

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: P331334-935

Luminaire Tested: **S122DIP-S675D330U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331334-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S675D330U935-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 330 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3323.1 lumens
Efficiency: N/A
Efficacy: 94.9 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: Semi-Direct

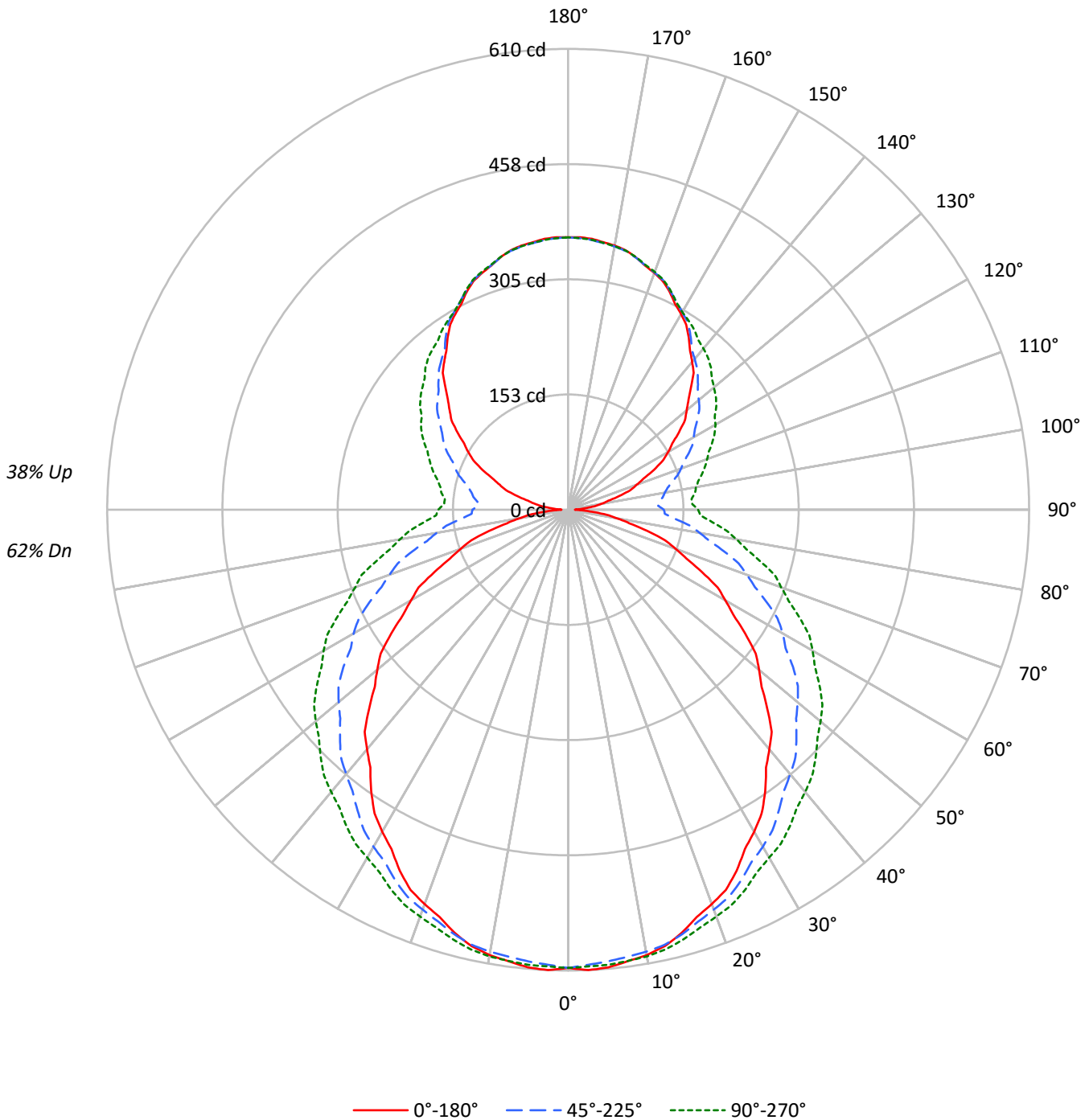
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	99	93	89	84	92	87	83	80	76	73	70	66	63	61	56	55	53	48
2	89	81	73	68	83	75	69	64	66	61	57	57	53	50	49	46	43	39
3	81	70	62	55	75	66	58	52	57	52	47	50	45	41	42	39	36	32
4	74	62	53	46	68	58	50	44	51	44	39	44	39	35	38	34	30	27
5	67	55	46	39	63	51	44	38	45	39	34	39	34	30	34	30	26	23
6	62	49	40	34	58	46	38	32	41	34	29	35	30	26	30	26	23	20
7	57	44	36	30	53	42	34	28	37	30	26	32	27	23	28	23	20	18
8	53	40	32	26	50	38	30	25	33	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	25	20	27	22	18	23	19	16	14
10	46	34	26	21	43	32	25	20	28	22	18	25	20	16	22	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9792	9792	9792
5°	9839	9426	9390
10°	9778	9148	9044
15°	9643	8853	8681
20°	9473	8536	8331
25°	9305	8231	8014
30°	9067	7919	7694
35°	8828	7615	7468
40°	8576	7358	7243
45°	8334	7127	7051
50°	8078	6920	6861
55°	7810	6696	6668
60°	7480	6465	6465
65°	7135	6192	6222
70°	6751	5899	5960
75°	6257	5612	5720
80°	5488	5319	5476
85°	4743	5064	5286



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.5	1.7
10°-20°	164.8	5.0
20°-30°	249.7	7.5
30°-40°	304.2	9.2
40°-50°	327.2	9.8
50°-60°	317.8	9.6
60°-70°	277.5	8.3
70°-80°	213.6	6.4
80°-90°	144.8	4.4
90°-100°	121.6	3.7
100°-110°	143.1	4.3
110°-120°	168.9	5.1
120°-130°	186.1	5.6
130°-140°	190.1	5.7
140°-150°	177.4	5.3
150°-160°	147.2	4.4
160°-170°	97.6	2.9
170°-180°	34.1	1.0
0°-30°	472.0	14.2
0°-40°	776.1	23.4
0°-60°	1421.1	42.8
0°-90°	2057.0	61.9
90°-120°	433.6	13.0
90°-150°	987.2	29.7
90°-180°	1266.0	38.1
0°-180°	3323.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	606	606	606	606	606	
5°	608	605	600	605	605	58
15°	580	582	582	589	589	163
25°	527	534	541	552	555	242
35°	454	469	486	505	512	284
45°	373	397	427	453	463	288
55°	286	318	363	394	406	255
65°	195	239	290	325	338	194
75°	108	158	214	250	263	114
85°	32	86	142	178	192	34
90°	9	64	127	160	172	7
95°	23	68	120	153	164	24
105°	70	97	142	173	184	74
115°	125	138	176	201	210	124
125°	179	183	209	231	239	160
135°	230	234	243	260	267	178
145°	278	280	282	287	291	174
155°	318	319	320	321	320	146
165°	346	346	346	347	346	98
175°	360	359	358	360	359	34
180°	360	360	360	360	360	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5
2.5°	610.0	609.5	609.1	608.6	608.1	607.3	606.2	605.1	604.1	603.0	603.7
5°	608.2	607.6	607.1	606.5	605.9	605.0	603.8	602.7	601.5	600.3	601.5
7.5°	602.8	602.4	602.0	601.6	601.2	600.5	599.7	598.7	597.9	597.0	598.4
10°	598.6	598.1	597.8	597.4	597.0	596.5	595.9	595.4	594.8	594.2	595.7
12.5°	591.5	591.6	591.7	591.8	591.9	591.7	591.2	590.8	590.4	590.0	591.5
15°	580.1	580.5	580.9	581.3	581.7	581.9	581.9	581.9	581.9	581.9	583.6
17.5°	565.3	566.2	567.0	567.8	568.6	569.4	570.0	570.6	571.2	571.9	573.7
20°	555.5	556.5	557.4	558.4	559.4	560.3	561.0	561.9	562.7	563.4	565.6
22.5°	544.9	546.0	547.3	548.4	549.5	550.6	551.7	552.8	553.9	555.0	557.2
25°	527.4	528.7	530.1	531.5	532.9	534.4	536.1	538.0	539.7	541.4	543.8
27.5°	506.3	508.5	510.7	513.0	515.2	517.4	519.4	521.5	523.6	525.6	528.6
30°	492.2	494.7	497.3	499.8	502.4	504.9	507.5	510.0	512.6	515.1	518.1
32.5°	476.7	479.6	482.4	485.3	488.2	491.1	494.1	497.1	500.1	503.1	506.7
35°	454.4	457.7	461.1	464.3	467.7	471.2	474.9	478.6	482.3	486.0	490.3
37.5°	430.2	434.0	437.8	441.6	445.5	449.8	454.6	459.4	464.2	469.0	473.8
40°	414.0	418.3	422.6	426.9	431.2	435.9	441.3	446.5	451.8	457.0	462.1
42.5°	398.6	402.8	407.1	411.4	415.7	420.9	427.0	433.0	439.0	445.1	450.6
45°	372.6	378.0	383.2	388.5	393.7	399.8	406.7	413.5	420.3	427.1	433.3
47.5°	347.2	352.9	358.7	364.4	370.1	377.0	385.0	393.0	401.1	409.1	415.4
50°	329.6	335.7	341.7	347.8	353.8	361.3	370.1	378.8	387.6	396.4	403.0
52.5°	312.7	319.1	325.5	331.8	338.2	346.0	355.2	364.5	373.8	383.1	389.9
55°	285.7	292.7	299.7	306.8	313.7	322.4	332.5	342.7	352.8	363.0	370.1
57.5°	258.9	266.9	274.8	282.8	290.7	299.8	310.1	320.5	330.9	341.2	348.8
60°	240.0	248.3	256.8	265.2	273.5	283.4	294.5	305.6	316.7	327.9	335.3
62.5°	223.1	231.8	240.5	249.2	258.0	267.9	279.0	290.1	301.3	312.4	320.3
65°	195.1	204.7	214.3	223.9	233.4	243.9	255.5	267.0	278.5	290.1	298.1
67.5°	169.4	179.4	189.5	199.5	209.5	220.3	232.1	243.9	255.7	267.5	275.6
70°	151.2	161.4	171.5	181.7	191.8	202.9	215.1	227.1	239.3	251.4	259.8
72.5°	134.3	144.7	155.2	165.7	176.2	187.5	199.8	212.1	224.4	236.6	244.9
75°	108.1	119.1	130.0	140.9	151.9	163.6	176.1	188.6	201.0	213.6	222.0
77.5°	82.8	94.3	105.7	117.1	128.5	140.7	153.3	166.1	178.7	191.4	199.8
80°	66.0	77.8	89.7	101.7	113.6	125.9	138.6	151.3	163.9	176.7	184.9
82.5°	51.8	63.6	75.3	87.1	98.9	111.2	124.1	136.9	149.7	162.6	170.8
85°	31.7	43.7	55.9	67.9	80.1	92.4	104.9	117.4	129.9	142.4	150.6
87.5°	17.3	29.1	40.9	52.7	64.5	76.8	89.6	102.4	115.2	128.0	136.0
90°	9.1	21.3	33.4	45.5	57.7	70.7	84.7	98.7	112.7	126.7	134.3
92.5°	13.5	24.6	35.8	46.9	58.0	69.8	82.2	94.6	107.0	119.3	127.1
95°	22.8	32.7	42.5	52.4	62.3	73.1	85.0	96.9	108.7	120.5	127.9
97.5°	35.0	43.8	52.6	61.3	70.1	80.2	91.7	103.2	114.8	126.2	133.5
100°	44.8	52.5	60.4	68.1	75.9	85.3	96.4	107.6	118.7	129.8	137.1
102.5°	54.3	61.3	68.4	75.4	82.5	91.4	102.3	113.1	124.1	134.9	142.1
105°	69.8	75.7	81.5	87.4	93.2	101.3	111.7	121.9	132.2	142.5	149.5
107.5°	86.3	91.1	95.9	100.7	105.6	112.9	122.6	132.3	142.1	151.8	158.4
110°	96.3	100.6	105.0	109.3	113.6	120.5	130.1	139.7	149.2	158.8	165.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	108.0	111.7	115.4	119.1	122.7	129.1	138.1	147.1	156.3	165.3	171.3
115°	125.2	127.8	130.3	132.9	135.4	141.0	149.6	158.3	166.9	175.6	181.4
117.5°	141.5	143.4	145.3	147.3	149.3	154.1	161.9	169.6	177.4	185.1	190.7
120°	152.9	154.2	155.6	156.9	158.2	162.5	169.8	177.0	184.3	191.6	197.1
122.5°	163.3	164.4	165.3	166.3	167.2	171.2	178.1	185.1	192.1	199.1	204.2
125°	178.8	179.4	180.0	180.6	181.2	184.6	190.6	196.7	202.7	208.7	213.8
127.5°	194.7	195.3	195.8	196.4	197.0	199.7	204.5	209.2	214.0	218.9	223.4
130°	204.7	205.3	206.0	206.7	207.4	209.7	213.7	217.7	221.6	225.6	230.1
132.5°	215.9	216.4	216.9	217.4	217.9	219.8	223.0	226.2	229.4	232.6	236.8
135°	230.0	230.7	231.4	232.1	232.9	234.4	236.4	238.5	240.6	242.7	246.7
137.5°	245.7	246.2	246.8	247.4	248.0	248.7	249.8	250.8	251.8	252.9	256.5
140°	255.2	255.6	256.0	256.4	256.8	257.4	258.1	258.9	259.6	260.3	263.5
142.5°	264.9	265.4	265.7	266.1	266.6	266.9	267.3	267.5	267.9	268.2	270.7
145°	278.0	278.5	279.0	279.5	279.9	280.3	280.8	281.2	281.5	282.0	283.2
147.5°	290.5	291.1	291.6	292.2	292.7	293.2	293.4	293.8	294.0	294.3	294.5
150°	299.0	299.5	299.8	300.2	300.7	301.0	301.3	301.5	301.8	302.0	302.3
152.5°	306.6	306.9	307.4	307.8	308.2	308.6	308.8	309.2	309.5	309.9	310.1
155°	317.9	318.1	318.3	318.5	318.7	318.9	319.1	319.3	319.5	319.7	320.0
157.5°	327.5	327.7	327.8	328.0	328.1	328.2	328.4	328.5	328.6	328.7	329.2
160°	333.4	333.6	333.6	333.8	333.9	334.1	334.1	334.2	334.2	334.3	334.7
162.5°	338.7	338.8	338.8	338.8	338.9	338.9	339.0	339.1	339.1	339.1	339.7
165°	345.9	345.8	345.7	345.7	345.6	345.5	345.5	345.5	345.5	345.5	346.0
167.5°	351.8	351.6	351.5	351.2	351.0	350.9	350.9	350.9	350.9	350.9	351.3
170°	355.0	354.8	354.6	354.4	354.2	354.0	354.0	353.9	353.9	353.8	354.2
172.5°	357.1	357.0	356.8	356.5	356.4	356.2	356.2	356.1	356.0	355.9	356.5
175°	359.9	359.6	359.5	359.2	359.0	358.9	358.8	358.6	358.4	358.3	358.8
177.5°	360.9	360.8	360.6	360.5	360.3	360.2	360.1	360.0	359.8	359.7	360.1
180°	360.5	360.5	360.5	360.5	360.5	360.5	360.5	360.5	360.5	360.5	360.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	606.5	606.5	606.5	606.5	606.5	606.5	606.5	606.5
2.5°	604.5	605.3	606.1	606.3	606.0	605.7	605.4	605.1
5°	602.7	603.8	605.0	605.5	605.3	605.1	604.9	604.7
7.5°	599.8	601.2	602.6	603.2	603.0	602.8	602.6	602.4
10°	597.3	598.8	600.5	601.1	600.9	600.7	600.5	600.3
12.5°	593.1	594.6	596.2	596.8	596.7	596.5	596.3	596.1
15°	585.4	587.1	588.9	589.7	589.5	589.3	589.1	588.9
17.5°	575.5	577.4	579.2	580.1	580.1	580.1	580.1	580.1
20°	567.7	569.9	572.0	573.1	573.1	573.1	573.1	573.1
22.5°	559.3	561.5	563.5	564.8	565.1	565.4	565.8	566.0
25°	546.1	548.5	550.8	552.2	552.8	553.5	554.1	554.7
27.5°	531.6	534.5	537.5	539.2	539.6	540.0	540.4	540.9
30°	521.3	524.4	527.5	529.4	530.0	530.6	531.2	531.8
32.5°	510.3	513.9	517.5	519.8	520.9	521.9	523.0	524.0
35°	494.6	498.9	503.3	506.1	507.5	508.9	510.1	511.5
37.5°	478.5	483.3	488.1	491.2	492.7	494.0	495.5	497.0
40°	467.2	472.3	477.3	480.8	482.5	484.3	486.0	487.8
42.5°	456.2	461.8	467.3	471.0	472.7	474.5	476.2	477.9
45°	439.3	445.3	451.4	455.4	457.4	459.3	461.2	463.2
47.5°	421.7	428.1	434.4	438.6	440.7	442.9	445.1	447.2
50°	409.7	416.3	423.0	427.4	429.6	431.7	433.8	435.9
52.5°	396.7	403.5	410.3	414.8	417.1	419.4	421.7	424.0
55°	377.0	384.1	391.2	395.9	398.5	401.0	403.6	406.0
57.5°	356.4	363.9	371.5	376.6	379.2	381.8	384.4	386.9
60°	342.7	350.1	357.6	362.7	365.3	368.1	370.8	373.6
62.5°	328.1	336.0	344.0	349.2	351.7	354.3	356.9	359.5
65°	306.1	314.1	322.1	327.4	329.9	332.4	335.0	337.5
67.5°	283.7	291.8	299.9	305.3	307.9	310.6	313.2	315.9
70°	268.2	276.6	285.0	290.3	292.7	295.1	297.4	299.7
72.5°	253.1	261.3	269.6	275.1	277.9	280.8	283.5	286.4
75°	230.4	238.8	247.2	252.6	255.2	257.7	260.3	262.8
77.5°	208.2	216.5	224.9	230.4	233.2	235.9	238.6	241.3
80°	193.0	201.3	209.5	215.0	217.7	220.4	223.2	225.9
82.5°	179.0	187.2	195.4	200.8	203.4	206.0	208.5	211.1
85°	158.8	167.0	175.2	180.6	183.4	186.1	188.9	191.6
87.5°	143.9	151.8	159.8	165.0	167.5	170.0	172.5	175.0
90°	142.1	149.7	157.4	162.4	164.8	167.2	169.6	172.0
92.5°	134.7	142.4	150.1	155.2	157.5	159.8	162.2	164.5
95°	135.4	142.8	150.2	155.1	157.2	159.5	161.7	163.8
97.5°	140.7	147.9	155.2	159.9	162.2	164.5	166.8	169.1
100°	144.3	151.5	158.8	163.4	165.5	167.6	169.7	171.8
102.5°	149.2	156.3	163.4	168.1	170.1	172.2	174.3	176.3
105°	156.4	163.4	170.4	175.0	177.1	179.3	181.4	183.6
107.5°	165.1	171.7	178.2	182.4	184.3	186.1	188.0	189.9
110°	171.3	177.5	183.7	187.9	189.9	191.7	193.7	195.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	177.5	183.6	189.6	193.6	195.7	197.7	199.7	201.6
115°	187.2	193.0	198.8	202.7	204.6	206.6	208.5	210.4
117.5°	196.3	202.0	207.6	211.3	213.1	214.8	216.6	218.4
120°	202.5	208.0	213.4	217.1	219.1	221.0	223.0	225.0
122.5°	209.3	214.5	219.6	223.1	224.7	226.4	228.2	229.8
125°	218.9	223.9	229.0	232.4	234.1	235.8	237.5	239.2
127.5°	228.1	232.6	237.3	240.3	241.8	243.3	244.8	246.3
130°	234.7	239.3	243.7	246.7	248.0	249.3	250.6	251.8
132.5°	241.0	245.3	249.5	252.3	253.7	254.9	256.3	257.7
135°	250.7	254.8	258.8	261.5	262.9	264.2	265.6	266.9
137.5°	260.0	263.6	267.1	269.4	270.4	271.5	272.5	273.6
140°	266.6	269.7	272.9	274.8	275.8	276.6	277.5	278.4
142.5°	273.3	275.9	278.4	280.0	280.8	281.5	282.2	283.0
145°	284.5	285.7	287.0	287.9	288.6	289.3	290.1	290.8
147.5°	294.9	295.2	295.5	295.8	295.9	296.2	296.4	296.6
150°	302.5	302.6	302.9	302.9	302.6	302.5	302.3	302.0
152.5°	310.4	310.6	310.9	310.9	310.6	310.4	310.1	309.9
155°	320.4	320.7	321.1	321.2	320.9	320.7	320.6	320.3
157.5°	329.6	330.1	330.5	330.6	330.3	329.9	329.7	329.3
160°	335.1	335.5	336.0	336.0	335.7	335.4	335.2	334.9
162.5°	340.1	340.5	341.0	341.0	340.8	340.4	340.1	339.8
165°	346.5	347.0	347.4	347.5	347.2	346.8	346.5	346.2
167.5°	351.8	352.2	352.8	352.8	352.5	352.1	351.7	351.4
170°	354.7	355.2	355.7	355.7	355.3	354.9	354.5	354.0
172.5°	356.9	357.4	357.8	357.9	357.5	357.1	356.7	356.3
175°	359.3	359.7	360.2	360.2	359.9	359.5	359.0	358.6
177.5°	360.4	360.7	361.0	361.0	360.7	360.4	360.1	359.7
180°	360.5	360.5	360.5	360.5	360.5	360.5	360.5	360.5

(END OF REPORT)