

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: P331528

Luminaire Tested: **S122DIW-S675D435U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331528
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIW-S675D435U835-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 435 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

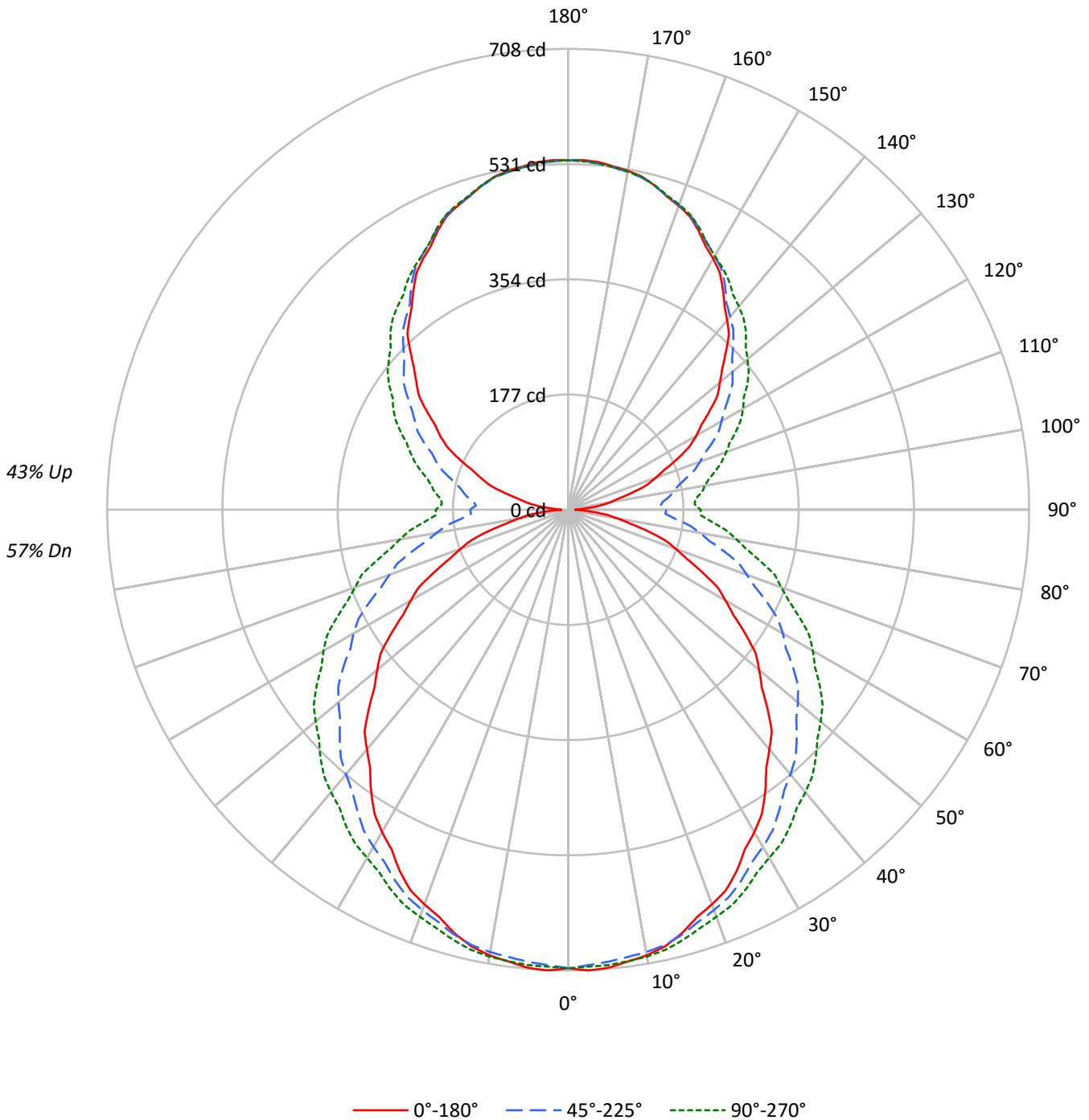
Lumens per Lamp: N/A
Luminaire Lumens: 4190.6 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 37.7
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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	63	63	63	57
1	98	93	88	84	91	86	82	78	74	71	68	63	61	58	53	51	49	44
2	88	80	73	67	82	74	68	63	64	59	55	54	51	48	45	43	40	36
3	80	70	62	55	74	65	58	52	56	50	46	47	43	39	40	36	34	30
4	73	61	53	46	67	57	49	44	49	43	38	42	37	33	35	31	28	25
5	67	54	46	39	62	51	43	37	44	38	33	37	32	29	31	28	25	21
6	62	49	40	34	57	45	38	32	39	33	28	34	29	25	28	24	21	19
7	57	44	35	30	53	41	33	28	36	29	25	31	26	22	26	22	19	16
8	53	40	32	26	49	37	30	25	32	26	22	28	23	19	24	20	17	14
9	49	36	28	23	45	34	27	22	30	24	20	26	21	17	22	18	15	13
10	46	33	26	21	43	31	24	20	27	22	18	24	19	16	20	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11373	11373	11373
5°	11428	10947	10905
10°	11356	10624	10504
15°	11200	10282	10083
20°	11002	9915	9676
25°	10807	9560	9307
30°	10532	9197	8935
35°	10254	8846	8673
40°	9960	8547	8413
45°	9681	8279	8190
50°	9382	8037	7969
55°	9070	7777	7745
60°	8686	7508	7509
65°	8287	7191	7227
70°	7841	6852	6923
75°	7270	6518	6643
80°	6370	6177	6361
85°	5506	5882	6138



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	1.6
10°-20°	191.4	4.6
20°-30°	290.0	6.9
30°-40°	353.3	8.4
40°-50°	380.0	9.1
50°-60°	369.1	8.8
60°-70°	322.3	7.7
70°-80°	248.1	5.9
80°-90°	168.6	4.0
90°-100°	148.7	3.5
100°-110°	189.4	4.5
110°-120°	235.9	5.6
120°-130°	268.4	6.4
130°-140°	279.5	6.7
140°-150°	263.6	6.3
150°-160°	219.2	5.2
160°-170°	145.4	3.5
170°-180°	50.8	1.2
0°-30°	548.2	13.1
0°-40°	901.4	21.5
0°-60°	1650.6	39.4
0°-90°	2389.6	57.0
90°-120°	574.1	13.7
90°-150°	1385.6	33.1
90°-180°	1801.0	43.0
0°-180°	4190.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	706	703	697	703	702	67
15°	674	676	676	684	684	190
25°	612	620	629	641	644	281
35°	528	545	564	586	594	330
45°	433	461	496	527	538	334
55°	332	369	422	457	472	297
65°	227	277	337	377	392	225
75°	126	183	248	290	305	133
85°	37	100	165	207	222	40
90°	11	76	151	189	203	8
95°	32	85	146	184	196	33
105°	102	135	188	223	235	109
115°	185	201	244	273	284	183
125°	266	271	301	326	336	238
135°	342	348	358	378	386	265
145°	414	417	420	426	430	259
155°	473	475	476	478	477	218
165°	515	515	515	518	516	145
175°	536	535	534	537	534	51
180°	537	537	537	537	537	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4
2.5°	708.5	707.9	707.4	706.8	706.3	705.4	704.1	702.8	701.6	700.3	701.2
5°	706.4	705.7	705.1	704.4	703.7	702.7	701.3	700.0	698.6	697.2	698.6
7.5°	700.1	699.6	699.2	698.7	698.3	697.5	696.5	695.4	694.4	693.4	695.0
10°	695.2	694.7	694.3	693.8	693.4	692.8	692.1	691.5	690.8	690.1	691.9
12.5°	687.0	687.1	687.2	687.3	687.4	687.2	686.7	686.2	685.7	685.2	687.0
15°	673.8	674.2	674.7	675.1	675.6	675.8	675.8	675.8	675.8	675.8	677.8
17.5°	656.6	657.6	658.5	659.5	660.4	661.3	662.0	662.7	663.4	664.2	666.3
20°	645.2	646.3	647.4	648.6	649.7	650.7	651.6	652.6	653.5	654.4	656.9
22.5°	632.9	634.2	635.6	636.9	638.2	639.5	640.8	642.0	643.3	644.6	647.1
25°	612.5	614.1	615.7	617.3	618.9	620.7	622.7	624.8	626.8	628.8	631.6
27.5°	588.0	590.6	593.2	595.8	598.4	600.9	603.3	605.7	608.1	610.5	613.9
30°	571.7	574.6	577.6	580.5	583.5	586.4	589.4	592.3	595.3	598.2	601.8
32.5°	553.7	557.0	560.3	563.6	567.0	570.4	573.9	577.3	580.8	584.3	588.5
35°	527.8	531.6	535.5	539.3	543.2	547.3	551.6	555.9	560.2	564.5	569.5
37.5°	499.6	504.1	508.5	512.9	517.4	522.4	528.0	533.6	539.1	544.7	550.3
40°	480.8	485.8	490.8	495.8	500.8	506.3	512.5	518.6	524.7	530.8	536.7
42.5°	462.9	467.8	472.8	477.8	482.8	488.8	495.9	502.9	509.9	517.0	523.4
45°	432.8	439.0	445.1	451.2	457.3	464.4	472.3	480.3	488.2	496.1	503.2
47.5°	403.2	409.9	416.6	423.2	429.9	437.9	447.2	456.5	465.8	475.1	482.5
50°	382.8	389.9	396.9	403.9	410.9	419.6	429.8	440.0	450.2	460.4	468.1
52.5°	363.2	370.6	378.0	385.4	392.8	401.9	412.6	423.4	434.1	444.9	452.8
55°	331.8	339.9	348.1	356.3	364.4	374.4	386.2	398.0	409.8	421.6	429.8
57.5°	300.7	310.0	319.2	328.4	337.6	348.2	360.2	372.2	384.3	396.3	405.1
60°	278.7	288.4	298.2	308.0	317.7	329.1	342.0	354.9	367.8	380.8	389.4
62.5°	259.1	269.2	279.3	289.4	299.6	311.1	324.0	336.9	349.9	362.8	372.0
65°	226.6	237.7	248.9	260.0	271.1	283.3	296.7	310.1	323.5	336.9	346.2
67.5°	196.8	208.4	220.1	231.7	243.3	255.9	269.6	283.3	297.0	310.7	320.1
70°	175.6	187.4	199.2	211.0	222.8	235.7	249.8	263.8	277.9	292.0	301.7
72.5°	156.0	168.1	180.3	192.5	204.6	217.8	232.1	246.3	260.6	274.8	284.4
75°	125.6	138.3	151.0	163.7	176.4	190.0	204.5	219.0	233.5	248.1	257.8
77.5°	96.2	109.5	122.8	136.0	149.3	163.4	178.1	192.9	207.6	222.3	232.1
80°	76.6	90.4	104.2	118.1	131.9	146.2	161.0	175.7	190.4	205.2	214.7
82.5°	60.2	73.9	87.5	101.2	114.9	129.1	144.1	159.0	173.9	188.9	198.4
85°	36.8	50.8	64.9	78.9	93.0	107.3	121.8	136.3	150.9	165.4	174.9
87.5°	20.1	33.9	47.6	61.4	75.1	89.5	104.5	119.4	134.4	149.4	158.6
90°	10.7	25.0	39.4	53.8	68.1	83.7	100.4	117.1	133.9	150.6	159.5
92.5°	17.5	30.6	43.7	56.9	70.0	83.8	98.3	112.8	127.3	141.8	150.7
95°	31.7	43.4	55.1	66.7	78.4	91.1	105.0	118.8	132.6	146.4	155.0
97.5°	50.2	60.6	70.9	81.3	91.7	103.6	117.0	130.5	143.9	157.4	165.8
100°	64.7	73.9	83.1	92.3	101.5	112.6	125.6	138.6	151.6	164.6	173.0
102.5°	79.1	87.4	95.7	104.0	112.3	122.9	135.6	148.3	161.0	173.8	182.0
105°	102.5	109.4	116.3	123.2	130.0	139.5	151.5	163.5	175.5	187.5	195.6
107.5°	127.1	132.8	138.5	144.3	150.0	158.5	169.8	181.1	192.4	203.7	211.4
110°	142.3	147.4	152.5	157.7	162.8	171.0	182.1	193.2	204.3	215.4	222.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	159.7	164.1	168.5	172.9	177.3	184.8	195.3	205.8	216.3	226.7	233.8
115°	185.3	188.4	191.5	194.6	197.7	204.3	214.3	224.3	234.3	244.3	251.0
117.5°	209.8	212.3	214.7	217.2	219.6	225.2	234.1	243.0	251.9	260.7	267.2
120°	226.9	228.6	230.3	232.0	233.7	238.7	247.0	255.3	263.5	271.8	278.1
122.5°	242.5	243.8	245.1	246.4	247.8	252.4	260.4	268.4	276.3	284.3	290.2
125°	265.7	266.6	267.5	268.4	269.3	273.3	280.2	287.2	294.1	301.1	306.9
127.5°	289.4	290.3	291.2	292.1	293.1	296.3	301.8	307.2	312.7	318.2	323.5
130°	304.2	305.3	306.4	307.5	308.6	311.4	315.9	320.5	325.1	329.6	334.9
132.5°	320.9	321.7	322.6	323.4	324.3	326.5	330.3	334.0	337.7	341.4	346.2
135°	342.2	343.3	344.4	345.5	346.6	348.4	350.9	353.3	355.8	358.3	362.9
137.5°	365.6	366.5	367.4	368.2	369.1	370.1	371.4	372.7	373.9	375.2	379.3
140°	379.8	380.5	381.1	381.8	382.5	383.3	384.3	385.2	386.2	387.1	390.8
142.5°	394.3	395.0	395.6	396.3	397.0	397.5	398.0	398.4	398.8	399.3	402.3
145°	414.1	414.8	415.5	416.2	416.9	417.6	418.2	418.8	419.4	420.0	421.4
147.5°	432.7	433.5	434.4	435.2	436.1	436.7	437.1	437.5	437.9	438.3	438.7
150°	445.4	446.0	446.6	447.2	447.8	448.3	448.7	449.1	449.5	449.9	450.2
152.5°	456.6	457.2	457.8	458.4	459.0	459.6	460.0	460.5	461.0	461.5	461.9
155°	473.4	473.7	474.0	474.4	474.7	475.0	475.3	475.6	475.9	476.2	476.7
157.5°	487.9	488.1	488.3	488.5	488.7	488.8	489.0	489.2	489.4	489.6	490.3
160°	496.6	496.8	497.0	497.2	497.4	497.5	497.6	497.7	497.8	497.9	498.5
162.5°	504.5	504.6	504.6	504.6	504.7	504.8	504.9	505.0	505.1	505.2	505.8
165°	515.1	515.0	514.9	514.8	514.7	514.7	514.7	514.7	514.7	514.7	515.4
167.5°	524.0	523.7	523.4	523.1	522.8	522.6	522.6	522.6	522.6	522.6	523.3
170°	528.7	528.4	528.1	527.8	527.5	527.3	527.2	527.1	527.0	526.9	527.6
172.5°	532.0	531.7	531.4	531.1	530.8	530.6	530.5	530.4	530.3	530.2	530.9
175°	536.0	535.7	535.4	535.1	534.8	534.5	534.3	534.1	533.9	533.7	534.4
177.5°	537.6	537.4	537.1	536.9	536.6	536.4	536.3	536.1	535.9	535.8	536.3
180°	536.9	536.9	536.9	536.9	536.9	536.9	536.9	536.9	536.9	536.9	536.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	704.4	704.4	704.4	704.4	704.4	704.4	704.4	704.4
2.5°	702.1	703.0	703.9	704.2	703.8	703.5	703.1	702.8
5°	700.0	701.3	702.7	703.3	703.0	702.8	702.6	702.3
7.5°	696.6	698.3	699.9	700.6	700.4	700.1	699.9	699.7
10°	693.7	695.5	697.4	698.1	697.9	697.7	697.5	697.2
12.5°	688.8	690.6	692.5	693.2	693.0	692.8	692.6	692.3
15°	679.9	681.9	684.0	684.9	684.7	684.4	684.2	684.0
17.5°	668.4	670.6	672.7	673.8	673.8	673.8	673.8	673.8
20°	659.4	661.9	664.3	665.6	665.6	665.6	665.6	665.6
22.5°	649.6	652.1	654.5	656.0	656.3	656.7	657.1	657.4
25°	634.3	637.0	639.7	641.4	642.1	642.8	643.5	644.2
27.5°	617.4	620.8	624.3	626.2	626.7	627.2	627.7	628.2
30°	605.5	609.1	612.7	614.9	615.6	616.3	616.9	617.6
32.5°	592.7	596.9	601.0	603.7	605.0	606.2	607.4	608.6
35°	574.5	579.5	584.5	587.8	589.4	591.0	592.5	594.1
37.5°	555.8	561.3	566.9	570.5	572.2	573.8	575.5	577.2
40°	542.6	548.5	554.4	558.4	560.4	562.5	564.5	566.6
42.5°	529.8	536.3	542.7	547.0	549.0	551.1	553.1	555.1
45°	510.2	517.2	524.3	528.9	531.2	533.5	535.7	538.0
47.5°	489.8	497.2	504.5	509.4	511.9	514.4	516.9	519.4
50°	475.8	483.5	491.3	496.4	498.9	501.4	503.8	506.3
52.5°	460.7	468.6	476.5	481.8	484.4	487.1	489.8	492.5
55°	437.9	446.1	454.3	459.8	462.8	465.7	468.7	471.6
57.5°	413.9	422.7	431.5	437.4	440.4	443.4	446.4	449.4
60°	398.0	406.6	415.3	421.2	424.3	427.5	430.7	433.9
62.5°	381.1	390.3	399.5	405.6	408.5	411.5	414.5	417.5
65°	355.5	364.8	374.1	380.2	383.2	386.1	389.1	392.0
67.5°	329.5	338.9	348.3	354.6	357.6	360.7	363.8	366.9
70°	311.5	321.2	331.0	337.2	339.9	342.7	345.4	348.1
72.5°	294.0	303.5	313.1	319.5	322.8	326.1	329.3	332.6
75°	267.6	277.3	287.1	293.4	296.4	299.3	302.3	305.2
77.5°	241.8	251.5	261.2	267.6	270.8	274.0	277.1	280.3
80°	224.2	233.8	243.3	249.7	252.8	256.0	259.2	262.4
82.5°	207.9	217.4	227.0	233.2	236.2	239.2	242.2	245.2
85°	184.4	194.0	203.5	209.8	213.0	216.2	219.4	222.5
87.5°	167.8	177.0	186.2	192.3	195.2	198.1	201.1	204.0
90°	168.4	177.2	186.1	191.9	194.8	197.6	200.4	203.2
92.5°	159.7	168.6	177.5	183.4	186.1	188.9	191.6	194.3
95°	163.6	172.3	180.9	186.4	189.0	191.5	194.0	196.5
97.5°	174.2	182.5	190.9	196.5	199.1	201.8	204.4	207.1
100°	181.4	189.8	198.2	203.6	206.0	208.4	210.8	213.2
102.5°	190.3	198.6	206.9	212.3	214.7	217.1	219.4	221.8
105°	203.7	211.9	220.0	225.3	227.8	230.3	232.8	235.3
107.5°	219.1	226.8	234.5	239.3	241.4	243.4	245.4	247.5
110°	229.9	237.2	244.5	249.2	251.4	253.6	255.8	258.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	240.8	247.8	254.8	259.5	261.7	264.0	266.3	268.6
115°	257.7	264.4	271.1	275.6	277.7	279.9	282.1	284.3
117.5°	273.7	280.2	286.6	290.9	292.9	294.9	296.9	298.9
120°	284.5	290.8	297.2	301.5	303.7	305.9	308.1	310.2
122.5°	296.1	302.1	308.0	311.9	313.8	315.7	317.7	319.6
125°	312.8	318.6	324.4	328.3	330.2	332.2	334.1	336.0
127.5°	328.7	334.0	339.3	342.7	344.4	346.1	347.8	349.4
130°	340.1	345.4	350.6	353.9	355.3	356.8	358.2	359.6
132.5°	351.0	355.9	360.7	363.8	365.3	366.8	368.3	369.8
135°	367.6	372.3	376.9	380.0	381.5	383.0	384.6	386.1
137.5°	383.4	387.5	391.6	394.2	395.3	396.5	397.6	398.7
140°	394.4	398.0	401.7	404.0	404.9	405.9	406.8	407.8
142.5°	405.2	408.2	411.2	413.1	413.9	414.7	415.4	416.2
145°	422.9	424.4	425.8	426.9	427.7	428.4	429.1	429.9
147.5°	439.1	439.5	439.9	440.2	440.3	440.5	440.7	440.8
150°	450.5	450.8	451.1	451.1	450.8	450.5	450.2	449.9
152.5°	462.2	462.6	463.0	463.0	462.6	462.2	461.9	461.5
155°	477.2	477.7	478.2	478.3	478.0	477.7	477.4	477.1
157.5°	490.9	491.6	492.3	492.4	491.9	491.4	491.0	490.5
160°	499.1	499.7	500.3	500.4	500.0	499.6	499.2	498.8
162.5°	506.5	507.2	507.9	508.0	507.5	507.0	506.5	506.1
165°	516.1	516.8	517.5	517.6	517.1	516.6	516.1	515.6
167.5°	524.0	524.7	525.4	525.5	524.9	524.4	523.9	523.4
170°	528.3	529.0	529.7	529.8	529.2	528.6	528.0	527.4
172.5°	531.6	532.3	533.0	533.0	532.4	531.8	531.2	530.6
175°	535.1	535.8	536.5	536.6	536.0	535.4	534.8	534.2
177.5°	536.8	537.2	537.7	537.7	537.2	536.8	536.3	535.8
180°	536.9	536.9	536.9	536.9	536.9	536.9	536.9	536.9

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