

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: P331289-940

Luminaire Tested: **SA2XXDIP-C485D330U940-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331289-940
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-C485D330U940-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 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: 2798.4 lumens
Efficiency: N/A
Efficacy: 101.8 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: General Diffuse

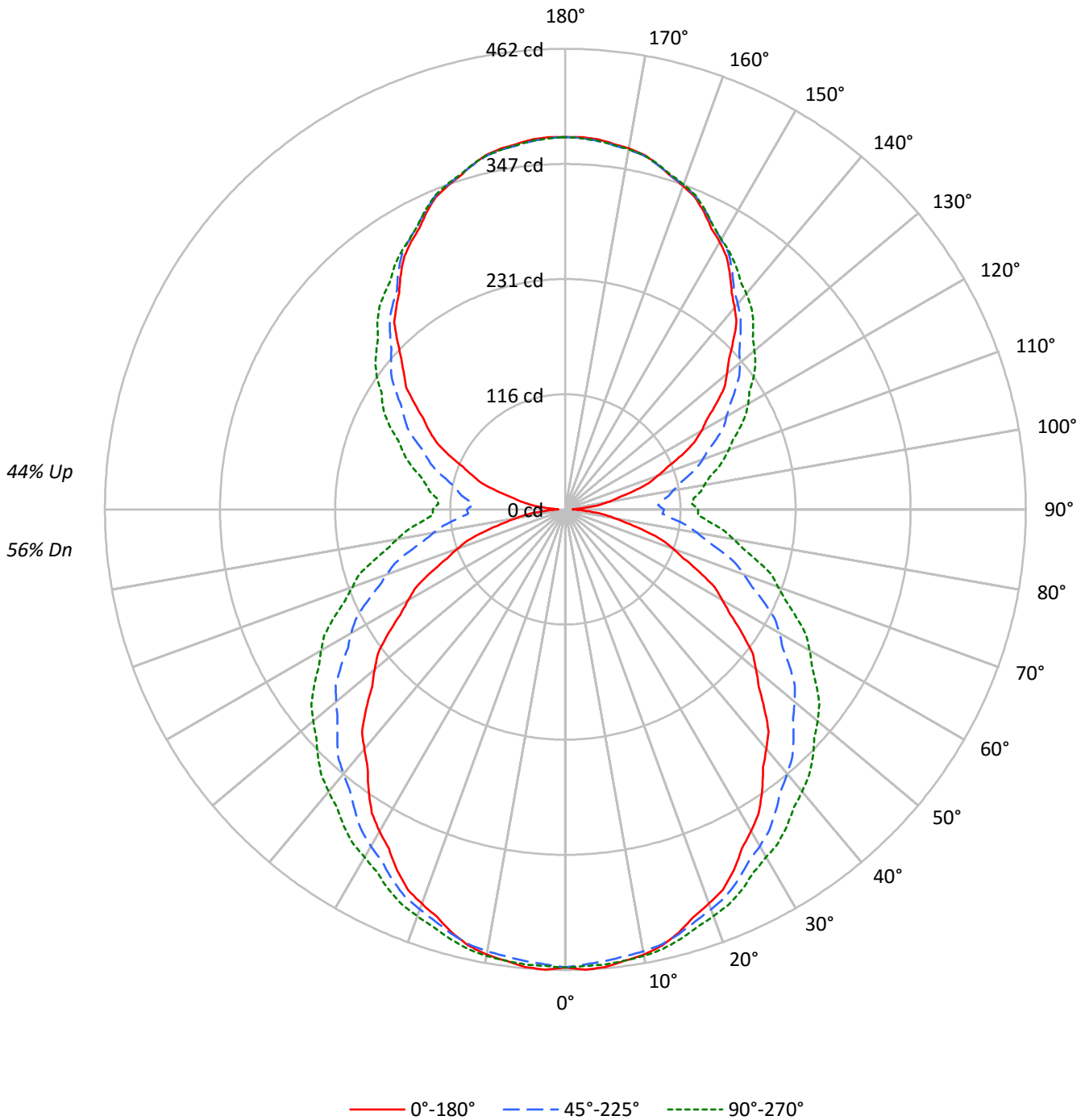
Input Watts (W): 27.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	109	109	109	109	101	101	101	101	87	87	87	73	73	73	61	61	61	56
1	97	92	88	84	90	86	82	78	73	70	68	62	60	58	52	50	48	43
2	88	80	73	67	81	74	68	63	63	59	55	54	50	47	44	42	40	35
3	80	69	61	55	74	65	57	52	55	50	45	47	43	39	39	36	33	29
4	73	61	53	46	67	57	49	43	49	43	38	41	37	33	34	31	28	24
5	67	54	46	39	62	51	43	37	43	37	33	37	32	28	31	27	24	21
6	61	49	40	34	57	45	38	32	39	33	28	33	28	25	28	24	21	18
7	57	44	35	29	52	41	33	28	35	29	25	30	25	22	25	21	19	16
8	53	40	32	26	49	37	30	25	32	26	22	28	23	19	23	19	16	14
9	49	36	28	23	45	34	27	22	29	24	19	25	21	17	21	18	15	13
10	46	33	26	21	42	31	24	20	27	21	17	23	19	15	20	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7419	7419	7419
5°	7455	7143	7115
10°	7408	6931	6854
15°	7306	6708	6577
20°	7177	6468	6312
25°	7050	6237	6072
30°	6870	5999	5829
35°	6689	5771	5659
40°	6498	5576	5488
45°	6317	5402	5343
50°	6123	5242	5199
55°	5916	5073	5052
60°	5666	4897	4897
65°	5405	4692	4714
70°	5117	4470	4516
75°	4741	4251	4334
80°	4149	4028	4148
85°	3591	3837	4006



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.5	1.6
10°-20°	124.9	4.5
20°-30°	189.2	6.8
30°-40°	230.5	8.2
40°-50°	247.9	8.9
50°-60°	240.8	8.6
60°-70°	210.2	7.5
70°-80°	161.8	5.8
80°-90°	110.1	3.9
90°-100°	98.5	3.5
100°-110°	128.1	4.6
110°-120°	161.7	5.8
120°-130°	185.3	6.6
130°-140°	193.8	6.9
140°-150°	183.2	6.5
150°-160°	152.4	5.4
160°-170°	101.1	3.6
170°-180°	35.3	1.3
0°-30°	357.6	12.8
0°-40°	588.1	21.0
0°-60°	1076.8	38.5
0°-90°	1558.9	55.7
90°-120°	388.3	13.9
90°-150°	950.6	34.0
90°-180°	1239.0	44.3
0°-180°	2798.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	461	459	455	459	458	44
15°	440	441	441	446	446	124
25°	400	404	410	418	420	184
35°	344	356	368	382	388	215
45°	282	301	324	344	351	218
55°	216	241	275	298	308	193
65°	148	181	220	246	256	147
75°	82	119	162	189	199	87
85°	24	65	108	135	145	26
90°	7	50	99	124	133	5
95°	22	56	97	121	129	23
105°	71	92	127	150	158	75
115°	129	139	167	186	193	127
125°	185	188	208	224	231	165
135°	238	242	249	262	267	184
145°	288	290	292	296	298	180
155°	329	330	331	333	332	151
165°	358	358	358	360	359	101
175°	373	372	371	373	371	35
180°	373	373	373	373	373	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5
2.5°	462.2	461.8	461.5	461.1	460.7	460.1	459.3	458.5	457.7	456.8	457.4
5°	460.8	460.4	459.9	459.5	459.1	458.4	457.5	456.6	455.8	454.9	455.8
7.5°	456.7	456.4	456.1	455.8	455.6	455.0	454.3	453.7	453.0	452.3	453.3
10°	453.5	453.3	452.9	452.6	452.4	452.0	451.6	451.1	450.7	450.2	451.4
12.5°	448.2	448.3	448.4	448.4	448.4	448.3	448.0	447.6	447.3	447.0	448.2
15°	439.5	439.8	440.1	440.4	440.7	440.9	440.9	440.9	440.9	440.9	442.2
17.5°	428.4	429.0	429.6	430.3	430.9	431.4	431.9	432.3	432.8	433.3	434.6
20°	420.9	421.6	422.4	423.1	423.8	424.5	425.1	425.7	426.3	426.9	428.5
22.5°	412.9	413.8	414.6	415.4	416.3	417.1	418.0	418.8	419.6	420.5	422.1
25°	399.6	400.6	401.6	402.7	403.7	404.9	406.3	407.6	408.9	410.2	412.0
27.5°	383.6	385.3	387.0	388.7	390.3	392.0	393.5	395.1	396.6	398.2	400.5
30°	372.9	374.9	376.7	378.7	380.7	382.5	384.5	386.4	388.3	390.2	392.6
32.5°	361.2	363.4	365.5	367.7	369.9	372.1	374.3	376.7	378.9	381.2	383.9
35°	344.3	346.8	349.4	351.9	354.4	357.0	359.8	362.7	365.4	368.3	371.5
37.5°	325.9	328.9	331.7	334.7	337.5	340.8	344.5	348.0	351.7	355.3	359.0
40°	313.7	316.9	320.2	323.4	326.7	330.3	334.3	338.3	342.3	346.3	350.2
42.5°	301.9	305.2	308.4	311.7	315.0	318.9	323.5	328.1	332.7	337.2	341.4
45°	282.4	286.3	290.3	294.4	298.4	302.9	308.1	313.3	318.5	323.7	328.2
47.5°	263.1	267.4	271.8	276.1	280.4	285.7	291.8	297.8	303.9	310.0	314.8
50°	249.8	254.3	259.0	263.5	268.0	273.7	280.4	287.0	293.7	300.3	305.4
52.5°	236.9	241.7	246.6	251.5	256.3	262.2	269.2	276.2	283.2	290.3	295.3
55°	216.4	221.8	227.1	232.4	237.7	244.2	252.0	259.7	267.3	275.0	280.4
57.5°	196.2	202.2	208.2	214.2	220.3	227.1	235.0	242.8	250.7	258.5	264.3
60°	181.8	188.2	194.6	200.9	207.2	214.6	223.1	231.5	240.0	248.4	254.0
62.5°	169.0	175.6	182.3	188.9	195.5	203.0	211.3	219.8	228.3	236.7	242.6
65°	147.8	155.1	162.4	169.6	176.8	184.9	193.6	202.3	211.1	219.8	225.9
67.5°	128.4	136.0	143.6	151.1	158.7	166.9	175.9	184.9	193.8	202.7	208.8
70°	114.6	122.3	129.9	137.6	145.3	153.7	162.9	172.1	181.3	190.5	196.8
72.5°	101.7	109.7	117.6	125.6	133.5	142.1	151.4	160.7	170.0	179.2	185.6
75°	81.9	90.2	98.4	106.7	115.0	123.9	133.4	142.9	152.4	161.8	168.2
77.5°	62.8	71.4	80.1	88.7	97.5	106.6	116.2	125.8	135.5	145.1	151.4
80°	49.9	58.9	68.0	77.0	86.1	95.4	105.0	114.6	124.2	133.8	140.1
82.5°	39.3	48.2	57.1	66.0	74.9	84.3	94.0	103.7	113.4	123.2	129.4
85°	24.0	33.2	42.4	51.5	60.6	70.0	79.5	88.9	98.4	107.9	114.1
87.5°	13.1	22.1	31.1	40.0	49.0	58.5	68.2	78.0	87.8	97.6	103.6
90°	7.0	16.4	25.9	35.2	44.7	54.9	65.9	76.9	87.9	98.9	104.7
92.5°	11.8	20.3	29.0	37.5	46.2	55.2	64.6	74.2	83.6	93.1	99.0
95°	21.7	29.3	37.0	44.7	52.3	60.6	69.7	78.7	87.7	96.8	102.4
97.5°	34.6	41.4	48.2	55.0	61.8	69.6	78.4	87.2	95.9	104.8	110.2
100°	44.7	50.7	56.7	62.8	68.8	76.1	84.6	93.1	101.6	110.0	115.6
102.5°	54.8	60.2	65.6	71.1	76.5	83.4	91.8	100.0	108.3	116.6	122.1
105°	71.1	75.5	80.1	84.5	89.1	95.2	103.1	110.9	118.8	126.6	131.9
107.5°	88.2	91.9	95.7	99.4	103.2	108.7	116.1	123.4	130.8	138.2	143.2
110°	98.7	102.1	105.5	108.9	112.3	117.6	124.8	132.1	139.4	146.6	151.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	110.8	113.8	116.6	119.6	122.4	127.3	134.2	141.1	147.8	154.7	159.3
115°	128.7	130.7	132.8	134.8	136.9	141.2	147.7	154.2	160.7	167.2	171.6
117.5°	145.8	147.4	149.0	150.7	152.3	156.0	161.8	167.6	173.3	179.1	183.2
120°	157.7	158.8	160.0	161.0	162.2	165.5	170.9	176.2	181.6	186.9	191.1
122.5°	168.4	169.3	170.3	171.2	172.1	175.1	180.3	185.5	190.6	195.8	199.7
125°	184.7	185.3	185.9	186.5	187.2	189.8	194.3	198.9	203.4	207.9	211.7
127.5°	201.2	201.8	202.4	203.0	203.8	205.8	209.4	212.9	216.5	220.1	223.6
130°	211.4	212.2	213.0	213.7	214.5	216.4	219.4	222.3	225.2	228.3	231.7
132.5°	223.0	223.6	224.3	224.8	225.4	226.9	229.3	231.8	234.3	236.7	239.8
135°	237.9	238.6	239.4	240.2	240.9	242.2	243.8	245.4	247.0	248.6	251.7
137.5°	254.2	254.9	255.4	256.0	256.6	257.3	258.2	259.0	259.8	260.6	263.3
140°	264.0	264.5	265.0	265.5	266.0	266.5	267.2	267.9	268.5	269.1	271.5
142.5°	274.1	274.6	275.1	275.5	276.1	276.4	276.7	277.1	277.3	277.6	279.6
145°	287.9	288.5	288.9	289.4	289.9	290.3	290.8	291.2	291.6	292.0	293.0
147.5°	300.9	301.5	302.0	302.6	303.2	303.6	303.9	304.3	304.5	304.8	305.1
150°	309.7	310.1	310.5	310.9	311.4	311.7	312.0	312.3	312.5	312.8	313.1
152.5°	317.5	317.9	318.3	318.8	319.1	319.6	319.9	320.2	320.6	320.9	321.2
155°	329.2	329.4	329.7	329.8	330.0	330.3	330.5	330.6	330.9	331.1	331.4
157.5°	339.2	339.4	339.5	339.7	339.8	339.9	340.1	340.2	340.3	340.5	340.9
160°	345.3	345.4	345.5	345.7	345.8	346.0	346.0	346.1	346.2	346.3	346.6
162.5°	350.8	350.9	350.9	350.9	351.0	351.0	351.1	351.2	351.2	351.2	351.8
165°	358.2	358.1	358.0	358.0	357.9	357.8	357.8	357.8	357.8	357.8	358.4
167.5°	364.4	364.2	364.0	363.7	363.6	363.5	363.4	363.4	363.4	363.4	363.8
170°	367.7	367.5	367.2	367.0	366.8	366.7	366.6	366.5	366.5	366.4	366.8
172.5°	369.9	369.7	369.5	369.3	369.1	368.9	368.9	368.8	368.7	368.6	369.2
175°	372.7	372.5	372.3	372.0	371.8	371.7	371.6	371.4	371.2	371.1	371.6
177.5°	373.8	373.6	373.4	373.4	373.2	373.0	372.9	372.8	372.6	372.6	372.9
180°	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5
2.5°	458.1	458.6	459.2	459.4	459.1	459.0	458.7	458.4
5°	456.6	457.5	458.4	458.8	458.6	458.5	458.3	458.2
7.5°	454.4	455.5	456.6	457.0	456.9	456.7	456.6	456.5
10°	452.5	453.7	455.0	455.5	455.3	455.1	455.0	454.9
12.5°	449.3	450.6	451.7	452.3	452.1	451.9	451.8	451.7
15°	443.5	444.9	446.2	446.7	446.7	446.5	446.3	446.2
17.5°	436.0	437.5	438.8	439.5	439.5	439.5	439.5	439.5
20°	430.2	431.8	433.4	434.2	434.2	434.2	434.2	434.2
22.5°	423.7	425.3	427.0	427.9	428.2	428.4	428.6	428.9
25°	413.8	415.5	417.3	418.5	418.9	419.4	419.8	420.3
27.5°	402.8	405.0	407.2	408.5	408.8	409.2	409.5	409.8
30°	395.0	397.3	399.8	401.1	401.5	402.0	402.4	402.9
32.5°	386.6	389.3	392.1	393.9	394.7	395.5	396.3	397.1
35°	374.8	378.1	381.3	383.4	384.5	385.5	386.6	387.6
37.5°	362.6	366.2	369.8	372.1	373.3	374.3	375.4	376.6
40°	354.0	357.8	361.7	364.3	365.6	366.9	368.3	369.6
42.5°	345.6	349.8	354.0	356.9	358.1	359.4	360.8	362.1
45°	332.9	337.4	342.0	345.0	346.5	348.0	349.5	351.0
47.5°	319.5	324.3	329.1	332.3	333.9	335.6	337.2	338.9
50°	310.4	315.4	320.5	323.8	325.5	327.1	328.7	330.3
52.5°	300.5	305.7	310.9	314.2	316.0	317.8	319.5	321.3
55°	285.7	291.1	296.3	300.0	301.9	303.8	305.8	307.6
57.5°	270.0	275.7	281.5	285.3	287.3	289.3	291.2	293.2
60°	259.7	265.3	270.9	274.7	276.8	278.9	281.0	283.0
62.5°	248.6	254.6	260.6	264.6	266.5	268.5	270.5	272.4
65°	231.9	238.0	244.1	248.1	249.9	251.9	253.8	255.7
67.5°	215.0	221.1	227.2	231.3	233.3	235.3	237.4	239.3
70°	203.2	209.6	215.9	220.0	221.8	223.6	225.3	227.1
72.5°	191.8	198.0	204.3	208.5	210.5	212.7	214.8	217.0
75°	174.6	180.9	187.3	191.5	193.3	195.3	197.2	199.1
77.5°	157.7	164.1	170.4	174.6	176.6	178.7	180.8	182.9
80°	146.3	152.5	158.7	162.8	165.0	167.0	169.1	171.1
82.5°	135.6	141.9	148.0	152.1	154.1	156.0	158.0	160.0
85°	120.3	126.5	132.8	136.9	138.9	141.1	143.1	145.2
87.5°	109.6	115.6	121.6	125.6	127.5	129.4	131.3	133.2
90°	110.5	116.3	122.1	125.8	127.7	129.6	131.4	133.2
92.5°	104.8	110.7	116.5	120.3	122.1	123.9	125.6	127.4
95°	108.0	113.6	119.2	122.9	124.5	126.2	127.8	129.4
97.5°	115.7	121.2	126.6	130.3	132.0	133.8	135.5	137.2
100°	121.0	126.5	132.0	135.5	137.1	138.6	140.2	141.7
102.5°	127.5	133.0	138.3	141.8	143.4	144.9	146.5	148.0
105°	137.2	142.6	147.8	151.3	152.9	154.6	156.2	157.8
107.5°	148.3	153.3	158.3	161.5	162.8	164.1	165.4	166.7
110°	156.0	160.8	165.5	168.6	170.0	171.5	172.9	174.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	163.8	168.4	173.0	176.0	177.5	179.0	180.4	181.9
115°	175.9	180.3	184.7	187.6	189.0	190.5	191.9	193.3
117.5°	187.4	191.7	195.9	198.7	199.9	201.3	202.5	203.8
120°	195.2	199.4	203.5	206.3	207.7	209.1	210.5	212.0
122.5°	203.6	207.4	211.2	213.8	215.1	216.2	217.5	218.7
125°	215.4	219.3	223.0	225.5	226.9	228.1	229.3	230.6
127.5°	226.9	230.3	233.8	236.0	237.1	238.2	239.2	240.3
130°	235.1	238.4	241.9	244.1	245.0	245.8	246.7	247.6
132.5°	242.9	246.0	249.1	251.2	252.2	253.1	254.0	255.0
135°	254.8	257.8	260.8	262.8	263.8	264.7	265.7	266.7
137.5°	266.0	268.7	271.3	273.0	273.8	274.5	275.2	275.9
140°	273.8	276.3	278.6	280.1	280.7	281.3	281.9	282.5
142.5°	281.5	283.5	285.4	286.7	287.1	287.7	288.1	288.6
145°	294.0	294.9	295.9	296.6	297.0	297.5	297.9	298.5
147.5°	305.3	305.6	305.9	306.0	306.1	306.2	306.3	306.4
150°	313.3	313.4	313.7	313.7	313.4	313.3	313.1	312.8
152.5°	321.5	321.7	322.0	322.0	321.7	321.5	321.2	320.9
155°	331.8	332.2	332.5	332.6	332.3	332.2	332.0	331.7
157.5°	341.3	341.9	342.3	342.4	342.1	341.7	341.4	341.1
160°	347.1	347.5	347.9	347.9	347.7	347.4	347.1	346.9
162.5°	352.2	352.7	353.2	353.2	352.9	352.6	352.2	351.9
165°	358.8	359.4	359.8	359.9	359.5	359.2	358.8	358.6
167.5°	364.4	364.8	365.3	365.4	365.1	364.6	364.3	363.9
170°	367.4	367.8	368.4	368.4	368.0	367.6	367.1	366.7
172.5°	369.6	370.1	370.6	370.7	370.2	369.8	369.4	369.0
175°	372.1	372.6	373.1	373.1	372.7	372.3	371.8	371.4
177.5°	373.3	373.5	373.9	373.9	373.5	373.3	372.9	372.6
180°	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4

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