

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: P333173-840

Luminaire Tested: **S125DIP-S610D590U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333173-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S610D590U840-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4491.4 lumens
Efficiency: N/A
Efficacy: 136.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

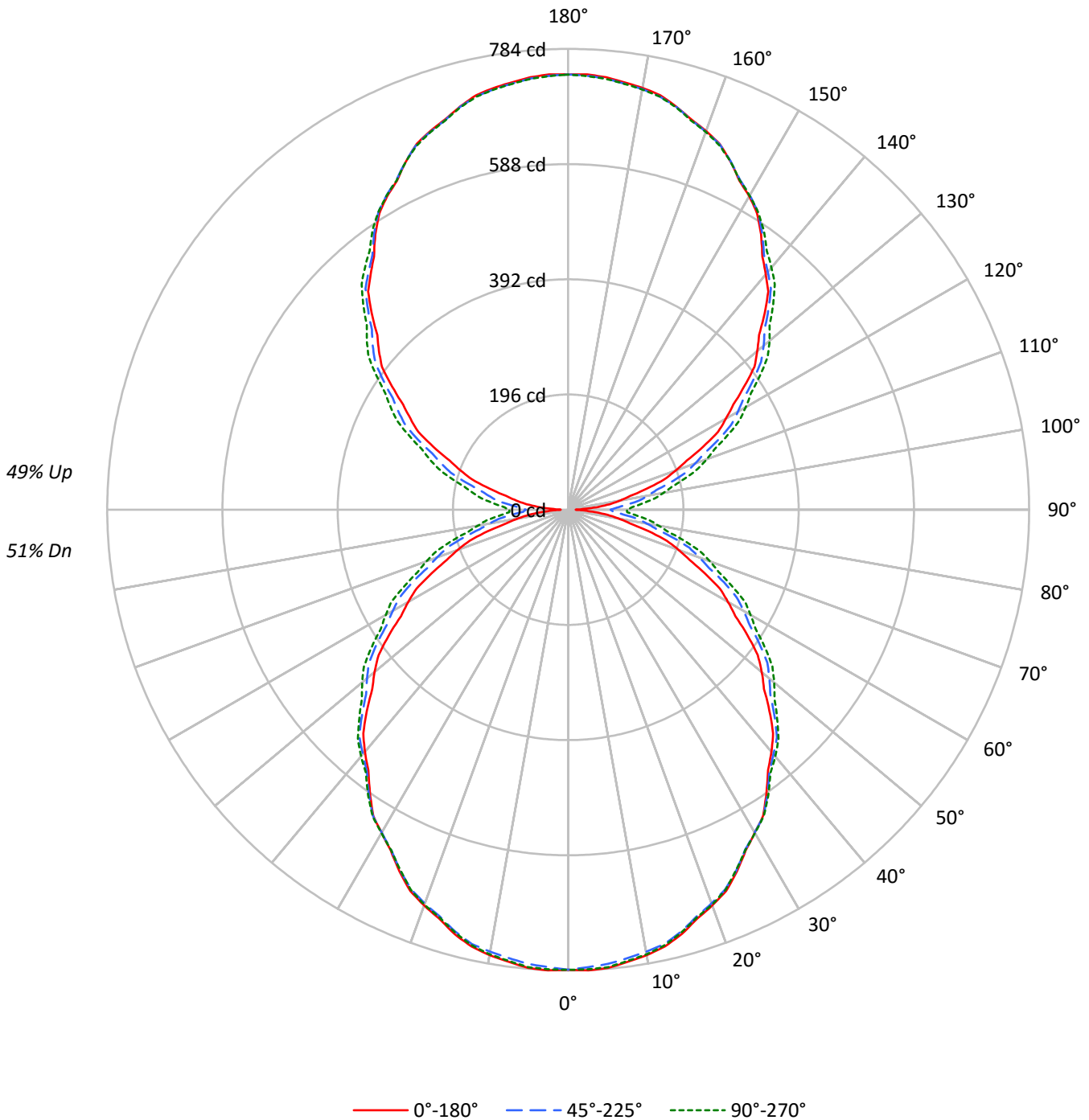
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																				
0	107	107	107	107	99	99	99	99	84	84	84		70	70	70		57	57	57	51
1	97	93	88	85	89	85	82	79	72	70	67		60	58	56		49	48	46	41
2	88	80	74	68	81	74	69	64	63	59	55		52	49	47		43	40	39	34
3	80	70	63	57	74	65	58	53	55	50	46		46	42	39		38	35	32	28
4	73	62	54	48	67	58	50	45	49	43	39		41	37	33		33	30	28	24
5	67	55	47	41	62	51	44	38	44	38	33		37	32	29		30	27	24	21
6	62	49	41	35	57	46	39	33	39	33	29		33	29	25		27	24	21	18
7	57	45	37	31	53	42	34	29	36	30	26		30	25	22		25	21	19	16
8	53	40	33	27	49	38	31	26	32	27	23		27	23	20		23	19	17	14
9	49	37	29	24	45	34	28	23	30	24	20		25	21	18		21	18	15	13
10	46	34	27	22	43	32	25	20	27	22	18		23	19	16		19	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5054	5054	5054
5°	5064	4961	4977
10°	5029	4873	4865
15°	4969	4767	4723
20°	4888	4635	4581
25°	4792	4495	4406
30°	4676	4340	4247
35°	4567	4199	4102
40°	4457	4049	3955
45°	4331	3922	3825
50°	4213	3783	3710
55°	4069	3652	3575
60°	3913	3503	3437
65°	3749	3347	3282
70°	3561	3133	3123
75°	3269	2928	2928
80°	2884	2679	2713
85°	2526	2512	2645



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.0	1.6
10°-20°	210.1	4.7
20°-30°	312.4	7.0
30°-40°	370.1	8.2
40°-50°	382.6	8.5
50°-60°	352.5	7.8
60°-70°	284.9	6.3
70°-80°	190.8	4.2
80°-90°	100.6	2.2
90°-100°	105.1	2.3
100°-110°	187.4	4.2
110°-120°	275.4	6.1
120°-130°	342.0	7.6
130°-140°	372.5	8.3
140°-150°	359.8	8.0
150°-160°	301.1	6.7
160°-170°	200.1	4.5
170°-180°	70.0	1.6
0°-30°	596.5	13.3
0°-40°	966.6	21.5
0°-60°	1701.7	37.9
0°-90°	2278.0	50.7
90°-120°	567.9	12.6
90°-150°	1642.2	36.6
90°-180°	2213.0	49.3
0°-180°	4491.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	783	781	776	781	781	74
15°	747	748	743	747	744	210
25°	679	681	677	679	676	312
35°	588	593	591	593	593	368
45°	484	492	496	502	503	373
55°	372	384	397	405	408	333
65°	256	274	292	303	307	254
75°	141	161	186	200	205	150
85°	42	68	94	111	117	45
90°	13	42	72	92	100	10
95°	48	69	100	120	128	48
105°	138	154	180	198	206	148
115°	253	261	282	294	299	250
125°	366	369	384	395	398	327
135°	473	476	481	491	493	364
145°	572	573	575	579	580	357
155°	653	653	654	656	653	301
165°	710	709	710	712	709	200
175°	738	736	736	739	736	70
180°	740	740	740	740	740	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	784.5	784.2	784.0	783.7	783.4	782.7	781.8	780.8	779.9	778.9	779.9
5°	782.6	782.2	781.9	781.6	781.2	780.5	779.3	778.1	776.9	775.7	777.1
7.5°	775.7	775.6	775.5	775.3	775.2	774.5	773.3	772.0	770.8	769.6	770.7
10°	769.6	769.6	769.6	769.6	769.6	768.9	767.5	766.2	764.8	763.5	764.7
12.5°	761.0	761.1	761.2	761.4	761.5	761.0	759.9	758.9	757.8	756.7	757.6
15°	747.3	747.5	747.7	747.8	748.0	747.5	746.3	745.1	744.0	742.8	743.8
17.5°	729.5	729.8	730.2	730.5	730.9	730.4	729.3	728.1	726.9	725.7	726.5
20°	716.6	717.0	717.3	717.7	718.0	717.6	716.4	715.2	714.0	712.8	713.3
22.5°	702.0	702.6	703.2	703.8	704.4	704.0	702.7	701.4	700.0	698.7	699.3
25°	679.0	679.5	680.0	680.5	681.1	680.9	679.8	678.8	677.7	676.7	677.4
27.5°	653.6	654.3	655.1	655.8	656.6	656.4	655.2	654.1	652.9	651.8	652.2
30°	634.5	635.6	636.6	637.6	638.6	638.6	637.6	636.6	635.6	634.5	634.9
32.5°	617.3	618.2	619.1	620.1	620.9	621.0	620.3	619.5	618.7	617.9	618.3
35°	587.7	589.0	590.2	591.3	592.5	592.9	592.4	591.8	591.3	590.8	591.3
37.5°	558.2	559.3	560.3	561.4	562.5	562.9	562.8	562.6	562.4	562.3	562.9
40°	537.9	539.3	540.6	542.0	543.3	543.9	543.7	543.6	543.4	543.2	543.9
42.5°	515.7	517.6	519.3	521.1	522.9	523.9	524.3	524.7	525.0	525.4	526.2
45°	484.1	486.0	487.9	489.8	491.7	493.0	493.9	494.7	495.5	496.4	497.7
47.5°	451.8	453.5	455.2	457.0	458.8	460.3	461.8	463.2	464.7	466.2	468.0
50°	429.7	431.5	433.4	435.4	437.2	439.1	440.9	442.8	444.6	446.6	448.5
52.5°	406.4	408.6	410.9	413.2	415.5	417.8	420.1	422.3	424.6	426.9	428.9
55°	372.1	374.9	377.6	380.3	383.0	385.8	388.5	391.2	393.9	396.7	398.6
57.5°	337.2	340.4	343.7	347.0	350.2	353.5	356.6	359.7	362.8	366.0	368.1
60°	313.9	317.2	320.6	324.1	327.5	330.8	334.3	337.7	341.1	344.5	347.1
62.5°	291.1	294.5	297.9	301.3	304.8	308.3	311.9	315.7	319.3	323.1	325.9
65°	256.3	260.2	264.1	268.0	272.0	276.0	280.0	284.2	288.2	292.4	294.9
67.5°	223.5	227.2	231.0	234.8	238.5	242.6	246.7	250.9	255.0	259.2	262.3
70°	199.4	203.4	207.3	211.3	215.2	219.3	223.8	228.2	232.7	237.1	240.3
72.5°	176.1	180.3	184.3	188.3	192.4	196.8	201.7	206.5	211.4	216.2	219.7
75°	141.2	145.6	150.1	154.5	159.0	163.9	169.4	174.8	180.3	185.7	189.0
77.5°	107.6	112.7	117.9	122.9	128.1	133.2	138.5	143.7	149.0	154.2	157.9
80°	86.7	91.8	96.9	102.1	107.1	112.6	118.5	124.2	130.0	135.8	139.6
82.5°	67.7	73.0	78.5	83.8	89.3	94.9	100.8	106.7	112.7	118.7	122.2
85°	42.2	47.9	53.4	59.1	64.7	70.5	76.4	82.4	88.4	94.4	98.2
87.5°	24.0	29.7	35.3	41.0	46.7	52.5	58.5	64.4	70.5	76.4	80.5
90°	12.8	19.3	25.9	32.3	38.8	45.3	52.0	58.8	65.4	72.1	76.6
92.5°	24.9	30.8	36.6	42.3	48.1	54.4	61.5	68.5	75.5	82.6	87.3
95°	47.5	52.1	56.8	61.5	66.1	72.1	79.2	86.2	93.3	100.4	105.0
97.5°	71.3	75.3	79.5	83.5	87.7	93.4	100.7	108.1	115.4	122.8	127.2
100°	89.1	92.7	96.2	99.9	103.4	108.8	115.9	123.0	130.2	137.2	142.0
102.5°	108.3	112.1	115.9	119.8	123.6	128.6	134.7	140.9	147.0	153.2	157.9
105°	138.3	141.6	145.0	148.3	151.7	156.3	162.3	168.1	174.0	179.9	184.1
107.5°	171.5	174.4	177.3	180.4	183.3	187.5	193.0	198.5	204.0	209.5	213.3
110°	194.3	197.0	199.8	202.4	205.1	209.0	214.2	219.3	224.5	229.6	233.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	218.3	220.3	222.3	224.2	226.2	229.7	234.9	239.9	245.1	250.2	253.5
115°	252.9	254.6	256.3	258.0	259.7	263.0	267.6	272.3	277.0	281.7	284.6
117.5°	287.6	288.6	289.6	290.6	291.6	294.4	298.8	303.3	307.7	312.1	315.1
120°	309.7	310.9	312.0	313.2	314.4	317.0	321.0	325.1	329.1	333.2	336.1
122.5°	333.1	333.6	334.1	334.5	335.0	337.3	341.4	345.5	349.6	353.8	356.4
125°	365.5	366.1	366.6	367.2	367.8	369.9	373.4	377.0	380.5	384.1	386.5
127.5°	399.2	399.5	399.8	400.0	400.3	401.9	404.9	407.8	410.7	413.7	416.1
130°	420.0	420.4	420.9	421.4	421.8	423.4	426.1	428.7	431.3	433.9	436.3
132.5°	440.1	441.1	442.1	443.1	444.1	445.6	447.4	449.2	450.9	452.7	454.9
135°	472.8	473.4	473.9	474.5	475.1	476.2	477.5	478.8	480.1	481.4	483.6
137.5°	503.5	504.1	504.7	505.3	505.9	506.6	507.6	508.4	509.3	510.1	512.3
140°	522.7	523.3	524.0	524.6	525.2	525.8	526.4	526.9	527.6	528.1	530.2
142.5°	542.5	542.9	543.3	543.7	544.1	544.6	545.1	545.6	546.1	546.6	548.5
145°	571.7	572.0	572.4	572.7	573.1	573.4	573.8	574.2	574.6	574.9	575.8
147.5°	597.8	598.1	598.4	598.7	599.1	599.3	599.6	600.0	600.3	600.6	601.1
150°	615.8	615.7	615.6	615.5	615.3	615.5	616.0	616.5	617.0	617.5	617.5
152.5°	630.6	630.8	631.0	631.2	631.3	631.5	631.7	631.9	632.1	632.4	632.7
155°	653.3	653.3	653.3	653.3	653.3	653.4	653.5	653.6	653.8	653.9	654.4
157.5°	673.6	673.3	673.0	672.8	672.5	672.4	672.5	672.7	672.8	672.9	673.4
160°	685.6	685.2	684.8	684.4	684.0	683.9	684.0	684.2	684.3	684.4	684.9
162.5°	696.2	695.9	695.6	695.3	695.0	694.9	694.9	695.0	695.0	695.0	695.6
165°	710.3	710.0	709.8	709.5	709.3	709.2	709.3	709.5	709.6	709.7	710.2
167.5°	722.4	721.9	721.2	720.7	720.2	720.0	720.0	720.0	720.0	720.0	720.7
170°	728.7	728.2	727.7	727.2	726.7	726.5	726.5	726.5	726.5	726.5	727.2
172.5°	733.4	732.9	732.4	731.8	731.3	731.0	731.0	731.0	731.0	731.0	731.8
175°	738.5	738.0	737.5	737.0	736.5	736.3	736.3	736.3	736.3	736.3	737.0
177.5°	741.2	740.8	740.4	740.0	739.5	739.3	739.2	739.1	739.0	738.9	739.5
180°	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	780.8	781.8	782.7	783.2	783.0	782.9	782.7	782.6
5°	778.4	779.8	781.1	781.7	781.6	781.4	781.2	781.1
7.5°	771.9	773.2	774.4	774.9	774.7	774.6	774.4	774.2
10°	765.9	767.0	768.2	768.7	768.6	768.4	768.2	768.0
12.5°	758.5	759.4	760.4	760.6	760.1	759.7	759.3	758.8
15°	744.8	745.8	746.8	747.0	746.3	745.6	745.0	744.3
17.5°	727.3	728.0	728.8	729.0	728.6	728.2	727.8	727.4
20°	713.9	714.4	714.9	715.1	715.1	715.1	715.1	715.1
22.5°	699.9	700.6	701.3	701.4	700.9	700.5	700.1	699.7
25°	678.1	678.8	679.4	679.4	678.5	677.7	676.8	676.0
27.5°	652.7	653.2	653.7	653.7	653.4	653.1	652.8	652.5
30°	635.2	635.6	635.9	636.0	635.8	635.6	635.5	635.3
32.5°	618.6	618.9	619.4	619.5	619.2	619.0	618.9	618.7
35°	591.8	592.4	592.9	593.1	593.1	593.1	593.1	593.1
37.5°	563.6	564.3	565.0	565.3	565.2	565.1	565.1	565.0
40°	544.6	545.3	545.9	546.4	546.8	547.1	547.5	547.9
42.5°	527.0	527.9	528.7	529.2	529.3	529.3	529.4	529.5
45°	498.8	500.0	501.2	501.9	502.1	502.2	502.4	502.6
47.5°	469.7	471.4	473.1	474.2	474.6	474.9	475.3	475.7
50°	450.3	452.2	454.0	455.2	455.8	456.3	456.8	457.3
52.5°	430.9	432.9	434.9	436.2	436.6	436.9	437.3	437.7
55°	400.4	402.3	404.1	405.5	406.2	406.9	407.5	408.2
57.5°	370.3	372.4	374.6	375.9	376.5	377.0	377.5	378.0
60°	349.6	352.1	354.8	356.3	356.8	357.3	357.8	358.3
62.5°	328.7	331.5	334.4	336.1	336.7	337.4	338.0	338.7
65°	297.4	300.0	302.6	304.2	304.9	305.6	306.2	306.9
67.5°	265.4	268.5	271.6	273.6	274.5	275.4	276.3	277.1
70°	243.6	246.8	250.0	252.2	253.2	254.2	255.3	256.3
72.5°	223.3	226.7	230.2	232.4	233.2	233.9	234.7	235.4
75°	192.5	195.9	199.3	201.5	202.3	203.2	204.0	204.9
77.5°	161.7	165.5	169.3	171.5	172.1	172.8	173.5	174.2
80°	143.3	147.0	150.8	153.0	153.7	154.4	155.1	155.7
82.5°	125.8	129.5	133.1	135.5	136.7	137.9	139.2	140.4
85°	101.9	105.6	109.4	111.9	113.3	114.6	116.0	117.3
87.5°	84.5	88.6	92.6	95.3	96.5	97.9	99.1	100.4
90°	81.3	85.8	90.4	93.4	95.0	96.6	98.2	99.8
92.5°	91.8	96.4	101.1	104.1	105.6	107.1	108.6	110.1
95°	109.7	114.3	119.0	122.0	123.5	124.9	126.3	127.8
97.5°	131.7	136.1	140.5	143.4	144.7	146.0	147.3	148.7
100°	146.7	151.5	156.2	159.2	160.5	161.8	163.0	164.3
102.5°	162.6	167.3	172.0	175.1	176.4	177.8	179.3	180.6
105°	188.2	192.4	196.6	199.4	201.1	202.7	204.2	205.8
107.5°	217.0	220.8	224.6	226.9	227.9	229.0	230.0	231.1
110°	236.9	240.5	244.1	246.5	247.5	248.6	249.6	250.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	256.8	260.0	263.4	265.5	266.4	267.4	268.3	269.3
115°	287.6	290.5	293.5	295.4	296.3	297.1	298.0	298.9
117.5°	318.1	321.1	324.1	325.9	326.6	327.2	327.9	328.5
120°	338.9	341.8	344.8	346.5	347.0	347.5	348.0	348.5
122.5°	359.1	361.7	364.4	366.0	366.6	367.3	367.9	368.5
125°	389.0	391.4	393.9	395.6	396.3	397.0	397.7	398.4
127.5°	418.5	420.9	423.2	424.9	425.6	426.3	427.1	427.8
130°	438.5	440.8	443.0	444.4	445.0	445.7	446.3	446.9
132.5°	457.3	459.5	461.8	463.0	463.4	463.8	464.1	464.5
135°	485.8	488.1	490.3	491.6	491.9	492.2	492.6	492.9
137.5°	514.4	516.6	518.8	519.9	519.9	520.0	520.0	520.1
140°	532.4	534.5	536.6	537.8	537.8	537.8	537.9	537.9
142.5°	550.2	552.0	553.7	554.6	554.6	554.7	554.7	554.8
145°	576.6	577.5	578.3	579.0	579.3	579.6	579.9	580.2
147.5°	601.7	602.3	602.9	602.9	602.3	601.8	601.2	600.6
150°	617.5	617.5	617.5	617.5	617.4	617.3	617.3	617.2
152.5°	633.0	633.3	633.6	633.5	633.1	632.7	632.2	631.8
155°	654.9	655.4	655.9	655.9	655.2	654.6	653.9	653.3
157.5°	673.9	674.4	674.9	674.8	673.9	673.1	672.3	671.4
160°	685.4	685.9	686.4	686.4	685.8	685.1	684.5	683.9
162.5°	696.2	696.8	697.5	697.4	696.7	695.9	695.2	694.4
165°	710.7	711.2	711.9	711.7	710.9	710.1	709.3	708.6
167.5°	721.5	722.4	723.1	723.1	722.3	721.4	720.6	719.9
170°	728.0	728.7	729.5	729.4	728.6	727.7	726.8	725.9
172.5°	732.7	733.4	734.2	734.2	733.4	732.6	731.7	730.9
175°	737.8	738.5	739.3	739.2	738.4	737.5	736.6	735.7
177.5°	740.1	740.7	741.3	741.3	740.6	739.9	739.1	738.4
180°	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3

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