

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: P332557-840

Luminaire Tested: **SA4XXDIP-C575D810U840-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332557-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C575D810U840-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5227.4 lumens
Efficiency: N/A
Efficacy: 136.1 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: General Diffuse

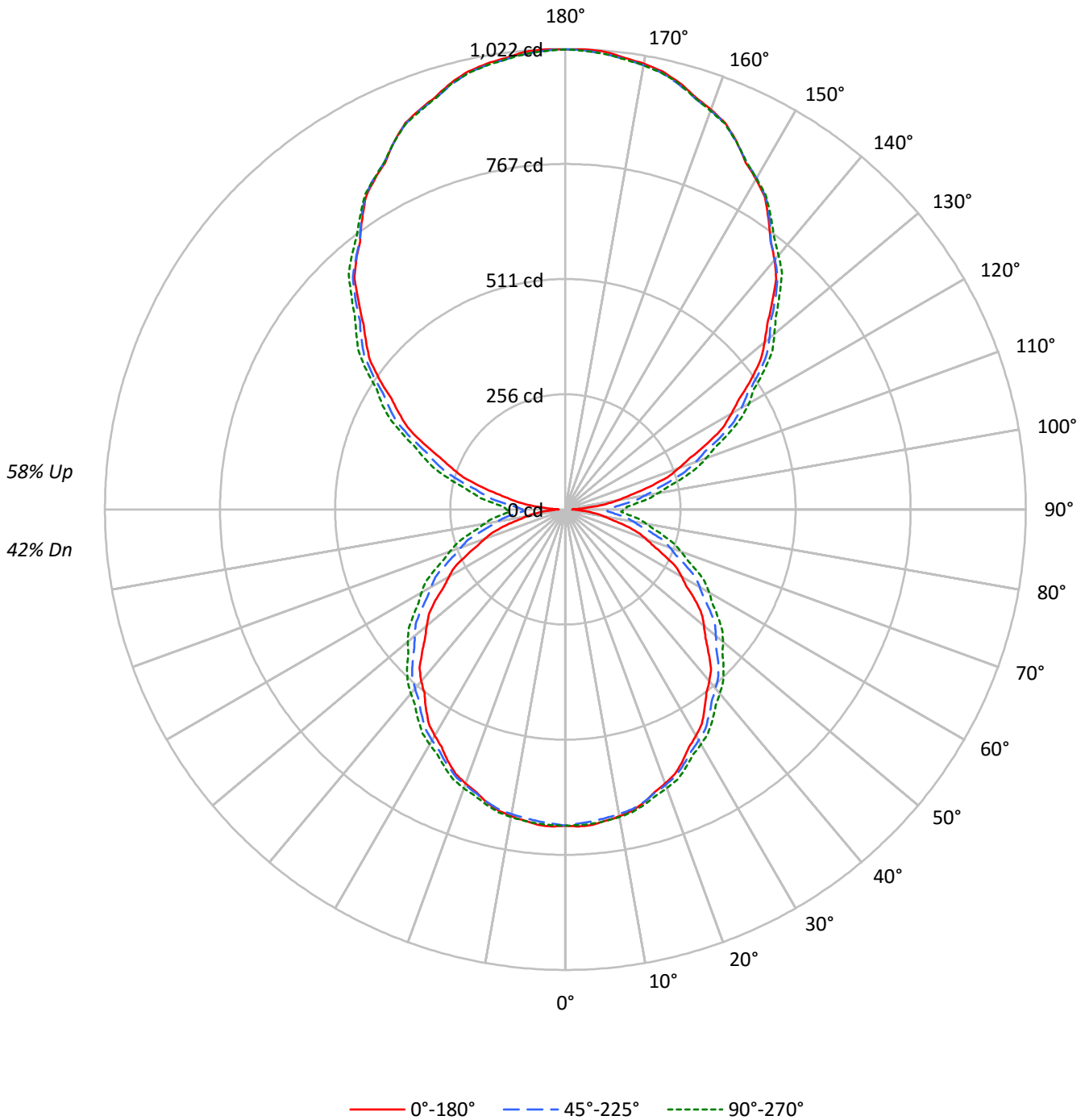
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42
1	95	91	86	83	87	83	79	76	68	65	63	54	53	51	42	41	40	34
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	33	28
3	78	69	61	55	71	63	56	51	52	47	43	41	38	35	32	30	27	23
4	72	61	52	46	65	55	48	43	46	40	36	37	33	30	28	26	23	19
5	66	54	45	39	60	49	42	37	41	35	31	33	29	26	25	23	20	17
6	60	48	40	34	55	44	37	32	37	31	27	30	25	22	23	20	18	15
7	56	43	35	30	51	40	33	28	33	28	23	27	23	20	21	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	24	20	17	19	16	14	11
9	48	36	28	23	44	33	26	22	27	22	18	22	18	15	18	15	12	10
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	16	13	11	9

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	1.3
10°-20°	190.4	3.6
20°-30°	287.9	5.5
30°-40°	348.3	6.7
40°-50°	368.3	7.0
50°-60°	346.6	6.6
60°-70°	287.5	5.5
70°-80°	202.0	3.9
80°-90°	117.2	2.2
90°-100°	135.1	2.6
100°-110°	249.6	4.8
110°-120°	372.2	7.1
120°-130°	465.4	8.9
130°-140°	509.5	9.7
140°-150°	494.3	9.5
150°-160°	414.3	7.9
160°-170°	275.7	5.3
170°-180°	96.5	1.8
0°-30°	544.7	10.4
0°-40°	893.1	17.1
0°-60°	1607.9	30.8
0°-90°	2214.7	42.4
90°-120°	757.0	14.5
90°-150°	2226.2	42.6
90°-180°	3013.0	57.6
0°-180°	5227.4	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°	15	55	95	122	131	11
95°	58	91	128	151	159	61
105°	191	208	240	261	270	203
115°	349	357	380	395	401	344
125°	504	505	522	535	539	450
135°	648	653	658	669	672	501
145°	786	789	790	793	794	492
155°	900	900	899	902	899	414
165°	980	977	976	980	977	276
175°	1019	1015	1014	1020	1014	97
180°	1021	1021	1021	1021	1021	



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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°	23.7	31.2	38.8	46.3	53.8	61.5	69.4	77.4	85.3	93.2	98.5
90°	14.9	23.8	32.8	41.7	50.6	59.5	68.5	77.4	86.2	95.1	101.3
92.5°	28.9	37.4	45.8	54.3	62.8	71.3	79.8	88.3	96.8	105.3	110.9
95°	57.6	64.9	72.3	79.6	86.9	94.8	103.2	111.6	120.0	128.4	133.6
97.5°	92.0	98.3	104.4	110.7	116.9	124.3	132.8	141.4	149.9	158.3	163.6
100°	119.2	124.4	129.7	134.9	140.2	146.9	155.3	163.7	172.1	180.6	185.6
102.5°	148.2	152.5	156.7	161.0	165.3	171.5	179.6	187.6	195.8	203.9	208.9
105°	191.1	194.7	198.3	202.1	205.7	211.2	218.2	225.4	232.6	239.7	244.7
107.5°	237.4	240.5	243.6	246.7	249.7	254.4	260.6	266.8	273.1	279.2	284.1
110°	268.4	271.1	274.0	276.8	279.6	284.0	289.9	295.8	301.7	307.7	311.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	300.6	302.9	305.1	307.3	309.5	313.5	318.9	324.5	330.0	335.5	339.3
115°	348.9	350.5	352.0	353.7	355.3	358.6	363.9	369.1	374.4	379.6	383.2
117.5°	395.2	396.3	397.4	398.5	399.5	402.5	407.5	412.4	417.5	422.4	425.5
120°	425.6	426.8	428.0	429.2	430.4	433.3	437.9	442.4	447.0	451.4	454.0
122.5°	457.8	458.1	458.5	458.9	459.3	461.7	466.3	470.8	475.3	479.9	482.8
125°	504.4	504.3	504.1	503.9	503.8	505.7	510.0	514.1	518.4	522.5	525.5
127.5°	547.4	547.8	548.2	548.5	548.9	550.6	553.6	556.6	559.8	562.8	565.6
130°	577.1	577.4	577.8	578.1	578.6	580.1	582.9	585.7	588.4	591.3	594.1
132.5°	608.0	608.2	608.4	608.6	608.9	610.1	612.2	614.2	616.3	618.4	621.1
135°	648.1	649.2	650.3	651.4	652.4	653.5	654.7	656.0	657.2	658.4	660.9
137.5°	692.7	693.0	693.4	693.7	694.0	694.6	695.4	696.3	697.2	698.0	700.1
140°	722.4	722.6	722.8	723.0	723.1	723.3	723.5	723.6	723.8	724.0	726.1
142.5°	748.9	749.2	749.5	749.8	750.1	750.2	749.9	749.7	749.5	749.2	751.2
145°	786.4	786.9	787.4	787.9	788.4	788.8	789.0	789.1	789.3	789.5	790.4
147.5°	823.6	824.3	825.0	825.6	826.3	826.6	826.4	826.3	826.1	826.0	826.0
150°	846.4	846.9	847.4	847.9	848.5	848.7	848.7	848.7	848.7	848.7	848.7
152.5°	867.2	867.6	868.0	868.4	868.7	869.0	869.1	869.3	869.4	869.6	870.0
155°	900.0	900.0	900.0	900.0	900.0	899.9	899.8	899.6	899.4	899.3	899.9
157.5°	927.9	927.5	927.2	926.9	926.6	926.3	926.3	926.3	926.2	926.2	926.8
160°	944.2	944.0	943.9	943.7	943.5	943.3	943.2	943.0	942.8	942.7	943.2
162.5°	959.4	959.0	958.5	958.1	957.6	957.3	957.0	956.9	956.7	956.5	957.6
165°	979.8	979.3	978.8	978.2	977.7	977.2	976.8	976.5	976.1	975.8	976.8
167.5°	995.4	994.6	993.9	993.2	992.5	992.1	992.1	992.2	992.2	992.2	993.3
170°	1004.2	1003.4	1002.5	1001.6	1000.8	1000.4	1000.6	1000.8	1000.9	1001.1	1002.1
172.5°	1010.6	1009.9	1009.1	1008.4	1007.6	1007.2	1007.3	1007.3	1007.3	1007.4	1008.6
175°	1019.3	1018.3	1017.4	1016.6	1015.7	1015.2	1015.0	1014.8	1014.7	1014.5	1015.7
177.5°	1022.1	1021.4	1020.7	1020.0	1019.3	1019.0	1019.0	1019.0	1019.0	1019.0	1019.9
180°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8



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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°	103.8	109.1	114.3	117.8	119.4	121.0	122.6	124.2
90°	107.4	113.5	119.7	123.6	125.3	127.0	128.9	130.6
92.5°	116.4	122.0	127.5	131.1	132.7	134.3	135.9	137.5
95°	138.9	144.1	149.4	152.7	154.3	155.9	157.4	159.1
97.5°	168.8	174.0	179.3	182.6	184.1	185.6	187.1	188.5
100°	190.7	195.7	200.8	203.9	205.1	206.4	207.6	208.8
102.5°	214.0	219.1	224.2	227.4	228.9	230.5	232.0	233.5
105°	249.5	254.5	259.3	262.8	264.7	266.6	268.5	270.4
107.5°	288.8	293.7	298.4	301.4	302.7	303.9	305.1	306.3
110°	315.0	318.7	322.3	325.2	327.1	329.0	330.9	332.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	343.2	346.9	350.7	353.4	354.9	356.4	357.9	359.4
115°	386.9	390.6	394.3	396.6	397.7	398.7	399.7	400.8
117.5°	428.5	431.5	434.5	436.6	437.6	438.7	439.7	440.8
120°	456.7	459.3	461.9	464.1	465.9	467.6	469.4	471.1
122.5°	485.6	488.6	491.5	493.2	493.8	494.5	495.1	495.7
125°	528.5	531.5	534.4	536.2	536.9	537.7	538.4	539.1
127.5°	568.5	571.2	574.0	575.8	576.7	577.6	578.6	579.5
130°	596.8	599.7	602.5	604.0	604.3	604.7	605.0	605.4
132.5°	623.8	626.4	629.0	630.8	631.6	632.3	633.1	633.8
135°	663.3	665.7	668.2	669.6	670.1	670.8	671.3	671.8
137.5°	702.3	704.4	706.4	708.0	708.9	709.9	710.9	711.9
140°	728.1	730.2	732.4	733.8	734.5	735.2	735.8	736.5
142.5°	753.2	755.1	757.1	758.4	759.1	759.8	760.4	761.1
145°	791.2	792.1	792.9	793.6	793.7	793.9	794.1	794.2
147.5°	826.0	826.0	826.0	826.2	826.6	827.0	827.3	827.7
150°	848.7	848.7	848.7	848.6	848.5	848.3	848.1	847.9
152.5°	870.4	870.8	871.2	871.2	870.8	870.3	869.9	869.4
155°	900.6	901.3	902.0	902.0	901.3	900.6	899.9	899.3
157.5°	927.3	927.9	928.4	928.3	927.8	927.2	926.6	925.9
160°	943.7	944.2	944.7	944.6	943.7	942.8	942.0	941.1
162.5°	958.5	959.4	960.4	960.4	959.5	958.7	957.8	956.8
165°	978.0	979.0	980.1	980.2	979.5	978.8	978.1	977.4
167.5°	994.3	995.4	996.4	996.4	995.3	994.2	993.2	992.1
170°	1003.2	1004.2	1005.3	1005.2	1004.0	1002.8	1001.5	1000.3
172.5°	1009.8	1011.0	1012.2	1012.2	1011.0	1009.7	1008.5	1007.2
175°	1016.9	1018.1	1019.5	1019.5	1018.1	1016.9	1015.7	1014.5
177.5°	1020.9	1021.9	1022.9	1022.8	1021.7	1020.6	1019.5	1018.2
180°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8

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