

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: P332567-935

Luminaire Tested: **SA4XXDIP-C575D1035U935-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332567-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C575D1035U935-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

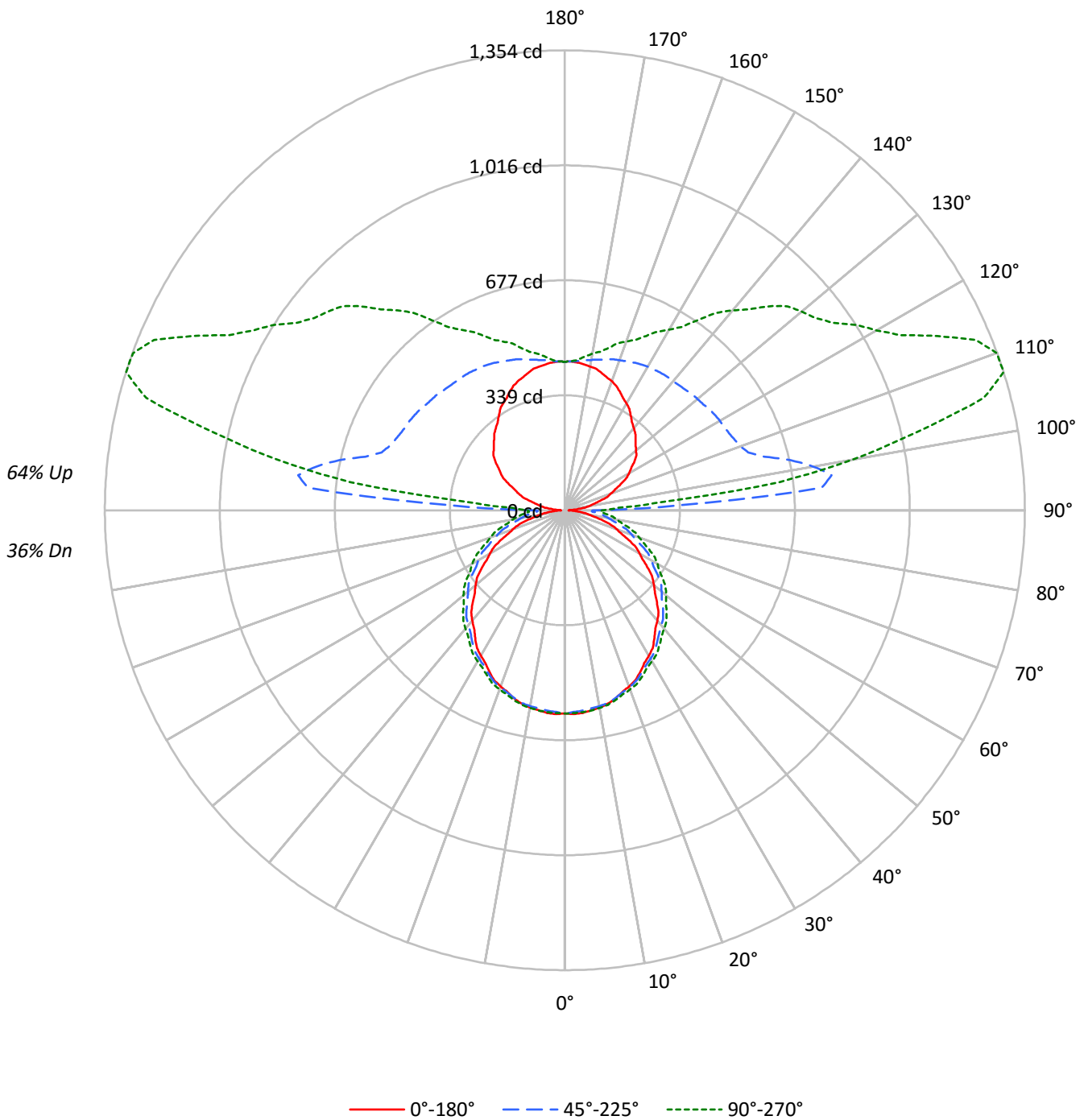
Lumens per Lamp: N/A
Luminaire Lumens: 5223.9 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

Input Watts (W): 44.5
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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	43	43	43	36
1	94	89	85	82	85	81	77	74	65	63	60	51	49	47	37	36	35	29
2	85	78	71	66	77	70	65	60	57	53	49	44	41	39	32	31	29	24
3	77	68	60	55	70	62	55	50	50	45	41	39	35	33	28	26	24	20
4	71	60	52	46	64	54	47	42	44	39	35	34	31	28	25	23	21	17
5	65	53	45	39	58	48	41	36	39	34	30	30	27	24	23	20	18	14
6	60	47	39	34	54	43	36	31	35	30	26	27	24	21	20	18	16	12
7	55	43	35	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11
8	51	39	31	26	46	35	28	24	29	24	20	23	19	16	17	14	12	10
9	47	35	28	23	43	32	25	21	26	21	18	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4830	4830	4830
5°	4845	4721	4734
10°	4816	4644	4639
15°	4772	4554	4529
20°	4707	4455	4422
25°	4634	4345	4302
30°	4555	4235	4181
35°	4464	4122	4074
40°	4393	4015	3964
45°	4286	3916	3867
50°	4195	3803	3767
55°	4102	3695	3648
60°	3957	3557	3541
65°	3798	3411	3409
70°	3603	3243	3253
75°	3334	3060	3114
80°	3035	2882	2977
85°	2656	2725	2896



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	1.1
10°-20°	162.3	3.1
20°-30°	245.5	4.7
30°-40°	297.0	5.7
40°-50°	314.0	6.0
50°-60°	295.5	5.7
60°-70°	245.2	4.7
70°-80°	172.2	3.3
80°-90°	99.8	1.9
90°-100°	373.8	7.2
100°-110°	700.5	13.4
110°-120°	617.8	11.8
120°-130°	511.7	9.8
130°-140°	420.2	8.0
140°-150°	317.1	6.1
150°-160°	221.9	4.2
160°-170°	130.5	2.5
170°-180°	42.5	0.8
0°-30°	464.5	8.9
0°-40°	761.4	14.6
0°-60°	1370.9	26.2
0°-90°	1888.0	36.1
90°-120°	1692.1	32.4
90°-150°	2941.0	56.3
90°-180°	3336.0	63.9
0°-180°	5223.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	599	597	592	597	597	57
15°	574	575	573	578	578	162
25°	525	529	531	538	539	242
35°	460	468	474	483	486	288
45°	383	396	409	420	423	296
55°	300	314	334	347	352	267
65°	208	229	252	268	274	206
75°	115	140	168	186	193	123
85°	36	64	94	113	121	38
90°	12	44	82	102	109	9
95°	37	120	759	423	292	39
105°	107	166	608	1274	1276	114
115°	181	233	534	1012	1212	180
125°	249	296	519	853	962	222
135°	294	351	502	746	849	228
145°	338	387	493	619	683	212
155°	384	415	480	543	566	177
165°	419	432	460	487	494	118
175°	437	438	441	447	445	41
180°	438	438	438	438	438	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	600.5	600.1	599.8	599.3	599.0	598.4	597.4	596.5	595.5	594.5	595.4
5°	599.0	598.6	598.1	597.6	597.2	596.4	595.4	594.3	593.3	592.3	593.5
7.5°	593.9	593.6	593.3	593.1	592.8	592.3	591.4	590.6	589.6	588.8	590.1
10°	589.6	589.4	589.3	589.2	589.0	588.6	587.8	587.0	586.3	585.6	586.9
12.5°	583.7	583.7	583.7	583.6	583.6	583.3	582.8	582.3	581.8	581.3	582.5
15°	574.2	574.4	574.5	574.6	574.8	574.6	574.2	573.8	573.3	572.8	574.2
17.5°	561.2	561.6	562.1	562.5	563.0	563.2	563.1	563.0	562.9	562.8	564.1
20°	552.1	552.5	552.9	553.5	553.9	554.1	554.3	554.5	554.6	554.7	556.2
22.5°	541.9	542.4	543.0	543.5	544.2	544.6	544.8	545.1	545.4	545.6	547.2
25°	525.3	526.2	527.1	528.0	528.8	529.5	529.9	530.4	530.9	531.3	533.0
27.5°	506.8	508.1	509.4	510.7	512.0	513.0	513.7	514.4	515.1	515.7	517.3
30°	494.5	495.7	496.8	498.0	499.2	500.3	501.4	502.4	503.4	504.5	506.2
32.5°	481.0	482.5	483.9	485.3	486.8	488.1	489.2	490.4	491.5	492.8	494.6
35°	459.6	461.4	463.2	464.9	466.7	468.4	469.8	471.4	472.9	474.3	476.5
37.5°	438.1	440.1	442.1	444.2	446.3	448.2	450.0	451.9	453.7	455.6	457.7
40°	424.1	426.0	428.0	429.9	431.9	433.9	435.9	438.0	440.1	442.2	444.4
42.5°	408.0	410.2	412.3	414.6	416.7	419.0	421.5	423.9	426.4	428.8	431.3
45°	383.2	386.1	388.9	391.8	394.5	397.4	400.2	403.0	405.9	408.7	411.2
47.5°	359.6	362.4	365.3	368.2	371.2	374.3	377.5	380.8	384.1	387.4	390.0
50°	342.3	345.6	348.9	352.2	355.5	358.8	362.1	365.3	368.6	371.9	374.8
52.5°	325.2	328.5	331.7	335.0	338.3	341.8	345.6	349.3	353.1	356.8	359.8
55°	300.1	303.2	306.4	309.5	312.6	316.4	320.9	325.4	329.8	334.3	337.3
57.5°	272.2	276.0	279.9	283.8	287.7	291.8	296.2	300.7	305.1	309.5	313.1
60°	253.9	257.8	261.7	265.5	269.4	273.8	278.7	283.6	288.5	293.4	296.9
62.5°	236.3	240.5	244.7	248.9	253.1	257.7	262.6	267.5	272.5	277.4	280.8
65°	207.7	212.5	217.2	222.0	226.8	231.7	236.7	241.8	246.8	251.9	255.6
67.5°	180.2	185.3	190.4	195.4	200.4	205.7	211.1	216.5	222.0	227.4	231.2
70°	161.4	166.5	171.6	176.7	181.8	187.1	192.7	198.4	204.1	209.7	213.7
72.5°	143.3	148.4	153.6	158.8	163.9	169.5	175.6	181.6	187.6	193.6	197.5
75°	115.2	120.7	126.2	131.7	137.2	143.2	149.4	155.7	162.0	168.2	172.4
77.5°	89.1	95.0	100.8	106.6	112.4	118.6	125.2	131.7	138.3	144.8	149.0
80°	73.0	79.0	85.0	90.9	96.9	103.1	109.7	116.2	122.8	129.3	133.8
82.5°	56.9	63.1	69.3	75.5	81.7	88.1	94.6	101.2	107.7	114.3	118.9
85°	35.5	41.8	48.0	54.2	60.5	67.0	73.7	80.4	87.1	93.8	98.2
87.5°	20.0	26.4	33.0	39.3	45.5	51.8	59.3	65.9	72.8	79.6	83.8
90°	11.5	19.3	27.8	34.6	41.4	47.6	59.2	65.5	73.7	81.8	85.2
92.5°	20.0	29.8	43.2	59.1	77.0	100.7	150.8	223.9	295.3	335.8	294.4
95°	37.1	44.6	58.1	74.1	99.7	141.3	222.2	369.3	580.8	758.8	782.6
97.5°	58.8	63.0	74.6	89.2	111.2	146.5	210.2	332.6	542.9	791.9	962.9
100°	72.7	76.5	86.4	100.7	120.9	153.2	209.7	312.6	493.8	742.0	966.0
102.5°	86.4	91.2	100.0	113.0	132.0	162.6	214.3	305.4	460.3	680.9	911.7
105°	106.6	112.2	119.4	132.7	151.2	180.4	227.1	303.9	429.8	608.0	813.8
107.5°	130.2	134.3	141.1	154.5	171.8	200.2	243.2	313.4	421.4	565.7	734.2
110°	145.4	149.3	155.7	168.1	185.6	212.5	255.5	320.9	420.6	550.4	694.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	160.1	163.6	170.5	181.9	199.2	225.8	267.3	329.0	422.3	541.6	669.9
115°	181.1	185.0	192.3	202.3	220.0	246.2	285.3	341.7	426.5	534.3	645.9
117.5°	203.6	206.8	213.0	223.3	239.4	266.0	303.2	355.0	431.1	529.4	632.7
120°	218.3	220.4	226.9	236.8	251.8	278.3	315.3	364.3	434.8	526.8	625.2
122.5°	232.0	233.8	239.9	248.7	264.8	290.3	327.0	373.1	438.5	523.4	617.0
125°	249.3	252.6	257.7	267.0	283.2	309.0	343.7	386.9	444.8	519.0	604.3
127.5°	265.2	267.9	273.9	284.6	301.4	327.0	359.8	398.9	449.0	513.1	588.0
130°	273.6	276.9	283.6	296.4	312.5	338.6	370.2	406.1	452.4	509.7	577.7
132.5°	282.6	285.2	293.9	306.0	323.6	348.0	379.1	413.9	455.5	506.9	568.6
135°	294.5	297.9	306.5	321.1	339.1	362.1	391.4	423.4	459.7	502.0	554.2
137.5°	307.0	310.1	319.4	333.2	351.8	373.2	400.3	429.6	461.4	498.7	542.0
140°	315.9	318.4	327.7	342.2	360.1	380.6	406.6	434.3	463.6	496.5	535.4
142.5°	325.0	327.6	336.3	350.2	367.6	387.4	412.4	437.8	465.5	495.3	529.9
145°	338.5	340.9	349.3	361.2	377.4	396.2	418.6	441.8	466.7	493.4	521.8
147.5°	353.8	354.5	361.9	374.1	387.5	404.5	425.5	445.7	467.6	490.3	514.6
150°	363.4	364.1	370.8	381.0	393.7	410.0	429.0	447.8	467.6	488.2	509.7
152.5°	371.8	372.0	378.8	388.4	399.8	414.8	431.7	449.2	466.2	484.7	504.2
155°	384.2	385.0	390.2	398.8	408.3	421.2	435.8	450.4	464.2	479.7	495.9
157.5°	396.4	396.4	401.2	407.9	416.2	426.4	438.7	450.4	461.9	474.3	487.5
160°	404.0	404.0	407.4	413.5	420.3	429.8	440.1	450.4	459.9	470.2	481.4
162.5°	410.9	410.2	412.9	418.3	424.5	431.9	441.4	450.4	457.8	466.1	475.9
165°	418.6	418.6	420.3	424.6	429.0	434.0	441.8	448.7	453.8	459.9	466.7
167.5°	426.4	425.5	426.4	429.6	432.0	435.9	441.6	446.6	449.7	453.7	458.5
170°	429.8	429.0	429.8	432.4	434.0	436.6	440.9	445.2	446.9	449.5	453.0
172.5°	433.2	432.4	432.5	434.4	435.4	437.3	440.2	443.8	444.2	445.4	448.2
175°	436.6	435.8	435.8	436.6	437.5	437.5	439.2	441.8	440.9	440.9	442.6
177.5°	438.2	437.5	436.8	437.5	437.5	437.5	438.2	439.5	438.2	438.2	438.9
180°	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	596.2	597.0	597.9	598.2	598.1	598.0	597.9	597.8
5°	594.7	595.8	597.0	597.5	597.4	597.3	597.1	596.9
7.5°	591.5	592.8	594.2	594.8	594.6	594.4	594.3	594.2
10°	588.2	589.6	590.9	591.5	591.4	591.2	591.1	590.9
12.5°	583.8	585.0	586.2	586.8	586.8	586.7	586.7	586.7
15°	575.5	576.9	578.2	578.8	578.7	578.5	578.3	578.2
17.5°	565.5	566.9	568.3	568.9	568.8	568.7	568.5	568.4
20°	557.8	559.2	560.7	561.5	561.5	561.5	561.5	561.5
22.5°	548.6	550.1	551.6	552.5	552.7	552.9	553.2	553.5
25°	534.6	536.2	537.9	538.7	538.9	539.1	539.2	539.3
27.5°	518.8	520.3	521.9	522.7	522.9	523.1	523.2	523.4
30°	507.8	509.5	511.1	512.0	512.3	512.6	512.9	513.2
32.5°	496.5	498.3	500.2	501.3	501.6	501.9	502.2	502.5
35°	478.5	480.6	482.7	484.0	484.4	484.8	485.3	485.8
37.5°	459.9	461.9	464.1	465.4	465.8	466.3	466.7	467.3
40°	446.7	448.9	451.2	452.5	453.1	453.7	454.3	455.0
42.5°	433.8	436.2	438.7	440.1	440.7	441.1	441.6	442.0
45°	413.8	416.3	418.8	420.4	421.2	422.0	422.7	423.4
47.5°	392.6	395.3	397.9	399.6	400.5	401.4	402.3	403.2
50°	377.8	380.8	383.7	385.7	386.6	387.4	388.4	389.3
52.5°	362.8	365.8	368.8	370.7	371.6	372.5	373.3	374.3
55°	340.3	343.3	346.2	348.2	349.0	350.0	350.9	351.7
57.5°	316.6	320.2	323.7	325.9	326.7	327.5	328.4	329.2
60°	300.3	303.8	307.1	309.4	310.6	311.9	313.1	314.3
62.5°	284.2	287.7	291.1	293.3	294.5	295.8	297.0	298.2
65°	259.3	263.1	266.8	269.2	270.4	271.6	272.9	274.1
67.5°	235.0	238.8	242.5	245.0	246.2	247.3	248.5	249.6
70°	217.7	221.8	225.8	228.3	229.4	230.4	231.4	232.5
72.5°	201.4	205.3	209.2	211.7	212.9	214.0	215.2	216.4
75°	176.5	180.6	184.9	187.6	188.9	190.3	191.7	193.0
77.5°	153.3	157.6	161.8	164.6	166.0	167.5	168.8	170.3
80°	138.3	142.7	147.1	150.0	151.2	152.4	153.6	154.8
82.5°	123.5	128.0	132.7	135.6	136.9	138.2	139.5	140.9
85°	102.7	107.2	111.7	114.7	116.1	117.6	119.1	120.6
87.5°	88.3	92.7	97.2	100.0	101.5	103.0	104.2	105.5
90°	90.4	95.6	100.8	103.6	105.6	107.6	108.0	109.2
92.5°	240.3	202.8	181.0	166.5	157.6	154.1	152.4	153.5
95°	703.3	574.0	462.9	382.2	341.4	316.1	302.0	292.1
97.5°	1003.0	957.3	877.2	790.1	729.6	679.2	654.6	638.1
100°	1095.5	1116.8	1078.7	1017.6	943.8	892.5	867.7	861.9
102.5°	1087.9	1177.0	1193.1	1169.2	1124.5	1087.6	1061.6	1057.2
105°	1014.3	1166.7	1255.6	1293.3	1296.2	1290.6	1279.7	1275.7
107.5°	912.2	1074.2	1197.7	1276.7	1320.3	1340.9	1350.6	1353.9
110°	850.4	1002.5	1130.6	1227.4	1289.7	1327.0	1343.7	1352.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	804.2	939.0	1060.1	1156.8	1227.4	1272.2	1295.0	1308.8
115°	756.6	865.6	969.5	1054.1	1123.1	1175.7	1204.3	1212.2
117.5°	730.9	821.6	903.7	975.8	1034.9	1079.4	1108.5	1115.0
120°	718.4	801.3	873.1	936.2	986.4	1025.4	1048.9	1059.5
122.5°	707.5	787.6	853.2	908.6	951.1	984.6	1004.5	1015.0
125°	689.7	766.5	828.6	877.7	913.0	938.8	956.1	962.1
127.5°	668.2	741.5	803.3	850.1	885.6	908.8	923.6	929.8
130°	651.8	722.4	783.5	830.8	866.9	889.3	904.0	910.0
132.5°	634.9	701.3	761.0	808.2	843.6	868.7	882.7	888.8
135°	610.8	669.0	723.8	768.4	803.7	828.7	843.3	849.4
137.5°	589.2	638.7	685.0	725.3	758.2	782.6	794.8	801.7
140°	576.8	619.1	659.8	697.2	728.1	747.7	760.4	768.1
142.5°	565.6	603.0	637.8	670.2	697.5	715.7	726.9	732.4
145°	550.2	580.3	607.0	631.8	653.8	669.1	678.3	683.2
147.5°	537.4	560.8	581.5	600.7	617.0	630.1	637.1	639.1
150°	530.4	550.1	567.3	582.8	596.5	607.7	612.9	613.7
152.5°	522.8	539.8	555.6	568.3	580.1	589.1	592.2	593.1
155°	511.4	525.2	538.0	548.4	557.0	563.9	566.5	566.5
157.5°	499.2	510.7	521.6	529.9	536.3	541.5	543.0	543.0
160°	491.6	501.1	510.6	517.5	522.6	527.8	528.7	528.7
162.5°	484.1	492.1	499.6	505.8	509.5	514.7	515.6	514.9
165°	473.6	478.8	484.7	489.0	492.5	495.9	495.1	494.2
167.5°	463.5	467.4	472.3	474.8	476.6	478.8	478.6	477.9
170°	457.3	459.9	463.3	465.9	467.6	468.5	467.6	467.6
172.5°	451.8	453.7	455.7	457.6	458.7	459.5	458.7	457.3
175°	444.4	445.2	446.9	446.9	446.9	448.7	446.9	445.2
177.5°	439.5	440.2	440.2	440.9	440.2	440.9	439.5	438.2
180°	437.5	437.5	437.5	437.5	437.5	437.5	437.5	437.5

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