

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: P331344-830

Luminaire Tested: **SA2XXDIP-C675D530U830-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331344-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C675D530U830-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

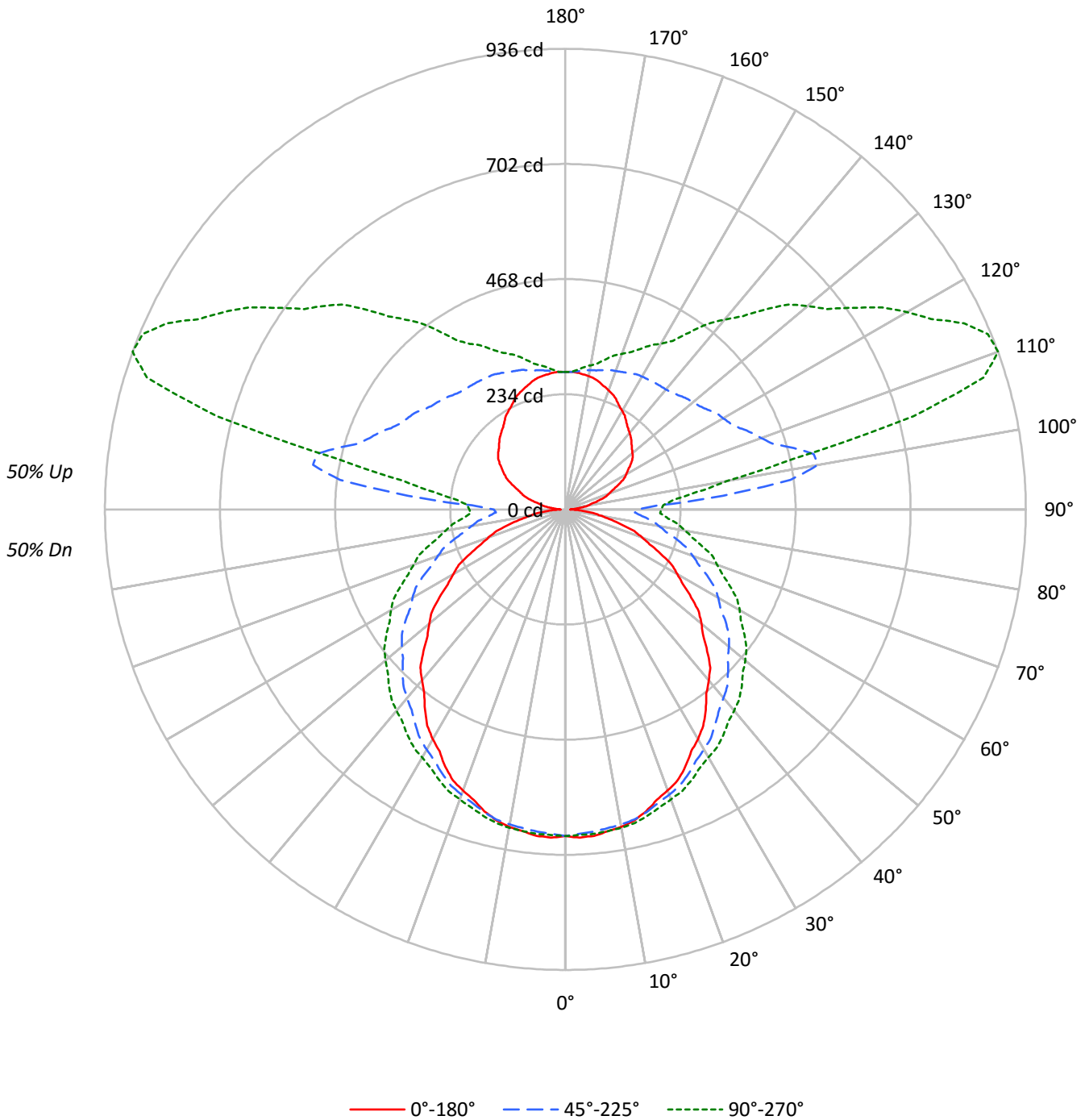
Lumens per Lamp: N/A
Luminaire Lumens: 4480.4 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 40.3
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	83	83	83	69	69	69	56	56	56	50
1	96	91	87	83	89	84	80	77	71	68	65	59	57	55	47	46	45	39
2	87	79	72	66	80	73	67	62	61	57	53	51	47	44	41	38	36	32
3	79	69	61	55	72	64	57	51	54	48	44	44	40	37	36	33	30	26
4	72	61	52	46	66	56	49	43	47	41	37	39	35	31	32	28	26	22
5	66	54	45	39	60	50	42	36	42	36	32	35	30	27	28	25	22	19
6	61	48	40	34	56	45	37	31	38	32	27	31	27	23	26	22	19	16
7	56	43	35	29	51	40	33	27	34	28	24	29	24	20	23	20	17	14
8	52	39	31	26	48	36	29	24	31	25	21	26	21	18	21	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	11
10	45	33	25	20	42	30	24	19	26	21	17	22	18	15	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10719	10719	10719
5°	10771	10318	10278
10°	10704	10013	9900
15°	10557	9691	9503
20°	10370	9345	9120
25°	10186	9011	8772
30°	9928	8668	8421
35°	9665	8338	8176
40°	9388	8055	7929
45°	9124	7803	7719
50°	8843	7574	7511
55°	8548	7331	7300
60°	8188	7076	7078
65°	7811	6777	6812
70°	7390	6457	6525
75°	6853	6143	6262
80°	6004	5822	5995
85°	5192	5544	5785



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.9	1.4
10°-20°	180.4	4.0
20°-30°	273.4	6.1
30°-40°	333.0	7.4
40°-50°	358.2	8.0
50°-60°	347.9	7.8
60°-70°	303.7	6.8
70°-80°	233.8	5.2
80°-90°	159.5	3.6
90°-100°	219.9	4.9
100°-110°	458.2	10.2
110°-120°	455.0	10.2
120°-130°	360.8	8.1
130°-140°	278.6	6.2
140°-150°	203.4	4.5
150°-160°	141.4	3.2
160°-170°	83.3	1.9
170°-180°	27.1	0.6
0°-30°	516.7	11.5
0°-40°	849.6	19.0
0°-60°	1555.7	34.7
0°-90°	2252.8	50.3
90°-120°	1133.1	25.3
90°-150°	1975.9	44.1
90°-180°	2228.0	49.7
0°-180°	4480.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	664	664	664	664	664	
5°	666	663	657	663	662	63
15°	635	637	637	645	645	179
25°	577	584	593	604	607	265
35°	498	514	532	552	560	311
45°	408	434	468	496	507	315
55°	313	348	397	431	444	279
65°	214	261	318	356	370	212
75°	118	173	234	274	288	125
85°	35	94	156	195	210	37
90°	10	73	145	181	195	7
95°	26	100	321	225	220	26
105°	70	133	481	827	733	75
115°	119	162	391	773	894	118
125°	163	194	353	615	714	145
135°	190	227	327	498	574	147
145°	216	248	315	397	438	136
155°	246	265	306	346	360	113
165°	268	276	293	311	316	75
175°	279	279	282	285	284	26
180°	280	280	280	280	280	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
2.5°	667.8	667.2	666.8	666.2	665.7	664.9	663.6	662.4	661.3	660.1	660.9
5°	665.8	665.2	664.6	663.9	663.3	662.3	661.0	659.8	658.5	657.1	658.5
7.5°	659.9	659.4	659.0	658.6	658.2	657.4	656.5	655.4	654.5	653.6	655.1
10°	655.3	654.8	654.4	653.9	653.6	653.0	652.3	651.8	651.1	650.4	652.1
12.5°	647.5	647.6	647.7	647.8	647.9	647.7	647.2	646.8	646.3	645.8	647.5
15°	635.1	635.5	635.9	636.3	636.8	637.0	637.0	637.0	637.0	637.0	638.9
17.5°	618.9	619.8	620.7	621.6	622.5	623.3	624.0	624.6	625.3	626.0	628.0
20°	608.1	609.2	610.2	611.3	612.4	613.3	614.2	615.1	616.0	616.8	619.2
22.5°	596.5	597.8	599.1	600.3	601.5	602.8	604.0	605.1	606.3	607.6	609.9
25°	577.3	578.8	580.3	581.8	583.3	585.0	586.9	588.9	590.8	592.7	595.3
27.5°	554.2	556.7	559.1	561.6	564.0	566.4	568.6	570.9	573.2	575.4	578.6
30°	538.9	541.6	544.4	547.1	550.0	552.7	555.5	558.3	561.1	563.8	567.2
32.5°	521.9	525.0	528.1	531.2	534.4	537.6	540.9	544.1	547.4	550.7	554.7
35°	497.5	501.1	504.7	508.3	512.0	515.9	519.9	524.0	528.0	532.1	536.8
37.5°	470.9	475.1	479.3	483.4	487.7	492.4	497.7	502.9	508.1	513.4	518.7
40°	453.2	457.9	462.6	467.3	472.0	477.2	483.1	488.8	494.6	500.3	505.9
42.5°	436.3	440.9	445.6	450.3	455.1	460.7	467.4	474.0	480.6	487.3	493.3
45°	407.9	413.8	419.5	425.3	431.0	437.7	445.2	452.7	460.1	467.6	474.3
47.5°	380.0	386.3	392.7	398.9	405.2	412.7	421.5	430.3	439.0	447.8	454.8
50°	360.8	367.5	374.1	380.7	387.3	395.5	405.1	414.7	424.3	433.9	441.2
52.5°	342.3	349.3	356.3	363.3	370.2	378.8	388.9	399.1	409.2	419.3	426.8
55°	312.7	320.4	328.1	335.8	343.5	352.9	364.0	375.1	386.3	397.4	405.1
57.5°	283.4	292.2	300.9	309.5	318.2	328.2	339.5	350.8	362.2	373.5	381.8
60°	262.7	271.8	281.1	290.3	299.4	310.2	322.3	334.5	346.7	358.9	367.0
62.5°	244.2	253.7	263.3	272.8	282.4	293.2	305.4	317.5	329.8	342.0	350.6
65°	213.6	224.0	234.6	245.1	255.5	267.0	279.7	292.3	304.9	317.5	326.3
67.5°	185.5	196.4	207.5	218.4	229.3	241.2	254.1	267.0	279.9	292.8	301.7
70°	165.5	176.6	187.8	198.9	210.0	222.2	235.4	248.6	261.9	275.2	284.4
72.5°	147.0	158.4	169.9	181.4	192.8	205.3	218.8	232.1	245.6	259.0	268.1
75°	118.4	130.4	142.3	154.3	166.3	179.1	192.7	206.4	220.1	233.8	243.0
77.5°	90.7	103.2	115.7	128.2	140.7	154.0	167.9	181.8	195.7	209.5	218.8
80°	72.2	85.2	98.2	111.3	124.3	137.8	151.7	165.6	179.5	193.4	202.4
82.5°	56.7	69.7	82.5	95.4	108.3	121.7	135.8	149.9	163.9	178.0	187.0
85°	34.7	47.9	61.2	74.4	87.7	101.1	114.8	128.5	142.2	155.9	164.9
87.5°	18.9	32.0	45.2	58.2	71.2	84.6	98.9	113.3	127.6	141.5	150.1
90°	10.2	24.1	38.7	52.2	65.7	80.3	96.7	114.1	131.1	145.2	153.3
92.5°	15.4	29.9	45.2	59.2	74.4	91.8	117.2	147.4	175.8	189.9	187.5
95°	26.5	38.7	54.1	69.0	87.7	112.0	149.6	209.2	284.4	321.4	303.1
97.5°	37.4	49.2	63.8	80.1	99.0	124.1	167.6	245.1	361.0	462.1	487.7
100°	48.2	57.7	70.4	86.9	105.6	130.5	171.1	248.5	376.6	520.8	606.1
102.5°	57.2	65.7	77.8	93.5	112.0	136.5	174.4	244.3	363.4	517.6	647.1
105°	70.4	78.7	88.7	102.9	121.0	144.7	181.1	240.1	339.9	481.1	631.5
107.5°	85.7	92.4	100.9	113.4	130.1	153.0	188.1	240.5	324.5	442.6	576.2
110°	95.2	101.7	109.1	120.5	136.0	158.9	193.0	242.2	318.3	423.4	541.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	104.7	110.5	117.7	127.8	142.3	165.0	197.8	244.3	313.9	408.5	515.5
115°	119.4	124.4	130.1	138.8	151.9	172.4	205.2	247.6	309.3	391.0	482.3
117.5°	133.7	137.4	142.1	149.4	161.3	181.5	211.8	251.5	306.0	378.1	458.3
120°	143.2	146.2	150.2	156.0	167.6	187.3	216.9	254.4	304.3	370.4	444.7
122.5°	152.2	154.3	157.9	163.4	174.6	194.3	222.0	256.8	303.2	364.1	432.5
125°	163.2	164.8	168.1	174.5	185.2	203.7	229.9	260.9	301.0	353.1	414.2
127.5°	172.7	174.6	178.9	185.8	195.9	214.0	238.4	265.5	300.1	344.3	397.2
130°	178.2	180.2	185.3	192.7	203.2	220.4	243.6	268.6	299.9	338.8	385.9
132.5°	183.4	185.8	191.3	199.1	210.1	226.8	248.2	271.6	299.8	333.8	376.0
135°	190.2	192.3	198.8	206.8	219.2	235.4	254.7	275.6	299.3	327.2	362.3
137.5°	197.5	200.0	206.4	215.0	227.2	241.6	259.6	278.1	298.5	321.5	351.1
140°	203.0	205.0	211.2	219.6	231.2	245.3	261.8	279.0	297.7	318.0	344.5
142.5°	208.7	210.2	215.9	224.3	235.5	248.5	264.4	280.7	297.7	316.4	339.3
145°	216.1	218.2	223.6	231.7	242.4	254.2	268.7	283.8	298.9	315.0	333.5
147.5°	225.1	226.7	231.9	239.3	248.3	258.7	272.4	285.7	299.3	313.0	328.3
150°	231.1	232.7	237.0	244.0	252.1	261.7	274.1	286.5	298.9	311.8	324.7
152.5°	237.1	237.9	242.2	248.4	256.0	264.8	275.9	286.9	298.0	309.6	321.7
155°	245.6	246.2	249.4	255.3	261.3	269.3	278.4	287.6	296.7	305.9	316.0
157.5°	252.7	253.3	255.9	261.0	265.8	272.5	280.2	287.6	294.3	302.0	310.8
160°	257.5	258.0	260.1	264.5	268.7	274.7	281.2	287.6	292.9	299.4	306.9
162.5°	262.2	261.8	264.0	267.5	271.4	276.0	281.5	287.1	291.6	297.3	303.5
165°	267.7	267.1	268.2	271.5	274.1	277.4	282.2	286.0	289.2	292.9	297.7
167.5°	272.2	271.5	272.5	274.6	276.5	278.5	282.1	285.2	286.7	289.2	292.2
170°	275.2	274.1	274.7	276.3	277.4	279.0	281.6	284.4	285.4	287.0	289.2
172.5°	276.9	276.3	276.0	277.6	278.2	279.4	281.3	283.0	283.7	284.5	286.2
175°	279.0	278.4	277.9	279.0	279.0	279.5	280.6	281.6	281.2	281.6	282.2
177.5°	279.9	279.1	278.6	279.5	279.5	279.5	279.9	280.8	279.9	279.5	279.9
180°	279.5	279.5	279.5	279.5	279.5	279.5	279.5	279.5	279.5	279.5	279.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
2.5°	661.8	662.6	663.5	663.7	663.4	663.1	662.7	662.4
5°	659.8	661.0	662.3	662.9	662.6	662.4	662.2	661.9
7.5°	656.6	658.2	659.7	660.3	660.2	659.9	659.7	659.5
10°	653.8	655.5	657.3	658.0	657.8	657.6	657.4	657.1
12.5°	649.2	650.9	652.7	653.4	653.2	653.0	652.8	652.5
15°	640.8	642.7	644.7	645.5	645.4	645.1	644.9	644.7
17.5°	630.0	632.1	634.0	635.1	635.1	635.1	635.1	635.1
20°	621.5	623.9	626.1	627.4	627.4	627.4	627.4	627.4
22.5°	612.3	614.6	616.9	618.3	618.6	619.0	619.3	619.6
25°	597.9	600.4	602.9	604.5	605.2	605.9	606.5	607.2
27.5°	581.9	585.1	588.4	590.2	590.7	591.2	591.6	592.1
30°	570.7	574.1	577.5	579.6	580.2	580.9	581.5	582.1
32.5°	558.6	562.6	566.5	569.0	570.2	571.4	572.5	573.6
35°	541.5	546.2	550.9	554.0	555.5	557.0	558.5	560.0
37.5°	523.9	529.0	534.3	537.7	539.3	540.8	542.4	544.0
40°	511.4	517.0	522.5	526.3	528.2	530.2	532.1	534.0
42.5°	499.4	505.5	511.5	515.6	517.5	519.4	521.3	523.2
45°	480.9	487.5	494.2	498.5	500.7	502.8	504.9	507.1
47.5°	461.7	468.6	475.5	480.1	482.5	484.8	487.2	489.6
50°	448.5	455.7	463.1	467.9	470.2	472.6	474.9	477.2
52.5°	434.2	441.7	449.1	454.1	456.6	459.1	461.7	464.2
55°	412.7	420.5	428.2	433.4	436.2	438.9	441.8	444.5
57.5°	390.1	398.4	406.7	412.3	415.1	417.9	420.8	423.6
60°	375.1	383.2	391.4	397.0	399.9	402.9	406.0	409.0
62.5°	359.2	367.9	376.5	382.3	385.0	387.9	390.7	393.5
65°	335.1	343.8	352.6	358.4	361.2	363.9	366.7	369.5
67.5°	310.6	319.4	328.3	334.2	337.1	340.0	342.9	345.8
70°	293.6	302.7	312.0	317.8	320.4	323.0	325.6	328.1
72.5°	277.1	286.1	295.1	301.1	304.3	307.4	310.4	313.5
75°	252.2	261.4	270.6	276.5	279.4	282.1	284.9	287.7
77.5°	227.9	237.0	246.2	252.2	255.2	258.3	261.2	264.2
80°	211.3	220.4	229.3	235.4	238.3	241.3	244.3	247.3
82.5°	196.0	204.9	214.0	219.8	222.6	225.5	228.3	231.1
85°	173.8	182.9	191.8	197.7	200.8	203.8	206.8	209.7
87.5°	158.6	167.2	176.2	182.0	184.7	187.5	190.2	192.9
90°	161.4	168.8	178.4	184.5	187.1	189.6	192.2	194.8
92.5°	183.7	185.4	189.3	191.4	193.6	194.4	197.5	199.2
95°	267.8	243.1	228.7	222.2	217.7	215.9	217.0	220.1
97.5°	446.9	395.0	344.7	311.1	287.9	277.3	271.9	269.9
100°	602.8	544.0	478.3	418.4	376.2	355.4	342.1	334.8
102.5°	703.3	696.0	649.9	586.0	539.9	502.8	485.7	474.9
105°	750.8	819.1	833.5	820.7	789.7	758.7	738.0	732.8
107.5°	701.9	800.6	863.7	894.5	901.0	901.5	899.3	891.6
110°	661.8	764.8	840.5	889.1	914.6	927.2	934.3	936.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	624.5	723.8	804.1	859.2	893.7	913.1	924.6	929.9
115°	577.4	666.7	743.5	803.2	843.8	870.8	887.1	894.3
117.5°	539.9	619.0	689.1	745.3	786.4	814.7	831.6	837.8
120°	520.0	592.7	655.6	708.7	748.7	776.3	794.2	801.9
122.5°	503.4	570.3	630.1	678.2	714.0	740.8	756.7	763.2
125°	478.6	539.7	592.8	637.0	670.1	692.4	707.8	714.0
127.5°	454.0	509.4	559.4	600.1	629.2	650.3	663.7	669.0
130°	438.4	489.7	537.2	576.2	604.3	624.2	636.7	642.7
132.5°	423.0	470.8	514.8	551.5	579.1	599.1	610.7	616.2
135°	401.7	441.7	481.6	514.9	539.7	559.1	570.5	574.4
137.5°	383.5	417.2	449.2	478.2	500.7	517.5	527.4	532.1
140°	372.1	401.3	429.5	455.5	474.0	489.3	498.6	503.1
142.5°	363.2	387.9	411.9	433.6	451.0	464.9	473.2	474.9
145°	351.4	370.4	388.4	405.1	419.1	429.3	435.7	438.5
147.5°	342.6	356.8	369.9	381.7	392.9	400.7	404.8	406.3
150°	337.5	349.4	360.7	370.3	378.4	384.8	388.0	388.6
152.5°	332.8	343.8	353.4	361.7	368.1	373.7	376.1	376.2
155°	326.3	334.9	342.9	348.8	354.8	358.5	360.7	359.6
157.5°	318.7	325.8	332.6	337.2	341.4	344.6	345.5	345.5
160°	313.9	319.8	325.7	329.5	333.3	335.9	336.5	336.5
162.5°	309.2	314.2	319.3	322.2	325.9	327.8	328.3	327.9
165°	302.1	305.9	309.6	311.8	313.9	316.0	316.0	315.6
167.5°	295.3	298.2	300.8	302.7	303.7	304.9	304.8	304.2
170°	291.9	293.5	295.7	296.7	297.3	298.9	298.3	297.3
172.5°	288.0	289.2	290.9	291.5	292.1	292.8	292.3	291.6
175°	283.8	284.4	284.9	285.4	285.4	286.0	285.4	284.4
177.5°	280.8	280.8	281.3	281.3	281.3	281.3	280.8	279.9
180°	279.5	279.5	279.5	279.5	279.5	279.5	279.5	279.5

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