

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: P333175-935

Luminaire Tested: **S125DIP-S610D590U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333175-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S610D590U935-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4188.0 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

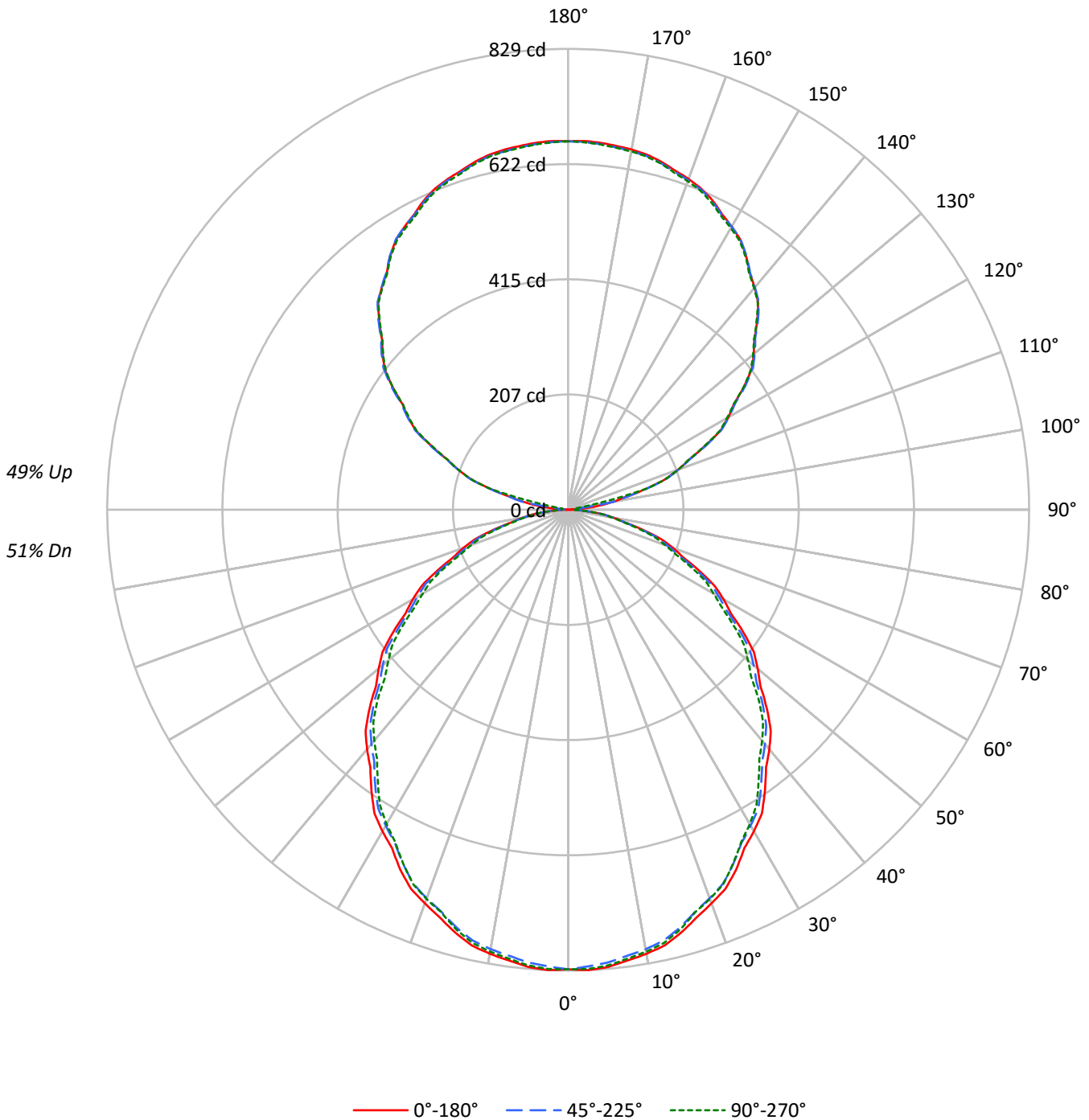
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	94	90	86	90	87	83	80	74	71	69	62	60	58	51	49	48	43
2	89	82	76	70	82	76	70	66	65	60	57	54	51	49	45	42	41	36
3	81	72	64	59	75	67	60	55	57	52	48	48	44	41	39	37	35	31
4	74	64	56	50	68	59	52	47	51	45	41	43	39	35	35	32	30	26
5	68	57	48	42	63	53	45	40	45	40	35	38	34	31	32	29	26	23
6	63	51	43	37	58	47	40	35	41	35	31	35	30	27	29	25	23	20
7	58	46	38	32	54	43	36	30	37	31	27	31	27	24	26	23	20	18
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	21	18	16
9	50	38	30	25	46	36	29	24	31	25	22	26	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	21	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5340	5340	5340
5°	5352	5301	5335
10°	5319	5264	5294
15°	5262	5201	5223
20°	5179	5112	5121
25°	5091	5007	5002
30°	4981	4894	4869
35°	4864	4771	4704
40°	4743	4639	4572
45°	4613	4517	4427
50°	4470	4372	4240
55°	4332	4206	4088
60°	4166	4039	3896
65°	3969	3839	3709
70°	3780	3609	3484
75°	3444	3331	3216
80°	3065	3016	2942
85°	2668	2712	2571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.0	1.9
10°-20°	220.2	5.3
20°-30°	325.2	7.8
30°-40°	379.4	9.1
40°-50°	381.1	9.1
50°-60°	334.5	8.0
60°-70°	249.3	6.0
70°-80°	142.5	3.4
80°-90°	42.8	1.0
90°-100°	24.1	0.6
100°-110°	148.4	3.5
110°-120°	269.2	6.4
120°-130°	345.5	8.2
130°-140°	371.6	8.9
140°-150°	348.8	8.3
150°-160°	282.1	6.7
160°-170°	182.5	4.4
170°-180°	62.9	1.5
0°-30°	623.4	14.9
0°-40°	1002.8	23.9
0°-60°	1718.4	41.0
0°-90°	2153.1	51.4
90°-120°	441.7	10.5
90°-150°	1507.5	36.0
90°-180°	2035.0	48.6
0°-180°	4188.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	827	827	827	827	827	
5°	826	824	818	823	823	78
15°	787	785	778	781	781	222
25°	714	711	703	704	702	329
35°	617	614	605	602	597	386
45°	505	502	495	487	485	389
55°	385	382	374	368	363	343
65°	260	258	251	246	243	258
75°	138	137	134	131	129	147
85°	36	37	37	36	35	40
90°	0	4	8	10	12	3
95°	28	26	8	10	10	36
105°	144	146	146	146	146	153
115°	271	274	274	272	269	269
125°	386	389	389	387	386	344
135°	481	484	483	482	479	371
145°	558	558	558	559	556	349
155°	614	611	612	613	610	283
165°	648	645	646	648	644	183
175°	663	660	660	664	660	63
180°	663	663	663	663	663	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9
2.5°	829.0	828.6	828.3	827.9	827.6	826.8	825.7	824.5	823.4	822.2	823.4
5°	825.6	825.3	825.0	824.7	824.4	823.5	822.1	820.6	819.2	817.7	819.1
7.5°	817.9	817.7	817.4	817.1	816.8	815.9	814.2	812.7	811.1	809.5	810.7
10°	811.1	810.9	810.6	810.3	810.0	809.1	807.4	805.9	804.3	802.7	803.8
12.5°	802.8	802.3	801.8	801.2	800.7	799.7	798.2	796.8	795.2	793.8	794.7
15°	787.0	786.5	786.1	785.7	785.2	784.2	782.6	781.0	779.4	777.8	778.5
17.5°	768.8	768.2	767.5	766.9	766.2	765.1	763.4	761.7	760.1	758.5	759.3
20°	753.6	753.3	753.0	752.8	752.4	751.4	749.5	747.6	745.7	743.8	744.9
22.5°	738.4	737.9	737.4	736.8	736.3	735.2	733.4	731.7	729.9	728.1	728.8
25°	714.4	713.6	712.9	712.2	711.4	710.2	708.3	706.4	704.5	702.6	702.9
27.5°	686.2	685.8	685.4	684.9	684.5	683.3	681.3	679.4	677.4	675.5	675.5
30°	667.9	667.4	667.0	666.6	666.2	664.9	662.7	660.5	658.3	656.2	655.8
32.5°	648.0	647.4	646.7	646.0	645.3	644.0	642.1	640.2	638.2	636.3	635.8
35°	616.9	616.3	615.7	615.2	614.6	613.3	611.2	609.2	607.2	605.1	604.4
37.5°	584.5	583.8	583.2	582.4	581.7	580.3	578.4	576.5	574.5	572.7	571.6
40°	562.6	561.9	561.1	560.4	559.6	558.3	556.3	554.2	552.2	550.2	548.9
42.5°	539.1	538.5	537.8	537.2	536.6	535.3	533.2	531.2	529.2	527.1	526.0
45°	505.1	504.5	503.9	503.3	502.7	501.5	499.8	498.1	496.3	494.6	492.8
47.5°	468.4	468.4	468.5	468.5	468.5	467.4	465.4	463.3	461.2	459.1	457.4
50°	444.9	444.4	443.9	443.5	443.1	442.0	440.2	438.5	436.8	435.1	433.2
52.5°	420.8	420.4	420.2	419.8	419.5	418.4	416.6	414.7	412.8	411.0	409.3
55°	384.7	384.2	383.7	383.3	382.9	381.7	379.6	377.6	375.6	373.5	372.2
57.5°	346.6	346.4	346.1	345.9	345.7	344.7	342.9	341.2	339.5	337.9	336.1
60°	322.5	321.9	321.3	320.7	320.2	319.1	317.5	315.9	314.3	312.7	311.3
62.5°	297.4	297.0	296.4	296.0	295.5	294.6	293.3	291.9	290.5	289.1	287.6
65°	259.7	259.4	259.2	258.8	258.6	257.6	256.0	254.4	252.8	251.2	249.9
67.5°	223.2	222.6	222.0	221.4	220.8	219.9	218.7	217.5	216.3	215.1	214.0
70°	200.2	199.5	198.7	198.0	197.3	196.2	194.9	193.6	192.3	191.1	190.1
72.5°	175.0	174.5	174.1	173.6	173.1	172.4	171.6	170.7	169.9	169.0	168.1
75°	138.0	137.8	137.4	137.2	136.9	136.4	135.6	134.9	134.1	133.5	133.0
77.5°	103.9	103.8	103.7	103.5	103.4	103.1	102.7	102.4	101.9	101.5	101.3
80°	82.4	82.4	82.4	82.4	82.4	82.3	82.0	81.7	81.5	81.1	80.9
82.5°	63.6	63.4	63.1	62.9	62.7	62.5	62.4	62.4	62.3	62.3	62.0
85°	36.0	36.2	36.2	36.4	36.6	36.6	36.6	36.6	36.6	36.6	36.5
87.5°	14.2	14.4	14.6	14.7	14.9	15.1	15.1	15.1	15.2	15.2	15.3
90°	0.5	1.4	2.2	3.1	4.0	4.8	5.6	6.4	7.1	7.8	8.4
92.5°	7.6	7.0	6.4	5.8	5.1	5.2	5.9	6.5	7.1	7.8	8.4
95°	28.0	27.6	27.4	27.0	26.7	24.5	20.3	16.2	12.0	7.8	8.4
97.5°	58.5	59.1	59.7	60.2	60.8	57.0	48.8	40.6	32.4	24.2	21.1
100°	82.1	82.4	82.7	83.0	83.3	83.7	84.2	84.6	85.1	85.5	69.2
102.5°	106.0	106.4	106.9	107.3	107.6	108.0	108.2	108.6	108.8	109.1	106.0
105°	144.4	144.8	145.3	145.8	146.2	146.4	146.4	146.4	146.4	146.4	146.4
107.5°	184.3	184.3	184.3	184.3	184.3	184.4	184.6	184.9	185.1	185.3	185.3
110°	210.3	210.3	210.3	210.3	210.3	210.3	210.6	210.8	211.0	211.2	210.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	234.6	234.9	235.1	235.4	235.7	235.8	236.0	236.1	236.3	236.3	236.0
115°	271.1	271.7	272.2	272.8	273.4	273.7	273.8	273.9	274.0	274.1	273.7
117.5°	309.0	308.9	308.9	308.9	308.9	309.1	309.5	310.0	310.3	310.7	310.2
120°	332.6	332.4	332.3	332.3	332.1	332.3	332.6	332.9	333.2	333.6	333.3
122.5°	353.4	353.8	354.2	354.6	355.1	355.3	355.5	355.7	355.8	355.9	355.8
125°	385.6	386.4	387.1	387.9	388.7	389.1	389.1	389.1	389.1	389.1	388.7
127.5°	416.4	416.9	417.5	418.0	418.5	418.8	418.7	418.7	418.6	418.5	418.3
130°	435.2	435.8	436.4	436.9	437.4	437.7	437.8	438.0	438.1	438.2	437.8
132.5°	454.1	454.7	455.4	456.0	456.6	456.8	456.6	456.3	456.1	455.9	455.8
135°	481.0	481.6	482.2	482.8	483.5	483.8	483.5	483.3	483.1	482.8	482.7
137.5°	505.6	506.2	506.7	507.3	507.8	508.1	507.8	507.6	507.5	507.2	507.3
140°	521.7	521.9	522.1	522.4	522.5	522.6	522.5	522.4	522.3	522.2	522.4
142.5°	536.2	536.4	536.5	536.7	536.7	536.9	537.1	537.2	537.4	537.5	537.5
145°	557.6	557.8	558.0	558.2	558.4	558.5	558.5	558.5	558.5	558.5	558.6
147.5°	576.2	576.2	576.1	576.1	576.0	576.1	576.2	576.4	576.4	576.6	576.8
150°	588.0	587.8	587.5	587.4	587.1	587.1	587.4	587.5	587.8	588.0	588.2
152.5°	599.4	598.9	598.5	598.0	597.4	597.4	597.5	597.8	598.0	598.2	598.5
155°	614.1	613.4	612.8	612.1	611.4	611.2	611.4	611.7	611.8	612.1	612.4
157.5°	625.3	624.9	624.6	624.1	623.8	623.6	623.6	623.6	623.6	623.7	624.1
160°	633.2	632.6	631.9	631.2	630.6	630.3	630.4	630.5	630.6	630.8	631.2
162.5°	639.5	638.9	638.2	637.5	636.9	636.6	636.7	636.8	636.9	637.1	637.7
165°	647.9	647.3	646.6	646.0	645.3	645.1	645.1	645.2	645.4	645.5	646.1
167.5°	654.2	653.6	652.9	652.2	651.5	651.3	651.3	651.4	651.5	651.7	652.5
170°	657.8	657.0	656.3	655.5	654.7	654.4	654.4	654.6	654.7	654.8	655.7
172.5°	660.1	659.4	658.6	657.8	657.0	656.8	656.9	657.2	657.4	657.5	658.3
175°	662.7	662.0	661.3	660.7	660.0	659.8	659.9	660.0	660.1	660.2	661.1
177.5°	663.8	663.3	662.8	662.3	661.8	661.5	661.6	661.7	661.8	661.9	662.5
180°	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9
2.5°	824.5	825.7	826.8	827.3	827.2	827.1	827.0	826.9
5°	820.4	821.7	822.9	823.5	823.4	823.3	823.1	822.9
7.5°	812.0	813.3	814.6	815.2	815.0	814.9	814.8	814.6
10°	805.0	806.2	807.4	807.9	807.7	807.5	807.4	807.3
12.5°	795.7	796.6	797.5	798.0	797.9	797.9	797.9	797.8
15°	779.3	780.0	780.8	781.1	781.1	781.1	781.1	781.1
17.5°	760.3	761.1	762.1	762.2	761.4	760.7	760.0	759.2
20°	745.8	746.8	747.9	748.0	747.3	746.6	745.8	745.1
22.5°	729.4	730.1	730.8	730.9	730.4	729.9	729.4	728.9
25°	703.2	703.4	703.8	703.7	703.3	702.8	702.4	702.0
27.5°	675.6	675.7	675.7	675.5	675.1	674.7	674.2	673.8
30°	655.6	655.3	655.0	654.6	654.2	653.8	653.3	652.9
32.5°	635.2	634.6	634.1	633.5	632.7	632.0	631.1	630.3
35°	603.6	603.0	602.2	601.2	600.1	598.9	597.8	596.6
37.5°	570.5	569.5	568.3	567.5	566.8	566.2	565.5	564.8
40°	547.5	546.2	544.9	544.1	543.6	543.2	542.8	542.3
42.5°	524.8	523.6	522.4	521.4	520.7	520.1	519.4	518.8
45°	491.0	489.3	487.6	486.5	486.0	485.6	485.2	484.7
47.5°	455.6	453.7	452.0	450.6	449.6	448.6	447.5	446.5
50°	431.3	429.4	427.5	426.0	425.0	424.0	422.9	422.0
52.5°	407.6	406.0	404.3	402.9	401.8	400.6	399.5	398.4
55°	370.9	369.6	368.3	367.1	366.1	365.1	364.1	363.1
57.5°	334.4	332.8	331.1	329.9	329.4	328.8	328.3	327.8
60°	309.8	308.3	306.9	305.7	304.6	303.6	302.6	301.6
62.5°	286.0	284.5	282.8	281.7	280.9	280.1	279.3	278.5
65°	248.6	247.3	246.0	245.0	244.4	243.8	243.3	242.7
67.5°	212.9	211.8	210.7	209.9	209.6	209.2	208.9	208.5
70°	189.2	188.4	187.5	186.8	186.2	185.6	185.0	184.5
72.5°	167.0	166.1	165.1	164.3	163.7	163.2	162.6	162.0
75°	132.6	132.2	131.7	131.2	130.6	130.0	129.5	128.9
77.5°	101.0	100.7	100.5	100.1	99.7	99.4	98.9	98.5
80°	80.8	80.7	80.5	80.3	80.0	79.7	79.5	79.1
82.5°	61.7	61.5	61.2	61.0	61.0	61.0	60.9	60.9
85°	36.3	36.2	36.1	35.8	35.6	35.2	35.0	34.7
87.5°	15.4	15.5	15.6	15.6	15.4	15.2	15.1	14.9
90°	9.0	9.5	10.1	10.5	10.8	11.1	11.5	11.8
92.5°	9.0	9.5	10.1	10.4	10.5	10.7	10.8	11.0
95°	9.0	9.5	10.1	10.3	10.3	10.3	10.3	10.3
97.5°	18.0	14.9	11.9	10.3	10.3	10.3	10.3	10.3
100°	53.0	36.7	20.4	12.1	11.6	11.2	10.8	10.3
102.5°	102.9	99.8	96.8	91.5	84.0	76.6	69.2	61.8
105°	146.4	146.4	146.4	146.4	146.2	146.1	146.0	145.9
107.5°	185.4	185.4	185.4	185.2	184.9	184.6	184.3	183.9
110°	210.6	210.3	209.9	209.8	209.9	210.0	210.2	210.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	235.6	235.1	234.7	234.5	234.3	234.1	234.0	233.8
115°	273.2	272.8	272.3	271.8	271.1	270.5	269.8	269.2
117.5°	309.6	309.0	308.5	308.1	307.8	307.5	307.2	306.9
120°	333.1	332.9	332.7	332.3	331.7	331.2	330.6	330.1
122.5°	355.5	355.3	355.1	354.6	354.0	353.4	352.8	352.1
125°	388.2	387.7	387.3	386.9	386.6	386.2	386.0	385.6
127.5°	418.0	417.8	417.6	417.1	416.2	415.4	414.7	413.8
130°	437.6	437.2	436.9	436.4	435.9	435.3	434.8	434.3
132.5°	455.7	455.6	455.6	455.3	454.8	454.2	453.7	453.1
135°	482.4	482.2	482.0	481.6	481.0	480.3	479.6	479.0
137.5°	507.3	507.4	507.4	507.1	506.6	506.0	505.5	504.9
140°	522.6	522.8	523.1	522.8	522.2	521.5	520.9	520.2
142.5°	537.6	537.6	537.7	537.4	536.7	536.1	535.4	534.8
145°	558.8	558.9	559.0	558.7	558.0	557.4	556.7	556.0
147.5°	576.9	577.0	577.1	576.8	576.0	575.2	574.5	573.7
150°	588.4	588.7	588.8	588.6	587.7	586.8	585.9	585.0
152.5°	598.7	598.9	599.1	598.8	598.1	597.3	596.4	595.6
155°	612.8	613.0	613.4	613.1	612.3	611.4	610.5	609.6
157.5°	624.4	624.7	625.1	624.8	624.0	623.0	622.2	621.3
160°	631.6	632.1	632.5	632.2	631.4	630.5	629.6	628.8
162.5°	638.3	638.9	639.5	639.3	638.3	637.4	636.5	635.4
165°	646.8	647.5	648.1	648.0	647.1	646.3	645.4	644.5
167.5°	653.2	654.0	654.8	654.7	653.8	652.7	651.8	650.7
170°	656.6	657.5	658.3	658.2	657.3	656.3	655.3	654.4
172.5°	659.1	660.0	660.7	660.6	659.6	658.7	657.6	656.7
175°	661.9	662.8	663.7	663.7	662.7	661.7	660.7	659.7
177.5°	663.1	663.7	664.3	664.3	663.6	662.9	662.2	661.5
180°	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7

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