

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: P332593-935

Luminaire Tested: **S124DIP-S795D590U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332593-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S795D590U935-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4551.4 lumens
Efficiency: N/A
Efficacy: 112.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

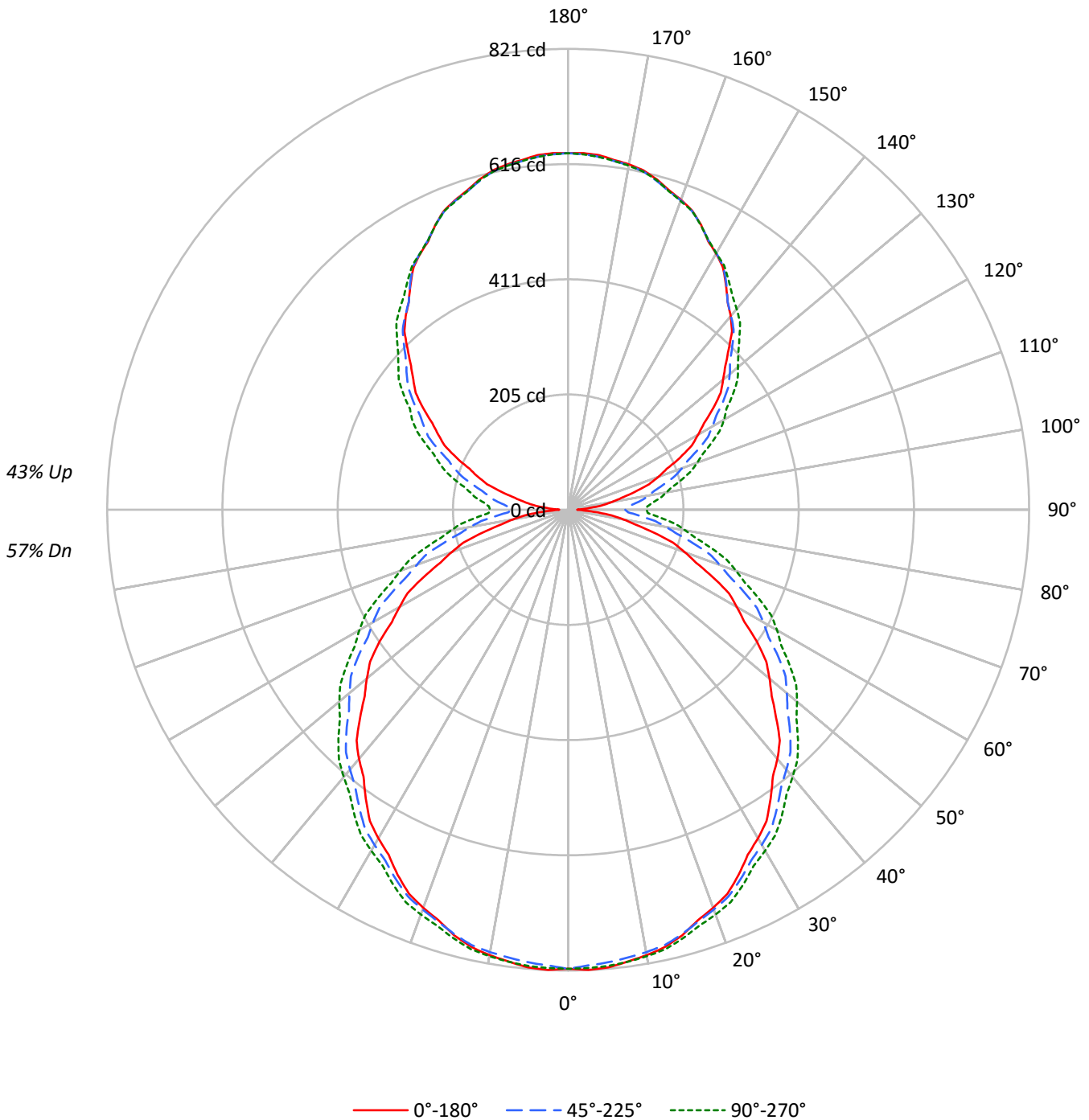
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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	62	62	62	57
1	98	93	89	85	91	87	83	80	75	72	69	63	61	59	53	52	50	45
2	89	81	74	68	82	75	69	64	65	60	56	55	52	49	46	44	41	37
3	81	71	63	56	75	66	59	53	57	51	47	48	44	41	40	37	35	31
4	74	62	54	47	68	58	51	45	50	44	40	43	38	35	36	32	30	26
5	68	55	47	40	62	52	44	38	45	39	34	38	33	30	32	29	26	22
6	62	50	41	35	58	46	39	33	40	34	29	34	30	26	29	25	22	20
7	57	45	36	31	53	42	34	29	36	30	26	31	26	23	27	23	20	17
8	53	40	32	27	49	38	31	26	33	27	23	29	24	20	24	21	18	15
9	50	37	29	24	46	35	28	23	30	25	20	26	22	18	22	19	16	14
10	46	34	26	21	43	32	25	20	28	22	18	24	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6603	6603	6603
5°	6622	6453	6471
10°	6582	6347	6342
15°	6524	6225	6190
20°	6435	6090	6044
25°	6334	5939	5882
30°	6226	5788	5714
35°	6103	5635	5569
40°	6004	5488	5417
45°	5858	5352	5286
50°	5735	5197	5149
55°	5608	5051	4987
60°	5409	4863	4840
65°	5191	4662	4657
70°	4927	4433	4447
75°	4561	4182	4255
80°	4149	3940	4067
85°	3636	3724	3960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	1.7
10°-20°	221.9	4.9
20°-30°	335.5	7.4
30°-40°	405.9	8.9
40°-50°	429.2	9.4
50°-60°	403.9	8.9
60°-70°	335.1	7.4
70°-80°	235.4	5.2
80°-90°	135.0	3.0
90°-100°	120.9	2.7
100°-110°	182.6	4.0
110°-120°	249.8	5.5
120°-130°	299.8	6.6
130°-140°	321.4	7.1
140°-150°	308.4	6.8
150°-160°	257.7	5.7
160°-170°	171.5	3.8
170°-180°	60.0	1.3
0°-30°	634.9	13.9
0°-40°	1040.8	22.9
0°-60°	1873.9	41.2
0°-90°	2579.4	56.7
90°-120°	553.3	12.2
90°-150°	1482.8	32.6
90°-180°	1972.0	43.3
0°-180°	4551.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	819	816	810	816	816	78
15°	785	786	783	791	790	221
25°	718	723	726	736	737	331
35°	628	639	648	661	664	393
45°	524	541	559	574	579	405
55°	410	430	457	475	481	365
65°	284	313	344	366	374	281
75°	158	192	230	255	264	168
85°	49	87	128	155	165	52
90°	16	58	102	130	139	12
95°	41	76	117	142	151	42
105°	123	142	177	201	210	131
115°	220	229	256	275	282	217
125°	316	316	337	353	358	281
135°	404	407	413	426	431	313
145°	490	490	491	496	498	306
155°	560	560	559	561	559	258
165°	609	608	607	610	608	172
175°	634	632	631	634	631	60
180°	635	635	635	635	635	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	820.8	820.3	819.8	819.3	818.8	817.9	816.6	815.3	814.0	812.7	813.8
5°	818.7	818.1	817.5	816.9	816.3	815.3	813.8	812.4	811.0	809.6	811.2
7.5°	811.8	811.4	811.1	810.7	810.3	809.5	808.4	807.2	806.0	804.9	806.7
10°	805.9	805.7	805.6	805.3	805.1	804.5	803.5	802.5	801.4	800.4	802.3
12.5°	797.9	797.8	797.8	797.7	797.7	797.4	796.7	795.9	795.2	794.5	796.3
15°	784.9	785.1	785.2	785.5	785.7	785.5	784.9	784.3	783.6	783.0	784.9
17.5°	767.1	767.7	768.3	769.0	769.6	769.7	769.6	769.6	769.4	769.3	771.2
20°	754.7	755.3	755.9	756.5	757.1	757.5	757.7	757.9	758.1	758.3	760.3
22.5°	740.7	741.5	742.3	743.0	743.8	744.4	744.8	745.1	745.5	745.9	747.9
25°	718.0	719.2	720.5	721.7	722.9	723.8	724.4	725.0	725.7	726.3	728.5
27.5°	692.8	694.5	696.3	698.1	699.9	701.3	702.2	703.1	704.0	705.0	707.1
30°	675.9	677.5	679.2	680.8	682.4	683.9	685.4	686.7	688.2	689.6	691.8
32.5°	657.5	659.5	661.5	663.4	665.4	667.1	668.7	670.3	671.9	673.5	676.1
35°	628.3	630.7	633.2	635.6	638.0	640.2	642.3	644.4	646.4	648.4	651.3
37.5°	598.7	601.6	604.4	607.2	610.0	612.7	615.2	617.7	620.3	622.8	625.7
40°	579.7	582.4	585.0	587.6	590.3	593.1	595.9	598.7	601.6	604.4	607.5
42.5°	557.8	560.7	563.7	566.6	569.6	572.7	576.1	579.5	582.8	586.1	589.5
45°	523.8	527.7	531.6	535.5	539.3	543.2	547.1	551.0	554.7	558.6	562.1
47.5°	491.5	495.4	499.4	503.4	507.4	511.6	516.1	520.6	525.0	529.5	533.1
50°	468.0	472.4	476.9	481.4	485.9	490.3	494.8	499.3	503.8	508.2	512.4
52.5°	444.5	449.0	453.5	458.0	462.4	467.3	472.3	477.5	482.7	487.8	491.8
55°	410.3	414.6	418.9	423.1	427.4	432.6	438.7	444.8	450.9	457.0	461.1
57.5°	372.0	377.3	382.6	387.9	393.1	398.8	404.9	411.0	417.1	423.1	427.9
60°	347.1	352.4	357.7	363.0	368.2	374.3	381.0	387.7	394.4	401.1	405.8
62.5°	322.9	328.7	334.5	340.3	346.0	352.3	359.0	365.8	372.5	379.2	383.8
65°	283.9	290.4	297.0	303.4	310.0	316.7	323.6	330.5	337.4	344.3	349.4
67.5°	246.3	253.3	260.2	267.1	274.1	281.2	288.6	296.0	303.4	310.8	316.0
70°	220.7	227.6	234.5	241.5	248.4	255.7	263.5	271.2	278.9	286.6	292.1
72.5°	195.8	202.9	210.0	217.1	224.1	231.8	240.0	248.2	256.5	264.7	270.0
75°	157.6	165.1	172.5	180.1	187.6	195.7	204.2	212.8	221.4	229.9	235.6
77.5°	121.8	129.8	137.8	145.8	153.7	162.2	171.2	180.1	189.1	198.0	203.8
80°	99.8	108.0	116.1	124.2	132.4	140.9	149.9	158.9	167.8	176.8	182.9
82.5°	77.8	86.3	94.8	103.2	111.7	120.5	129.4	138.4	147.3	156.3	162.5
85°	48.6	57.1	65.6	74.2	82.7	91.6	100.7	109.9	119.1	128.2	134.3
87.5°	27.4	35.9	44.5	53.0	61.6	70.4	79.5	88.6	97.6	106.8	112.8
90°	16.1	25.5	34.8	44.2	53.5	62.9	72.6	82.2	91.9	101.5	108.1
92.5°	24.5	33.1	41.8	50.5	59.2	68.3	77.7	87.0	96.3	105.7	111.8
95°	41.3	49.1	56.7	64.5	72.2	80.6	89.7	98.8	107.9	117.0	122.8
97.5°	62.3	68.8	75.4	82.0	88.5	96.4	105.6	114.7	123.9	133.0	138.7
100°	78.8	84.6	90.3	96.0	101.8	109.1	118.0	126.9	135.8	144.7	150.4
102.5°	96.9	101.7	106.5	111.3	116.1	122.9	131.6	140.3	148.9	157.6	163.2
105°	122.7	126.8	131.0	135.2	139.4	145.4	153.4	161.4	169.4	177.3	182.7
107.5°	151.4	154.9	158.4	161.9	165.3	170.7	177.9	185.0	192.3	199.4	204.7
110°	170.4	173.4	176.5	179.6	182.6	187.7	194.7	201.7	208.7	215.8	220.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	190.0	192.6	195.2	197.8	200.4	204.9	211.5	218.1	224.7	231.4	235.8
115°	219.6	221.4	223.3	225.1	227.0	231.0	237.3	243.6	249.9	256.1	260.5
117.5°	248.3	249.5	250.6	251.8	253.0	256.6	262.5	268.4	274.3	280.3	284.1
120°	266.8	267.9	268.9	269.9	271.0	274.3	279.9	285.4	291.0	296.6	300.1
122.5°	286.9	287.1	287.4	287.7	288.0	290.9	296.4	301.8	307.2	312.6	316.2
125°	315.5	315.3	315.1	314.9	314.7	317.1	322.0	327.0	332.0	337.0	340.6
127.5°	342.2	342.2	342.3	342.5	342.6	344.6	348.3	352.0	355.8	359.5	362.9
130°	360.2	360.3	360.5	360.6	360.8	362.4	365.7	368.9	372.2	375.5	378.9
132.5°	379.5	379.5	379.5	379.6	379.6	380.9	383.4	386.0	388.5	391.0	394.3
135°	404.0	404.7	405.4	406.0	406.7	407.7	409.1	410.5	412.0	413.4	416.4
137.5°	431.7	431.8	431.9	432.0	432.1	432.6	433.5	434.4	435.2	436.1	438.8
140°	450.2	450.2	450.2	450.2	450.2	450.4	450.6	450.7	451.0	451.2	453.7
142.5°	466.3	466.5	466.7	466.8	467.1	467.0	466.8	466.6	466.4	466.2	468.5
145°	489.6	489.7	490.0	490.3	490.4	490.6	490.8	490.9	490.9	491.0	492.1
147.5°	512.7	513.1	513.3	513.7	514.0	514.1	514.0	513.9	513.8	513.8	513.8
150°	526.8	527.1	527.3	527.5	527.8	527.9	527.9	527.9	527.9	527.9	527.9
152.5°	539.5	539.7	539.9	540.1	540.4	540.5	540.6	540.7	540.8	540.9	541.1
155°	559.8	559.8	559.8	559.8	559.8	559.7	559.6	559.6	559.5	559.3	559.7
157.5°	577.1	576.9	576.7	576.5	576.4	576.2	576.2	576.2	576.2	576.1	576.4
160°	587.3	587.2	587.1	587.0	586.9	586.8	586.7	586.6	586.4	586.3	586.7
162.5°	596.8	596.5	596.2	595.9	595.6	595.4	595.3	595.2	595.1	595.0	595.6
165°	609.4	609.1	608.7	608.5	608.1	607.9	607.6	607.4	607.2	607.0	607.6
167.5°	619.1	618.7	618.2	617.8	617.3	617.1	617.1	617.2	617.2	617.2	617.9
170°	624.7	624.1	623.5	623.0	622.4	622.2	622.3	622.4	622.6	622.7	623.4
172.5°	628.5	628.1	627.7	627.2	626.7	626.5	626.5	626.5	626.5	626.6	627.3
175°	634.0	633.4	632.9	632.3	631.8	631.5	631.4	631.3	631.1	631.0	631.8
177.5°	635.8	635.3	634.9	634.5	634.0	633.8	633.8	633.8	633.8	633.8	634.4
180°	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	817.9	817.9	817.9	817.9	817.9	817.9	817.9	817.9
2.5°	814.9	816.1	817.3	817.8	817.6	817.4	817.3	817.1
5°	812.9	814.5	816.1	816.8	816.6	816.4	816.2	816.0
7.5°	808.5	810.3	812.2	813.0	812.8	812.5	812.4	812.2
10°	804.1	805.9	807.8	808.6	808.4	808.1	808.0	807.8
12.5°	797.9	799.6	801.2	802.0	802.0	801.9	801.9	801.8
15°	786.7	788.5	790.3	791.2	791.0	790.7	790.6	790.3
17.5°	773.0	774.9	776.8	777.7	777.5	777.3	777.1	777.0
20°	762.3	764.4	766.5	767.5	767.5	767.5	767.5	767.5
22.5°	749.9	751.9	754.0	755.2	755.5	755.8	756.1	756.5
25°	730.7	733.0	735.2	736.4	736.6	736.8	737.0	737.3
27.5°	709.1	711.2	713.3	714.5	714.7	715.0	715.2	715.4
30°	694.1	696.3	698.5	699.9	700.3	700.7	701.1	701.5
32.5°	678.6	681.2	683.7	685.3	685.6	686.0	686.5	686.9
35°	654.1	656.9	659.8	661.5	662.1	662.7	663.4	664.0
37.5°	628.5	631.5	634.3	636.1	636.7	637.4	638.0	638.7
40°	610.5	613.6	616.6	618.5	619.4	620.2	621.0	621.8
42.5°	592.9	596.2	599.6	601.7	602.3	603.0	603.6	604.2
45°	565.6	569.0	572.5	574.7	575.8	576.8	577.8	578.8
47.5°	536.7	540.3	543.9	546.2	547.5	548.7	549.9	551.1
50°	516.4	520.5	524.5	527.2	528.4	529.7	530.9	532.1
52.5°	495.9	500.0	504.0	506.7	507.9	509.1	510.3	511.6
55°	465.1	469.2	473.3	476.0	477.2	478.4	479.6	480.8
57.5°	432.8	437.6	442.5	445.5	446.6	447.7	448.9	450.0
60°	410.5	415.2	419.8	423.0	424.6	426.3	427.9	429.6
62.5°	388.5	393.2	397.9	401.1	402.7	404.3	405.9	407.5
65°	354.6	359.6	364.7	368.1	369.7	371.3	372.9	374.5
67.5°	321.2	326.3	331.5	334.8	336.5	338.0	339.7	341.2
70°	297.6	303.2	308.7	312.1	313.5	315.0	316.3	317.8
72.5°	275.3	280.7	286.0	289.5	291.0	292.7	294.2	295.8
75°	241.3	246.9	252.7	256.4	258.3	260.1	261.9	263.7
77.5°	209.6	215.3	221.1	225.0	227.0	228.9	230.8	232.8
80°	189.0	195.1	201.2	205.0	206.6	208.3	209.9	211.5
82.5°	168.8	175.0	181.3	185.4	187.1	188.9	190.7	192.5
85°	140.4	146.5	152.7	156.7	158.8	160.7	162.8	164.9
87.5°	118.8	124.8	130.9	134.8	136.6	138.4	140.3	142.2
90°	114.6	121.1	127.7	131.9	133.7	135.6	137.4	139.3
92.5°	118.0	124.1	130.3	134.2	136.0	137.7	139.5	141.2
95°	128.6	134.5	140.3	144.1	145.9	147.7	149.6	151.4
97.5°	144.5	150.2	155.9	159.6	161.4	163.2	164.9	166.7
100°	156.2	161.9	167.6	171.2	172.5	174.0	175.5	176.8
102.5°	168.8	174.5	180.1	183.7	185.5	187.1	188.8	190.5
105°	188.1	193.6	199.0	202.7	204.7	206.6	208.5	210.5
107.5°	210.0	215.3	220.7	224.0	225.5	227.0	228.3	229.8
110°	224.6	229.1	233.6	236.8	238.8	240.7	242.6	244.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	240.3	244.7	249.2	252.3	254.0	255.7	257.4	259.1
115°	264.9	269.2	273.6	276.5	277.8	279.1	280.4	281.7
117.5°	287.9	291.8	295.7	298.3	299.7	301.2	302.6	303.9
120°	303.7	307.2	310.7	313.4	315.2	317.1	318.9	320.8
122.5°	319.9	323.6	327.4	329.8	330.9	331.9	332.9	334.1
125°	344.3	347.9	351.5	353.9	354.9	355.9	356.9	357.9
127.5°	366.4	369.8	373.2	375.6	376.8	378.0	379.2	380.4
130°	382.4	385.8	389.3	391.3	392.1	393.0	393.7	394.5
132.5°	397.5	400.8	404.2	406.3	407.3	408.4	409.4	410.4
135°	419.5	422.5	425.5	427.5	428.3	429.3	430.2	431.1
137.5°	441.4	444.1	446.9	448.7	449.8	450.9	451.9	453.1
140°	456.2	458.7	461.3	463.0	463.9	464.9	465.7	466.7
142.5°	470.8	473.1	475.4	477.0	477.8	478.6	479.5	480.3
145°	493.3	494.4	495.5	496.3	496.8	497.3	497.7	498.3
147.5°	513.9	514.0	514.1	514.4	514.9	515.5	516.0	516.5
150°	527.9	527.9	527.9	527.9	527.7	527.6	527.5	527.4
152.5°	541.4	541.7	541.9	541.9	541.7	541.3	541.1	540.8
155°	560.2	560.6	561.1	561.1	560.6	560.2	559.7	559.3
157.5°	576.8	577.1	577.5	577.4	577.0	576.7	576.3	575.9
160°	587.0	587.3	587.6	587.5	587.0	586.4	585.9	585.4
162.5°	596.2	596.8	597.4	597.4	596.8	596.2	595.7	595.2
165°	608.3	608.9	609.6	609.7	609.2	608.8	608.4	608.0
167.5°	618.5	619.1	619.8	619.7	619.1	618.5	617.8	617.1
170°	624.0	624.7	625.3	625.3	624.5	623.7	622.9	622.2
172.5°	628.1	628.9	629.6	629.6	628.8	628.0	627.2	626.5
175°	632.6	633.4	634.0	634.0	633.4	632.6	631.8	631.0
177.5°	635.0	635.6	636.2	636.2	635.5	634.8	634.0	633.4
180°	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0

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