

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: P331289-927

Luminaire Tested: **SA2XXDIP-C485D330U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331289-927
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-C485D330U927-4F0-1E-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: 2486.1 lumens
Efficiency: N/A
Efficacy: 90.4 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

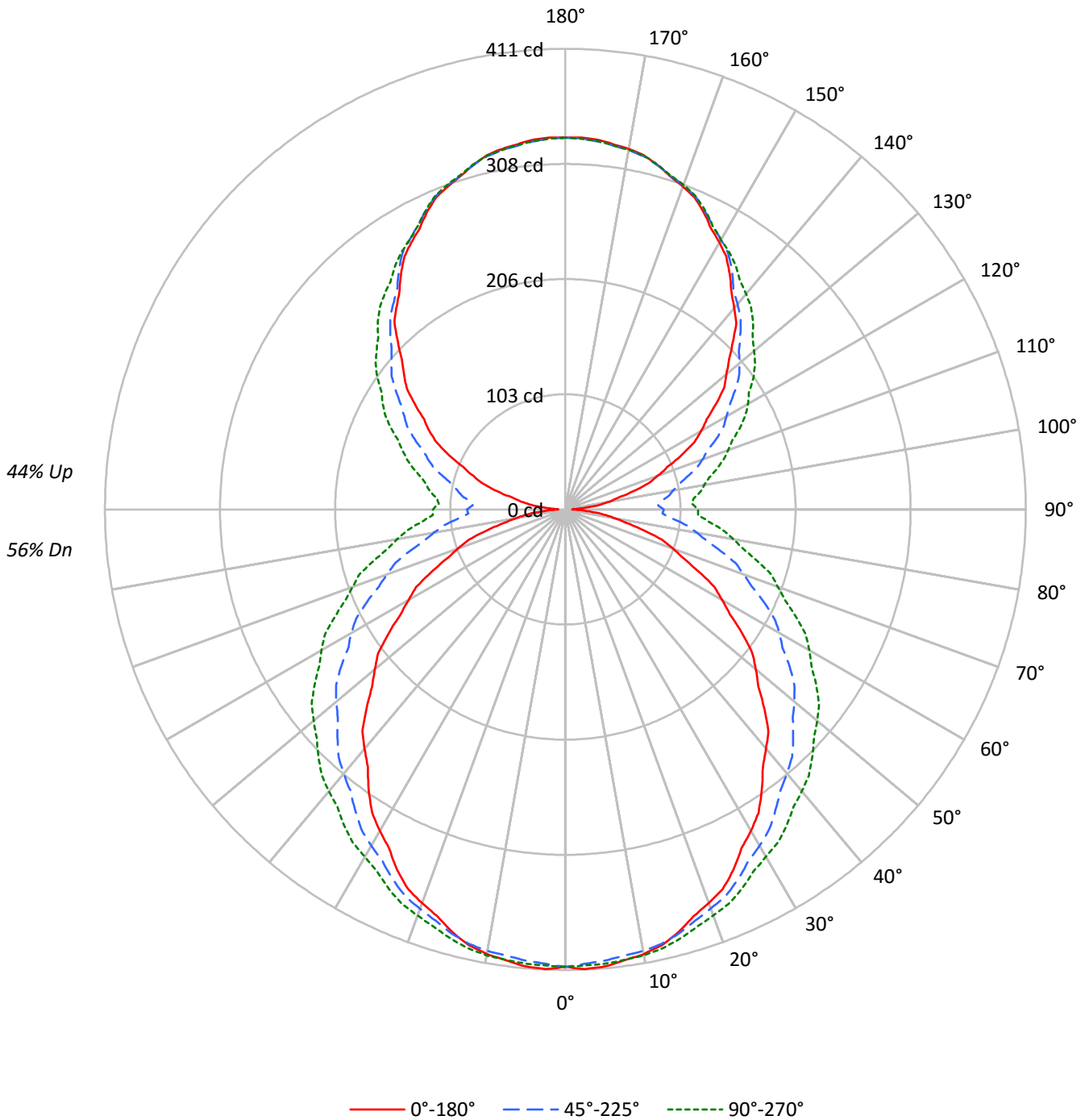
Input Watts (W): 27.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	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°	6591	6591	6591
5°	6623	6345	6320
10°	6581	6158	6088
15°	6491	5959	5843
20°	6376	5745	5607
25°	6263	5540	5394
30°	6103	5330	5178
35°	5943	5127	5028
40°	5773	4954	4876
45°	5612	4799	4746
50°	5439	4657	4618
55°	5257	4507	4488
60°	5033	4351	4351
65°	4802	4169	4189
70°	4546	3970	4013
75°	4214	3778	3850
80°	3692	3579	3685
85°	3187	3410	3559



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.7	1.6
10°-20°	110.9	4.5
20°-30°	168.1	6.8
30°-40°	204.7	8.2
40°-50°	220.3	8.9
50°-60°	213.9	8.6
60°-70°	186.8	7.5
70°-80°	143.8	5.8
80°-90°	97.8	3.9
90°-100°	87.5	3.5
100°-110°	113.8	4.6
110°-120°	143.6	5.8
120°-130°	164.6	6.6
130°-140°	172.2	6.9
140°-150°	162.8	6.5
150°-160°	135.4	5.4
160°-170°	89.8	3.6
170°-180°	31.4	1.3
0°-30°	317.7	12.8
0°-40°	522.4	21.0
0°-60°	956.6	38.5
0°-90°	1385.0	55.7
90°-120°	344.9	13.9
90°-150°	844.5	34.0
90°-180°	1101.0	44.3
0°-180°	2486.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	409	408	404	407	407	39
15°	390	392	392	397	396	110
25°	355	359	364	371	373	163
35°	306	316	327	340	344	191
45°	251	267	288	305	312	194
55°	192	214	244	265	273	172
65°	131	161	195	219	227	130
75°	73	106	144	168	177	77
85°	21	58	96	120	129	23
90°	6	44	88	110	118	5
95°	19	50	86	108	115	20
105°	63	82	112	133	140	67
115°	114	124	148	165	172	113
125°	164	167	185	199	205	147
135°	211	215	221	233	237	163
145°	256	258	259	263	265	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°	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2
2.5°	410.6	410.3	410.0	409.6	409.3	408.8	408.1	407.3	406.6	405.8	406.4
5°	409.4	409.0	408.6	408.2	407.8	407.3	406.5	405.7	404.9	404.1	404.9
7.5°	405.8	405.4	405.2	405.0	404.7	404.3	403.6	403.1	402.4	401.8	402.7
10°	402.9	402.7	402.3	402.1	401.9	401.6	401.2	400.8	400.4	400.0	401.0
12.5°	398.2	398.2	398.3	398.3	398.4	398.2	398.0	397.7	397.4	397.1	398.2
15°	390.5	390.7	391.0	391.3	391.5	391.7	391.7	391.7	391.7	391.7	392.8
17.5°	380.6	381.1	381.7	382.2	382.8	383.3	383.7	384.0	384.5	384.9	386.1
20°	373.9	374.5	375.3	375.9	376.5	377.2	377.6	378.2	378.7	379.2	380.6
22.5°	366.8	367.6	368.4	369.1	369.9	370.6	371.4	372.1	372.8	373.6	375.0
25°	355.0	355.9	356.8	357.7	358.6	359.7	360.9	362.1	363.3	364.4	366.0
27.5°	340.8	342.3	343.8	345.3	346.7	348.2	349.6	351.0	352.4	353.8	355.8
30°	331.3	333.0	334.7	336.4	338.2	339.8	341.6	343.3	345.0	346.7	348.8
32.5°	320.9	322.8	324.7	326.7	328.6	330.6	332.6	334.6	336.6	338.7	341.0
35°	305.9	308.1	310.4	312.6	314.8	317.2	319.6	322.2	324.6	327.2	330.0
37.5°	289.5	292.2	294.7	297.3	299.8	302.8	306.0	309.2	312.4	315.7	318.9
40°	278.7	281.5	284.5	287.3	290.3	293.4	297.0	300.6	304.1	307.7	311.1
42.5°	268.2	271.2	274.0	276.9	279.8	283.3	287.4	291.4	295.6	299.6	303.3
45°	250.9	254.4	257.9	261.5	265.1	269.1	273.7	278.3	283.0	287.6	291.6
47.5°	233.7	237.6	241.5	245.3	249.1	253.8	259.2	264.6	270.0	275.4	279.6
50°	221.9	225.9	230.0	234.1	238.1	243.1	249.1	255.0	260.9	266.8	271.3
52.5°	210.5	214.8	219.0	223.4	227.7	232.9	239.2	245.3	251.6	257.9	262.4
55°	192.3	197.0	201.8	206.4	211.2	217.0	223.9	230.7	237.5	244.3	249.1
57.5°	174.3	179.7	185.0	190.3	195.7	201.8	208.7	215.7	222.7	229.7	234.8
60°	161.5	167.2	172.9	178.5	184.1	190.7	198.2	205.7	213.2	220.7	225.7
62.5°	150.1	156.0	161.9	167.8	173.6	180.3	187.7	195.3	202.8	210.2	215.6
65°	131.3	137.8	144.3	150.7	157.1	164.2	172.0	179.7	187.5	195.3	200.7
67.5°	114.1	120.8	127.5	134.3	141.0	148.3	156.3	164.2	172.1	180.1	185.5
70°	101.8	108.6	115.4	122.2	129.1	136.6	144.7	152.9	161.1	169.2	174.8
72.5°	90.4	97.4	104.5	111.5	118.6	126.3	134.5	142.8	151.0	159.2	164.9
75°	72.8	80.2	87.5	94.8	102.2	110.1	118.5	126.9	135.4	143.8	149.4
77.5°	55.8	63.5	71.1	78.8	86.6	94.7	103.2	111.8	120.3	128.9	134.5
80°	44.4	52.4	60.4	68.4	76.4	84.8	93.3	101.8	110.4	118.9	124.5
82.5°	34.9	42.9	50.7	58.6	66.5	74.9	83.5	92.1	100.8	109.5	114.9
85°	21.3	29.5	37.6	45.8	53.9	62.2	70.6	79.0	87.5	95.9	101.4
87.5°	11.6	19.6	27.6	35.6	43.6	52.0	60.6	69.3	78.0	86.7	92.1
90°	6.2	14.6	23.0	31.3	39.7	48.8	58.5	68.3	78.1	87.9	93.0
92.5°	10.5	18.1	25.7	33.4	41.0	49.0	57.4	65.9	74.3	82.7	87.9
95°	19.3	26.1	32.9	39.7	46.5	53.9	61.9	69.9	78.0	86.0	90.9
97.5°	30.7	36.8	42.8	48.9	54.9	61.8	69.6	77.5	85.2	93.1	97.9
100°	39.7	45.1	50.4	55.8	61.2	67.6	75.2	82.7	90.2	97.8	102.7
102.5°	48.6	53.5	58.3	63.1	68.0	74.1	81.5	88.9	96.3	103.6	108.4
105°	63.1	67.1	71.1	75.1	79.1	84.6	91.6	98.5	105.5	112.5	117.2
107.5°	78.3	81.7	85.0	88.3	91.7	96.6	103.1	109.6	116.2	122.8	127.2
110°	87.7	90.7	93.7	96.7	99.7	104.5	110.9	117.3	123.8	130.2	134.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	98.5	101.1	103.6	106.2	108.8	113.1	119.2	125.3	131.3	137.4	141.5
115°	114.3	116.1	118.0	119.8	121.6	125.4	131.2	137.0	142.8	148.5	152.4
117.5°	129.5	130.9	132.4	133.9	135.3	138.6	143.7	148.9	153.9	159.1	162.8
120°	140.1	141.1	142.1	143.1	144.1	147.0	151.8	156.5	161.3	166.0	169.8
122.5°	149.6	150.4	151.3	152.1	152.9	155.6	160.2	164.8	169.4	174.0	177.4
125°	164.1	164.6	165.2	165.7	166.3	168.6	172.6	176.7	180.7	184.7	188.1
127.5°	178.7	179.3	179.8	180.4	181.0	182.8	186.0	189.2	192.3	195.5	198.6
130°	187.8	188.5	189.3	189.9	190.6	192.3	194.9	197.5	200.1	202.8	205.8
132.5°	198.1	198.7	199.2	199.7	200.3	201.6	203.7	205.9	208.1	210.2	213.0
135°	211.4	212.0	212.7	213.4	214.0	215.2	216.6	218.0	219.4	220.9	223.6
137.5°	225.9	226.4	226.9	227.4	228.0	228.6	229.3	230.0	230.8	231.6	233.9
140°	234.6	235.0	235.4	235.8	236.3	236.8	237.3	238.0	238.5	239.1	241.2
142.5°	243.5	244.0	244.4	244.8	245.3	245.6	245.8	246.1	246.4	246.6	248.3
145°	255.8	256.3	256.7	257.1	257.5	257.9	258.3	258.7	259.0	259.4	260.3
147.5°	267.3	267.8	268.3	268.9	269.3	269.7	270.0	270.3	270.5	270.8	271.0
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°	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2
2.5°	406.9	407.4	408.0	408.1	407.9	407.7	407.5	407.3
5°	405.7	406.5	407.3	407.6	407.4	407.3	407.2	407.0
7.5°	403.7	404.6	405.6	406.0	405.9	405.8	405.6	405.5
10°	402.0	403.1	404.2	404.6	404.5	404.3	404.3	404.1
12.5°	399.2	400.3	401.3	401.8	401.6	401.5	401.4	401.2
15°	394.0	395.2	396.4	396.9	396.8	396.6	396.5	396.4
17.5°	387.4	388.6	389.8	390.5	390.5	390.5	390.5	390.5
20°	382.1	383.6	385.0	385.7	385.7	385.7	385.7	385.7
22.5°	376.4	377.9	379.4	380.2	380.4	380.6	380.8	381.0
25°	367.6	369.2	370.7	371.8	372.2	372.6	373.0	373.4
27.5°	357.8	359.8	361.8	362.9	363.2	363.5	363.8	364.1
30°	350.9	353.0	355.1	356.3	356.7	357.1	357.5	357.9
32.5°	343.5	345.9	348.3	349.9	350.6	351.3	352.0	352.8
35°	333.0	335.9	338.7	340.6	341.6	342.5	343.4	344.4
37.5°	322.1	325.3	328.5	330.6	331.6	332.6	333.5	334.5
40°	314.5	317.9	321.3	323.6	324.8	326.0	327.2	328.4
42.5°	307.0	310.8	314.5	317.0	318.1	319.3	320.5	321.7
45°	295.7	299.8	303.8	306.5	307.8	309.2	310.5	311.8
47.5°	283.8	288.1	292.4	295.2	296.7	298.1	299.6	301.0
50°	275.8	280.2	284.7	287.6	289.1	290.6	292.0	293.4
52.5°	267.0	271.6	276.2	279.2	280.7	282.3	283.8	285.4
55°	253.8	258.6	263.2	266.5	268.2	269.9	271.6	273.3
57.5°	239.9	244.9	250.1	253.5	255.2	257.0	258.7	260.5
60°	230.7	235.7	240.7	244.1	245.9	247.8	249.6	251.4
62.5°	220.9	226.2	231.5	235.0	236.8	238.5	240.3	242.0
65°	206.0	211.4	216.8	220.4	222.0	223.8	225.5	227.2
67.5°	191.0	196.4	201.8	205.5	207.2	209.1	210.9	212.6
70°	180.5	186.2	191.8	195.4	197.0	198.6	200.2	201.8
72.5°	170.4	175.9	181.5	185.2	187.0	188.9	190.8	192.7
75°	155.1	160.7	166.4	170.1	171.7	173.5	175.2	176.9
77.5°	140.1	145.8	151.4	155.1	156.9	158.8	160.7	162.5
80°	130.0	135.5	141.0	144.7	146.6	148.4	150.2	152.0
82.5°	120.5	126.0	131.5	135.1	136.9	138.6	140.4	142.1
85°	106.9	112.4	118.0	121.6	123.4	125.3	127.1	129.0
87.5°	97.4	102.7	108.1	111.5	113.3	114.9	116.6	118.4
90°	98.2	103.3	108.4	111.8	113.4	115.1	116.8	118.4
92.5°	93.1	98.3	103.5	106.9	108.4	110.0	111.6	113.2
95°	95.9	100.9	105.9	109.2	110.6	112.1	113.5	114.9
97.5°	102.8	107.7	112.5	115.7	117.2	118.8	120.3	121.9
100°	107.5	112.4	117.2	120.3	121.8	123.1	124.5	125.9
102.5°	113.3	118.1	122.9	126.0	127.4	128.7	130.2	131.5
105°	121.9	126.7	131.3	134.4	135.9	137.4	138.8	140.2
107.5°	131.7	136.2	140.6	143.5	144.7	145.8	146.9	148.1
110°	138.6	142.8	147.0	149.8	151.1	152.3	153.6	154.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	145.5	149.6	153.7	156.4	157.6	159.0	160.3	161.6
115°	156.3	160.2	164.1	166.7	167.9	169.2	170.5	171.7
117.5°	166.5	170.3	174.0	176.5	177.6	178.8	179.9	181.1
120°	173.4	177.1	180.8	183.2	184.5	185.8	187.0	188.3
122.5°	180.9	184.3	187.7	190.0	191.1	192.1	193.2	194.3
125°	191.4	194.8	198.1	200.3	201.5	202.6	203.7	204.9
127.5°	201.6	204.6	207.7	209.7	210.6	211.6	212.5	213.5
130°	208.8	211.8	214.9	216.8	217.6	218.4	219.2	220.0
132.5°	215.8	218.6	221.3	223.2	224.0	224.8	225.7	226.6
135°	226.3	229.0	231.7	233.5	234.3	235.2	236.1	236.9
137.5°	236.3	238.7	241.1	242.6	243.2	243.8	244.5	245.1
140°	243.3	245.4	247.5	248.8	249.4	249.9	250.4	251.0
142.5°	250.1	251.8	253.6	254.7	255.1	255.6	256.0	256.4
145°	261.2	262.0	262.8	263.5	263.9	264.3	264.7	265.1
147.5°	271.2	271.5	271.7	271.9	272.0	272.0	272.1	272.2
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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