

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: P332539

Luminaire Tested: **S124DIP-S575D365U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332539
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S575D365U835-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 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: 3637.8 lumens
Efficiency: N/A
Efficacy: 132.3 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

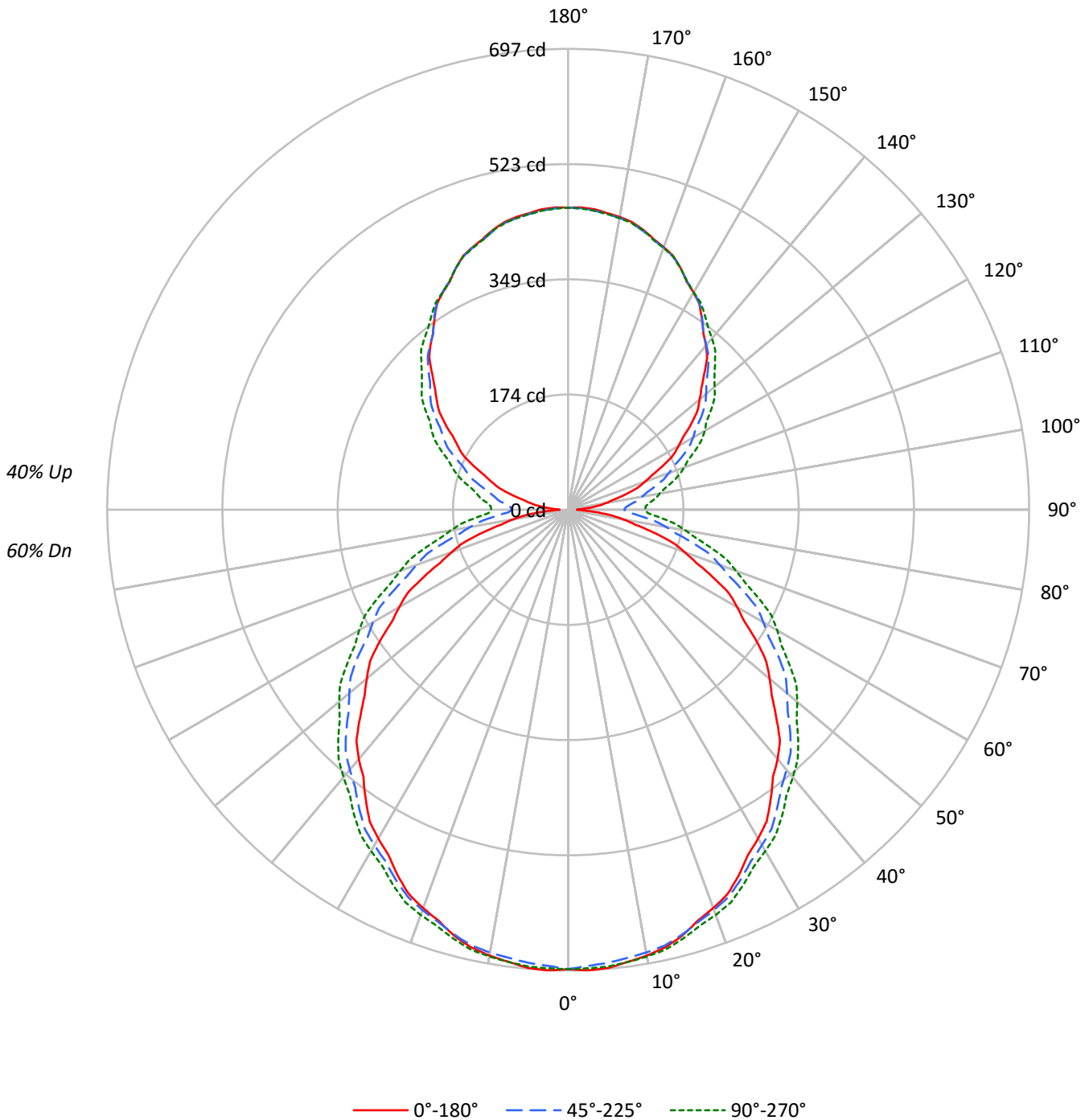
Input Watts (W): 27.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	66	66	66	60
1	99	94	90	86	92	88	84	80	76	73	71	66	64	62	56	54	53	48
2	90	81	75	69	83	76	70	65	66	62	58	57	53	50	49	46	44	39
3	81	71	63	57	76	67	59	54	58	52	48	50	46	42	43	39	37	33
4	74	63	54	48	69	59	51	45	51	45	40	44	40	36	38	34	31	28
5	68	56	47	41	63	52	44	39	46	39	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	24	21
7	58	45	37	31	54	42	35	29	37	31	26	32	27	24	28	24	21	18
8	54	41	33	27	50	38	31	26	34	28	23	30	25	21	26	22	19	16
9	50	37	29	24	47	35	28	23	31	25	21	27	22	19	24	20	17	15
10	47	34	27	22	44	32	25	21	29	23	19	25	20	17	22	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5610	5610	5610
5°	5628	5483	5498
10°	5593	5393	5388
15°	5543	5289	5260
20°	5467	5175	5135
25°	5382	5046	4997
30°	5290	4919	4856
35°	5185	4787	4732
40°	5102	4663	4603
45°	4978	4549	4492
50°	4873	4416	4375
55°	4765	4291	4237
60°	4596	4132	4112
65°	4410	3962	3958
70°	4186	3768	3778
75°	3872	3553	3616
80°	3526	3347	3457
85°	3082	3163	3364



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.8	1.8
10°-20°	188.5	5.2
20°-30°	285.1	7.8
30°-40°	344.9	9.5
40°-50°	364.7	10.0
50°-60°	343.2	9.4
60°-70°	284.7	7.8
70°-80°	200.0	5.5
80°-90°	114.4	3.1
90°-100°	97.3	2.7
100°-110°	139.0	3.8
110°-120°	184.9	5.1
120°-130°	218.6	6.0
130°-140°	232.5	6.4
140°-150°	222.1	6.1
150°-160°	185.5	5.1
160°-170°	123.4	3.4
170°-180°	43.2	1.2
0°-30°	539.4	14.8
0°-40°	884.4	24.3
0°-60°	1592.2	43.8
0°-90°	2191.4	60.2
90°-120°	421.1	11.6
90°-150°	1094.4	30.1
90°-180°	1446.0	39.7
0°-180°	3637.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	696	693	688	694	693	66
15°	667	668	665	672	672	188
25°	610	615	617	625	626	281
35°	534	543	551	561	564	334
45°	445	460	475	487	492	344
55°	349	365	388	403	408	311
65°	241	266	293	311	318	239
75°	134	163	195	216	224	142
85°	41	74	109	131	140	44
90°	14	49	85	109	116	10
95°	31	60	95	116	124	32
105°	89	106	136	155	163	95
115°	159	167	190	206	212	157
125°	228	228	246	259	264	203
135°	291	293	298	310	314	225
145°	352	353	353	358	360	221
155°	403	403	402	404	402	185
165°	438	438	437	439	438	124
175°	456	454	454	456	454	43
180°	457	457	457	457	457	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9
2.5°	697.4	697.0	696.6	696.1	695.7	695.0	693.9	692.8	691.6	690.5	691.5
5°	695.7	695.2	694.6	694.1	693.6	692.7	691.5	690.3	689.1	687.9	689.3
7.5°	689.8	689.4	689.1	688.8	688.5	687.9	686.9	685.9	684.8	683.8	685.4
10°	684.8	684.6	684.4	684.3	684.1	683.6	682.7	681.8	681.0	680.1	681.7
12.5°	677.9	677.9	677.9	677.8	677.8	677.5	676.9	676.3	675.7	675.1	676.5
15°	666.9	667.1	667.2	667.4	667.6	667.4	666.9	666.4	665.8	665.3	666.9
17.5°	651.8	652.3	652.8	653.3	653.9	654.1	654.0	653.9	653.8	653.7	655.2
20°	641.2	641.7	642.2	642.8	643.3	643.6	643.8	644.0	644.1	644.3	646.0
22.5°	629.4	630.0	630.7	631.3	632.0	632.5	632.8	633.1	633.4	633.7	635.5
25°	610.1	611.1	612.2	613.2	614.2	615.0	615.5	616.0	616.6	617.1	619.0
27.5°	588.6	590.1	591.6	593.2	594.7	595.8	596.6	597.4	598.2	599.0	600.8
30°	574.3	575.7	577.0	578.4	579.8	581.1	582.3	583.5	584.7	586.0	587.9
32.5°	558.7	560.4	562.0	563.7	565.4	566.9	568.2	569.6	570.9	572.3	574.4
35°	533.8	535.9	538.0	540.0	542.1	544.0	545.7	547.5	549.2	550.9	553.4
37.5°	508.8	511.1	513.5	515.9	518.3	520.6	522.7	524.9	527.0	529.1	531.6
40°	492.6	494.8	497.1	499.3	501.6	503.9	506.3	508.7	511.2	513.6	516.2
42.5°	473.9	476.4	478.9	481.5	484.0	486.7	489.5	492.3	495.2	498.0	500.9
45°	445.1	448.4	451.7	455.0	458.2	461.5	464.8	468.1	471.4	474.7	477.6
47.5°	417.6	420.9	424.3	427.7	431.1	434.7	438.5	442.3	446.1	449.9	453.0
50°	397.6	401.4	405.2	409.1	412.9	416.7	420.5	424.3	428.1	431.9	435.3
52.5°	377.7	381.5	385.3	389.1	392.9	397.0	401.4	405.7	410.1	414.4	417.9
55°	348.6	352.2	355.9	359.5	363.1	367.5	372.7	377.9	383.1	388.3	391.8
57.5°	316.1	320.6	325.1	329.6	334.1	338.9	344.0	349.2	354.4	359.5	363.6
60°	294.9	299.4	303.9	308.4	312.9	318.0	323.7	329.4	335.1	340.8	344.8
62.5°	274.4	279.3	284.2	289.1	294.0	299.3	305.0	310.7	316.5	322.2	326.1
65°	241.2	246.8	252.3	257.8	263.4	269.1	274.9	280.8	286.7	292.6	296.9
67.5°	209.3	215.2	221.1	227.0	232.8	238.9	245.2	251.5	257.8	264.1	268.5
70°	187.5	193.4	199.3	205.2	211.1	217.3	223.8	230.4	237.0	243.6	248.2
72.5°	166.4	172.4	178.4	184.4	190.4	196.9	203.9	210.9	217.9	224.9	229.4
75°	133.8	140.2	146.6	153.0	159.4	166.3	173.5	180.8	188.1	195.3	200.2
77.5°	103.5	110.3	117.1	123.8	130.6	137.8	145.4	153.0	160.6	168.2	173.1
80°	84.8	91.7	98.7	105.6	112.5	119.7	127.4	135.0	142.6	150.2	155.4
82.5°	66.1	73.3	80.5	87.7	94.9	102.3	109.9	117.5	125.1	132.8	138.1
85°	41.2	48.5	55.8	63.0	70.3	77.8	85.6	93.4	101.2	108.9	114.1
87.5°	23.2	30.5	37.7	44.9	52.2	59.6	67.3	75.0	82.7	90.4	95.5
90°	13.5	21.3	29.1	36.9	44.6	52.6	60.6	68.7	76.7	84.8	90.3
92.5°	19.4	26.6	33.8	41.0	48.2	55.8	63.7	71.5	79.4	87.3	92.5
95°	31.3	37.7	44.1	50.6	57.0	64.0	71.6	79.3	86.9	94.6	99.5
97.5°	46.2	51.7	57.2	62.6	68.1	74.7	82.4	90.0	97.7	105.3	110.2
100°	58.0	62.8	67.7	72.5	77.3	83.4	90.9	98.3	105.8	113.2	118.0
102.5°	71.0	75.1	79.2	83.2	87.3	93.0	100.2	107.5	114.7	122.0	126.7
105°	89.3	92.9	96.4	99.9	103.5	108.6	115.3	122.0	128.7	135.5	140.0
107.5°	110.0	113.0	115.9	118.8	121.8	126.3	132.4	138.5	144.6	150.7	155.1
110°	123.5	126.1	128.7	131.3	133.9	138.1	144.1	150.1	156.1	162.0	165.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	137.6	139.8	142.0	144.1	146.3	150.2	155.9	161.5	167.1	172.8	176.6
115°	158.7	160.3	161.8	163.4	165.0	168.4	173.8	179.2	184.6	189.9	193.7
117.5°	179.4	180.4	181.4	182.3	183.3	186.4	191.4	196.5	201.5	206.5	209.9
120°	192.6	193.4	194.3	195.1	195.9	198.7	203.5	208.3	213.1	217.8	220.9
122.5°	207.0	207.2	207.5	207.7	207.9	210.4	215.0	219.6	224.2	228.9	232.1
125°	227.5	227.3	227.2	227.0	226.8	228.8	233.1	237.3	241.6	245.8	249.0
127.5°	246.6	246.7	246.8	246.8	246.9	248.5	251.7	254.9	258.1	261.3	264.3
130°	259.6	259.6	259.7	259.8	259.8	261.3	264.0	266.8	269.6	272.3	275.3
132.5°	273.4	273.4	273.4	273.4	273.4	274.5	276.7	278.8	281.0	283.1	285.9
135°	291.0	291.4	291.9	292.4	292.8	293.7	294.9	296.1	297.3	298.5	301.1
137.5°	310.9	310.9	311.0	311.0	311.1	311.5	312.2	312.9	313.6	314.3	316.6
140°	324.2	324.2	324.1	324.1	324.1	324.2	324.4	324.5	324.7	324.9	327.1
142.5°	335.7	335.8	336.0	336.1	336.2	336.2	336.0	335.8	335.7	335.5	337.5
145°	352.4	352.5	352.7	352.8	352.9	353.1	353.1	353.2	353.3	353.4	354.3
147.5°	369.1	369.3	369.5	369.7	369.9	369.9	369.9	369.8	369.8	369.7	369.8
150°	379.2	379.4	379.5	379.7	379.8	379.9	379.9	379.9	379.9	379.9	379.9
152.5°	388.2	388.4	388.5	388.7	388.8	388.9	389.0	389.1	389.1	389.2	389.4
155°	402.8	402.8	402.8	402.8	402.8	402.8	402.7	402.6	402.6	402.5	402.8
157.5°	415.3	415.1	415.0	414.9	414.7	414.6	414.6	414.6	414.6	414.6	414.8
160°	422.6	422.5	422.5	422.4	422.3	422.2	422.2	422.1	422.0	421.9	422.2
162.5°	429.4	429.2	429.0	428.8	428.6	428.5	428.4	428.3	428.2	428.1	428.6
165°	438.5	438.3	438.1	437.8	437.6	437.4	437.2	437.1	436.9	436.8	437.2
167.5°	445.5	445.2	444.9	444.5	444.2	444.0	444.1	444.1	444.1	444.1	444.6
170°	449.5	449.1	448.7	448.3	447.9	447.8	447.8	447.9	448.0	448.1	448.5
172.5°	452.3	452.0	451.6	451.3	451.0	450.8	450.8	450.9	450.9	450.9	451.4
175°	456.2	455.8	455.4	455.0	454.6	454.4	454.3	454.2	454.2	454.1	454.6
177.5°	457.5	457.2	456.8	456.5	456.2	456.1	456.1	456.1	456.1	456.1	456.5
180°	456.9	456.9	456.9	456.9	456.9	456.9	456.9	456.9	456.9	456.9	456.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9
2.5°	692.5	693.4	694.4	694.8	694.7	694.5	694.4	694.3
5°	690.7	692.0	693.4	694.0	693.9	693.7	693.5	693.3
7.5°	687.0	688.5	690.1	690.8	690.6	690.4	690.2	690.1
10°	683.2	684.8	686.3	687.0	686.9	686.7	686.5	686.3
12.5°	678.0	679.4	680.8	681.5	681.5	681.4	681.4	681.4
15°	668.4	670.0	671.5	672.2	672.1	671.9	671.7	671.5
17.5°	656.8	658.4	660.0	660.7	660.6	660.5	660.3	660.2
20°	647.8	649.5	651.2	652.1	652.1	652.1	652.1	652.1
22.5°	637.2	638.9	640.6	641.7	641.9	642.2	642.5	642.8
25°	620.9	622.8	624.7	625.7	625.9	626.1	626.2	626.4
27.5°	602.6	604.3	606.1	607.1	607.3	607.5	607.7	607.9
30°	589.8	591.7	593.6	594.7	595.0	595.4	595.7	596.1
32.5°	576.6	578.8	581.0	582.2	582.6	582.9	583.3	583.6
35°	555.8	558.2	560.6	562.1	562.6	563.1	563.6	564.2
37.5°	534.1	536.5	539.0	540.5	541.0	541.6	542.1	542.7
40°	518.8	521.4	524.0	525.6	526.3	527.0	527.7	528.4
42.5°	503.8	506.6	509.5	511.2	511.8	512.3	512.9	513.4
45°	480.6	483.5	486.4	488.3	489.2	490.1	490.9	491.8
47.5°	456.0	459.1	462.1	464.1	465.2	466.2	467.3	468.3
50°	438.8	442.3	445.7	448.0	449.0	450.0	451.1	452.1
52.5°	421.4	424.8	428.3	430.5	431.6	432.6	433.6	434.7
55°	395.2	398.7	402.1	404.4	405.4	406.5	407.5	408.5
57.5°	367.7	371.9	376.0	378.5	379.5	380.4	381.4	382.4
60°	348.8	352.8	356.7	359.4	360.8	362.2	363.6	365.0
62.5°	330.1	334.1	338.1	340.7	342.1	343.5	344.9	346.3
65°	301.2	305.6	309.9	312.7	314.1	315.5	316.9	318.3
67.5°	272.9	277.3	281.7	284.5	285.9	287.2	288.6	289.9
70°	252.9	257.6	262.2	265.2	266.4	267.6	268.8	270.0
72.5°	233.9	238.5	243.0	245.9	247.3	248.6	250.0	251.3
75°	205.0	209.8	214.7	217.9	219.4	221.0	222.6	224.1
77.5°	178.1	183.0	187.9	191.2	192.8	194.5	196.1	197.8
80°	160.6	165.7	170.9	174.2	175.6	177.0	178.4	179.8
82.5°	143.4	148.7	154.1	157.5	159.0	160.5	162.0	163.6
85°	119.3	124.5	129.7	133.2	134.9	136.6	138.3	140.1
87.5°	100.6	105.7	110.9	114.2	115.7	117.3	118.8	120.4
90°	95.8	101.3	106.8	110.3	111.8	113.3	114.9	116.4
92.5°	97.6	102.8	107.9	111.3	112.7	114.2	115.7	117.2
95°	104.4	109.3	114.2	117.4	119.0	120.5	122.1	123.6
97.5°	115.0	119.8	124.6	127.8	129.2	130.7	132.2	133.7
100°	122.9	127.7	132.5	135.5	136.7	137.9	139.2	140.4
102.5°	131.5	136.2	141.0	144.0	145.5	146.9	148.3	149.7
105°	144.6	149.1	153.7	156.8	158.4	160.0	161.6	163.3
107.5°	159.6	164.1	168.6	171.4	172.6	173.9	175.1	176.3
110°	169.7	173.5	177.3	180.0	181.6	183.3	184.9	186.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	180.4	184.2	188.0	190.6	192.0	193.5	194.9	196.3
115°	197.4	201.1	204.8	207.3	208.4	209.5	210.7	211.8
117.5°	213.2	216.5	219.9	222.1	223.4	224.6	225.8	227.0
120°	224.0	227.0	230.1	232.4	233.9	235.5	237.0	238.6
122.5°	235.2	238.4	241.6	243.7	244.7	245.6	246.6	247.6
125°	252.1	255.2	258.3	260.3	261.2	262.1	263.0	263.9
127.5°	267.2	270.2	273.1	275.1	276.2	277.2	278.3	279.3
130°	278.2	281.2	284.1	286.0	286.7	287.4	288.1	288.9
132.5°	288.7	291.6	294.4	296.2	297.2	298.1	299.0	299.9
135°	303.7	306.4	309.0	310.7	311.5	312.3	313.1	313.9
137.5°	319.0	321.3	323.6	325.2	326.1	327.0	327.9	328.9
140°	329.2	331.4	333.6	335.0	335.8	336.6	337.4	338.2
142.5°	339.4	341.4	343.3	344.7	345.4	346.1	346.8	347.5
145°	355.3	356.2	357.2	357.9	358.4	358.8	359.3	359.7
147.5°	369.8	369.9	370.0	370.3	370.7	371.2	371.7	372.2
150°	379.9	379.9	379.9	379.8	379.8	379.7	379.6	379.5
152.5°	389.6	389.8	390.0	389.9	389.7	389.5	389.3	389.1
155°	403.1	403.4	403.7	403.7	403.4	403.1	402.8	402.5
157.5°	415.0	415.3	415.5	415.5	415.2	415.0	414.7	414.4
160°	422.4	422.6	422.9	422.8	422.4	422.0	421.6	421.2
162.5°	429.0	429.4	429.8	429.8	429.5	429.1	428.7	428.3
165°	437.7	438.2	438.6	438.7	438.4	438.1	437.8	437.5
167.5°	445.1	445.5	446.0	446.0	445.5	445.0	444.5	444.0
170°	449.0	449.5	450.0	449.9	449.4	448.8	448.3	447.7
172.5°	452.0	452.5	453.0	453.0	452.5	451.9	451.4	450.8
175°	455.2	455.7	456.3	456.3	455.7	455.2	454.6	454.1
177.5°	456.9	457.4	457.8	457.8	457.3	456.8	456.3	455.8
180°	456.9	456.9	456.9	456.9	456.9	456.9	456.9	456.9

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