

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: P331433

Luminaire Tested: **SA2XXDIP-C1005D530U835-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331433
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C1005D530U835-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

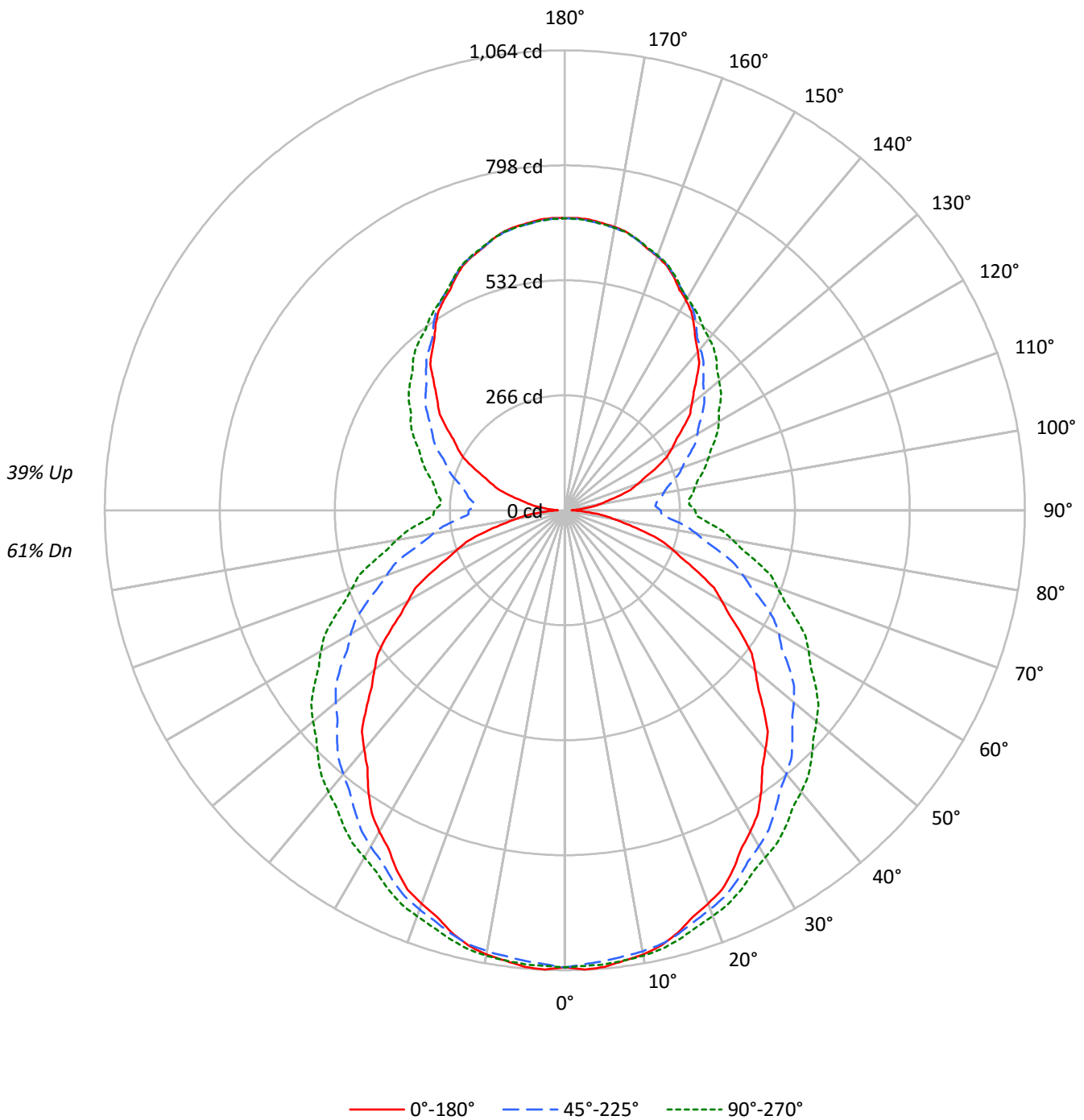
Lumens per Lamp: N/A
Luminaire Lumens: 5926.4 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

Input Watts (W): 55.1
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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61
1	98	93	88	84	92	87	83	79	76	72	70	65	63	60	55	54	52	47
2	89	80	73	67	82	75	69	64	65	60	56	56	52	49	48	45	42	38
3	81	70	62	55	75	65	58	52	57	51	46	49	44	41	42	38	35	31
4	73	62	53	46	68	58	50	44	50	44	39	43	38	34	37	33	30	26
5	67	55	46	39	62	51	43	37	45	38	33	39	34	30	33	29	26	23
6	62	49	40	34	57	46	38	32	40	34	29	35	30	26	30	26	22	20
7	57	44	36	30	53	41	34	28	36	30	25	32	26	23	27	23	20	17
8	53	40	32	26	49	38	30	25	33	27	22	29	24	20	25	21	18	15
9	49	37	29	23	46	34	27	22	30	24	20	27	22	18	23	19	16	14
10	46	34	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17073	17073	17073
5°	17157	16435	16373
10°	17049	15949	15770
15°	16814	15435	15136
20°	16517	14884	14525
25°	16223	14353	13970
30°	15810	13808	13414
35°	15392	13280	13021
40°	14952	12831	12629
45°	14535	12429	12294
50°	14086	12066	11964
55°	13616	11675	11627
60°	13040	11269	11271
65°	12441	10795	10850
70°	11770	10285	10393
75°	10911	9784	9973
80°	9555	9272	9549
85°	8259	8830	9217



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	1.7
10°-20°	287.3	4.8
20°-30°	435.4	7.3
30°-40°	530.3	8.9
40°-50°	570.5	9.6
50°-60°	554.1	9.3
60°-70°	483.8	8.2
70°-80°	372.4	6.3
80°-90°	252.7	4.3
90°-100°	215.0	3.6
100°-110°	258.7	4.4
110°-120°	310.4	5.2
120°-130°	345.3	5.8
130°-140°	355.0	6.0
140°-150°	332.4	5.6
150°-160°	275.9	4.7
160°-170°	183.0	3.1
170°-180°	64.0	1.1
0°-30°	822.9	13.9
0°-40°	1353.3	22.8
0°-60°	2477.9	41.8
0°-90°	3586.8	60.5
90°-120°	784.1	13.2
90°-150°	1816.7	30.7
90°-180°	2340.0	39.5
0°-180°	5926.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1057	1057	1057	1057	1057	
5°	1060	1056	1047	1055	1054	101
15°	1012	1014	1014	1028	1027	285
25°	920	930	944	962	967	423
35°	792	819	848	880	892	495
45°	650	692	745	790	808	501
55°	498	555	633	686	708	445
65°	340	416	506	566	588	338
75°	188	275	372	436	458	199
85°	55	150	248	310	334	59
90°	16	112	222	280	301	12
95°	42	120	213	269	288	44
105°	130	178	257	310	329	138
115°	234	257	322	366	383	231
125°	335	342	387	426	440	300
135°	431	438	454	484	496	333
145°	521	525	529	538	544	326
155°	596	598	599	602	600	274
165°	648	648	648	651	649	183
175°	675	673	672	675	672	64
180°	676	676	676	676	676	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4
2.5°	1063.6	1062.8	1061.9	1061.1	1060.3	1058.9	1057.0	1055.1	1053.2	1051.3	1052.7
5°	1060.5	1059.5	1058.5	1057.4	1056.4	1054.9	1052.9	1050.8	1048.8	1046.7	1048.8
7.5°	1051.0	1050.3	1049.6	1049.0	1048.3	1047.2	1045.6	1044.0	1042.5	1040.9	1043.3
10°	1043.7	1043.0	1042.3	1041.6	1040.9	1040.1	1039.1	1038.0	1037.0	1036.0	1038.7
12.5°	1031.4	1031.5	1031.7	1031.8	1031.9	1031.6	1030.9	1030.1	1029.4	1028.6	1031.4
15°	1011.5	1012.2	1012.8	1013.5	1014.2	1014.5	1014.5	1014.5	1014.5	1014.5	1017.6
17.5°	985.7	987.2	988.6	990.0	991.4	992.7	993.8	994.9	996.0	997.1	1000.3
20°	968.6	970.3	972.0	973.7	975.4	976.9	978.3	979.6	981.0	982.4	986.1
22.5°	950.2	952.1	954.1	956.1	958.1	960.0	961.9	963.8	965.7	967.6	971.4
25°	919.5	921.9	924.3	926.7	929.1	931.8	934.8	937.9	941.0	944.0	948.1
27.5°	882.7	886.6	890.5	894.4	898.3	902.0	905.6	909.2	912.8	916.5	921.6
30°	858.2	862.6	867.1	871.5	875.9	880.4	884.8	889.2	893.6	898.1	903.5
32.5°	831.2	836.2	841.2	846.2	851.1	856.2	861.5	866.7	872.0	877.2	883.5
35°	792.3	798.1	803.9	809.7	815.5	821.6	828.1	834.5	841.0	847.5	855.0
37.5°	750.0	756.7	763.4	770.0	776.7	784.2	792.6	801.0	809.4	817.8	826.1
40°	721.8	729.3	736.8	744.3	751.8	760.1	769.3	778.5	787.7	796.9	805.8
42.5°	694.9	702.3	709.8	717.3	724.8	733.8	744.4	755.0	765.5	776.1	785.7
45°	649.8	659.0	668.2	677.4	686.6	697.1	709.1	721.0	732.9	744.8	755.4
47.5°	605.4	615.4	625.4	635.4	645.4	657.4	671.4	685.3	699.3	713.2	724.3
50°	574.7	585.3	595.8	606.4	616.9	629.9	645.2	660.5	675.8	691.2	702.8
52.5°	545.3	556.4	567.5	578.6	589.7	603.3	619.4	635.6	651.7	667.9	679.7
55°	498.1	510.3	522.6	534.9	547.1	562.1	579.8	597.5	615.2	632.9	645.2
57.5°	451.5	465.3	479.1	493.0	506.8	522.7	540.8	558.8	576.9	594.9	608.1
60°	418.4	433.0	447.7	462.3	477.0	494.0	513.4	532.8	552.2	571.6	584.6
62.5°	389.0	404.1	419.3	434.5	449.7	467.0	486.4	505.8	525.3	544.7	558.4
65°	340.2	356.9	373.6	390.3	407.0	425.4	445.5	465.5	485.6	505.7	519.7
67.5°	295.5	312.9	330.3	347.8	365.2	384.2	404.8	425.4	445.9	466.5	480.6
70°	263.6	281.3	299.0	316.7	334.4	353.8	375.0	396.1	417.2	438.3	452.9
72.5°	234.2	252.4	270.7	288.9	307.2	327.0	348.4	369.8	391.2	412.6	426.9
75°	188.5	207.6	226.6	245.7	264.8	285.2	307.0	328.8	350.6	372.4	387.0
77.5°	144.4	164.3	184.3	204.2	224.2	245.2	267.4	289.5	311.6	333.8	348.4
80°	114.9	135.7	156.5	177.3	198.0	219.5	241.6	263.8	285.9	308.0	322.3
82.5°	90.4	110.9	131.4	151.9	172.4	193.9	216.3	238.7	261.1	283.5	297.8
85°	55.2	76.3	97.4	118.5	139.6	161.1	182.9	204.7	226.5	248.3	262.6
87.5°	30.2	50.8	71.4	92.0	112.6	134.0	156.4	178.7	201.1	223.5	237.3
90°	15.9	37.2	58.4	79.7	101.0	123.9	148.5	173.1	197.7	222.3	235.6
92.5°	24.2	43.8	63.3	82.8	102.3	122.8	144.5	166.1	187.8	209.4	222.8
95°	41.9	59.2	76.5	93.7	111.0	130.0	150.7	171.4	192.0	212.7	225.7
97.5°	64.9	80.3	95.6	111.0	126.3	144.0	164.1	184.2	204.3	224.4	237.0
100°	83.1	96.8	110.4	124.0	137.6	154.1	173.6	193.0	212.5	231.9	244.5
102.5°	101.1	113.4	125.7	138.0	150.4	166.0	185.0	204.1	223.1	242.1	254.5
105°	130.3	140.5	150.8	161.0	171.3	185.4	203.4	221.3	239.3	257.3	269.4
107.5°	161.2	169.7	178.1	186.6	195.0	207.8	224.7	241.7	258.6	275.6	287.1
110°	180.1	187.6	195.2	202.8	210.3	222.5	239.2	255.8	272.5	289.2	300.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	202.0	208.4	214.9	221.4	227.9	239.0	254.8	270.5	286.3	302.1	312.7
115°	234.2	238.7	243.2	247.7	252.3	262.0	277.1	292.2	307.3	322.3	332.4
117.5°	264.9	268.3	271.8	275.3	278.7	287.2	300.6	314.1	327.6	341.0	350.8
120°	286.3	288.7	291.1	293.4	295.8	303.3	315.9	328.5	341.1	353.7	363.3
122.5°	305.9	307.7	309.4	311.2	313.0	319.9	332.0	344.1	356.2	368.3	377.2
125°	334.9	336.1	337.2	338.4	339.5	345.3	355.9	366.4	376.9	387.4	396.2
127.5°	364.7	365.8	366.9	368.0	369.1	373.8	382.2	390.5	398.8	407.2	415.2
130°	383.4	384.7	386.0	387.3	388.6	392.7	399.6	406.5	413.4	420.3	428.3
132.5°	404.4	405.4	406.4	407.4	408.4	411.7	417.3	422.8	428.4	434.0	441.3
135°	430.9	432.3	433.7	435.1	436.5	439.0	442.7	446.3	450.0	453.7	460.7
137.5°	460.5	461.5	462.6	463.7	464.8	466.2	468.0	469.9	471.7	473.5	479.7
140°	478.3	479.1	479.9	480.7	481.5	482.5	483.8	485.1	486.5	487.8	493.2
142.5°	496.5	497.3	498.1	498.9	499.7	500.4	501.0	501.5	502.1	502.7	507.1
145°	521.2	522.1	523.0	523.9	524.8	525.6	526.3	527.1	527.9	528.6	530.8
147.5°	544.6	545.6	546.7	547.8	548.8	549.6	550.1	550.6	551.1	551.7	552.2
150°	560.6	561.3	562.1	562.8	563.6	564.2	564.7	565.2	565.7	566.3	566.6
152.5°	574.7	575.5	576.2	577.0	577.7	578.4	579.0	579.6	580.2	580.9	581.3
155°	595.9	596.3	596.7	597.0	597.4	597.8	598.2	598.6	598.9	599.3	600.0
157.5°	614.0	614.3	614.5	614.8	615.1	615.3	615.5	615.8	616.0	616.2	617.1
160°	625.0	625.2	625.5	625.7	626.0	626.2	626.3	626.4	626.6	626.7	627.5
162.5°	635.0	635.1	635.1	635.2	635.2	635.3	635.4	635.6	635.7	635.8	636.7
165°	648.4	648.2	648.1	648.0	647.9	647.8	647.8	647.8	647.8	647.8	648.7
167.5°	659.5	659.2	658.8	658.4	658.0	657.8	657.8	657.8	657.7	657.7	658.6
170°	665.5	665.1	664.7	664.3	664.0	663.7	663.6	663.4	663.3	663.2	664.1
172.5°	669.6	669.2	668.8	668.4	668.1	667.8	667.7	667.6	667.4	667.3	668.2
175°	674.6	674.2	673.8	673.5	673.1	672.8	672.5	672.3	672.0	671.7	672.6
177.5°	676.7	676.3	676.0	675.7	675.4	675.2	675.0	674.8	674.6	674.4	675.0
180°	675.7	675.7	675.7	675.7	675.7	675.7	675.7	675.7	675.7	675.7	675.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4	1057.4
2.5°	1054.0	1055.4	1056.8	1057.2	1056.6	1056.1	1055.5	1055.0
5°	1050.8	1052.9	1054.9	1055.7	1055.4	1055.1	1054.7	1054.4
7.5°	1045.8	1048.3	1050.7	1051.8	1051.4	1051.1	1050.7	1050.4
10°	1041.4	1044.2	1046.9	1048.1	1047.7	1047.4	1047.1	1046.7
12.5°	1034.1	1036.8	1039.5	1040.7	1040.4	1040.0	1039.7	1039.4
15°	1020.7	1023.7	1026.8	1028.2	1027.8	1027.5	1027.1	1026.8
17.5°	1003.5	1006.7	1009.9	1011.5	1011.5	1011.5	1011.5	1011.5
20°	989.8	993.6	997.3	999.2	999.2	999.2	999.2	999.2
22.5°	975.1	978.9	982.6	984.8	985.3	985.9	986.4	987.0
25°	952.2	956.3	960.4	962.9	964.0	965.0	966.0	967.0
27.5°	926.8	932.0	937.2	940.1	940.9	941.6	942.4	943.1
30°	909.0	914.4	919.9	923.1	924.1	925.1	926.2	927.2
32.5°	889.8	896.0	902.3	906.3	908.2	910.0	911.9	913.7
35°	862.5	870.0	877.5	882.4	884.8	887.2	889.6	891.9
37.5°	834.4	842.7	851.0	856.4	858.9	861.5	864.0	866.5
40°	814.6	823.5	832.3	838.3	841.4	844.4	847.5	850.6
42.5°	795.4	805.1	814.8	821.1	824.2	827.3	830.3	833.4
45°	765.9	776.5	787.0	794.0	797.4	800.8	804.2	807.6
47.5°	735.3	746.3	757.4	764.8	768.5	772.3	776.0	779.8
50°	714.3	725.9	737.5	745.2	748.9	752.6	756.4	760.1
52.5°	691.6	703.4	715.3	723.2	727.2	731.3	735.3	739.3
55°	657.5	669.7	682.0	690.3	694.7	699.2	703.6	708.0
57.5°	621.4	634.6	647.8	656.6	661.1	665.6	670.1	674.6
60°	597.5	610.5	623.4	632.3	637.0	641.8	646.6	651.3
62.5°	572.2	585.9	599.7	608.8	613.3	617.8	622.3	626.8
65°	533.7	547.6	561.6	570.8	575.2	579.6	584.1	588.5
67.5°	494.7	508.8	522.9	532.3	536.9	541.5	546.2	550.8
70°	467.6	482.2	496.9	506.2	510.3	514.4	518.5	522.6
72.5°	441.3	455.7	470.0	479.7	484.6	489.5	494.4	499.3
75°	401.7	416.3	431.0	440.5	444.9	449.4	453.8	458.2
77.5°	362.9	377.5	392.1	401.8	406.5	411.3	416.1	420.8
80°	336.6	351.0	365.3	374.8	379.6	384.3	389.1	393.9
82.5°	312.1	326.4	340.7	350.1	354.6	359.1	363.6	368.1
85°	276.9	291.2	305.5	315.0	319.8	324.6	329.3	334.1
87.5°	251.1	265.0	278.8	287.9	292.3	296.7	301.1	305.5
90°	249.0	262.4	275.7	284.5	288.7	292.9	297.2	301.4
92.5°	236.2	249.6	263.0	271.8	275.9	280.0	284.1	288.2
95°	238.6	251.6	264.5	272.9	276.7	280.6	284.4	288.2
97.5°	249.6	262.2	274.8	283.1	287.1	291.1	295.1	299.1
100°	257.1	269.7	282.4	290.5	294.1	297.7	301.3	304.9
102.5°	266.9	279.4	291.8	299.8	303.4	307.1	310.7	314.3
105°	281.6	293.8	305.9	313.9	317.7	321.4	325.1	328.9
107.5°	298.7	310.2	321.8	329.1	332.3	335.4	338.6	341.8
110°	311.0	321.9	332.8	339.9	343.3	346.7	350.0	353.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	323.3	333.9	344.5	351.5	355.0	358.4	361.9	365.4
115°	342.5	352.6	362.7	369.4	372.8	376.2	379.5	382.9
117.5°	360.6	370.3	380.1	386.6	389.6	392.7	395.8	398.9
120°	372.8	382.3	391.9	398.3	401.7	405.1	408.4	411.8
122.5°	386.2	395.1	404.1	410.0	413.0	415.9	418.8	421.7
125°	405.0	413.9	422.7	428.5	431.5	434.4	437.4	440.3
127.5°	423.1	431.1	439.1	444.4	447.0	449.6	452.2	454.8
130°	436.2	444.1	452.0	457.1	459.3	461.5	463.7	466.0
132.5°	448.7	456.0	463.3	468.2	470.5	472.8	475.1	477.5
135°	467.7	474.7	481.8	486.5	488.8	491.1	493.5	495.8
137.5°	485.8	492.0	498.2	502.2	504.0	505.8	507.6	509.4
140°	498.7	504.1	509.6	513.1	514.6	516.1	517.7	519.2
142.5°	511.6	516.0	520.5	523.4	524.6	525.9	527.2	528.4
145°	533.0	535.1	537.3	539.0	540.2	541.4	542.6	543.8
147.5°	552.8	553.3	553.9	554.3	554.6	555.0	555.3	555.6
150°	567.0	567.4	567.8	567.8	567.4	567.0	566.6	566.3
152.5°	581.8	582.3	582.8	582.8	582.3	581.8	581.3	580.9
155°	600.6	601.2	601.9	602.0	601.6	601.2	600.8	600.5
157.5°	617.9	618.8	619.7	619.8	619.2	618.6	618.0	617.3
160°	628.2	629.0	629.7	629.9	629.4	628.9	628.3	627.8
162.5°	637.5	638.4	639.3	639.4	638.8	638.2	637.6	637.0
165°	649.6	650.5	651.3	651.5	650.8	650.2	649.6	648.9
167.5°	659.5	660.4	661.3	661.4	660.7	660.1	659.4	658.7
170°	665.0	665.9	666.7	666.8	666.0	665.3	664.5	663.8
172.5°	669.1	670.0	670.8	670.9	670.2	669.4	668.6	667.9
175°	673.5	674.4	675.3	675.4	674.6	673.8	673.1	672.3
177.5°	675.6	676.2	676.8	676.8	676.2	675.6	675.0	674.4
180°	675.7	675.7	675.7	675.7	675.7	675.7	675.7	675.7

(END OF REPORT)