

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

Luminaire Tested: **SA4XXDIP-C575D1035U835-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332567
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-C575D1035U835-4F0-1E-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

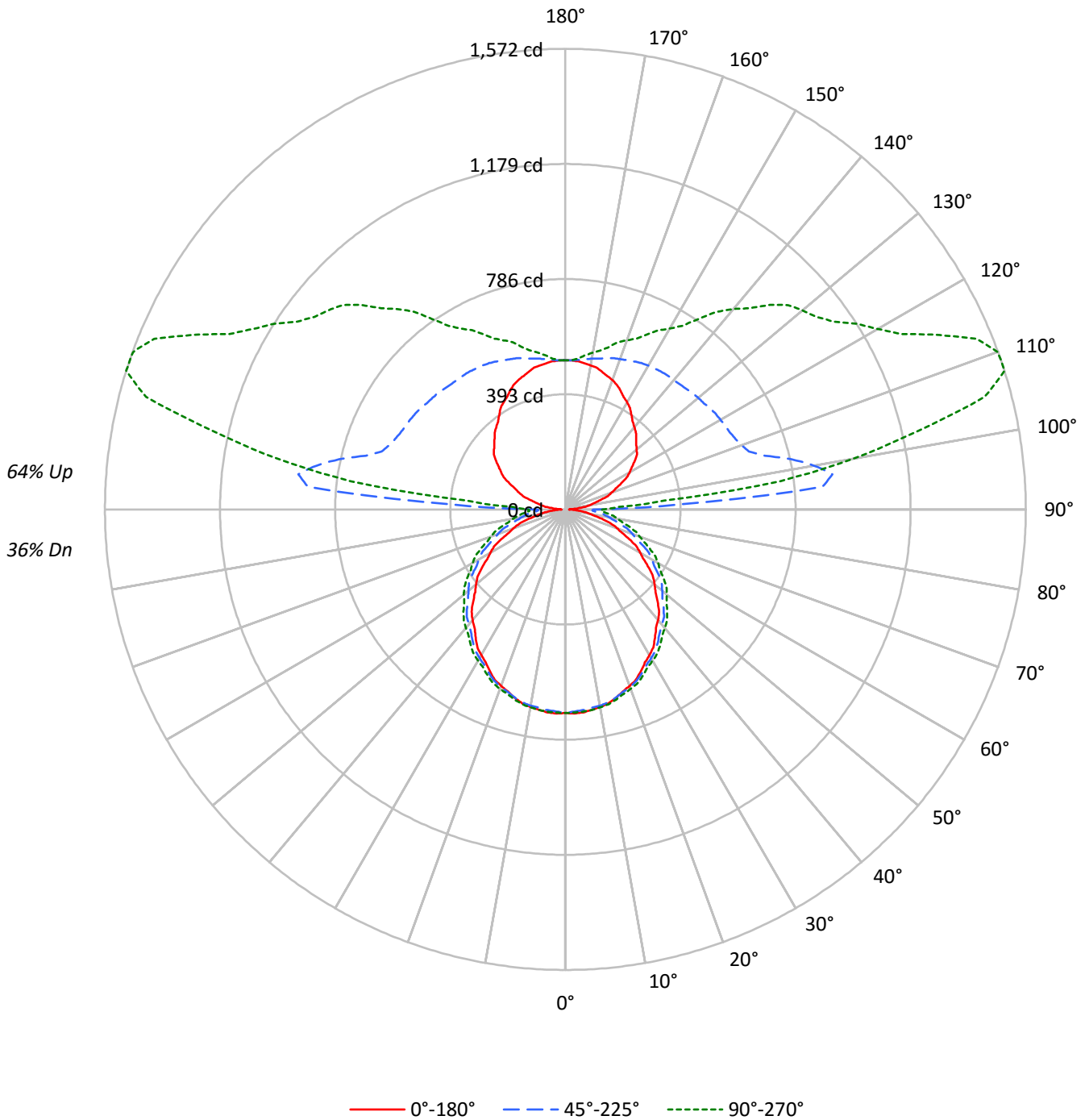
Lumens per Lamp: N/A
Luminaire Lumens: 6067.2 lumens
Efficiency: N/A
Efficacy: 136.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

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°	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	1.1
10°-20°	188.5	3.1
20°-30°	285.1	4.7
30°-40°	344.9	5.7
40°-50°	364.7	6.0
50°-60°	343.2	5.7
60°-70°	284.7	4.7
70°-80°	200.0	3.3
80°-90°	115.9	1.9
90°-100°	434.2	7.2
100°-110°	813.6	13.4
110°-120°	717.5	11.8
120°-130°	594.3	9.8
130°-140°	488.0	8.0
140°-150°	368.2	6.1
150°-160°	257.7	4.2
160°-170°	151.6	2.5
170°-180°	49.3	0.8
0°-30°	539.4	8.9
0°-40°	884.4	14.6
0°-60°	1592.2	26.2
0°-90°	2192.8	36.1
90°-120°	1965.3	32.4
90°-150°	3415.9	56.3
90°-180°	3874.0	63.9
0°-180°	6067.2	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°	13	52	95	119	127	10
95°	43	140	881	491	339	45
105°	124	193	706	1480	1482	132
115°	210	271	621	1175	1408	209
125°	290	344	603	991	1117	258
135°	342	407	583	867	986	265
145°	393	449	573	719	794	247
155°	446	482	557	631	658	206
165°	486	501	534	566	574	137
175°	507	508	512	519	517	48
180°	508	508	508	508	508	



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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	30.7	38.3	45.6	52.9	60.2	68.9	76.5	84.5	92.5	97.3
90°	13.4	22.4	32.3	40.2	48.1	55.3	68.7	76.1	85.6	95.0	99.0
92.5°	23.2	34.6	50.2	68.6	89.4	117.0	175.2	260.1	343.0	390.0	341.9
95°	43.1	51.8	67.5	86.1	115.8	164.1	258.1	428.9	674.6	881.3	909.0
97.5°	68.3	73.2	86.7	103.6	129.1	170.2	244.1	386.3	630.5	919.8	1118.4
100°	84.4	88.9	100.4	116.9	140.4	177.9	243.6	363.1	573.5	861.8	1122.0
102.5°	100.4	105.9	116.1	131.2	153.3	188.9	248.9	354.7	534.6	790.8	1058.9
105°	123.8	130.3	138.7	154.1	175.6	209.5	263.8	353.0	499.2	706.2	945.2
107.5°	151.2	156.0	163.9	179.5	199.5	232.5	282.5	364.0	489.4	657.0	852.7
110°	168.9	173.4	180.8	195.2	215.6	246.8	296.7	372.7	488.5	639.3	806.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	185.9	190.0	198.0	211.3	231.4	262.3	310.4	382.1	490.5	629.0	778.0
115°	210.3	214.9	223.4	235.0	255.5	286.0	331.4	396.9	495.3	620.6	750.2
117.5°	236.5	240.2	247.4	259.3	278.0	309.0	352.1	412.3	500.7	614.9	734.9
120°	253.5	256.0	263.5	275.0	292.5	323.2	366.2	423.1	505.0	611.8	726.1
122.5°	269.4	271.5	278.6	288.9	307.6	337.2	379.8	433.3	509.3	607.9	716.6
125°	289.6	293.4	299.3	310.1	328.9	358.9	399.2	449.4	516.6	602.8	701.9
127.5°	308.0	311.1	318.1	330.5	350.1	379.8	417.9	463.3	521.5	595.9	682.9
130°	317.8	321.6	329.4	344.2	363.0	393.3	430.0	471.7	525.4	592.0	671.0
132.5°	328.2	331.2	341.4	355.4	375.8	404.2	440.3	480.7	529.0	588.7	660.4
135°	342.0	346.0	356.0	372.9	393.9	420.5	454.6	491.8	533.9	583.0	643.7
137.5°	356.6	360.2	371.0	387.0	408.6	433.5	464.9	499.0	535.9	579.2	629.5
140°	366.9	369.8	380.6	397.4	418.2	442.1	472.2	504.4	538.5	576.6	621.8
142.5°	377.5	380.5	390.6	406.7	426.9	450.0	479.0	508.5	540.7	575.3	615.4
145°	393.1	395.9	405.7	419.5	438.3	460.2	486.2	513.1	542.1	573.0	606.0
147.5°	410.9	411.7	420.3	434.5	450.1	469.8	494.2	517.7	543.1	569.4	597.7
150°	422.1	422.9	430.7	442.5	457.3	476.2	498.2	520.1	543.1	567.0	592.0
152.5°	431.8	432.0	439.9	451.1	464.4	481.8	501.4	521.7	541.5	563.0	585.6
155°	446.2	447.2	453.2	463.2	474.2	489.2	506.1	523.1	539.1	557.1	576.0
157.5°	460.4	460.4	466.0	473.8	483.4	495.2	509.5	523.1	536.5	550.9	566.2
160°	469.2	469.2	473.2	480.2	488.2	499.2	511.1	523.1	534.1	546.1	559.1
162.5°	477.2	476.4	479.6	485.8	493.0	501.6	512.7	523.1	531.7	541.3	552.7
165°	486.2	486.2	488.2	493.2	498.2	504.1	513.1	521.1	527.1	534.1	542.1
167.5°	495.2	494.2	495.2	499.0	501.8	506.3	512.9	518.7	522.3	526.9	532.5
170°	499.2	498.2	499.2	502.2	504.1	507.1	512.1	517.1	519.1	522.1	526.1
172.5°	503.1	502.2	502.3	504.5	505.7	507.9	511.3	515.5	515.9	517.3	520.5
175°	507.1	506.1	506.1	507.1	508.1	508.1	510.1	513.1	512.1	512.1	514.1
177.5°	508.9	508.1	507.3	508.1	508.1	508.1	508.9	510.5	508.9	508.9	509.7
180°	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1



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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°	102.5	107.7	112.9	116.2	117.9	119.6	121.0	122.5
90°	105.0	111.0	117.1	120.3	122.6	125.0	125.4	126.8
92.5°	279.1	235.5	210.2	193.4	183.0	179.0	177.0	178.3
95°	816.8	666.7	537.6	443.9	396.5	367.1	350.7	339.3
97.5°	1164.9	1111.9	1018.8	917.6	847.4	788.8	760.3	741.1
100°	1272.4	1297.1	1252.8	1181.9	1096.2	1036.6	1007.8	1001.0
102.5°	1263.5	1367.0	1385.7	1357.9	1306.0	1263.2	1233.0	1227.9
105°	1178.1	1355.1	1458.3	1502.1	1505.5	1498.9	1486.3	1481.7
107.5°	1059.5	1247.6	1391.0	1482.8	1533.4	1557.4	1568.6	1572.5
110°	987.7	1164.4	1313.1	1425.6	1497.9	1541.2	1560.6	1570.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	934.0	1090.6	1231.2	1343.6	1425.5	1477.6	1504.1	1520.1
115°	878.8	1005.4	1126.0	1224.3	1304.4	1365.5	1398.7	1407.9
117.5°	848.9	954.2	1049.6	1133.3	1202.0	1253.7	1287.4	1295.0
120°	834.4	930.7	1014.0	1087.3	1145.6	1190.9	1218.2	1230.6
122.5°	821.7	914.8	990.9	1055.3	1104.7	1143.5	1166.7	1178.9
125°	801.1	890.2	962.4	1019.4	1060.4	1090.4	1110.4	1117.4
127.5°	776.1	861.2	933.0	987.3	1028.6	1055.5	1072.7	1079.9
130°	757.0	839.0	910.0	964.9	1006.9	1032.9	1049.9	1056.9
132.5°	737.4	814.5	883.8	938.7	979.8	1009.0	1025.2	1032.3
135°	709.4	777.0	840.7	892.5	933.5	962.5	979.5	986.5
137.5°	684.3	741.8	795.6	842.4	880.6	909.0	923.1	931.1
140°	669.9	719.1	766.3	809.8	845.6	868.4	883.2	892.1
142.5°	656.9	700.3	740.8	778.4	810.1	831.2	844.3	850.6
145°	639.0	674.0	705.0	733.8	759.4	777.1	787.8	793.5
147.5°	624.2	651.3	675.4	697.7	716.6	731.8	739.9	742.3
150°	616.0	638.9	658.9	676.9	692.8	705.8	711.8	712.8
152.5°	607.2	626.9	645.3	660.1	673.7	684.2	687.8	688.8
155°	594.0	610.0	624.9	636.9	646.9	654.9	657.9	657.9
157.5°	579.8	593.2	605.8	615.4	622.9	628.9	630.7	630.7
160°	571.0	582.0	593.0	601.0	607.0	613.0	614.0	614.0
162.5°	562.2	571.6	580.2	587.4	591.8	597.8	598.8	598.0
165°	550.1	556.1	563.0	568.0	572.0	576.0	575.0	574.0
167.5°	538.3	542.9	548.5	551.5	553.5	556.1	555.9	555.1
170°	531.1	534.1	538.1	541.1	543.1	544.1	543.1	543.1
172.5°	524.7	526.9	529.3	531.5	532.7	533.7	532.7	531.1
175°	516.1	517.1	519.1	519.1	519.1	521.1	519.1	517.1
177.5°	510.5	511.3	511.3	512.1	511.3	512.1	510.5	508.9
180°	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1

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