

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: P331397-927

Luminaire Tested: **SA2XXDIP-C865D725U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331397-927
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-C865D725U927-4F0-1E-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: 4821.8 lumens
Efficiency: N/A
Efficacy: 88.6 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

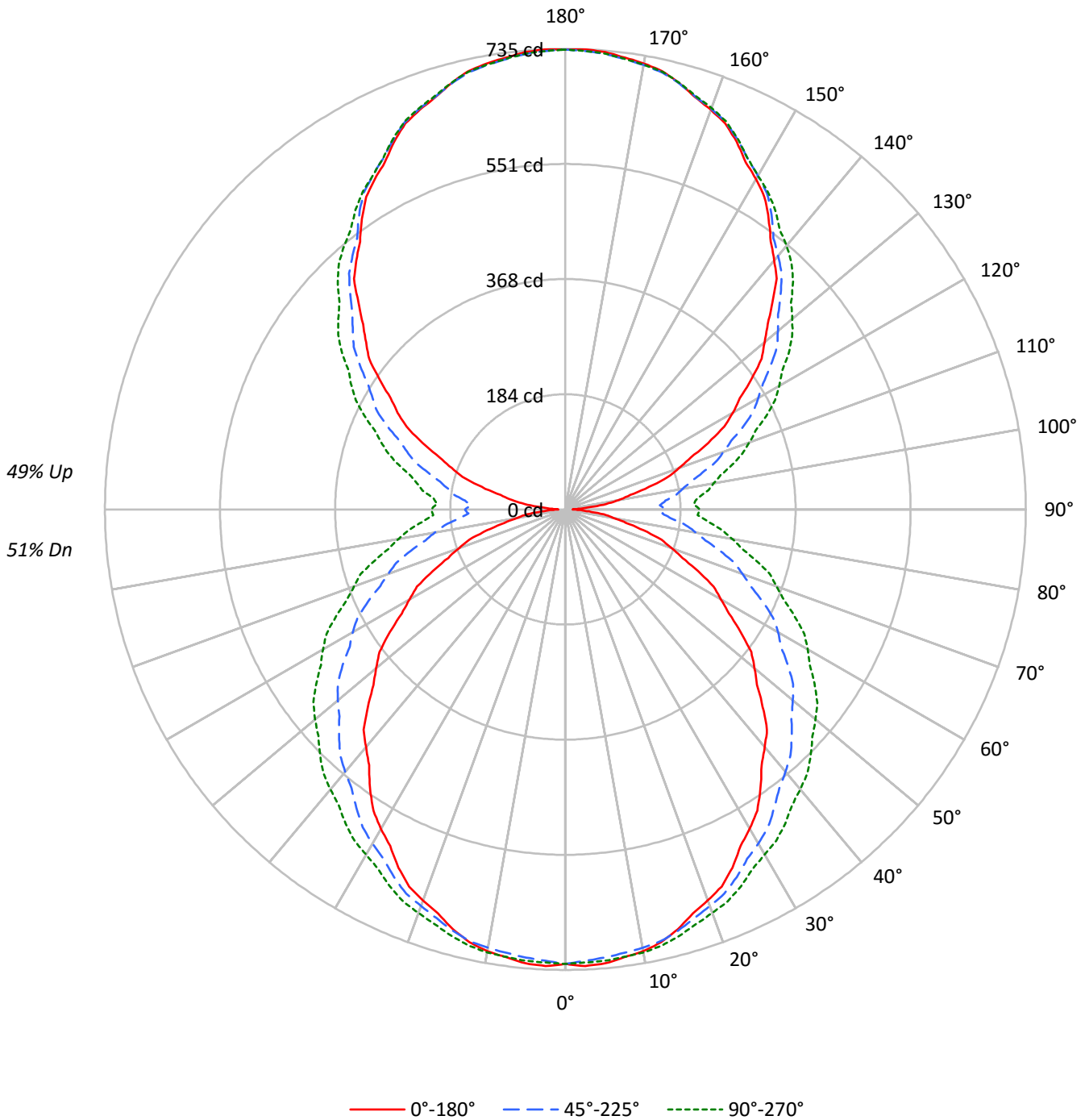
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11711	11711	11711
5°	11768	11274	11230
10°	11694	10940	10818
15°	11533	10587	10382
20°	11328	10209	9963
25°	11128	9845	9582
30°	10845	9471	9201
35°	10557	9109	8932
40°	10256	8801	8662
45°	9969	8526	8433
50°	9662	8276	8207
55°	9341	8008	7975
60°	8945	7730	7732
65°	8536	7405	7441
70°	8073	7053	7130
75°	7484	6710	6841
80°	6553	6361	6548
85°	5671	6056	6323



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.7	1.4
10°-20°	197.1	4.1
20°-30°	298.7	6.2
30°-40°	363.8	7.5
40°-50°	391.3	8.1
50°-60°	380.0	7.9
60°-70°	331.8	6.9
70°-80°	255.5	5.3
80°-90°	174.4	3.6
90°-100°	164.6	3.4
100°-110°	230.7	4.8
110°-120°	303.8	6.3
120°-130°	356.4	7.4
130°-140°	377.7	7.8
140°-150°	359.6	7.5
150°-160°	299.6	6.2
160°-170°	198.7	4.1
170°-180°	69.5	1.4
0°-30°	564.5	11.7
0°-40°	928.2	19.3
0°-60°	1699.6	35.2
0°-90°	2461.3	51.0
90°-120°	699.1	14.5
90°-150°	1792.7	37.2
90°-180°	2361.0	49.0
0°-180°	4821.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	725	725	725	725	725	
5°	727	724	718	724	723	69
15°	694	696	696	705	704	195
25°	631	638	648	660	663	290
35°	543	562	581	604	612	340
45°	446	475	511	542	554	344
55°	342	380	434	471	486	305
65°	233	286	347	388	404	232
75°	129	189	255	299	314	137
85°	38	103	170	213	229	41
90°	11	80	160	200	214	9
95°	41	97	160	199	212	44
105°	138	172	227	263	276	147
115°	252	269	313	343	354	249
125°	362	370	400	425	435	324
135°	467	474	486	506	514	361
145°	566	570	574	581	584	354
155°	647	649	651	654	652	298
165°	704	703	703	707	705	198
175°	732	731	729	733	730	70
180°	734	734	734	734	734	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3
2.5°	729.5	729.0	728.4	727.9	727.3	726.4	725.0	723.7	722.4	721.1	722.1
5°	727.4	726.7	726.0	725.3	724.6	723.6	722.2	720.7	719.4	718.0	719.4
7.5°	720.9	720.4	719.9	719.5	719.1	718.3	717.2	716.1	715.0	714.0	715.7
10°	715.9	715.4	714.9	714.5	714.0	713.4	712.7	712.0	711.3	710.6	712.5
12.5°	707.4	707.6	707.7	707.7	707.8	707.6	707.1	706.5	706.1	705.5	707.4
15°	693.8	694.3	694.7	695.2	695.6	695.9	695.9	695.9	695.9	695.9	698.0
17.5°	676.1	677.1	678.1	679.1	680.0	680.9	681.7	682.4	683.2	683.9	686.1
20°	664.3	665.5	666.7	667.9	669.0	670.1	671.0	671.9	672.9	673.8	676.4
22.5°	651.7	653.1	654.4	655.8	657.1	658.5	659.8	661.1	662.4	663.7	666.3
25°	630.7	632.3	634.0	635.6	637.2	639.1	641.2	643.3	645.4	647.5	650.3
27.5°	605.5	608.2	610.8	613.5	616.2	618.7	621.2	623.7	626.1	628.6	632.2
30°	588.7	591.7	594.8	597.8	600.8	603.9	606.9	609.9	613.0	616.0	619.7
32.5°	570.1	573.5	576.9	580.4	583.8	587.3	590.9	594.5	598.1	601.7	606.0
35°	543.4	547.4	551.4	555.4	559.4	563.6	568.0	572.4	576.9	581.3	586.5
37.5°	514.4	519.0	523.6	528.1	532.7	537.9	543.7	549.5	555.2	560.9	566.6
40°	495.1	500.3	505.4	510.6	515.6	521.4	527.7	534.0	540.3	546.6	552.7
42.5°	476.6	481.7	486.9	492.0	497.2	503.4	510.6	517.8	525.1	532.3	538.9
45°	445.7	452.0	458.3	464.6	471.0	478.2	486.3	494.6	502.7	510.9	518.1
47.5°	415.2	422.1	429.0	435.9	442.7	450.9	460.5	470.1	479.7	489.3	496.8
50°	394.2	401.4	408.7	415.9	423.2	432.1	442.5	453.0	463.6	474.1	482.0
52.5°	374.0	381.6	389.3	396.9	404.5	413.8	424.9	435.9	447.0	458.1	466.2
55°	341.7	350.1	358.5	366.9	375.3	385.6	397.7	409.9	422.0	434.1	442.5
57.5°	309.7	319.2	328.7	338.1	347.6	358.5	370.9	383.3	395.7	408.1	417.2
60°	287.0	297.0	307.0	317.1	327.2	338.8	352.1	365.4	378.7	392.1	401.0
62.5°	266.8	277.2	287.6	298.0	308.5	320.4	333.7	347.0	360.3	373.6	383.0
65°	233.4	244.8	256.3	267.7	279.2	291.8	305.5	319.3	333.1	346.9	356.5
67.5°	202.6	214.6	226.6	238.5	250.5	263.6	277.7	291.8	305.9	320.0	329.6
70°	180.8	193.0	205.1	217.2	229.4	242.7	257.2	271.6	286.1	300.6	310.7
72.5°	160.7	173.2	185.7	198.2	210.7	224.3	239.0	253.7	268.3	283.0	292.9
75°	129.3	142.4	155.4	168.6	181.6	195.7	210.6	225.5	240.5	255.4	265.5
77.5°	99.0	112.7	126.4	140.1	153.8	168.2	183.4	198.6	213.7	228.9	238.9
80°	78.8	93.1	107.3	121.6	135.9	150.5	165.7	180.9	196.1	211.3	221.1
82.5°	62.0	76.0	90.2	104.2	118.3	133.0	148.4	163.7	179.1	194.5	204.3
85°	37.9	52.4	66.8	81.3	95.8	110.5	125.4	140.4	155.3	170.3	180.1
87.5°	20.8	35.0	49.2	63.5	77.7	92.6	108.2	123.7	139.3	154.9	164.4
90°	11.2	26.3	41.5	56.7	71.9	88.5	106.5	124.5	142.4	160.4	169.5
92.5°	20.7	34.5	48.3	62.2	76.0	90.5	105.6	120.6	135.8	150.9	160.1
95°	40.6	53.0	65.4	77.6	90.0	103.4	117.6	131.9	146.2	160.5	169.4
97.5°	66.1	77.2	88.2	99.1	110.1	122.6	136.6	150.5	164.5	178.5	187.1
100°	86.0	95.8	105.5	115.3	125.0	136.6	150.1	163.6	177.1	190.6	199.2
102.5°	106.0	114.7	123.5	132.3	141.1	152.1	165.3	178.6	191.8	205.0	213.6
105°	138.4	145.6	152.7	159.9	167.2	177.0	189.3	201.8	214.2	226.6	235.0
107.5°	172.1	178.2	184.2	190.2	196.2	205.0	216.7	228.3	240.0	251.6	259.5
110°	193.1	198.5	204.1	209.5	215.1	223.6	235.0	246.4	257.9	269.3	276.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	216.8	221.6	226.3	231.1	235.8	243.6	254.4	265.1	275.9	286.7	293.8
115°	251.9	255.3	258.6	262.1	265.5	272.3	282.5	292.8	303.0	313.2	320.1
117.5°	285.7	288.5	291.3	294.1	296.9	302.8	311.7	320.7	329.6	338.6	345.2
120°	309.0	311.1	313.1	315.1	317.2	322.3	330.6	338.8	347.1	355.3	361.9
122.5°	330.3	332.0	333.7	335.4	337.2	342.0	350.0	358.0	366.0	374.0	380.0
125°	362.5	363.7	365.0	366.2	367.4	371.6	378.7	385.7	392.8	399.8	405.8
127.5°	394.8	396.2	397.4	398.8	400.1	403.5	409.1	414.6	420.2	425.7	431.0
130°	415.1	416.7	418.2	419.8	421.4	424.5	429.0	433.7	438.3	442.9	448.3
132.5°	437.9	439.1	440.4	441.6	442.8	445.4	449.2	453.0	456.9	460.7	465.5
135°	467.3	468.8	470.3	471.8	473.3	475.4	478.0	480.6	483.2	485.8	490.7
137.5°	499.4	500.6	501.8	503.0	504.1	505.4	506.8	508.2	509.6	511.0	515.2
140°	518.7	519.7	520.7	521.7	522.8	523.8	525.0	526.1	527.3	528.4	532.2
142.5°	538.5	539.6	540.5	541.5	542.6	543.4	543.9	544.5	545.0	545.6	548.7
145°	565.9	566.9	567.9	568.9	569.8	570.7	571.6	572.4	573.1	574.0	575.5
147.5°	591.4	592.5	593.7	594.8	596.0	596.8	597.4	597.9	598.5	599.0	599.5
150°	608.7	609.5	610.3	611.2	612.0	612.7	613.2	613.8	614.3	614.9	615.3
152.5°	624.0	624.9	625.7	626.5	627.3	628.0	628.8	629.4	630.0	630.7	631.2
155°	647.1	647.5	647.9	648.3	648.7	649.1	649.5	650.0	650.4	650.8	651.5
157.5°	666.8	667.0	667.3	667.6	667.9	668.1	668.4	668.6	668.8	669.1	670.0
160°	678.7	678.9	679.2	679.5	679.8	679.9	680.1	680.2	680.4	680.5	681.4
162.5°	689.5	689.6	689.7	689.7	689.8	689.8	690.0	690.1	690.3	690.4	691.3
165°	704.0	703.9	703.8	703.6	703.5	703.4	703.4	703.4	703.4	703.4	704.4
167.5°	716.1	715.7	715.3	714.9	714.5	714.3	714.3	714.2	714.2	714.2	715.2
170°	722.6	722.2	721.8	721.4	721.0	720.6	720.6	720.4	720.3	720.1	721.1
172.5°	727.1	726.7	726.3	725.8	725.4	725.2	725.0	724.8	724.8	724.6	725.6
175°	732.5	732.1	731.7	731.3	730.9	730.6	730.2	730.0	729.7	729.4	730.4
177.5°	734.7	734.4	734.1	733.7	733.4	733.2	732.9	732.7	732.5	732.3	732.9
180°	733.7	733.7	733.7	733.7	733.7	733.7	733.7	733.7	733.7	733.7	733.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3
2.5°	722.9	723.9	724.8	725.2	724.8	724.4	724.0	723.7
5°	720.7	722.2	723.6	724.1	723.9	723.7	723.4	723.2
7.5°	717.3	719.0	720.7	721.4	721.2	721.0	720.7	720.5
10°	714.3	716.2	718.1	718.9	718.7	718.4	718.2	718.0
12.5°	709.3	711.1	713.0	713.8	713.6	713.4	713.1	712.9
15°	700.1	702.2	704.3	705.2	705.0	704.7	704.5	704.3
17.5°	688.3	690.5	692.7	693.8	693.8	693.8	693.8	693.8
20°	679.0	681.5	684.0	685.4	685.4	685.4	685.4	685.4
22.5°	668.8	671.5	674.0	675.5	675.8	676.2	676.6	677.0
25°	653.2	655.9	658.8	660.5	661.2	661.9	662.6	663.3
27.5°	635.7	639.3	642.8	644.8	645.4	645.9	646.4	646.9
30°	623.4	627.2	631.0	633.2	633.8	634.5	635.3	636.0
32.5°	610.3	614.6	618.9	621.7	622.9	624.2	625.4	626.7
35°	591.6	596.8	601.9	605.2	606.9	608.6	610.1	611.8
37.5°	572.3	578.0	583.7	587.4	589.1	590.9	592.6	594.4
40°	558.7	564.8	570.9	575.0	577.1	579.2	581.3	583.4
42.5°	545.6	552.2	558.9	563.2	565.3	567.4	569.5	571.6
45°	525.4	532.6	539.9	544.6	547.0	549.3	551.7	554.0
47.5°	504.4	511.9	519.5	524.6	527.1	529.7	532.3	534.9
50°	490.0	497.9	505.9	511.1	513.7	516.3	518.8	521.4
52.5°	474.4	482.5	490.6	496.1	498.8	501.6	504.3	507.1
55°	451.0	459.4	467.8	473.5	476.5	479.6	482.6	485.6
57.5°	426.2	435.2	444.3	450.4	453.4	456.5	459.6	462.7
60°	409.9	418.7	427.6	433.6	437.0	440.2	443.5	446.8
62.5°	392.4	401.9	411.3	417.6	420.6	423.7	426.8	429.9
65°	366.1	375.7	385.2	391.5	394.5	397.6	400.6	403.6
67.5°	339.3	349.0	358.7	365.1	368.3	371.5	374.6	377.8
70°	320.8	330.7	340.8	347.2	350.1	352.8	355.7	358.5
72.5°	302.7	312.5	322.4	329.0	332.4	335.7	339.1	342.5
75°	275.5	285.6	295.6	302.1	305.2	308.2	311.2	314.3
77.5°	249.0	259.0	268.9	275.6	278.8	282.1	285.4	288.7
80°	230.9	240.7	250.6	257.1	260.3	263.6	266.9	270.1
82.5°	214.1	223.9	233.7	240.2	243.3	246.3	249.4	252.5
85°	189.9	199.7	209.5	216.1	219.4	222.6	225.9	229.2
87.5°	173.8	183.3	192.7	199.0	202.0	205.0	208.0	211.1
90°	178.6	187.7	196.7	202.7	205.7	208.6	211.5	214.4
92.5°	169.3	178.5	187.7	193.8	196.5	199.4	202.2	205.1
95°	178.2	187.1	196.0	201.7	204.2	206.8	209.3	211.8
97.5°	195.7	204.4	213.0	218.7	221.5	224.2	226.9	229.7
100°	207.9	216.5	225.1	230.7	233.1	235.5	238.0	240.4
102.5°	222.1	230.7	239.2	244.8	247.2	249.6	252.1	254.4
105°	243.5	252.0	260.5	265.9	268.5	271.1	273.6	276.2
107.5°	267.5	275.4	283.4	288.4	290.3	292.2	294.1	296.1
110°	284.2	291.8	299.2	304.0	306.2	308.3	310.5	312.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	301.0	308.2	315.3	320.0	322.3	324.6	326.8	329.1
115°	326.9	333.8	340.7	345.2	347.4	349.5	351.7	353.9
117.5°	351.7	358.3	364.9	369.2	371.1	373.1	375.1	377.0
120°	368.4	374.9	381.4	385.8	387.9	390.1	392.3	394.4
122.5°	386.1	392.1	398.2	402.1	403.9	405.8	407.7	409.6
125°	411.6	417.5	423.4	427.3	429.3	431.3	433.2	435.2
127.5°	436.3	441.6	446.9	450.4	451.9	453.6	455.2	456.8
130°	453.6	458.9	464.3	467.6	468.9	470.2	471.6	472.9
132.5°	470.3	475.2	479.9	483.1	484.5	485.9	487.4	488.8
135°	495.4	500.2	504.9	508.0	509.5	511.0	512.5	513.9
137.5°	519.4	523.6	527.8	530.4	531.4	532.4	533.5	534.5
140°	535.9	539.6	543.4	545.7	546.5	547.4	548.2	549.1
142.5°	551.8	554.8	557.9	559.8	560.5	561.2	561.8	562.5
145°	577.1	578.6	580.2	581.2	581.9	582.5	583.1	583.7
147.5°	600.0	600.5	600.9	601.3	601.3	601.3	601.3	601.4
150°	615.7	616.1	616.6	616.6	616.1	615.7	615.3	614.9
152.5°	631.8	632.3	632.8	632.8	632.3	631.8	631.2	630.7
155°	652.1	652.8	653.6	653.7	653.2	652.8	652.4	652.0
157.5°	671.0	671.9	672.9	673.0	672.3	671.7	671.0	670.3
160°	682.1	683.0	683.8	684.0	683.4	682.9	682.3	681.8
162.5°	692.3	693.2	694.2	694.3	693.6	693.0	692.3	691.7
165°	705.4	706.3	707.3	707.4	706.7	706.0	705.4	704.6
167.5°	716.1	717.1	718.0	718.2	717.5	716.8	716.1	715.3
170°	722.1	723.0	724.0	724.1	723.3	722.4	721.6	720.7
172.5°	726.5	727.5	728.4	728.5	727.7	726.8	726.0	725.2
175°	731.3	732.3	733.2	733.3	732.5	731.7	730.9	730.1
177.5°	733.6	734.3	734.9	734.9	734.3	733.6	732.9	732.3
180°	733.7	733.7	733.7	733.7	733.7	733.7	733.7	733.7

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