

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: P331388-927

Luminaire Tested: **SA2XXDIP-C865D530U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331388-927
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-C865D530U927-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 865 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4266.1 lumens
Efficiency: N/A
Efficacy: 87.4 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

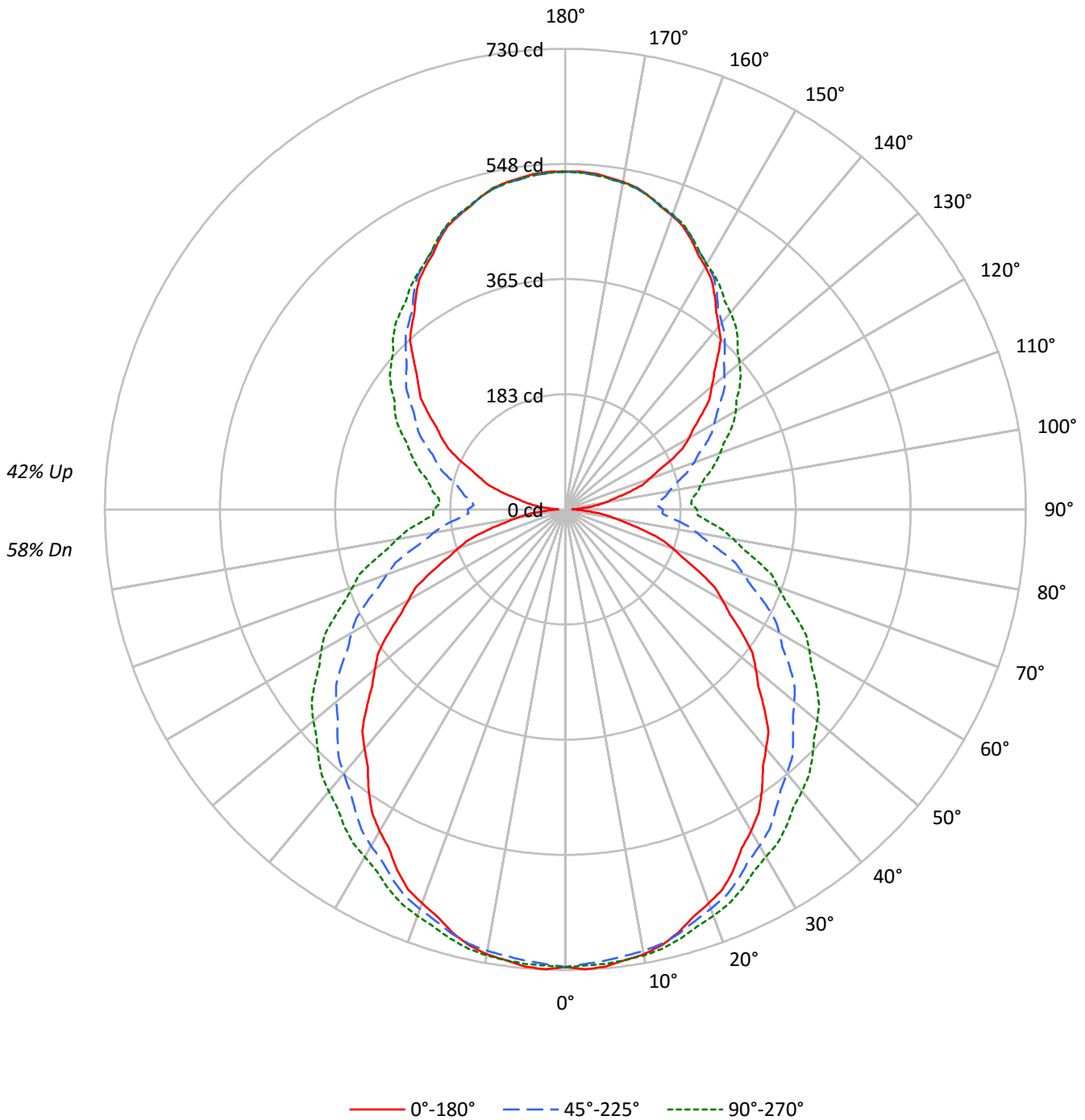
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									20									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	50	30	10	0																
RCR	0	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58																											
	1	98	93	88	84	91	86	82	79	74	71	68	63	61	59	53	51	50	45																											
	2	88	80	73	67	82	74	68	63	64	59	55	55	51	48	46	43	41	36																											
	3	80	70	62	55	74	65	58	52	56	50	46	48	43	40	40	37	34	30																											
	4	73	61	53	46	68	57	50	44	49	43	38	42	37	34	35	32	29	25																											
	5	67	54	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	35	30	53	41	33	28	36	30	25	31	26	22	26	22	19	16																											
	8	53	40	32	26	49	37	30	25	33	26	22	28	23	20	24	20	17	15																											
	9	49	36	28	23	46	34	27	22	30	24	20	26	21	17	22	18	15	13																											
	10	46	33	26	21	43	31	24	20	27	22	18	24	19	16	20	17	14	12																											

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	1.6
10°-20°	197.1	4.6
20°-30°	298.7	7.0
30°-40°	363.8	8.5
40°-50°	391.3	9.2
50°-60°	380.0	8.9
60°-70°	331.8	7.8
70°-80°	255.5	6.0
80°-90°	173.6	4.1
90°-100°	152.0	3.6
100°-110°	191.6	4.5
110°-120°	237.0	5.6
120°-130°	268.6	6.3
130°-140°	279.1	6.5
140°-150°	262.9	6.2
150°-160°	218.6	5.1
160°-170°	145.0	3.4
170°-180°	50.7	1.2
0°-30°	564.5	13.2
0°-40°	928.2	21.8
0°-60°	1699.6	39.8
0°-90°	2460.5	57.7
90°-120°	580.7	13.6
90°-150°	1391.4	32.6
90°-180°	1806.0	42.3
0°-180°	4266.1	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	78	155	194	209	8
95°	32	86	150	188	202	34
105°	102	136	190	226	239	109
115°	185	201	246	276	287	182
125°	265	271	301	327	337	237
135°	341	347	358	378	386	264
145°	413	416	419	425	429	258
155°	472	473	475	477	476	217
165°	514	513	513	516	514	145
175°	534	533	532	535	533	51
180°	535	535	535	535	535	



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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°	20.7	34.9	49.0	63.2	77.3	92.1	107.5	122.9	138.3	153.7	163.2
90°	10.9	25.7	40.5	55.2	69.9	86.0	103.1	120.3	137.4	154.6	163.7
92.5°	17.7	31.2	44.7	58.2	71.7	85.9	100.8	115.7	130.6	145.5	154.7
95°	31.9	43.9	55.8	67.8	79.9	92.9	107.2	121.4	135.5	149.8	158.7
97.5°	50.3	60.9	71.5	82.2	92.8	105.1	118.9	132.8	146.6	160.4	169.1
100°	64.7	74.1	83.7	93.1	102.5	113.9	127.3	140.7	154.1	167.5	176.1
102.5°	79.1	87.6	96.2	104.6	113.2	124.1	137.1	150.2	163.3	176.4	184.9
105°	102.3	109.5	116.5	123.6	130.7	140.4	152.7	165.1	177.4	189.8	198.1
107.5°	126.9	132.8	138.6	144.5	150.4	159.1	170.7	182.4	194.0	205.7	213.6
110°	142.0	147.3	152.5	157.8	163.1	171.4	182.9	194.3	205.8	217.2	224.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	159.3	163.8	168.4	172.9	177.4	185.1	195.9	206.7	217.5	228.3	235.6
115°	184.9	188.1	191.2	194.4	197.6	204.3	214.6	225.0	235.3	245.6	252.5
117.5°	209.3	211.8	214.3	216.8	219.3	225.1	234.2	243.4	252.5	261.7	268.4
120°	226.3	228.1	229.8	231.6	233.3	238.4	246.9	255.5	264.0	272.6	279.1
122.5°	241.9	243.2	244.5	245.9	247.2	252.0	260.2	268.4	276.6	284.9	291.0
125°	265.0	265.9	266.8	267.8	268.6	272.7	279.9	287.0	294.2	301.3	307.4
127.5°	288.6	289.5	290.4	291.4	292.2	295.6	301.2	306.9	312.5	318.2	323.6
130°	303.4	304.5	305.5	306.7	307.7	310.6	315.3	320.0	324.7	329.4	334.8
132.5°	320.0	320.8	321.7	322.5	323.4	325.7	329.5	333.4	337.2	341.0	345.9
135°	341.2	342.3	343.4	344.5	345.6	347.5	350.0	352.5	355.1	357.6	362.4
137.5°	364.6	365.4	366.3	367.2	368.0	369.1	370.4	371.7	373.0	374.2	378.5
140°	378.7	379.4	380.0	380.7	381.4	382.2	383.2	384.1	385.1	386.1	389.8
142.5°	393.2	393.8	394.5	395.1	395.9	396.4	396.8	397.3	397.7	398.2	401.2
145°	412.9	413.6	414.3	415.0	415.7	416.4	416.9	417.6	418.2	418.7	420.3
147.5°	431.4	432.2	433.1	434.0	434.7	435.4	435.8	436.2	436.6	437.0	437.4
150°	444.1	444.7	445.3	445.8	446.5	446.9	447.3	447.7	448.1	448.6	448.9
152.5°	455.3	455.9	456.5	457.1	457.6	458.2	458.7	459.1	459.6	460.2	460.5
155°	472.1	472.4	472.7	472.9	473.2	473.6	473.9	474.2	474.4	474.8	475.3
157.5°	486.4	486.6	486.8	487.0	487.3	487.4	487.6	487.8	488.0	488.1	488.9
160°	495.1	495.3	495.5	495.7	495.9	496.1	496.1	496.2	496.4	496.5	497.1
162.5°	503.0	503.1	503.1	503.2	503.2	503.3	503.4	503.5	503.6	503.7	504.4
165°	513.7	513.5	513.4	513.3	513.3	513.2	513.2	513.2	513.2	513.2	513.9
167.5°	522.4	522.2	521.9	521.6	521.3	521.1	521.1	521.1	521.0	521.0	521.7
170°	527.2	526.9	526.6	526.2	526.0	525.8	525.7	525.5	525.5	525.4	526.1
172.5°	530.4	530.1	529.8	529.5	529.3	529.0	528.9	528.9	528.7	528.6	529.3
175°	534.4	534.1	533.8	533.5	533.2	533.0	532.7	532.6	532.3	532.1	532.8
177.5°	536.1	535.8	535.5	535.3	535.0	534.9	534.7	534.6	534.4	534.2	534.7
180°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3



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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°	172.7	182.2	191.6	197.9	200.9	203.9	206.9	209.9
90°	172.9	182.0	191.2	197.2	200.1	203.0	205.9	208.7
92.5°	164.0	173.2	182.4	188.4	191.2	194.0	196.9	199.6
95°	167.5	176.4	185.3	191.1	193.6	196.2	198.8	201.5
97.5°	177.8	186.4	195.0	200.7	203.4	206.2	208.9	211.7
100°	184.7	193.4	202.0	207.6	210.1	212.5	215.0	217.5
102.5°	193.5	202.0	210.6	216.0	218.5	220.9	223.5	225.9
105°	206.5	214.9	223.3	228.8	231.3	233.9	236.5	239.1
107.5°	221.5	229.4	237.3	242.4	244.5	246.6	248.7	250.8
110°	232.2	239.6	247.2	252.0	254.3	256.5	258.8	261.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	242.8	250.0	257.3	262.1	264.4	266.7	269.1	271.5
115°	259.4	266.3	273.2	277.8	280.0	282.3	284.6	286.8
117.5°	275.0	281.7	288.4	292.8	294.9	296.9	299.0	301.1
120°	285.7	292.2	298.7	303.2	305.4	307.7	309.9	312.2
122.5°	297.1	303.2	309.3	313.4	315.4	317.3	319.2	321.2
125°	313.4	319.4	325.3	329.4	331.4	333.4	335.4	337.4
127.5°	329.1	334.5	339.9	343.5	345.2	347.0	348.7	350.5
130°	340.2	345.6	351.0	354.5	355.9	357.4	358.9	360.4
132.5°	350.9	355.9	360.9	364.2	365.7	367.3	368.8	370.3
135°	367.2	372.0	376.8	380.0	381.6	383.1	384.7	386.3
137.5°	382.7	386.9	391.1	393.9	395.1	396.2	397.4	398.5
140°	393.6	397.3	401.0	403.4	404.4	405.4	406.4	407.4
142.5°	404.3	407.3	410.4	412.3	413.2	414.0	414.8	415.6
145°	421.8	423.3	424.8	425.9	426.7	427.5	428.2	429.0
147.5°	437.8	438.2	438.6	438.9	439.1	439.3	439.5	439.7
150°	449.2	449.5	449.8	449.8	449.5	449.2	448.9	448.6
152.5°	460.9	461.3	461.7	461.7	461.3	460.9	460.5	460.2
155°	475.8	476.3	476.8	476.9	476.6	476.3	475.9	475.7
157.5°	489.5	490.2	490.9	491.0	490.5	490.0	489.6	489.0
160°	497.6	498.3	498.8	499.0	498.6	498.2	497.7	497.3
162.5°	505.0	505.7	506.4	506.5	506.0	505.6	505.1	504.6
165°	514.6	515.3	515.9	516.1	515.6	515.1	514.6	514.0
167.5°	522.4	523.2	523.9	523.9	523.4	522.9	522.4	521.8
170°	526.8	527.5	528.1	528.2	527.6	527.0	526.4	525.9
172.5°	530.0	530.8	531.4	531.5	530.9	530.3	529.7	529.1
175°	533.5	534.2	535.0	535.0	534.4	533.8	533.2	532.6
177.5°	535.2	535.7	536.1	536.1	535.7	535.2	534.7	534.2
180°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3

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