

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: P331397-935

Luminaire Tested: **SA2XXDIP-C865D725U935-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331397-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C865D725U935-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 865 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

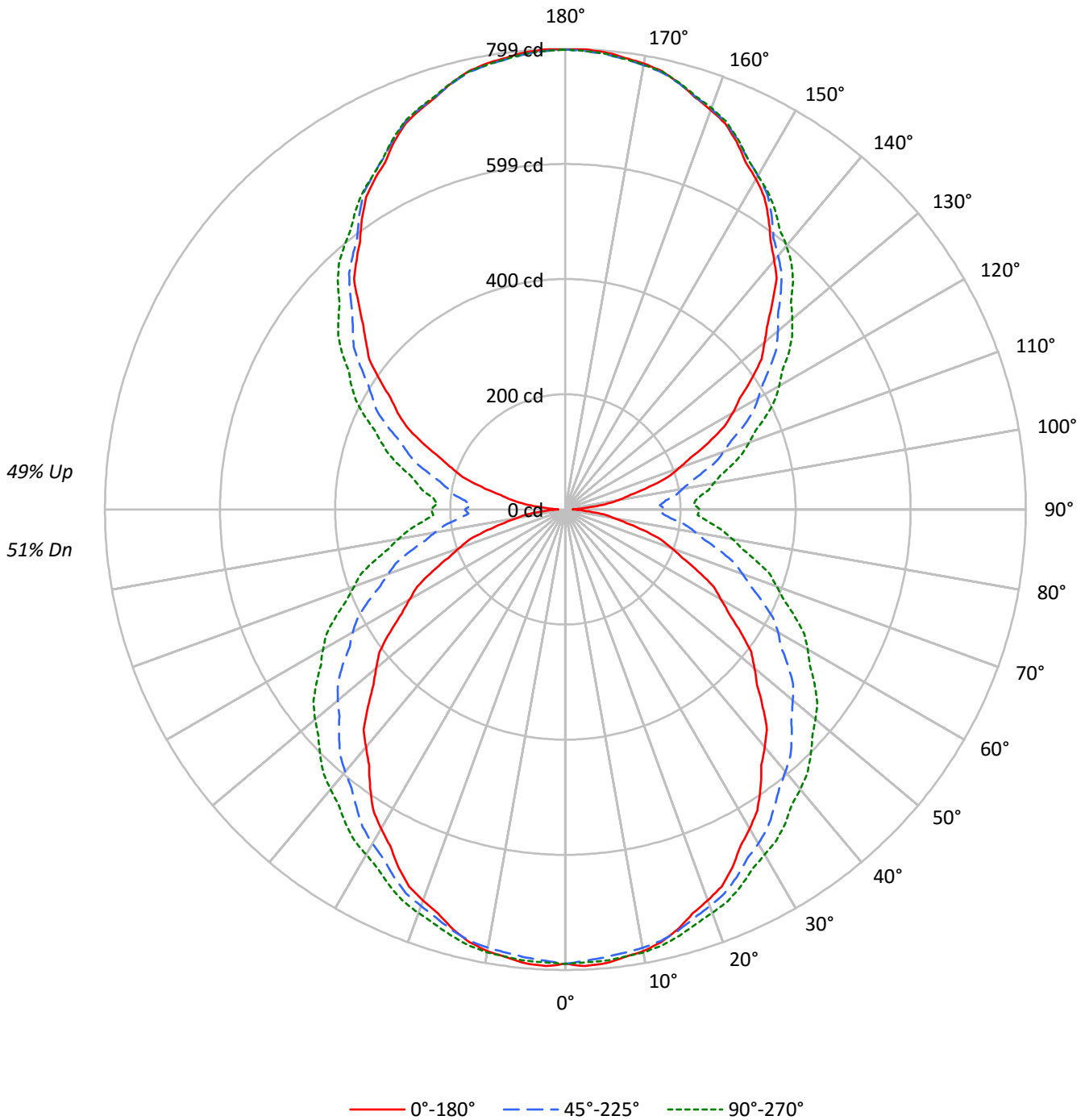
Lumens per Lamp: N/A
Luminaire Lumens: 5240.7 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 54.4
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	84	84	84	70	70	70	57	57	57	51				
1	96	91	87	83	89	84	81	77	71	68	66	59	57	55	48	47	45	40				
2	87	79	72	67	80	73	67	62	62	57	53	51	48	45	41	39	37	32				
3	79	69	61	55	73	64	57	51	54	48	44	45	41	37	36	33	31	27				
4	72	61	52	46	66	56	49	43	47	42	37	39	35	31	32	29	26	22				
5	66	54	45	39	61	50	42	36	42	36	32	35	31	27	29	25	22	19				
6	61	48	40	34	56	45	37	31	38	32	27	32	27	23	26	22	20	17				
7	56	43	35	29	52	40	33	27	34	28	24	29	24	21	24	20	17	15				
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	13				
9	48	36	28	23	45	33	26	22	29	23	19	24	20	16	20	16	14	12				
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	18	15	12	10				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12728	12728	12728
5°	12790	12252	12205
10°	12710	11890	11756
15°	12535	11506	11284
20°	12312	11097	10828
25°	12095	10701	10415
30°	11786	10293	10000
35°	11474	9900	9708
40°	11147	9566	9415
45°	10835	9267	9165
50°	10500	8995	8920
55°	10150	8703	8668
60°	9721	8403	8403
65°	9278	8047	8088
70°	8774	7666	7748
75°	8132	7293	7435
80°	7126	6912	7117
85°	6164	6582	6872



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.7	1.4
10°-20°	214.2	4.1
20°-30°	324.6	6.2
30°-40°	395.4	7.5
40°-50°	425.3	8.1
50°-60°	413.1	7.9
60°-70°	360.7	6.9
70°-80°	277.7	5.3
80°-90°	189.5	3.6
90°-100°	178.9	3.4
100°-110°	250.7	4.8
110°-120°	330.2	6.3
120°-130°	387.4	7.4
130°-140°	410.5	7.8
140°-150°	390.8	7.5
150°-160°	325.7	6.2
160°-170°	216.0	4.1
170°-180°	75.5	1.4
0°-30°	613.5	11.7
0°-40°	1008.9	19.3
0°-60°	1847.2	35.2
0°-90°	2675.1	51.0
90°-120°	759.8	14.5
90°-150°	1948.4	37.2
90°-180°	2566.0	49.0
0°-180°	5240.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	791	787	780	787	786	75
15°	754	756	756	766	766	212
25°	686	694	704	717	721	315
35°	591	610	632	656	665	369
45°	484	516	555	589	602	374
55°	371	413	472	512	528	332
65°	254	310	377	422	439	252
75°	140	205	278	325	342	149
85°	41	112	185	231	249	44
90°	12	87	174	217	233	9
95°	44	105	174	216	230	47
105°	150	187	246	286	300	159
115°	274	292	340	373	385	270
125°	394	402	434	462	473	352
135°	508	516	528	550	558	393
145°	615	620	624	631	634	384
155°	703	705	707	710	709	324
165°	765	765	764	769	766	216
175°	796	794	793	797	794	76
180°	798	798	798	798	798	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	788.3	788.3	788.3	788.3	788.3	788.3	788.3	788.3	788.3	788.3	788.3
2.5°	792.9	792.3	791.7	791.1	790.5	789.5	788.0	786.6	785.1	783.8	784.8
5°	790.6	789.9	789.1	788.3	787.6	786.4	784.9	783.3	781.9	780.3	781.9
7.5°	783.5	783.0	782.5	782.0	781.5	780.7	779.5	778.3	777.1	776.0	777.8
10°	778.1	777.6	777.1	776.5	776.0	775.4	774.6	773.9	773.1	772.3	774.4
12.5°	768.9	769.0	769.1	769.2	769.3	769.0	768.5	767.9	767.4	766.8	768.9
15°	754.1	754.6	755.1	755.6	756.0	756.3	756.3	756.3	756.3	756.3	758.6
17.5°	734.9	735.9	737.0	738.0	739.1	740.0	740.9	741.7	742.5	743.3	745.7
20°	722.0	723.3	724.6	725.9	727.1	728.3	729.3	730.3	731.3	732.4	735.1
22.5°	708.3	709.8	711.3	712.7	714.2	715.7	717.1	718.5	720.0	721.3	724.2
25°	685.5	687.3	689.1	690.9	692.6	694.7	696.9	699.2	701.5	703.8	706.8
27.5°	658.1	661.0	663.8	666.8	669.7	672.4	675.1	677.9	680.5	683.2	687.1
30°	639.8	643.1	646.4	649.7	653.0	656.3	659.6	662.9	666.2	669.5	673.6
32.5°	619.7	623.4	627.1	630.9	634.6	638.3	642.2	646.2	650.1	653.9	658.7
35°	590.6	595.0	599.3	603.6	608.0	612.5	617.3	622.2	627.0	631.8	637.4
37.5°	559.1	564.1	569.1	574.0	579.0	584.6	590.9	597.2	603.4	609.7	615.9
40°	538.1	543.7	549.3	554.9	560.4	566.7	573.5	580.4	587.3	594.1	600.7
42.5°	518.0	523.6	529.2	534.8	540.4	547.1	554.9	562.8	570.7	578.6	585.7
45°	484.4	491.3	498.1	505.0	511.9	519.7	528.6	537.5	546.4	555.3	563.1
47.5°	451.3	458.7	466.2	473.7	481.1	490.1	500.5	510.9	521.3	531.8	539.9
50°	428.4	436.3	444.2	452.0	459.9	469.6	481.0	492.4	503.9	515.3	523.9
52.5°	406.5	414.7	423.1	431.4	439.6	449.8	461.8	473.8	485.9	497.9	506.7
55°	371.3	380.5	389.6	398.7	407.9	419.0	432.2	445.5	458.7	471.8	481.0
57.5°	336.6	346.9	357.2	367.5	377.8	389.7	403.1	416.6	430.1	443.5	453.4
60°	311.9	322.8	333.7	344.7	355.6	368.2	382.7	397.2	411.6	426.2	435.8
62.5°	290.0	301.3	312.6	323.9	335.3	348.2	362.7	377.1	391.6	406.0	416.3
65°	253.7	266.0	278.5	290.9	303.4	317.1	332.1	347.1	362.1	377.0	387.4
67.5°	220.2	233.2	246.2	259.2	272.2	286.5	301.8	317.1	332.4	347.8	358.3
70°	196.5	209.7	222.9	236.1	249.3	263.8	279.6	295.2	311.0	326.7	337.7
72.5°	174.6	188.2	201.8	215.4	229.0	243.7	259.8	275.7	291.6	307.5	318.3
75°	140.5	154.7	168.9	183.2	197.4	212.7	228.9	245.1	261.4	277.6	288.5
77.5°	107.6	122.5	137.4	152.2	167.1	182.8	199.3	215.9	232.3	248.8	259.7
80°	85.7	101.2	116.7	132.2	147.7	163.6	180.1	196.7	213.1	229.6	240.3
82.5°	67.4	82.7	98.0	113.2	128.5	144.6	161.3	178.0	194.7	211.4	222.1
85°	41.2	56.9	72.6	88.3	104.1	120.1	136.3	152.6	168.8	185.1	195.8
87.5°	22.6	38.1	53.5	69.0	84.5	100.7	117.6	134.5	151.4	168.3	178.7
90°	12.1	28.6	45.1	61.6	78.2	96.2	115.7	135.3	154.8	174.4	184.3
92.5°	22.5	37.5	52.5	67.6	82.6	98.3	114.8	131.1	147.6	164.0	174.0
95°	44.2	57.6	71.0	84.4	97.8	112.4	127.9	143.4	158.9	174.4	184.1
97.5°	71.9	83.9	95.8	107.7	119.7	133.2	148.4	163.6	178.7	194.0	203.4
100°	93.5	104.1	114.7	125.3	135.9	148.4	163.2	177.8	192.4	207.2	216.5
102.5°	115.2	124.7	134.2	143.8	153.3	165.3	179.7	194.1	208.4	222.8	232.1
105°	150.4	158.3	166.0	173.8	181.7	192.3	205.8	219.3	232.8	246.3	255.5
107.5°	187.1	193.6	200.2	206.7	213.3	222.8	235.5	248.1	260.8	273.5	282.1
110°	209.8	215.8	221.8	227.7	233.8	243.0	255.4	267.9	280.3	292.7	300.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	235.7	240.8	246.0	251.2	256.3	264.8	276.5	288.2	299.9	311.6	319.3
115°	273.8	277.5	281.1	284.8	288.5	295.9	307.0	318.2	329.3	340.4	347.9
117.5°	310.6	313.6	316.6	319.7	322.7	329.1	338.8	348.5	358.3	368.0	375.1
120°	335.9	338.1	340.4	342.5	344.7	350.3	359.3	368.2	377.2	386.2	393.3
122.5°	359.0	360.8	362.7	364.5	366.4	371.7	380.4	389.1	397.8	406.5	413.0
125°	394.0	395.3	396.7	398.0	399.3	403.9	411.6	419.2	426.9	434.5	441.0
127.5°	429.1	430.6	432.0	433.4	434.9	438.6	444.6	450.6	456.7	462.7	468.5
130°	451.2	452.9	454.5	456.2	458.0	461.3	466.3	471.4	476.4	481.4	487.2
132.5°	476.0	477.3	478.6	479.9	481.3	484.1	488.2	492.3	496.5	500.7	505.9
135°	507.9	509.5	511.2	512.8	514.4	516.7	519.5	522.4	525.2	528.1	533.3
137.5°	542.8	544.1	545.4	546.6	547.9	549.3	550.9	552.3	553.9	555.3	559.9
140°	563.8	564.8	565.9	567.1	568.2	569.3	570.6	571.8	573.1	574.3	578.4
142.5°	585.3	586.4	587.5	588.6	589.7	590.6	591.2	591.8	592.4	593.0	596.3
145°	615.1	616.1	617.3	618.3	619.3	620.3	621.2	622.1	622.9	623.9	625.5
147.5°	642.7	643.9	645.2	646.4	647.7	648.7	649.3	649.9	650.5	651.1	651.6
150°	661.6	662.5	663.3	664.3	665.1	665.9	666.5	667.1	667.7	668.3	668.7
152.5°	678.2	679.2	680.0	681.0	681.8	682.6	683.4	684.1	684.8	685.5	686.0
155°	703.3	703.7	704.2	704.6	705.1	705.5	705.9	706.5	706.9	707.3	708.1
157.5°	724.7	725.0	725.3	725.6	725.9	726.2	726.4	726.7	726.9	727.2	728.2
160°	737.6	737.9	738.2	738.5	738.8	739.0	739.2	739.3	739.5	739.6	740.5
162.5°	749.4	749.5	749.6	749.6	749.7	749.8	749.9	750.1	750.3	750.4	751.4
165°	765.2	765.1	764.9	764.7	764.6	764.5	764.5	764.5	764.5	764.5	765.6
167.5°	778.3	777.9	777.5	777.1	776.6	776.4	776.4	776.3	776.3	776.2	777.3
170°	785.4	785.0	784.5	784.0	783.6	783.3	783.2	783.0	782.8	782.6	783.8
172.5°	790.2	789.8	789.4	788.8	788.4	788.2	788.0	787.8	787.7	787.6	788.6
175°	796.2	795.7	795.2	794.8	794.4	794.0	793.7	793.4	793.1	792.8	793.8
177.5°	798.6	798.2	797.9	797.5	797.1	796.9	796.6	796.3	796.1	795.9	796.6
180°	797.5	797.5	797.5	797.5	797.5	797.5	797.5	797.5	797.5	797.5	797.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	788.3	788.3	788.3	788.3	788.3	788.3	788.3	788.3
2.5°	785.7	786.8	787.8	788.2	787.7	787.3	786.9	786.5
5°	783.3	784.9	786.4	787.0	786.8	786.5	786.3	786.0
7.5°	779.6	781.4	783.3	784.1	783.9	783.6	783.3	783.1
10°	776.4	778.4	780.5	781.4	781.1	780.8	780.6	780.3
12.5°	770.9	772.9	775.0	775.8	775.6	775.3	775.1	774.8
15°	760.9	763.2	765.5	766.5	766.2	765.9	765.7	765.5
17.5°	748.1	750.4	752.9	754.1	754.1	754.1	754.1	754.1
20°	738.0	740.7	743.5	744.9	744.9	744.9	744.9	744.9
22.5°	726.9	729.8	732.5	734.2	734.5	734.9	735.4	735.8
25°	709.9	712.9	716.0	717.9	718.6	719.4	720.1	720.9
27.5°	691.0	694.8	698.6	700.9	701.5	702.0	702.6	703.1
30°	677.6	681.7	685.8	688.2	688.9	689.7	690.4	691.2
32.5°	663.3	668.0	672.6	675.7	677.0	678.4	679.8	681.1
35°	643.0	648.6	654.2	657.8	659.6	661.4	663.1	665.0
37.5°	622.0	628.2	634.4	638.4	640.3	642.2	644.1	646.0
40°	607.3	613.9	620.5	624.9	627.2	629.5	631.8	634.1
42.5°	593.0	600.2	607.4	612.2	614.4	616.7	619.0	621.3
45°	571.0	578.9	586.8	591.9	594.5	597.0	599.6	602.1
47.5°	548.2	556.4	564.6	570.2	572.9	575.8	578.5	581.3
50°	532.5	541.1	549.8	555.5	558.3	561.1	563.9	566.7
52.5°	515.6	524.4	533.2	539.2	542.2	545.2	548.1	551.1
55°	490.2	499.3	508.4	514.6	517.9	521.2	524.5	527.8
57.5°	463.2	473.0	482.9	489.6	492.8	496.2	499.6	502.9
60°	445.5	455.1	464.8	471.3	474.9	478.5	482.0	485.6
62.5°	426.5	436.8	447.0	453.9	457.2	460.5	463.9	467.3
65°	397.9	408.3	418.7	425.5	428.8	432.1	435.4	438.7
67.5°	368.8	379.3	389.9	396.8	400.3	403.7	407.2	410.6
70°	348.6	359.5	370.4	377.4	380.5	383.5	386.6	389.6
72.5°	329.0	339.7	350.4	357.6	361.3	364.9	368.6	372.2
75°	299.5	310.4	321.3	328.4	331.7	335.0	338.3	341.6
77.5°	270.6	281.5	292.3	299.5	303.1	306.6	310.2	313.7
80°	251.0	261.7	272.3	279.4	282.9	286.5	290.1	293.6
82.5°	232.7	243.3	254.0	261.1	264.4	267.7	271.0	274.4
85°	206.4	217.1	227.7	234.9	238.4	241.9	245.5	249.1
87.5°	188.9	199.2	209.5	216.3	219.6	222.8	226.1	229.5
90°	194.1	204.0	213.8	220.3	223.5	226.7	229.9	233.1
92.5°	184.0	194.0	204.1	210.6	213.6	216.7	219.8	222.9
95°	193.7	203.4	213.0	219.2	222.0	224.7	227.5	230.2
97.5°	212.8	222.1	231.5	237.7	240.7	243.7	246.6	249.6
100°	225.9	235.3	244.7	250.7	253.4	256.0	258.6	261.3
102.5°	241.4	250.7	260.0	266.0	268.6	271.3	274.0	276.6
105°	264.7	273.9	283.1	289.0	291.9	294.6	297.4	300.2
107.5°	290.8	299.4	308.1	313.4	315.5	317.6	319.7	321.8
110°	308.9	317.1	325.2	330.5	332.8	335.1	337.4	339.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	327.2	334.9	342.7	347.8	350.3	352.8	355.2	357.7
115°	355.3	362.8	370.3	375.2	377.5	379.9	382.3	384.6
117.5°	382.3	389.4	396.6	401.2	403.4	405.5	407.7	409.7
120°	400.4	407.5	414.6	419.3	421.6	424.0	426.4	428.7
122.5°	419.7	426.2	432.7	437.0	439.0	441.1	443.2	445.2
125°	447.4	453.7	460.2	464.4	466.6	468.7	470.9	473.0
127.5°	474.2	479.9	485.7	489.5	491.2	493.0	494.7	496.5
130°	493.0	498.8	504.6	508.2	509.6	511.1	512.6	513.9
132.5°	511.2	516.4	521.6	525.0	526.6	528.1	529.7	531.2
135°	538.5	543.6	548.8	552.2	553.8	555.3	557.0	558.5
137.5°	564.5	569.0	573.6	576.4	577.6	578.7	579.8	580.9
140°	582.5	586.5	590.6	593.1	594.0	595.0	595.8	596.8
142.5°	599.7	603.0	606.4	608.5	609.2	609.9	610.6	611.4
145°	627.2	628.9	630.6	631.7	632.4	633.1	633.8	634.4
147.5°	652.1	652.6	653.2	653.5	653.5	653.6	653.6	653.7
150°	669.2	669.6	670.1	670.1	669.6	669.2	668.7	668.3
152.5°	686.6	687.3	687.8	687.8	687.3	686.6	686.0	685.5
155°	708.8	709.6	710.3	710.5	710.0	709.6	709.1	708.7
157.5°	729.3	730.3	731.3	731.4	730.7	730.0	729.3	728.6
160°	741.4	742.4	743.2	743.4	742.8	742.2	741.6	741.0
162.5°	752.4	753.5	754.5	754.6	753.9	753.2	752.4	751.7
165°	766.6	767.7	768.7	768.9	768.1	767.3	766.6	765.9
167.5°	778.3	779.4	780.4	780.6	779.8	779.0	778.3	777.5
170°	784.8	785.8	786.9	787.0	786.1	785.1	784.3	783.3
172.5°	789.6	790.7	791.7	791.8	790.9	790.0	789.1	788.2
175°	794.9	795.9	796.9	797.0	796.2	795.2	794.4	793.5
177.5°	797.3	798.1	798.7	798.7	798.1	797.3	796.6	795.9
180°	797.5	797.5	797.5	797.5	797.5	797.5	797.5	797.5

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