

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: P331343-927

Luminaire Tested: **SA2XXDIP-C675D530U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331343-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C675D530U927-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3627.8 lumens
Efficiency: N/A
Efficacy: 90.0 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

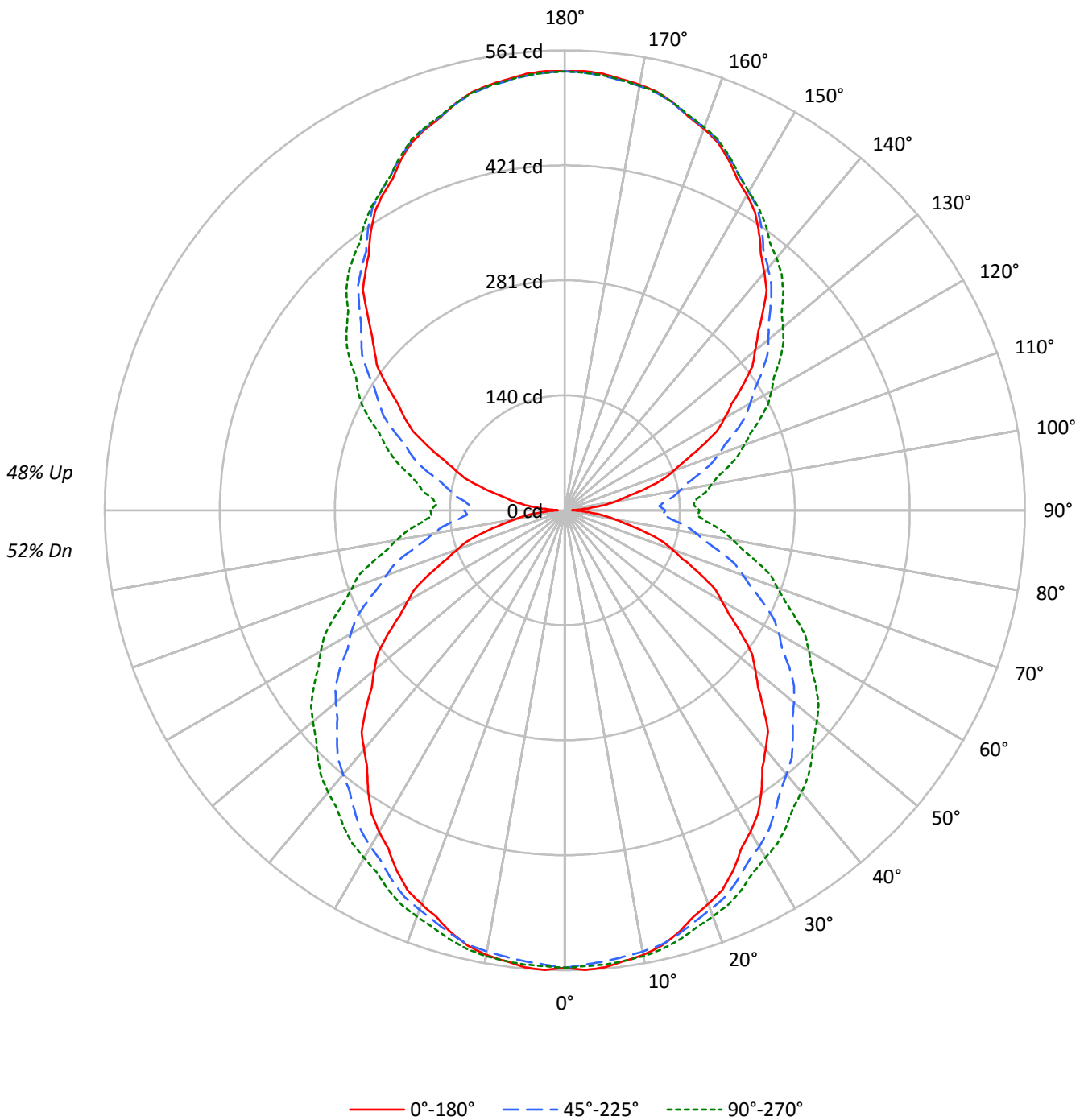
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	58	58	58	52
1	97	92	87	83	89	85	81	77	72	69	66	60	58	56	49	47	46	41
2	87	79	72	67	80	73	67	62	62	57	54	52	48	45	42	40	37	33
3	79	69	61	55	73	64	57	51	54	49	44	45	41	38	37	34	31	27
4	72	61	52	46	66	56	49	43	48	42	37	40	35	32	33	29	26	23
5	66	54	45	39	61	50	42	37	43	37	32	36	31	27	29	26	23	20
6	61	48	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17
7	56	43	35	29	52	40	33	28	35	29	24	29	24	21	24	20	18	15
8	52	39	31	26	48	37	29	24	31	26	21	27	22	18	22	18	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	17	20	17	14	12
10	45	33	25	20	42	31	24	19	26	21	17	23	18	15	19	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9009	9009	9009
5°	9053	8672	8638
10°	8996	8417	8321
15°	8873	8146	7988
20°	8716	7854	7665
25°	8561	7573	7372
30°	8343	7286	7079
35°	8122	7007	6870
40°	7890	6771	6665
45°	7670	6558	6488
50°	7431	6366	6313
55°	7184	6161	6135
60°	6882	5948	5948
65°	6564	5697	5724
70°	6211	5427	5485
75°	5759	5163	5263
80°	5048	4895	5040
85°	4369	4658	4864



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	1.5
10°-20°	151.6	4.2
20°-30°	229.8	6.3
30°-40°	279.8	7.7
40°-50°	301.1	8.3
50°-60°	292.4	8.1
60°-70°	255.3	7.0
70°-80°	196.5	5.4
80°-90°	134.0	3.7
90°-100°	124.8	3.4
100°-110°	171.7	4.7
110°-120°	223.9	6.2
120°-130°	261.3	7.2
130°-140°	276.1	7.6
140°-150°	262.4	7.2
150°-160°	218.6	6.0
160°-170°	145.0	4.0
170°-180°	50.7	1.4
0°-30°	434.3	12.0
0°-40°	714.1	19.7
0°-60°	1307.5	36.0
0°-90°	1893.4	52.2
90°-120°	520.4	14.3
90°-150°	1320.1	36.4
90°-180°	1734.0	47.8
0°-180°	3627.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	560	557	552	557	556	53
15°	534	535	535	542	542	150
25°	485	491	498	507	510	223
35°	418	432	447	464	471	261
45°	343	365	393	417	426	265
55°	263	293	334	362	374	235
65°	180	220	267	299	310	178
75°	100	145	196	230	242	105
85°	29	79	131	164	176	31
90°	9	61	123	153	164	7
95°	30	73	122	151	161	32
105°	101	127	169	197	207	107
115°	184	197	231	254	262	182
125°	264	270	293	313	320	237
135°	341	346	355	371	377	264
145°	413	416	419	424	426	258
155°	472	473	475	477	476	217
165°	514	513	513	516	514	145
175°	534	533	532	535	533	51
180°	535	535	535	535	535	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	561.3	560.8	560.4	559.9	559.5	558.8	557.8	556.7	555.8	554.8	555.5
5°	559.6	559.0	558.6	558.0	557.5	556.7	555.6	554.5	553.4	552.3	553.4
7.5°	554.6	554.2	553.9	553.5	553.2	552.5	551.8	550.9	550.1	549.3	550.6
10°	550.7	550.3	550.0	549.6	549.3	548.8	548.3	547.8	547.2	546.7	548.1
12.5°	544.2	544.3	544.4	544.5	544.5	544.4	544.0	543.6	543.2	542.8	544.2
15°	533.8	534.1	534.5	534.8	535.2	535.4	535.4	535.4	535.4	535.4	536.9
17.5°	520.1	520.9	521.7	522.4	523.2	523.9	524.4	525.0	525.5	526.2	527.8
20°	511.1	512.0	512.9	513.8	514.7	515.5	516.2	517.0	517.7	518.4	520.4
22.5°	501.4	502.4	503.5	504.5	505.6	506.6	507.6	508.6	509.6	510.6	512.6
25°	485.2	486.5	487.7	489.0	490.3	491.7	493.3	495.0	496.5	498.1	500.3
27.5°	465.8	467.9	469.9	472.0	474.0	476.0	477.9	479.8	481.7	483.6	486.3
30°	452.9	455.2	457.6	459.9	462.2	464.5	466.9	469.2	471.6	473.9	476.7
32.5°	438.6	441.2	443.9	446.5	449.2	451.9	454.6	457.3	460.1	462.9	466.2
35°	418.1	421.1	424.2	427.2	430.3	433.6	437.0	440.4	443.8	447.2	451.1
37.5°	395.8	399.3	402.8	406.3	409.9	413.8	418.3	422.7	427.1	431.5	435.9
40°	380.9	384.8	388.8	392.8	396.7	401.1	406.0	410.8	415.7	420.5	425.2
42.5°	366.7	370.6	374.5	378.5	382.5	387.2	392.8	398.4	403.9	409.6	414.6
45°	342.9	347.8	352.6	357.4	362.3	367.9	374.1	380.5	386.7	393.0	398.6
47.5°	319.4	324.7	330.0	335.3	340.6	346.9	354.3	361.6	369.0	376.4	382.2
50°	303.2	308.9	314.4	320.0	325.5	332.4	340.5	348.6	356.6	364.7	370.8
52.5°	287.7	293.6	299.4	305.3	311.2	318.4	326.9	335.4	343.9	352.4	358.7
55°	262.8	269.3	275.8	282.3	288.7	296.6	305.9	315.3	324.6	334.0	340.5
57.5°	238.2	245.6	252.9	260.2	267.4	275.8	285.3	294.9	304.4	313.9	320.9
60°	220.8	228.5	236.2	244.0	251.7	260.7	270.9	281.1	291.4	301.7	308.5
62.5°	205.3	213.3	221.3	229.3	237.3	246.4	256.7	266.9	277.2	287.4	294.7
65°	179.5	188.3	197.2	206.0	214.8	224.4	235.0	245.7	256.3	266.9	274.3
67.5°	155.9	165.1	174.4	183.5	192.7	202.7	213.6	224.4	235.3	246.1	253.6
70°	139.1	148.5	157.8	167.2	176.5	186.7	197.9	209.0	220.1	231.3	239.0
72.5°	123.6	133.2	142.8	152.5	162.1	172.5	183.9	195.1	206.4	217.7	225.3
75°	99.5	109.6	119.6	129.7	139.7	150.5	162.0	173.5	185.0	196.5	204.2
77.5°	76.2	86.7	97.3	107.7	118.3	129.4	141.1	152.8	164.5	176.1	183.9
80°	60.7	71.6	82.5	93.6	104.5	115.8	127.5	139.2	150.8	162.6	170.1
82.5°	47.7	58.5	69.3	80.2	91.0	102.3	114.2	126.0	137.8	149.6	157.2
85°	29.2	40.2	51.4	62.5	73.7	85.0	96.5	108.0	119.5	131.0	138.6
87.5°	15.9	26.9	37.9	48.8	59.7	71.2	83.1	95.1	107.0	119.0	126.3
90°	8.6	20.2	31.8	43.4	55.1	67.7	81.4	95.1	108.8	122.6	129.5
92.5°	15.4	26.1	36.7	47.2	57.8	68.9	80.5	92.1	103.7	115.3	122.4
95°	29.9	39.4	48.9	58.3	67.7	78.0	89.0	100.0	110.9	121.9	128.7
97.5°	48.6	57.0	65.4	73.8	82.1	91.7	102.4	113.2	123.9	134.7	141.3
100°	63.1	70.5	78.0	85.4	92.8	101.7	112.1	122.5	132.8	143.2	149.9
102.5°	77.6	84.3	91.0	97.7	104.4	112.9	123.0	133.2	143.3	153.5	160.1
105°	101.2	106.7	112.2	117.7	123.2	130.7	140.3	149.8	159.4	168.9	175.4
107.5°	125.8	130.4	135.0	139.6	144.2	151.0	159.9	168.9	177.8	186.8	192.9
110°	141.0	145.2	149.4	153.6	157.8	164.3	173.1	181.9	190.8	199.6	205.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	158.4	162.0	165.6	169.2	172.9	178.8	187.1	195.4	203.7	212.0	217.5
115°	183.9	186.5	189.1	191.6	194.2	199.5	207.4	215.2	223.2	231.0	236.3
117.5°	208.6	210.7	212.8	214.9	217.0	221.5	228.4	235.4	242.2	249.1	254.2
120°	225.6	227.1	228.6	230.1	231.6	235.6	242.0	248.4	254.8	261.2	266.2
122.5°	241.1	242.4	243.6	244.9	246.1	249.9	256.0	262.2	268.5	274.6	279.2
125°	264.5	265.5	266.3	267.2	268.2	271.3	276.8	282.3	287.6	293.1	297.7
127.5°	288.1	289.1	290.0	291.0	292.0	294.6	298.9	303.2	307.4	311.7	315.8
130°	302.9	304.0	305.1	306.3	307.4	309.7	313.4	317.0	320.5	324.1	328.2
132.5°	319.6	320.4	321.3	322.2	323.1	325.0	328.0	330.9	333.8	336.8	340.6
135°	341.0	342.1	343.2	344.3	345.4	346.9	349.0	350.9	352.9	354.9	358.6
137.5°	364.4	365.2	366.1	366.9	367.8	368.8	369.9	370.9	371.9	373.0	376.2
140°	378.4	379.2	379.9	380.6	381.4	382.1	383.0	383.9	384.8	385.6	388.5
142.5°	392.9	393.6	394.3	395.1	395.8	396.4	396.8	397.2	397.6	398.1	400.4
145°	412.9	413.6	414.3	415.0	415.7	416.4	416.9	417.6	418.2	418.7	419.9
147.5°	431.4	432.2	433.1	434.0	434.7	435.4	435.8	436.2	436.6	437.0	437.4
150°	444.1	444.7	445.3	445.8	446.5	446.9	447.3	447.7	448.1	448.6	448.9
152.5°	455.3	455.9	456.5	457.1	457.6	458.2	458.7	459.1	459.6	460.2	460.5
155°	472.1	472.4	472.7	472.9	473.2	473.6	473.9	474.2	474.4	474.8	475.3
157.5°	486.4	486.6	486.8	487.0	487.3	487.4	487.6	487.8	488.0	488.1	488.9
160°	495.1	495.3	495.5	495.7	495.9	496.1	496.1	496.2	496.4	496.5	497.1
162.5°	503.0	503.1	503.1	503.2	503.2	503.3	503.4	503.5	503.6	503.7	504.4
165°	513.7	513.5	513.4	513.3	513.3	513.2	513.2	513.2	513.2	513.2	513.9
167.5°	522.4	522.2	521.9	521.6	521.3	521.1	521.1	521.1	521.0	521.0	521.7
170°	527.2	526.9	526.6	526.2	526.0	525.8	525.7	525.5	525.5	525.4	526.1
172.5°	530.4	530.1	529.8	529.5	529.3	529.0	528.9	528.9	528.7	528.6	529.3
175°	534.4	534.1	533.8	533.5	533.2	533.0	532.7	532.6	532.3	532.1	532.8
177.5°	536.1	535.8	535.5	535.3	535.0	534.9	534.7	534.6	534.4	534.2	534.7
180°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	556.2	556.9	557.6	557.9	557.5	557.3	557.0	556.7
5°	554.5	555.6	556.7	557.1	556.9	556.7	556.6	556.3
7.5°	551.8	553.2	554.4	555.0	554.8	554.6	554.4	554.3
10°	549.5	551.0	552.5	553.0	552.9	552.7	552.5	552.3
12.5°	545.7	547.1	548.6	549.1	549.0	548.8	548.7	548.4
15°	538.6	540.2	541.9	542.6	542.4	542.2	542.0	541.9
17.5°	529.5	531.2	532.9	533.8	533.8	533.8	533.8	533.8
20°	522.4	524.3	526.2	527.3	527.3	527.3	527.3	527.3
22.5°	514.6	516.6	518.5	519.7	519.9	520.2	520.5	520.8
25°	502.5	504.6	506.8	508.1	508.7	509.2	509.8	510.3
27.5°	489.1	491.8	494.6	496.1	496.5	496.9	497.3	497.6
30°	479.7	482.5	485.4	487.1	487.7	488.2	488.7	489.3
32.5°	469.5	472.9	476.1	478.2	479.3	480.2	481.2	482.1
35°	455.1	459.1	463.0	465.6	466.9	468.2	469.4	470.6
37.5°	440.3	444.7	449.1	451.9	453.3	454.6	455.9	457.2
40°	429.8	434.5	439.2	442.4	443.9	445.6	447.2	448.9
42.5°	419.7	424.8	429.9	433.3	434.9	436.6	438.2	439.7
45°	404.2	409.7	415.3	419.0	420.8	422.6	424.4	426.2
47.5°	388.0	393.9	399.7	403.5	405.5	407.5	409.5	411.5
50°	376.9	383.0	389.2	393.2	395.2	397.2	399.1	401.1
52.5°	365.0	371.2	377.5	381.7	383.7	385.9	388.0	390.1
55°	346.9	353.4	359.9	364.2	366.6	368.9	371.3	373.6
57.5°	327.9	334.9	341.8	346.5	348.9	351.3	353.6	356.0
60°	315.3	322.1	329.0	333.7	336.1	338.7	341.2	343.7
62.5°	301.9	309.2	316.5	321.3	323.6	326.0	328.4	330.7
65°	281.6	289.0	296.4	301.2	303.6	305.9	308.2	310.5
67.5°	261.0	268.5	275.9	280.9	283.3	285.7	288.2	290.7
70°	246.8	254.4	262.2	267.1	269.3	271.5	273.6	275.8
72.5°	232.9	240.4	248.0	253.1	255.7	258.3	260.9	263.5
75°	212.0	219.7	227.4	232.4	234.8	237.1	239.5	241.8
77.5°	191.5	199.2	206.9	212.0	214.5	217.1	219.5	222.0
80°	177.6	185.2	192.7	197.8	200.3	202.8	205.3	207.9
82.5°	164.7	172.2	179.8	184.7	187.1	189.5	191.9	194.2
85°	146.1	153.7	161.2	166.2	168.7	171.3	173.8	176.3
87.5°	133.6	140.9	148.1	153.0	155.3	157.6	159.9	162.2
90°	136.6	143.5	150.5	155.1	157.4	159.6	161.9	164.1
92.5°	129.4	136.6	143.6	148.3	150.4	152.7	154.8	156.9
95°	135.5	142.4	149.2	153.6	155.6	157.6	159.5	161.4
97.5°	148.0	154.6	161.3	165.6	167.7	169.8	171.9	174.0
100°	156.5	163.2	169.8	174.0	175.9	177.8	179.7	181.6
102.5°	166.7	173.3	179.8	184.1	185.9	187.8	189.7	191.5
105°	181.9	188.4	194.9	199.2	201.1	203.1	205.1	207.0
107.5°	199.0	205.2	211.3	215.1	216.6	218.1	219.6	221.1
110°	211.0	216.7	222.5	226.2	227.9	229.6	231.2	233.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	223.0	228.5	234.0	237.7	239.4	241.1	242.9	244.7
115°	241.6	246.9	252.2	255.6	257.4	259.0	260.7	262.4
117.5°	259.3	264.4	269.5	272.7	274.3	275.8	277.3	278.9
120°	271.2	276.2	281.3	284.6	286.3	288.0	289.7	291.4
122.5°	283.9	288.6	293.2	296.3	297.8	299.2	300.7	302.1
125°	302.2	306.7	311.3	314.3	315.8	317.4	318.9	320.4
127.5°	319.9	324.0	328.0	330.7	332.0	333.3	334.5	335.8
130°	332.3	336.4	340.5	343.1	344.1	345.2	346.2	347.2
132.5°	344.3	348.0	351.7	354.1	355.3	356.4	357.5	358.6
135°	362.3	365.9	369.6	372.0	373.2	374.3	375.4	376.6
137.5°	379.5	382.7	385.9	387.9	388.7	389.6	390.4	391.2
140°	391.3	394.2	397.1	398.9	399.6	400.2	400.9	401.6
142.5°	402.8	405.2	407.6	409.0	409.6	410.1	410.6	411.1
145°	421.1	422.3	423.5	424.3	424.8	425.3	425.8	426.3
147.5°	437.8	438.1	438.5	438.7	438.7	438.8	438.8	438.9
150°	449.2	449.5	449.8	449.8	449.5	449.2	448.9	448.6
152.5°	460.9	461.3	461.7	461.7	461.3	460.9	460.5	460.2
155°	475.8	476.3	476.8	476.9	476.6	476.3	475.9	475.7
157.5°	489.5	490.2	490.9	491.0	490.5	490.0	489.6	489.0
160°	497.6	498.3	498.8	499.0	498.6	498.2	497.7	497.3
162.5°	505.0	505.7	506.4	506.5	506.0	505.6	505.1	504.6
165°	514.6	515.3	515.9	516.1	515.6	515.1	514.6	514.0
167.5°	522.4	523.2	523.9	523.9	523.4	522.9	522.4	521.8
170°	526.8	527.5	528.1	528.2	527.6	527.0	526.4	525.9
172.5°	530.0	530.8	531.4	531.5	530.9	530.3	529.7	529.1
175°	533.5	534.2	535.0	535.0	534.4	533.8	533.2	532.6
177.5°	535.2	535.7	536.1	536.1	535.7	535.2	534.7	534.2
180°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3

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