

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: P332158-927

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332158-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
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-D
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 755 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4953.8 lumens
Efficiency: N/A
Efficacy: 110.1 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

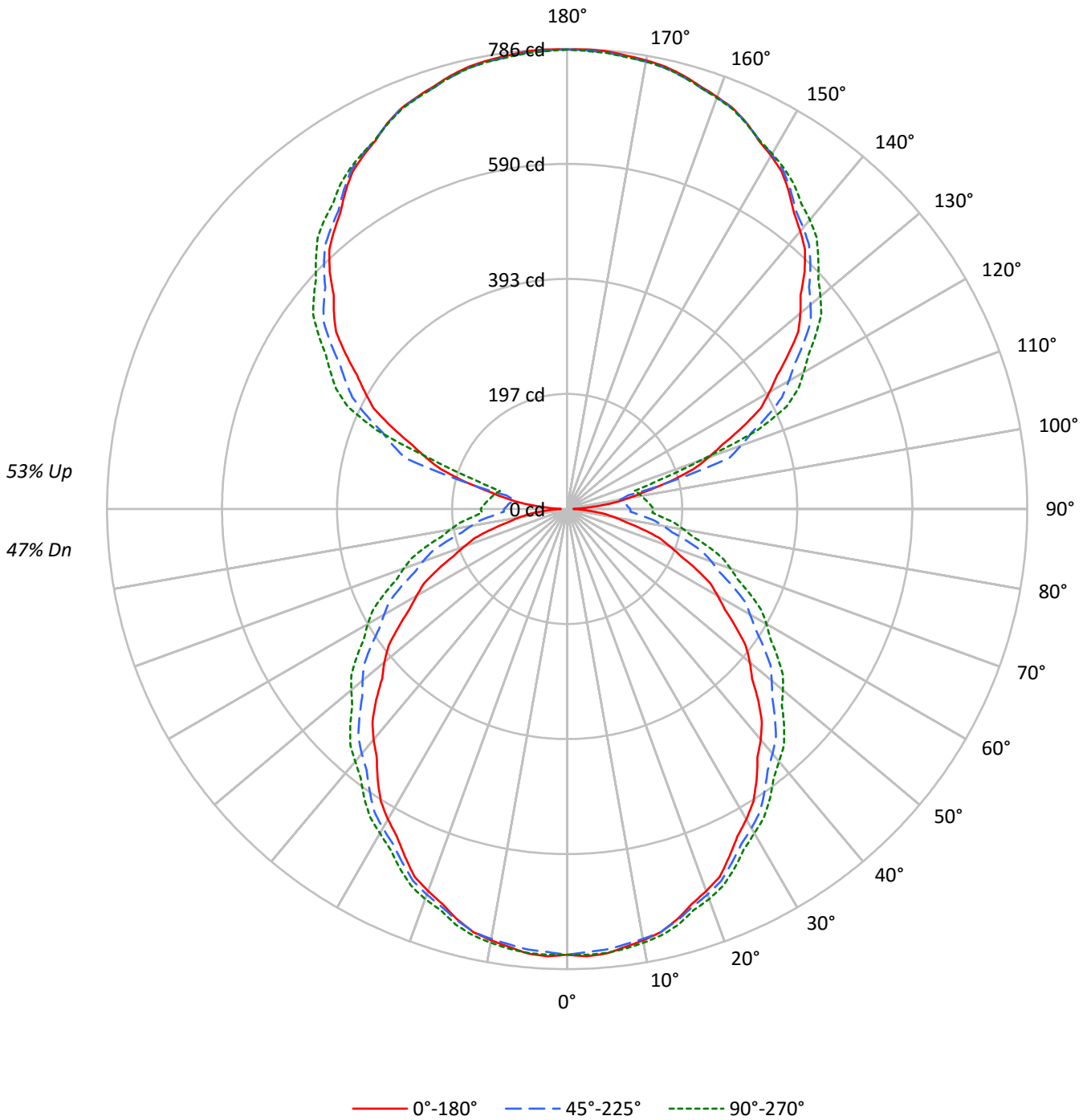
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332158-927

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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	98	98	98	98	82	82	82	67	67	67	54	54	54	47
1	96	91	87	83	88	84	80	77	70	68	65	58	56	54	46	45	43	38
2	87	79	73	67	80	73	67	62	61	57	53	50	47	44	40	38	36	31
3	79	69	62	56	72	64	57	52	53	48	44	44	40	37	35	32	30	26
4	72	61	53	47	66	56	49	44	47	42	37	39	35	31	31	28	26	22
5	66	54	46	40	61	50	43	37	42	36	32	35	30	27	28	25	22	19
6	61	49	40	34	56	45	38	32	38	32	28	31	27	24	25	22	19	16
7	56	44	36	30	52	41	33	28	34	29	24	28	24	21	23	20	17	14
8	52	40	32	26	48	37	30	25	31	26	22	26	22	18	21	18	15	13
9	49	36	29	23	45	34	27	22	29	23	19	24	20	16	19	16	14	12
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	12	10

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	1.5
10°-20°	205.8	4.2
20°-30°	307.8	6.2
30°-40°	367.5	7.4
40°-50°	384.5	7.8
50°-60°	360.9	7.3
60°-70°	301.4	6.1
70°-80°	215.6	4.4
80°-90°	130.8	2.6
90°-100°	109.2	2.2
100°-110°	195.2	3.9
110°-120°	366.2	7.4
120°-130°	438.5	8.9
130°-140°	454.5	9.2
140°-150°	417.7	8.4
150°-160°	335.2	6.8
160°-170°	216.3	4.4
170°-180°	74.5	1.5
0°-30°	585.7	11.8
0°-40°	953.3	19.2
0°-60°	1698.6	34.3
0°-90°	2346.5	47.4
90°-120°	670.6	13.5
90°-150°	1981.3	40.0
90°-180°	2607.0	52.6
0°-180°	4953.8	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°	45	55	100	129	138	51
105°	180	204	190	115	119	191
115°	330	345	379	403	413	326
125°	462	468	493	511	518	413
135°	574	577	588	604	607	441
145°	661	664	665	673	676	413
155°	727	726	726	729	726	335
165°	767	765	764	768	765	216
175°	785	782	782	786	782	75
180°	785	785	785	785	785	



TEST NUMBER: P332158-927

CATALOG NUMBER: S123DIW-S775D755U927-4F0-1E-UDD-D

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	98.7	108.4	114.9
90°	11.3	21.7	32.0	42.4	52.7	63.4	74.5	85.6	96.6	107.7	114.5
92.5°	21.0	28.8	36.5	44.3	52.1	61.2	71.8	82.3	92.8	103.4	110.3
95°	44.7	46.6	48.4	50.3	52.2	58.4	68.8	79.3	89.8	100.2	106.8
97.5°	79.6	83.7	87.8	91.9	96.0	97.8	97.0	96.3	95.6	94.9	101.5
100°	106.0	114.5	122.9	131.4	139.9	138.3	126.6	114.9	103.1	91.4	97.8
102.5°	136.1	143.3	150.4	157.6	164.8	161.5	147.7	134.0	120.3	106.5	108.5
105°	180.4	186.2	192.0	197.9	203.7	204.8	201.1	197.3	193.6	189.9	172.1
107.5°	226.2	231.2	236.0	240.9	245.8	252.9	262.3	271.6	281.1	290.4	278.5
110°	256.8	261.2	265.5	269.9	274.3	280.8	289.6	298.4	307.2	316.0	316.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	286.7	290.3	294.0	297.6	301.3	307.4	315.8	324.4	332.9	341.4	346.1
115°	330.0	333.0	336.0	339.0	342.0	347.4	355.1	363.0	370.7	378.6	384.3
117.5°	372.6	374.9	377.2	379.6	381.9	386.5	393.3	400.1	406.9	413.8	419.2
120°	398.5	400.6	402.7	404.8	406.9	411.1	417.6	424.1	430.6	437.0	442.4
122.5°	425.6	427.1	428.5	429.9	431.3	435.2	441.5	447.7	454.1	460.3	465.2
125°	461.8	462.9	463.9	464.9	466.0	469.4	475.3	481.2	487.0	492.9	497.0
127.5°	497.7	498.6	499.5	500.3	501.1	504.1	509.1	514.2	519.3	524.3	528.4
130°	520.1	521.0	521.8	522.7	523.6	526.1	530.3	534.5	538.7	542.9	546.9
132.5°	540.9	541.9	543.0	543.9	544.9	547.1	550.5	553.8	557.2	560.5	564.4
135°	573.5	574.1	574.7	575.3	575.9	577.4	580.0	582.6	585.1	587.6	591.4
137.5°	601.3	602.1	603.0	603.9	604.7	605.8	607.2	608.6	610.1	611.6	615.1
140°	619.3	620.1	620.9	621.6	622.4	623.3	624.2	625.2	626.1	627.1	630.3
142.5°	636.6	637.2	637.9	638.5	639.1	639.7	640.2	640.6	641.2	641.7	644.5
145°	660.7	661.5	662.2	662.9	663.6	664.1	664.3	664.6	664.9	665.1	666.9
147.5°	682.6	683.2	683.8	684.4	685.0	685.4	685.7	686.0	686.2	686.4	687.1
150°	696.6	697.0	697.4	697.8	698.2	698.5	698.8	699.0	699.3	699.5	699.8
152.5°	709.2	709.4	709.6	709.7	710.0	710.1	710.3	710.4	710.6	710.7	711.1
155°	726.9	726.7	726.4	726.1	725.9	725.8	726.0	726.1	726.2	726.4	727.0
157.5°	740.7	740.7	740.6	740.6	740.6	740.5	740.4	740.2	740.1	740.0	740.8
160°	749.1	748.9	748.8	748.7	748.5	748.5	748.3	748.1	748.1	747.9	748.7
162.5°	757.0	756.7	756.3	756.0	755.7	755.4	755.3	755.2	755.0	754.9	755.8
165°	766.6	766.2	765.8	765.4	765.0	764.8	764.6	764.5	764.4	764.2	765.2
167.5°	774.0	773.5	773.0	772.5	772.0	771.7	771.7	771.7	771.7	771.7	772.7
170°	778.2	777.7	777.2	776.7	776.2	775.9	775.9	775.9	775.9	775.9	776.9
172.5°	781.0	780.4	779.7	779.2	778.6	778.2	778.4	778.5	778.6	778.7	779.7
175°	784.7	783.9	783.3	782.7	782.0	781.8	781.9	782.0	782.2	782.3	783.2
177.5°	785.5	785.1	784.5	784.0	783.5	783.3	783.4	783.5	783.6	783.7	784.5
180°	784.7	784.7	784.7	784.7	784.7	784.7	784.7	784.7	784.7	784.7	784.7



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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	138.1	140.0	141.9	143.8	145.7
90°	121.3	128.1	134.8	139.3	141.4	143.5	145.6	147.7
92.5°	117.2	124.2	131.1	135.5	137.4	139.3	141.1	142.9
95°	113.4	120.0	126.7	130.9	132.8	134.6	136.4	138.3
97.5°	108.0	114.5	121.0	125.3	127.2	129.2	131.2	133.2
100°	104.2	110.5	116.9	121.1	123.1	125.1	127.0	129.0
102.5°	110.5	112.5	114.5	116.5	118.6	120.6	122.7	124.8
105°	154.3	136.6	118.8	110.9	112.8	114.7	116.6	118.6
107.5°	266.6	254.8	242.9	229.1	213.5	197.8	182.1	166.5
110°	317.0	317.5	318.1	309.8	292.7	275.7	258.6	241.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	350.9	355.5	360.3	361.5	359.2	356.9	354.7	352.4
115°	390.0	395.7	401.5	405.3	407.3	409.3	411.3	413.3
117.5°	424.6	430.1	435.5	438.9	440.5	442.0	443.6	445.1
120°	447.6	452.9	458.2	461.4	462.7	464.1	465.3	466.6
122.5°	470.0	474.8	479.6	482.7	484.1	485.5	486.9	488.3
125°	501.1	505.3	509.4	512.2	513.8	515.3	516.9	518.5
127.5°	532.4	536.5	540.6	543.0	544.1	545.1	546.1	547.1
130°	551.0	554.9	559.0	561.4	562.3	563.1	564.0	564.8
132.5°	568.3	572.2	576.1	578.5	579.3	580.2	581.1	582.0
135°	595.1	598.7	602.5	604.6	605.1	605.6	606.2	606.7
137.5°	618.6	622.1	625.7	627.7	628.4	629.1	629.8	630.4
140°	633.6	636.9	640.2	642.1	642.9	643.5	644.1	644.8
142.5°	647.5	650.3	653.2	654.9	655.5	656.0	656.6	657.1
145°	668.6	670.3	672.1	673.3	674.1	674.8	675.5	676.3
147.5°	687.9	688.6	689.3	689.7	689.8	689.8	689.8	689.9
150°	700.1	700.3	700.5	700.7	700.7	700.6	700.6	700.6
152.5°	711.6	712.1	712.6	712.6	712.0	711.5	711.0	710.4
155°	727.6	728.3	729.0	728.9	728.1	727.3	726.5	725.7
157.5°	741.6	742.3	743.1	743.0	742.0	740.9	740.0	738.9
160°	749.5	750.3	751.0	751.0	750.0	749.2	748.2	747.3
162.5°	756.7	757.6	758.4	758.4	757.6	756.9	756.1	755.3
165°	766.3	767.3	768.3	768.4	767.5	766.6	765.7	764.8
167.5°	773.7	774.8	775.9	775.9	774.8	773.7	772.7	771.7
170°	777.9	779.0	780.1	780.1	779.0	777.9	776.9	775.9
172.5°	780.8	781.8	782.8	782.8	781.6	780.5	779.3	778.2
175°	784.1	785.1	785.9	785.8	784.8	783.8	782.8	781.7
177.5°	785.4	786.2	787.0	786.9	785.8	784.8	783.8	782.8
180°	784.7	784.7	784.7	784.7	784.7	784.7	784.7	784.7

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