

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: P331379-927

Luminaire Tested: **SA2XXDIP-C865D330U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331379-927
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-C865D330U927-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 865 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 330 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3695.8 lumens
Efficiency: N/A
Efficacy: 85.0 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

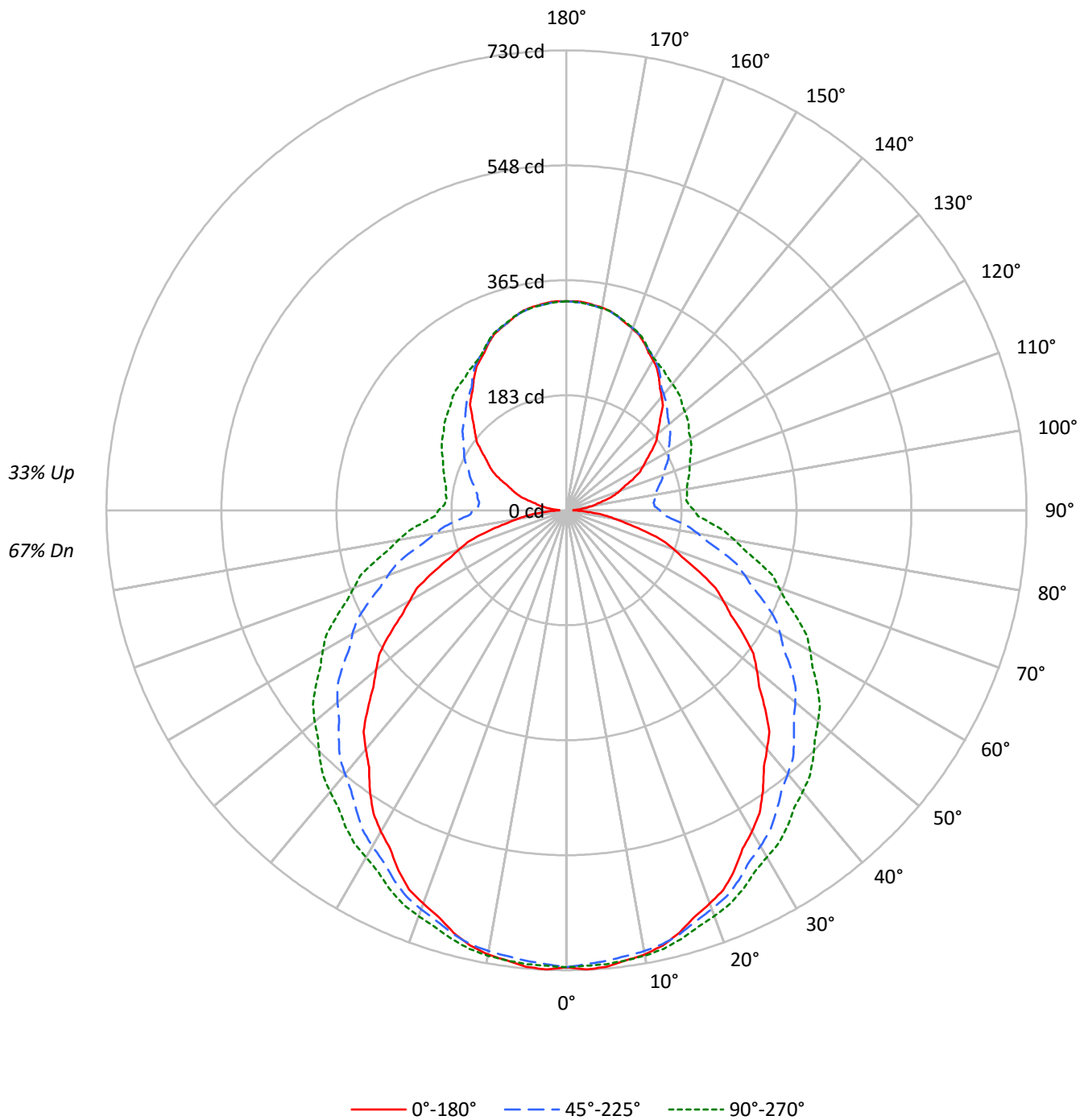
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot



TEST NUMBER: P331379-927

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	111	111	111	111	105	105	105	105	93	93	93	81	81	81	71	71	71
1	99	94	89	85	93	89	84	81	78	75	72	69	66	64	60	58	56
2	90	81	74	68	84	76	70	65	67	62	58	59	55	52	52	49	46
3	81	71	62	56	76	67	59	53	59	53	48	52	47	43	45	41	38
4	74	62	53	47	69	59	51	45	52	45	40	46	41	36	40	36	32
5	68	55	46	40	64	52	44	38	46	40	35	41	35	31	36	31	28
6	63	49	41	34	59	47	39	33	42	35	30	37	31	27	32	28	24
7	58	45	36	30	54	42	34	29	38	31	26	33	28	24	29	25	21
8	54	41	32	26	50	38	31	25	34	28	23	31	25	21	27	23	19
9	50	37	29	24	47	35	28	23	31	25	21	28	23	19	25	20	17
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11711	11711	11711
5°	11768	11274	11230
10°	11694	10940	10818
15°	11533	10587	10382
20°	11328	10209	9963
25°	11128	9845	9582
30°	10845	9471	9201
35°	10557	9109	8932
40°	10256	8801	8662
45°	9969	8526	8433
50°	9662	8276	8207
55°	9341	8008	7975
60°	8945	7730	7732
65°	8536	7405	7441
70°	8073	7053	7130
75°	7484	6710	6841
80°	6553	6361	6548
85°	5671	6056	6323

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.7	1.9
10°-20°	197.1	5.3
20°-30°	298.7	8.1
30°-40°	363.8	9.8
40°-50°	391.3	10.6
50°-60°	380.0	10.3
60°-70°	331.8	9.0
70°-80°	255.5	6.9
80°-90°	172.8	4.7
90°-100°	139.1	3.8
100°-110°	151.5	4.1
110°-120°	168.5	4.6
120°-130°	178.5	4.8
130°-140°	178.0	4.8
140°-150°	163.8	4.4
150°-160°	135.4	3.7
160°-170°	89.8	2.4
170°-180°	31.4	0.8
0°-30°	564.5	15.3
0°-40°	928.2	25.1
0°-60°	1699.6	46.0
0°-90°	2459.7	66.6
90°-120°	459.2	12.4
90°-150°	979.5	26.5
90°-180°	1236.0	33.4
0°-180°	3695.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	725	725	725	725	725	
5°	727	724	718	724	723	69
15°	694	696	696	705	704	195
25°	631	638	648	660	663	290
35°	543	562	581	604	612	340
45°	446	475	511	542	554	344
55°	342	380	434	471	486	305
65°	233	286	347	388	404	232
75°	129	189	255	299	314	137
85°	38	103	170	213	229	41
90°	11	76	148	188	203	8
95°	23	76	139	177	191	23
105°	65	98	152	188	201	70
115°	116	131	176	206	218	114
125°	165	169	200	227	237	148
135°	212	215	226	247	255	164
145°	256	258	259	266	270	160
155°	292	293	294	295	295	135
165°	318	318	318	320	318	90
175°	331	330	330	331	330	31
180°	332	332	332	332	332	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3
2.5°	729.5	729.0	728.4	727.9	727.3	726.4	725.0	723.7	722.4	721.1	722.1
5°	727.4	726.7	726.0	725.3	724.6	723.6	722.2	720.7	719.4	718.0	719.4
7.5°	720.9	720.4	719.9	719.5	719.1	718.3	717.2	716.1	715.0	714.0	715.7
10°	715.9	715.4	714.9	714.5	714.0	713.4	712.7	712.0	711.3	710.6	712.5
12.5°	707.4	707.6	707.7	707.7	707.8	707.6	707.1	706.5	706.1	705.5	707.4
15°	693.8	694.3	694.7	695.2	695.6	695.9	695.9	695.9	695.9	695.9	698.0
17.5°	676.1	677.1	678.1	679.1	680.0	680.9	681.7	682.4	683.2	683.9	686.1
20°	664.3	665.5	666.7	667.9	669.0	670.1	671.0	671.9	672.9	673.8	676.4
22.5°	651.7	653.1	654.4	655.8	657.1	658.5	659.8	661.1	662.4	663.7	666.3
25°	630.7	632.3	634.0	635.6	637.2	639.1	641.2	643.3	645.4	647.5	650.3
27.5°	605.5	608.2	610.8	613.5	616.2	618.7	621.2	623.7	626.1	628.6	632.2
30°	588.7	591.7	594.8	597.8	600.8	603.9	606.9	609.9	613.0	616.0	619.7
32.5°	570.1	573.5	576.9	580.4	583.8	587.3	590.9	594.5	598.1	601.7	606.0
35°	543.4	547.4	551.4	555.4	559.4	563.6	568.0	572.4	576.9	581.3	586.5
37.5°	514.4	519.0	523.6	528.1	532.7	537.9	543.7	549.5	555.2	560.9	566.6
40°	495.1	500.3	505.4	510.6	515.6	521.4	527.7	534.0	540.3	546.6	552.7
42.5°	476.6	481.7	486.9	492.0	497.2	503.4	510.6	517.8	525.1	532.3	538.9
45°	445.7	452.0	458.3	464.6	471.0	478.2	486.3	494.6	502.7	510.9	518.1
47.5°	415.2	422.1	429.0	435.9	442.7	450.9	460.5	470.1	479.7	489.3	496.8
50°	394.2	401.4	408.7	415.9	423.2	432.1	442.5	453.0	463.6	474.1	482.0
52.5°	374.0	381.6	389.3	396.9	404.5	413.8	424.9	435.9	447.0	458.1	466.2
55°	341.7	350.1	358.5	366.9	375.3	385.6	397.7	409.9	422.0	434.1	442.5
57.5°	309.7	319.2	328.7	338.1	347.6	358.5	370.9	383.3	395.7	408.1	417.2
60°	287.0	297.0	307.0	317.1	327.2	338.8	352.1	365.4	378.7	392.1	401.0
62.5°	266.8	277.2	287.6	298.0	308.5	320.4	333.7	347.0	360.3	373.6	383.0
65°	233.4	244.8	256.3	267.7	279.2	291.8	305.5	319.3	333.1	346.9	356.5
67.5°	202.6	214.6	226.6	238.5	250.5	263.6	277.7	291.8	305.9	320.0	329.6
70°	180.8	193.0	205.1	217.2	229.4	242.7	257.2	271.6	286.1	300.6	310.7
72.5°	160.7	173.2	185.7	198.2	210.7	224.3	239.0	253.7	268.3	283.0	292.9
75°	129.3	142.4	155.4	168.6	181.6	195.7	210.6	225.5	240.5	255.4	265.5
77.5°	99.0	112.7	126.4	140.1	153.8	168.2	183.4	198.6	213.7	228.9	238.9
80°	78.8	93.1	107.3	121.6	135.9	150.5	165.7	180.9	196.1	211.3	221.1
82.5°	62.0	76.0	90.2	104.2	118.3	133.0	148.4	163.7	179.1	194.5	204.3
85°	37.9	52.4	66.8	81.3	95.8	110.5	125.4	140.4	155.3	170.3	180.1
87.5°	20.7	34.7	48.8	62.9	76.9	91.6	106.8	122.1	137.3	152.5	162.0
90°	10.8	25.1	39.4	53.7	68.0	83.3	99.6	115.9	132.2	148.5	157.8
92.5°	14.7	27.8	41.0	54.1	67.3	81.2	95.9	110.7	125.4	140.1	149.2
95°	23.0	34.5	46.2	57.8	69.4	82.2	96.4	110.5	124.7	138.8	147.7
97.5°	34.0	44.3	54.6	64.9	75.2	87.2	100.9	114.5	128.3	142.0	150.6
100°	42.9	52.0	61.2	70.3	79.5	90.7	103.9	117.2	130.5	143.8	152.4
102.5°	51.5	59.7	68.0	76.4	84.6	95.2	108.2	121.1	134.1	147.0	155.5
105°	65.4	72.4	79.4	86.3	93.2	102.9	115.2	127.5	139.7	151.9	160.3
107.5°	80.6	86.3	92.0	97.6	103.3	112.0	123.7	135.2	146.9	158.5	166.4
110°	89.6	94.6	99.7	104.7	109.7	118.0	129.4	140.9	152.3	163.7	171.3

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	100.3	104.6	108.9	113.2	117.5	125.1	135.9	146.7	157.6	168.4	175.7
115°	116.1	119.1	122.1	125.0	127.9	134.6	145.0	155.3	165.7	176.2	183.1
117.5°	130.9	133.1	135.2	137.4	139.6	145.4	154.7	164.1	173.5	182.8	189.6
120°	141.4	142.8	144.3	145.7	147.1	152.3	161.1	170.0	178.8	187.7	194.2
122.5°	151.1	152.0	153.0	153.9	155.0	159.6	168.1	176.5	184.9	193.4	199.6
125°	165.0	165.6	166.1	166.7	167.2	171.2	178.5	185.8	193.1	200.3	206.4
127.5°	179.6	180.1	180.5	181.0	181.5	184.7	190.4	196.2	202.1	207.9	213.4
130°	188.8	189.3	190.0	190.5	191.1	193.8	198.5	203.4	208.1	212.9	218.4
132.5°	199.1	199.5	199.9	200.3	200.8	202.9	206.7	210.5	214.4	218.2	223.3
135°	211.8	212.5	213.2	213.9	214.5	216.1	218.6	221.0	223.5	225.9	230.8
137.5°	226.3	226.8	227.4	227.8	228.4	229.2	230.4	231.6	232.7	233.9	238.2
140°	235.0	235.4	235.7	236.0	236.3	236.9	237.7	238.4	239.2	240.0	243.8
142.5°	244.0	244.3	244.6	244.9	245.3	245.6	245.9	246.2	246.5	246.8	249.9
145°	255.8	256.3	256.7	257.1	257.5	257.9	258.3	258.7	259.0	259.4	260.9
147.5°	267.3	267.8	268.3	268.9	269.3	269.7	270.0	270.3	270.5	270.8	271.1
150°	275.1	275.5	275.8	276.2	276.6	276.9	277.2	277.4	277.7	277.9	278.1
152.5°	282.1	282.4	282.8	283.2	283.5	283.9	284.2	284.5	284.8	285.1	285.3
155°	292.5	292.6	292.9	293.0	293.2	293.4	293.6	293.7	294.0	294.1	294.5
157.5°	301.3	301.5	301.6	301.7	301.9	302.0	302.1	302.2	302.3	302.5	302.9
160°	306.7	306.9	307.0	307.1	307.2	307.4	307.4	307.4	307.5	307.6	307.9
162.5°	311.6	311.7	311.7	311.7	311.8	311.8	311.9	312.0	312.0	312.0	312.5
165°	318.2	318.1	318.1	318.1	318.0	317.9	317.9	317.9	317.9	317.9	318.4
167.5°	323.7	323.5	323.4	323.1	323.0	322.9	322.8	322.8	322.8	322.8	323.2
170°	326.6	326.5	326.2	326.1	325.9	325.7	325.7	325.6	325.6	325.5	325.9
172.5°	328.6	328.4	328.3	328.0	327.9	327.7	327.7	327.6	327.6	327.5	328.0
175°	331.1	330.9	330.7	330.5	330.3	330.2	330.1	329.9	329.8	329.7	330.1
177.5°	332.1	331.9	331.8	331.7	331.5	331.4	331.3	331.2	331.1	331.0	331.3
180°	331.7	331.7	331.7	331.7	331.7	331.7	331.7	331.7	331.7	331.7	331.7

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3
2.5°	722.9	723.9	724.8	725.2	724.8	724.4	724.0	723.7
5°	720.7	722.2	723.6	724.1	723.9	723.7	723.4	723.2
7.5°	717.3	719.0	720.7	721.4	721.2	721.0	720.7	720.5
10°	714.3	716.2	718.1	718.9	718.7	718.4	718.2	718.0
12.5°	709.3	711.1	713.0	713.8	713.6	713.4	713.1	712.9
15°	700.1	702.2	704.3	705.2	705.0	704.7	704.5	704.3
17.5°	688.3	690.5	692.7	693.8	693.8	693.8	693.8	693.8
20°	679.0	681.5	684.0	685.4	685.4	685.4	685.4	685.4
22.5°	668.8	671.5	674.0	675.5	675.8	676.2	676.6	677.0
25°	653.2	655.9	658.8	660.5	661.2	661.9	662.6	663.3
27.5°	635.7	639.3	642.8	644.8	645.4	645.9	646.4	646.9
30°	623.4	627.2	631.0	633.2	633.8	634.5	635.3	636.0
32.5°	610.3	614.6	618.9	621.7	622.9	624.2	625.4	626.7
35°	591.6	596.8	601.9	605.2	606.9	608.6	610.1	611.8
37.5°	572.3	578.0	583.7	587.4	589.1	590.9	592.6	594.4
40°	558.7	564.8	570.9	575.0	577.1	579.2	581.3	583.4
42.5°	545.6	552.2	558.9	563.2	565.3	567.4	569.5	571.6
45°	525.4	532.6	539.9	544.6	547.0	549.3	551.7	554.0
47.5°	504.4	511.9	519.5	524.6	527.1	529.7	532.3	534.9
50°	490.0	497.9	505.9	511.1	513.7	516.3	518.8	521.4
52.5°	474.4	482.5	490.6	496.1	498.8	501.6	504.3	507.1
55°	451.0	459.4	467.8	473.5	476.5	479.6	482.6	485.6
57.5°	426.2	435.2	444.3	450.4	453.4	456.5	459.6	462.7
60°	409.9	418.7	427.6	433.6	437.0	440.2	443.5	446.8
62.5°	392.4	401.9	411.3	417.6	420.6	423.7	426.8	429.9
65°	366.1	375.7	385.2	391.5	394.5	397.6	400.6	403.6
67.5°	339.3	349.0	358.7	365.1	368.3	371.5	374.6	377.8
70°	320.8	330.7	340.8	347.2	350.1	352.8	355.7	358.5
72.5°	302.7	312.5	322.4	329.0	332.4	335.7	339.1	342.5
75°	275.5	285.6	295.6	302.1	305.2	308.2	311.2	314.3
77.5°	249.0	259.0	268.9	275.6	278.8	282.1	285.4	288.7
80°	230.9	240.7	250.6	257.1	260.3	263.6	266.9	270.1
82.5°	214.1	223.9	233.7	240.2	243.3	246.3	249.4	252.5
85°	189.9	199.7	209.5	216.1	219.4	222.6	225.9	229.2
87.5°	171.5	181.0	190.5	196.8	199.8	202.8	205.8	208.7
90°	167.0	176.2	185.4	191.5	194.3	197.2	200.1	203.0
92.5°	158.4	167.6	176.8	182.8	185.6	188.5	191.2	194.1
95°	156.5	165.4	174.3	180.1	182.8	185.4	188.1	190.8
97.5°	159.2	167.9	176.5	182.2	185.0	187.7	190.4	193.2
100°	161.1	169.7	178.3	183.9	186.4	188.9	191.4	193.9
102.5°	164.1	172.5	181.1	186.6	189.1	191.5	194.1	196.6
105°	168.6	176.9	185.2	190.6	193.2	195.7	198.3	200.9
107.5°	174.4	182.2	190.1	195.2	197.5	199.8	202.1	204.4
110°	178.7	186.2	193.7	198.6	201.0	203.4	205.7	208.1

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	183.1	190.4	197.7	202.6	205.0	207.5	209.9	212.3
115°	190.0	197.0	203.9	208.6	211.0	213.3	215.7	218.1
117.5°	196.4	203.1	209.9	214.4	216.6	218.8	221.0	223.2
120°	200.7	207.3	213.8	218.3	220.7	223.1	225.5	227.8
122.5°	205.8	212.0	218.2	222.3	224.3	226.4	228.5	230.5
125°	212.5	218.6	224.8	228.9	230.9	233.0	235.0	237.0
127.5°	219.0	224.6	230.1	233.9	235.7	237.6	239.4	241.3
130°	223.9	229.3	234.8	238.4	240.0	241.6	243.2	244.9
132.5°	228.5	233.5	238.7	242.1	243.8	245.5	247.2	248.8
135°	235.7	240.5	245.3	248.6	250.3	251.9	253.7	255.3
137.5°	242.5	246.7	251.0	253.7	255.1	256.4	257.8	259.1
140°	247.5	251.2	254.9	257.4	258.6	259.7	260.9	262.0
142.5°	252.9	256.0	259.0	261.0	262.0	262.9	263.9	264.8
145°	262.4	263.9	265.3	266.5	267.4	268.3	269.3	270.1
147.5°	271.4	271.7	272.0	272.4	272.7	273.0	273.4	273.7
150°	278.3	278.5	278.7	278.7	278.5	278.3	278.1	277.9
152.5°	285.6	285.8	286.1	286.1	285.8	285.6	285.3	285.1
155°	294.8	295.1	295.4	295.5	295.2	295.1	294.9	294.7
157.5°	303.2	303.7	304.1	304.2	303.9	303.6	303.3	303.0
160°	308.3	308.7	309.1	309.1	308.9	308.6	308.4	308.2
162.5°	312.9	313.3	313.8	313.8	313.5	313.2	312.9	312.6
165°	318.8	319.2	319.6	319.7	319.4	319.1	318.8	318.5
167.5°	323.7	324.1	324.6	324.6	324.3	323.9	323.6	323.3
170°	326.4	326.8	327.3	327.3	326.9	326.5	326.1	325.7
172.5°	328.4	328.8	329.2	329.3	328.9	328.5	328.2	327.8
175°	330.6	331.0	331.4	331.4	331.1	330.7	330.3	329.9
177.5°	331.6	331.8	332.2	332.2	331.8	331.6	331.3	331.0
180°	331.7	331.7	331.7	331.7	331.7	331.7	331.7	331.7

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