

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: P331432-930

Luminaire Tested: **SA2XXDIP-C1005D530U930-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331432-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C1005D530U930-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

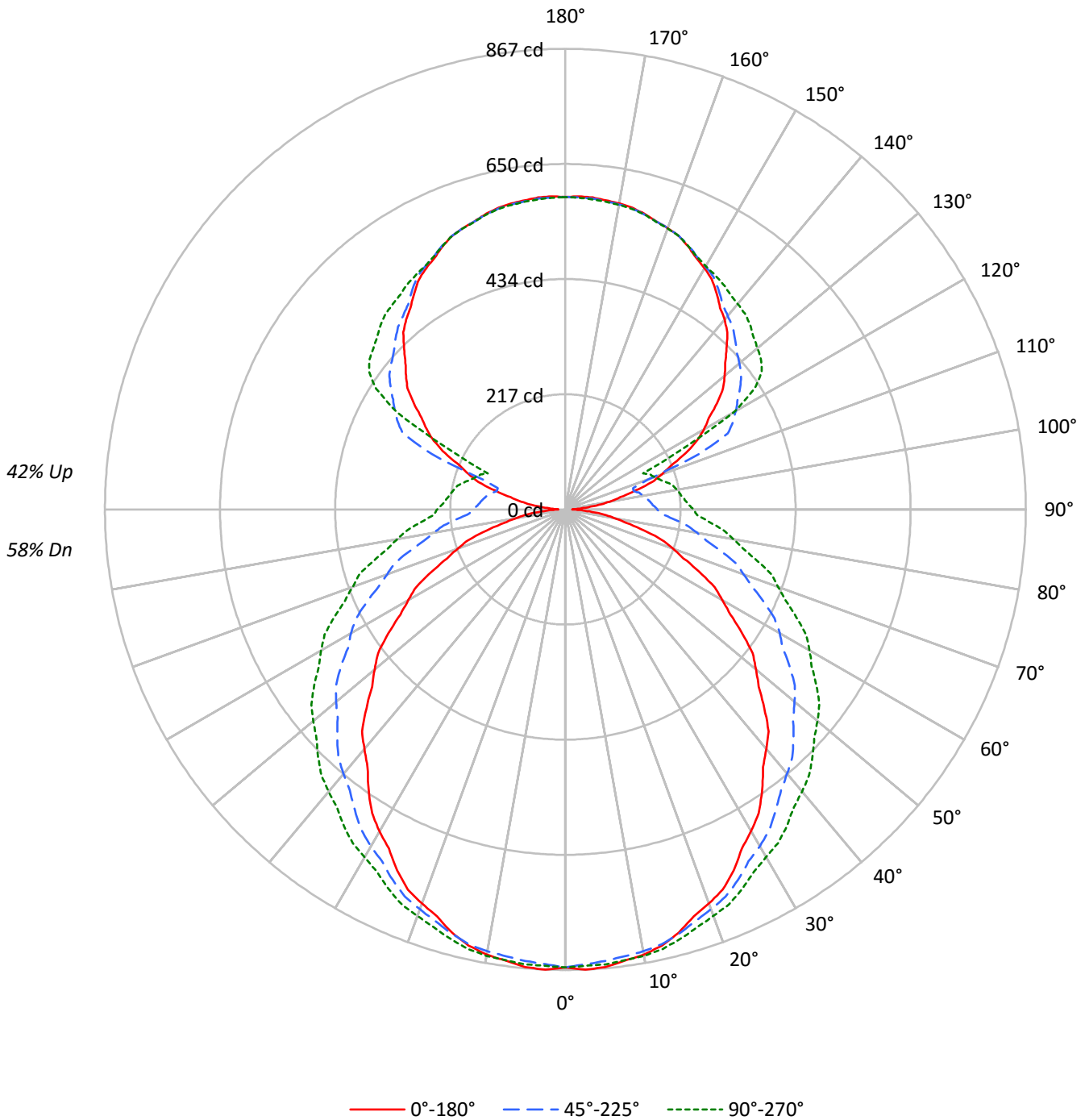
Lumens per Lamp: N/A
Luminaire Lumens: 5013.7 lumens
Efficiency: N/A
Efficacy: 91.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 55.1
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	0
RCR																		
0	109	109	109	109	102	102	102	102	88	88	88	75	75	75	64	64	64	58
1	98	93	88	84	91	86	82	79	75	71	69	64	61	59	54	52	50	46
2	88	80	73	67	82	75	68	63	64	60	55	55	51	48	46	43	41	37
3	80	70	62	55	74	65	58	52	56	51	46	48	44	40	40	37	34	30
4	73	61	53	46	68	57	50	44	50	43	39	42	38	34	36	32	29	26
5	67	55	46	39	62	51	43	37	44	38	33	38	33	29	32	28	25	22
6	62	49	40	34	57	46	38	32	40	33	29	34	29	25	29	25	22	19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	26	22	19	17
8	53	40	32	26	49	37	30	25	33	27	22	28	23	20	24	20	17	15
9	49	36	28	23	46	34	27	22	30	24	20	26	21	18	22	18	15	13
10	46	33	26	21	43	31	24	20	28	22	18	24	19	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13919	13919	13919
5°	13988	13400	13350
10°	13899	13004	12858
15°	13709	12584	12339
20°	13467	12136	11842
25°	13227	11701	11390
30°	12890	11257	10936
35°	12550	10828	10617
40°	12191	10461	10297
45°	11850	10133	10022
50°	11485	9837	9754
55°	11101	9519	9479
60°	10631	9187	9189
65°	10145	8801	8846
70°	9596	8384	8474
75°	8897	7976	8132
80°	7792	7559	7784
85°	6733	7197	7515



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	1.6
10°-20°	234.3	4.7
20°-30°	355.0	7.1
30°-40°	432.4	8.6
40°-50°	465.2	9.3
50°-60°	451.7	9.0
60°-70°	394.4	7.9
70°-80°	303.7	6.1
80°-90°	205.2	4.1
90°-100°	160.0	3.2
100°-110°	174.4	3.5
110°-120°	260.0	5.2
120°-130°	355.2	7.1
130°-140°	353.4	7.0
140°-150°	316.5	6.3
150°-160°	252.2	5.0
160°-170°	162.5	3.2
170°-180°	55.9	1.1
0°-30°	670.9	13.4
0°-40°	1103.3	22.0
0°-60°	2020.2	40.3
0°-90°	2923.5	58.3
90°-120°	594.4	11.9
90°-150°	1619.5	32.3
90°-180°	2090.0	41.7
0°-180°	5013.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	862	862	862	862	862	
5°	865	861	853	860	860	82
15°	825	827	827	838	837	232
25°	750	759	770	784	788	345
35°	646	667	691	717	727	404
45°	530	564	607	644	658	409
55°	406	452	516	559	577	363
65°	277	339	412	462	480	275
75°	154	224	304	355	374	163
85°	45	123	202	253	272	48
90°	13	90	173	224	241	10
95°	38	84	160	208	224	42
105°	136	179	133	180	197	145
115°	250	273	338	186	161	245
125°	348	356	402	437	451	311
135°	429	437	452	482	492	332
145°	496	497	503	514	518	311
155°	547	543	548	550	547	252
165°	576	574	575	578	575	163
175°	589	586	587	590	586	56
180°	588	588	588	588	588	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1
2.5°	867.2	866.5	865.8	865.1	864.5	863.3	861.8	860.2	858.7	857.1	858.3
5°	864.6	863.8	863.0	862.1	861.3	860.1	858.4	856.7	855.1	853.4	855.1
7.5°	856.9	856.3	855.7	855.2	854.7	853.8	852.5	851.2	849.9	848.6	850.6
10°	850.9	850.4	849.8	849.2	848.6	848.0	847.2	846.3	845.5	844.7	846.9
12.5°	840.9	841.0	841.1	841.2	841.3	841.1	840.5	839.8	839.3	838.6	840.9
15°	824.7	825.2	825.7	826.3	826.9	827.1	827.1	827.1	827.1	827.1	829.6
17.5°	803.6	804.9	806.0	807.1	808.3	809.3	810.2	811.1	812.0	812.9	815.5
20°	789.7	791.1	792.5	793.9	795.2	796.5	797.6	798.7	799.8	801.0	804.0
22.5°	774.7	776.2	777.9	779.5	781.1	782.7	784.2	785.8	787.3	788.9	792.0
25°	749.7	751.6	753.6	755.5	757.5	759.7	762.1	764.7	767.2	769.6	773.0
27.5°	719.7	722.8	726.0	729.2	732.4	735.4	738.3	741.3	744.2	747.2	751.4
30°	699.7	703.3	706.9	710.5	714.1	717.8	721.4	725.0	728.6	732.2	736.6
32.5°	677.7	681.8	685.8	689.9	693.9	698.1	702.4	706.6	710.9	715.2	720.3
35°	646.0	650.7	655.4	660.1	664.9	669.8	675.1	680.4	685.7	691.0	697.1
37.5°	611.5	616.9	622.4	627.8	633.2	639.4	646.2	653.1	659.9	666.8	673.5
40°	588.5	594.6	600.7	606.8	612.9	619.7	627.2	634.7	642.2	649.7	657.0
42.5°	566.6	572.6	578.7	584.8	590.9	598.3	606.9	615.6	624.1	632.8	640.6
45°	529.8	537.3	544.8	552.3	559.8	568.3	578.1	587.8	597.5	607.2	615.9
47.5°	493.6	501.7	509.9	518.0	526.2	536.0	547.4	558.7	570.1	581.5	590.5
50°	468.6	477.2	485.8	494.4	503.0	513.6	526.0	538.5	551.0	563.5	573.0
52.5°	444.6	453.6	462.7	471.7	480.8	491.9	505.0	518.2	531.3	544.5	554.2
55°	406.1	416.0	426.1	436.1	446.1	458.3	472.7	487.1	501.6	516.0	526.0
57.5°	368.1	379.4	390.6	401.9	413.2	426.2	440.9	455.6	470.3	485.0	495.8
60°	341.1	353.0	365.0	376.9	388.9	402.8	418.6	434.4	450.2	466.0	476.6
62.5°	317.2	329.5	341.9	354.2	366.6	380.7	396.6	412.4	428.3	444.1	455.3
65°	277.4	291.0	304.6	318.2	331.8	346.8	363.2	379.5	395.9	412.3	423.7
67.5°	240.9	255.1	269.3	283.6	297.7	313.2	330.0	346.8	363.5	380.3	391.8
70°	214.9	229.3	243.8	258.2	272.6	288.5	305.7	322.9	340.1	357.3	369.2
72.5°	190.9	205.8	220.7	235.5	250.5	266.6	284.1	301.5	318.9	336.4	348.1
75°	153.7	169.3	184.7	200.3	215.9	232.5	250.3	268.1	285.8	303.6	315.5
77.5°	117.7	134.0	150.3	166.5	182.8	199.9	218.0	236.0	254.0	272.1	284.1
80°	93.7	110.6	127.6	144.6	161.4	179.0	197.0	215.1	233.1	251.1	262.8
82.5°	73.7	90.4	107.1	123.8	140.6	158.1	176.3	194.6	212.9	231.1	242.8
85°	45.0	62.2	79.4	96.6	113.8	131.3	149.1	166.9	184.7	202.4	214.1
87.5°	24.5	41.3	58.0	74.8	91.6	108.9	126.9	144.8	162.7	180.6	192.1
90°	12.9	30.1	47.2	64.3	81.5	99.3	117.9	136.4	154.9	173.4	185.0
92.5°	20.1	35.0	49.9	64.8	79.7	95.9	113.3	130.9	148.3	165.8	176.9
95°	37.7	47.6	57.5	67.4	77.4	91.0	108.4	125.6	142.9	160.3	171.3
97.5°	63.6	66.4	69.2	72.1	74.8	85.0	102.6	120.1	137.6	155.2	165.8
100°	84.1	81.4	78.7	76.0	73.3	80.6	97.8	114.9	132.1	149.2	160.2
102.5°	105.5	112.2	118.8	125.5	132.1	136.2	137.9	139.6	141.2	142.9	153.9
105°	135.6	146.5	157.4	168.3	179.1	178.9	167.5	156.1	144.8	133.4	144.1
107.5°	171.4	180.1	188.8	197.5	206.3	202.0	184.9	167.8	150.7	133.5	141.8
110°	193.5	201.1	208.6	216.1	223.6	220.5	206.8	193.1	179.4	165.7	165.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	215.2	221.7	228.1	234.6	241.0	247.3	253.5	259.7	265.9	272.0	246.4
115°	249.6	254.3	258.9	263.7	268.3	278.0	292.9	307.8	322.6	337.5	302.1
117.5°	279.2	282.9	286.7	290.5	294.3	302.8	315.9	329.1	342.3	355.5	353.1
120°	301.6	304.1	306.6	309.2	311.7	319.4	332.2	345.0	357.8	370.6	379.5
122.5°	320.7	322.6	324.5	326.4	328.4	335.5	347.8	360.1	372.4	384.7	392.9
125°	348.4	349.7	350.9	352.1	353.4	359.3	370.0	380.7	391.3	402.0	410.2
127.5°	374.7	375.8	376.9	378.0	379.0	383.8	392.3	400.9	409.4	417.8	425.7
130°	391.4	392.6	393.9	395.1	396.3	400.4	407.2	414.1	421.0	427.9	435.5
132.5°	408.4	409.4	410.4	411.4	412.5	415.7	421.3	426.8	432.4	437.9	445.2
135°	429.3	430.8	432.3	433.8	435.4	437.9	441.6	445.2	448.8	452.4	459.2
137.5°	451.7	452.7	453.6	454.7	455.7	457.3	459.4	461.6	463.8	466.0	472.1
140°	466.3	466.8	467.2	467.7	468.2	469.3	470.8	472.5	474.0	475.6	480.9
142.5°	478.6	479.0	479.4	479.7	480.1	481.0	482.3	483.6	484.9	486.2	490.6
145°	496.5	496.4	496.4	496.3	496.2	496.9	498.6	500.1	501.7	503.4	505.6
147.5°	513.3	512.9	512.6	512.3	511.8	512.5	514.0	515.7	517.2	518.9	519.5
150°	524.2	523.5	522.9	522.2	521.5	522.0	523.5	525.0	526.5	528.0	528.6
152.5°	533.4	532.6	531.9	531.2	530.4	530.8	532.2	533.7	535.1	536.5	537.1
155°	546.7	545.9	545.0	544.2	543.3	543.5	544.6	545.8	546.9	548.0	548.6
157.5°	557.2	556.5	555.8	555.1	554.3	554.4	555.1	556.0	556.8	557.6	558.2
160°	563.4	562.8	562.2	561.7	561.1	561.1	561.7	562.2	562.8	563.4	563.9
162.5°	568.8	568.2	567.6	567.0	566.6	566.5	567.0	567.4	567.9	568.4	569.1
165°	576.1	575.5	574.9	574.4	573.8	573.7	574.0	574.2	574.5	574.8	575.5
167.5°	581.6	581.0	580.4	579.8	579.3	579.1	579.4	579.7	579.9	580.2	580.8
170°	584.6	584.1	583.5	582.9	582.4	582.1	582.4	582.5	582.7	582.9	583.6
172.5°	586.7	586.1	585.5	585.0	584.4	584.2	584.4	584.6	584.7	585.0	585.6
175°	589.3	588.6	588.0	587.3	586.6	586.4	586.6	586.8	586.9	587.2	587.8
177.5°	589.7	589.2	588.6	588.2	587.6	587.3	587.4	587.5	587.6	587.7	588.2
180°	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1
2.5°	859.3	860.5	861.6	861.9	861.4	861.0	860.5	860.1
5°	856.7	858.4	860.1	860.7	860.5	860.2	859.9	859.7
7.5°	852.6	854.7	856.6	857.5	857.2	857.0	856.6	856.4
10°	849.1	851.3	853.5	854.5	854.2	853.9	853.7	853.4
12.5°	843.1	845.3	847.5	848.5	848.2	847.9	847.7	847.4
15°	832.2	834.6	837.1	838.3	838.0	837.7	837.4	837.1
17.5°	818.2	820.8	823.4	824.7	824.7	824.7	824.7	824.7
20°	807.0	810.1	813.1	814.6	814.6	814.6	814.6	814.6
22.5°	795.0	798.1	801.1	802.9	803.3	803.8	804.2	804.7
25°	776.3	779.7	783.0	785.1	785.9	786.8	787.6	788.4
27.5°	755.6	759.9	764.1	766.5	767.1	767.7	768.3	768.9
30°	741.1	745.5	750.0	752.6	753.4	754.2	755.1	755.9
32.5°	725.5	730.5	735.6	738.9	740.5	741.9	743.5	744.9
35°	703.2	709.3	715.4	719.4	721.4	723.3	725.3	727.2
37.5°	680.3	687.1	693.8	698.2	700.3	702.4	704.4	706.5
40°	664.1	671.4	678.6	683.5	686.0	688.4	691.0	693.5
42.5°	648.5	656.4	664.3	669.4	672.0	674.5	676.9	679.5
45°	624.4	633.1	641.6	647.3	650.1	652.9	655.7	658.4
47.5°	599.5	608.5	617.5	623.5	626.6	629.7	632.7	635.8
50°	582.4	591.8	601.3	607.6	610.6	613.6	616.7	619.7
52.5°	563.9	573.5	583.2	589.6	592.9	596.2	599.5	602.8
55°	536.1	546.0	556.0	562.8	566.4	570.1	573.6	577.2
57.5°	506.6	517.4	528.2	535.3	539.0	542.7	546.3	550.0
60°	487.1	497.7	508.3	515.5	519.3	523.3	527.2	531.0
62.5°	466.5	477.7	488.9	496.4	500.0	503.7	507.4	511.0
65°	435.1	446.5	457.9	465.4	469.0	472.5	476.2	479.8
67.5°	403.3	414.8	426.3	434.0	437.7	441.5	445.3	449.1
70°	381.2	393.1	405.1	412.7	416.0	419.4	422.7	426.1
72.5°	359.8	371.5	383.2	391.1	395.1	399.1	403.1	407.1
75°	327.5	339.4	351.4	359.1	362.7	366.4	370.0	373.6
77.5°	295.9	307.8	319.7	327.6	331.4	335.3	339.2	343.1
80°	274.4	286.2	297.8	305.6	309.5	313.3	317.2	321.1
82.5°	254.5	266.1	277.8	285.4	289.1	292.8	296.4	300.1
85°	225.8	237.4	249.1	256.8	260.7	264.6	268.5	272.4
87.5°	203.5	214.9	226.3	233.8	237.4	241.0	244.6	248.2
90°	196.6	208.1	219.7	227.3	230.8	234.3	237.9	241.4
92.5°	188.1	199.2	210.3	217.6	221.0	224.5	228.0	231.4
95°	182.3	193.4	204.4	211.5	214.7	218.0	221.2	224.5
97.5°	176.4	187.1	197.8	204.8	208.1	211.6	214.9	218.3
100°	171.3	182.3	193.3	200.5	203.7	206.9	210.2	213.4
102.5°	164.9	176.0	187.0	194.2	197.5	200.8	204.2	207.5
105°	154.9	165.7	176.4	183.5	186.9	190.4	193.8	197.3
107.5°	150.1	158.3	166.6	172.5	175.9	179.4	182.8	186.2
110°	164.5	164.0	163.4	164.9	168.3	171.7	175.1	178.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	220.8	195.2	169.6	158.5	161.8	165.2	168.5	171.9
115°	266.6	231.1	195.7	176.1	172.4	168.6	164.9	161.1
117.5°	350.7	348.4	346.0	335.1	315.5	296.0	276.5	256.9
120°	388.4	397.3	406.3	405.9	396.2	386.5	376.7	367.0
122.5°	401.1	409.4	417.6	421.8	421.9	422.1	422.2	422.3
125°	418.3	426.5	434.6	440.1	442.9	445.6	448.5	451.3
127.5°	433.6	441.4	449.2	454.4	457.0	459.4	461.9	464.5
130°	443.3	450.9	458.7	463.6	465.7	467.8	469.9	472.1
132.5°	452.5	459.8	467.2	471.9	474.0	476.1	478.3	480.5
135°	465.9	472.7	479.6	484.0	485.9	488.0	490.0	492.0
137.5°	478.1	484.1	490.2	494.0	495.5	497.1	498.6	500.2
140°	486.2	491.5	496.8	500.0	501.2	502.5	503.6	504.8
142.5°	494.9	499.2	503.5	506.2	507.2	508.2	509.1	510.1
145°	508.0	510.3	512.7	514.3	515.2	516.1	517.1	518.0
147.5°	520.2	521.0	521.7	522.2	522.4	522.7	523.0	523.3
150°	529.1	529.7	530.3	530.4	529.9	529.4	528.9	528.5
152.5°	537.7	538.3	538.8	538.7	538.2	537.5	536.9	536.3
155°	549.2	549.8	550.3	550.2	549.4	548.7	548.0	547.1
157.5°	558.8	559.5	560.1	560.1	559.3	558.6	557.8	557.1
160°	564.4	565.0	565.6	565.6	564.9	564.3	563.5	562.9
162.5°	569.7	570.4	571.0	571.0	570.1	569.3	568.5	567.7
165°	576.2	576.8	577.5	577.5	576.8	576.2	575.5	574.8
167.5°	581.5	582.2	582.9	582.8	581.9	581.1	580.2	579.4
170°	584.2	584.9	585.5	585.5	584.6	583.8	582.9	582.0
172.5°	586.3	586.9	587.6	587.5	586.7	585.8	585.0	584.1
175°	588.5	589.1	589.8	589.7	588.7	587.7	586.9	585.9
177.5°	588.7	589.3	589.8	589.7	589.1	588.3	587.7	587.0
180°	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0

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