

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: P332159-927

Luminaire Tested: **S123DIW-S775D755U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332159-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIW-S775D755U927-4F0-1E-UDD-D1
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 755 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4634.9 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

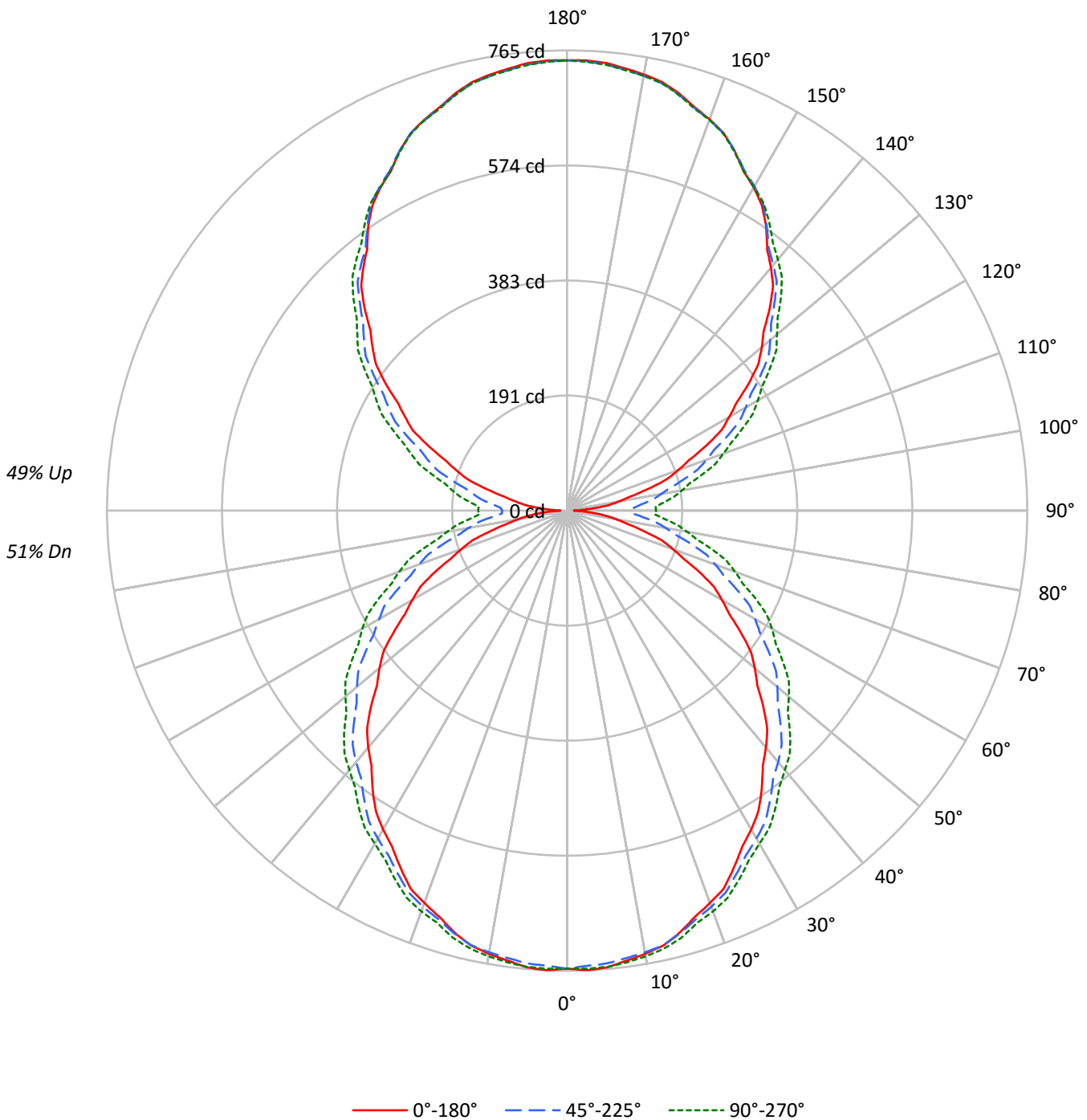
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	99	99	99	99	84	84	84		70	70	70		57	57	57	51
1	97	92	88	84	89	85	81	78	72	69	66		60	58	56		48	47	46	40
2	88	80	73	68	81	74	68	63	62	58	54		52	49	46		42	40	38	33
3	80	70	62	56	73	65	58	52	55	49	45		45	42	38		37	34	32	27
4	73	62	53	47	67	57	50	44	48	43	38		40	36	32		33	30	27	23
5	67	55	46	40	61	51	43	38	43	37	33		36	31	28		29	26	23	20
6	61	49	41	35	56	45	38	32	39	33	28		32	28	24		27	23	20	17
7	57	44	36	30	52	41	34	28	35	29	25		29	25	21		24	21	18	15
8	53	40	32	27	48	37	30	25	32	26	22		27	22	19		22	19	16	14
9	49	36	29	24	45	34	27	22	29	24	20		25	20	17		21	17	15	12
10	46	33	26	21	42	31	24	20	27	21	18		23	18	15		19	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8196	8196	8196
5°	8222	7990	7994
10°	8148	7806	7766
15°	8043	7597	7518
20°	7893	7358	7245
25°	7708	7084	6957
30°	7517	6836	6666
35°	7305	6575	6434
40°	7102	6337	6184
45°	6877	6109	5986
50°	6655	5883	5766
55°	6409	5652	5569
60°	6171	5417	5366
65°	5924	5168	5126
70°	5555	4887	4879
75°	5090	4566	4628
80°	4551	4249	4341
85°	4050	4032	4175



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	1.6
10°-20°	205.8	4.4
20°-30°	307.8	6.6
30°-40°	367.5	7.9
40°-50°	384.5	8.3
50°-60°	360.9	7.8
60°-70°	301.4	6.5
70°-80°	215.6	4.7
80°-90°	130.8	2.8
90°-100°	129.5	2.8
100°-110°	205.2	4.4
110°-120°	287.8	6.2
120°-130°	349.1	7.5
130°-140°	377.2	8.1
140°-150°	362.9	7.8
150°-160°	303.7	6.6
160°-170°	202.2	4.4
170°-180°	70.8	1.5
0°-30°	585.7	12.6
0°-40°	953.3	20.6
0°-60°	1698.6	36.6
0°-90°	2346.5	50.6
90°-120°	622.5	13.4
90°-150°	1711.7	36.9
90°-180°	2288.0	49.4
0°-180°	4634.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	761	761	761	761	761	
5°	762	760	756	762	761	72
15°	726	728	728	735	735	204
25°	655	663	666	676	677	302
35°	564	577	588	600	604	353
45°	461	481	502	517	524	356
55°	352	379	409	430	438	315
65°	243	276	312	336	345	240
75°	132	171	212	239	250	141
85°	41	82	126	153	163	43
90°	11	58	108	137	148	9
95°	44	81	126	153	162	46
105°	139	161	201	223	233	148
115°	254	267	294	314	321	251
125°	368	371	393	407	411	329
135°	476	479	487	499	503	367
145°	576	577	579	584	586	360
155°	659	659	660	662	658	303
165°	718	716	716	719	716	202
175°	747	745	744	748	744	71
180°	748	748	748	748	748	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4
2.5°	764.8	764.3	763.9	763.4	763.0	762.2	761.0	759.9	758.7	757.5	758.7
5°	762.3	761.9	761.5	761.2	760.8	760.1	759.0	757.9	756.8	755.7	757.2
7.5°	754.8	754.9	754.9	755.0	755.1	754.6	753.5	752.5	751.4	750.4	752.2
10°	748.2	748.5	748.9	749.3	749.6	749.4	748.5	747.6	746.6	745.7	747.6
12.5°	740.2	740.8	741.2	741.8	742.3	742.3	741.6	741.0	740.4	739.7	741.4
15°	725.8	726.4	726.9	727.5	728.0	728.2	728.0	727.9	727.6	727.5	729.3
17.5°	707.6	708.7	709.8	710.8	711.9	712.5	712.4	712.3	712.3	712.2	713.8
20°	694.3	695.4	696.5	697.6	698.7	699.4	699.8	700.2	700.5	700.9	702.6
22.5°	680.3	681.4	682.5	683.7	684.8	685.6	686.1	686.6	687.1	687.6	689.8
25°	655.3	657.1	658.9	660.8	662.7	663.8	664.4	665.0	665.5	666.1	668.4
27.5°	630.1	632.2	634.3	636.4	638.5	640.1	641.3	642.5	643.6	644.8	646.9
30°	612.1	614.6	617.0	619.3	621.7	623.7	625.1	626.6	628.1	629.5	631.8
32.5°	592.2	594.9	597.6	600.3	603.0	605.3	607.2	609.2	611.1	613.0	615.4
35°	564.0	567.0	570.0	572.9	575.8	578.5	580.9	583.3	585.7	588.1	590.9
37.5°	534.2	537.5	540.8	544.2	547.5	550.6	553.6	556.5	559.4	562.4	565.5
40°	514.3	517.6	520.9	524.3	527.5	531.1	534.7	538.4	542.1	545.8	548.9
42.5°	492.3	496.5	500.5	504.5	508.6	512.5	516.3	520.2	524.0	527.9	531.3
45°	461.2	465.6	470.0	474.4	478.9	483.4	488.0	492.6	497.3	501.8	505.3
47.5°	428.5	433.6	438.6	443.5	448.5	453.7	459.0	464.2	469.5	474.8	478.7
50°	407.3	412.4	417.6	422.8	427.9	433.3	439.1	444.8	450.5	456.2	460.4
52.5°	384.7	390.1	395.6	401.1	406.5	412.4	418.7	425.0	431.3	437.6	442.0
55°	351.7	357.7	363.8	369.9	376.0	382.4	389.0	395.7	402.3	408.9	413.9
57.5°	319.5	325.8	332.2	338.5	344.9	351.6	358.9	366.2	373.4	380.7	385.7
60°	297.0	303.6	310.2	316.9	323.5	330.6	338.2	345.7	353.2	360.8	366.0
62.5°	275.7	282.5	289.3	296.0	302.9	310.2	318.2	326.2	334.2	342.2	347.4
65°	243.0	250.3	257.4	264.6	271.8	279.4	287.6	295.6	303.8	311.9	317.4
67.5°	209.8	217.5	225.1	232.7	240.3	248.3	256.6	264.8	273.1	281.4	287.4
70°	186.6	194.6	202.5	210.4	218.3	226.7	235.6	244.4	253.3	262.1	268.0
72.5°	165.4	173.3	181.3	189.2	197.1	205.7	214.8	223.9	233.1	242.2	248.3
75°	131.9	140.5	149.2	157.9	166.5	175.5	184.7	193.9	203.1	212.4	218.4
77.5°	102.7	111.5	120.2	128.9	137.6	146.6	156.0	165.2	174.5	183.8	190.2
80°	82.1	91.2	100.2	109.2	118.3	127.5	137.1	146.7	156.3	165.9	172.1
82.5°	64.2	73.4	82.5	91.7	100.9	110.4	120.1	129.8	139.6	149.3	155.6
85°	40.6	49.8	59.1	68.3	77.5	87.0	96.8	106.5	116.3	126.1	132.4
87.5°	22.2	31.6	41.0	50.5	60.0	69.6	79.3	89.0	98.8	108.5	114.9
90°	11.4	21.7	32.1	42.4	52.8	63.5	74.5	85.6	96.7	107.8	114.6
92.5°	24.3	33.4	42.4	51.5	60.5	70.1	80.3	90.5	100.8	111.0	117.6
95°	43.8	51.9	60.0	68.1	76.2	85.3	95.4	105.4	115.6	125.6	131.9
97.5°	69.7	76.9	84.1	91.3	98.4	106.7	116.1	125.5	134.8	144.3	150.4
100°	87.5	94.1	100.8	107.5	114.2	122.1	131.2	140.3	149.5	158.6	164.3
102.5°	108.0	113.7	119.5	125.2	131.0	138.6	147.7	156.9	166.1	175.3	180.9
105°	138.9	143.6	148.3	153.0	157.6	164.5	173.6	182.8	191.9	201.0	206.1
107.5°	174.1	178.1	182.0	185.9	189.8	195.7	203.7	211.8	219.8	227.8	233.1
110°	196.1	199.6	203.2	206.8	210.4	216.0	223.6	231.2	238.9	246.5	251.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	219.6	222.4	225.4	228.2	231.2	236.1	243.3	250.4	257.5	264.7	269.9
115°	254.1	256.7	259.3	261.8	264.4	268.9	275.3	281.7	288.0	294.5	299.0
117.5°	289.4	291.0	292.6	294.3	295.9	299.7	305.5	311.4	317.3	323.2	327.6
120°	310.9	312.5	314.3	315.9	317.7	321.2	326.6	332.1	337.5	342.9	347.1
122.5°	333.9	334.9	336.0	337.1	338.1	341.4	346.8	352.3	357.7	363.1	366.9
125°	368.2	368.6	369.0	369.4	369.8	372.6	377.6	382.7	387.8	392.8	396.2
127.5°	400.7	401.3	402.0	402.7	403.3	405.7	409.8	413.9	418.1	422.2	425.2
130°	422.3	423.2	424.1	424.9	425.7	427.9	431.1	434.4	437.7	441.0	444.0
132.5°	443.3	444.3	445.3	446.3	447.3	449.2	451.8	454.5	457.2	459.8	462.6
135°	476.2	476.7	477.4	478.0	478.6	479.8	481.7	483.6	485.5	487.4	490.2
137.5°	506.6	507.1	507.6	508.1	508.6	509.6	511.1	512.5	514.0	515.6	517.8
140°	527.1	527.8	528.4	529.0	529.7	530.4	531.1	531.7	532.4	533.1	535.8
142.5°	546.4	546.8	547.4	547.9	548.4	548.8	549.1	549.5	549.9	550.2	552.5
145°	576.5	576.6	576.6	576.7	576.8	577.0	577.4	577.8	578.2	578.6	580.0
147.5°	602.0	602.5	602.9	603.4	603.9	604.3	604.7	605.0	605.4	605.8	606.2
150°	620.4	620.6	620.8	621.2	621.4	621.6	621.9	622.2	622.4	622.7	622.7
152.5°	635.4	635.7	636.1	636.5	636.8	637.1	637.2	637.4	637.5	637.7	637.9
155°	659.2	659.2	659.2	659.2	659.2	659.2	659.3	659.5	659.6	659.7	660.3
157.5°	679.4	679.2	679.1	678.9	678.7	678.7	678.8	678.9	679.1	679.1	679.7
160°	692.1	691.8	691.6	691.3	691.0	690.9	690.9	690.9	690.9	690.9	691.6
162.5°	703.4	703.0	702.6	702.3	701.9	701.8	701.9	702.0	702.1	702.2	702.8
165°	718.0	717.6	717.2	716.8	716.4	716.1	716.1	716.1	716.1	716.1	716.9
167.5°	729.6	729.0	728.6	728.0	727.5	727.3	727.4	727.5	727.6	727.7	728.5
170°	736.2	735.6	735.1	734.6	734.0	733.8	733.8	733.8	733.8	733.8	734.7
172.5°	741.3	740.8	740.3	739.7	739.3	738.9	738.9	738.9	738.9	738.9	739.8
175°	746.7	746.2	745.7	745.2	744.7	744.4	744.4	744.4	744.4	744.4	745.2
177.5°	749.0	748.5	748.1	747.7	747.3	747.1	747.1	747.1	747.1	747.1	747.7
180°	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	761.4	761.4	761.4	761.4	761.4	761.4	761.4	761.4
2.5°	759.9	761.0	762.2	762.7	762.6	762.4	762.2	762.2
5°	758.6	760.1	761.5	762.2	762.0	761.8	761.7	761.4
7.5°	754.0	755.9	757.7	758.5	758.3	758.1	757.9	757.6
10°	749.4	751.2	753.0	753.8	753.4	753.0	752.7	752.3
12.5°	743.1	744.8	746.5	747.2	746.8	746.5	746.1	745.7
15°	731.1	733.0	734.8	735.6	735.5	735.3	735.1	734.9
17.5°	715.5	717.2	718.8	719.5	719.3	719.0	718.7	718.5
20°	704.3	705.9	707.6	708.4	708.7	708.8	709.0	709.2
22.5°	691.8	694.0	696.0	697.0	697.0	696.8	696.7	696.6
25°	670.9	673.3	675.7	676.8	676.8	676.8	676.8	676.8
27.5°	649.0	651.0	653.1	654.2	654.3	654.5	654.7	654.8
30°	634.0	636.2	638.4	639.5	639.5	639.5	639.5	639.5
32.5°	617.7	620.0	622.4	623.8	624.2	624.7	625.1	625.6
35°	593.7	596.4	599.1	600.9	601.7	602.4	603.1	603.9
37.5°	568.6	571.8	574.9	576.8	577.3	578.0	578.5	579.2
40°	552.1	555.2	558.3	560.2	561.0	561.7	562.4	563.2
42.5°	534.7	538.1	541.6	543.8	544.9	545.9	546.9	548.0
45°	508.8	512.3	515.9	518.3	519.8	521.3	522.8	524.3
47.5°	482.7	486.6	490.6	493.1	494.2	495.4	496.5	497.6
50°	464.7	468.9	473.2	475.9	477.2	478.5	479.8	481.1
52.5°	446.4	450.8	455.2	458.2	459.8	461.4	463.0	464.5
55°	418.9	423.9	428.8	432.1	433.6	435.0	436.5	438.0
57.5°	390.8	395.8	400.8	404.2	405.9	407.7	409.3	411.1
60°	371.1	376.3	381.4	385.1	387.1	389.1	391.2	393.2
62.5°	352.6	357.7	362.9	366.4	368.3	370.2	372.1	373.9
65°	323.0	328.4	334.0	337.7	339.5	341.4	343.3	345.1
67.5°	293.4	299.5	305.5	309.3	310.9	312.4	314.0	315.5
70°	273.9	279.8	285.7	289.5	291.4	293.3	295.1	297.0
72.5°	254.3	260.3	266.4	270.4	272.2	274.0	275.8	277.7
75°	224.5	230.6	236.7	240.8	243.0	245.3	247.5	249.7
77.5°	196.6	203.0	209.5	213.5	215.2	216.9	218.6	220.3
80°	178.4	184.7	191.0	195.0	196.9	198.7	200.6	202.4
82.5°	161.8	168.1	174.4	178.4	180.3	182.1	183.9	185.8
85°	138.6	144.9	151.1	155.2	157.0	158.9	160.7	162.6
87.5°	121.2	127.6	134.0	138.2	140.0	141.9	143.8	145.7
90°	121.4	128.2	135.0	139.4	141.6	143.6	145.8	147.9
92.5°	124.1	130.6	137.1	141.2	142.8	144.3	145.8	147.3
95°	138.1	144.3	150.6	154.6	156.5	158.3	160.2	162.0
97.5°	156.5	162.6	168.6	172.5	174.4	176.1	177.9	179.7
100°	170.1	175.8	181.6	185.4	187.6	189.6	191.8	193.9
102.5°	186.5	192.1	197.6	201.4	203.2	204.9	206.8	208.5
105°	211.3	216.4	221.7	225.1	227.1	229.0	230.9	232.8
107.5°	238.4	243.8	249.1	252.6	254.1	255.6	257.0	258.5
110°	257.1	262.4	267.8	271.1	272.3	273.5	274.7	275.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	275.2	280.5	285.7	289.1	290.7	292.3	293.9	295.5
115°	303.6	308.1	312.7	315.6	317.0	318.3	319.6	321.0
117.5°	331.9	336.3	340.6	343.4	344.4	345.5	346.6	347.7
120°	351.2	355.3	359.4	361.9	363.0	364.0	365.0	366.1
122.5°	370.7	374.4	378.2	380.5	381.4	382.3	383.3	384.2
125°	399.6	402.9	406.2	408.3	409.1	409.9	410.6	411.4
127.5°	428.1	430.9	433.9	435.7	436.3	437.0	437.6	438.3
130°	446.9	450.0	453.0	454.6	454.7	454.9	455.1	455.3
132.5°	465.2	468.0	470.7	472.4	472.9	473.4	474.0	474.5
135°	493.0	495.8	498.6	500.3	501.0	501.6	502.3	503.0
137.5°	520.2	522.6	525.0	526.4	526.8	527.2	527.7	528.1
140°	538.4	541.0	543.6	544.9	544.9	544.9	544.9	545.0
142.5°	554.8	557.2	559.5	560.9	561.0	561.3	561.5	561.7
145°	581.3	582.7	584.0	584.7	584.9	585.2	585.3	585.6
147.5°	606.7	607.0	607.5	607.7	607.5	607.4	607.3	607.2
150°	622.7	622.7	622.7	622.5	622.0	621.6	621.2	620.8
152.5°	638.2	638.3	638.6	638.3	637.8	637.2	636.5	636.0
155°	660.8	661.3	661.8	661.6	660.7	659.8	658.9	658.0
157.5°	680.2	680.8	681.4	681.2	680.5	679.8	679.1	678.3
160°	692.2	692.8	693.5	693.6	693.1	692.5	692.0	691.5
162.5°	703.5	704.2	704.8	704.7	703.9	703.1	702.2	701.3
165°	717.7	718.5	719.3	719.2	718.4	717.4	716.5	715.6
167.5°	729.3	730.2	730.9	730.9	730.2	729.3	728.5	727.7
170°	735.6	736.6	737.4	737.4	736.6	735.6	734.7	733.8
172.5°	740.6	741.4	742.2	742.2	741.2	740.4	739.4	738.6
175°	746.0	746.7	747.5	747.5	746.6	745.6	744.7	743.8
177.5°	748.4	749.0	749.6	749.6	748.8	748.1	747.3	746.6
180°	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5

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