

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: P332612-940

Luminaire Tested: **SA4XXDIP-C795D1035U940-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332612-940
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-C795D1035U940-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

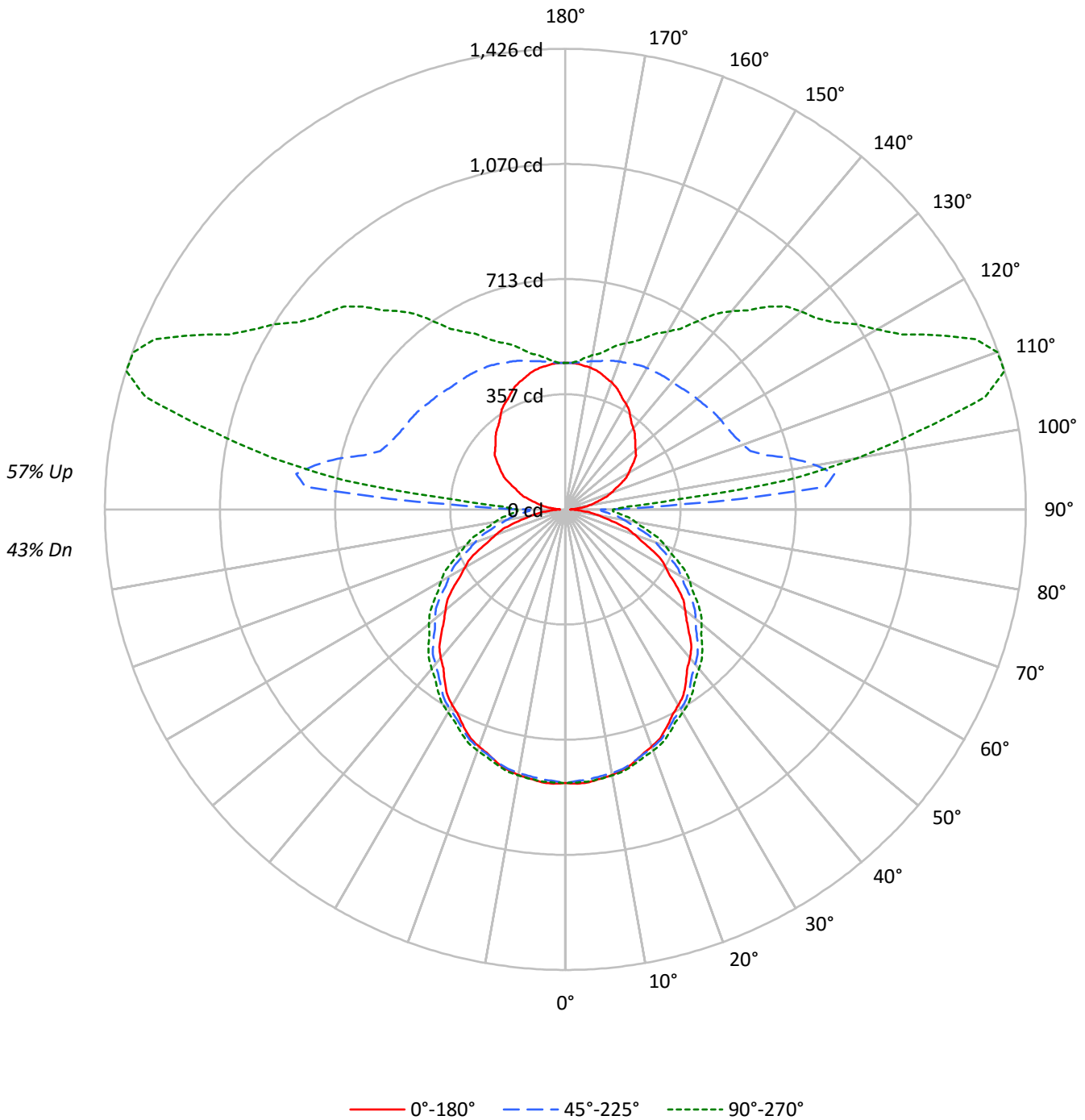
Lumens per Lamp: N/A
Luminaire Lumens: 6185.3 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 52
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	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	95	91	87	83	87	83	79	76	68	66	63	55	53	52	43	41	40	35
2	86	79	72	67	79	72	66	62	59	55	52	48	45	42	37	35	33	28
3	79	69	61	55	71	63	56	51	52	47	43	42	38	35	32	30	28	23
4	72	61	53	46	65	56	48	43	46	41	36	37	33	30	29	26	24	20
5	66	54	46	39	60	49	42	37	41	35	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	32	37	31	27	30	26	22	23	20	18	15
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	21	17	19	16	14	12
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13	10
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	17	14	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6838	6838	6838
5°	6859	6683	6702
10°	6817	6573	6568
15°	6756	6446	6411
20°	6664	6307	6259
25°	6560	6151	6092
30°	6448	5995	5919
35°	6321	5835	5768
40°	6219	5684	5610
45°	6067	5543	5475
50°	5939	5383	5333
55°	5808	5231	5164
60°	5601	5036	5013
65°	5376	4829	4824
70°	5101	4592	4605
75°	4723	4331	4407
80°	4295	4081	4213
85°	3763	3857	4101



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	1.3
10°-20°	229.8	3.7
20°-30°	347.5	5.6
30°-40°	420.4	6.8
40°-50°	444.5	7.2
50°-60°	418.3	6.8
60°-70°	347.1	5.6
70°-80°	243.8	3.9
80°-90°	140.3	2.3
90°-100°	409.1	6.6
100°-110°	741.7	12.0
110°-120°	650.8	10.5
120°-130°	536.1	8.7
130°-140°	437.8	7.1
140°-150°	328.9	5.3
150°-160°	229.8	3.7
160°-170°	135.2	2.2
170°-180°	44.0	0.7
0°-30°	657.5	10.6
0°-40°	1077.9	17.4
0°-60°	1940.7	31.4
0°-90°	2671.9	43.2
90°-120°	1801.6	29.1
90°-150°	3104.4	50.2
90°-180°	3513.0	56.8
0°-180°	6185.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	847	847	847	847	847	
5°	848	845	838	846	845	80
15°	813	814	811	819	818	229
25°	744	749	752	762	764	342
35°	651	662	672	684	688	407
45°	542	561	578	594	599	419
55°	425	445	473	492	498	378
65°	294	324	357	379	388	291
75°	163	198	238	264	273	174
85°	50	90	133	160	171	53
90°	16	60	110	138	148	12
95°	42	137	808	466	334	43
105°	113	179	647	1343	1346	121
115°	189	246	565	1065	1275	188
125°	259	308	545	895	1010	231
135°	306	364	522	779	888	236
145°	351	401	511	643	710	220
155°	398	430	497	563	587	183
165°	434	447	476	504	512	122
175°	452	453	457	463	461	43
180°	453	453	453	453	453	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0
2.5°	850.1	849.5	849.0	848.6	848.0	847.1	845.7	844.4	843.0	841.7	842.8
5°	847.9	847.3	846.7	846.1	845.4	844.4	842.8	841.4	839.9	838.5	840.2
7.5°	840.7	840.3	840.0	839.6	839.2	838.4	837.2	836.0	834.7	833.6	835.4
10°	834.6	834.5	834.3	834.0	833.8	833.2	832.1	831.1	830.0	828.9	830.9
12.5°	826.3	826.3	826.3	826.2	826.2	825.8	825.1	824.3	823.6	822.9	824.7
15°	812.9	813.1	813.2	813.5	813.7	813.5	812.9	812.3	811.5	810.9	812.9
17.5°	794.4	795.0	795.7	796.4	797.0	797.2	797.1	797.0	796.8	796.7	798.7
20°	781.6	782.2	782.8	783.5	784.1	784.5	784.7	784.9	785.2	785.3	787.5
22.5°	767.1	767.9	768.7	769.5	770.3	771.0	771.3	771.7	772.0	772.5	774.5
25°	743.6	744.8	746.2	747.4	748.7	749.7	750.3	750.9	751.5	752.2	754.5
27.5°	717.5	719.3	721.1	723.0	724.9	726.3	727.3	728.2	729.2	730.1	732.3
30°	700.0	701.7	703.4	705.1	706.8	708.3	709.8	711.2	712.7	714.2	716.5
32.5°	681.0	683.1	685.1	687.1	689.1	690.9	692.6	694.2	695.9	697.5	700.2
35°	650.7	653.2	655.8	658.3	660.8	663.1	665.2	667.4	669.4	671.5	674.5
37.5°	620.1	623.0	626.0	628.8	631.8	634.5	637.1	639.7	642.4	645.0	648.0
40°	600.4	603.2	605.8	608.6	611.4	614.2	617.2	620.1	623.0	626.0	629.2
42.5°	577.7	580.7	583.8	586.8	590.0	593.2	596.6	600.1	603.6	607.0	610.6
45°	542.5	546.5	550.5	554.6	558.6	562.6	566.6	570.6	574.5	578.5	582.2
47.5°	509.0	513.1	517.2	521.4	525.5	529.9	534.5	539.1	543.8	548.4	552.1
50°	484.6	489.3	493.9	498.6	503.2	507.8	512.5	517.1	521.7	526.4	530.7
52.5°	460.4	465.0	469.7	474.3	478.9	483.9	489.2	494.5	499.9	505.2	509.3
55°	424.9	429.4	433.8	438.2	442.6	448.0	454.3	460.7	467.0	473.3	477.5
57.5°	385.3	390.7	396.3	401.7	407.2	413.0	419.4	425.6	431.9	438.2	443.2
60°	359.4	365.0	370.4	375.9	381.4	387.6	394.6	401.5	408.5	415.4	420.3
62.5°	334.4	340.5	346.4	352.4	358.4	364.9	371.8	378.8	385.8	392.7	397.5
65°	294.0	300.8	307.6	314.2	321.0	328.0	335.1	342.3	349.5	356.6	361.9
67.5°	255.1	262.3	269.5	276.6	283.8	291.2	298.9	306.6	314.2	321.9	327.3
70°	228.5	235.8	242.9	250.1	257.3	264.8	272.9	280.9	288.8	296.9	302.6
72.5°	202.8	210.1	217.5	224.8	232.1	240.0	248.6	257.1	265.6	274.1	279.6
75°	163.2	170.9	178.7	186.5	194.3	202.7	211.5	220.3	229.3	238.1	244.0
77.5°	126.2	134.4	142.7	151.0	159.2	168.0	177.3	186.5	195.8	205.1	211.1
80°	103.3	111.8	120.2	128.7	137.1	146.0	155.2	164.5	173.8	183.1	189.4
82.5°	80.6	89.3	98.2	106.9	115.7	124.8	134.0	143.3	152.6	161.8	168.3
85°	50.3	59.1	67.9	76.9	85.7	94.9	104.3	113.8	123.3	132.8	139.1
87.5°	28.3	37.2	46.4	55.1	63.9	72.9	83.1	92.4	101.9	111.6	117.4
90°	16.1	26.3	37.4	46.7	56.0	64.7	79.2	88.3	99.1	109.9	115.1
92.5°	24.5	36.7	52.7	71.2	91.8	118.6	172.9	251.0	327.4	371.8	330.5
95°	41.7	51.4	67.2	85.7	114.0	159.3	245.3	399.9	621.3	808.1	834.2
97.5°	63.9	69.9	83.6	100.2	124.5	163.1	231.3	360.4	580.5	840.8	1019.4
100°	78.1	83.6	95.3	111.5	133.8	169.2	229.9	338.8	528.5	787.8	1021.4
102.5°	92.3	98.5	108.9	123.7	144.6	178.2	233.7	330.3	492.8	723.4	964.0
105°	112.7	119.6	128.2	143.1	163.4	195.2	245.8	327.4	459.9	646.6	861.0
107.5°	137.1	142.3	150.3	165.1	183.9	214.7	261.3	335.9	449.8	601.2	777.1
110°	152.7	157.4	164.8	178.4	197.4	226.7	273.2	342.9	448.2	584.6	734.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	167.6	172.0	179.8	192.3	211.0	239.9	284.6	350.4	449.0	574.4	708.6
115°	189.0	193.7	201.8	212.6	231.4	259.8	302.1	362.2	451.7	565.3	682.2
117.5°	212.4	216.0	222.7	233.6	250.6	279.2	319.3	374.8	455.3	558.7	666.9
120°	227.3	229.7	236.6	247.0	262.8	291.1	331.0	383.4	458.1	555.0	658.0
122.5°	241.6	243.4	249.8	259.0	275.7	302.8	342.4	391.6	461.0	550.5	648.5
125°	259.3	262.6	267.8	277.3	294.1	321.5	358.8	405.0	466.4	544.7	634.1
127.5°	275.6	278.3	284.5	295.5	312.9	339.9	375.0	416.6	469.6	537.0	615.5
130°	284.2	287.5	294.4	307.6	324.2	351.7	385.3	423.4	472.2	532.5	604.0
132.5°	293.4	296.0	305.1	317.5	335.6	361.3	394.2	431.0	474.7	528.8	593.6
135°	305.5	309.0	317.9	333.1	351.8	375.6	406.4	440.0	478.0	522.2	577.2
137.5°	318.4	321.6	331.2	345.4	364.6	386.9	415.1	445.7	478.8	517.6	563.3
140°	327.7	330.2	339.7	354.6	373.2	394.5	421.4	450.1	480.6	514.7	555.7
142.5°	336.9	339.6	348.6	362.9	380.9	401.4	427.3	453.5	482.3	513.2	549.6
145°	350.8	353.3	361.9	374.2	390.9	410.4	433.5	457.5	483.4	511.0	540.7
147.5°	366.7	367.3	375.0	387.5	401.4	418.9	440.7	461.6	484.3	507.7	533.1
150°	376.7	377.3	384.2	394.7	407.8	424.6	444.3	463.8	484.3	505.6	527.9
152.5°	385.1	385.2	392.4	402.3	414.1	429.6	447.1	465.2	482.9	502.0	522.2
155°	397.9	398.8	404.1	413.0	422.8	436.2	451.3	466.5	480.7	496.8	513.6
157.5°	410.5	410.5	415.5	422.5	431.1	441.6	454.3	466.5	478.4	491.2	504.9
160°	418.4	418.4	422.0	428.2	435.3	445.1	455.8	466.5	476.3	487.0	498.6
162.5°	425.5	424.8	427.7	433.2	439.6	447.3	457.2	466.5	474.1	482.7	492.8
165°	433.5	433.5	435.3	439.8	444.3	449.5	457.5	464.7	470.0	476.3	483.4
167.5°	441.6	440.7	441.6	445.0	447.5	451.5	457.4	462.5	465.7	469.8	474.8
170°	445.1	444.3	445.1	447.8	449.5	452.2	456.6	461.1	462.9	465.6	469.1
172.5°	448.6	447.8	447.9	449.9	450.9	452.9	455.9	459.7	460.0	461.3	464.1
175°	452.2	451.3	451.3	452.2	453.1	453.1	454.9	457.5	456.6	456.6	458.4
177.5°	453.8	453.1	452.4	453.1	453.1	453.1	453.8	455.2	453.8	453.8	454.5
180°	453.1	453.1	453.1	453.1	453.1	453.1	453.1	453.1	453.1	453.1	453.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0
2.5°	844.0	845.3	846.4	846.9	846.8	846.6	846.4	846.2
5°	841.9	843.6	845.2	846.0	845.7	845.5	845.3	845.1
7.5°	837.3	839.2	841.2	842.0	841.8	841.5	841.3	841.2
10°	832.8	834.6	836.6	837.4	837.2	837.0	836.8	836.6
12.5°	826.3	828.1	829.8	830.6	830.6	830.5	830.5	830.5
15°	814.8	816.6	818.5	819.4	819.2	818.9	818.8	818.5
17.5°	800.6	802.5	804.5	805.4	805.2	805.0	804.9	804.7
20°	789.5	791.7	793.8	794.9	794.9	794.9	794.9	794.9
22.5°	776.7	778.7	780.9	782.1	782.5	782.7	783.1	783.5
25°	756.8	759.1	761.4	762.7	762.9	763.1	763.3	763.6
27.5°	734.4	736.6	738.8	739.9	740.2	740.5	740.7	740.9
30°	718.8	721.1	723.4	724.9	725.3	725.7	726.1	726.6
32.5°	702.8	705.5	708.1	709.7	710.1	710.5	711.0	711.4
35°	677.4	680.4	683.3	685.1	685.7	686.3	687.1	687.7
37.5°	650.9	654.0	656.9	658.8	659.4	660.1	660.8	661.5
40°	632.3	635.5	638.6	640.6	641.5	642.3	643.2	644.0
42.5°	614.0	617.5	621.0	623.1	623.8	624.5	625.2	625.8
45°	585.8	589.3	592.9	595.2	596.3	597.4	598.4	599.4
47.5°	555.8	559.5	563.3	565.7	567.0	568.3	569.5	570.8
50°	534.8	539.0	543.2	546.0	547.2	548.6	549.8	551.1
52.5°	513.6	517.8	522.0	524.8	526.0	527.3	528.5	529.9
55°	481.7	486.0	490.2	492.9	494.2	495.4	496.7	497.9
57.5°	448.3	453.3	458.3	461.4	462.5	463.7	464.9	466.1
60°	425.2	430.0	434.8	438.1	439.8	441.5	443.2	444.9
62.5°	402.3	407.2	412.1	415.4	417.1	418.7	420.4	422.0
65°	367.2	372.5	377.7	381.2	382.9	384.6	386.2	387.9
67.5°	332.6	338.0	343.3	346.8	348.5	350.1	351.8	353.4
70°	308.3	314.0	319.7	323.2	324.7	326.2	327.6	329.1
72.5°	285.2	290.7	296.2	299.8	301.4	303.1	304.7	306.4
75°	249.9	255.7	261.7	265.6	267.5	269.4	271.3	273.1
77.5°	217.0	223.0	229.0	233.0	235.1	237.0	239.1	241.1
80°	195.7	202.1	208.4	212.3	214.0	215.7	217.4	219.1
82.5°	174.8	181.3	187.8	192.0	193.8	195.6	197.5	199.4
85°	145.4	151.8	158.1	162.3	164.4	166.5	168.6	170.8
87.5°	123.8	130.0	136.3	140.4	142.3	144.4	146.1	147.9
90°	122.2	129.1	136.2	140.1	142.7	145.2	146.0	147.7
92.5°	276.1	238.7	217.8	203.8	195.0	191.9	190.6	192.3
95°	753.6	621.3	507.7	425.1	383.3	357.7	343.6	333.9
97.5°	1062.3	1016.6	935.0	845.7	783.6	731.8	706.9	690.3
100°	1157.1	1180.5	1142.6	1080.3	1004.3	951.5	926.3	920.7
102.5°	1147.9	1241.8	1259.9	1236.1	1190.2	1152.5	1126.1	1122.0
105°	1070.1	1229.4	1322.9	1362.8	1366.3	1360.8	1350.1	1346.4
107.5°	962.9	1132.0	1261.2	1344.1	1389.6	1411.3	1421.7	1425.6
110°	897.9	1056.8	1190.7	1291.8	1356.7	1395.8	1413.5	1423.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	848.9	989.8	1116.4	1217.5	1290.9	1337.8	1362.0	1376.6
115°	798.1	912.2	1021.0	1109.5	1181.3	1236.2	1266.1	1274.8
117.5°	769.8	864.8	951.1	1026.5	1088.2	1134.8	1165.4	1172.5
120°	755.7	842.7	918.1	984.3	1036.7	1077.5	1102.4	1113.8
122.5°	743.3	827.5	896.5	954.8	999.2	1034.2	1055.3	1066.6
125°	723.6	804.1	869.6	921.1	958.1	985.2	1003.3	1010.0
127.5°	699.6	776.7	841.7	890.7	928.0	952.3	968.0	974.8
130°	681.6	755.7	820.1	869.8	907.6	931.0	946.6	953.1
132.5°	663.3	733.0	795.7	845.3	882.4	908.7	923.5	930.1
135°	636.7	697.9	755.5	802.4	839.3	865.4	880.9	887.5
137.5°	613.0	665.0	713.9	756.2	790.5	816.2	828.9	836.4
140°	599.3	643.9	686.7	726.0	758.2	778.9	792.4	800.6
142.5°	587.2	626.4	663.3	697.2	725.8	744.8	756.7	762.6
145°	570.5	602.0	630.0	655.9	679.0	695.0	704.8	710.1
147.5°	556.7	580.9	602.4	622.4	639.5	653.2	660.7	662.9
150°	549.3	569.7	587.5	603.6	617.8	629.4	634.7	635.6
152.5°	541.4	559.0	575.4	588.6	600.7	610.1	613.3	614.2
155°	529.7	543.9	557.2	567.9	576.8	584.0	586.7	586.7
157.5°	517.0	529.0	540.2	548.8	555.4	560.8	562.4	562.4
160°	509.2	519.0	528.8	535.9	541.3	546.6	547.5	547.5
162.5°	501.3	509.7	517.4	523.8	527.7	533.1	534.0	533.2
165°	490.5	495.9	502.0	506.5	510.1	513.6	512.7	511.8
167.5°	480.0	484.1	489.1	491.8	493.6	495.9	495.7	495.0
170°	473.6	476.3	479.8	482.5	484.3	485.2	484.3	484.3
172.5°	467.9	469.8	472.0	473.9	475.0	475.9	475.0	473.6
175°	460.2	461.1	462.9	462.9	462.9	464.7	462.9	461.1
177.5°	455.2	455.9	455.9	456.6	455.9	456.6	455.2	453.8
180°	453.1	453.1	453.1	453.1	453.1	453.1	453.1	453.1

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