

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: P332584-927

Luminaire Tested: **SA4XXDIP-C795D365U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332584-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C795D365U927-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3570.3 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

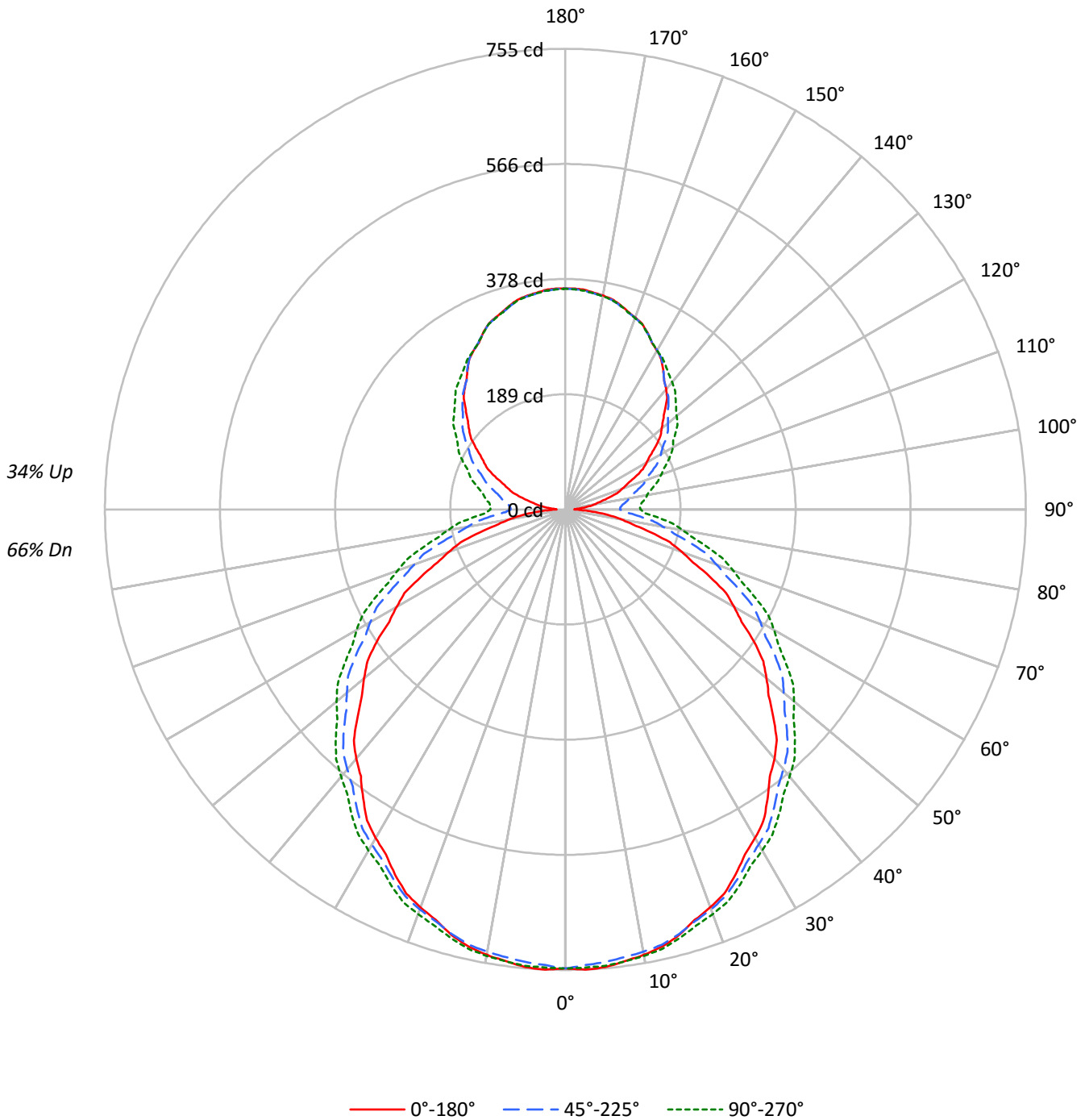
Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66				
1	100	95	91	87	94	90	86	82	79	76	73	70	67	65	61	59	58	53				
2	91	82	75	70	85	78	71	66	69	64	60	60	57	53	53	50	47	43				
3	82	72	64	57	77	68	61	55	60	54	50	53	48	45	46	43	40	36				
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34	31				
5	69	56	48	41	64	53	45	39	47	41	36	42	37	33	37	33	29	26				
6	63	51	42	36	59	48	40	34	43	36	31	38	32	28	33	29	26	23				
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	23	20				
8	54	41	33	28	51	39	32	26	35	29	24	31	26	22	28	23	20	18				
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	26	21	18	16				
10	47	35	27	22	45	33	26	21	30	24	20	27	22	18	24	20	16	15				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6075	6075	6075
5°	6093	5937	5954
10°	6056	5839	5835
15°	6002	5727	5695
20°	5920	5603	5561
25°	5828	5464	5411
30°	5728	5326	5258
35°	5615	5184	5124
40°	5525	5049	4984
45°	5391	4925	4864
50°	5277	4781	4738
55°	5160	4647	4588
60°	4976	4475	4453
65°	4776	4290	4285
70°	4532	4078	4091
75°	4196	3847	3915
80°	3817	3624	3742
85°	3344	3427	3643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	2.0
10°-20°	204.2	5.7
20°-30°	308.7	8.6
30°-40°	373.5	10.5
40°-50°	394.9	11.1
50°-60°	371.6	10.4
60°-70°	308.3	8.6
70°-80°	216.6	6.1
80°-90°	123.5	3.5
90°-100°	96.6	2.7
100°-110°	124.5	3.5
110°-120°	156.2	4.4
120°-130°	178.6	5.0
130°-140°	186.6	5.2
140°-150°	176.5	4.9
150°-160°	146.9	4.1
160°-170°	97.7	2.7
170°-180°	34.2	1.0
0°-30°	584.1	16.4
0°-40°	957.6	26.8
0°-60°	1724.1	48.3
0°-90°	2372.5	66.5
90°-120°	377.3	10.6
90°-150°	918.9	25.7
90°-180°	1198.0	33.6
0°-180°	3570.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	753	751	745	751	751	71
15°	722	723	720	728	727	203
25°	661	666	668	677	678	304
35°	578	588	597	608	611	362
45°	482	498	514	528	532	372
55°	378	396	420	437	442	336
65°	261	288	317	337	345	259
75°	145	176	212	234	243	154
85°	45	80	118	142	152	48
90°	14	51	90	115	123	10
95°	28	58	95	117	126	27
105°	73	91	122	143	152	78
115°	127	136	161	179	185	126
125°	181	182	201	216	221	162
135°	231	233	238	251	256	179
145°	279	280	280	285	287	175
155°	319	319	319	320	319	147
165°	347	347	346	348	347	98
175°	361	360	360	362	360	34
180°	362	362	362	362	362	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	755.2	754.7	754.2	753.8	753.4	752.6	751.3	750.1	748.9	747.7	748.8
5°	753.3	752.7	752.2	751.6	751.1	750.1	748.8	747.5	746.2	744.9	746.4
7.5°	746.9	746.6	746.2	745.9	745.5	744.8	743.8	742.7	741.6	740.5	742.2
10°	741.5	741.3	741.2	740.9	740.8	740.2	739.3	738.3	737.4	736.4	738.2
12.5°	734.1	734.0	734.0	734.0	734.0	733.6	733.0	732.3	731.7	731.0	732.6
15°	722.2	722.3	722.5	722.7	722.9	722.7	722.2	721.6	721.0	720.4	722.2
17.5°	705.8	706.3	706.9	707.5	708.1	708.2	708.1	708.1	707.9	707.8	709.6
20°	694.3	694.9	695.5	696.0	696.6	697.0	697.1	697.3	697.5	697.7	699.6
22.5°	681.5	682.2	682.9	683.7	684.4	684.9	685.2	685.6	685.9	686.3	688.1
25°	660.6	661.7	662.9	664.0	665.1	666.0	666.5	667.1	667.7	668.2	670.3
27.5°	637.4	639.0	640.6	642.3	644.0	645.2	646.1	646.9	647.8	648.6	650.5
30°	621.9	623.4	624.9	626.4	627.9	629.2	630.6	631.8	633.2	634.5	636.5
32.5°	605.0	606.8	608.6	610.4	612.2	613.8	615.3	616.7	618.2	619.6	622.0
35°	578.1	580.3	582.6	584.8	587.0	589.1	591.0	592.9	594.7	596.6	599.2
37.5°	550.9	553.5	556.1	558.6	561.3	563.7	566.0	568.3	570.7	573.0	575.7
40°	533.4	535.8	538.2	540.7	543.1	545.7	548.3	550.9	553.5	556.1	559.0
42.5°	513.2	515.9	518.6	521.3	524.1	527.0	530.0	533.1	536.2	539.2	542.4
45°	482.0	485.5	489.1	492.7	496.2	499.8	503.4	506.9	510.4	514.0	517.2
47.5°	452.2	455.8	459.5	463.2	466.8	470.7	474.8	479.0	483.1	487.2	490.5
50°	430.6	434.7	438.8	442.9	447.0	451.1	455.3	459.4	463.5	467.6	471.4
52.5°	409.0	413.1	417.2	421.4	425.5	429.9	434.6	439.3	444.1	448.8	452.5
55°	377.5	381.4	385.4	389.3	393.2	398.0	403.6	409.2	414.9	420.5	424.2
57.5°	342.3	347.1	352.0	356.9	361.7	366.9	372.6	378.1	383.7	389.3	393.7
60°	319.3	324.2	329.1	334.0	338.8	344.4	350.5	356.7	362.9	369.1	373.4
62.5°	297.1	302.5	307.8	313.1	318.4	324.2	330.3	336.5	342.7	348.9	353.2
65°	261.2	267.2	273.2	279.2	285.2	291.4	297.7	304.1	310.5	316.8	321.5
67.5°	226.6	233.1	239.4	245.7	252.2	258.7	265.5	272.4	279.2	286.0	290.7
70°	203.0	209.5	215.8	222.2	228.5	235.3	242.4	249.5	256.6	263.7	268.8
72.5°	180.1	186.6	193.2	199.7	206.2	213.3	220.9	228.4	236.0	243.5	248.4
75°	145.0	151.9	158.8	165.7	172.6	180.1	187.9	195.7	203.7	211.5	216.7
77.5°	112.1	119.4	126.7	134.1	141.4	149.2	157.5	165.7	174.0	182.2	187.5
80°	91.8	99.3	106.8	114.3	121.8	129.7	137.9	146.2	154.4	162.6	168.3
82.5°	71.6	79.4	87.2	95.0	102.7	110.8	119.1	127.3	135.5	143.8	149.5
85°	44.7	52.5	60.4	68.3	76.1	84.3	92.7	101.1	109.6	118.0	123.6
87.5°	25.1	32.9	40.6	48.4	56.2	64.2	72.6	80.9	89.1	97.4	103.0
90°	14.3	22.5	30.7	38.8	47.1	55.4	63.9	72.5	81.0	89.6	95.4
92.5°	18.8	26.3	33.8	41.4	48.9	56.9	65.3	73.7	82.1	90.5	95.9
95°	27.7	34.5	41.2	48.0	54.7	62.1	70.3	78.3	86.5	94.6	99.8
97.5°	39.3	45.1	50.8	56.6	62.3	69.3	77.4	85.5	93.6	101.7	106.9
100°	48.5	53.6	58.7	63.8	68.9	75.4	83.3	91.2	99.0	106.9	112.0
102.5°	58.8	63.1	67.5	71.9	76.2	82.2	89.9	97.6	105.2	112.9	118.0
105°	72.8	76.6	80.4	84.2	88.0	93.6	100.7	107.9	115.0	122.2	127.1
107.5°	89.1	92.3	95.5	98.6	101.7	106.6	113.2	119.8	126.4	133.0	137.8
110°	99.7	102.4	105.2	107.9	110.7	115.3	121.8	128.3	134.8	141.2	145.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	110.7	113.0	115.3	117.7	120.0	124.3	130.4	136.6	142.7	148.9	153.0
115°	127.1	128.8	130.5	132.1	133.9	137.6	143.5	149.3	155.2	161.1	165.2
117.5°	143.4	144.5	145.5	146.6	147.7	150.9	156.4	161.9	167.4	172.9	176.6
120°	153.7	154.5	155.3	156.1	156.9	159.9	165.2	170.5	175.7	180.9	184.3
122.5°	165.1	165.3	165.6	165.7	166.0	168.6	173.6	178.7	183.7	188.8	192.3
125°	181.1	180.9	180.8	180.5	180.4	182.6	187.2	191.9	196.5	201.1	204.5
127.5°	196.2	196.2	196.2	196.2	196.2	198.0	201.5	205.0	208.5	212.0	215.2
130°	206.3	206.3	206.3	206.3	206.3	207.8	210.8	213.8	216.8	219.8	223.1
132.5°	217.3	217.2	217.2	217.1	217.1	218.2	220.6	222.9	225.3	227.6	230.7
135°	230.9	231.3	231.7	232.0	232.4	233.3	234.6	235.9	237.2	238.5	241.4
137.5°	246.8	246.7	246.7	246.7	246.7	247.1	247.8	248.5	249.2	250.0	252.5
140°	257.3	257.2	257.1	257.1	257.0	257.1	257.2	257.5	257.6	257.9	260.2
142.5°	266.3	266.3	266.4	266.5	266.6	266.5	266.3	266.2	266.0	265.9	268.0
145°	279.4	279.4	279.5	279.6	279.6	279.7	279.7	279.8	279.9	280.0	281.0
147.5°	292.6	292.7	292.8	292.9	293.0	293.0	293.0	292.9	292.9	292.9	292.9
150°	300.6	300.7	300.8	300.9	300.9	301.0	301.0	301.0	301.0	301.0	301.0
152.5°	307.6	307.7	307.8	307.9	308.0	308.1	308.2	308.2	308.2	308.3	308.5
155°	319.1	319.1	319.1	319.1	319.1	319.1	319.0	318.9	318.9	318.9	319.1
157.5°	329.0	328.8	328.8	328.7	328.5	328.4	328.4	328.4	328.4	328.4	328.6
160°	334.8	334.7	334.7	334.6	334.5	334.5	334.5	334.4	334.3	334.2	334.5
162.5°	340.2	340.0	339.8	339.7	339.5	339.5	339.4	339.3	339.2	339.1	339.5
165°	347.4	347.2	347.1	346.8	346.7	346.5	346.3	346.3	346.1	346.0	346.3
167.5°	352.9	352.7	352.4	352.1	351.9	351.7	351.8	351.8	351.8	351.8	352.2
170°	356.1	355.8	355.5	355.1	354.8	354.7	354.7	354.8	354.9	355.0	355.3
172.5°	358.3	358.1	357.7	357.5	357.3	357.1	357.1	357.2	357.2	357.2	357.6
175°	361.4	361.1	360.8	360.4	360.1	360.0	359.9	359.8	359.8	359.7	360.1
177.5°	362.4	362.2	361.9	361.6	361.4	361.3	361.3	361.3	361.3	361.3	361.6
180°	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	749.8	750.9	751.9	752.4	752.3	752.1	751.9	751.8
5°	747.9	749.4	750.8	751.5	751.3	751.1	751.0	750.8
7.5°	743.9	745.5	747.3	748.0	747.8	747.6	747.4	747.3
10°	739.8	741.5	743.2	743.9	743.8	743.5	743.4	743.2
12.5°	734.1	735.7	737.2	737.9	737.9	737.8	737.8	737.8
15°	723.8	725.5	727.1	727.9	727.8	727.5	727.4	727.1
17.5°	711.2	713.0	714.7	715.5	715.3	715.2	715.0	714.9
20°	701.4	703.3	705.2	706.2	706.2	706.2	706.2	706.2
22.5°	690.0	691.8	693.7	694.8	695.1	695.4	695.7	696.0
25°	672.3	674.4	676.4	677.6	677.7	677.9	678.1	678.3
27.5°	652.4	654.3	656.3	657.4	657.6	657.8	658.1	658.2
30°	638.6	640.6	642.7	644.0	644.4	644.7	645.1	645.5
32.5°	624.4	626.8	629.1	630.5	630.8	631.2	631.6	632.0
35°	601.8	604.4	607.0	608.6	609.2	609.7	610.4	610.9
37.5°	578.3	581.0	583.6	585.3	585.8	586.5	587.0	587.6
40°	561.7	564.6	567.4	569.1	569.9	570.6	571.4	572.1
42.5°	545.5	548.6	551.7	553.6	554.1	554.8	555.4	556.0
45°	520.4	523.6	526.7	528.8	529.7	530.7	531.6	532.5
47.5°	493.8	497.1	500.4	502.6	503.7	504.9	506.0	507.1
50°	475.2	478.9	482.6	485.1	486.2	487.4	488.5	489.6
52.5°	456.3	460.0	463.7	466.2	467.3	468.4	469.5	470.7
55°	427.9	431.7	435.5	437.9	439.0	440.1	441.2	442.4
57.5°	398.2	402.7	407.1	409.9	410.9	411.9	413.0	414.1
60°	377.7	382.0	386.3	389.2	390.7	392.2	393.7	395.2
62.5°	357.4	361.8	366.1	369.0	370.5	372.0	373.4	374.9
65°	326.2	330.9	335.6	338.7	340.2	341.7	343.1	344.6
67.5°	295.5	300.2	305.0	308.1	309.6	311.0	312.5	313.9
70°	273.9	278.9	284.0	287.2	288.4	289.8	291.0	292.4
72.5°	253.3	258.3	263.2	266.3	267.8	269.3	270.7	272.2
75°	222.0	227.2	232.5	235.9	237.7	239.3	241.0	242.6
77.5°	192.8	198.1	203.4	207.0	208.8	210.6	212.4	214.2
80°	173.9	179.5	185.1	188.6	190.1	191.6	193.1	194.6
82.5°	155.3	161.1	166.8	170.6	172.1	173.8	175.5	177.1
85°	129.2	134.8	140.5	144.2	146.1	147.9	149.8	151.7
87.5°	108.4	114.0	119.5	123.1	124.8	126.4	128.1	129.8
90°	101.2	107.0	112.8	116.5	118.1	119.8	121.4	123.0
92.5°	101.5	106.9	112.5	116.1	117.6	119.1	120.7	122.3
95°	105.0	110.3	115.6	119.0	120.7	122.4	124.1	125.7
97.5°	112.0	117.1	122.2	125.6	127.2	128.8	130.5	132.1
100°	117.2	122.4	127.6	130.9	132.1	133.5	134.8	136.1
102.5°	123.0	128.2	133.2	136.5	138.0	139.5	141.1	142.6
105°	132.0	136.8	141.7	145.0	146.6	148.4	150.0	151.7
107.5°	142.5	147.3	152.1	155.2	156.5	157.8	159.1	160.5
110°	149.6	153.8	158.0	160.9	162.6	164.3	166.0	167.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	157.1	161.2	165.4	168.2	169.8	171.3	172.9	174.4
115°	169.2	173.3	177.3	180.0	181.3	182.4	183.7	185.0
117.5°	180.2	183.9	187.6	190.1	191.5	192.9	194.2	195.7
120°	187.8	191.2	194.6	197.2	198.8	200.4	202.1	203.7
122.5°	195.8	199.4	202.9	205.3	206.4	207.5	208.6	209.7
125°	207.9	211.4	214.8	217.1	218.0	219.0	220.0	221.0
127.5°	218.5	221.7	225.0	227.2	228.3	229.5	230.7	231.9
130°	226.3	229.5	232.7	234.8	235.8	236.6	237.5	238.4
132.5°	233.9	236.9	240.0	242.1	243.1	244.2	245.2	246.1
135°	244.2	247.2	250.0	251.9	252.9	253.8	254.8	255.6
137.5°	255.2	257.7	260.3	262.1	263.0	264.0	265.0	265.9
140°	262.5	264.9	267.3	268.9	269.8	270.7	271.6	272.4
142.5°	270.1	272.3	274.3	275.8	276.6	277.3	278.1	278.9
145°	282.0	283.1	284.2	284.9	285.6	286.1	286.7	287.2
147.5°	293.0	293.2	293.3	293.6	294.1	294.7	295.2	295.7
150°	301.0	301.0	301.0	300.9	300.9	300.8	300.7	300.6
152.5°	308.6	308.8	309.0	308.9	308.7	308.6	308.4	308.2
155°	319.3	319.6	319.8	319.8	319.6	319.3	319.1	318.9
157.5°	328.8	329.0	329.2	329.2	328.9	328.8	328.5	328.3
160°	334.6	334.8	335.0	334.9	334.6	334.3	334.0	333.7
162.5°	339.8	340.2	340.5	340.5	340.2	339.9	339.6	339.3
165°	346.7	347.1	347.5	347.5	347.3	347.1	346.8	346.6
167.5°	352.6	352.9	353.3	353.3	352.9	352.5	352.1	351.7
170°	355.7	356.1	356.5	356.4	356.0	355.5	355.1	354.7
172.5°	358.1	358.5	358.9	358.9	358.5	358.0	357.6	357.1
175°	360.6	361.0	361.5	361.5	361.0	360.6	360.1	359.7
177.5°	361.9	362.3	362.7	362.7	362.3	361.9	361.5	361.1
180°	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9

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