

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: P331361-830

Luminaire Tested: **SA2XXDIP-C675D925U830-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331361-830
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-C675D925U830-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5654.0 lumens
Efficiency: N/A
Efficacy: 108.7 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-Indirect

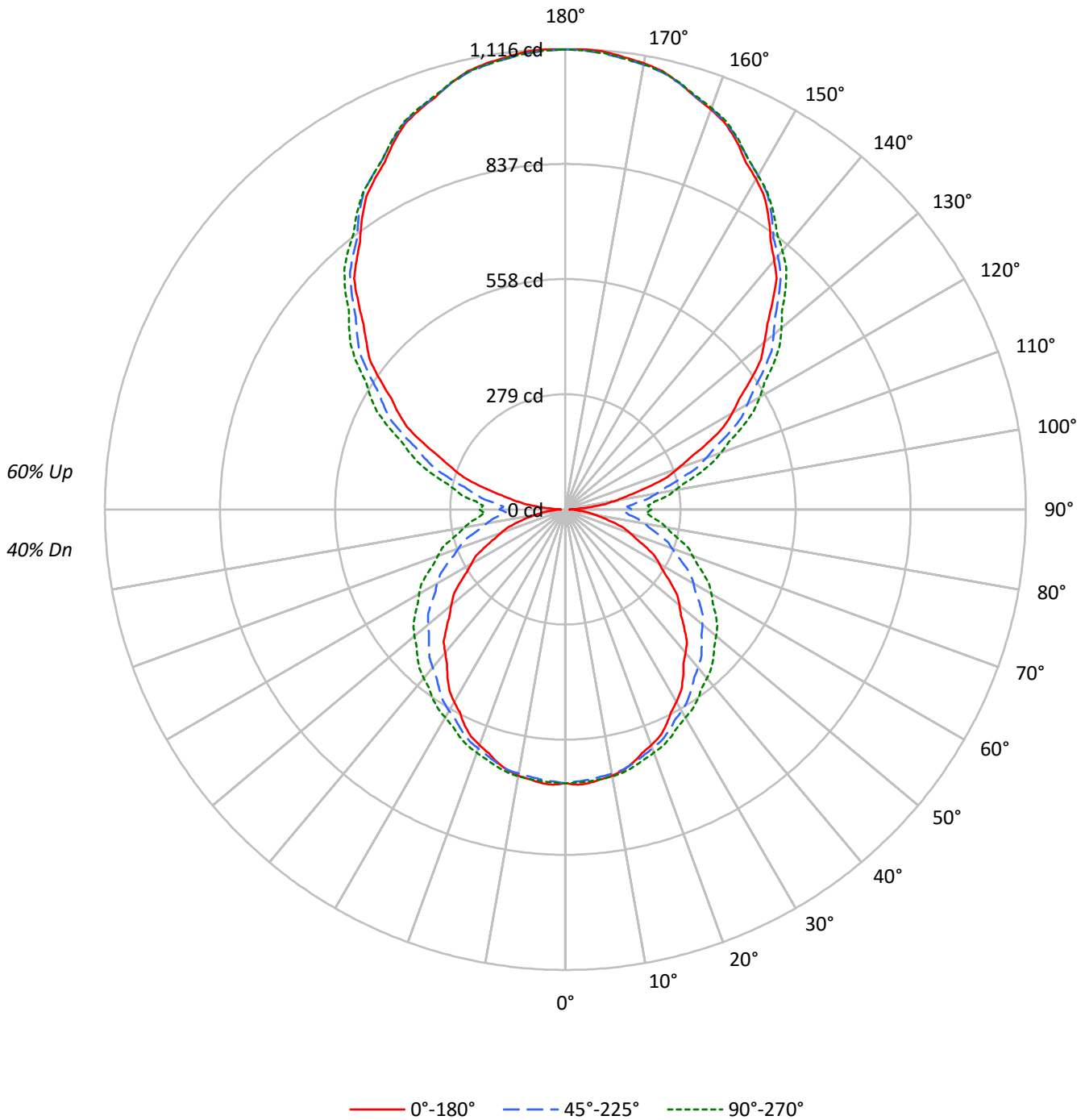
Input Watts (W): 52
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	94	90	85	81	85	81	78	74	66	64	61	52	50	49	39	38	37	31
2	85	77	71	65	77	70	65	60	57	53	50	45	42	40	34	32	30	25
3	78	68	60	54	70	62	55	50	50	45	41	40	36	33	30	27	25	21
4	71	60	51	45	64	54	47	42	44	39	35	35	31	28	26	24	21	17
5	65	53	45	38	58	48	41	35	39	34	30	31	27	24	24	21	18	15
6	59	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	42	34	29	50	39	32	27	32	26	22	25	21	18	19	16	14	11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10
9	47	35	27	22	43	32	25	21	26	21	18	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10719	10719	10719
5°	10771	10318	10278
10°	10704	10013	9900
15°	10557	9691	9503
20°	10370	9345	9120
25°	10186	9011	8772
30°	9928	8668	8421
35°	9665	8338	8176
40°	9388	8055	7929
45°	9124	7803	7719
50°	8843	7574	7511
55°	8548	7331	7300
60°	8188	7076	7078
65°	7811	6777	6812
70°	7390	6457	6525
75°	6853	6143	6262
80°	6004	5822	5995
85°	5192	5544	5785



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.9	1.1
10°-20°	180.4	3.2
20°-30°	273.4	4.8
30°-40°	333.0	5.9
40°-50°	358.2	6.3
50°-60°	347.9	6.2
60°-70°	303.7	5.4
70°-80°	233.8	4.1
80°-90°	161.4	2.9
90°-100°	178.7	3.2
100°-110°	298.3	5.3
110°-120°	427.1	7.6
120°-130°	522.2	9.2
130°-140°	565.6	10.0
140°-150°	544.8	9.6
150°-160°	455.2	8.1
160°-170°	301.9	5.3
170°-180°	105.5	1.9
0°-30°	516.7	9.1
0°-40°	849.6	15.0
0°-60°	1555.7	27.5
0°-90°	2254.7	39.9
90°-120°	904.2	16.0
90°-150°	2536.8	44.9
90°-180°	3399.0	60.1
0°-180°	5654.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	664	664	664	664	664	
5°	666	663	657	663	662	63
15°	635	637	637	645	645	179
25°	577	584	593	604	607	265
35°	498	514	532	552	560	311
45°	408	434	468	496	507	315
55°	313	348	397	431	444	279
65°	214	261	318	356	370	212
75°	118	173	234	274	288	125
85°	35	94	156	195	210	37
90°	11	78	160	195	209	9
95°	57	112	171	206	217	62
105°	207	239	290	324	336	219
115°	380	398	438	465	473	376
125°	549	559	586	608	617	491
135°	709	720	731	750	755	548
145°	860	866	872	878	880	537
155°	983	986	988	993	990	452
165°	1070	1069	1069	1074	1070	301
175°	1113	1110	1108	1114	1109	106
180°	1115	1115	1115	1115	1115	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
2.5°	667.8	667.2	666.8	666.2	665.7	664.9	663.6	662.4	661.3	660.1	660.9
5°	665.8	665.2	664.6	663.9	663.3	662.3	661.0	659.8	658.5	657.1	658.5
7.5°	659.9	659.4	659.0	658.6	658.2	657.4	656.5	655.4	654.5	653.6	655.1
10°	655.3	654.8	654.4	653.9	653.6	653.0	652.3	651.8	651.1	650.4	652.1
12.5°	647.5	647.6	647.7	647.8	647.9	647.7	647.2	646.8	646.3	645.8	647.5
15°	635.1	635.5	635.9	636.3	636.8	637.0	637.0	637.0	637.0	637.0	638.9
17.5°	618.9	619.8	620.7	621.6	622.5	623.3	624.0	624.6	625.3	626.0	628.0
20°	608.1	609.2	610.2	611.3	612.4	613.3	614.2	615.1	616.0	616.8	619.2
22.5°	596.5	597.8	599.1	600.3	601.5	602.8	604.0	605.1	606.3	607.6	609.9
25°	577.3	578.8	580.3	581.8	583.3	585.0	586.9	588.9	590.8	592.7	595.3
27.5°	554.2	556.7	559.1	561.6	564.0	566.4	568.6	570.9	573.2	575.4	578.6
30°	538.9	541.6	544.4	547.1	550.0	552.7	555.5	558.3	561.1	563.8	567.2
32.5°	521.9	525.0	528.1	531.2	534.4	537.6	540.9	544.1	547.4	550.7	554.7
35°	497.5	501.1	504.7	508.3	512.0	515.9	519.9	524.0	528.0	532.1	536.8
37.5°	470.9	475.1	479.3	483.4	487.7	492.4	497.7	502.9	508.1	513.4	518.7
40°	453.2	457.9	462.6	467.3	472.0	477.2	483.1	488.8	494.6	500.3	505.9
42.5°	436.3	440.9	445.6	450.3	455.1	460.7	467.4	474.0	480.6	487.3	493.3
45°	407.9	413.8	419.5	425.3	431.0	437.7	445.2	452.7	460.1	467.6	474.3
47.5°	380.0	386.3	392.7	398.9	405.2	412.7	421.5	430.3	439.0	447.8	454.8
50°	360.8	367.5	374.1	380.7	387.3	395.5	405.1	414.7	424.3	433.9	441.2
52.5°	342.3	349.3	356.3	363.3	370.2	378.8	388.9	399.1	409.2	419.3	426.8
55°	312.7	320.4	328.1	335.8	343.5	352.9	364.0	375.1	386.3	397.4	405.1
57.5°	283.4	292.2	300.9	309.5	318.2	328.2	339.5	350.8	362.2	373.5	381.8
60°	262.7	271.8	281.1	290.3	299.4	310.2	322.3	334.5	346.7	358.9	367.0
62.5°	244.2	253.7	263.3	272.8	282.4	293.2	305.4	317.5	329.8	342.0	350.6
65°	213.6	224.0	234.6	245.1	255.5	267.0	279.7	292.3	304.9	317.5	326.3
67.5°	185.5	196.4	207.5	218.4	229.3	241.2	254.1	267.0	279.9	292.8	301.7
70°	165.5	176.6	187.8	198.9	210.0	222.2	235.4	248.6	261.9	275.2	284.4
72.5°	147.0	158.4	169.9	181.4	192.8	205.3	218.8	232.1	245.6	259.0	268.1
75°	118.4	130.4	142.3	154.3	166.3	179.1	192.7	206.4	220.1	233.8	243.0
77.5°	90.7	103.2	115.7	128.2	140.7	154.0	167.9	181.8	195.7	209.5	218.8
80°	72.2	85.2	98.2	111.3	124.3	137.8	151.7	165.6	179.5	193.4	202.4
82.5°	56.7	69.7	82.5	95.4	108.3	121.7	135.8	149.9	163.9	178.0	187.0
85°	34.7	47.9	61.2	74.4	87.7	101.1	114.8	128.5	142.2	155.9	164.9
87.5°	19.0	32.3	45.5	58.8	72.0	86.0	100.6	115.2	129.8	144.4	153.0
90°	10.6	25.4	40.3	55.3	70.2	86.8	105.1	123.4	141.7	159.9	168.1
92.5°	25.6	39.0	52.4	65.8	79.2	92.9	107.3	121.5	135.7	150.0	158.4
95°	56.6	68.7	80.9	93.0	105.2	117.8	131.1	144.4	157.6	170.9	179.0
97.5°	96.1	106.9	117.6	128.5	139.2	151.2	164.3	177.4	190.5	203.6	211.5
100°	126.2	135.8	145.3	155.0	164.6	175.6	188.2	200.9	213.4	226.0	233.9
102.5°	157.0	165.6	174.2	182.8	191.2	201.8	214.2	226.7	239.0	251.5	259.4
105°	207.1	213.9	220.7	227.5	234.3	243.6	255.1	266.6	278.1	289.6	297.6
107.5°	258.4	264.3	270.1	276.1	281.9	290.2	300.9	311.5	322.2	332.8	340.2
110°	290.8	296.2	301.8	307.4	312.8	320.8	331.3	341.9	352.3	362.8	369.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	326.9	331.7	336.6	341.4	346.2	353.5	363.4	373.2	383.0	392.8	399.1
115°	380.1	383.7	387.3	390.9	394.5	401.0	410.1	419.3	428.6	437.7	443.9
117.5°	432.2	435.4	438.6	441.9	445.1	450.5	458.3	466.0	473.6	481.4	487.2
120°	467.6	470.0	472.6	475.1	477.7	482.4	489.3	496.2	503.0	509.9	515.9
122.5°	499.9	502.3	504.6	507.0	509.3	513.9	520.8	527.6	534.5	541.4	546.7
125°	549.3	551.2	553.1	555.0	556.9	560.9	567.1	573.3	579.6	585.8	591.0
127.5°	598.4	600.6	602.8	604.9	607.1	610.6	615.4	620.1	624.9	629.6	634.2
130°	629.3	631.8	634.3	636.8	639.3	642.6	646.7	650.7	654.9	658.9	663.6
132.5°	663.9	665.9	667.9	670.0	671.9	674.7	678.3	681.8	685.3	688.9	693.0
135°	709.3	711.5	713.9	716.1	718.4	720.9	723.4	725.9	728.5	731.1	735.4
137.5°	758.0	759.8	761.7	763.5	765.3	766.9	768.5	770.0	771.5	772.9	776.7
140°	787.3	789.0	790.6	792.3	794.0	795.6	797.0	798.5	799.9	801.4	804.8
142.5°	817.4	819.1	820.8	822.5	824.1	825.3	826.1	826.9	827.7	828.5	831.4
145°	859.7	861.2	862.6	864.1	865.5	867.0	868.2	869.4	870.7	871.9	873.5
147.5°	898.2	900.0	901.8	903.5	905.3	906.6	907.5	908.2	909.1	909.9	910.6
150°	924.6	925.9	927.1	928.4	929.6	930.7	931.5	932.4	933.2	934.1	934.6
152.5°	947.9	949.2	950.5	951.7	953.0	954.1	955.1	956.1	957.1	958.1	958.9
155°	983.0	983.5	984.2	984.9	985.4	986.1	986.7	987.3	988.0	988.5	989.7
157.5°	1012.9	1013.2	1013.7	1014.1	1014.6	1014.9	1015.3	1015.7	1016.1	1016.4	1017.9
160°	1031.0	1031.3	1031.7	1032.2	1032.6	1032.9	1033.1	1033.3	1033.5	1033.7	1035.0
162.5°	1047.4	1047.5	1047.6	1047.7	1047.8	1047.9	1048.2	1048.4	1048.6	1048.8	1050.2
165°	1069.5	1069.3	1069.0	1068.8	1068.7	1068.6	1068.6	1068.6	1068.6	1068.6	1070.0
167.5°	1087.9	1087.3	1086.7	1086.0	1085.4	1085.1	1085.1	1085.0	1085.0	1084.9	1086.4
170°	1097.7	1097.0	1096.5	1095.8	1095.1	1094.8	1094.6	1094.4	1094.1	1093.9	1095.4
172.5°	1104.5	1103.8	1103.2	1102.6	1101.9	1101.5	1101.4	1101.1	1100.9	1100.7	1102.2
175°	1112.8	1112.1	1111.4	1110.9	1110.2	1109.7	1109.3	1108.9	1108.4	1108.1	1109.5
177.5°	1116.2	1115.6	1115.1	1114.7	1114.1	1113.7	1113.3	1113.0	1112.7	1112.4	1113.3
180°	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
2.5°	661.8	662.6	663.5	663.7	663.4	663.1	662.7	662.4
5°	659.8	661.0	662.3	662.9	662.6	662.4	662.2	661.9
7.5°	656.6	658.2	659.7	660.3	660.2	659.9	659.7	659.5
10°	653.8	655.5	657.3	658.0	657.8	657.6	657.4	657.1
12.5°	649.2	650.9	652.7	653.4	653.2	653.0	652.8	652.5
15°	640.8	642.7	644.7	645.5	645.4	645.1	644.9	644.7
17.5°	630.0	632.1	634.0	635.1	635.1	635.1	635.1	635.1
20°	621.5	623.9	626.1	627.4	627.4	627.4	627.4	627.4
22.5°	612.3	614.6	616.9	618.3	618.6	619.0	619.3	619.6
25°	597.9	600.4	602.9	604.5	605.2	605.9	606.5	607.2
27.5°	581.9	585.1	588.4	590.2	590.7	591.2	591.6	592.1
30°	570.7	574.1	577.5	579.6	580.2	580.9	581.5	582.1
32.5°	558.6	562.6	566.5	569.0	570.2	571.4	572.5	573.6
35°	541.5	546.2	550.9	554.0	555.5	557.0	558.5	560.0
37.5°	523.9	529.0	534.3	537.7	539.3	540.8	542.4	544.0
40°	511.4	517.0	522.5	526.3	528.2	530.2	532.1	534.0
42.5°	499.4	505.5	511.5	515.6	517.5	519.4	521.3	523.2
45°	480.9	487.5	494.2	498.5	500.7	502.8	504.9	507.1
47.5°	461.7	468.6	475.5	480.1	482.5	484.8	487.2	489.6
50°	448.5	455.7	463.1	467.9	470.2	472.6	474.9	477.2
52.5°	434.2	441.7	449.1	454.1	456.6	459.1	461.7	464.2
55°	412.7	420.5	428.2	433.4	436.2	438.9	441.8	444.5
57.5°	390.1	398.4	406.7	412.3	415.1	417.9	420.8	423.6
60°	375.1	383.2	391.4	397.0	399.9	402.9	406.0	409.0
62.5°	359.2	367.9	376.5	382.3	385.0	387.9	390.7	393.5
65°	335.1	343.8	352.6	358.4	361.2	363.9	366.7	369.5
67.5°	310.6	319.4	328.3	334.2	337.1	340.0	342.9	345.8
70°	293.6	302.7	312.0	317.8	320.4	323.0	325.6	328.1
72.5°	277.1	286.1	295.1	301.1	304.3	307.4	310.4	313.5
75°	252.2	261.4	270.6	276.5	279.4	282.1	284.9	287.7
77.5°	227.9	237.0	246.2	252.2	255.2	258.3	261.2	264.2
80°	211.3	220.4	229.3	235.4	238.3	241.3	244.3	247.3
82.5°	196.0	204.9	214.0	219.8	222.6	225.5	228.3	231.1
85°	173.8	182.9	191.8	197.7	200.8	203.8	206.8	209.7
87.5°	161.6	170.3	178.9	184.6	187.4	190.2	192.9	195.8
90°	176.2	184.4	192.5	197.9	200.7	203.5	206.2	209.1
92.5°	166.9	175.4	183.9	189.4	192.0	194.6	197.2	199.8
95°	187.1	195.2	203.3	208.5	210.7	212.8	214.9	217.1
97.5°	219.4	227.3	235.3	240.4	242.9	245.4	247.9	250.3
100°	241.9	249.8	257.7	262.7	264.9	267.0	269.1	271.3
102.5°	267.3	275.2	283.1	288.1	290.3	292.5	294.5	296.7
105°	305.5	313.4	321.3	326.4	328.8	331.1	333.5	335.8
107.5°	347.5	354.9	362.2	366.6	368.0	369.3	370.7	372.1
110°	376.5	383.3	390.1	394.5	396.2	397.8	399.6	401.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	405.4	411.8	418.1	422.3	424.1	426.0	427.9	429.8
115°	450.2	456.4	462.6	466.6	468.3	470.0	471.7	473.4
117.5°	493.0	498.9	504.7	508.4	509.9	511.5	513.0	514.6
120°	521.9	527.8	533.9	537.7	539.4	541.1	542.9	544.6
122.5°	552.0	557.3	562.6	566.1	567.6	569.2	570.7	572.3
125°	596.1	601.2	606.3	609.8	611.5	613.2	614.9	616.7
127.5°	638.8	643.3	647.9	650.7	652.0	653.2	654.4	655.6
130°	668.4	673.1	677.8	680.5	681.5	682.3	683.2	684.0
132.5°	697.0	701.1	705.0	707.6	708.6	709.7	710.8	711.8
135°	739.6	743.9	748.2	750.9	752.0	753.1	754.1	755.3
137.5°	780.4	784.2	788.0	790.1	790.8	791.5	792.0	792.7
140°	808.3	811.7	815.1	817.1	817.5	817.9	818.4	818.9
142.5°	834.3	837.2	840.1	841.7	842.0	842.3	842.5	842.8
145°	875.0	876.5	877.9	878.7	879.0	879.2	879.5	879.7
147.5°	911.3	911.8	912.5	912.7	912.4	912.1	911.8	911.5
150°	935.3	935.9	936.5	936.5	935.9	935.3	934.6	934.1
152.5°	959.7	960.5	961.3	961.3	960.5	959.7	958.9	958.1
155°	990.7	991.7	992.8	993.0	992.3	991.7	991.1	990.4
157.5°	1019.3	1020.7	1022.1	1022.3	1021.3	1020.3	1019.3	1018.3
160°	1036.2	1037.5	1038.8	1039.0	1038.1	1037.3	1036.4	1035.6
162.5°	1051.6	1053.0	1054.4	1054.7	1053.7	1052.6	1051.7	1050.7
165°	1071.5	1072.9	1074.4	1074.6	1073.6	1072.5	1071.5	1070.4
167.5°	1087.8	1089.3	1090.7	1090.9	1089.9	1088.7	1087.7	1086.6
170°	1096.8	1098.3	1099.8	1099.9	1098.6	1097.4	1096.1	1094.9
172.5°	1103.6	1105.1	1106.5	1106.6	1105.4	1104.2	1102.9	1101.6
175°	1111.0	1112.4	1113.9	1114.0	1112.8	1111.4	1110.2	1109.0
177.5°	1114.4	1115.4	1116.3	1116.3	1115.4	1114.4	1113.3	1112.4
180°	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7

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