

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: P331807-935

Luminaire Tested: **S122RDIW-S675D435U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331807-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122RDIW-S675D435U935-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 435 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3489.3 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

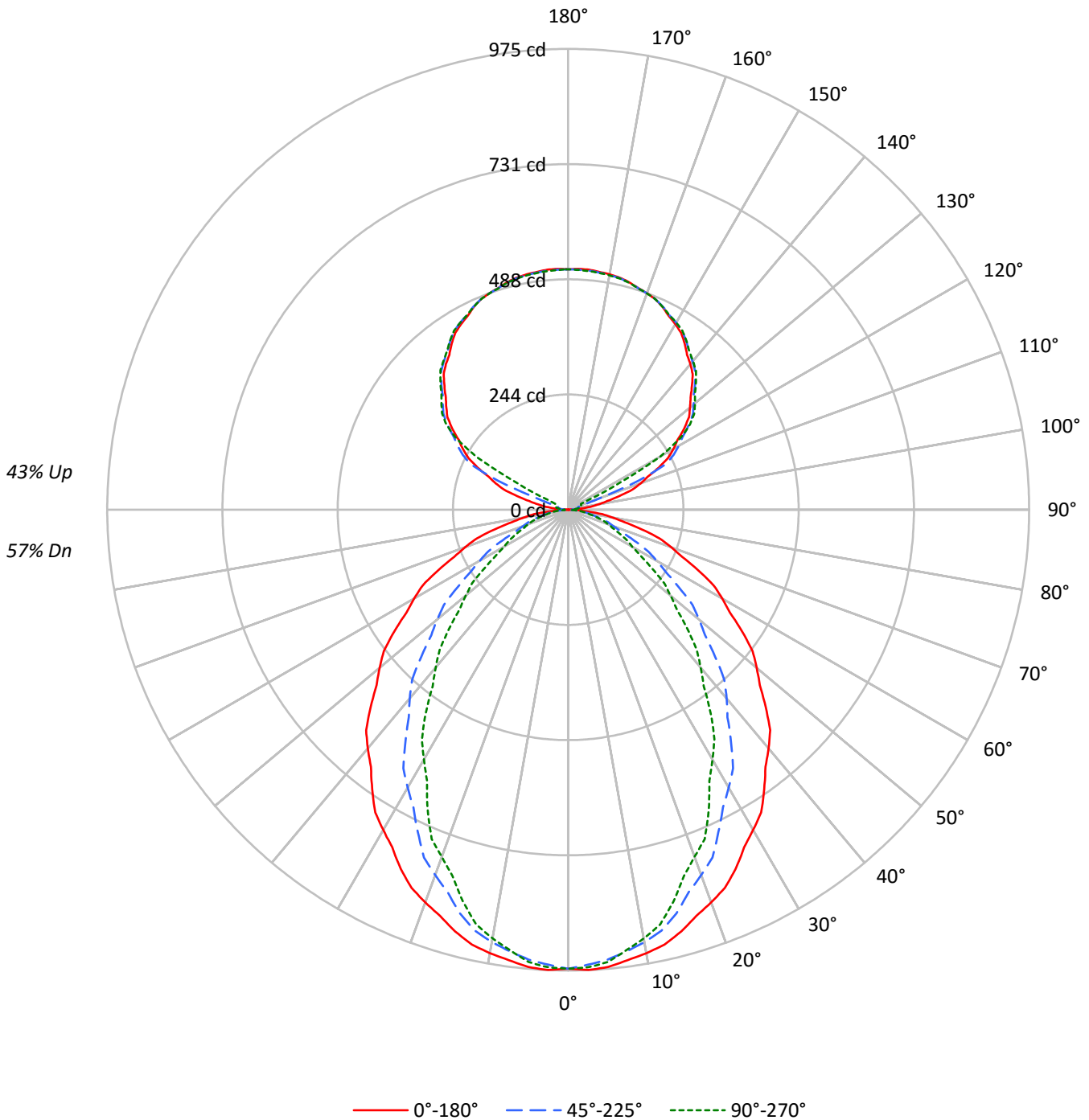
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	109	101	101	101	101	87	87	87	75	75	75	63	63	63	57
1	100	96	92	89	93	89	86	83	77	75	73	66	65	63	56	55	54	49
2	91	84	78	73	85	79	74	69	69	65	61	59	56	54	50	48	46	42
3	84	75	67	62	78	70	64	59	61	56	52	53	49	46	45	42	40	36
4	77	66	59	53	72	62	55	50	55	49	45	47	43	40	41	38	35	32
5	71	60	52	46	66	56	49	44	49	44	39	43	38	35	37	34	31	28
6	66	54	46	40	61	50	43	38	45	39	35	39	34	31	34	30	28	25
7	61	49	41	35	57	46	39	34	41	35	31	36	31	28	31	27	25	22
8	57	44	37	31	53	42	35	30	37	32	27	33	28	25	29	25	22	20
9	53	41	33	28	49	38	32	27	34	29	25	30	26	23	26	23	20	18
10	49	37	30	26	46	35	29	25	32	26	23	28	24	21	25	21	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15681	15681	15681
5°	15741	15486	15571
10°	15621	15231	15101
15°	15442	14780	14355
20°	15192	14136	13426
25°	14938	13402	12527
30°	14585	12652	11373
35°	14241	11832	10360
40°	13894	10985	9187
45°	13486	10035	8127
50°	13069	9075	7086
55°	12645	8042	6086
60°	12148	6952	5050
65°	11584	5841	4604
70°	10914	4810	4230
75°	10087	4386	3949
80°	8908	3924	3598
85°	7003	3094	3094



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.9	2.6
10°-20°	249.6	7.2
20°-30°	350.5	10.0
30°-40°	382.2	11.0
40°-50°	351.5	10.1
50°-60°	276.0	7.9
60°-70°	180.0	5.2
70°-80°	92.8	2.7
80°-90°	25.3	0.7
90°-100°	17.0	0.5
100°-110°	62.2	1.8
110°-120°	166.3	4.8
120°-130°	274.5	7.9
130°-140°	291.9	8.4
140°-150°	271.3	7.8
150°-160°	218.2	6.3
160°-170°	140.6	4.0
170°-180°	48.4	1.4
0°-30°	691.1	19.8
0°-40°	1073.3	30.8
0°-60°	1700.8	48.7
0°-90°	1998.9	57.3
90°-120°	245.5	7.0
90°-150°	1083.3	31.0
90°-180°	1490.0	42.7
0°-180°	3489.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	971	971	971	971	971	
5°	971	966	956	963	961	92
15°	924	913	884	868	859	260
25°	838	809	752	718	703	385
35°	722	676	600	547	526	452
45°	591	530	440	379	356	456
55°	449	379	286	235	216	401
65°	303	232	153	125	120	300
75°	162	102	70	64	63	171
85°	38	20	17	17	17	45
90°	0	4	7	9	10	3
95°	24	13	14	16	16	29
105°	112	117	22	26	28	120
115°	212	218	227	65	30	208
125°	299	304	311	313	315	267
135°	370	376	379	383	382	286
145°	430	429	435	438	436	269
155°	473	470	474	476	473	218
165°	498	496	497	500	497	141
175°	510	507	508	510	507	48
180°	509	509	509	509	509	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	971.2	971.2	971.2	971.2	971.2	971.2	971.2	971.2	971.2	971.2	971.2
2.5°	974.7	974.0	973.2	972.4	971.6	970.3	968.6	966.9	965.3	963.5	965.1
5°	971.2	970.3	969.3	968.3	967.3	965.6	963.0	960.5	957.9	955.5	957.2
7.5°	961.2	960.0	958.8	957.6	956.4	954.2	951.3	948.4	945.4	942.5	942.9
10°	952.8	951.4	950.0	948.6	947.3	944.7	940.7	936.9	933.0	929.0	928.5
12.5°	942.2	940.6	938.8	937.2	935.5	932.2	927.2	922.2	917.1	912.1	911.1
15°	923.8	921.6	919.5	917.3	915.2	910.8	904.1	897.5	890.9	884.2	880.5
17.5°	901.1	897.9	894.6	891.2	887.9	882.1	873.6	865.0	856.5	848.0	843.6
20°	884.2	880.3	876.4	872.5	868.6	861.8	852.0	842.2	832.5	822.7	817.8
22.5°	865.9	861.6	857.2	852.8	848.4	840.8	829.7	818.7	807.7	796.7	790.4
25°	838.5	832.2	826.0	819.8	813.6	803.9	791.1	778.2	765.3	752.3	744.3
27.5°	805.5	798.7	791.9	785.1	778.3	767.6	753.1	738.6	724.0	709.5	700.2
30°	782.3	774.8	767.4	760.0	752.6	741.1	725.4	709.8	694.1	678.6	668.6
32.5°	759.7	751.1	742.4	733.7	725.0	712.7	696.8	680.9	665.0	649.0	637.7
35°	722.5	712.6	702.6	692.6	682.7	669.1	651.9	634.7	617.5	600.3	588.0
37.5°	685.3	674.2	663.3	652.4	641.4	626.8	608.6	590.2	571.9	553.5	540.0
40°	659.2	647.5	635.8	624.1	612.3	597.0	578.1	559.1	540.2	521.2	507.4
42.5°	632.5	620.2	607.8	595.5	583.2	567.1	547.6	528.1	508.4	488.9	474.5
45°	590.6	577.6	564.5	551.4	538.3	521.5	501.0	480.5	459.9	439.5	425.6
47.5°	549.8	536.0	522.1	508.2	494.4	476.9	455.7	434.5	413.4	392.2	378.4
50°	520.3	506.4	492.6	478.7	464.9	447.2	425.7	404.2	382.7	361.3	347.8
52.5°	491.5	477.0	462.5	448.1	433.5	415.8	394.8	373.8	352.8	331.7	318.7
55°	449.2	433.9	418.7	403.5	388.2	370.1	349.0	327.9	306.8	285.7	274.0
57.5°	405.7	390.1	374.4	358.9	343.2	325.3	305.0	284.7	264.4	244.2	233.4
60°	376.2	360.6	344.9	329.3	313.7	295.8	275.7	255.5	235.5	215.3	205.3
62.5°	347.3	331.7	316.1	300.5	284.8	267.4	248.3	229.1	209.9	190.7	181.2
65°	303.2	287.4	271.6	255.8	240.0	223.3	205.7	188.1	170.5	152.9	146.3
67.5°	260.7	245.0	229.3	213.6	197.9	182.1	166.3	150.5	134.7	118.8	115.8
70°	231.2	215.9	200.7	185.5	170.2	155.8	142.4	128.9	115.5	101.9	100.0
72.5°	203.0	188.4	173.8	159.2	144.6	131.9	121.1	110.2	99.4	88.6	87.0
75°	161.7	148.1	134.4	120.7	107.0	96.9	90.2	83.6	77.0	70.3	69.0
77.5°	121.1	109.1	97.1	85.2	73.2	65.5	62.3	59.2	56.0	52.8	51.9
80°	95.8	85.8	75.9	66.0	56.0	50.0	48.0	46.1	44.2	42.2	41.4
82.5°	72.6	64.8	57.1	49.2	41.5	36.9	35.6	34.3	33.0	31.7	31.2
85°	37.8	33.7	29.6	25.5	21.4	19.0	18.4	17.9	17.3	16.7	16.7
87.5°	11.4	10.2	9.2	8.1	7.1	6.5	6.7	6.8	7.0	7.1	7.1
90°	0.3	1.3	2.2	3.1	4.0	4.7	5.4	6.0	6.7	7.3	7.7
92.5°	7.4	7.3	7.2	7.1	7.1	7.2	7.6	7.9	8.2	8.5	8.8
95°	23.9	21.2	18.5	15.8	13.1	12.1	12.7	13.2	13.8	14.4	14.7
97.5°	47.4	39.9	32.3	24.6	17.0	13.9	15.2	16.5	17.9	19.2	19.5
100°	65.2	53.9	42.7	31.5	20.3	15.4	16.8	18.2	19.5	21.0	21.6
102.5°	84.6	82.2	79.8	77.5	75.1	68.1	56.5	44.9	33.2	21.5	22.4
105°	111.8	114.3	116.8	119.2	121.7	111.8	89.5	67.1	44.8	22.5	23.3
107.5°	143.0	145.0	147.0	149.0	150.9	138.5	111.8	85.0	58.2	31.4	30.5
110°	163.0	164.7	166.4	168.2	169.9	158.9	135.3	111.7	88.0	64.4	56.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	181.8	183.4	184.9	186.4	188.0	185.8	179.9	174.1	168.2	162.5	132.6
115°	211.6	213.0	214.4	215.8	217.1	218.9	220.9	223.0	225.0	227.0	189.2
117.5°	238.2	239.7	241.3	242.8	244.4	245.9	247.3	248.7	250.1	251.5	242.4
120°	257.6	258.8	260.0	261.3	262.5	263.9	265.4	266.8	268.3	269.8	270.7
122.5°	274.1	275.3	276.6	277.9	279.2	280.7	282.3	283.9	285.5	287.1	287.7
125°	299.2	300.2	301.4	302.4	303.4	304.7	306.3	307.9	309.4	311.0	311.5
127.5°	321.9	323.1	324.3	325.5	326.7	327.8	329.0	330.1	331.3	332.4	333.3
130°	336.4	337.7	339.0	340.3	341.6	342.7	343.6	344.5	345.4	346.3	347.2
132.5°	351.1	352.1	353.3	354.4	355.5	356.5	357.4	358.3	359.2	360.2	360.9
135°	370.2	371.5	372.8	374.1	375.5	376.4	377.2	378.0	378.7	379.4	380.2
137.5°	389.6	390.5	391.4	392.4	393.2	394.1	394.9	395.8	396.6	397.4	398.2
140°	402.3	402.9	403.6	404.2	404.8	405.6	406.6	407.4	408.3	409.2	409.9
142.5°	412.8	413.5	414.0	414.6	415.2	416.0	417.0	418.0	419.0	420.1	420.8
145°	429.5	429.4	429.3	429.2	429.1	429.8	431.2	432.6	433.9	435.3	435.9
147.5°	443.9	443.7	443.3	443.1	442.7	443.2	444.6	446.0	447.4	448.8	449.2
150°	453.4	452.8	452.2	451.7	451.1	451.4	452.8	454.1	455.4	456.7	457.2
152.5°	461.3	460.7	460.0	459.4	458.7	459.1	460.3	461.6	462.8	464.1	464.5
155°	472.9	472.2	471.4	470.7	469.9	470.1	471.1	472.0	473.0	474.0	474.5
157.5°	481.9	481.3	480.7	480.1	479.5	479.5	480.2	480.9	481.6	482.2	482.8
160°	487.2	486.7	486.3	485.8	485.3	485.3	485.8	486.3	486.7	487.2	487.8
162.5°	492.0	491.5	490.9	490.5	490.0	490.0	490.3	490.8	491.2	491.6	492.2
165°	498.3	497.8	497.3	496.8	496.3	496.2	496.5	496.7	497.0	497.1	497.7
167.5°	503.0	502.5	502.0	501.5	501.0	500.9	501.1	501.4	501.6	501.8	502.4
170°	505.7	505.1	504.6	504.2	503.7	503.5	503.7	503.9	504.0	504.2	504.7
172.5°	507.4	507.0	506.4	505.9	505.4	505.3	505.4	505.6	505.8	505.9	506.5
175°	509.7	509.1	508.5	508.0	507.4	507.2	507.4	507.6	507.6	507.8	508.4
177.5°	510.1	509.6	509.1	508.7	508.2	508.0	508.1	508.2	508.2	508.2	508.8
180°	508.6	508.6	508.6	508.6	508.6	508.6	508.6	508.6	508.6	508.6	508.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	971.2	971.2	971.2	971.2	971.2	971.2	971.2	971.2
2.5°	966.6	968.2	969.7	970.3	970.1	969.7	969.5	969.1
5°	958.9	960.7	962.4	963.0	962.4	961.8	961.3	960.7
7.5°	943.4	943.9	944.4	944.2	943.1	942.2	941.2	940.1
10°	927.9	927.3	926.7	925.8	924.6	923.5	922.3	921.1
12.5°	910.1	909.0	907.9	906.5	904.5	902.6	900.6	898.6
15°	876.8	873.1	869.4	866.5	864.6	862.6	860.7	858.8
17.5°	839.2	834.7	830.3	826.5	823.1	819.8	816.4	813.0
20°	813.0	808.0	803.1	798.6	794.3	790.0	785.7	781.4
22.5°	784.1	777.8	771.5	766.8	763.5	760.3	757.2	754.0
25°	736.3	728.3	720.3	714.9	712.0	709.0	706.1	703.2
27.5°	690.8	681.5	672.2	665.1	660.5	655.8	651.2	646.5
30°	658.7	648.7	638.7	631.1	625.8	620.5	615.3	610.0
32.5°	626.3	614.9	603.6	595.4	590.4	585.5	580.5	575.6
35°	575.8	563.4	551.1	542.8	538.5	534.2	529.9	525.6
37.5°	526.4	512.9	499.4	490.1	485.2	480.3	475.4	470.5
40°	493.4	479.6	465.7	456.2	451.2	446.1	441.0	435.9
42.5°	460.2	445.8	431.5	421.9	417.0	412.1	407.2	402.2
45°	411.7	397.9	384.0	374.7	370.1	365.3	360.7	355.9
47.5°	364.6	350.9	337.0	328.0	323.7	319.5	315.2	311.0
50°	334.3	320.8	307.4	298.5	294.5	290.3	286.3	282.1
52.5°	305.7	292.7	279.7	271.3	267.5	263.7	259.9	256.1
55°	262.3	250.5	238.8	231.1	227.4	223.6	219.9	216.2
57.5°	222.7	212.0	201.2	194.2	191.1	188.0	184.9	181.8
60°	195.4	185.5	175.5	168.9	165.8	162.7	159.5	156.4
62.5°	171.8	162.2	152.7	147.1	145.2	143.4	141.5	139.6
65°	139.7	133.0	126.4	122.8	122.2	121.6	121.0	120.5
67.5°	112.7	109.7	106.7	104.8	104.2	103.6	103.0	102.3
70°	98.1	96.1	94.1	92.8	92.0	91.2	90.4	89.6
72.5°	85.3	83.7	82.1	81.0	80.5	80.1	79.6	79.1
75°	67.6	66.2	64.8	64.1	63.9	63.7	63.5	63.3
77.5°	51.1	50.4	49.6	49.1	48.7	48.5	48.1	47.8
80°	40.6	39.9	39.1	38.7	38.7	38.7	38.7	38.7
82.5°	30.7	30.2	29.8	29.5	29.5	29.5	29.5	29.5
85°	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
87.5°	7.0	6.9	6.8	6.8	6.8	6.8	6.9	6.9
90°	8.2	8.6	9.0	9.3	9.5	9.6	9.8	9.9
92.5°	9.0	9.2	9.4	9.6	9.6	9.7	9.8	9.9
95°	15.2	15.6	16.0	16.2	16.1	16.0	15.9	15.8
97.5°	19.9	20.2	20.5	20.8	20.8	20.9	21.0	21.1
100°	22.3	22.9	23.6	24.0	24.2	24.4	24.5	24.6
102.5°	23.2	24.1	25.0	25.5	25.7	26.0	26.2	26.4
105°	24.3	25.1	26.1	26.7	26.9	27.3	27.6	28.0
107.5°	29.6	28.7	27.7	27.5	27.8	28.2	28.4	28.8
110°	48.0	39.9	31.7	27.7	28.1	28.4	28.8	29.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	102.8	72.9	43.1	28.3	28.6	28.8	29.1	29.4
115°	151.4	113.5	75.6	53.7	47.9	41.9	36.1	30.1
117.5°	233.2	224.0	214.8	200.6	181.2	161.9	142.6	123.2
120°	271.7	272.7	273.7	268.6	257.6	246.6	235.5	224.5
122.5°	288.3	288.9	289.5	288.7	286.5	284.4	282.2	280.1
125°	312.1	312.7	313.2	313.7	313.9	314.2	314.4	314.6
127.5°	334.2	334.9	335.8	336.2	336.3	336.3	336.4	336.4
130°	348.1	349.0	349.9	350.3	350.3	350.2	350.1	350.0
132.5°	361.7	362.4	363.2	363.5	363.4	363.3	363.3	363.3
135°	381.1	381.9	382.7	383.0	382.9	382.7	382.5	382.4
137.5°	399.1	399.8	400.6	400.9	400.6	400.4	400.1	399.8
140°	410.7	411.5	412.2	412.3	411.9	411.5	411.1	410.7
142.5°	421.5	422.1	422.8	422.9	422.5	422.1	421.7	421.3
145°	436.5	437.0	437.6	437.7	437.3	436.9	436.5	436.1
147.5°	449.6	450.0	450.5	450.5	450.1	449.8	449.4	449.1
150°	457.7	458.1	458.7	458.7	458.3	457.9	457.4	457.1
152.5°	465.0	465.5	466.1	466.0	465.5	464.9	464.3	463.8
155°	475.0	475.4	476.0	475.9	475.2	474.6	473.9	473.3
157.5°	483.4	483.9	484.5	484.4	483.8	483.1	482.5	481.9
160°	488.2	488.7	489.2	489.1	488.6	488.0	487.4	486.9
162.5°	492.8	493.4	493.9	493.8	493.1	492.4	491.7	491.0
165°	498.3	498.9	499.5	499.5	498.9	498.3	497.7	497.1
167.5°	503.0	503.5	504.1	504.0	503.3	502.6	501.8	501.1
170°	505.3	505.9	506.4	506.4	505.7	504.9	504.2	503.4
172.5°	507.0	507.6	508.2	508.2	507.4	506.7	505.9	505.2
175°	509.0	509.5	510.1	510.1	509.2	508.4	507.6	506.8
177.5°	509.2	509.6	510.1	510.1	509.5	508.9	508.2	507.7
180°	508.6	508.6	508.6	508.6	508.6	508.6	508.6	508.6

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