

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: P332603-927

Luminaire Tested: **SA4XXDIP-C795D810U927-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332603-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C795D810U927-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4859.8 lumens
Efficiency: N/A
Efficacy: 105.9 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

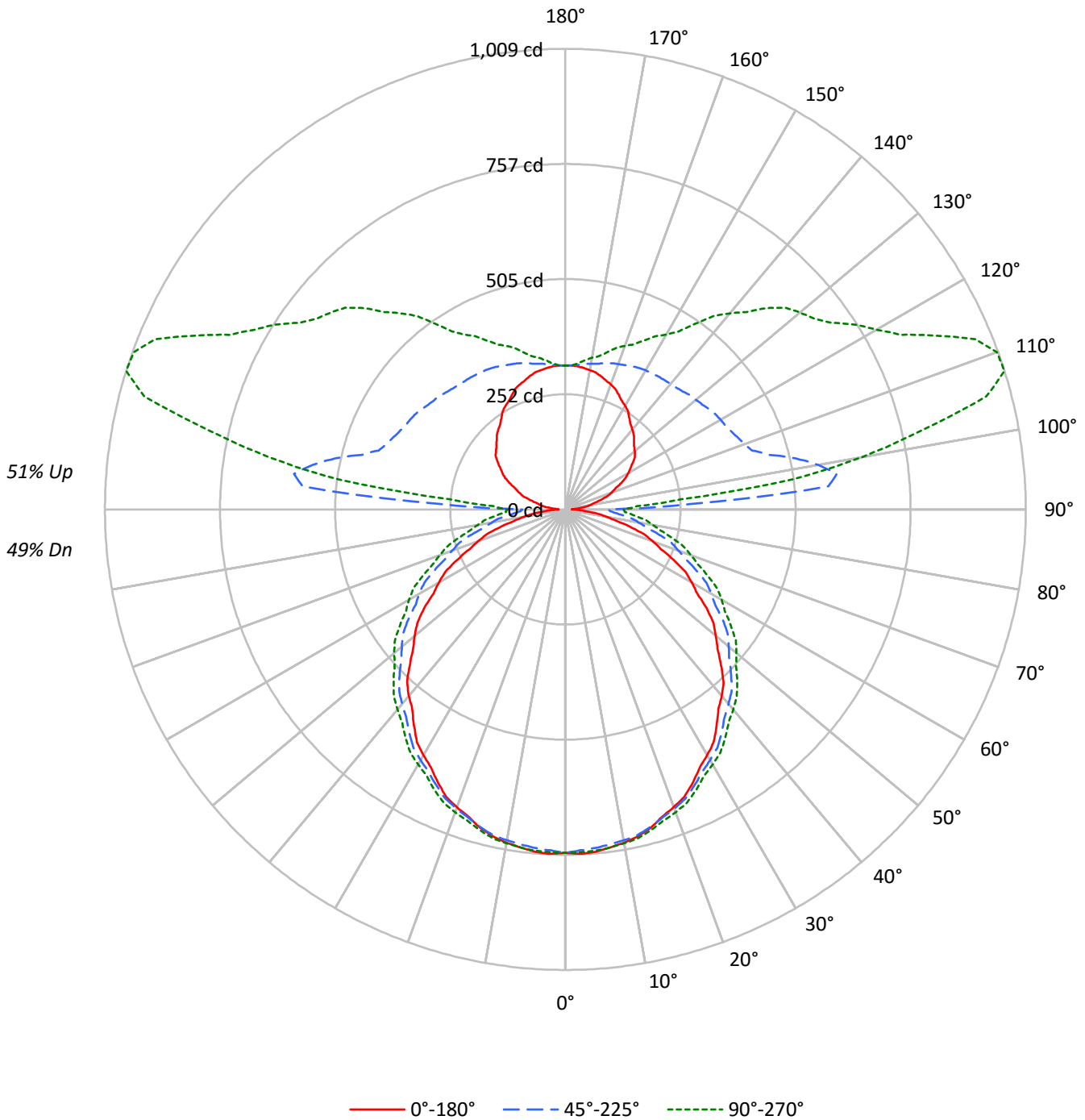
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	50	30	10	0																			
RCR																																														
0	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49																												
1	97	92	88	84	89	85	81	78	71	68	66	59	57	55	47	46	45	39																												
2	87	80	73	68	80	73	68	63	62	57	54	51	48	45	41	39	37	32																												
3	80	70	62	56	73	64	57	52	54	49	45	45	41	38	36	33	31	27																												
4	73	61	53	47	66	57	49	44	48	42	38	39	35	32	32	29	26	22																												
5	66	54	46	40	61	50	43	37	43	37	32	35	31	27	29	25	23	19																												
6	61	49	40	34	56	45	38	32	38	32	28	32	27	24	26	22	20	17																												
7	56	44	36	30	52	41	33	28	35	29	25	29	24	21	23	20	17	15																												
8	52	40	32	26	48	37	30	25	31	26	22	26	22	19	22	18	16	13																												
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	16	14	12																												
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	13	11																												

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	1.5
10°-20°	204.2	4.2
20°-30°	308.7	6.4
30°-40°	373.5	7.7
40°-50°	394.9	8.1
50°-60°	371.6	7.6
60°-70°	308.3	6.3
70°-80°	216.6	4.5
80°-90°	124.2	2.6
90°-100°	300.4	6.2
100°-110°	527.8	10.9
110°-120°	460.6	9.5
120°-130°	377.5	7.8
130°-140°	306.5	6.3
140°-150°	229.2	4.7
150°-160°	159.9	3.3
160°-170°	94.0	1.9
170°-180°	30.6	0.6
0°-30°	584.1	12.0
0°-40°	957.6	19.7
0°-60°	1724.1	35.5
0°-90°	2373.2	48.8
90°-120°	1288.9	26.5
90°-150°	2202.1	45.3
90°-180°	2487.0	51.2
0°-180°	4859.8	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°	14	52	95	119	128	10
95°	31	104	578	345	255	32
105°	80	130	462	951	955	86
115°	133	174	402	754	901	132
125°	181	215	384	632	712	161
135°	213	254	365	546	623	165
145°	244	279	356	448	496	153
155°	277	299	346	392	408	128
165°	302	311	331	351	356	85
175°	315	315	318	322	321	30
180°	315	315	315	315	315	



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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°	25.0	33.0	41.0	48.7	56.5	64.4	73.4	81.6	90.0	98.5	103.8
90°	14.1	22.8	32.2	40.3	48.4	56.2	68.0	76.0	85.3	94.6	99.4
92.5°	19.9	29.9	42.4	56.7	72.5	92.8	132.3	188.4	243.3	275.8	248.3
95°	31.4	39.5	51.8	66.1	87.1	120.0	181.6	290.9	446.6	578.1	597.5
97.5°	46.6	52.0	62.6	75.3	93.4	121.7	170.8	262.2	417.0	599.8	725.1
100°	56.3	61.2	70.4	82.7	99.3	125.2	169.1	246.4	380.1	562.1	725.7
102.5°	66.2	71.5	79.6	90.9	106.4	130.9	171.1	239.9	354.6	516.6	685.0
105°	80.1	85.6	92.5	103.7	118.6	141.9	178.6	236.9	330.5	461.9	612.2
107.5°	97.0	101.3	107.5	118.4	132.2	154.7	188.5	241.9	322.6	429.3	552.7
110°	107.7	111.5	117.3	127.3	141.1	162.4	196.2	246.1	320.8	417.2	522.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	118.0	121.5	127.4	136.7	150.1	171.2	203.7	250.8	320.8	409.4	503.6
115°	132.7	136.2	142.2	150.1	163.6	184.1	214.9	258.0	321.6	402.0	484.1
117.5°	148.9	151.6	156.5	164.3	176.3	196.9	226.1	265.9	323.1	396.3	472.4
120°	159.1	160.9	165.8	173.2	184.3	204.5	233.5	271.2	324.3	392.9	465.4
122.5°	169.0	170.3	174.8	181.2	192.8	212.3	241.0	276.3	325.7	389.0	458.1
125°	181.2	183.5	187.0	193.6	205.2	224.7	251.8	284.9	328.6	384.1	447.1
127.5°	192.5	194.3	198.6	206.2	218.2	237.4	262.6	292.3	329.9	377.7	433.1
130°	198.3	200.6	205.3	214.4	226.0	245.4	269.4	296.6	331.2	373.8	424.3
132.5°	204.7	206.5	212.8	221.3	233.9	252.0	275.4	301.5	332.6	370.6	416.5
135°	212.9	215.4	221.6	232.1	245.1	261.9	283.6	307.2	334.0	365.0	403.9
137.5°	222.0	224.1	230.8	240.6	253.9	269.5	289.2	310.7	333.8	361.0	393.3
140°	228.4	230.0	236.7	247.0	259.8	274.7	293.5	313.5	334.8	358.5	387.5
142.5°	234.6	236.5	242.7	252.8	265.2	279.6	297.5	315.8	335.6	357.1	382.9
145°	244.3	246.0	252.0	260.5	272.0	285.6	301.7	318.4	336.4	355.5	376.5
147.5°	255.3	255.7	261.0	269.7	279.3	291.5	306.7	321.2	337.0	353.3	370.9
150°	262.2	262.7	267.4	274.6	283.8	295.5	309.1	322.7	337.0	351.8	367.3
152.5°	268.0	268.1	273.0	279.9	288.2	299.0	311.1	323.7	336.0	349.4	363.4
155°	276.9	277.5	281.2	287.4	294.2	303.5	314.0	324.6	334.5	345.6	357.4
157.5°	285.7	285.7	289.1	294.0	299.9	307.2	316.2	324.6	332.9	341.8	351.3
160°	291.1	291.1	293.6	297.9	302.9	309.7	317.1	324.6	331.4	338.8	346.9
162.5°	296.1	295.6	297.5	301.4	305.9	311.2	318.1	324.6	329.9	335.9	342.9
165°	301.7	301.7	302.9	306.0	309.1	312.8	318.4	323.4	327.1	331.4	336.4
167.5°	307.2	306.7	307.2	309.6	311.3	314.2	318.3	321.9	324.1	326.9	330.4
170°	309.7	309.1	309.7	311.6	312.8	314.7	317.7	320.8	322.1	323.9	326.5
172.5°	312.2	311.6	311.7	313.1	313.8	315.1	317.3	319.9	320.1	321.0	323.0
175°	314.7	314.0	314.0	314.7	315.3	315.3	316.6	318.4	317.7	317.7	319.0
177.5°	315.8	315.3	314.8	315.3	315.3	315.3	315.8	316.8	315.8	315.8	316.2
180°	315.3	315.3	315.3	315.3	315.3	315.3	315.3	315.3	315.3	315.3	315.3



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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	124.0	125.7	127.5	129.0	130.7
90°	105.4	111.5	117.6	121.0	123.1	125.2	126.1	127.6
92.5°	211.6	186.8	173.3	164.4	158.5	156.7	156.1	157.6
95°	542.4	451.5	373.5	316.8	288.1	270.6	261.2	254.8
97.5°	756.1	725.2	669.6	608.2	565.3	529.7	512.7	501.4
100°	821.2	838.6	813.3	770.6	718.1	681.6	664.3	660.7
102.5°	814.0	880.4	894.1	878.2	846.6	820.7	802.6	800.0
105°	758.8	870.6	936.6	965.0	967.8	964.3	957.2	955.0
107.5°	682.9	801.7	892.6	950.9	982.8	998.2	1005.8	1008.8
110°	637.1	748.5	842.6	913.7	959.2	986.7	999.3	1006.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	602.1	701.1	790.1	861.1	912.5	945.5	962.6	973.1
115°	565.7	646.0	722.5	784.7	835.0	873.5	894.6	900.9
117.5°	544.8	611.8	672.6	725.8	769.1	801.8	823.3	828.6
120°	534.2	595.6	648.9	695.5	732.3	761.0	778.6	787.0
122.5°	524.9	584.2	633.1	674.1	705.4	730.0	745.0	753.1
125°	510.2	567.0	613.3	649.7	675.6	694.7	707.6	712.4
127.5°	492.3	546.6	592.6	627.2	653.4	670.7	681.8	686.8
130°	479.0	531.3	576.9	611.9	638.4	655.1	666.1	670.9
132.5°	465.6	514.8	559.2	594.1	620.2	638.8	649.4	654.2
135°	445.9	489.2	530.0	563.0	588.9	607.4	618.4	623.2
137.5°	428.5	465.3	499.9	529.7	553.8	571.9	581.0	586.4
140°	418.5	450.0	480.3	508.0	530.7	545.2	554.8	560.7
142.5°	409.6	437.4	463.4	487.4	507.4	520.9	529.3	533.5
145°	397.4	419.6	439.3	457.6	473.9	485.1	492.1	495.9
147.5°	387.5	404.3	419.3	433.3	445.4	455.0	460.3	462.0
150°	382.1	396.4	408.8	419.9	429.9	437.9	441.6	442.3
152.5°	376.8	389.0	400.4	409.6	418.0	424.5	426.7	427.4
155°	368.5	378.5	387.8	395.2	401.4	406.3	408.2	408.2
157.5°	359.7	368.0	375.9	381.8	386.5	390.2	391.3	391.3
160°	354.3	361.2	368.0	372.9	376.6	380.3	381.0	381.0
162.5°	348.9	354.7	360.0	364.5	367.2	370.9	371.5	371.1
165°	341.3	345.0	349.4	352.4	354.9	357.4	356.8	356.2
167.5°	334.0	336.8	340.3	342.1	343.4	345.0	344.9	344.4
170°	329.5	331.4	333.9	335.7	337.0	337.5	337.0	337.0
172.5°	325.6	326.9	328.4	329.8	330.5	331.1	330.5	329.5
175°	320.3	320.8	322.1	322.1	322.1	323.4	322.1	320.8
177.5°	316.8	317.3	317.3	317.7	317.3	317.7	316.8	315.8
180°	315.3	315.3	315.3	315.3	315.3	315.3	315.3	315.3

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