

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: P332566-840

Luminaire Tested: **S124DIP-S575D1035U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332566-840
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: S124DIP-S575D1035U840-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6012.0 lumens
Efficiency: N/A
Efficacy: 135.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

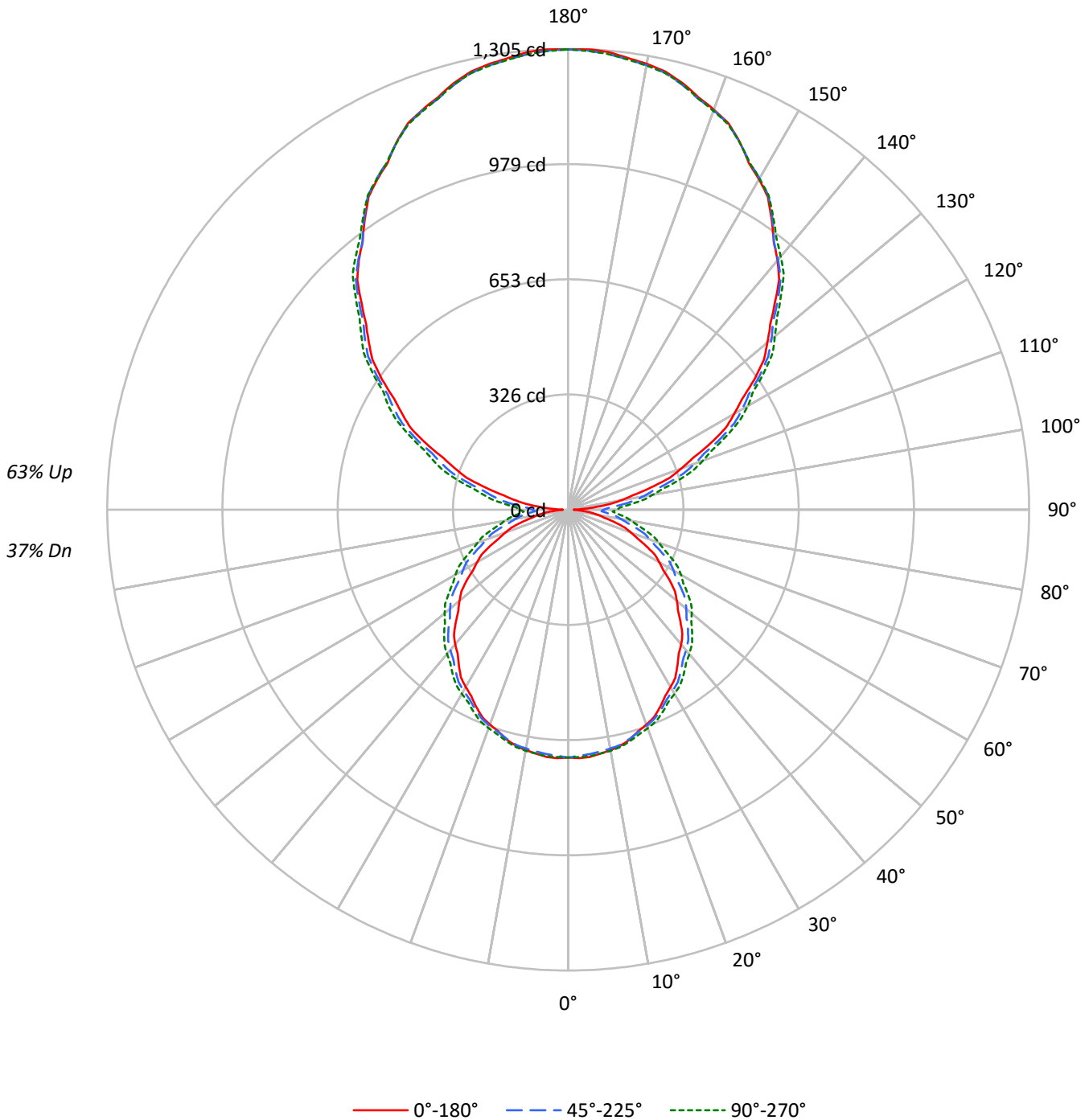
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	76	76	76		59	59	59		44	44	44	37
1	94	90	85	82	85	81	78	74	65	63	61		51	49	48		38	37	36	29
2	85	78	71	66	77	70	65	60	57	53	50		44	42	39		33	31	29	24
3	78	68	61	55	70	62	55	50	50	45	41		39	36	33		29	27	25	20
4	71	60	52	46	64	54	47	42	44	39	35		34	31	28		25	23	21	17
5	65	53	45	39	58	48	41	36	39	34	30		31	27	24		23	20	18	15
6	60	48	39	34	54	43	36	31	35	30	26		28	24	21		21	18	16	13
7	55	43	35	29	50	39	32	27	32	26	23		25	21	18		19	16	14	11
8	51	39	31	26	46	35	28	24	29	24	20		23	19	16		17	14	12	10
9	47	35	28	23	43	32	26	21	26	21	18		21	17	14		16	13	11	9
10	44	32	25	20	40	29	23	19	24	19	16		19	16	13		15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5666	5666	5666
5°	5683	5537	5552
10°	5649	5446	5442
15°	5598	5341	5312
20°	5521	5226	5185
25°	5435	5096	5047
30°	5342	4967	4904
35°	5237	4834	4779
40°	5153	4710	4648
45°	5027	4594	4537
50°	4920	4460	4418
55°	4811	4333	4278
60°	4641	4173	4153
65°	4454	4001	3997
70°	4226	3805	3816
75°	3910	3587	3652
80°	3559	3381	3492
85°	3112	3195	3398



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	1.1
10°-20°	190.4	3.2
20°-30°	287.9	4.8
30°-40°	348.3	5.8
40°-50°	368.3	6.1
50°-60°	346.6	5.8
60°-70°	287.5	4.8
70°-80°	202.0	3.4
80°-90°	118.1	2.0
90°-100°	153.8	2.6
100°-110°	304.8	5.1
110°-120°	465.9	7.7
120°-130°	588.9	9.8
130°-140°	648.3	10.8
140°-150°	630.6	10.5
150°-160°	529.0	8.8
160°-170°	352.0	5.9
170°-180°	123.2	2.1
0°-30°	544.7	9.1
0°-40°	893.1	14.9
0°-60°	1607.9	26.7
0°-90°	2215.5	36.9
90°-120°	924.5	15.4
90°-150°	2792.3	46.4
90°-180°	3797.0	63.2
0°-180°	6012.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	703	700	695	700	700	67
15°	674	674	672	678	678	190
25°	616	621	623	631	633	284
35°	539	548	556	567	570	337
45°	450	464	479	492	497	347
55°	352	369	392	407	412	314
65°	244	269	296	314	321	241
75°	135	164	197	218	226	144
85°	42	75	110	133	142	44
90°	16	58	100	128	137	12
95°	71	106	145	168	176	75
105°	242	260	292	314	324	257
115°	444	452	474	490	495	438
125°	643	644	661	673	677	573
135°	827	833	839	849	851	640
145°	1004	1007	1008	1012	1012	628
155°	1149	1149	1148	1152	1148	529
165°	1251	1248	1246	1251	1248	352
175°	1301	1297	1295	1302	1295	123
180°	1303	1303	1303	1303	1303	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8
2.5°	704.3	703.9	703.5	703.0	702.6	701.9	700.7	699.6	698.4	697.3	698.3
5°	702.6	702.1	701.5	700.9	700.4	699.5	698.3	697.1	695.9	694.7	696.1
7.5°	696.6	696.2	695.9	695.6	695.3	694.7	693.7	692.7	691.6	690.5	692.2
10°	691.6	691.4	691.2	691.1	690.8	690.3	689.4	688.5	687.7	686.8	688.4
12.5°	684.6	684.6	684.6	684.5	684.5	684.2	683.6	683.0	682.4	681.8	683.2
15°	673.5	673.7	673.8	674.0	674.2	674.0	673.5	673.0	672.4	671.9	673.5
17.5°	658.2	658.7	659.2	659.7	660.4	660.6	660.5	660.4	660.2	660.1	661.7
20°	647.5	648.0	648.5	649.1	649.6	649.9	650.2	650.4	650.5	650.7	652.4
22.5°	635.6	636.2	636.9	637.5	638.2	638.7	639.0	639.3	639.6	640.0	641.8
25°	616.1	617.1	618.2	619.2	620.3	621.1	621.6	622.1	622.7	623.2	625.1
27.5°	594.4	595.9	597.4	599.1	600.6	601.7	602.5	603.3	604.1	604.9	606.7
30°	580.0	581.4	582.7	584.1	585.5	586.8	588.0	589.3	590.5	591.8	593.7
32.5°	564.2	565.9	567.5	569.3	571.0	572.5	573.8	575.2	576.5	577.9	580.1
35°	539.1	541.2	543.3	545.3	547.4	549.4	551.1	552.9	554.6	556.3	558.9
37.5°	513.8	516.1	518.6	521.0	523.4	525.7	527.9	530.1	532.2	534.3	536.8
40°	497.5	499.7	502.0	504.2	506.5	508.9	511.3	513.7	516.2	518.7	521.3
42.5°	478.6	481.1	483.6	486.3	488.8	491.5	494.3	497.2	500.1	502.9	505.8
45°	449.5	452.8	456.2	459.5	462.7	466.1	469.4	472.7	476.1	479.4	482.3
47.5°	421.7	425.1	428.5	431.9	435.4	439.0	442.8	446.7	450.5	454.3	457.5
50°	401.5	405.4	409.2	413.1	417.0	420.8	424.6	428.5	432.3	436.2	439.6
52.5°	381.4	385.3	389.1	392.9	396.8	400.9	405.4	409.7	414.1	418.5	422.0
55°	352.0	355.7	359.4	363.0	366.7	371.1	376.4	381.6	386.9	392.1	395.7
57.5°	319.2	323.8	328.3	332.9	337.4	342.2	347.4	352.6	357.9	363.0	367.2
60°	297.8	302.4	306.9	311.4	316.0	321.1	326.9	332.6	338.4	344.2	348.2
62.5°	277.1	282.1	287.0	292.0	296.9	302.3	308.0	313.8	319.6	325.4	329.3
65°	243.6	249.2	254.8	260.3	266.0	271.8	277.6	283.6	289.5	295.5	299.8
67.5°	211.4	217.3	223.3	229.2	235.1	241.3	247.6	254.0	260.3	266.7	271.1
70°	189.3	195.3	201.3	207.2	213.2	219.4	226.0	232.7	239.3	246.0	250.6
72.5°	168.0	174.1	180.2	186.2	192.3	198.8	205.9	213.0	220.0	227.1	231.7
75°	135.1	141.6	148.0	154.5	161.0	167.9	175.2	182.6	190.0	197.2	202.2
77.5°	104.5	111.4	118.3	125.0	131.9	139.2	146.8	154.5	162.2	169.9	174.8
80°	85.6	92.6	99.7	106.6	113.6	120.9	128.7	136.3	144.0	151.7	156.9
82.5°	66.8	74.0	81.3	88.6	95.8	103.3	111.0	118.7	126.3	134.1	139.5
85°	41.6	49.0	56.4	63.6	71.0	78.6	86.4	94.3	102.2	110.0	115.2
87.5°	23.8	31.5	39.1	46.8	54.3	62.1	70.2	78.2	86.1	94.2	99.5
90°	15.6	25.0	34.5	43.9	53.4	62.8	72.1	81.4	90.7	100.0	106.3
92.5°	33.5	42.6	51.7	60.8	70.0	78.9	87.7	96.4	105.2	113.9	119.7
95°	70.7	78.5	86.2	94.0	101.8	110.1	118.8	127.5	136.2	145.0	150.4
97.5°	114.9	121.5	128.1	134.6	141.2	149.0	157.8	166.8	175.7	184.7	190.1
100°	149.8	155.2	160.7	166.0	171.5	178.6	187.4	196.3	205.1	214.0	219.1
102.5°	186.8	191.2	195.5	199.9	204.2	210.7	219.1	227.6	236.2	244.7	249.8
105°	242.0	245.6	249.3	253.1	256.8	262.4	269.7	277.0	284.4	291.8	296.8
107.5°	301.2	304.4	307.5	310.6	313.8	318.5	324.7	330.9	337.2	343.5	348.4
110°	340.9	343.9	346.7	349.6	352.5	356.9	362.7	368.7	374.6	380.4	384.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	382.2	384.5	386.8	389.0	391.2	395.1	400.5	406.0	411.4	416.8	420.6
115°	444.2	445.8	447.4	448.9	450.5	453.8	459.0	464.1	469.3	474.4	478.0
117.5°	503.3	504.4	505.5	506.6	507.8	510.8	515.7	520.6	525.4	530.4	533.2
120°	542.2	543.6	545.0	546.4	547.9	550.8	555.1	559.6	563.9	568.4	570.7
122.5°	583.3	583.8	584.2	584.7	585.2	587.6	592.1	596.6	601.1	605.5	608.2
125°	643.2	643.1	642.9	642.7	642.5	644.5	648.6	652.8	656.9	661.1	663.9
127.5°	698.1	698.6	699.1	699.5	700.0	701.9	704.8	707.8	710.8	713.8	716.5
130°	736.2	736.7	737.2	737.7	738.1	739.8	742.6	745.4	748.2	750.9	753.7
132.5°	775.7	776.0	776.3	776.6	777.0	778.1	780.2	782.2	784.3	786.4	788.9
135°	827.1	828.5	829.8	831.1	832.5	833.7	835.0	836.2	837.5	838.7	841.0
137.5°	883.9	884.4	884.8	885.3	885.8	886.5	887.5	888.4	889.3	890.3	892.2
140°	921.9	922.1	922.4	922.7	922.9	923.2	923.3	923.5	923.7	923.9	925.9
142.5°	955.9	956.3	956.7	957.2	957.6	957.7	957.4	957.0	956.7	956.4	958.5
145°	1003.7	1004.4	1005.2	1005.9	1006.6	1007.0	1007.3	1007.5	1007.7	1007.9	1008.9
147.5°	1051.3	1052.2	1053.1	1054.0	1054.9	1055.3	1055.1	1054.9	1054.7	1054.6	1054.5
150°	1080.4	1081.1	1081.8	1082.5	1083.2	1083.6	1083.6	1083.6	1083.6	1083.6	1083.6
152.5°	1107.1	1107.6	1108.1	1108.6	1109.1	1109.4	1109.6	1109.8	1110.0	1110.1	1110.8
155°	1149.1	1149.1	1149.1	1149.1	1149.1	1149.0	1148.7	1148.5	1148.3	1148.1	1149.0
157.5°	1184.6	1184.2	1183.8	1183.4	1183.0	1182.8	1182.7	1182.7	1182.7	1182.6	1183.3
160°	1205.6	1205.3	1205.1	1204.9	1204.7	1204.5	1204.2	1204.0	1203.8	1203.6	1204.2
162.5°	1224.9	1224.4	1223.8	1223.1	1222.5	1222.1	1221.9	1221.7	1221.5	1221.2	1222.4
165°	1250.9	1250.2	1249.6	1248.9	1248.2	1247.7	1247.2	1246.8	1246.3	1245.9	1247.2
167.5°	1270.9	1269.9	1269.0	1268.1	1267.1	1266.7	1266.7	1266.8	1266.8	1266.9	1268.2
170°	1282.1	1281.0	1279.9	1278.8	1277.7	1277.2	1277.5	1277.7	1277.9	1278.1	1279.5
172.5°	1290.2	1289.3	1288.4	1287.4	1286.5	1286.0	1286.1	1286.1	1286.2	1286.2	1287.7
175°	1301.3	1300.2	1299.1	1298.0	1296.9	1296.2	1296.0	1295.7	1295.5	1295.3	1296.9
177.5°	1304.9	1304.0	1303.1	1302.2	1301.3	1300.9	1300.9	1300.9	1300.9	1300.9	1302.1
180°	1303.3	1303.3	1303.3	1303.3	1303.3	1303.3	1303.3	1303.3	1303.3	1303.3	1303.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8
2.5°	699.3	700.2	701.3	701.7	701.6	701.4	701.3	701.1
5°	697.5	698.8	700.2	700.8	700.7	700.5	700.3	700.1
7.5°	693.8	695.3	696.9	697.6	697.4	697.2	697.0	696.9
10°	689.9	691.6	693.1	693.8	693.7	693.5	693.3	693.1
12.5°	684.7	686.1	687.5	688.2	688.2	688.1	688.1	688.1
15°	675.0	676.6	678.1	678.8	678.7	678.5	678.3	678.1
17.5°	663.3	664.9	666.5	667.2	667.1	667.0	666.8	666.7
20°	654.2	655.9	657.6	658.5	658.5	658.5	658.5	658.5
22.5°	643.5	645.2	646.9	648.0	648.2	648.5	648.8	649.1
25°	627.0	628.9	630.9	631.9	632.1	632.3	632.4	632.6
27.5°	608.5	610.3	612.1	613.1	613.3	613.5	613.7	613.9
30°	595.6	597.5	599.5	600.6	600.9	601.3	601.6	602.0
32.5°	582.3	584.5	586.7	587.9	588.3	588.7	589.1	589.4
35°	561.3	563.7	566.1	567.6	568.2	568.7	569.2	569.8
37.5°	539.4	541.8	544.3	545.8	546.3	546.9	547.4	548.1
40°	523.9	526.5	529.2	530.8	531.5	532.2	532.9	533.6
42.5°	508.8	511.6	514.5	516.2	516.8	517.4	518.0	518.5
45°	485.3	488.3	491.2	493.1	494.0	494.9	495.7	496.7
47.5°	460.5	463.6	466.7	468.7	469.8	470.8	471.9	472.9
50°	443.1	446.7	450.1	452.4	453.4	454.4	455.6	456.6
52.5°	425.6	429.0	432.5	434.7	435.9	436.9	437.9	439.0
55°	399.1	402.6	406.1	408.4	409.4	410.5	411.5	412.5
57.5°	371.3	375.6	379.7	382.2	383.2	384.2	385.2	386.2
60°	352.2	356.3	360.2	362.9	364.4	365.8	367.2	368.6
62.5°	333.4	337.4	341.4	344.1	345.5	346.9	348.3	349.7
65°	304.2	308.6	313.0	315.8	317.2	318.6	320.0	321.4
67.5°	275.6	280.0	284.5	287.3	288.7	290.0	291.4	292.8
70°	255.4	260.1	264.8	267.8	269.0	270.2	271.5	272.7
72.5°	236.2	240.9	245.4	248.3	249.7	251.1	252.5	253.8
75°	207.0	211.9	216.8	220.0	221.6	223.2	224.8	226.3
77.5°	179.9	184.8	189.8	193.1	194.7	196.4	198.0	199.8
80°	162.2	167.3	172.6	175.9	177.3	178.7	180.2	181.6
82.5°	144.8	150.2	155.6	159.1	160.6	162.1	163.6	165.2
85°	120.5	125.7	131.0	134.5	136.2	137.9	139.7	141.5
87.5°	104.8	110.2	115.5	119.0	120.6	122.2	123.9	125.5
90°	112.8	119.2	125.6	129.8	131.6	133.4	135.2	137.1
92.5°	125.4	131.2	136.8	140.6	142.2	143.9	145.5	147.2
95°	155.7	161.2	166.5	170.0	171.6	173.2	174.7	176.3
97.5°	195.4	200.8	206.2	209.6	211.2	212.7	214.1	215.6
100°	224.3	229.4	234.6	237.8	239.0	240.2	241.5	242.7
102.5°	255.1	260.2	265.5	268.8	270.4	272.0	273.5	275.0
105°	301.8	306.9	311.9	315.5	317.5	319.6	321.6	323.8
107.5°	353.3	358.2	363.1	366.2	367.4	368.6	369.8	371.0
110°	387.6	391.1	394.8	397.6	399.6	401.7	403.7	405.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	424.3	428.2	431.9	434.6	436.2	437.7	439.2	440.7
115°	481.6	485.2	488.9	491.2	492.2	493.2	494.1	495.1
117.5°	536.1	539.0	541.9	543.7	544.7	545.6	546.6	547.5
120°	573.1	575.4	577.8	580.0	581.8	583.6	585.5	587.3
122.5°	611.0	613.7	616.4	618.0	618.4	618.9	619.4	619.9
125°	666.8	669.6	672.6	674.3	674.9	675.5	676.1	676.7
127.5°	719.2	721.9	724.6	726.4	727.2	728.0	728.8	729.6
130°	756.4	759.1	761.7	763.2	763.4	763.5	763.7	763.8
132.5°	791.4	794.1	796.6	798.2	798.9	799.6	800.3	800.9
135°	843.3	845.7	848.1	849.4	849.8	850.2	850.5	850.9
137.5°	894.2	896.2	898.2	899.6	900.6	901.6	902.6	903.6
140°	928.0	930.0	932.1	933.4	934.0	934.7	935.3	936.0
142.5°	960.4	962.3	964.3	965.6	966.2	966.9	967.7	968.4
145°	1009.7	1010.5	1011.3	1011.7	1011.7	1011.8	1011.8	1011.8
147.5°	1054.5	1054.4	1054.4	1054.5	1054.9	1055.2	1055.5	1055.9
150°	1083.6	1083.6	1083.6	1083.5	1083.3	1083.0	1082.8	1082.6
152.5°	1111.3	1111.8	1112.4	1112.4	1111.8	1111.2	1110.5	1109.9
155°	1149.9	1150.7	1151.7	1151.7	1150.7	1149.9	1149.0	1148.1
157.5°	1183.9	1184.6	1185.3	1185.2	1184.5	1183.7	1183.0	1182.1
160°	1204.9	1205.6	1206.2	1206.0	1204.9	1203.8	1202.6	1201.5
162.5°	1223.7	1224.9	1226.1	1226.2	1225.1	1224.0	1222.8	1221.6
165°	1248.6	1249.9	1251.2	1251.4	1250.6	1249.7	1248.8	1247.9
167.5°	1269.5	1270.9	1272.2	1272.2	1270.8	1269.4	1268.0	1266.7
170°	1280.8	1282.1	1283.5	1283.3	1281.8	1280.2	1278.7	1277.1
172.5°	1289.2	1290.7	1292.3	1292.2	1290.7	1289.1	1287.6	1286.0
175°	1298.4	1300.0	1301.5	1301.5	1300.0	1298.4	1296.9	1295.3
177.5°	1303.4	1304.6	1306.0	1305.9	1304.4	1302.9	1301.5	1300.1
180°	1303.3	1303.3	1303.3	1303.3	1303.3	1303.3	1303.3	1303.3

(END OF REPORT)