

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: P332593-927

Luminaire Tested: **S124DIP-S795D590U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332593-927
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-S795D590U927-4F0-1E-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: 4187.6 lumens
Efficiency: N/A
Efficacy: 103.9 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

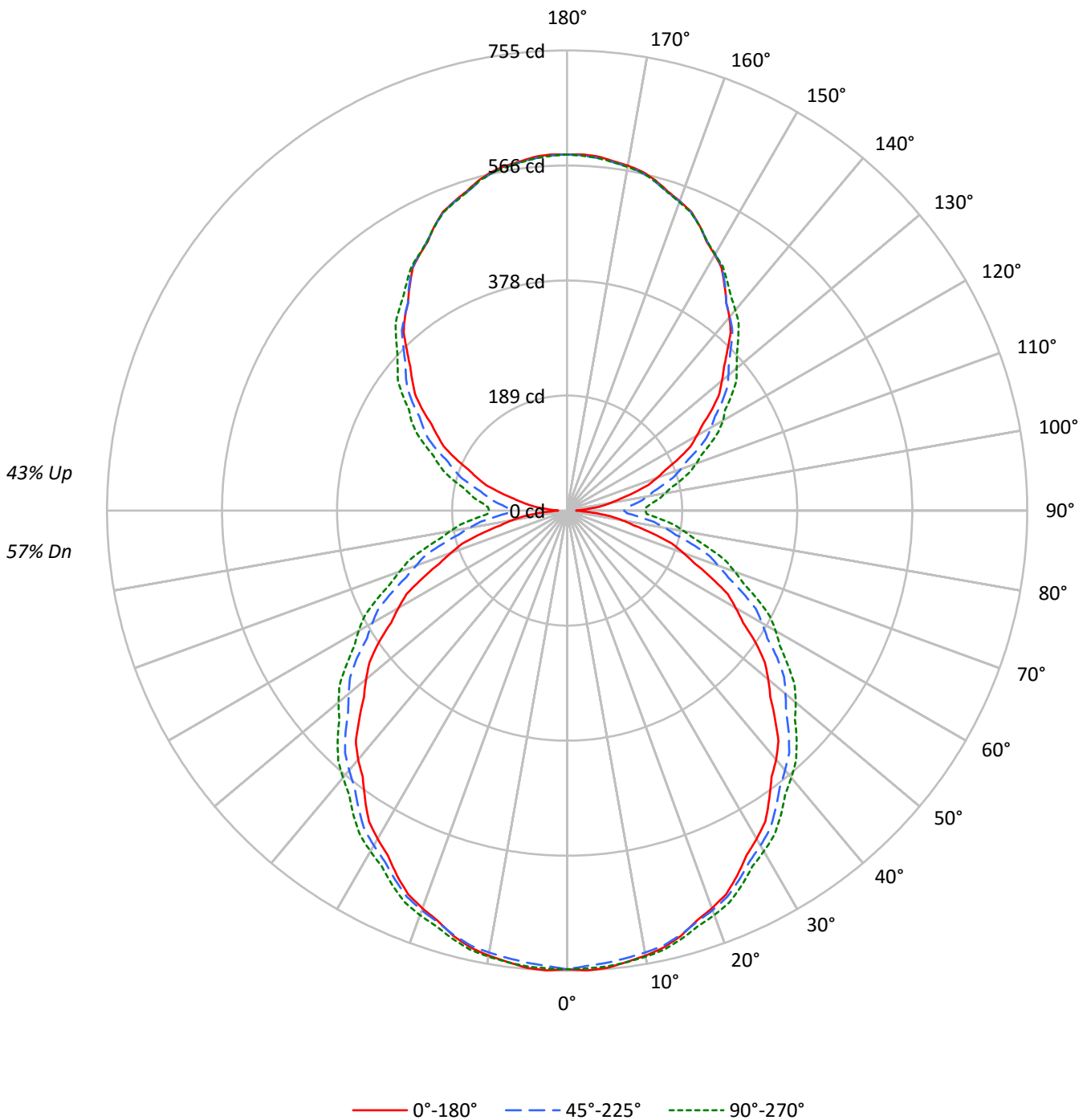
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
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°	6075	6075	6075
5°	6093	5937	5954
10°	6056	5839	5835
15°	6002	5727	5695
20°	5920	5603	5561
25°	5828	5464	5411
30°	5728	5326	5258
35°	5615	5184	5124
40°	5525	5049	4984
45°	5391	4925	4864
50°	5277	4781	4738
55°	5160	4647	4588
60°	4976	4475	4453
65°	4776	4290	4285
70°	4532	4078	4091
75°	4196	3847	3915
80°	3817	3624	3742
85°	3344	3427	3643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	1.7
10°-20°	204.2	4.9
20°-30°	308.7	7.4
30°-40°	373.5	8.9
40°-50°	394.9	9.4
50°-60°	371.6	8.9
60°-70°	308.3	7.4
70°-80°	216.6	5.2
80°-90°	124.2	3.0
90°-100°	111.2	2.7
100°-110°	168.0	4.0
110°-120°	229.9	5.5
120°-130°	275.8	6.6
130°-140°	295.7	7.1
140°-150°	283.7	6.8
150°-160°	237.1	5.7
160°-170°	157.8	3.8
170°-180°	55.2	1.3
0°-30°	584.1	13.9
0°-40°	957.6	22.9
0°-60°	1724.1	41.2
0°-90°	2373.2	56.7
90°-120°	509.0	12.2
90°-150°	1364.3	32.6
90°-180°	1814.0	43.3
0°-180°	4187.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	753	751	745	751	751	71
15°	722	723	720	728	727	203
25°	661	666	668	677	678	304
35°	578	588	597	608	611	362
45°	482	498	514	528	532	372
55°	378	396	420	437	442	336
65°	261	288	317	337	345	259
75°	145	176	212	234	243	154
85°	45	80	118	142	152	48
90°	15	54	93	119	128	11
95°	38	70	108	131	139	39
105°	113	131	163	185	194	120
115°	202	211	236	253	259	200
125°	290	291	310	324	329	259
135°	372	375	380	392	397	288
145°	450	451	452	456	458	282
155°	515	515	515	516	515	237
165°	561	559	558	561	559	158
175°	583	581	581	583	581	55
180°	584	584	584	584	584	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	755.2	754.7	754.2	753.8	753.4	752.6	751.3	750.1	748.9	747.7	748.8
5°	753.3	752.7	752.2	751.6	751.1	750.1	748.8	747.5	746.2	744.9	746.4
7.5°	746.9	746.6	746.2	745.9	745.5	744.8	743.8	742.7	741.6	740.5	742.2
10°	741.5	741.3	741.2	740.9	740.8	740.2	739.3	738.3	737.4	736.4	738.2
12.5°	734.1	734.0	734.0	734.0	734.0	733.6	733.0	732.3	731.7	731.0	732.6
15°	722.2	722.3	722.5	722.7	722.9	722.7	722.2	721.6	721.0	720.4	722.2
17.5°	705.8	706.3	706.9	707.5	708.1	708.2	708.1	708.1	707.9	707.8	709.6
20°	694.3	694.9	695.5	696.0	696.6	697.0	697.1	697.3	697.5	697.7	699.6
22.5°	681.5	682.2	682.9	683.7	684.4	684.9	685.2	685.6	685.9	686.3	688.1
25°	660.6	661.7	662.9	664.0	665.1	666.0	666.5	667.1	667.7	668.2	670.3
27.5°	637.4	639.0	640.6	642.3	644.0	645.2	646.1	646.9	647.8	648.6	650.5
30°	621.9	623.4	624.9	626.4	627.9	629.2	630.6	631.8	633.2	634.5	636.5
32.5°	605.0	606.8	608.6	610.4	612.2	613.8	615.3	616.7	618.2	619.6	622.0
35°	578.1	580.3	582.6	584.8	587.0	589.1	591.0	592.9	594.7	596.6	599.2
37.5°	550.9	553.5	556.1	558.6	561.3	563.7	566.0	568.3	570.7	573.0	575.7
40°	533.4	535.8	538.2	540.7	543.1	545.7	548.3	550.9	553.5	556.1	559.0
42.5°	513.2	515.9	518.6	521.3	524.1	527.0	530.0	533.1	536.2	539.2	542.4
45°	482.0	485.5	489.1	492.7	496.2	499.8	503.4	506.9	510.4	514.0	517.2
47.5°	452.2	455.8	459.5	463.2	466.8	470.7	474.8	479.0	483.1	487.2	490.5
50°	430.6	434.7	438.8	442.9	447.0	451.1	455.3	459.4	463.5	467.6	471.4
52.5°	409.0	413.1	417.2	421.4	425.5	429.9	434.6	439.3	444.1	448.8	452.5
55°	377.5	381.4	385.4	389.3	393.2	398.0	403.6	409.2	414.9	420.5	424.2
57.5°	342.3	347.1	352.0	356.9	361.7	366.9	372.6	378.1	383.7	389.3	393.7
60°	319.3	324.2	329.1	334.0	338.8	344.4	350.5	356.7	362.9	369.1	373.4
62.5°	297.1	302.5	307.8	313.1	318.4	324.2	330.3	336.5	342.7	348.9	353.2
65°	261.2	267.2	273.2	279.2	285.2	291.4	297.7	304.1	310.5	316.8	321.5
67.5°	226.6	233.1	239.4	245.7	252.2	258.7	265.5	272.4	279.2	286.0	290.7
70°	203.0	209.5	215.8	222.2	228.5	235.3	242.4	249.5	256.6	263.7	268.8
72.5°	180.1	186.6	193.2	199.7	206.2	213.3	220.9	228.4	236.0	243.5	248.4
75°	145.0	151.9	158.8	165.7	172.6	180.1	187.9	195.7	203.7	211.5	216.7
77.5°	112.1	119.4	126.7	134.1	141.4	149.2	157.5	165.7	174.0	182.2	187.5
80°	91.8	99.3	106.8	114.3	121.8	129.7	137.9	146.2	154.4	162.6	168.3
82.5°	71.6	79.4	87.2	95.0	102.7	110.8	119.1	127.3	135.5	143.8	149.5
85°	44.7	52.5	60.4	68.3	76.1	84.3	92.7	101.1	109.6	118.0	123.6
87.5°	25.2	33.0	41.0	48.8	56.6	64.8	73.1	81.5	89.8	98.2	103.8
90°	14.8	23.4	32.0	40.6	49.2	57.9	66.8	75.7	84.5	93.4	99.4
92.5°	22.5	30.5	38.5	46.5	54.5	62.8	71.5	80.0	88.6	97.3	102.9
95°	38.0	45.2	52.2	59.3	66.4	74.1	82.5	90.9	99.3	107.7	113.0
97.5°	57.3	63.3	69.4	75.4	81.4	88.7	97.1	105.5	114.0	122.4	127.6
100°	72.5	77.8	83.1	88.3	93.6	100.4	108.5	116.8	124.9	133.2	138.4
102.5°	89.1	93.6	98.0	102.4	106.9	113.0	121.0	129.0	137.0	145.0	150.2
105°	112.9	116.7	120.6	124.4	128.3	133.8	141.2	148.5	155.8	163.1	168.1
107.5°	139.3	142.5	145.8	148.9	152.1	157.0	163.7	170.2	176.9	183.5	188.4
110°	156.8	159.5	162.4	165.2	168.0	172.7	179.1	185.6	192.0	198.5	202.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	174.8	177.2	179.6	182.0	184.3	188.5	194.6	200.7	206.8	212.9	217.0
115°	202.1	203.7	205.4	207.1	208.8	212.5	218.3	224.1	229.9	235.7	239.7
117.5°	228.5	229.6	230.6	231.7	232.8	236.1	241.5	246.9	252.4	257.9	261.4
120°	245.5	246.4	247.4	248.3	249.3	252.4	257.5	262.6	267.8	272.9	276.2
122.5°	264.0	264.2	264.4	264.7	265.0	267.7	272.7	277.7	282.7	287.6	291.0
125°	290.3	290.1	289.9	289.7	289.5	291.8	296.3	300.9	305.5	310.1	313.4
127.5°	314.8	314.9	315.0	315.1	315.2	317.0	320.4	323.8	327.3	330.7	333.9
130°	331.4	331.5	331.7	331.8	331.9	333.4	336.4	339.5	342.5	345.5	348.6
132.5°	349.2	349.2	349.2	349.3	349.3	350.5	352.8	355.1	357.4	359.7	362.7
135°	371.7	372.3	373.0	373.5	374.1	375.1	376.4	377.7	379.1	380.3	383.1
137.5°	397.2	397.3	397.4	397.5	397.6	398.0	398.9	399.7	400.4	401.2	403.7
140°	414.2	414.2	414.2	414.2	414.2	414.4	414.5	414.7	414.9	415.1	417.4
142.5°	429.0	429.2	429.4	429.5	429.8	429.7	429.5	429.3	429.1	429.0	431.0
145°	450.4	450.6	450.8	451.1	451.2	451.4	451.5	451.6	451.7	451.8	452.8
147.5°	471.7	472.1	472.3	472.6	472.9	473.0	472.9	472.9	472.8	472.7	472.8
150°	484.7	485.0	485.1	485.4	485.6	485.7	485.7	485.7	485.7	485.7	485.7
152.5°	496.4	496.5	496.8	496.9	497.2	497.3	497.4	497.5	497.6	497.6	497.9
155°	515.1	515.1	515.1	515.1	515.1	515.0	514.9	514.8	514.8	514.6	515.0
157.5°	531.0	530.8	530.6	530.4	530.3	530.1	530.1	530.1	530.1	530.0	530.4
160°	540.3	540.3	540.2	540.1	540.0	539.9	539.8	539.7	539.6	539.5	539.8
162.5°	549.1	548.8	548.5	548.3	548.0	547.8	547.7	547.6	547.6	547.4	548.0
165°	560.7	560.4	560.1	559.8	559.5	559.3	559.0	558.9	558.6	558.5	559.0
167.5°	569.7	569.3	568.8	568.4	568.0	567.8	567.8	567.8	567.8	567.8	568.5
170°	574.7	574.3	573.7	573.2	572.7	572.5	572.6	572.7	572.8	572.9	573.5
172.5°	578.3	577.9	577.5	577.1	576.6	576.5	576.5	576.5	576.5	576.6	577.2
175°	583.3	582.8	582.3	581.8	581.3	581.0	580.9	580.8	580.7	580.6	581.3
177.5°	584.9	584.6	584.2	583.8	583.3	583.1	583.1	583.1	583.1	583.1	583.7
180°	584.2	584.2	584.2	584.2	584.2	584.2	584.2	584.2	584.2	584.2	584.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	749.8	750.9	751.9	752.4	752.3	752.1	751.9	751.8
5°	747.9	749.4	750.8	751.5	751.3	751.1	751.0	750.8
7.5°	743.9	745.5	747.3	748.0	747.8	747.6	747.4	747.3
10°	739.8	741.5	743.2	743.9	743.8	743.5	743.4	743.2
12.5°	734.1	735.7	737.2	737.9	737.9	737.8	737.8	737.8
15°	723.8	725.5	727.1	727.9	727.8	727.5	727.4	727.1
17.5°	711.2	713.0	714.7	715.5	715.3	715.2	715.0	714.9
20°	701.4	703.3	705.2	706.2	706.2	706.2	706.2	706.2
22.5°	690.0	691.8	693.7	694.8	695.1	695.4	695.7	696.0
25°	672.3	674.4	676.4	677.6	677.7	677.9	678.1	678.3
27.5°	652.4	654.3	656.3	657.4	657.6	657.8	658.1	658.2
30°	638.6	640.6	642.7	644.0	644.4	644.7	645.1	645.5
32.5°	624.4	626.8	629.1	630.5	630.8	631.2	631.6	632.0
35°	601.8	604.4	607.0	608.6	609.2	609.7	610.4	610.9
37.5°	578.3	581.0	583.6	585.3	585.8	586.5	587.0	587.6
40°	561.7	564.6	567.4	569.1	569.9	570.6	571.4	572.1
42.5°	545.5	548.6	551.7	553.6	554.1	554.8	555.4	556.0
45°	520.4	523.6	526.7	528.8	529.7	530.7	531.6	532.5
47.5°	493.8	497.1	500.4	502.6	503.7	504.9	506.0	507.1
50°	475.2	478.9	482.6	485.1	486.2	487.4	488.5	489.6
52.5°	456.3	460.0	463.7	466.2	467.3	468.4	469.5	470.7
55°	427.9	431.7	435.5	437.9	439.0	440.1	441.2	442.4
57.5°	398.2	402.7	407.1	409.9	410.9	411.9	413.0	414.1
60°	377.7	382.0	386.3	389.2	390.7	392.2	393.7	395.2
62.5°	357.4	361.8	366.1	369.0	370.5	372.0	373.4	374.9
65°	326.2	330.9	335.6	338.7	340.2	341.7	343.1	344.6
67.5°	295.5	300.2	305.0	308.1	309.6	311.0	312.5	313.9
70°	273.9	278.9	284.0	287.2	288.4	289.8	291.0	292.4
72.5°	253.3	258.3	263.2	266.3	267.8	269.3	270.7	272.2
75°	222.0	227.2	232.5	235.9	237.7	239.3	241.0	242.6
77.5°	192.8	198.1	203.4	207.0	208.8	210.6	212.4	214.2
80°	173.9	179.5	185.1	188.6	190.1	191.6	193.1	194.6
82.5°	155.3	161.1	166.8	170.6	172.1	173.8	175.5	177.1
85°	129.2	134.8	140.5	144.2	146.1	147.9	149.8	151.7
87.5°	109.3	114.9	120.4	124.1	125.7	127.4	129.1	130.8
90°	105.4	111.5	117.5	121.4	123.0	124.8	126.4	128.2
92.5°	108.5	114.2	119.9	123.5	125.1	126.7	128.3	129.9
95°	118.4	123.7	129.0	132.6	134.3	135.9	137.7	139.3
97.5°	132.9	138.2	143.5	146.9	148.5	150.1	151.7	153.4
100°	143.7	148.9	154.2	157.5	158.8	160.1	161.4	162.7
102.5°	155.3	160.6	165.7	169.1	170.6	172.1	173.7	175.2
105°	173.1	178.1	183.1	186.5	188.3	190.0	191.9	193.7
107.5°	193.2	198.1	203.0	206.1	207.5	208.8	210.1	211.4
110°	206.7	210.8	214.9	217.9	219.7	221.5	223.2	225.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	221.1	225.1	229.3	232.1	233.7	235.3	236.8	238.4
115°	243.8	247.7	251.8	254.4	255.6	256.8	258.0	259.2
117.5°	264.9	268.5	272.0	274.5	275.8	277.1	278.4	279.6
120°	279.4	282.7	285.9	288.4	290.0	291.8	293.4	295.2
122.5°	294.4	297.8	301.2	303.4	304.4	305.4	306.3	307.4
125°	316.8	320.1	323.4	325.6	326.5	327.5	328.4	329.3
127.5°	337.1	340.2	343.4	345.5	346.7	347.8	348.9	350.0
130°	351.8	355.0	358.1	360.0	360.8	361.6	362.3	363.0
132.5°	365.8	368.8	371.9	373.8	374.8	375.7	376.7	377.6
135°	386.0	388.7	391.5	393.3	394.1	395.0	395.8	396.6
137.5°	406.2	408.6	411.1	412.8	413.8	414.9	415.8	416.8
140°	419.8	422.1	424.5	426.0	426.8	427.7	428.5	429.4
142.5°	433.2	435.3	437.4	438.9	439.6	440.4	441.2	441.9
145°	453.8	454.9	455.9	456.6	457.1	457.6	458.0	458.4
147.5°	472.9	472.9	473.0	473.2	473.7	474.3	474.8	475.2
150°	485.7	485.7	485.7	485.7	485.5	485.4	485.4	485.3
152.5°	498.1	498.4	498.6	498.6	498.4	498.0	497.8	497.6
155°	515.4	515.8	516.3	516.3	515.8	515.4	515.0	514.6
157.5°	530.7	531.0	531.3	531.2	530.9	530.6	530.2	529.9
160°	540.1	540.3	540.7	540.6	540.1	539.6	539.1	538.6
162.5°	548.5	549.1	549.6	549.6	549.1	548.6	548.1	547.6
165°	559.7	560.2	560.9	560.9	560.5	560.2	559.8	559.4
167.5°	569.0	569.7	570.3	570.2	569.7	569.0	568.4	567.8
170°	574.1	574.7	575.3	575.3	574.6	573.9	573.1	572.4
172.5°	577.9	578.6	579.2	579.2	578.5	577.8	577.1	576.5
175°	582.0	582.7	583.4	583.4	582.7	582.0	581.3	580.6
177.5°	584.2	584.8	585.3	585.3	584.7	584.1	583.4	582.7
180°	584.2	584.2	584.2	584.2	584.2	584.2	584.2	584.2

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