.2	362.6	360.0	357.4	355.9
65°	326.1	325.2	324.2	323.3	322.3	320.9	319.1	317.2	315.3	313.5	311.6
67.5°	279.2	278.4	277.5	276.6	275.8	274.5	272.7	270.8	269.1	267.3	265.5
70°	250.3	249.0	247.6	246.3	245.0	243.6	242.1	240.6	239.1	237.7	236.1
72.5°	219.3	217.9	216.7	215.3	214.0	212.8	211.6	210.3	209.1	207.9	206.8
75°	173.6	172.6	171.7	170.8	169.8	168.9	167.9	167.0	166.1	165.2	164.4
77.5°	129.9	129.5	129.1	128.7	128.3	127.7	126.8	126.0	125.2	124.4	124.1
80°	103.6	103.1	102.5	102.0	101.4	100.9	100.5	100.2	99.8	99.4	99.0
82.5°	78.0	77.8	77.5	77.2	77.0	76.8	76.8	76.7	76.6	76.5	76.3
85°	45.5	45.5	45.5	45.5	45.5	45.3	44.9	44.6	44.2	43.8	43.8
87.5°	18.1	18.5	18.9	19.2	19.6	19.8	20.0	20.3	20.5	20.7	21.0
90°	3.1	5.6	8.1	10.6	13.2	15.3	17.1	18.9	20.8	22.6	24.0
92.5°	22.0	24.9	27.7	30.6	33.5	35.6	36.8	38.1	39.4	40.7	41.5
95°	61.6	63.7	65.8	67.8	69.9	71.7	73.3	74.9	76.4	78.1	78.7
97.5°	107.7	109.3	111.0	112.6	114.2	116.0	117.9	119.8	121.6	123.5	124.3
100°	143.9	144.7	145.7	146.6	147.5	148.9	151.0	153.0	155.1	157.2	157.6
102.5°	181.6	182.0	182.4	182.8	183.1	184.2	186.1	188.0	189.8	191.7	192.3
105°	239.4	239.6	239.9	240.0	240.3	240.8	241.8	242.7	243.6	244.5	245.2
107.5°	300.0	300.2	300.6	300.8	301.1	301.3	301.4	301.6	301.7	301.8	302.5
110°	341.1	341.5	342.0	342.5	342.9	343.0	342.8	342.5	342.4	342.1	341.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	383.8	383.9	384.0	384.1	384.2	384.0	383.7	383.2	382.8	382.4	382.3
115°	447.9	447.9	447.9	447.9	447.9	447.7	447.3	446.8	446.3	445.8	445.7
117.5°	508.3	508.5	508.7	508.9	509.1	509.0	508.7	508.3	508.0	507.7	506.9
120°	548.6	549.5	550.4	551.4	552.2	552.4	551.7	551.0	550.3	549.6	548.5
122.5°	590.5	590.9	591.3	591.6	592.0	592.0	591.7	591.4	591.0	590.7	589.9
125°	652.4	652.4	652.4	652.4	652.4	652.3	652.0	651.8	651.6	651.3	650.9
127.5°	708.4	709.2	709.9	710.5	711.2	711.4	711.0	710.7	710.3	709.9	709.5
130°	747.9	748.6	749.3	750.0	750.7	751.0	751.0	751.0	751.0	751.0	750.5
132.5°	788.2	788.7	789.2	789.7	790.2	790.4	790.2	790.0	789.8	789.6	789.2
135°	841.4	842.8	844.1	845.5	846.9	847.6	847.6	847.6	847.6	847.6	847.2
137.5°	899.4	900.0	900.6	901.3	901.9	902.5	902.8	903.2	903.5	903.9	903.2
140°	938.0	938.4	938.9	939.4	939.8	940.0	940.0	940.0	940.0	940.0	939.8
142.5°	973.4	973.8	974.2	974.7	975.2	975.3	975.1	974.9	974.8	974.5	974.5
145°	1022.2	1023.2	1024.1	1025.0	1025.9	1026.4	1026.7	1026.9	1027.1	1027.4	1027.1
147.5°	1070.7	1071.8	1072.9	1074.0	1075.1	1075.5	1075.4	1075.2	1075.0	1074.8	1074.7
150°	1100.3	1101.2	1102.2	1103.0	1104.0	1104.4	1104.4	1104.4	1104.4	1104.4	1104.4
152.5°	1128.2	1128.8	1129.3	1129.9	1130.4	1130.8	1131.0	1131.2	1131.4	1131.6	1132.1
155°	1171.2	1171.2	1171.2	1171.2	1171.2	1171.1	1170.8	1170.6	1170.4	1170.2	1171.1
157.5°	1207.4	1207.0	1206.6	1206.1	1205.7	1205.5	1205.5	1205.4	1205.4	1205.3	1206.0
160°	1228.8	1228.5	1228.3	1228.0	1227.8	1227.6	1227.3	1227.2	1226.9	1226.7	1227.3
162.5°	1248.5	1247.8	1247.3	1246.7	1246.1	1245.7	1245.5	1245.2	1245.0	1244.8	1246.0
165°	1274.9	1274.3	1273.6	1272.9	1272.2	1271.7	1271.2	1270.7	1270.3	1269.8	1271.2
167.5°	1295.3	1294.3	1293.4	1292.4	1291.5	1291.0	1291.1	1291.1	1291.2	1291.2	1292.6
170°	1306.8	1305.7	1304.6	1303.4	1302.3	1301.8	1302.0	1302.3	1302.5	1302.7	1304.1
172.5°	1315.0	1314.1	1313.1	1312.2	1311.2	1310.7	1310.8	1310.8	1310.9	1310.9	1312.5
175°	1326.4	1325.2	1324.1	1322.9	1321.8	1321.0	1320.9	1320.6	1320.4	1320.2	1321.8
177.5°	1330.0	1329.1	1328.2	1327.3	1326.4	1326.0	1326.0	1326.0	1326.0	1326.0	1327.2
180°	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6	1051.6
2.5°	1047.8	1049.3	1050.8	1051.5	1051.4	1051.2	1051.1	1050.9
5°	1042.2	1044.3	1046.3	1047.2	1046.8	1046.5	1046.1	1045.7
7.5°	1030.6	1032.3	1033.9	1034.6	1034.4	1034.2	1034.0	1033.7
10°	1020.9	1022.4	1023.9	1024.5	1024.1	1023.7	1023.3	1022.9
12.5°	1009.1	1010.7	1012.3	1012.9	1012.4	1011.9	1011.3	1010.8
15°	986.4	987.5	988.6	989.0	988.4	987.9	987.3	986.7
17.5°	960.7	961.4	962.1	962.3	961.9	961.5	961.2	960.8
20°	941.5	942.1	942.6	942.7	942.3	942.0	941.6	941.2
22.5°	921.5	922.5	923.5	923.7	923.0	922.3	921.6	921.0
25°	888.5	888.7	888.9	888.6	887.9	887.1	886.4	885.6
27.5°	851.5	851.0	850.6	849.9	849.0	848.0	847.1	846.1
30°	825.9	825.2	824.4	823.6	822.7	821.7	820.8	819.9
32.5°	800.0	799.2	798.3	797.3	796.4	795.4	794.5	793.6
35°	759.1	757.8	756.5	755.3	754.4	753.5	752.6	751.6
37.5°	716.2	714.8	713.4	712.1	710.8	709.6	708.4	707.1
40°	686.3	684.5	682.6	681.2	680.2	679.4	678.4	677.5
42.5°	657.4	655.3	653.1	651.7	651.1	650.5	649.8	649.2
45°	612.7	610.6	608.6	607.3	606.7	606.1	605.5	605.0
47.5°	569.3	567.0	564.7	562.8	561.4	560.0	558.6	557.1
50°	539.1	536.5	533.9	532.0	530.8	529.7	528.6	527.5
52.5°	508.0	505.6	503.4	501.5	500.1	498.7	497.3	495.8
55°	462.3	460.1	457.8	456.1	455.0	453.9	452.7	451.6
57.5°	416.5	414.4	412.3	410.7	409.6	408.4	407.4	406.3
60°	385.1	383.4	381.7	380.4	379.5	378.5	377.6	376.7
62.5°	354.3	352.8	351.3	350.1	349.1	348.2	347.3	346.3
65°	309.7	307.8	305.9	304.6	303.6	302.7	301.7	300.8
67.5°	263.7	261.9	260.1	259.0	258.8	258.6	258.3	258.0
70°	234.6	233.1	231.6	230.6	230.0	229.5	228.9	228.4
72.5°	205.6	204.4	203.2	202.3	201.7	201.1	200.6	200.0
75°	163.7	162.9	162.2	161.7	161.5	161.3	161.1	161.0
77.5°	123.9	123.7	123.5	123.1	122.6	122.2	121.7	121.2
80°	98.7	98.3	97.9	97.7	97.4	97.3	97.1	96.9
82.5°	76.0	75.8	75.6	75.4	75.3	75.0	74.9	74.6
85°	43.8	43.8	43.8	43.7	43.6	43.3	43.2	42.9
87.5°	21.2	21.5	21.8	21.9	22.1	22.2	22.3	22.3
90°	25.3	26.7	28.0	29.0	29.5	29.9	30.3	30.8
92.5°	42.3	43.2	44.0	44.5	44.8	45.1	45.3	45.6
95°	79.5	80.2	80.8	81.2	81.2	81.2	81.2	81.2
97.5°	125.2	126.0	126.7	127.2	127.2	127.2	127.2	127.2
100°	158.1	158.6	159.0	159.2	159.2	159.2	159.2	159.2
102.5°	193.0	193.6	194.2	194.6	194.9	195.0	195.2	195.4
105°	245.9	246.6	247.2	248.0	248.6	249.3	250.0	250.6
107.5°	303.1	303.7	304.4	304.7	304.7	304.6	304.6	304.5
110°	341.2	340.7	340.3	340.4	341.1	341.7	342.5	343.2



TEST NUMBER: P332798-927

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	382.2	382.1	382.0	382.1	382.1	382.3	382.5	382.6
115°	445.4	445.2	445.0	444.7	444.5	444.3	444.0	443.9
117.5°	506.2	505.4	504.6	504.0	503.5	503.1	502.6	502.2
120°	547.4	546.2	545.1	544.7	545.2	545.7	546.1	546.5
122.5°	589.1	588.4	587.6	586.8	586.0	585.2	584.4	583.5
125°	650.5	650.0	649.5	649.0	648.6	648.2	647.7	647.2
127.5°	709.0	708.5	708.1	707.7	707.3	706.9	706.5	706.2
130°	750.1	749.6	749.2	748.5	747.6	746.6	745.8	744.8
132.5°	788.7	788.3	787.8	787.4	787.0	786.6	786.3	785.9
135°	846.7	846.2	845.7	845.2	844.5	843.8	843.1	842.4
137.5°	902.7	902.1	901.5	901.3	901.4	901.6	901.7	901.8
140°	939.6	939.4	939.1	938.9	938.7	938.4	938.2	938.0
142.5°	974.5	974.5	974.4	974.3	974.3	974.2	974.2	974.1
145°	1026.9	1026.7	1026.4	1026.0	1025.3	1024.6	1024.0	1023.3
147.5°	1074.4	1074.3	1074.1	1073.9	1073.6	1073.4	1073.2	1073.0
150°	1104.4	1104.4	1104.4	1104.3	1104.1	1103.8	1103.6	1103.4
152.5°	1132.7	1133.2	1133.8	1133.7	1133.1	1132.5	1131.9	1131.3
155°	1172.0	1172.9	1173.9	1173.9	1172.9	1172.0	1171.1	1170.2
157.5°	1206.7	1207.4	1208.1	1208.0	1207.2	1206.4	1205.7	1204.9
160°	1228.0	1228.8	1229.4	1229.2	1228.0	1226.9	1225.7	1224.6
162.5°	1247.2	1248.5	1249.7	1249.7	1248.6	1247.4	1246.3	1245.2
165°	1272.6	1273.9	1275.3	1275.6	1274.6	1273.7	1272.8	1271.8
167.5°	1294.0	1295.3	1296.6	1296.6	1295.2	1293.8	1292.4	1291.0
170°	1305.4	1306.8	1308.2	1308.1	1306.5	1304.9	1303.3	1301.7
172.5°	1314.0	1315.6	1317.2	1317.1	1315.5	1313.9	1312.3	1310.7
175°	1323.3	1324.9	1326.6	1326.6	1324.9	1323.3	1321.8	1320.2
177.5°	1328.5	1329.8	1331.0	1330.9	1329.5	1328.0	1326.6	1325.1
180°	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4	1328.4

(END OF REPORT)