

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: P332532-935

Luminaire Tested: **SA4XXDIP-C350D1205U935-4F0-1E-UDD-F**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332532-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C350D1205U935-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 350 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5446.6 lumens
Efficiency: N/A
Efficacy: 129.1 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: Semi-Indirect

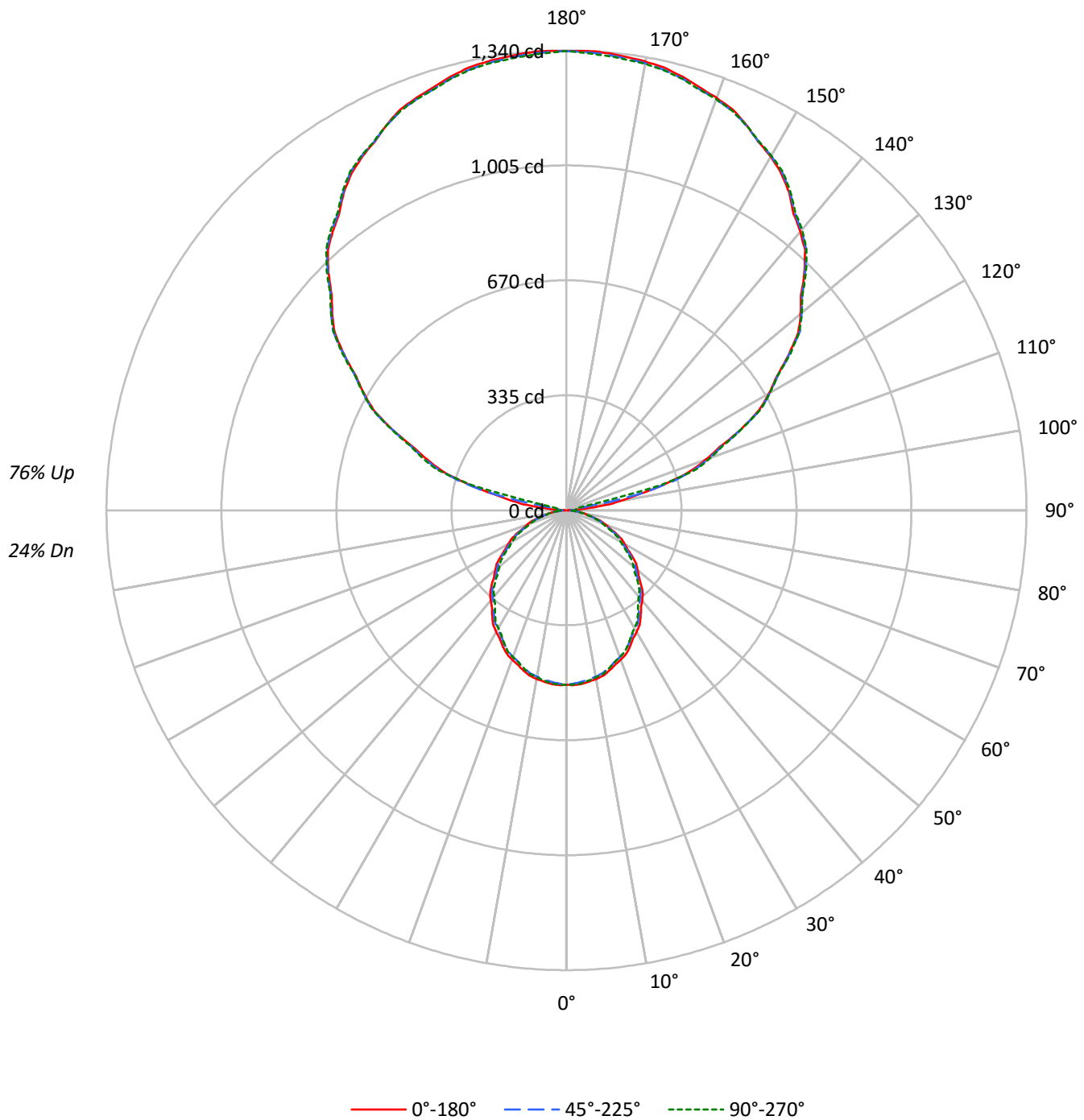
Input Watts (W): 42.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	101	101	101	101	90	90	90	90	69	69	69	50	50	50	32	32	32	24
1	92	88	84	81	82	78	75	72	60	58	56	44	42	41	28	28	27	20
2	84	77	71	66	74	68	63	59	53	49	46	38	36	34	25	24	23	17
3	76	67	60	55	68	60	54	49	46	42	39	34	31	29	22	21	19	14
4	70	59	52	46	62	53	47	42	41	37	33	30	27	25	20	18	17	12
5	64	53	45	39	56	47	41	36	37	32	28	27	24	21	18	16	14	11
6	59	47	39	34	52	42	36	31	33	28	25	24	21	19	16	14	13	9
7	54	42	35	29	48	38	31	27	30	25	22	22	19	16	15	13	11	8
8	50	38	31	26	44	34	28	23	27	22	19	20	17	14	13	11	10	7
9	46	35	28	23	41	31	25	21	25	20	17	18	15	13	12	10	9	7
10	43	32	25	20	38	29	23	18	23	18	15	17	14	12	11	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4106	4106	4106
5°	4118	4068	4099
10°	4092	4036	4055
15°	4043	3978	3989
20°	3978	3907	3911
25°	3902	3827	3815
30°	3811	3731	3697
35°	3714	3631	3582
40°	3616	3518	3453
45°	3513	3406	3342
50°	3399	3307	3204
55°	3275	3178	3074
60°	3152	3034	2942
65°	3012	2896	2779
70°	2858	2712	2608
75°	2617	2492	2427
80°	2329	2236	2176
85°	2038	1964	1927

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.9	0.9
10°-20°	135.0	2.5
20°-30°	198.6	3.6
30°-40°	230.9	4.2
40°-50°	230.9	4.2
50°-60°	202.0	3.7
60°-70°	150.0	2.8
70°-80°	85.2	1.6
80°-90°	28.5	0.5
90°-100°	45.8	0.8
100°-110°	291.7	5.4
110°-120°	558.0	10.2
120°-130°	708.4	13.0
130°-140°	757.9	13.9
140°-150°	708.7	13.0
150°-160°	571.5	10.5
160°-170°	368.6	6.8
170°-180°	127.0	2.3
0°-30°	381.5	7.0
0°-40°	612.4	11.2
0°-60°	1045.3	19.2
0°-90°	1309.0	24.0
90°-120°	895.4	16.4
90°-150°	3070.4	56.4
90°-180°	4138.0	76.0
0°-180°	5446.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	509	509	509	509	509	
5°	508	506	502	506	506	48
15°	484	482	476	478	477	136
25°	438	435	430	430	428	201
35°	377	374	368	366	364	236
45°	308	305	298	294	293	237
55°	233	231	226	221	218	208
65°	158	156	152	148	146	156
75°	84	82	80	78	78	89
85°	22	22	21	21	21	24
90°	3	14	22	28	30	4
95°	55	23	22	28	29	71
105°	301	307	312	319	285	315
115°	562	565	564	566	566	553
125°	790	794	792	795	796	705
135°	980	980	983	985	987	755
145°	1130	1133	1134	1135	1136	706
155°	1240	1240	1238	1241	1238	571
165°	1308	1303	1303	1310	1302	369
175°	1338	1332	1333	1340	1330	127
180°	1338	1338	1338	1338	1338	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	508.6	508.6	508.6	508.6	508.6	508.6	508.6	508.6	508.6	508.6	508.6
2.5°	509.9	509.7	509.5	509.3	509.0	508.5	507.7	507.0	506.2	505.3	506.1
5°	508.2	507.8	507.5	507.1	506.8	506.1	505.1	504.1	503.1	502.0	503.1
7.5°	503.5	503.1	502.7	502.4	502.0	501.3	500.2	499.1	498.0	496.9	497.7
10°	499.2	498.9	498.5	498.2	497.8	497.1	495.8	494.6	493.5	492.3	493.0
12.5°	493.7	493.4	493.0	492.6	492.2	491.5	490.2	489.0	487.7	486.5	487.2
15°	483.7	483.4	483.0	482.7	482.3	481.5	480.1	478.7	477.3	476.0	476.6
17.5°	471.7	471.3	470.9	470.5	469.9	469.1	467.8	466.5	465.2	463.9	464.3
20°	463.0	462.5	462.1	461.6	461.2	460.3	458.9	457.5	456.2	454.8	455.1
22.5°	453.5	452.9	452.3	451.7	451.1	450.1	448.8	447.5	446.1	444.7	445.2
25°	438.1	437.5	436.9	436.2	435.6	434.6	433.3	432.0	430.8	429.6	429.6
27.5°	420.5	419.8	419.2	418.5	417.9	417.0	415.8	414.7	413.5	412.2	412.1
30°	408.8	408.0	407.3	406.6	405.9	404.9	403.7	402.5	401.4	400.2	399.8
32.5°	396.4	395.7	395.0	394.4	393.7	392.8	391.6	390.3	389.1	387.8	387.4
35°	376.9	376.3	375.7	375.1	374.4	373.5	372.2	370.9	369.7	368.4	367.8
37.5°	356.5	355.9	355.3	354.8	354.2	353.3	351.9	350.5	349.1	347.8	347.1
40°	343.1	342.4	341.7	341.0	340.3	339.2	337.9	336.5	335.1	333.8	332.9
42.5°	328.8	328.4	328.0	327.5	327.1	326.1	324.6	323.0	321.6	320.1	319.0
45°	307.7	307.0	306.4	305.8	305.1	304.1	302.6	301.2	299.8	298.3	297.3
47.5°	285.6	285.2	284.7	284.3	283.9	283.0	281.6	280.3	279.0	277.6	276.5
50°	270.6	270.3	269.9	269.5	269.1	268.4	267.1	265.8	264.5	263.3	262.0
52.5°	256.0	255.5	255.0	254.6	254.2	253.3	251.9	250.6	249.3	248.0	246.8
55°	232.7	232.5	232.1	231.9	231.6	230.8	229.5	228.3	227.0	225.8	224.7
57.5°	210.5	210.3	209.9	209.7	209.3	208.5	207.2	206.0	204.7	203.5	202.5
60°	195.2	194.8	194.3	193.8	193.4	192.6	191.4	190.2	189.1	187.9	187.1
62.5°	180.2	179.9	179.4	179.1	178.7	177.9	176.6	175.4	174.1	172.9	172.1
65°	157.7	157.3	156.8	156.4	155.9	155.2	154.3	153.4	152.5	151.6	150.7
67.5°	135.1	134.7	134.2	133.8	133.4	132.8	131.9	131.0	130.2	129.2	128.4
70°	121.1	120.4	119.8	119.2	118.5	117.8	117.1	116.4	115.6	114.9	114.2
72.5°	106.1	105.4	104.8	104.2	103.5	102.9	102.3	101.8	101.2	100.6	100.0
75°	83.9	83.5	83.1	82.6	82.1	81.7	81.3	80.8	80.3	79.9	79.6
77.5°	62.9	62.7	62.4	62.3	62.1	61.7	61.4	61.0	60.5	60.2	60.0
80°	50.1	49.9	49.6	49.3	49.1	48.8	48.6	48.5	48.3	48.1	47.9
82.5°	37.7	37.6	37.5	37.4	37.2	37.1	37.1	37.1	37.0	37.0	36.9
85°	22.0	22.0	22.0	22.0	22.0	22.0	21.7	21.5	21.4	21.2	21.2
87.5°	9.0	9.5	9.9	10.3	10.8	11.1	11.4	11.6	12.0	12.2	12.5
90°	3.0	5.4	7.9	10.3	12.7	14.9	16.7	18.4	20.2	22.0	23.3
92.5°	12.6	12.7	12.9	13.0	13.2	14.1	15.8	17.7	19.5	21.2	22.6
95°	55.0	47.4	39.9	32.4	24.8	21.1	21.4	21.5	21.8	22.0	23.3
97.5°	116.8	121.6	126.3	131.0	135.7	125.6	100.8	76.0	51.2	26.4	26.5
100°	164.1	168.1	172.1	176.1	180.1	166.8	136.0	105.4	74.7	44.0	40.2
102.5°	216.9	219.8	222.7	225.7	228.6	228.1	224.1	220.1	216.1	212.1	171.3
105°	301.1	302.5	303.8	305.1	306.4	307.7	308.8	309.9	311.0	312.1	314.2
107.5°	379.4	380.0	380.7	381.3	382.0	383.1	384.6	386.2	387.6	389.2	390.1
110°	432.2	432.8	433.5	434.2	434.9	435.8	437.2	438.5	439.9	441.2	441.6

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	483.5	484.7	485.8	487.0	488.2	489.1	489.7	490.3	491.0	491.6	491.5
115°	562.2	562.9	563.6	564.2	564.9	565.2	564.9	564.7	564.5	564.2	564.7
117.5°	633.3	634.1	635.1	635.9	636.8	637.5	638.0	638.5	639.0	639.5	639.4
120°	681.3	682.2	683.1	684.0	684.8	685.2	685.0	684.8	684.5	684.3	684.8
122.5°	726.1	726.7	727.2	727.7	728.2	728.7	729.0	729.3	729.6	730.0	730.2
125°	790.3	791.3	792.1	793.0	793.9	794.1	793.7	793.2	792.8	792.4	793.0
127.5°	851.2	851.4	851.6	851.9	852.0	852.6	853.7	854.7	855.7	856.8	856.6
130°	890.4	890.6	890.9	891.0	891.3	891.7	892.4	893.0	893.7	894.4	894.6
132.5°	926.4	926.8	927.2	927.6	928.0	928.7	929.4	930.3	931.2	932.0	932.2
135°	980.4	980.2	980.0	979.7	979.6	979.9	980.8	981.6	982.6	983.4	983.9
137.5°	1028.3	1028.4	1028.5	1028.6	1028.6	1029.2	1030.1	1031.1	1032.1	1033.0	1033.5
140°	1059.5	1059.9	1060.3	1060.8	1061.3	1061.7	1062.1	1062.6	1063.0	1063.5	1064.1
142.5°	1087.4	1088.3	1089.1	1089.9	1090.7	1091.2	1091.5	1091.7	1092.0	1092.3	1092.8
145°	1130.5	1131.2	1131.9	1132.5	1133.2	1133.5	1133.5	1133.5	1133.5	1133.5	1133.8
147.5°	1164.7	1166.0	1167.2	1168.5	1169.7	1170.2	1170.0	1169.8	1169.5	1169.3	1169.5
150°	1189.6	1190.4	1191.3	1192.2	1193.1	1193.4	1193.2	1193.0	1192.7	1192.5	1192.5
152.5°	1210.3	1211.1	1211.8	1212.5	1213.1	1213.3	1213.0	1212.5	1212.1	1211.8	1212.1
155°	1239.6	1239.8	1240.0	1240.2	1240.4	1240.2	1239.6	1238.9	1238.2	1237.5	1238.5
157.5°	1264.1	1264.0	1263.9	1263.8	1263.6	1263.2	1262.4	1261.7	1260.9	1260.2	1261.3
160°	1278.6	1277.9	1277.2	1276.6	1275.9	1275.5	1275.2	1275.0	1274.8	1274.5	1275.9
162.5°	1291.3	1290.6	1289.7	1288.8	1288.0	1287.5	1287.2	1287.0	1286.8	1286.6	1287.9
165°	1307.6	1306.5	1305.4	1304.2	1303.1	1302.6	1302.6	1302.6	1302.6	1302.6	1304.3
167.5°	1320.3	1319.2	1318.1	1316.9	1315.8	1315.1	1315.0	1314.8	1314.7	1314.6	1316.6
170°	1327.6	1326.3	1324.9	1323.6	1322.2	1321.7	1321.9	1322.2	1322.3	1322.6	1324.4
172.5°	1332.4	1331.0	1329.7	1328.4	1327.1	1326.5	1326.7	1327.0	1327.1	1327.4	1329.1
175°	1337.6	1336.3	1334.9	1333.6	1332.2	1331.7	1331.9	1332.1	1332.4	1332.6	1334.6
177.5°	1340.0	1338.8	1337.5	1336.3	1335.0	1334.6	1334.9	1335.2	1335.7	1336.0	1337.4
180°	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	508.6	508.6	508.6	508.6	508.6	508.6	508.6	508.6
2.5°	506.8	507.6	508.2	508.6	508.5	508.4	508.3	508.2
5°	504.1	505.1	506.1	506.4	506.3	506.1	505.9	505.8
7.5°	498.4	499.3	500.1	500.4	500.3	500.2	500.1	500.0
10°	493.8	494.5	495.2	495.5	495.3	495.1	494.9	494.7
12.5°	488.0	488.8	489.7	489.9	489.7	489.4	489.1	488.9
15°	477.1	477.6	478.2	478.3	478.0	477.8	477.5	477.3
17.5°	464.6	464.9	465.3	465.4	465.2	465.0	464.9	464.7
20°	455.4	455.6	455.9	456.0	455.7	455.6	455.4	455.2
22.5°	445.7	446.2	446.7	446.8	446.4	446.1	445.7	445.5
25°	429.7	429.8	429.9	429.8	429.4	429.0	428.7	428.3
27.5°	411.8	411.6	411.4	411.0	410.6	410.2	409.7	409.2
30°	399.5	399.2	398.7	398.4	397.9	397.4	397.0	396.6
32.5°	386.9	386.5	386.1	385.6	385.2	384.7	384.3	383.8
35°	367.1	366.5	365.8	365.3	364.9	364.5	363.9	363.5
37.5°	346.4	345.7	345.0	344.4	343.8	343.2	342.6	342.0
40°	332.0	331.1	330.2	329.5	329.0	328.6	328.1	327.7
42.5°	318.0	316.9	315.9	315.2	314.9	314.6	314.3	314.0
45°	296.4	295.3	294.4	293.7	293.4	293.2	292.9	292.7
47.5°	275.3	274.2	273.1	272.2	271.6	270.9	270.2	269.5
50°	260.7	259.5	258.2	257.3	256.8	256.2	255.6	255.1
52.5°	245.7	244.6	243.5	242.5	241.9	241.2	240.5	239.8
55°	223.6	222.5	221.4	220.6	220.1	219.6	219.0	218.4
57.5°	201.5	200.4	199.4	198.6	198.1	197.6	197.1	196.5
60°	186.2	185.5	184.6	184.0	183.6	183.0	182.6	182.2
62.5°	171.4	170.7	169.9	169.3	168.8	168.4	168.0	167.5
65°	149.8	148.9	148.0	147.3	146.9	146.4	145.9	145.5
67.5°	127.5	126.7	125.8	125.3	125.2	125.0	124.9	124.8
70°	113.5	112.8	112.0	111.5	111.2	111.0	110.7	110.5
72.5°	99.4	98.8	98.2	97.8	97.6	97.3	97.0	96.8
75°	79.1	78.8	78.4	78.2	78.1	78.0	77.9	77.8
77.5°	59.9	59.8	59.8	59.6	59.3	59.1	58.8	58.6
80°	47.7	47.5	47.4	47.3	47.1	47.0	46.9	46.8
82.5°	36.8	36.7	36.6	36.5	36.4	36.2	36.2	36.1
85°	21.2	21.2	21.2	21.2	21.1	21.0	20.8	20.8
87.5°	12.7	13.0	13.3	13.4	13.5	13.7	13.8	13.9
90°	24.7	26.0	27.4	28.2	28.7	29.1	29.5	30.0
92.5°	23.8	25.2	26.5	27.3	27.4	27.5	27.6	27.6
95°	24.7	26.0	27.4	28.2	28.3	28.6	28.8	29.0
97.5°	26.7	26.8	26.9	27.1	27.4	27.6	27.8	28.0
100°	36.4	32.7	28.9	27.1	27.4	27.6	27.8	28.0
102.5°	130.5	89.8	49.0	28.7	28.7	28.8	28.8	28.8
105°	316.2	318.1	320.1	317.1	309.1	301.1	293.2	285.2
107.5°	391.2	392.1	393.0	394.0	394.9	395.7	396.5	397.4
110°	442.1	442.6	443.0	443.5	444.2	444.9	445.6	446.2

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	491.5	491.4	491.3	491.6	492.5	493.4	494.2	495.0
115°	565.2	565.6	566.0	566.3	566.3	566.3	566.3	566.3
117.5°	639.3	639.2	639.1	639.0	638.9	638.9	638.8	638.7
120°	685.2	685.6	686.0	686.0	685.6	685.2	684.8	684.3
122.5°	730.5	730.7	731.0	730.9	730.5	730.0	729.5	729.1
125°	793.7	794.4	795.0	795.5	795.7	795.9	796.2	796.3
127.5°	856.5	856.4	856.3	856.1	855.9	855.7	855.6	855.4
130°	894.8	895.1	895.3	895.4	895.4	895.4	895.4	895.4
132.5°	932.5	932.7	932.9	932.9	932.7	932.5	932.4	932.2
135°	984.3	984.7	985.2	985.7	986.1	986.5	987.0	987.4
137.5°	1034.1	1034.5	1035.0	1035.2	1035.1	1034.9	1034.7	1034.7
140°	1064.8	1065.5	1066.2	1066.6	1066.8	1067.0	1067.2	1067.5
142.5°	1093.3	1093.7	1094.2	1094.5	1094.6	1094.6	1094.7	1094.7
145°	1133.9	1134.2	1134.4	1134.7	1135.1	1135.6	1136.1	1136.5
147.5°	1169.7	1169.8	1170.0	1170.2	1170.4	1170.7	1170.9	1171.1
150°	1192.5	1192.5	1192.5	1192.7	1192.8	1193.1	1193.3	1193.5
152.5°	1212.5	1212.8	1213.1	1213.2	1213.1	1213.0	1212.9	1212.7
155°	1239.3	1240.2	1241.1	1241.2	1240.5	1239.8	1239.2	1238.5
157.5°	1262.5	1263.6	1264.8	1264.8	1263.6	1262.5	1261.3	1260.2
160°	1277.2	1278.6	1279.9	1279.9	1278.6	1277.2	1275.9	1274.5
162.5°	1289.3	1290.6	1291.9	1291.8	1290.3	1288.8	1287.3	1285.7
165°	1306.1	1307.9	1309.7	1309.6	1307.6	1305.5	1303.6	1301.6
167.5°	1318.5	1320.4	1322.4	1322.2	1320.1	1317.8	1315.6	1313.4
170°	1326.1	1327.9	1329.7	1329.5	1327.2	1325.0	1322.8	1320.6
172.5°	1330.9	1332.7	1334.5	1334.2	1331.8	1329.4	1327.0	1324.6
175°	1336.6	1338.6	1340.6	1340.2	1337.6	1334.9	1332.2	1329.6
177.5°	1338.9	1340.2	1341.7	1341.4	1339.2	1337.0	1334.9	1332.8
180°	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6

(END OF REPORT)