

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: P331298-927

Luminaire Tested: **SA2XXDIP-C485D530U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331298-927  
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-C485D530U927-4F0-1E-UDD-D1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3056.4 lumens  
Efficiency: N/A  
Efficacy: 93.2 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

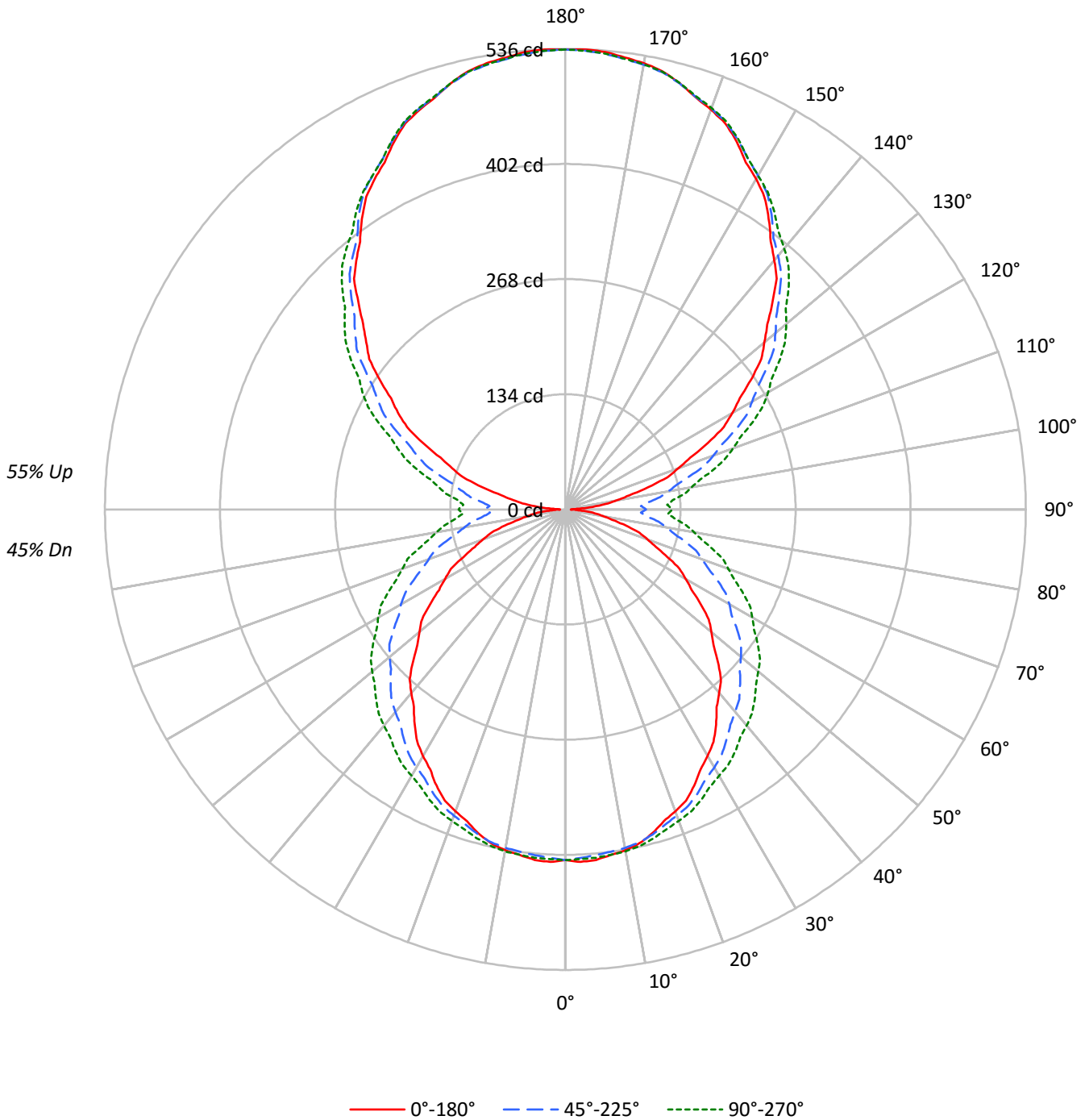
Input Watts (W): 32.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45				
1	95	90	86	82	87	83	79	76	69	66	63	56	54	52	44	42	41	35				
2	86	78	72	66	79	72	66	61	59	55	51	48	45	42	38	35	33	29				
3	78	68	60	54	71	63	56	50	52	47	43	42	38	35	33	30	28	24				
4	71	60	52	45	65	55	48	42	46	40	36	37	33	30	29	26	24	20				
5	65	53	45	39	60	49	42	36	41	35	31	33	29	25	26	23	20	17				
6	60	48	39	33	55	44	36	31	37	31	27	30	25	22	24	20	18	15				
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13				
8	51	39	31	25	47	36	29	24	30	24	20	25	20	17	20	16	14	11				
9	48	35	28	23	44	33	26	21	28	22	18	23	18	15	18	15	13	10				
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	14	11	9				

**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	1.3
10°-20°	110.9	3.6
20°-30°	168.1	5.5
30°-40°	204.7	6.7
40°-50°	220.3	7.2
50°-60°	213.9	7.0
60°-70°	186.8	6.1
70°-80°	143.8	4.7
80°-90°	98.6	3.2
90°-100°	100.4	3.3
100°-110°	153.9	5.0
110°-120°	212.1	6.9
120°-130°	254.7	8.3
130°-140°	273.3	8.9
140°-150°	261.9	8.6
150°-160°	218.6	7.2
160°-170°	145.0	4.7
170°-180°	50.7	1.7
0°-30°	317.7	10.4
0°-40°	522.4	17.1
0°-60°	956.6	31.3
0°-90°	1385.8	45.3
90°-120°	466.4	15.3
90°-150°	1256.4	41.1
90°-180°	1671.0	54.7
0°-180°	3056.4	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	47	94	116	124	5
95°	28	61	97	118	126	31
105°	100	119	150	171	178	106
115°	183	193	218	235	240	181
125°	264	269	286	300	305	236
135°	341	346	352	364	368	263
145°	413	416	419	423	424	258
155°	472	473	475	477	476	217
165°	514	513	513	516	514	145
175°	534	533	532	535	533	51
180°	535	535	535	535	535	



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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°	11.7	19.7	27.8	35.9	44.0	52.4	61.3	70.2	79.1	87.9	93.2
90°	6.3	15.2	24.0	32.9	41.7	51.4	62.0	72.6	83.3	93.9	98.9
92.5°	13.5	21.5	29.5	37.5	45.4	53.7	62.3	71.0	79.6	88.2	93.4
95°	28.2	35.4	42.6	49.7	57.0	64.6	72.6	80.8	88.9	97.0	102.0
97.5°	47.1	53.5	59.8	66.2	72.6	79.8	87.7	95.6	103.6	111.5	116.5
100°	61.5	67.2	72.9	78.5	84.2	90.9	98.5	106.2	113.8	121.5	126.4
102.5°	76.2	81.3	86.4	91.5	96.6	102.9	110.4	118.0	125.5	133.0	137.8
105°	100.1	104.2	108.3	112.4	116.5	122.1	129.1	136.2	143.2	150.3	155.0
107.5°	124.7	128.2	131.7	135.2	138.7	143.7	150.3	156.8	163.3	169.9	174.4
110°	140.1	143.4	146.6	149.9	153.0	157.9	164.4	170.8	177.2	183.7	187.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	157.5	160.3	163.1	166.0	168.7	173.2	179.2	185.3	191.3	197.3	201.3
115°	183.1	185.1	187.2	189.2	191.2	195.1	200.8	206.6	212.3	218.0	221.8
117.5°	207.9	209.7	211.4	213.2	214.9	218.2	223.2	228.1	233.0	237.9	241.5
120°	224.9	226.2	227.6	228.9	230.3	233.1	237.6	242.1	246.5	251.0	254.6
122.5°	240.5	241.6	242.8	244.0	245.2	248.0	252.3	256.7	261.1	265.5	268.8
125°	264.1	265.0	265.9	266.8	267.7	270.1	274.0	277.9	281.9	285.7	289.0
127.5°	287.6	288.7	289.7	290.7	291.8	293.7	296.8	299.8	302.9	305.9	308.8
130°	302.5	303.6	304.8	306.0	307.2	309.0	311.6	314.2	316.7	319.3	322.3
132.5°	319.1	320.0	321.0	321.9	322.8	324.4	326.5	328.8	330.9	333.1	335.6
135°	340.7	341.8	342.9	344.0	345.2	346.5	348.0	349.5	351.0	352.5	355.2
137.5°	364.2	365.0	365.9	366.8	367.7	368.5	369.4	370.2	371.1	371.9	374.2
140°	378.3	379.0	379.8	380.6	381.4	382.1	382.9	383.7	384.4	385.2	387.3
142.5°	392.7	393.5	394.3	395.0	395.8	396.4	396.8	397.1	397.5	397.9	399.7
145°	412.9	413.6	414.3	415.0	415.7	416.4	416.9	417.6	418.2	418.7	419.6
147.5°	431.4	432.2	433.1	434.0	434.7	435.4	435.8	436.2	436.6	437.0	437.4
150°	444.1	444.7	445.3	445.8	446.5	446.9	447.3	447.7	448.1	448.6	448.9
152.5°	455.3	455.9	456.5	457.1	457.6	458.2	458.7	459.1	459.6	460.2	460.5
155°	472.1	472.4	472.7	472.9	473.2	473.6	473.9	474.2	474.4	474.8	475.3
157.5°	486.4	486.6	486.8	487.0	487.3	487.4	487.6	487.8	488.0	488.1	488.9
160°	495.1	495.3	495.5	495.7	495.9	496.1	496.1	496.2	496.4	496.5	497.1
162.5°	503.0	503.1	503.1	503.2	503.2	503.3	503.4	503.5	503.6	503.7	504.4
165°	513.7	513.5	513.4	513.3	513.3	513.2	513.2	513.2	513.2	513.2	513.9
167.5°	522.4	522.2	521.9	521.6	521.3	521.1	521.1	521.1	521.0	521.0	521.7
170°	527.2	526.9	526.6	526.2	526.0	525.8	525.7	525.5	525.5	525.4	526.1
172.5°	530.4	530.1	529.8	529.5	529.3	529.0	528.9	528.9	528.7	528.6	529.3
175°	534.4	534.1	533.8	533.5	533.2	533.0	532.7	532.6	532.3	532.1	532.8
177.5°	536.1	535.8	535.5	535.3	535.0	534.9	534.7	534.6	534.4	534.2	534.7
180°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3



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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°	98.5	103.9	109.2	112.7	114.4	116.1	117.8	119.5
90°	104.0	109.1	114.2	117.5	119.2	120.9	122.6	124.2
92.5°	98.6	103.8	109.0	112.4	114.0	115.6	117.2	118.7
95°	106.9	111.9	116.9	120.1	121.5	122.9	124.2	125.6
97.5°	121.3	126.1	131.0	134.2	135.8	137.3	138.8	140.4
100°	131.3	136.1	140.9	144.1	145.4	146.8	148.1	149.5
102.5°	142.7	147.5	152.3	155.4	156.8	158.1	159.5	160.8
105°	159.9	164.7	169.4	172.6	174.0	175.5	177.0	178.4
107.5°	178.9	183.4	187.9	190.6	191.6	192.6	193.6	194.6
110°	192.1	196.3	200.5	203.2	204.3	205.5	206.6	207.8





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	205.3	209.2	213.3	215.8	217.1	218.2	219.5	220.7
115°	225.7	229.5	233.4	235.8	237.0	238.1	239.3	240.4
117.5°	245.2	248.8	252.5	254.8	255.9	256.9	257.9	259.0
120°	258.3	262.0	265.7	268.1	269.3	270.4	271.6	272.7
122.5°	272.1	275.4	278.8	281.0	282.0	283.0	284.0	285.0
125°	292.2	295.5	298.7	300.9	302.0	303.1	304.1	305.2
127.5°	311.6	314.6	317.5	319.3	320.2	321.0	321.9	322.7
130°	325.2	328.1	331.1	333.0	333.6	334.2	334.9	335.5
132.5°	338.3	340.9	343.5	345.2	345.9	346.7	347.4	348.1
135°	357.8	360.5	363.2	364.9	365.7	366.4	367.2	367.9
137.5°	376.5	378.9	381.2	382.6	383.1	383.7	384.1	384.6
140°	389.4	391.5	393.6	394.8	395.2	395.6	396.0	396.4
142.5°	401.5	403.2	405.0	406.0	406.3	406.5	406.9	407.2
145°	420.6	421.4	422.3	422.9	423.2	423.4	423.7	423.9
147.5°	437.7	438.0	438.3	438.5	438.4	438.3	438.2	438.2
150°	449.2	449.5	449.8	449.8	449.5	449.2	448.9	448.6
152.5°	460.9	461.3	461.7	461.7	461.3	460.9	460.5	460.2
155°	475.8	476.3	476.8	476.9	476.6	476.3	475.9	475.7
157.5°	489.5	490.2	490.9	491.0	490.5	490.0	489.6	489.0
160°	497.6	498.3	498.8	499.0	498.6	498.2	497.7	497.3
162.5°	505.0	505.7	506.4	506.5	506.0	505.6	505.1	504.6
165°	514.6	515.3	515.9	516.1	515.6	515.1	514.6	514.0
167.5°	522.4	523.2	523.9	523.9	523.4	522.9	522.4	521.8
170°	526.8	527.5	528.1	528.2	527.6	527.0	526.4	525.9
172.5°	530.0	530.8	531.4	531.5	530.9	530.3	529.7	529.1
175°	533.5	534.2	535.0	535.0	534.4	533.8	533.2	532.6
177.5°	535.2	535.7	536.1	536.1	535.7	535.2	534.7	534.2
180°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3

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