

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

Luminaire Tested: **SA2XXDIP-C485D330U835-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331289  
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-C485D330U835-4F0-1E-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**

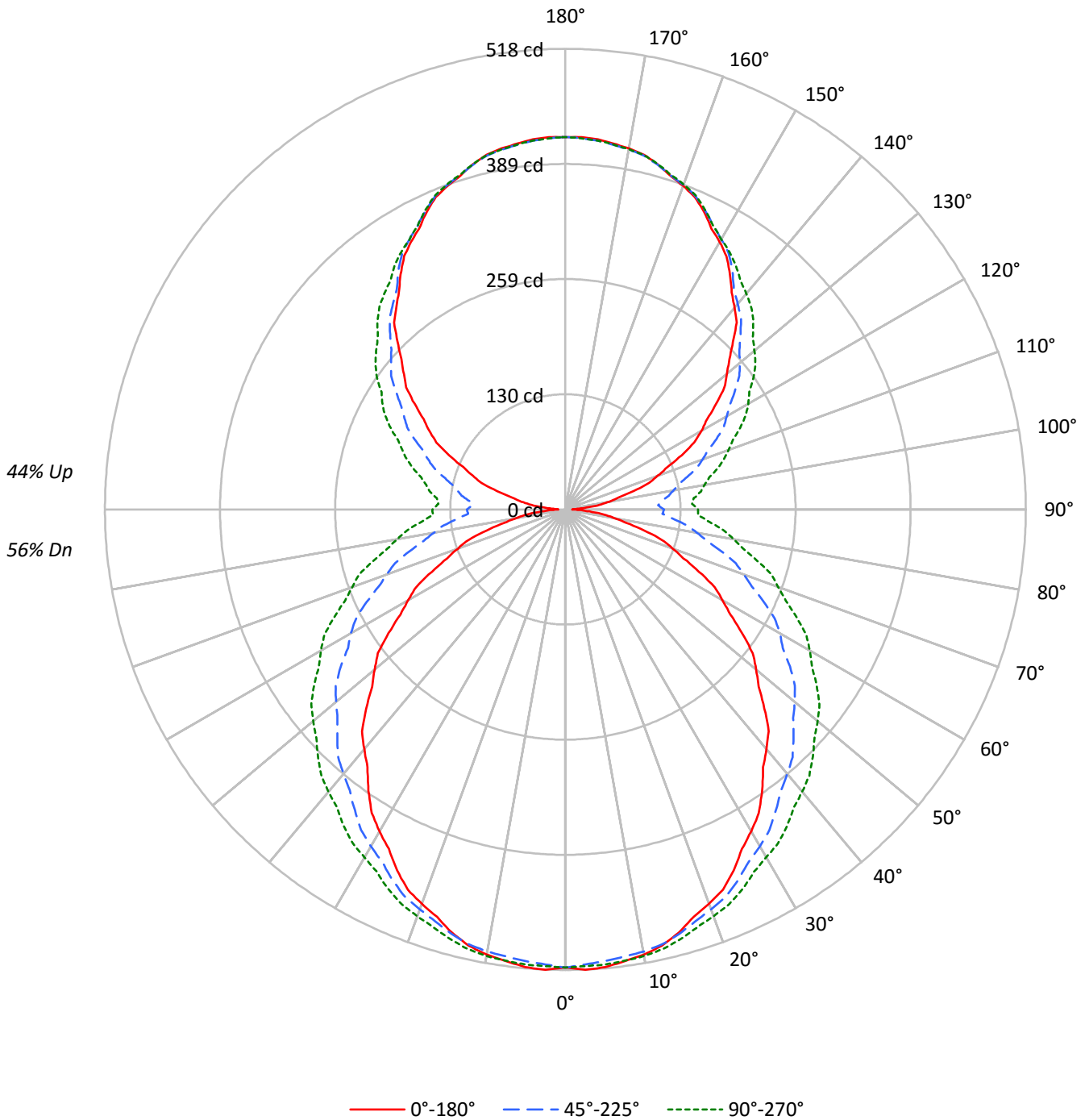
Lumens per Lamp: N/A  
Luminaire Lumens: 3138.3 lumens  
Efficiency: N/A  
Efficacy: 114.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

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°	8320	8320	8320
5°	8361	8009	7978
10°	8308	7773	7685
15°	8193	7522	7376
20°	8049	7253	7078
25°	7906	6994	6809
30°	7704	6728	6536
35°	7501	6472	6346
40°	7287	6254	6154
45°	7084	6058	5992
50°	6865	5879	5830
55°	6634	5689	5666
60°	6355	5493	5493
65°	6063	5262	5287
70°	5738	5012	5065
75°	5319	4768	4860
80°	4657	4519	4652
85°	4025	4303	4491



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.8	1.6
10°-20°	140.0	4.5
20°-30°	212.2	6.8
30°-40°	258.4	8.2
40°-50°	278.0	8.9
50°-60°	270.0	8.6
60°-70°	235.8	7.5
70°-80°	181.5	5.8
80°-90°	123.5	3.9
90°-100°	110.4	3.5
100°-110°	143.7	4.6
110°-120°	181.3	5.8
120°-130°	207.8	6.6
130°-140°	217.3	6.9
140°-150°	205.5	6.5
150°-160°	171.0	5.4
160°-170°	113.4	3.6
170°-180°	39.6	1.3
0°-30°	401.0	12.8
0°-40°	659.5	21.0
0°-60°	1207.5	38.5
0°-90°	1748.3	55.7
90°-120°	435.4	13.9
90°-150°	1066.0	34.0
90°-180°	1390.0	44.3
0°-180°	3138.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	515	515	515	515	515	
5°	517	514	510	514	514	49
15°	493	494	494	501	500	139
25°	448	453	460	469	471	206
35°	386	399	413	429	435	241
45°	317	337	363	385	394	244
55°	243	270	308	334	345	217
65°	166	203	246	276	287	165
75°	92	134	182	212	223	97
85°	27	73	121	151	163	29
90°	8	56	111	139	149	6
95°	24	63	108	136	145	26
105°	80	103	142	168	177	84
115°	144	156	188	209	217	142
125°	207	211	233	252	259	185
135°	267	271	279	294	299	206
145°	323	325	328	332	335	202
155°	369	370	371	373	372	170
165°	402	401	401	404	402	113
175°	418	417	416	418	416	40
180°	419	419	419	419	419	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3
2.5°	518.3	517.9	517.5	517.1	516.7	516.0	515.1	514.2	513.3	512.3	513.0
5°	516.8	516.3	515.8	515.3	514.8	514.1	513.1	512.1	511.1	510.1	511.1
7.5°	512.2	511.8	511.5	511.2	510.9	510.3	509.5	508.8	508.0	507.2	508.4
10°	508.6	508.3	507.9	507.6	507.3	506.9	506.4	505.9	505.4	504.9	506.2
12.5°	502.6	502.7	502.8	502.8	502.9	502.7	502.4	502.0	501.6	501.3	502.6
15°	492.9	493.2	493.6	493.9	494.2	494.4	494.4	494.4	494.4	494.4	495.9
17.5°	480.4	481.1	481.8	482.5	483.2	483.8	484.3	484.8	485.4	485.9	487.4
20°	472.0	472.8	473.7	474.5	475.3	476.1	476.7	477.4	478.1	478.7	480.5
22.5°	463.0	464.0	465.0	465.9	466.9	467.8	468.8	469.7	470.6	471.6	473.4
25°	448.1	449.3	450.4	451.6	452.7	454.1	455.6	457.1	458.6	460.0	462.0
27.5°	430.2	432.1	434.0	435.9	437.7	439.6	441.3	443.1	444.8	446.6	449.1
30°	418.2	420.4	422.5	424.7	426.9	429.0	431.2	433.3	435.5	437.6	440.3
32.5°	405.1	407.5	409.9	412.4	414.8	417.3	419.8	422.4	424.9	427.5	430.5
35°	386.1	388.9	391.8	394.6	397.4	400.4	403.5	406.7	409.8	413.0	416.6
37.5°	365.5	368.8	372.0	375.3	378.5	382.2	386.3	390.3	394.4	398.5	402.6
40°	351.8	355.4	359.1	362.7	366.4	370.4	374.9	379.4	383.9	388.4	392.7
42.5°	338.6	342.3	345.9	349.6	353.2	357.6	362.8	367.9	373.1	378.2	382.9
45°	316.7	321.1	325.6	330.1	334.6	339.7	345.5	351.3	357.2	363.0	368.1
47.5°	295.0	299.9	304.8	309.6	314.5	320.4	327.2	334.0	340.8	347.6	353.0
50°	280.1	285.2	290.4	295.5	300.6	306.9	314.4	321.9	329.4	336.8	342.5
52.5°	265.7	271.1	276.5	282.0	287.4	294.0	301.9	309.7	317.6	325.5	331.2
55°	242.7	248.7	254.7	260.6	266.6	273.9	282.6	291.2	299.8	308.4	314.4
57.5°	220.0	226.8	233.5	240.2	247.0	254.7	263.5	272.3	281.1	289.9	296.4
60°	203.9	211.0	218.2	225.3	232.4	240.7	250.2	259.6	269.1	278.6	284.9
62.5°	189.5	196.9	204.4	211.8	219.2	227.6	237.0	246.5	256.0	265.4	272.1
65°	165.8	173.9	182.1	190.2	198.3	207.3	217.1	226.9	236.7	246.5	253.3
67.5°	144.0	152.5	161.0	169.5	178.0	187.2	197.3	207.3	217.3	227.3	234.2
70°	128.5	137.1	145.7	154.3	163.0	172.4	182.7	193.0	203.3	213.6	220.7
72.5°	114.1	123.0	131.9	140.8	149.7	159.4	169.8	180.2	190.6	201.0	208.1
75°	91.9	101.2	110.4	119.7	129.0	139.0	149.6	160.2	170.9	181.5	188.6
77.5°	70.4	80.1	89.8	99.5	109.3	119.5	130.3	141.1	151.9	162.7	169.8
80°	56.0	66.1	76.3	86.4	96.5	107.0	117.8	128.5	139.3	150.1	157.1
82.5°	44.1	54.1	64.0	74.0	84.0	94.5	105.4	116.3	127.2	138.2	145.1
85°	26.9	37.2	47.5	57.8	68.0	78.5	89.1	99.7	110.4	121.0	128.0
87.5°	14.7	24.8	34.9	44.9	55.0	65.6	76.5	87.5	98.5	109.4	116.2
90°	7.8	18.4	29.0	39.5	50.1	61.6	73.9	86.2	98.6	110.9	117.4
92.5°	13.2	22.8	32.5	42.1	51.8	61.9	72.5	83.2	93.8	104.4	111.0
95°	24.3	32.9	41.5	50.1	58.7	68.0	78.2	88.3	98.4	108.5	114.8
97.5°	38.8	46.4	54.0	61.7	69.3	78.0	87.9	97.8	107.6	117.5	123.6
100°	50.1	56.9	63.6	70.4	77.2	85.3	94.9	104.4	113.9	123.4	129.6
102.5°	61.4	67.5	73.6	79.7	85.8	93.5	102.9	112.2	121.5	130.8	136.9
105°	79.7	84.7	89.8	94.8	99.9	106.8	115.6	124.4	133.2	142.0	147.9
107.5°	98.9	103.1	107.3	111.5	115.7	121.9	130.2	138.4	146.7	155.0	160.6
110°	110.7	114.5	118.3	122.1	125.9	131.9	140.0	148.1	156.3	164.4	169.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	124.3	127.6	130.8	134.1	137.3	142.8	150.5	158.2	165.8	173.5	178.6
115°	144.3	146.6	148.9	151.2	153.5	158.3	165.6	172.9	180.2	187.5	192.4
117.5°	163.5	165.3	167.1	169.0	170.8	174.9	181.4	187.9	194.3	200.8	205.5
120°	176.8	178.1	179.4	180.6	181.9	185.6	191.6	197.6	203.6	209.6	214.3
122.5°	188.9	189.9	191.0	192.0	193.0	196.4	202.2	208.0	213.8	219.6	223.9
125°	207.1	207.8	208.5	209.2	209.9	212.8	217.9	223.0	228.1	233.1	237.4
127.5°	225.6	226.3	227.0	227.7	228.5	230.8	234.8	238.8	242.8	246.8	250.7
130°	237.1	238.0	238.9	239.7	240.6	242.7	246.0	249.3	252.6	256.0	259.8
132.5°	250.1	250.8	251.5	252.1	252.8	254.5	257.2	259.9	262.7	265.4	268.9
135°	266.8	267.6	268.5	269.4	270.2	271.6	273.4	275.2	277.0	278.8	282.3
137.5°	285.1	285.8	286.4	287.1	287.8	288.6	289.5	290.4	291.4	292.3	295.3
140°	296.1	296.6	297.2	297.7	298.3	298.9	299.6	300.4	301.1	301.8	304.5
142.5°	307.4	308.0	308.5	309.0	309.6	310.0	310.3	310.7	311.0	311.3	313.5
145°	322.9	323.5	324.0	324.6	325.1	325.6	326.1	326.6	327.0	327.5	328.6
147.5°	337.4	338.1	338.7	339.4	340.0	340.5	340.8	341.2	341.5	341.8	342.1
150°	347.3	347.8	348.2	348.7	349.2	349.6	349.9	350.2	350.5	350.8	351.1
152.5°	356.1	356.5	357.0	357.5	357.9	358.4	358.7	359.1	359.5	359.9	360.2
155°	369.2	369.4	369.7	369.9	370.1	370.4	370.6	370.8	371.1	371.3	371.7
157.5°	380.4	380.6	380.7	380.9	381.1	381.2	381.4	381.5	381.6	381.8	382.3
160°	387.2	387.4	387.5	387.7	387.8	388.0	388.0	388.1	388.2	388.3	388.7
162.5°	393.4	393.5	393.5	393.5	393.6	393.6	393.7	393.8	393.9	393.9	394.5
165°	401.7	401.6	401.5	401.5	401.4	401.3	401.3	401.3	401.3	401.3	401.9
167.5°	408.6	408.4	408.2	407.9	407.7	407.6	407.5	407.5	407.5	407.5	408.0
170°	412.3	412.1	411.8	411.6	411.4	411.2	411.1	411.0	411.0	410.9	411.4
172.5°	414.8	414.6	414.4	414.1	413.9	413.7	413.7	413.6	413.5	413.4	414.0
175°	418.0	417.7	417.5	417.2	417.0	416.8	416.7	416.5	416.3	416.2	416.7
177.5°	419.2	419.0	418.8	418.7	418.5	418.3	418.2	418.1	417.9	417.8	418.2
180°	418.7	418.7	418.7	418.7	418.7	418.7	418.7	418.7	418.7	418.7	418.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3
2.5°	513.7	514.3	515.0	515.2	514.9	514.7	514.4	514.1
5°	512.1	513.1	514.1	514.5	514.3	514.2	514.0	513.8
7.5°	509.6	510.8	512.0	512.5	512.4	512.2	512.0	511.9
10°	507.5	508.8	510.2	510.8	510.6	510.4	510.3	510.1
12.5°	503.9	505.3	506.6	507.2	507.0	506.8	506.7	506.5
15°	497.4	498.9	500.4	501.0	500.9	500.7	500.5	500.4
17.5°	489.0	490.6	492.1	492.9	492.9	492.9	492.9	492.9
20°	482.4	484.2	486.0	486.9	486.9	486.9	486.9	486.9
22.5°	475.2	477.0	478.9	479.9	480.2	480.4	480.7	481.0
25°	464.0	466.0	468.0	469.3	469.8	470.3	470.8	471.3
27.5°	451.7	454.2	456.7	458.1	458.5	458.9	459.2	459.6
30°	443.0	445.6	448.3	449.8	450.3	450.8	451.3	451.8
32.5°	433.6	436.6	439.7	441.7	442.6	443.5	444.4	445.3
35°	420.3	424.0	427.6	430.0	431.2	432.3	433.5	434.7
37.5°	406.6	410.7	414.7	417.3	418.6	419.8	421.0	422.3
40°	397.0	401.3	405.6	408.5	410.0	411.5	413.0	414.5
42.5°	387.6	392.3	397.0	400.2	401.6	403.1	404.6	406.1
45°	373.3	378.4	383.5	386.9	388.6	390.3	391.9	393.6
47.5°	358.3	363.7	369.1	372.7	374.5	376.3	378.2	380.0
50°	348.1	353.7	359.4	363.1	365.0	366.8	368.6	370.4
52.5°	337.0	342.8	348.6	352.4	354.4	356.4	358.3	360.3
55°	320.4	326.4	332.3	336.4	338.6	340.7	342.9	345.0
57.5°	302.8	309.2	315.7	320.0	322.2	324.4	326.6	328.8
60°	291.2	297.5	303.8	308.1	310.4	312.8	315.1	317.4
62.5°	278.8	285.5	292.2	296.7	298.9	301.1	303.3	305.5
65°	260.1	266.9	273.7	278.2	280.3	282.5	284.6	286.8
67.5°	241.1	247.9	254.8	259.4	261.6	263.9	266.2	268.4
70°	227.9	235.0	242.1	246.7	248.7	250.7	252.7	254.7
72.5°	215.1	222.1	229.1	233.8	236.1	238.5	240.9	243.3
75°	195.8	202.9	210.0	214.7	216.8	219.0	221.1	223.3
77.5°	176.9	184.0	191.1	195.8	198.1	200.4	202.8	205.1
80°	164.1	171.0	178.0	182.6	185.0	187.3	189.6	191.9
82.5°	152.1	159.1	166.0	170.6	172.8	175.0	177.2	179.4
85°	134.9	141.9	148.9	153.5	155.8	158.2	160.5	162.8
87.5°	122.9	129.6	136.4	140.8	143.0	145.1	147.2	149.4
90°	123.9	130.4	136.9	141.1	143.2	145.3	147.4	149.4
92.5°	117.5	124.1	130.6	134.9	136.9	138.9	140.9	142.9
95°	121.1	127.4	133.7	137.8	139.6	141.5	143.3	145.1
97.5°	129.8	135.9	142.0	146.1	148.0	150.0	151.9	153.9
100°	135.7	141.9	148.0	151.9	153.7	155.4	157.2	158.9
102.5°	143.0	149.1	155.1	159.0	160.8	162.5	164.3	166.0
105°	153.9	159.9	165.8	169.7	171.5	173.4	175.2	177.0
107.5°	166.3	171.9	177.5	181.1	182.6	184.0	185.5	186.9
110°	175.0	180.3	185.6	189.1	190.7	192.3	193.9	195.4





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	183.7	188.9	194.0	197.4	199.0	200.7	202.3	204.0
115°	197.3	202.2	207.1	210.4	212.0	213.6	215.2	216.8
117.5°	210.2	215.0	219.7	222.8	224.2	225.7	227.1	228.6
120°	218.9	223.6	228.2	231.3	232.9	234.5	236.1	237.7
122.5°	228.3	232.6	236.9	239.8	241.2	242.5	243.9	245.3
125°	241.6	245.9	250.1	252.9	254.4	255.8	257.2	258.6
127.5°	254.5	258.3	262.2	264.7	265.9	267.1	268.3	269.5
130°	263.6	267.4	271.3	273.7	274.7	275.7	276.7	277.7
132.5°	272.4	275.9	279.4	281.7	282.8	283.8	284.9	286.0
135°	285.7	289.1	292.5	294.7	295.8	296.9	298.0	299.1
137.5°	298.3	301.3	304.3	306.2	307.0	307.8	308.6	309.4
140°	307.1	309.8	312.4	314.1	314.8	315.5	316.1	316.8
142.5°	315.7	317.9	320.1	321.5	322.0	322.6	323.1	323.7
145°	329.7	330.7	331.8	332.6	333.1	333.6	334.1	334.7
147.5°	342.4	342.7	343.0	343.2	343.3	343.4	343.5	343.6
150°	351.3	351.5	351.8	351.8	351.5	351.3	351.1	350.8
152.5°	360.5	360.8	361.1	361.1	360.8	360.5	360.2	359.9
155°	372.1	372.5	372.9	373.0	372.7	372.5	372.3	372.0
157.5°	382.8	383.4	383.9	384.0	383.6	383.2	382.9	382.5
160°	389.2	389.7	390.2	390.2	389.9	389.6	389.3	389.0
162.5°	395.0	395.5	396.1	396.1	395.8	395.4	395.0	394.6
165°	402.4	403.0	403.5	403.6	403.2	402.8	402.4	402.1
167.5°	408.6	409.1	409.7	409.8	409.4	408.9	408.5	408.1
170°	412.0	412.5	413.1	413.1	412.7	412.2	411.7	411.2
172.5°	414.5	415.1	415.6	415.7	415.2	414.7	414.3	413.8
175°	417.3	417.8	418.4	418.4	418.0	417.5	417.0	416.5
177.5°	418.6	418.9	419.3	419.3	418.9	418.6	418.2	417.8
180°	418.7	418.7	418.7	418.7	418.7	418.7	418.7	418.7

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