

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: P333409-935

Luminaire Tested: **S125DIW-S850D770U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333409-935
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: S125DIW-S850D770U935-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5118.7 lumens
Efficiency: N/A
Efficacy: 113.7 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

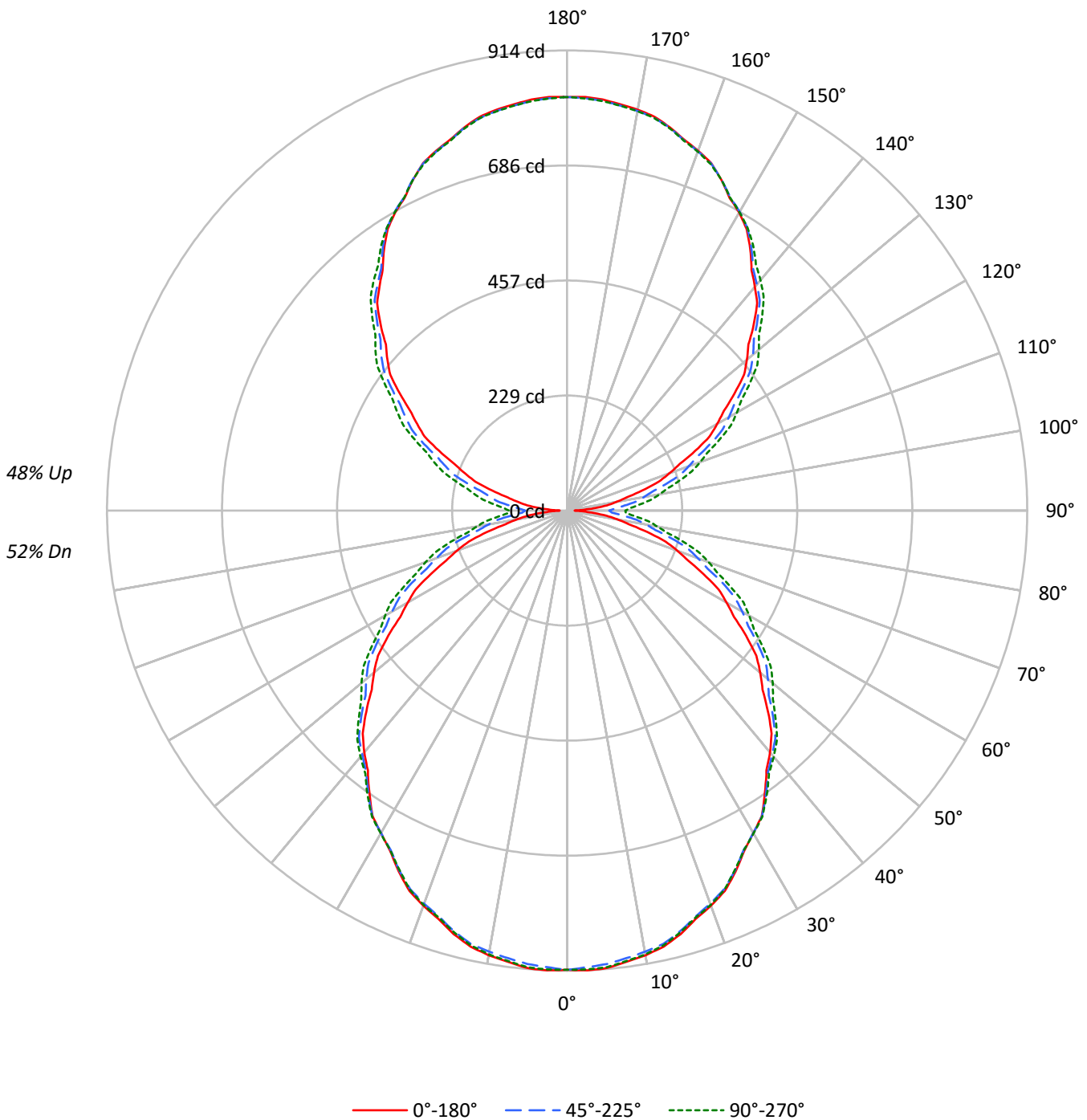
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	99	99	99	99	84	84	84	71	71	71	58	58	58	52
1	97	93	89	85	90	86	82	79	73	70	68	61	59	57	50	49	47	42
2	88	81	74	69	81	75	69	64	63	59	55	53	50	47	43	41	39	35
3	80	71	63	57	74	65	59	53	56	50	46	47	43	40	38	35	33	29
4	73	62	54	48	68	58	51	45	49	44	39	41	37	34	34	31	28	25
5	67	55	47	41	62	51	44	38	44	38	34	37	33	29	31	27	25	21
6	62	50	41	35	57	46	39	33	40	34	29	33	29	25	28	24	21	19
7	57	45	37	31	53	42	34	29	36	30	26	30	26	22	25	22	19	16
8	53	41	33	27	49	38	31	26	33	27	23	28	23	20	23	20	17	15
9	50	37	29	24	46	35	28	23	30	24	20	26	21	18	21	18	15	13
10	46	34	27	22	43	32	25	21	28	22	18	24	19	16	20	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5891	5891	5891
5°	5902	5782	5800
10°	5860	5679	5670
15°	5791	5555	5505
20°	5697	5402	5339
25°	5585	5239	5135
30°	5449	5059	4950
35°	5322	4893	4780
40°	5194	4719	4609
45°	5048	4570	4458
50°	4910	4408	4325
55°	4742	4256	4166
60°	4560	4082	4006
65°	4369	3900	3826
70°	4153	3651	3640
75°	3809	3412	3412
80°	3363	3122	3163
85°	2945	2924	3085



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	1.7
10°-20°	244.8	4.8
20°-30°	364.1	7.1
30°-40°	431.3	8.4
40°-50°	445.9	8.7
50°-60°	410.8	8.0
60°-70°	332.0	6.5
70°-80°	222.4	4.3
80°-90°	117.1	2.3
90°-100°	119.7	2.3
100°-110°	210.2	4.1
110°-120°	307.1	6.0
120°-130°	380.3	7.4
130°-140°	413.7	8.1
140°-150°	399.3	7.8
150°-160°	334.0	6.5
160°-170°	222.0	4.3
170°-180°	77.7	1.5
0°-30°	695.2	13.6
0°-40°	1126.5	22.0
0°-60°	1983.2	38.7
0°-90°	2654.7	51.9
90°-120°	637.0	12.4
90°-150°	1830.2	35.8
90°-180°	2464.0	48.1
0°-180°	5118.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	912	910	904	911	910	86
15°	871	872	866	870	867	245
25°	791	794	789	792	788	364
35°	685	691	688	691	691	428
45°	564	574	578	584	586	435
55°	434	448	462	472	476	388
65°	299	319	341	354	358	296
75°	164	188	216	234	239	175
85°	49	79	110	129	137	52
90°	15	49	84	106	116	12
95°	53	78	114	138	146	53
105°	154	172	202	223	232	164
115°	281	291	314	329	334	278
125°	406	409	427	440	444	363
135°	525	528	534	546	548	404
145°	634	636	638	642	644	396
155°	725	725	726	728	725	334
165°	788	787	788	790	786	222
175°	819	817	817	820	816	78
180°	821	821	821	821	821	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	914.2	914.0	913.6	913.3	912.9	912.2	911.1	910.0	908.9	907.8	908.9
5°	912.1	911.7	911.3	910.9	910.5	909.6	908.2	906.8	905.4	904.0	905.6
7.5°	904.0	903.9	903.7	903.5	903.4	902.6	901.2	899.7	898.3	896.9	898.3
10°	896.9	896.9	896.9	896.9	896.9	896.1	894.5	892.9	891.3	889.8	891.1
12.5°	886.8	887.0	887.2	887.3	887.5	886.9	885.7	884.4	883.1	881.8	883.0
15°	871.0	871.2	871.3	871.5	871.8	871.2	869.8	868.4	866.9	865.6	866.8
17.5°	850.2	850.6	851.0	851.4	851.8	851.3	849.9	848.5	847.1	845.8	846.6
20°	835.2	835.6	835.9	836.4	836.8	836.3	834.9	833.5	832.1	830.7	831.3
22.5°	818.0	818.7	819.4	820.2	820.9	820.4	818.9	817.3	815.8	814.2	815.0
25°	791.3	791.9	792.6	793.2	793.8	793.4	792.3	791.1	789.9	788.7	789.5
27.5°	761.6	762.6	763.4	764.3	765.2	764.9	763.6	762.2	760.9	759.6	760.1
30°	739.5	740.7	741.9	743.0	744.2	744.2	743.0	741.9	740.7	739.5	739.9
32.5°	719.5	720.5	721.5	722.6	723.6	723.7	722.8	721.9	721.1	720.2	720.6
35°	684.9	686.4	687.8	689.1	690.5	691.0	690.3	689.7	689.1	688.5	689.1
37.5°	650.4	651.7	653.0	654.3	655.6	656.1	655.8	655.7	655.5	655.3	656.1
40°	626.8	628.4	630.0	631.6	633.2	633.9	633.7	633.5	633.3	633.1	633.9
42.5°	601.1	603.1	605.2	607.3	609.3	610.6	611.1	611.5	611.9	612.3	613.3
45°	564.2	566.5	568.6	570.8	573.0	574.5	575.6	576.5	577.6	578.5	580.0
47.5°	526.5	528.6	530.5	532.6	534.6	536.5	538.2	539.9	541.6	543.3	545.4
50°	500.8	502.9	505.1	507.3	509.5	511.7	513.8	516.1	518.2	520.4	522.6
52.5°	473.6	476.2	478.9	481.6	484.2	486.9	489.6	492.2	494.9	497.6	499.9
55°	433.7	436.9	440.1	443.2	446.4	449.6	452.8	456.0	459.1	462.3	464.5
57.5°	392.9	396.7	400.5	404.3	408.2	411.9	415.6	419.2	422.8	426.5	429.0
60°	365.8	369.7	373.7	377.6	381.6	385.6	389.6	393.6	397.5	401.5	404.5
62.5°	339.2	343.2	347.2	351.2	355.2	359.3	363.6	367.9	372.1	376.4	379.8
65°	298.7	303.2	307.8	312.4	316.9	321.6	326.4	331.1	336.0	340.7	343.7
67.5°	260.4	264.8	269.2	273.6	278.0	282.7	287.5	292.4	297.2	302.0	305.7
70°	232.5	237.0	241.6	246.2	250.8	255.6	260.8	266.0	271.1	276.3	280.1
72.5°	205.3	210.0	214.7	219.5	224.2	229.4	235.1	240.7	246.3	252.0	256.1
75°	164.5	169.7	174.9	180.0	185.2	191.0	197.3	203.7	210.0	216.4	220.3
77.5°	125.4	131.3	137.3	143.3	149.2	155.2	161.4	167.5	173.6	179.8	184.1
80°	101.1	107.0	113.0	118.9	124.9	131.2	138.0	144.7	151.5	158.3	162.6
82.5°	78.9	85.2	91.4	97.7	104.0	110.6	117.5	124.4	131.3	138.3	142.5
85°	49.2	55.7	62.3	68.9	75.4	82.1	89.1	96.1	103.1	109.9	114.3
87.5°	28.1	34.6	41.2	47.8	54.3	61.1	68.1	75.1	82.0	88.9	93.7
90°	15.0	22.5	30.0	37.5	44.9	52.5	60.3	68.0	75.8	83.5	88.9
92.5°	28.3	35.0	41.7	48.4	55.0	62.4	70.6	78.7	86.9	95.0	100.4
95°	53.2	58.6	64.1	69.5	75.0	81.8	90.0	98.2	106.3	114.5	119.9
97.5°	79.6	84.4	89.1	93.8	98.7	105.2	113.7	122.2	130.7	139.1	144.3
100°	99.4	103.5	107.6	111.8	116.0	122.2	130.4	138.6	146.8	155.0	160.5
102.5°	120.6	125.0	129.4	133.9	138.3	144.0	151.2	158.3	165.5	172.6	178.1
105°	153.8	157.6	161.5	165.5	169.4	174.7	181.5	188.3	195.1	201.9	206.7
107.5°	190.5	194.0	197.3	200.8	204.2	209.1	215.4	221.9	228.3	234.6	238.9
110°	215.9	219.0	222.1	225.2	228.3	232.8	238.8	244.8	250.8	256.8	261.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	242.5	244.8	247.0	249.3	251.6	255.7	261.7	267.6	273.5	279.5	283.3
115°	280.9	282.8	284.7	286.7	288.7	292.4	297.8	303.2	308.8	314.2	317.6
117.5°	319.3	320.5	321.7	322.8	324.0	327.2	332.3	337.4	342.6	347.8	351.2
120°	343.9	345.2	346.5	347.8	349.0	352.1	356.8	361.5	366.3	370.9	374.4
122.5°	369.7	370.2	370.8	371.3	371.9	374.5	379.3	384.1	388.9	393.6	396.7
125°	405.6	406.2	406.9	407.6	408.2	410.6	414.7	418.9	422.9	427.1	430.0
127.5°	443.1	443.3	443.7	443.9	444.2	446.1	449.5	452.9	456.3	459.8	462.6
130°	466.1	466.6	467.1	467.6	468.1	469.9	472.9	476.0	479.1	482.2	484.8
132.5°	488.4	489.5	490.6	491.7	492.8	494.5	496.5	498.7	500.8	502.8	505.5
135°	524.6	525.3	525.9	526.6	527.3	528.3	529.9	531.4	533.0	534.4	537.0
137.5°	558.7	559.4	560.0	560.7	561.4	562.1	563.2	564.1	565.2	566.1	568.7
140°	580.0	580.7	581.4	582.1	582.8	583.5	584.1	584.7	585.4	586.0	588.5
142.5°	601.9	602.4	602.9	603.3	603.7	604.2	604.8	605.4	606.0	606.6	608.6
145°	634.3	634.6	635.1	635.4	635.8	636.2	636.6	637.1	637.5	637.9	638.9
147.5°	663.3	663.7	663.9	664.3	664.6	664.9	665.2	665.6	665.9	666.2	666.9
150°	683.3	683.1	682.9	682.9	682.7	682.9	683.5	684.1	684.6	685.2	685.2
152.5°	699.6	699.8	700.0	700.3	700.4	700.6	700.9	701.1	701.3	701.5	701.9
155°	724.8	724.8	724.8	724.8	724.8	724.9	725.0	725.1	725.3	725.5	726.0
157.5°	747.3	747.0	746.7	746.4	746.1	746.0	746.1	746.2	746.4	746.6	747.1
160°	760.6	760.2	759.7	759.3	758.9	758.7	758.9	759.1	759.1	759.3	759.9
162.5°	772.4	772.1	771.7	771.5	771.1	770.9	771.0	771.0	771.0	771.1	771.8
165°	788.1	787.8	787.6	787.2	787.0	786.9	787.0	787.1	787.3	787.5	788.0
167.5°	801.4	800.8	800.2	799.7	799.1	798.8	798.8	798.8	798.8	798.8	799.7
170°	808.6	808.0	807.4	806.8	806.2	806.0	806.0	806.0	806.0	806.0	806.8
172.5°	813.6	813.0	812.5	811.9	811.4	811.1	811.1	811.1	811.1	811.1	811.9
175°	819.4	818.8	818.3	817.7	817.1	816.8	816.8	816.8	816.8	816.8	817.7
177.5°	822.3	821.9	821.4	821.0	820.5	820.3	820.1	820.0	819.9	819.8	820.4
180°	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	910.0	911.1	912.2	912.7	912.6	912.4	912.2	912.1
5°	907.2	908.8	910.4	911.1	910.9	910.7	910.5	910.3
7.5°	899.7	901.0	902.4	903.0	902.8	902.7	902.4	902.2
10°	892.5	893.9	895.3	895.9	895.7	895.5	895.3	895.1
12.5°	884.0	885.1	886.1	886.4	885.9	885.4	884.8	884.3
15°	868.0	869.2	870.4	870.6	869.8	868.9	868.1	867.4
17.5°	847.6	848.5	849.4	849.6	849.1	848.7	848.2	847.7
20°	831.9	832.5	833.1	833.4	833.4	833.4	833.4	833.4
22.5°	815.8	816.5	817.3	817.4	816.9	816.5	816.0	815.5
25°	790.3	791.1	791.9	791.8	790.7	789.8	788.8	787.8
27.5°	760.6	761.2	761.7	761.9	761.5	761.1	760.8	760.4
30°	740.3	740.7	741.1	741.2	741.0	740.8	740.6	740.4
32.5°	721.0	721.3	721.8	721.9	721.7	721.5	721.3	721.1
35°	689.7	690.3	691.0	691.2	691.2	691.2	691.2	691.2
37.5°	656.9	657.6	658.4	658.8	658.8	658.7	658.6	658.5
40°	634.6	635.5	636.3	636.9	637.2	637.7	638.1	638.4
42.5°	614.2	615.2	616.1	616.6	616.7	616.8	616.9	617.0
45°	581.3	582.7	584.1	584.9	585.1	585.3	585.5	585.7
47.5°	547.3	549.4	551.4	552.7	553.1	553.5	554.0	554.4
50°	524.8	527.0	529.2	530.5	531.2	531.8	532.4	533.0
52.5°	502.2	504.5	506.9	508.3	508.8	509.2	509.6	510.1
55°	466.7	468.9	471.1	472.5	473.3	474.2	474.9	475.7
57.5°	431.5	434.0	436.5	438.1	438.7	439.3	439.9	440.5
60°	407.4	410.4	413.5	415.2	415.8	416.4	417.0	417.6
62.5°	383.1	386.3	389.7	391.7	392.4	393.2	393.9	394.7
65°	346.6	349.7	352.6	354.5	355.3	356.1	356.9	357.7
67.5°	309.3	312.9	316.5	318.8	319.9	320.9	321.9	323.0
70°	283.9	287.7	291.4	293.9	295.1	296.3	297.5	298.7
72.5°	260.2	264.2	268.4	270.9	271.7	272.6	273.5	274.3
75°	224.4	228.3	232.3	234.8	235.7	236.8	237.7	238.8
77.5°	188.5	192.9	197.3	199.8	200.6	201.4	202.2	203.0
80°	167.0	171.4	175.7	178.3	179.2	179.9	180.7	181.5
82.5°	146.6	150.8	155.1	157.9	159.4	160.7	162.2	163.7
85°	118.7	123.1	127.5	130.4	132.1	133.6	135.3	136.8
87.5°	98.4	103.1	107.8	110.9	112.4	113.8	115.4	116.8
90°	94.1	99.4	104.7	108.2	110.0	111.8	113.7	115.5
92.5°	105.7	111.1	116.4	119.9	121.7	123.3	125.0	126.7
95°	125.2	130.6	136.0	139.5	141.1	142.8	144.5	146.2
97.5°	149.4	154.5	159.6	162.9	164.5	166.0	167.5	169.0
100°	165.9	171.3	176.8	180.3	181.8	183.2	184.7	186.2
102.5°	183.4	188.8	194.2	197.8	199.3	200.9	202.5	204.1
105°	211.6	216.5	221.3	224.5	226.4	228.2	230.1	231.9
107.5°	243.3	247.7	252.0	254.9	256.1	257.2	258.4	259.6
110°	265.2	269.4	273.6	276.3	277.6	278.8	280.1	281.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	287.1	290.9	294.7	297.2	298.3	299.5	300.7	301.8
115°	321.1	324.5	328.0	330.2	331.2	332.3	333.3	334.4
117.5°	354.7	358.2	361.7	363.9	364.6	365.4	366.2	367.0
120°	377.7	381.1	384.4	386.5	387.1	387.7	388.3	389.0
122.5°	399.8	402.9	406.0	408.0	408.7	409.5	410.2	411.0
125°	432.8	435.8	438.7	440.5	441.3	442.2	443.1	443.9
127.5°	465.4	468.2	471.0	472.8	473.6	474.6	475.4	476.3
130°	487.4	490.1	492.8	494.4	495.1	495.8	496.5	497.2
132.5°	508.1	510.7	513.4	515.0	515.4	515.8	516.3	516.7
135°	539.6	542.2	544.8	546.3	546.7	547.2	547.6	548.0
137.5°	571.2	573.7	576.2	577.5	577.6	577.6	577.7	577.8
140°	590.9	593.4	595.9	597.1	597.2	597.3	597.4	597.4
142.5°	610.6	612.7	614.7	615.8	615.9	616.0	616.0	616.1
145°	639.9	640.8	641.9	642.6	642.9	643.3	643.7	644.0
147.5°	667.6	668.2	668.9	668.9	668.3	667.7	667.1	666.5
150°	685.2	685.2	685.2	685.1	685.0	684.9	684.8	684.8
152.5°	702.2	702.6	702.9	702.8	702.4	701.9	701.5	700.9
155°	726.6	727.1	727.7	727.6	726.9	726.3	725.5	724.8
157.5°	747.7	748.2	748.8	748.6	747.7	746.7	745.8	744.9
160°	760.4	761.0	761.6	761.6	760.8	760.1	759.4	758.7
162.5°	772.5	773.1	773.8	773.8	772.9	772.1	771.3	770.4
165°	788.6	789.2	789.7	789.5	788.8	787.9	787.0	786.2
167.5°	800.6	801.4	802.2	802.2	801.3	800.5	799.6	798.7
170°	807.7	808.6	809.4	809.3	808.3	807.4	806.3	805.4
172.5°	812.8	813.6	814.5	814.5	813.6	812.7	811.8	811.0
175°	818.6	819.4	820.3	820.2	819.2	818.2	817.2	816.2
177.5°	821.1	821.8	822.5	822.4	821.7	820.9	820.1	819.2
180°	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3

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