

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

Luminaire Tested: **SA2XXDIP-C485D725U835-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331307
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-C485D725U835-4F0-1E-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

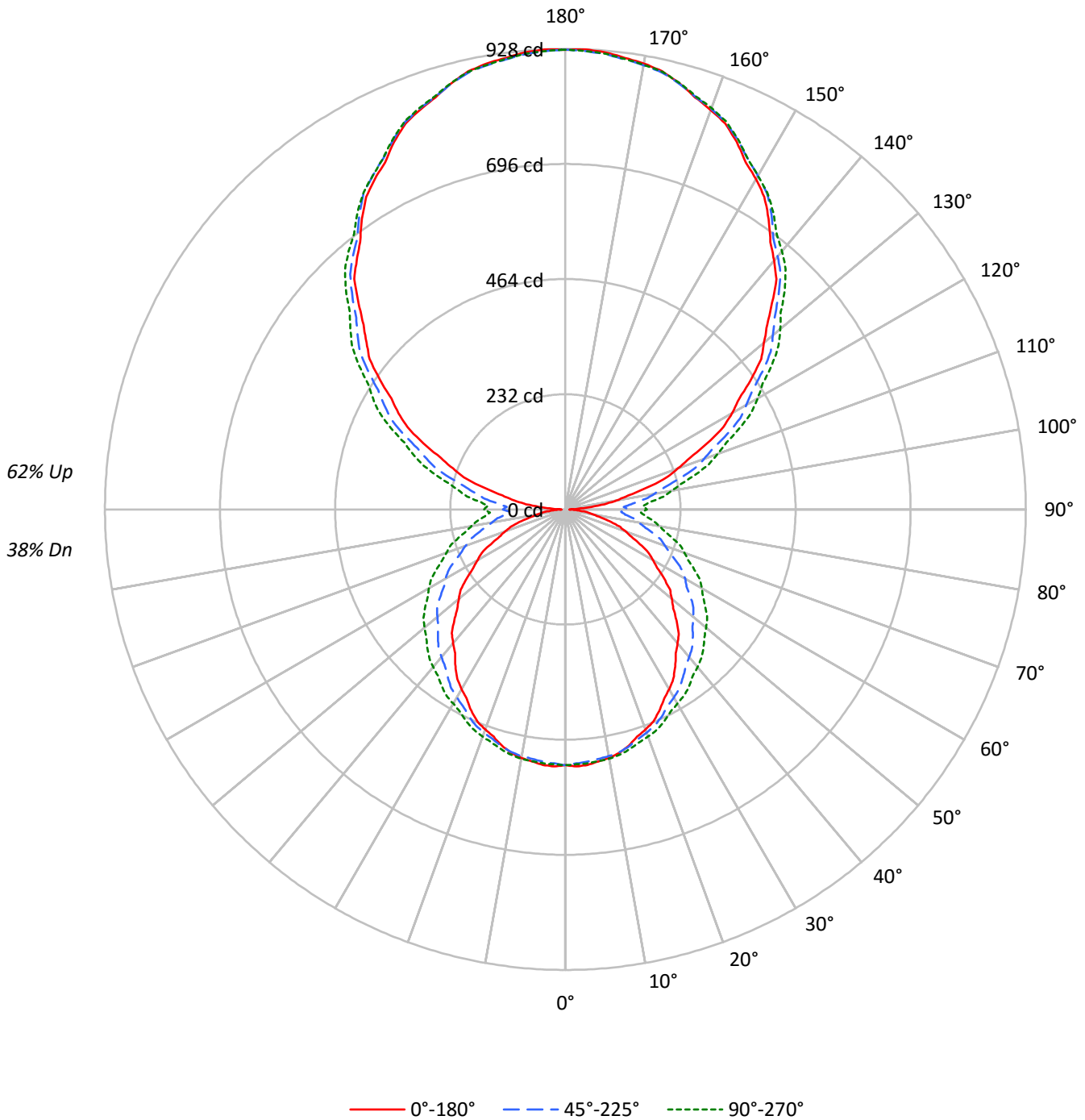
Lumens per Lamp: N/A
Luminaire Lumens: 4559.6 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8320	8320	8320
5°	8361	8009	7978
10°	8308	7773	7685
15°	8193	7522	7376
20°	8049	7253	7078
25°	7906	6994	6809
30°	7704	6728	6536
35°	7501	6472	6346
40°	7287	6254	6154
45°	7084	6058	5992
50°	6865	5879	5830
55°	6634	5689	5666
60°	6355	5493	5493
65°	6063	5262	5287
70°	5738	5012	5065
75°	5319	4768	4860
80°	4657	4519	4652
85°	4025	4303	4491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.8	1.1
10°-20°	140.0	3.1
20°-30°	212.2	4.7
30°-40°	258.4	5.7
40°-50°	278.0	6.1
50°-60°	270.0	5.9
60°-70°	235.8	5.2
70°-80°	181.5	4.0
80°-90°	125.5	2.8
90°-100°	142.6	3.1
100°-110°	243.6	5.3
110°-120°	352.1	7.7
120°-130°	432.4	9.5
130°-140°	469.4	10.3
140°-150°	452.6	9.9
150°-160°	378.2	8.3
160°-170°	250.9	5.5
170°-180°	87.7	1.9
0°-30°	401.0	8.8
0°-40°	659.5	14.5
0°-60°	1207.5	26.5
0°-90°	1750.3	38.4
90°-120°	738.2	16.2
90°-150°	2092.6	45.9
90°-180°	2809.0	61.6
0°-180°	4559.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	515	515	515	515	515	
5°	517	514	510	514	514	49
15°	493	494	494	501	500	139
25°	448	453	460	469	471	206
35°	386	399	413	429	435	241
45°	317	337	363	385	394	244
55°	243	270	308	334	345	217
65°	166	203	246	276	287	165
75°	92	134	182	212	223	97
85°	27	73	121	151	163	29
90°	8	62	126	153	164	7
95°	47	90	136	163	172	51
105°	172	197	236	263	272	182
115°	316	330	361	381	388	312
125°	456	464	485	502	509	408
135°	589	598	607	621	626	455
145°	714	720	725	730	730	446
155°	817	819	822	825	823	376
165°	889	888	888	893	890	251
175°	925	922	921	926	922	88
180°	926	926	926	926	926	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3
2.5°	518.3	517.9	517.5	517.1	516.7	516.0	515.1	514.2	513.3	512.3	513.0
5°	516.8	516.3	515.8	515.3	514.8	514.1	513.1	512.1	511.1	510.1	511.1
7.5°	512.2	511.8	511.5	511.2	510.9	510.3	509.5	508.8	508.0	507.2	508.4
10°	508.6	508.3	507.9	507.6	507.3	506.9	506.4	505.9	505.4	504.9	506.2
12.5°	502.6	502.7	502.8	502.8	502.9	502.7	502.4	502.0	501.6	501.3	502.6
15°	492.9	493.2	493.6	493.9	494.2	494.4	494.4	494.4	494.4	494.4	495.9
17.5°	480.4	481.1	481.8	482.5	483.2	483.8	484.3	484.8	485.4	485.9	487.4
20°	472.0	472.8	473.7	474.5	475.3	476.1	476.7	477.4	478.1	478.7	480.5
22.5°	463.0	464.0	465.0	465.9	466.9	467.8	468.8	469.7	470.6	471.6	473.4
25°	448.1	449.3	450.4	451.6	452.7	454.1	455.6	457.1	458.6	460.0	462.0
27.5°	430.2	432.1	434.0	435.9	437.7	439.6	441.3	443.1	444.8	446.6	449.1
30°	418.2	420.4	422.5	424.7	426.9	429.0	431.2	433.3	435.5	437.6	440.3
32.5°	405.1	407.5	409.9	412.4	414.8	417.3	419.8	422.4	424.9	427.5	430.5
35°	386.1	388.9	391.8	394.6	397.4	400.4	403.5	406.7	409.8	413.0	416.6
37.5°	365.5	368.8	372.0	375.3	378.5	382.2	386.3	390.3	394.4	398.5	402.6
40°	351.8	355.4	359.1	362.7	366.4	370.4	374.9	379.4	383.9	388.4	392.7
42.5°	338.6	342.3	345.9	349.6	353.2	357.6	362.8	367.9	373.1	378.2	382.9
45°	316.7	321.1	325.6	330.1	334.6	339.7	345.5	351.3	357.2	363.0	368.1
47.5°	295.0	299.9	304.8	309.6	314.5	320.4	327.2	334.0	340.8	347.6	353.0
50°	280.1	285.2	290.4	295.5	300.6	306.9	314.4	321.9	329.4	336.8	342.5
52.5°	265.7	271.1	276.5	282.0	287.4	294.0	301.9	309.7	317.6	325.5	331.2
55°	242.7	248.7	254.7	260.6	266.6	273.9	282.6	291.2	299.8	308.4	314.4
57.5°	220.0	226.8	233.5	240.2	247.0	254.7	263.5	272.3	281.1	289.9	296.4
60°	203.9	211.0	218.2	225.3	232.4	240.7	250.2	259.6	269.1	278.6	284.9
62.5°	189.5	196.9	204.4	211.8	219.2	227.6	237.0	246.5	256.0	265.4	272.1
65°	165.8	173.9	182.1	190.2	198.3	207.3	217.1	226.9	236.7	246.5	253.3
67.5°	144.0	152.5	161.0	169.5	178.0	187.2	197.3	207.3	217.3	227.3	234.2
70°	128.5	137.1	145.7	154.3	163.0	172.4	182.7	193.0	203.3	213.6	220.7
72.5°	114.1	123.0	131.9	140.8	149.7	159.4	169.8	180.2	190.6	201.0	208.1
75°	91.9	101.2	110.4	119.7	129.0	139.0	149.6	160.2	170.9	181.5	188.6
77.5°	70.4	80.1	89.8	99.5	109.3	119.5	130.3	141.1	151.9	162.7	169.8
80°	56.0	66.1	76.3	86.4	96.5	107.0	117.8	128.5	139.3	150.1	157.1
82.5°	44.1	54.1	64.0	74.0	84.0	94.5	105.4	116.3	127.2	138.2	145.1
85°	26.9	37.2	47.5	57.8	68.0	78.5	89.1	99.7	110.4	121.0	128.0
87.5°	14.8	25.1	35.4	45.7	56.0	66.9	78.3	89.6	101.0	112.4	119.1
90°	8.2	20.0	31.7	43.4	55.1	68.2	82.6	97.1	111.5	125.9	132.2
92.5°	20.8	31.3	41.8	52.3	62.7	73.6	84.7	95.8	106.9	118.1	124.6
95°	46.6	56.2	65.7	75.2	84.8	94.7	105.0	115.3	125.6	135.9	142.2
97.5°	79.5	87.9	96.4	104.9	113.3	122.7	132.9	143.1	153.3	163.6	169.7
100°	104.5	112.0	119.6	127.1	134.6	143.3	153.1	162.9	172.7	182.5	188.7
102.5°	130.2	136.9	143.6	150.3	157.0	165.3	174.9	184.6	194.3	204.0	210.2
105°	171.8	177.1	182.5	187.8	193.1	200.3	209.3	218.2	227.2	236.2	242.3
107.5°	214.5	219.1	223.7	228.3	232.9	239.4	247.6	255.9	264.2	272.4	278.1
110°	241.4	245.7	250.1	254.5	258.8	265.1	273.2	281.3	289.5	297.6	302.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	271.4	275.2	279.1	282.9	286.7	292.4	300.0	307.6	315.2	322.8	327.7
115°	315.6	318.5	321.4	324.2	327.1	332.1	339.2	346.4	353.5	360.6	365.4
117.5°	359.0	361.6	364.2	366.7	369.3	373.6	379.5	385.4	391.4	397.3	401.8
120°	388.4	390.4	392.5	394.5	396.6	400.2	405.5	410.7	416.0	421.2	425.9
122.5°	415.3	417.2	419.1	421.1	423.0	426.6	431.9	437.1	442.4	447.7	451.8
125°	456.4	458.0	459.5	461.1	462.7	465.8	470.6	475.4	480.2	485.0	489.0
127.5°	497.2	499.0	500.8	502.7	504.5	507.2	510.9	514.5	518.2	521.8	525.3
130°	522.8	524.9	527.0	529.1	531.2	533.8	537.0	540.1	543.2	546.4	550.0
132.5°	551.6	553.3	555.0	556.6	558.3	560.5	563.3	566.0	568.8	571.6	574.6
135°	589.3	591.2	593.1	595.1	597.0	598.9	600.9	602.9	604.9	607.0	610.3
137.5°	629.8	631.3	632.9	634.4	635.9	637.3	638.5	639.7	640.8	642.0	644.9
140°	654.2	655.6	657.0	658.4	659.8	661.1	662.3	663.5	664.7	665.9	668.5
142.5°	679.2	680.6	682.0	683.4	684.8	685.8	686.5	687.1	687.8	688.5	690.7
145°	714.4	715.6	716.9	718.1	719.3	720.4	721.5	722.5	723.5	724.6	725.8
147.5°	746.5	747.9	749.4	750.8	752.3	753.4	754.1	754.8	755.5	756.2	756.7
150°	768.4	769.4	770.4	771.5	772.5	773.4	774.1	774.8	775.5	776.2	776.7
152.5°	787.7	788.8	789.8	790.9	791.9	792.8	793.7	794.5	795.3	796.2	796.8
155°	816.8	817.3	817.9	818.4	818.9	819.4	819.9	820.5	821.0	821.5	822.4
157.5°	841.7	842.0	842.4	842.7	843.1	843.4	843.7	844.0	844.3	844.6	845.8
160°	856.7	857.0	857.4	857.7	858.1	858.3	858.5	858.7	858.9	859.0	860.1
162.5°	870.4	870.5	870.6	870.6	870.7	870.8	871.0	871.2	871.4	871.5	872.7
165°	888.7	888.6	888.4	888.2	888.0	887.9	887.9	887.9	887.9	887.9	889.2
167.5°	904.0	903.5	903.0	902.5	902.0	901.7	901.7	901.6	901.6	901.5	902.8
170°	912.2	911.7	911.1	910.6	910.1	909.7	909.6	909.4	909.2	909.0	910.3
172.5°	917.8	917.3	916.8	916.2	915.7	915.4	915.2	915.0	914.9	914.7	915.9
175°	924.7	924.2	923.6	923.1	922.6	922.2	921.8	921.5	921.1	920.8	922.0
177.5°	927.5	927.1	926.7	926.2	925.8	925.5	925.2	924.9	924.6	924.4	925.2
180°	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3
2.5°	513.7	514.3	515.0	515.2	514.9	514.7	514.4	514.1
5°	512.1	513.1	514.1	514.5	514.3	514.2	514.0	513.8
7.5°	509.6	510.8	512.0	512.5	512.4	512.2	512.0	511.9
10°	507.5	508.8	510.2	510.8	510.6	510.4	510.3	510.1
12.5°	503.9	505.3	506.6	507.2	507.0	506.8	506.7	506.5
15°	497.4	498.9	500.4	501.0	500.9	500.7	500.5	500.4
17.5°	489.0	490.6	492.1	492.9	492.9	492.9	492.9	492.9
20°	482.4	484.2	486.0	486.9	486.9	486.9	486.9	486.9
22.5°	475.2	477.0	478.9	479.9	480.2	480.4	480.7	481.0
25°	464.0	466.0	468.0	469.3	469.8	470.3	470.8	471.3
27.5°	451.7	454.2	456.7	458.1	458.5	458.9	459.2	459.6
30°	443.0	445.6	448.3	449.8	450.3	450.8	451.3	451.8
32.5°	433.6	436.6	439.7	441.7	442.6	443.5	444.4	445.3
35°	420.3	424.0	427.6	430.0	431.2	432.3	433.5	434.7
37.5°	406.6	410.7	414.7	417.3	418.6	419.8	421.0	422.3
40°	397.0	401.3	405.6	408.5	410.0	411.5	413.0	414.5
42.5°	387.6	392.3	397.0	400.2	401.6	403.1	404.6	406.1
45°	373.3	378.4	383.5	386.9	388.6	390.3	391.9	393.6
47.5°	358.3	363.7	369.1	372.7	374.5	376.3	378.2	380.0
50°	348.1	353.7	359.4	363.1	365.0	366.8	368.6	370.4
52.5°	337.0	342.8	348.6	352.4	354.4	356.4	358.3	360.3
55°	320.4	326.4	332.3	336.4	338.6	340.7	342.9	345.0
57.5°	302.8	309.2	315.7	320.0	322.2	324.4	326.6	328.8
60°	291.2	297.5	303.8	308.1	310.4	312.8	315.1	317.4
62.5°	278.8	285.5	292.2	296.7	298.9	301.1	303.3	305.5
65°	260.1	266.9	273.7	278.2	280.3	282.5	284.6	286.8
67.5°	241.1	247.9	254.8	259.4	261.6	263.9	266.2	268.4
70°	227.9	235.0	242.1	246.7	248.7	250.7	252.7	254.7
72.5°	215.1	222.1	229.1	233.8	236.1	238.5	240.9	243.3
75°	195.8	202.9	210.0	214.7	216.8	219.0	221.1	223.3
77.5°	176.9	184.0	191.1	195.8	198.1	200.4	202.8	205.1
80°	164.1	171.0	178.0	182.6	185.0	187.3	189.6	191.9
82.5°	152.1	159.1	166.0	170.6	172.8	175.0	177.2	179.4
85°	134.9	141.9	148.9	153.5	155.8	158.2	160.5	162.8
87.5°	125.8	132.5	139.2	143.7	145.8	148.0	150.1	152.3
90°	138.5	144.8	151.1	155.3	157.5	159.7	161.8	164.0
92.5°	131.2	137.8	144.4	148.7	150.7	152.7	154.7	156.8
95°	148.5	154.8	161.1	165.1	166.8	168.4	170.0	171.7
97.5°	175.8	182.0	188.1	192.2	194.1	196.0	197.9	199.9
100°	194.8	201.0	207.1	211.0	212.7	214.3	216.0	217.6
102.5°	216.3	222.4	228.6	232.5	234.1	235.8	237.4	239.1
105°	248.5	254.7	260.8	264.8	266.6	268.5	270.3	272.1
107.5°	283.9	289.6	295.3	298.7	299.7	300.7	301.7	302.8
110°	308.2	313.5	318.9	322.2	323.5	324.8	326.1	327.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	332.6	337.5	342.4	345.6	347.0	348.4	349.9	351.3
115°	370.2	375.0	379.8	382.9	384.2	385.5	386.8	388.1
117.5°	406.3	410.8	415.3	418.1	419.3	420.5	421.6	422.8
120°	430.5	435.2	439.8	442.8	444.1	445.4	446.7	448.0
122.5°	455.9	460.0	464.1	466.7	467.9	469.0	470.2	471.4
125°	492.9	496.9	500.8	503.5	504.8	506.1	507.4	508.8
127.5°	528.8	532.3	535.8	538.0	538.9	539.8	540.7	541.6
130°	553.7	557.3	560.9	563.1	563.7	564.3	565.0	565.6
132.5°	577.7	580.8	583.9	585.8	586.6	587.4	588.2	588.9
135°	613.6	616.9	620.2	622.3	623.1	623.9	624.7	625.5
137.5°	647.8	650.8	653.7	655.3	655.8	656.2	656.7	657.1
140°	671.2	673.9	676.5	678.0	678.3	678.6	678.9	679.2
142.5°	693.0	695.2	697.5	698.7	698.9	699.1	699.2	699.4
145°	726.9	728.1	729.3	729.9	730.0	730.2	730.3	730.5
147.5°	757.2	757.7	758.2	758.3	758.1	757.8	757.6	757.3
150°	777.2	777.7	778.3	778.3	777.7	777.2	776.7	776.2
152.5°	797.5	798.2	798.8	798.8	798.2	797.5	796.8	796.2
155°	823.2	824.1	825.0	825.2	824.6	824.1	823.6	823.1
157.5°	847.0	848.2	849.4	849.5	848.7	847.9	847.0	846.2
160°	861.1	862.2	863.2	863.4	862.7	862.0	861.3	860.6
162.5°	873.9	875.1	876.3	876.4	875.6	874.8	873.9	873.1
165°	890.4	891.6	892.8	893.0	892.1	891.2	890.4	889.5
167.5°	904.0	905.2	906.4	906.6	905.7	904.8	903.9	903.0
170°	911.5	912.7	913.9	914.0	913.0	911.9	910.9	909.8
172.5°	917.1	918.3	919.5	919.6	918.6	917.5	916.5	915.5
175°	923.2	924.4	925.6	925.7	924.7	923.6	922.6	921.6
177.5°	926.0	926.9	927.7	927.7	926.9	926.0	925.2	924.4
180°	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2

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