

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: P331307-830

Luminaire Tested: **SA2XXDIP-C485D725U830-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

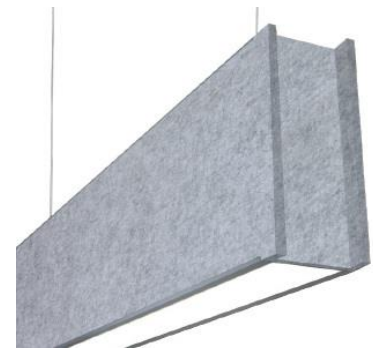
Test Information

Test Method: LM-79-08
Report Number: P331307-830
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-C485D725U830-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4297.6 lumens
Efficiency: N/A
Efficacy: 111.9 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

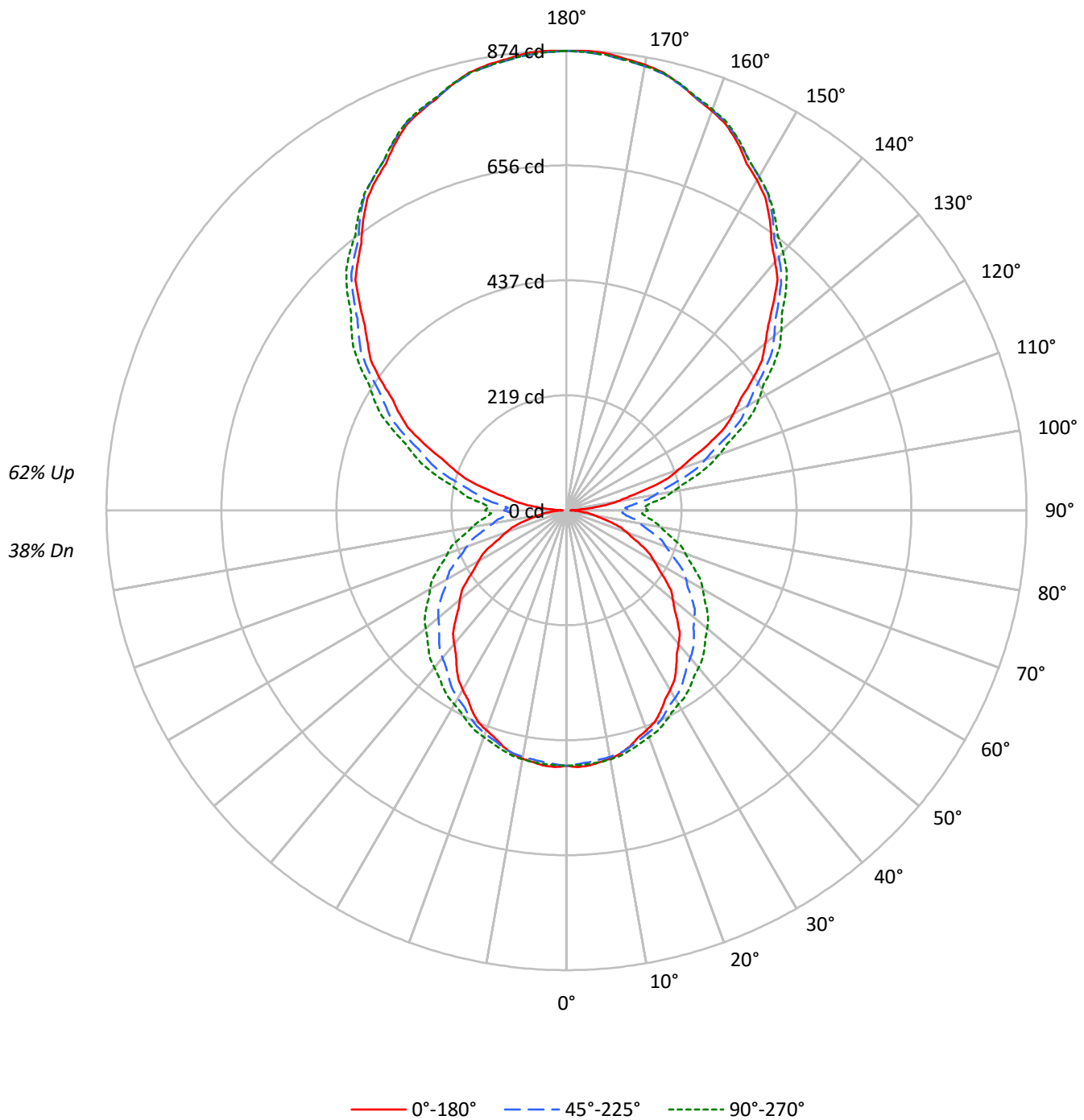
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	45	45	45
1	94	89	85	81	85	81	77	74	66	63	61	51	50	48	38	37	36
2	85	77	71	65	77	70	65	60	57	53	49	44	42	39	33	31	29
3	77	67	60	54	70	61	55	49	50	45	41	39	35	33	29	27	25
4	71	59	51	45	64	54	47	41	44	39	34	34	31	28	26	23	21
5	65	53	44	38	58	48	41	35	39	34	29	31	27	24	23	20	18
6	59	47	39	33	53	43	36	30	35	29	25	28	24	20	21	18	16
7	55	42	34	29	49	39	32	26	32	26	22	25	21	18	19	16	14
8	51	38	30	25	46	35	28	23	29	23	20	23	19	16	17	14	12
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7842	7842	7842
5°	7880	7549	7520
10°	7831	7327	7244
15°	7723	7090	6952
20°	7587	6836	6671
25°	7453	6592	6417
30°	7262	6342	6160
35°	7069	6100	5981
40°	6869	5895	5801
45°	6677	5709	5648
50°	6471	5541	5495
55°	6254	5363	5341
60°	5990	5177	5178
65°	5716	4959	4983
70°	5407	4723	4775
75°	5013	4495	4582
80°	4391	4260	4385
85°	3800	4054	4232

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.0	1.1
10°-20°	132.0	3.1
20°-30°	200.0	4.7
30°-40°	243.6	5.7
40°-50°	262.1	6.1
50°-60°	254.5	5.9
60°-70°	222.2	5.2
70°-80°	171.1	4.0
80°-90°	118.3	2.8
90°-100°	134.4	3.1
100°-110°	229.6	5.3
110°-120°	331.8	7.7
120°-130°	407.5	9.5
130°-140°	442.4	10.3
140°-150°	426.6	9.9
150°-160°	356.5	8.3
160°-170°	236.5	5.5
170°-180°	82.6	1.9
0°-30°	378.0	8.8
0°-40°	621.6	14.5
0°-60°	1138.1	26.5
0°-90°	1649.7	38.4
90°-120°	695.8	16.2
90°-150°	1972.3	45.9
90°-180°	2648.0	61.6
0°-180°	4297.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	486	486	486	486	486	
5°	487	485	481	485	484	46
15°	465	466	466	472	472	131
25°	422	427	434	442	444	194
35°	364	376	389	404	410	227
45°	298	318	342	363	371	230
55°	229	255	291	315	325	204
65°	156	191	232	260	270	155
75°	87	126	171	200	210	92
85°	25	69	114	142	153	27
90°	8	58	119	144	155	7
95°	44	85	128	154	162	48
105°	162	185	223	248	256	171
115°	298	311	340	359	366	294
125°	430	438	457	473	480	385
135°	555	564	572	586	590	429
145°	673	678	683	688	688	421
155°	770	772	774	778	776	354
165°	838	837	837	842	838	236
175°	872	869	868	872	869	83
180°	873	873	873	873	873	

TEST NUMBER: P331307-830

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7
2.5°	488.5	488.1	487.8	487.4	487.0	486.4	485.5	484.7	483.8	482.9	483.5
5°	487.1	486.6	486.2	485.7	485.2	484.6	483.6	482.7	481.7	480.8	481.7
7.5°	482.8	482.4	482.1	481.8	481.5	481.0	480.2	479.6	478.8	478.1	479.2
10°	479.4	479.1	478.7	478.4	478.2	477.8	477.3	476.8	476.4	475.9	477.1
12.5°	473.7	473.8	473.9	473.9	474.0	473.8	473.5	473.2	472.8	472.5	473.7
15°	464.6	464.9	465.2	465.5	465.8	466.0	466.0	466.0	466.0	466.0	467.4
17.5°	452.8	453.5	454.1	454.8	455.4	456.0	456.5	456.9	457.5	458.0	459.4
20°	444.9	445.6	446.5	447.2	448.0	448.7	449.3	450.0	450.6	451.2	452.9
22.5°	436.4	437.3	438.3	439.1	440.1	440.9	441.9	442.7	443.6	444.5	446.2
25°	422.4	423.5	424.5	425.7	426.7	428.0	429.4	430.8	432.3	433.6	435.5
27.5°	405.5	407.3	409.1	410.9	412.6	414.3	415.9	417.6	419.2	420.9	423.3
30°	394.2	396.2	398.2	400.3	402.4	404.4	406.4	408.4	410.5	412.5	415.0
32.5°	381.8	384.1	386.3	388.7	391.0	393.3	395.7	398.1	400.5	402.9	405.8
35°	363.9	366.6	369.3	371.9	374.6	377.4	380.3	383.3	386.3	389.3	392.7
37.5°	344.5	347.6	350.6	353.7	356.8	360.2	364.1	367.9	371.7	375.6	379.5
40°	331.6	335.0	338.5	341.9	345.3	349.1	353.4	357.6	361.8	366.1	370.1
42.5°	319.1	322.6	326.0	329.5	332.9	337.1	342.0	346.8	351.7	356.5	360.9
45°	298.5	302.7	306.9	311.1	315.4	320.2	325.6	331.1	336.7	342.1	346.9
47.5°	278.1	282.7	287.3	291.8	296.4	302.0	308.4	314.8	321.2	327.6	332.7
50°	264.0	268.8	273.7	278.5	283.3	289.3	296.3	303.4	310.5	317.4	322.8
52.5°	250.4	255.5	260.6	265.8	270.9	277.1	284.6	291.9	299.4	306.8	312.2
55°	228.8	234.4	240.1	245.6	251.3	258.2	266.4	274.5	282.6	290.7	296.3
57.5°	207.4	213.8	220.1	226.4	232.8	240.1	248.4	256.7	264.9	273.2	279.4
60°	192.2	198.9	205.7	212.4	219.0	226.9	235.8	244.7	253.6	262.6	268.5
62.5°	178.6	185.6	192.7	199.6	206.6	214.5	223.4	232.3	241.3	250.2	256.5
65°	156.3	163.9	171.6	179.3	186.9	195.4	204.6	213.9	223.1	232.3	238.7
67.5°	135.7	143.7	151.7	159.8	167.8	176.4	186.0	195.4	204.8	214.2	220.7
70°	121.1	129.2	137.3	145.4	153.6	162.5	172.2	181.9	191.6	201.3	208.0
72.5°	107.5	115.9	124.3	132.7	141.1	150.2	160.0	169.8	179.6	189.5	196.1
75°	86.6	95.4	104.1	112.8	121.6	131.0	141.0	151.0	161.1	171.1	177.8
77.5°	66.4	75.5	84.6	93.8	103.0	112.6	122.8	133.0	143.2	153.4	160.0
80°	52.8	62.3	71.9	81.4	91.0	100.9	111.0	121.1	131.3	141.5	148.1
82.5°	41.6	51.0	60.3	69.7	79.2	89.1	99.3	109.6	119.9	130.3	136.8
85°	25.4	35.1	44.8	54.5	64.1	74.0	84.0	94.0	104.1	114.0	120.6
87.5°	13.9	23.7	33.4	43.1	52.8	63.1	73.8	84.5	95.2	105.9	112.3
90°	7.7	18.9	29.9	40.9	51.9	64.3	77.9	91.5	105.1	118.7	124.6
92.5°	19.6	29.5	39.4	49.3	59.1	69.4	79.8	90.3	100.8	111.3	117.4
95°	43.9	53.0	61.9	70.9	79.9	89.3	99.0	108.7	118.4	128.1	134.0
97.5°	74.9	82.8	90.9	98.9	106.8	115.6	125.3	134.9	144.5	154.2	159.9
100°	98.5	105.6	112.7	119.8	126.9	135.1	144.3	153.5	162.8	172.0	177.9
102.5°	122.7	129.0	135.3	141.7	148.0	155.8	164.9	174.0	183.1	192.3	198.1
105°	161.9	166.9	172.0	177.0	182.0	188.8	197.3	205.7	214.1	222.6	228.4
107.5°	202.2	206.5	210.8	215.2	219.5	225.6	233.4	241.2	249.0	256.7	262.1
110°	227.5	231.6	235.7	239.9	243.9	249.9	257.5	265.1	272.9	280.5	285.5

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	255.8	259.4	263.1	266.6	270.2	275.6	282.8	289.9	297.1	304.3	308.9
115°	297.5	300.2	302.9	305.6	308.3	313.0	319.7	326.5	333.2	339.9	344.4
117.5°	338.4	340.8	343.3	345.6	348.1	352.1	357.7	363.3	368.9	374.5	378.7
120°	366.1	368.0	369.9	371.8	373.8	377.2	382.2	387.1	392.1	397.0	401.4
122.5°	391.4	393.2	395.0	396.9	398.7	402.1	407.1	412.0	417.0	422.0	425.8
125°	430.2	431.7	433.1	434.6	436.1	439.0	443.6	448.1	452.6	457.1	460.9
127.5°	468.6	470.3	472.0	473.8	475.5	478.1	481.5	484.9	488.4	491.8	495.1
130°	492.8	494.7	496.7	498.7	500.7	503.1	506.1	509.1	512.0	515.0	518.4
132.5°	519.9	521.5	523.1	524.6	526.2	528.3	530.9	533.5	536.1	538.8	541.6
135°	555.4	557.2	559.0	560.9	562.7	564.5	566.4	568.3	570.1	572.1	575.2
137.5°	593.6	595.0	596.5	597.9	599.4	600.7	601.8	602.9	604.0	605.1	607.8
140°	616.6	617.9	619.3	620.6	621.9	623.1	624.2	625.4	626.5	627.6	630.1
142.5°	640.2	641.5	642.8	644.1	645.5	646.4	647.1	647.6	648.3	648.9	651.0
145°	673.4	674.5	675.7	676.8	678.0	679.0	680.0	681.0	681.9	683.0	684.1
147.5°	703.6	704.9	706.3	707.7	709.1	710.1	710.8	711.4	712.1	712.8	713.2
150°	724.2	725.2	726.1	727.2	728.1	729.0	729.6	730.3	730.9	731.6	732.1
152.5°	742.4	743.5	744.4	745.5	746.4	747.2	748.1	748.9	749.6	750.5	751.0
155°	769.9	770.3	770.9	771.4	771.8	772.3	772.8	773.4	773.8	774.3	775.1
157.5°	793.3	793.6	794.0	794.3	794.7	794.9	795.2	795.5	795.8	796.1	797.2
160°	807.5	807.8	808.1	808.4	808.8	809.0	809.2	809.4	809.5	809.6	810.7
162.5°	820.4	820.5	820.6	820.6	820.7	820.8	821.0	821.1	821.3	821.4	822.6
165°	837.6	837.5	837.4	837.2	837.0	836.9	836.9	836.9	836.9	836.9	838.1
167.5°	852.1	851.6	851.1	850.6	850.2	849.9	849.9	849.8	849.8	849.7	850.9
170°	859.8	859.3	858.8	858.3	857.8	857.4	857.3	857.1	857.0	856.8	858.0
172.5°	865.1	864.6	864.1	863.6	863.1	862.8	862.6	862.4	862.3	862.1	863.3
175°	871.6	871.1	870.5	870.1	869.6	869.2	868.8	868.6	868.2	867.9	869.0
177.5°	874.2	873.8	873.5	873.0	872.6	872.3	872.0	871.8	871.5	871.3	872.0
180°	873.0	873.0	873.0	873.0	873.0	873.0	873.0	873.0	873.0	873.0	873.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	485.7	485.7	485.7	485.7	485.7	485.7	485.7	485.7
2.5°	484.2	484.7	485.4	485.6	485.3	485.1	484.8	484.6
5°	482.7	483.6	484.6	484.9	484.7	484.7	484.5	484.3
7.5°	480.3	481.5	482.6	483.1	483.0	482.8	482.6	482.5
10°	478.3	479.6	480.9	481.5	481.3	481.1	481.0	480.8
12.5°	474.9	476.3	477.5	478.1	477.9	477.7	477.6	477.4
15°	468.8	470.2	471.6	472.2	472.1	471.9	471.7	471.6
17.5°	460.9	462.4	463.8	464.6	464.6	464.6	464.6	464.6
20°	454.7	456.4	458.1	458.9	458.9	458.9	458.9	458.9
22.5°	447.9	449.6	451.4	452.3	452.6	452.8	453.1	453.4
25°	437.3	439.2	441.1	442.3	442.8	443.3	443.7	444.2
27.5°	425.7	428.1	430.5	431.8	432.2	432.5	432.8	433.2
30°	417.5	420.0	422.5	424.0	424.4	424.9	425.4	425.8
32.5°	408.7	411.5	414.4	416.3	417.2	418.0	418.9	419.7
35°	396.2	399.6	403.0	405.3	406.4	407.5	408.6	409.7
37.5°	383.2	387.1	390.9	393.3	394.5	395.7	396.8	398.0
40°	374.2	378.2	382.3	385.0	386.4	387.9	389.3	390.7
42.5°	365.3	369.8	374.2	377.2	378.5	379.9	381.4	382.8
45°	351.9	356.7	361.5	364.7	366.3	367.9	369.4	371.0
47.5°	337.7	342.8	347.9	351.3	353.0	354.7	356.5	358.2
50°	328.1	333.4	338.7	342.2	344.0	345.7	347.4	349.1
52.5°	317.6	323.1	328.6	332.2	334.0	335.9	337.7	339.6
55°	302.0	307.6	313.2	317.1	319.1	321.1	323.2	325.2
57.5°	285.4	291.4	297.6	301.6	303.7	305.8	307.8	309.9
60°	274.5	280.4	286.3	290.4	292.6	294.8	297.0	299.2
62.5°	262.8	269.1	275.4	279.7	281.7	283.8	285.9	287.9
65°	245.2	251.6	258.0	262.2	264.2	266.3	268.2	270.3
67.5°	227.2	233.7	240.2	244.5	246.6	248.7	250.9	253.0
70°	214.8	221.5	228.2	232.5	234.4	236.3	238.2	240.1
72.5°	202.7	209.3	215.9	220.4	222.5	224.8	227.1	229.3
75°	184.5	191.2	197.9	202.4	204.3	206.4	208.4	210.5
77.5°	166.7	173.4	180.1	184.5	186.7	188.9	191.1	193.3
80°	154.7	161.2	167.8	172.1	174.4	176.5	178.7	180.9
82.5°	143.4	150.0	156.5	160.8	162.9	164.9	167.0	169.1
85°	127.1	133.7	140.3	144.7	146.8	149.1	151.3	153.4
87.5°	118.6	124.9	131.2	135.4	137.4	139.5	141.5	143.5
90°	130.5	136.5	142.4	146.4	148.5	150.5	152.5	154.6
92.5°	123.7	129.9	136.1	140.2	142.0	143.9	145.8	147.8
95°	140.0	145.9	151.8	155.6	157.2	158.7	160.2	161.8
97.5°	165.7	171.5	177.3	181.2	182.9	184.7	186.5	188.4
100°	183.6	189.5	195.2	198.9	200.5	202.0	203.6	205.1
102.5°	203.9	209.6	215.5	219.1	220.6	222.3	223.8	225.4
105°	234.2	240.1	245.8	249.6	251.3	253.1	254.8	256.5
107.5°	267.6	273.0	278.3	281.5	282.5	283.4	284.4	285.4
110°	290.5	295.5	300.6	303.7	304.9	306.1	307.4	308.6

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	313.5	318.1	322.7	325.7	327.1	328.4	329.8	331.1
115°	348.9	353.5	358.0	360.9	362.1	363.4	364.6	365.8
117.5°	383.0	387.2	391.4	394.1	395.2	396.3	397.4	398.5
120°	405.8	410.2	414.5	417.4	418.6	419.8	421.0	422.3
122.5°	429.7	433.6	437.4	439.9	441.0	442.1	443.2	444.3
125°	464.6	468.3	472.0	474.6	475.8	477.0	478.2	479.6
127.5°	498.4	501.7	505.0	507.1	507.9	508.8	509.6	510.5
130°	521.9	525.3	528.7	530.7	531.3	531.9	532.5	533.1
132.5°	544.5	547.4	550.4	552.1	552.9	553.6	554.4	555.1
135°	578.3	581.5	584.6	586.5	587.3	588.1	588.8	589.6
137.5°	610.6	613.4	616.1	617.6	618.1	618.5	619.0	619.3
140°	632.6	635.2	637.6	639.0	639.3	639.6	639.9	640.2
142.5°	653.2	655.3	657.4	658.6	658.7	658.9	659.0	659.2
145°	685.1	686.3	687.4	688.0	688.1	688.2	688.3	688.5
147.5°	713.7	714.2	714.6	714.7	714.5	714.3	714.1	713.8
150°	732.5	733.0	733.6	733.6	733.0	732.5	732.1	731.6
152.5°	751.7	752.3	752.9	752.9	752.3	751.7	751.0	750.5
155°	775.9	776.7	777.6	777.8	777.2	776.7	776.3	775.8
157.5°	798.3	799.5	800.6	800.7	799.9	799.2	798.3	797.6
160°	811.6	812.7	813.6	813.8	813.1	812.5	811.8	811.2
162.5°	823.7	824.8	826.0	826.0	825.3	824.5	823.7	822.9
165°	839.2	840.4	841.5	841.7	840.8	840.0	839.2	838.4
167.5°	852.1	853.2	854.3	854.5	853.7	852.8	852.0	851.1
170°	859.1	860.3	861.4	861.5	860.5	859.5	858.6	857.5
172.5°	864.4	865.5	866.7	866.8	865.8	864.8	863.8	862.9
175°	870.2	871.3	872.4	872.5	871.6	870.5	869.6	868.6
177.5°	872.8	873.6	874.4	874.4	873.6	872.8	872.0	871.3
180°	873.0	873.0	873.0	873.0	873.0	873.0	873.0	873.0

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