

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: P331288-927

Luminaire Tested: **S122DIP-S485D330U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331288-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DIP-S485D330U927-4F0-1E-UDD-D  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 330 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2595.6 lumens  
Efficiency: N/A  
Efficacy: 94.4 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

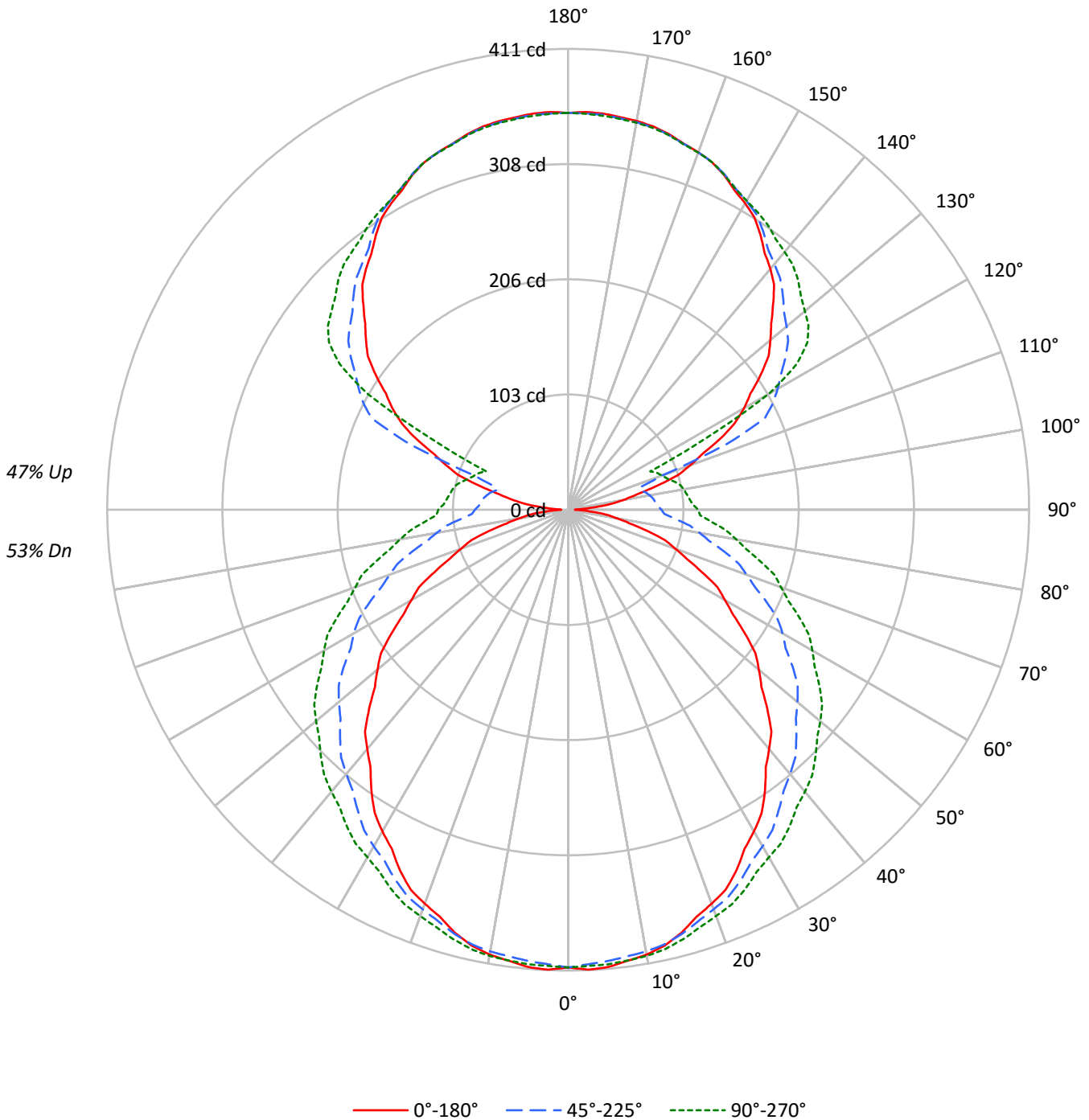
Input Watts (W): 27.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P331288-927

CATALOG NUMBER: S122DIP-S485D330U927-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P331288-927

CATALOG NUMBER: S122DIP-S485D330U927-4F0-1E-UDD-D

**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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53
1	97	92	87	83	89	85	81	78	72	69	67	61	58	56	50	48	47	42
2	88	79	72	67	81	73	67	62	62	58	54	52	49	46	43	40	38	34
3	80	69	61	55	73	64	57	51	55	49	45	46	42	38	37	34	32	28
4	73	61	52	46	67	57	49	43	48	42	38	40	36	32	33	30	27	23
5	66	54	45	39	61	50	42	37	43	37	32	36	31	28	30	26	23	20
6	61	48	40	34	56	45	37	32	39	32	28	32	28	24	27	23	20	17
7	56	44	35	29	52	41	33	28	35	29	24	29	25	21	24	21	18	15
8	52	39	31	26	48	37	29	24	32	26	22	27	22	19	22	19	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	14	12
10	45	33	25	21	42	31	24	19	27	21	17	23	18	15	19	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	1.5
10°-20°	110.9	4.3
20°-30°	168.1	6.5
30°-40°	204.7	7.9
40°-50°	220.3	8.5
50°-60°	213.9	8.2
60°-70°	186.8	7.2
70°-80°	143.8	5.5
80°-90°	97.4	3.8
90°-100°	78.3	3.0
100°-110°	91.8	3.5
110°-120°	147.8	5.7
120°-130°	209.0	8.1
130°-140°	210.7	8.1
140°-150°	190.2	7.3
150°-160°	151.8	5.8
160°-170°	97.8	3.8
170°-180°	33.7	1.3
0°-30°	317.7	12.2
0°-40°	522.4	20.1
0°-60°	956.6	36.9
0°-90°	1384.5	53.3
90°-120°	317.9	12.2
90°-150°	927.8	35.7
90°-180°	1211.0	46.7
0°-180°	2595.6	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	83	107	116	5
95°	21	42	78	101	109	24
105°	81	102	66	89	98	87
115°	150	162	194	98	81	147
125°	210	214	236	254	260	187
135°	258	263	271	285	290	200
145°	299	299	303	308	310	187
155°	329	327	330	331	329	152
165°	347	345	346	348	346	98
175°	355	353	354	355	353	34
180°	354	354	354	354	354	



TEST NUMBER: P331288-927

CATALOG NUMBER: S122DIP-S485D330U927-4F0-1E-UDD-D

**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	43.5	51.7	60.2	68.8	77.2	85.7	91.2
90°	6.2	14.4	22.7	30.9	39.2	47.8	56.6	65.5	74.4	83.2	88.7
92.5°	10.6	17.7	24.7	31.8	38.8	46.5	54.8	63.1	71.5	79.8	85.1
95°	21.4	25.7	29.9	34.3	38.6	44.9	53.2	61.5	69.7	78.0	83.3
97.5°	37.2	37.4	37.5	37.8	38.0	42.3	50.9	59.3	67.8	76.3	81.4
100°	49.5	46.6	43.6	40.6	37.7	40.5	48.8	57.1	65.4	73.8	79.1
102.5°	62.5	65.4	68.1	70.9	73.7	74.6	73.7	72.7	71.8	70.8	76.2
105°	80.8	86.3	91.9	97.4	102.9	101.3	92.6	83.9	75.2	66.5	71.7
107.5°	102.3	106.8	111.2	115.7	120.1	116.3	104.2	92.1	80.0	67.9	71.7
110°	115.8	119.7	123.5	127.3	131.1	128.0	118.0	108.1	98.0	88.0	86.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	129.0	132.2	135.5	138.8	142.0	144.7	146.7	148.8	150.9	153.0	136.4
115°	149.6	152.0	154.5	156.9	159.3	164.1	171.5	178.9	186.2	193.5	171.1
117.5°	167.5	169.6	171.6	173.6	175.6	179.9	186.3	192.8	199.2	205.7	203.2
120°	181.1	182.4	183.9	185.2	186.6	190.4	196.7	203.0	209.3	215.6	219.9
122.5°	192.6	193.7	194.8	195.9	197.0	200.6	206.6	212.7	218.7	224.8	228.8
125°	209.5	210.2	210.9	211.7	212.4	215.4	220.7	226.0	231.2	236.5	240.5
127.5°	225.2	225.9	226.6	227.3	228.0	230.4	234.6	238.8	243.0	247.2	251.1
130°	235.3	236.1	236.9	237.7	238.4	240.5	243.9	247.2	250.6	254.1	257.9
132.5°	245.5	246.2	246.8	247.5	248.1	249.8	252.5	255.3	258.1	260.9	264.4
135°	258.3	259.2	260.1	261.0	261.9	263.2	265.1	267.0	268.8	270.6	273.9
137.5°	271.7	272.4	273.0	273.5	274.2	275.0	276.2	277.4	278.5	279.7	282.7
140°	280.5	280.9	281.2	281.5	281.9	282.4	283.4	284.2	285.1	286.0	288.6
142.5°	288.0	288.2	288.5	288.8	289.1	289.5	290.3	291.1	291.8	292.6	294.8
145°	298.9	298.9	298.8	298.7	298.7	299.1	300.1	301.1	302.1	303.0	304.2
147.5°	309.0	308.8	308.6	308.3	308.2	308.5	309.4	310.5	311.4	312.4	312.8
150°	315.5	315.1	314.7	314.3	313.9	314.3	315.1	316.1	317.0	317.9	318.2
152.5°	321.1	320.7	320.2	319.7	319.3	319.5	320.4	321.2	322.1	323.0	323.3
155°	329.2	328.6	328.1	327.6	327.1	327.2	327.9	328.5	329.2	329.9	330.3
157.5°	335.4	335.0	334.5	334.1	333.7	333.7	334.2	334.7	335.2	335.6	336.0
160°	339.1	338.8	338.4	338.1	337.8	337.8	338.1	338.4	338.8	339.1	339.5
162.5°	342.4	342.1	341.7	341.4	341.0	341.0	341.3	341.6	341.9	342.2	342.6
165°	346.8	346.5	346.1	345.8	345.5	345.4	345.5	345.7	345.9	346.0	346.4
167.5°	350.1	349.7	349.4	349.0	348.7	348.6	348.8	349.0	349.1	349.3	349.7
170°	352.0	351.6	351.3	350.9	350.5	350.5	350.5	350.7	350.8	350.9	351.3
172.5°	353.2	352.8	352.4	352.1	351.8	351.6	351.8	351.9	352.0	352.1	352.5
175°	354.7	354.3	353.9	353.6	353.2	353.0	353.2	353.2	353.4	353.5	353.9
177.5°	355.0	354.7	354.3	354.0	353.7	353.6	353.6	353.7	353.7	353.8	354.1
180°	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9



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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°	96.6	102.0	107.4	111.0	112.7	114.4	116.1	117.8
90°	94.3	99.8	105.4	109.0	110.7	112.4	114.1	115.7
92.5°	90.4	95.7	101.0	104.5	106.1	107.7	109.4	111.1
95°	88.6	93.9	99.2	102.6	104.1	105.6	107.1	108.6
97.5°	86.5	91.6	96.7	100.1	101.6	103.3	104.9	106.5
100°	84.4	89.8	95.1	98.5	100.1	101.6	103.1	104.7
102.5°	81.6	86.9	92.3	95.8	97.4	98.9	100.5	102.2
105°	76.9	82.1	87.4	90.9	92.5	94.2	95.9	97.6
107.5°	75.5	79.2	83.0	85.7	87.5	89.1	90.8	92.4
110°	85.1	83.6	82.1	82.1	83.8	85.5	87.2	88.9





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	119.9	103.3	86.7	79.2	80.9	82.5	84.1	85.8
115°	148.7	126.3	103.9	91.3	88.7	86.0	83.4	80.7
117.5°	200.7	198.2	195.7	188.5	176.3	164.2	152.1	140.0
120°	224.3	228.6	233.0	232.1	225.9	219.6	213.3	207.2
122.5°	232.7	236.8	240.7	242.6	242.3	242.1	241.9	241.6
125°	244.5	248.4	252.3	255.0	256.4	257.7	259.0	260.4
127.5°	254.9	258.8	262.6	265.1	266.3	267.5	268.7	269.9
130°	261.6	265.4	269.2	271.6	272.5	273.5	274.6	275.5
132.5°	268.0	271.6	275.2	277.4	278.5	279.5	280.4	281.5
135°	277.3	280.6	283.9	286.1	287.0	287.9	288.8	289.8
137.5°	285.7	288.7	291.6	293.4	294.1	294.9	295.6	296.3
140°	291.2	293.8	296.4	298.0	298.5	299.0	299.5	300.1
142.5°	296.9	299.1	301.3	302.5	302.9	303.3	303.7	304.1
145°	305.4	306.6	307.8	308.6	308.9	309.3	309.7	310.1
147.5°	313.1	313.5	313.9	314.2	314.3	314.3	314.4	314.5
150°	318.5	318.9	319.2	319.2	319.0	318.7	318.4	318.1
152.5°	323.7	324.0	324.3	324.3	323.9	323.6	323.2	322.8
155°	330.6	330.9	331.3	331.2	330.7	330.3	329.9	329.4
157.5°	336.4	336.8	337.2	337.2	336.7	336.3	335.8	335.4
160°	339.8	340.2	340.5	340.5	340.1	339.7	339.3	338.9
162.5°	342.9	343.3	343.7	343.7	343.2	342.7	342.2	341.7
165°	346.8	347.2	347.6	347.6	347.2	346.8	346.4	346.0
167.5°	350.1	350.5	350.9	350.8	350.3	349.7	349.3	348.7
170°	351.7	352.1	352.5	352.4	352.0	351.4	350.9	350.4
172.5°	352.9	353.3	353.7	353.7	353.2	352.7	352.1	351.6
175°	354.3	354.7	355.1	355.0	354.4	353.9	353.2	352.7
177.5°	354.4	354.7	355.1	355.0	354.6	354.2	353.8	353.4
180°	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9

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