

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: P332602-927

Luminaire Tested: **SA4XXDIP-C795D810U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332602-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
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-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4789.1 lumens
Efficiency: N/A
Efficacy: 104.3 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

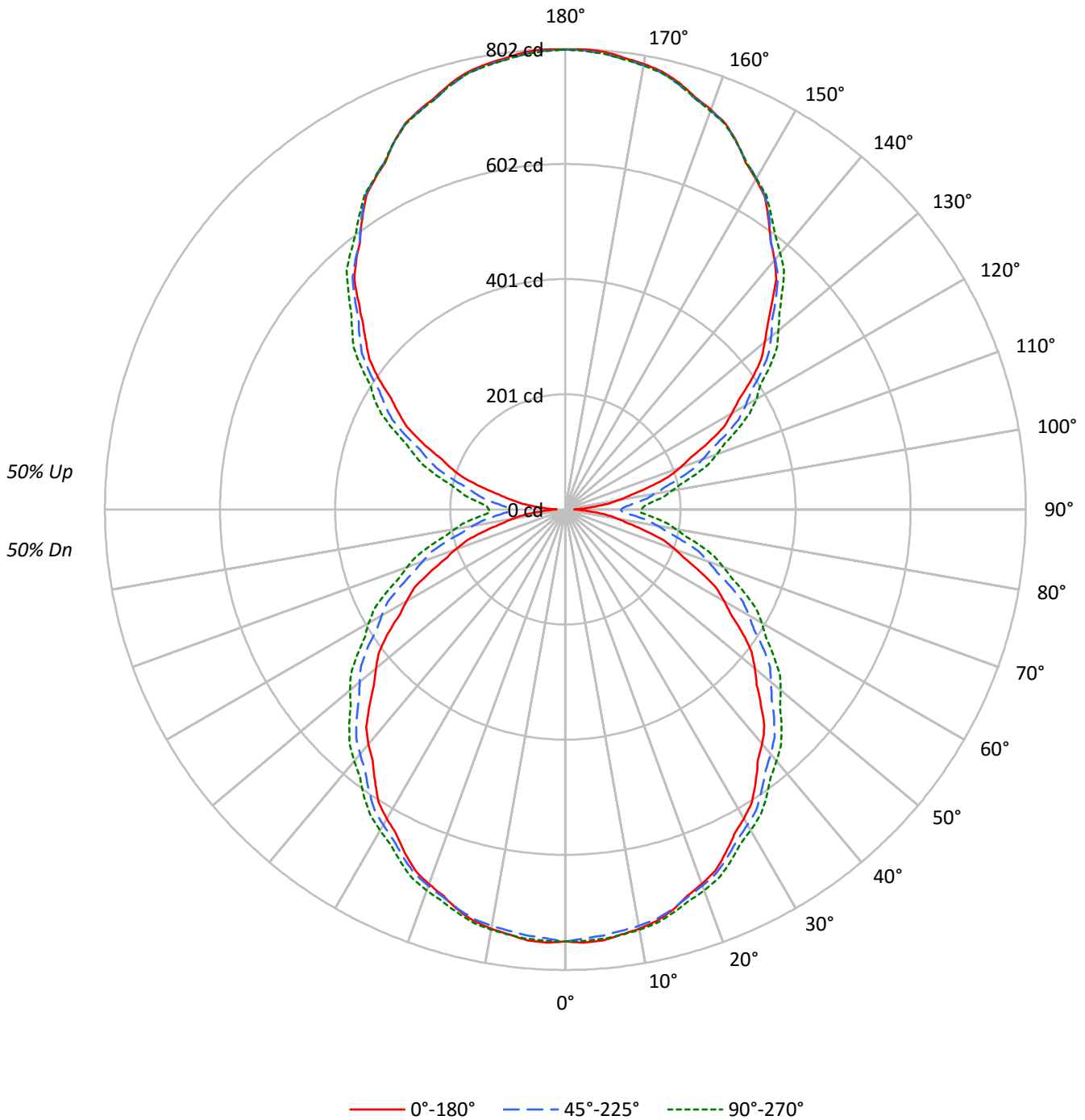
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0	
RCR																						
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	97	92	88	84	89	85	81	78	71	69	66	59	57	55	48	46	45	40				
2	88	80	73	68	80	73	68	63	62	58	54	51	48	45	41	39	37	32				
3	80	70	62	56	73	64	58	52	54	49	45	45	41	38	36	33	31	27				
4	73	61	53	47	67	57	49	44	48	42	38	40	36	32	32	29	27	23				
5	67	55	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	20				
6	61	49	40	34	56	45	38	32	38	33	28	32	28	24	26	23	20	17				
7	57	44	36	30	52	41	33	28	35	29	25	29	25	21	24	20	18	15				
8	52	40	32	26	48	37	30	25	32	26	22	27	22	19	22	18	16	13				
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	17	14	12				
10	46	33	26	21	42	31	24	20	27	21	17	23	18	15	19	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	4.3
20°-30°	308.7	6.4
30°-40°	373.5	7.8
40°-50°	394.9	8.2
50°-60°	371.6	7.8
60°-70°	308.3	6.4
70°-80°	216.6	4.5
80°-90°	124.8	2.6
90°-100°	125.5	2.6
100°-110°	210.3	4.4
110°-120°	301.7	6.3
120°-130°	370.5	7.7
130°-140°	402.1	8.4
140°-150°	388.2	8.1
150°-160°	325.0	6.8
160°-170°	216.2	4.5
170°-180°	75.7	1.6
0°-30°	584.1	12.2
0°-40°	957.6	20.0
0°-60°	1724.1	36.0
0°-90°	2373.8	49.6
90°-120°	637.5	13.3
90°-150°	1798.3	37.5
90°-180°	2415.0	50.4
0°-180°	4789.1	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	56	97	124	133	11
95°	48	82	120	144	153	50
105°	152	170	203	225	235	162
115°	275	284	308	326	332	271
125°	397	397	416	430	435	354
135°	509	513	518	530	534	394
145°	617	619	619	624	625	386
155°	706	706	705	708	705	325
165°	769	767	766	769	767	217
175°	800	797	796	800	796	76
180°	801	801	801	801	801	



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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°	25.3	33.3	41.2	49.1	57.1	65.3	73.7	82.1	90.5	98.9	104.6
90°	15.4	24.3	33.4	42.4	51.3	60.4	69.6	78.7	87.9	97.0	103.3
92.5°	26.1	34.5	43.0	51.5	60.0	68.6	77.4	86.3	95.1	103.9	109.6
95°	48.1	55.5	63.0	70.3	77.8	85.8	94.4	103.1	111.7	120.4	125.9
97.5°	74.9	81.1	87.5	93.8	100.1	107.6	116.4	125.1	133.8	142.5	147.9
100°	96.0	101.4	106.8	112.3	117.6	124.6	133.2	141.7	150.3	158.8	164.1
102.5°	118.7	123.3	127.8	132.2	136.7	143.1	151.4	159.7	167.9	176.3	181.5
105°	151.9	155.7	159.6	163.5	167.4	173.1	180.5	188.1	195.5	203.0	208.1
107.5°	188.2	191.5	194.7	198.0	201.2	206.1	212.8	219.4	226.0	232.7	237.7
110°	212.4	215.2	218.2	221.0	223.9	228.6	235.0	241.5	247.9	254.3	258.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	237.4	239.8	242.2	244.5	246.9	251.1	257.1	263.2	269.2	275.2	279.2
115°	275.0	276.8	278.5	280.1	281.9	285.5	291.2	297.0	302.7	308.4	312.4
117.5°	311.3	312.4	313.5	314.7	315.8	319.1	324.5	329.9	335.3	340.6	344.0
120°	334.9	336.0	337.2	338.3	339.4	342.5	347.5	352.4	357.5	362.5	365.6
122.5°	360.2	360.5	360.8	361.2	361.6	364.2	369.1	374.1	379.0	383.9	387.2
125°	396.6	396.5	396.2	396.1	395.9	398.1	402.6	407.2	411.7	416.2	419.5
127.5°	430.3	430.5	430.7	430.9	431.2	433.0	436.3	439.7	443.1	446.5	449.6
130°	453.4	453.6	453.8	454.1	454.3	455.9	458.9	461.9	464.9	467.9	471.0
132.5°	477.7	477.8	477.9	478.0	478.2	479.3	481.6	483.9	486.2	488.5	491.4
135°	508.9	509.8	510.6	511.4	512.2	513.3	514.6	515.9	517.2	518.5	521.3
137.5°	543.8	544.1	544.2	544.5	544.6	545.2	546.1	546.8	547.7	548.6	551.0
140°	567.1	567.2	567.3	567.4	567.4	567.6	567.8	568.0	568.2	568.4	570.7
142.5°	587.7	588.0	588.2	588.4	588.7	588.7	588.5	588.3	588.0	587.8	589.9
145°	617.0	617.4	617.8	618.1	618.5	618.8	618.9	619.0	619.2	619.3	620.3
147.5°	646.3	646.7	647.2	647.7	648.2	648.4	648.2	648.2	648.0	647.9	648.0
150°	664.2	664.5	664.9	665.2	665.6	665.7	665.7	665.7	665.7	665.7	665.7
152.5°	680.3	680.6	680.9	681.2	681.4	681.7	681.8	681.9	682.0	682.1	682.5
155°	706.0	706.0	706.0	706.0	706.0	705.9	705.8	705.7	705.5	705.4	705.9
157.5°	727.9	727.5	727.3	727.1	726.8	726.7	726.7	726.7	726.6	726.6	727.0
160°	740.7	740.5	740.5	740.3	740.1	740.0	739.9	739.7	739.6	739.5	739.9
162.5°	752.6	752.3	751.9	751.5	751.1	750.9	750.8	750.7	750.5	750.4	751.1
165°	768.6	768.2	767.8	767.3	766.9	766.6	766.3	766.0	765.7	765.5	766.3
167.5°	780.9	780.2	779.7	779.1	778.6	778.2	778.2	778.3	778.3	778.3	779.2
170°	787.7	787.1	786.4	785.7	785.1	784.7	784.9	785.1	785.1	785.3	786.1
172.5°	792.7	792.2	791.5	791.0	790.4	790.1	790.2	790.2	790.2	790.3	791.2
175°	799.5	798.8	798.1	797.5	796.8	796.4	796.2	796.1	796.0	795.8	796.8
177.5°	801.8	801.2	800.7	800.1	799.5	799.3	799.3	799.3	799.3	799.3	800.0
180°	800.7	800.7	800.7	800.7	800.7	800.7	800.7	800.7	800.7	800.7	800.7



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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°	110.1	115.7	121.4	125.0	126.7	128.4	130.1	131.8
90°	109.6	115.8	122.1	126.1	127.9	129.6	131.4	133.2
92.5°	115.4	121.2	127.0	130.7	132.4	134.0	135.7	137.4
95°	131.3	136.8	142.3	145.8	147.5	149.2	150.9	152.6
97.5°	153.4	158.8	164.1	167.6	169.2	170.9	172.5	174.0
100°	169.4	174.8	180.1	183.5	184.7	186.1	187.4	188.7
102.5°	186.8	192.1	197.4	200.8	202.4	204.0	205.6	207.1
105°	213.2	218.3	223.4	226.9	228.8	230.7	232.6	234.6
107.5°	242.6	247.6	252.6	255.8	257.1	258.4	259.8	261.1
110°	262.3	266.3	270.4	273.4	275.3	277.2	279.1	281.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	283.4	287.5	291.6	294.5	296.0	297.5	299.1	300.7
115°	316.3	320.4	324.3	326.9	328.0	329.2	330.4	331.6
117.5°	347.5	350.9	354.3	356.6	357.9	359.1	360.3	361.6
120°	368.6	371.7	374.7	377.2	378.9	380.7	382.5	384.2
122.5°	390.5	393.7	397.0	399.1	400.0	400.8	401.6	402.5
125°	422.8	426.1	429.4	431.4	432.3	433.2	434.0	434.8
127.5°	452.7	455.7	458.8	461.0	462.0	463.0	464.1	465.2
130°	474.0	477.2	480.3	482.1	482.7	483.2	483.8	484.4
132.5°	494.4	497.3	500.3	502.2	503.1	504.0	504.9	505.8
135°	523.9	526.7	529.4	531.2	531.8	532.5	533.2	533.9
137.5°	553.3	555.7	558.1	559.8	560.8	561.8	562.8	563.9
140°	573.0	575.3	577.6	579.1	579.9	580.7	581.5	582.3
142.5°	592.0	594.1	596.3	597.7	598.4	599.2	600.0	600.7
145°	621.3	622.3	623.3	623.9	624.2	624.6	625.0	625.3
147.5°	648.0	648.1	648.1	648.3	648.8	649.3	649.7	650.2
150°	665.7	665.7	665.7	665.7	665.6	665.4	665.3	665.1
152.5°	682.8	683.1	683.4	683.4	683.1	682.7	682.4	682.0
155°	706.5	707.0	707.6	707.6	707.0	706.5	705.9	705.4
157.5°	727.4	727.9	728.3	728.2	727.8	727.3	726.8	726.4
160°	740.3	740.7	741.1	741.0	740.3	739.6	738.9	738.2
162.5°	751.9	752.6	753.4	753.4	752.7	752.0	751.3	750.6
165°	767.1	767.9	768.8	768.9	768.3	767.8	767.2	766.8
167.5°	780.0	780.9	781.6	781.6	780.8	779.9	779.1	778.2
170°	787.0	787.7	788.6	788.5	787.6	786.6	785.6	784.7
172.5°	792.1	793.1	794.0	794.0	793.1	792.0	791.1	790.1
175°	797.7	798.7	799.7	799.7	798.7	797.7	796.8	795.8
177.5°	800.8	801.6	802.4	802.3	801.5	800.6	799.7	798.8
180°	800.7	800.7	800.7	800.7	800.7	800.7	800.7	800.7

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