

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: P332041-935

Luminaire Tested: **S123DIP-S1000D1195U935-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332041-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D1195U935-4F0-1E-UDD-D4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1195 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7336.8 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

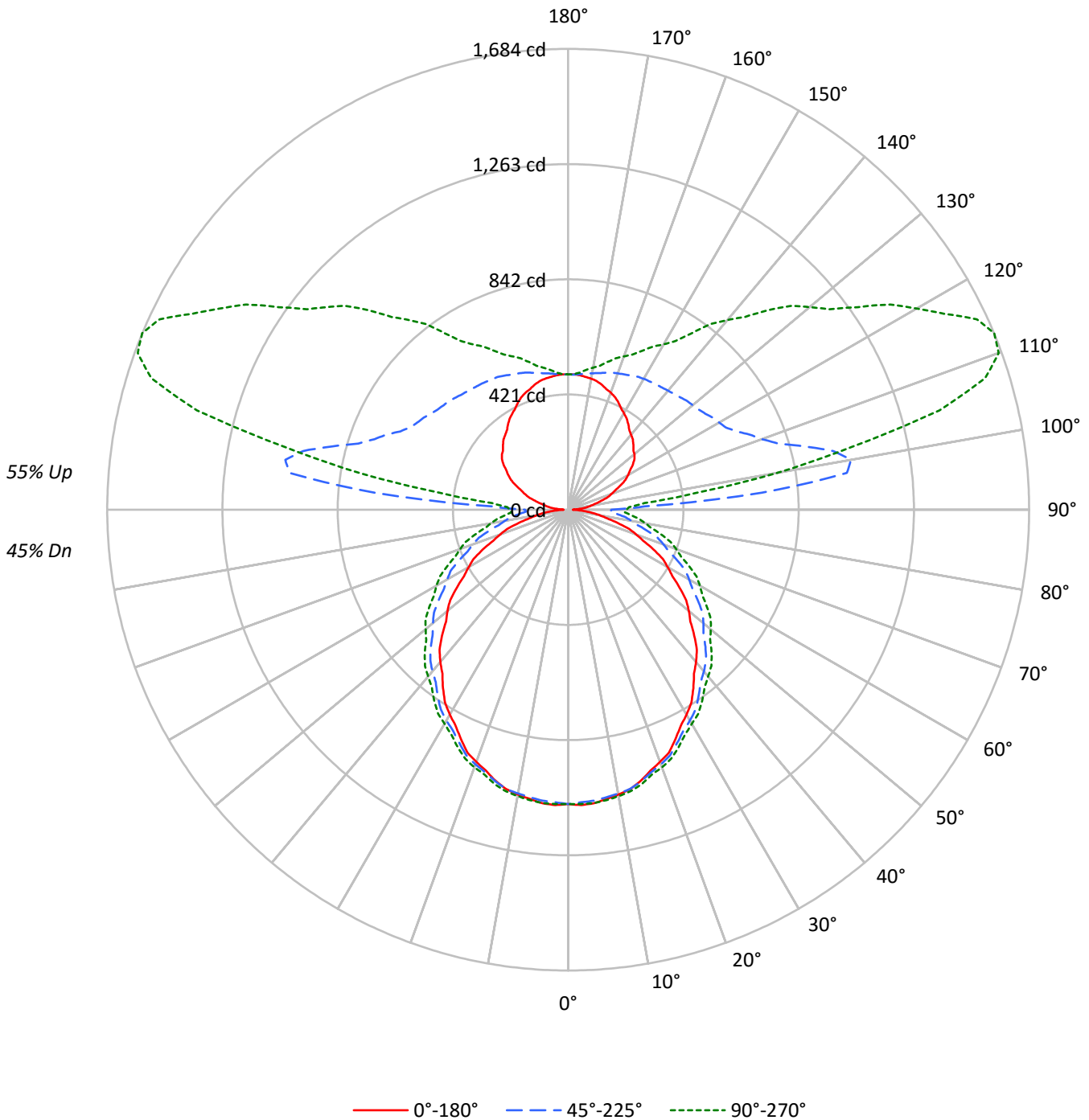
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45
1	96	91	87	83	87	83	80	77	69	67	64	56	54	53	44	43	42	36
2	87	79	72	67	79	72	67	62	60	56	52	49	46	43	38	36	34	29
3	79	69	61	55	72	63	57	51	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	40	60	50	42	37	42	36	32	34	30	26	27	24	21	18
6	61	48	40	34	55	45	37	32	37	32	27	31	26	23	24	21	19	16
7	56	44	35	30	51	40	33	28	34	28	24	28	23	20	22	19	16	14
8	52	39	32	26	47	36	29	25	31	25	21	25	21	18	20	17	15	12
9	48	36	28	23	44	33	26	22	28	23	19	23	19	16	19	16	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	14	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11579	11579	11579
5°	11615	11288	11294
10°	11511	11028	10973
15°	11363	10732	10622
20°	11151	10395	10235
25°	10888	10007	9829
30°	10621	9658	9417
35°	10321	9289	9089
40°	10033	8953	8737
45°	9715	8630	8455
50°	9402	8312	8146
55°	9056	7985	7866
60°	8718	7655	7580
65°	8372	7303	7241
70°	7847	6904	6893
75°	7189	6449	6538
80°	6431	6003	6131
85°	5726	5695	5898



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	1.4
10°-20°	290.7	4.0
20°-30°	434.8	5.9
30°-40°	519.2	7.1
40°-50°	543.3	7.4
50°-60°	509.8	6.9
60°-70°	425.8	5.8
70°-80°	304.6	4.2
80°-90°	185.5	2.5
90°-100°	389.0	5.3
100°-110°	862.5	11.8
110°-120°	822.0	11.2
120°-130°	643.0	8.8
130°-140°	496.1	6.8
140°-150°	362.6	4.9
150°-160°	250.7	3.4
160°-170°	147.2	2.0
170°-180°	47.9	0.7
0°-30°	827.5	11.3
0°-40°	1346.7	18.4
0°-60°	2399.8	32.7
0°-90°	3315.7	45.2
90°-120°	2073.5	28.3
90°-150°	3575.2	48.7
90°-180°	4021.0	54.8
0°-180°	7336.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1076	1076	1076	1076	1076	
5°	1077	1074	1068	1076	1076	102
15°	1025	1029	1028	1039	1038	289
25°	926	937	941	955	956	426
35°	797	815	831	848	853	498
45°	652	680	709	731	741	502
55°	497	536	578	608	619	445
65°	343	389	441	474	488	339
75°	186	242	300	337	353	199
85°	57	116	178	216	230	60
90°	17	85	157	199	213	13
95°	47	170	709	324	280	47
105°	125	210	892	1526	1404	133
115°	211	277	677	1438	1647	209
125°	289	342	612	1102	1291	256
135°	336	401	580	891	1030	260
145°	382	437	559	712	787	239
155°	433	467	541	615	641	199
165°	473	487	518	550	559	133
175°	493	494	497	504	503	47
180°	494	494	494	494	494	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7
2.5°	1080.5	1079.9	1079.2	1078.6	1078.0	1076.8	1075.1	1073.5	1071.8	1070.1	1071.8
5°	1076.9	1076.4	1075.9	1075.4	1074.9	1073.8	1072.3	1070.7	1069.1	1067.6	1069.6
7.5°	1066.3	1066.5	1066.6	1066.7	1066.8	1066.1	1064.6	1063.1	1061.5	1060.1	1062.6
10°	1057.0	1057.6	1058.1	1058.6	1059.1	1058.7	1057.4	1056.1	1054.8	1053.5	1056.1
12.5°	1045.8	1046.5	1047.2	1047.9	1048.7	1048.6	1047.8	1046.8	1045.9	1045.1	1047.5
15°	1025.4	1026.1	1026.9	1027.7	1028.5	1028.7	1028.5	1028.2	1027.9	1027.7	1030.4
17.5°	999.6	1001.2	1002.7	1004.3	1005.8	1006.6	1006.5	1006.3	1006.3	1006.2	1008.5
20°	980.9	982.4	984.0	985.5	987.1	988.2	988.7	989.2	989.7	990.2	992.6
22.5°	961.1	962.7	964.3	965.9	967.4	968.5	969.3	970.0	970.8	971.5	974.4
25°	925.7	928.3	931.0	933.6	936.2	937.9	938.7	939.4	940.2	941.0	944.3
27.5°	890.1	893.1	896.0	899.1	902.0	904.3	906.0	907.7	909.3	911.0	914.0
30°	864.8	868.2	871.6	874.9	878.4	881.1	883.2	885.3	887.3	889.4	892.6
32.5°	836.7	840.5	844.3	848.1	851.9	855.1	857.9	860.6	863.3	866.0	869.4
35°	796.9	801.0	805.2	809.3	813.6	817.3	820.7	824.1	827.4	830.9	834.7
37.5°	754.7	759.4	764.1	768.7	773.4	777.8	782.0	786.2	790.3	794.5	798.9
40°	726.5	731.2	735.9	740.6	745.3	750.3	755.4	760.7	765.9	771.1	775.5
42.5°	695.6	701.4	707.1	712.8	718.5	724.1	729.5	734.9	740.4	745.8	750.6
45°	651.5	657.8	664.1	670.3	676.6	682.9	689.4	695.9	702.5	708.9	713.9
47.5°	605.4	612.4	619.6	626.6	633.7	641.0	648.4	655.9	663.3	670.8	676.3
50°	575.4	582.6	590.0	597.3	604.5	612.3	620.3	628.4	636.5	644.5	650.5
52.5°	543.5	551.2	559.0	566.6	574.4	582.6	591.6	600.5	609.3	618.3	624.5
55°	496.9	505.5	514.0	522.6	531.2	540.2	549.6	559.0	568.3	577.7	584.8
57.5°	451.4	460.4	469.3	478.3	487.2	496.9	507.1	517.4	527.6	537.9	544.9
60°	419.6	428.9	438.2	447.6	457.0	467.0	477.7	488.4	499.1	509.8	517.0
62.5°	389.5	399.1	408.7	418.3	427.8	438.3	449.6	460.9	472.2	483.5	490.8
65°	343.4	353.5	363.7	373.8	384.0	394.8	406.2	417.7	429.1	440.7	448.4
67.5°	296.4	307.3	318.1	328.8	339.6	350.9	362.5	374.2	385.8	397.5	406.0
70°	263.6	274.8	286.0	297.3	308.5	320.3	332.8	345.3	357.8	370.3	378.7
72.5°	233.7	244.9	256.1	267.3	278.4	290.5	303.4	316.3	329.2	342.2	350.7
75°	186.3	198.5	210.8	223.1	235.3	247.9	261.0	274.0	287.0	300.0	308.6
77.5°	145.1	157.4	169.8	182.1	194.4	207.2	220.3	233.4	246.6	259.7	268.7
80°	116.0	128.8	141.5	154.3	167.0	180.2	193.7	207.3	220.8	234.4	243.2
82.5°	90.7	103.7	116.7	129.6	142.6	155.9	169.7	183.4	197.2	210.9	219.8
85°	57.4	70.4	83.4	96.5	109.5	123.0	136.7	150.5	164.3	178.1	187.0
87.5°	31.6	44.9	58.3	71.9	85.2	98.8	112.6	126.6	140.4	154.3	163.0
90°	17.2	32.0	46.8	62.5	77.3	92.3	108.6	124.8	141.1	157.4	165.3
92.5°	26.7	44.3	64.1	83.4	103.3	130.4	169.7	225.8	281.1	278.8	249.6
95°	46.9	60.1	81.2	108.4	144.6	195.0	292.8	454.6	631.5	709.2	605.3
97.5°	69.5	79.6	97.5	121.4	156.2	209.1	302.5	482.8	768.4	1026.9	1098.9
100°	84.6	93.9	109.3	131.6	163.9	213.1	295.1	455.1	730.2	1049.3	1253.9
102.5°	100.5	109.8	123.5	144.1	173.2	218.7	293.3	430.7	676.7	991.6	1256.1
105°	125.4	134.7	146.9	165.1	190.5	230.1	295.4	409.6	609.8	892.2	1186.5
107.5°	150.8	159.1	170.2	187.4	210.5	247.3	305.3	401.6	564.6	803.6	1071.2
110°	169.1	176.8	186.5	202.2	223.9	259.4	314.9	401.3	545.8	753.2	999.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	186.7	193.6	202.4	217.2	238.2	272.2	324.1	404.5	532.5	717.2	934.9
115°	210.9	218.1	227.2	240.3	260.5	293.7	341.1	411.5	522.9	677.3	856.6
117.5°	236.1	242.6	249.6	260.7	281.6	312.0	358.4	421.6	517.0	649.9	805.7
120°	252.8	257.1	263.4	274.7	295.0	324.9	369.5	430.2	515.8	636.5	778.4
122.5°	267.9	271.6	277.3	288.8	307.7	338.7	382.1	438.3	517.1	626.1	755.2
125°	288.6	290.6	296.6	307.6	326.7	357.4	400.0	451.5	519.1	611.7	724.2
127.5°	305.2	308.0	315.1	326.1	346.8	376.8	416.9	462.7	523.0	601.1	696.0
130°	315.6	318.4	327.1	338.9	359.6	389.1	427.3	470.5	525.7	594.0	679.9
132.5°	322.7	326.4	336.2	350.5	371.5	399.8	436.2	477.5	526.9	588.5	664.7
135°	336.5	340.2	350.9	365.7	386.4	414.7	448.6	485.5	528.4	580.2	643.9
137.5°	349.4	353.4	364.0	379.8	400.5	426.1	457.5	491.5	528.8	572.4	625.9
140°	357.3	362.3	372.3	388.3	408.3	433.7	463.5	494.3	529.1	567.9	614.8
142.5°	366.9	370.9	381.5	395.7	415.5	438.9	467.3	496.6	528.4	562.6	604.2
145°	382.3	385.0	393.8	408.5	425.2	448.2	474.2	501.2	529.2	559.2	593.3
147.5°	396.7	398.6	407.3	420.3	436.8	456.3	480.2	504.4	529.2	555.4	583.4
150°	407.2	408.1	416.1	429.1	443.2	461.2	484.1	505.1	529.2	552.2	577.2
152.5°	417.6	417.8	425.8	437.1	449.5	466.7	486.6	506.8	526.8	548.2	570.8
155°	433.2	433.2	439.2	449.2	460.1	474.2	491.2	507.2	524.2	541.2	561.2
157.5°	445.6	446.3	451.2	459.9	469.3	480.2	493.8	508.2	520.8	535.0	550.4
160°	455.1	455.1	459.2	467.2	474.2	484.1	496.2	508.2	519.2	530.2	543.2
162.5°	462.4	462.4	465.5	472.0	478.2	486.6	497.0	507.4	516.0	525.4	536.0
165°	473.2	472.2	474.2	479.1	483.2	490.2	498.2	505.1	511.2	518.1	526.2
167.5°	481.4	480.2	481.1	485.0	487.8	492.1	498.0	503.6	506.4	511.0	516.8
170°	486.2	484.1	485.2	488.2	490.2	492.1	497.1	501.2	503.2	506.2	511.2
172.5°	489.4	488.2	488.4	490.6	491.8	493.0	497.1	500.4	500.8	502.1	505.6
175°	493.2	492.1	491.2	493.2	493.2	494.2	496.2	498.2	497.1	497.1	499.2
177.5°	495.0	494.2	493.4	494.2	494.2	494.2	495.0	496.5	495.0	494.2	495.0
180°	494.2	494.2	494.2	494.2	494.2	494.2	494.2	494.2	494.2	494.2	494.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7
2.5°	1073.5	1075.1	1076.8	1077.5	1077.3	1077.1	1076.9	1076.7
5°	1071.7	1073.8	1075.9	1076.8	1076.5	1076.2	1076.0	1075.7
7.5°	1065.2	1067.9	1070.5	1071.6	1071.3	1071.0	1070.7	1070.4
10°	1058.7	1061.3	1063.9	1065.0	1064.5	1063.9	1063.4	1062.9
12.5°	1049.8	1052.2	1054.6	1055.6	1055.1	1054.6	1054.0	1053.5
15°	1032.9	1035.5	1038.1	1039.3	1039.1	1038.8	1038.5	1038.3
17.5°	1010.8	1013.2	1015.5	1016.5	1016.2	1015.8	1015.5	1015.0
20°	994.9	997.2	999.6	1000.9	1001.2	1001.4	1001.7	1001.9
22.5°	977.4	980.3	983.3	984.7	984.6	984.5	984.3	984.1
25°	947.8	951.1	954.5	956.2	956.2	956.2	956.2	956.2
27.5°	916.8	919.7	922.6	924.2	924.5	924.6	924.9	925.1
30°	895.7	898.8	901.9	903.5	903.5	903.5	903.5	903.5
32.5°	872.7	876.0	879.3	881.3	881.9	882.5	883.2	883.8
35°	838.6	842.6	846.4	848.9	850.0	851.0	852.0	853.1
37.5°	803.4	807.8	812.3	814.9	815.7	816.5	817.3	818.2
40°	779.9	784.4	788.8	791.5	792.6	793.6	794.6	795.7
42.5°	755.4	760.3	765.2	768.3	769.7	771.2	772.7	774.1
45°	718.8	723.8	728.8	732.3	734.3	736.4	738.6	740.6
47.5°	681.9	687.5	693.0	696.6	698.3	699.9	701.5	703.1
50°	656.5	662.5	668.5	672.4	674.2	676.1	677.9	679.7
52.5°	630.7	636.9	643.1	647.3	649.5	651.8	654.0	656.3
55°	591.8	598.8	605.9	610.4	612.5	614.6	616.6	618.7
57.5°	552.1	559.1	566.2	571.0	573.4	575.8	578.3	580.7
60°	524.3	531.7	538.9	544.0	546.9	549.7	552.6	555.4
62.5°	498.1	505.4	512.6	517.6	520.3	523.0	525.6	528.3
65°	456.2	464.1	471.8	477.1	479.7	482.2	484.9	487.5
67.5°	414.6	423.1	431.6	437.0	439.2	441.4	443.6	445.7
70°	386.9	395.3	403.6	409.1	411.7	414.3	416.9	419.6
72.5°	359.3	367.8	376.3	381.9	384.5	387.1	389.8	392.4
75°	317.2	325.8	334.3	340.3	343.4	346.5	349.6	352.8
77.5°	277.8	286.9	295.9	301.7	304.0	306.4	308.8	311.3
80°	252.1	261.0	269.8	275.5	278.1	280.7	283.4	285.9
82.5°	228.7	237.5	246.3	252.1	254.7	257.3	259.8	262.5
85°	195.8	204.7	213.5	219.3	221.9	224.5	227.0	229.7
87.5°	172.0	181.1	190.1	196.2	198.6	201.5	204.2	206.6
90°	175.1	185.0	194.8	202.6	204.1	207.8	211.4	213.0
92.5°	226.4	217.7	218.5	218.9	219.5	218.9	222.2	222.8
95°	492.3	384.4	339.4	308.7	292.3	285.9	281.5	280.1
97.5°	1020.8	849.9	728.7	614.2	542.9	500.5	476.1	470.1
100°	1296.5	1223.0	1113.5	976.5	878.1	807.7	771.3	774.9
102.5°	1384.1	1388.8	1327.9	1242.9	1166.8	1111.6	1081.6	1061.2
105°	1402.9	1510.3	1536.5	1515.4	1471.7	1436.1	1406.4	1403.7
107.5°	1315.3	1484.7	1579.3	1619.5	1622.6	1612.1	1603.6	1596.7
110°	1234.9	1425.8	1558.6	1633.1	1663.1	1673.2	1673.3	1673.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1154.5	1349.1	1496.9	1591.4	1644.9	1672.0	1681.9	1684.5
115°	1047.9	1228.3	1381.6	1494.8	1571.8	1618.0	1640.0	1647.2
117.5°	968.2	1124.6	1262.9	1377.7	1457.9	1510.4	1541.2	1550.1
120°	925.5	1066.5	1192.6	1297.5	1378.4	1436.2	1462.1	1469.9
122.5°	890.8	1018.8	1135.8	1233.5	1305.5	1357.7	1386.0	1395.4
125°	843.7	958.2	1059.7	1143.4	1209.3	1255.1	1281.9	1290.7
127.5°	801.7	904.0	995.8	1072.1	1130.9	1170.3	1194.6	1202.8
130°	774.9	870.0	955.9	1027.2	1081.8	1119.3	1141.9	1151.5
132.5°	749.8	837.4	917.6	985.7	1037.2	1075.0	1095.4	1102.8
135°	715.7	791.4	861.1	921.1	971.5	1002.7	1022.1	1030.4
137.5°	684.3	746.7	806.8	858.9	901.4	933.2	949.6	955.5
140°	665.7	720.7	772.6	818.2	857.5	886.8	904.1	904.4
142.5°	647.6	694.8	739.9	779.7	813.5	839.6	855.3	855.6
145°	627.4	662.5	696.5	727.1	753.2	775.2	784.3	787.3
147.5°	611.1	637.9	664.3	685.7	705.7	720.8	729.4	731.1
150°	600.2	623.2	644.2	663.5	679.0	690.5	697.1	697.6
152.5°	591.4	611.2	629.8	645.7	657.5	667.9	671.6	671.7
155°	578.2	594.2	609.2	621.2	630.3	638.3	640.2	641.2
157.5°	564.2	577.6	589.2	598.6	606.4	612.4	614.0	613.8
160°	556.2	567.2	577.2	584.2	591.2	597.2	597.2	596.2
162.5°	546.6	556.0	565.2	571.4	576.0	581.2	581.2	580.2
165°	534.2	540.2	547.2	552.2	556.2	560.2	559.2	559.2
167.5°	523.4	528.0	532.0	535.6	537.4	540.2	539.2	539.2
170°	516.2	519.2	523.1	525.2	526.2	528.2	527.2	527.2
172.5°	509.8	512.0	515.2	516.3	516.6	518.6	516.8	516.0
175°	501.2	502.1	504.2	504.2	504.2	505.1	504.2	503.2
177.5°	495.8	496.5	497.4	497.4	496.5	497.4	495.8	495.8
180°	494.2	494.2	494.2	494.2	494.2	494.2	494.2	494.2

(END OF REPORT)