

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: P331288-930

Luminaire Tested: **SA2XXDIP-C485D330U930-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331288-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C485D330U930-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 330 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

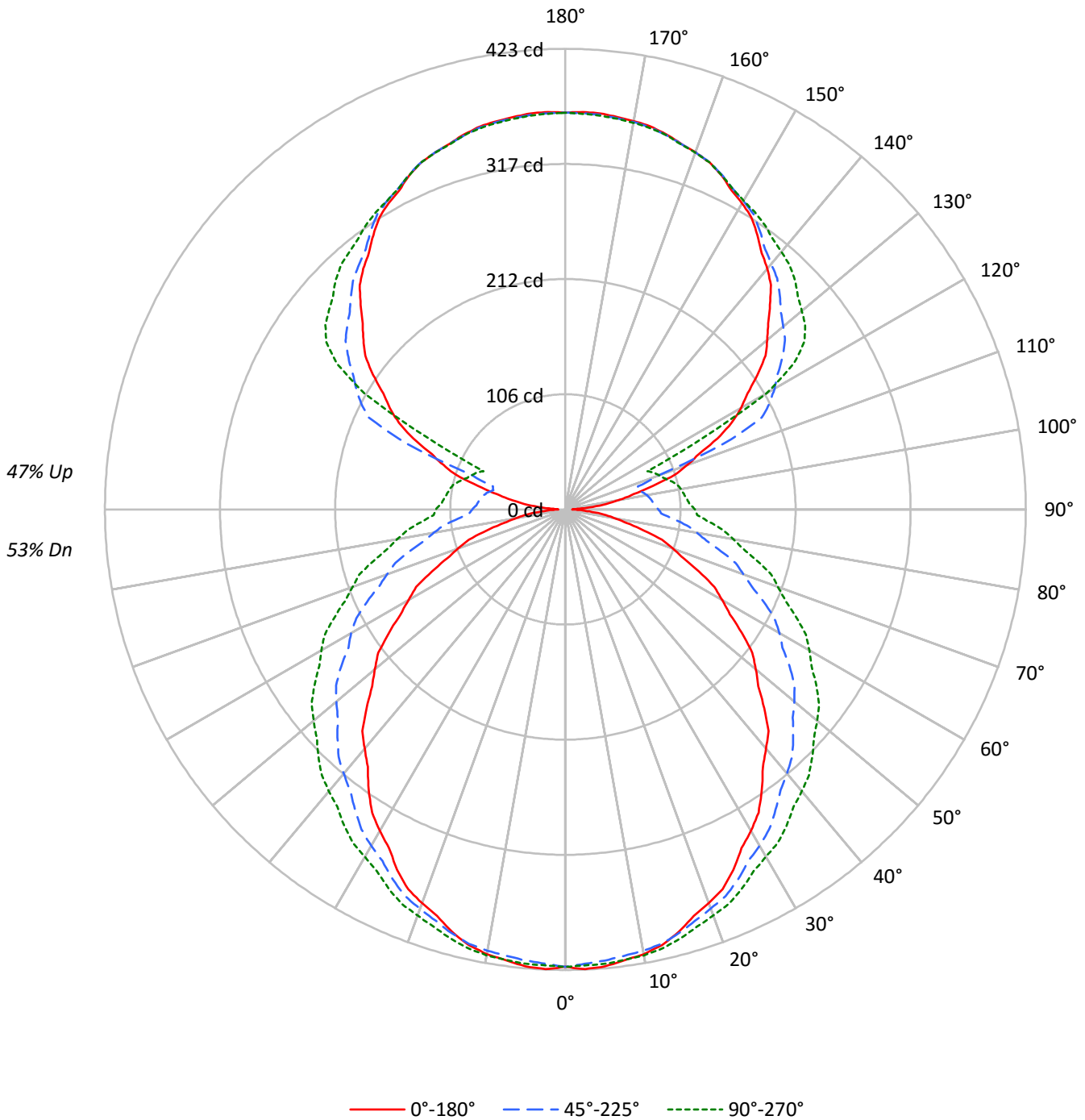
Lumens per Lamp: N/A
Luminaire Lumens: 2671.4 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 27.5
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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53
1	97	92	87	83	89	85	81	78	72	69	67	61	58	56	50	48	47	42
2	88	79	72	67	81	73	67	62	62	58	54	52	49	46	43	40	38	34
3	80	69	61	55	73	64	57	51	55	49	45	46	42	38	37	34	32	28
4	73	61	52	46	67	57	49	43	48	42	38	40	36	32	33	30	27	23
5	66	54	45	39	61	50	42	37	43	37	32	36	31	28	30	26	23	20
6	61	48	40	34	56	45	37	32	39	32	28	32	28	24	27	23	20	17
7	56	44	35	29	52	41	33	28	35	29	24	29	25	21	24	21	18	15
8	52	39	31	26	48	37	29	24	32	26	22	27	22	19	22	19	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	14	12
10	45	33	25	21	42	31	24	19	27	21	17	23	18	15	19	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6783	6783	6783
5°	6816	6530	6505
10°	6774	6337	6266
15°	6681	6133	6014
20°	6562	5913	5771
25°	6445	5701	5552
30°	6282	5486	5330
35°	6116	5276	5174
40°	5941	5099	5017
45°	5775	4940	4885
50°	5598	4794	4753
55°	5410	4638	4620
60°	5180	4477	4479
65°	4944	4290	4310
70°	4679	4085	4131
75°	4335	3888	3964
80°	3800	3685	3794
85°	3277	3510	3661



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.8	1.5
10°-20°	114.2	4.3
20°-30°	173.0	6.5
30°-40°	210.7	7.9
40°-50°	226.7	8.5
50°-60°	220.1	8.2
60°-70°	192.2	7.2
70°-80°	148.0	5.5
80°-90°	100.2	3.8
90°-100°	80.6	3.0
100°-110°	94.5	3.5
110°-120°	152.1	5.7
120°-130°	215.1	8.1
130°-140°	216.9	8.1
140°-150°	195.7	7.3
150°-160°	156.3	5.8
160°-170°	100.7	3.8
170°-180°	34.7	1.3
0°-30°	327.0	12.2
0°-40°	537.7	20.1
0°-60°	984.5	36.9
0°-90°	1424.9	53.3
90°-120°	327.2	12.2
90°-150°	954.8	35.7
90°-180°	1246.0	46.6
0°-180°	2671.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	421	419	416	419	419	40
15°	402	403	403	408	408	113
25°	365	370	375	382	384	168
35°	315	325	337	350	354	197
45°	258	275	296	314	321	199
55°	198	220	251	273	281	177
65°	135	165	201	225	234	134
75°	75	109	148	173	182	79
85°	22	60	99	123	133	24
90°	6	45	86	110	119	5
95°	22	43	80	104	112	25
105°	83	105	68	92	100	89
115°	154	166	199	100	83	151
125°	216	220	243	261	268	192
135°	266	270	278	293	298	205
145°	308	308	312	317	319	192
155°	339	337	340	341	339	156
165°	357	356	356	358	356	101
175°	365	363	364	365	363	35
180°	364	364	364	364	364	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1
2.5°	422.6	422.2	421.9	421.6	421.3	420.7	420.0	419.2	418.5	417.7	418.2
5°	421.3	420.9	420.5	420.1	419.7	419.1	418.3	417.5	416.7	415.9	416.7
7.5°	417.6	417.3	417.0	416.8	416.5	416.0	415.4	414.8	414.2	413.5	414.5
10°	414.7	414.4	414.1	413.8	413.6	413.3	412.9	412.5	412.1	411.6	412.7
12.5°	409.8	409.9	409.9	409.9	410.0	409.9	409.6	409.3	409.0	408.7	409.8
15°	401.9	402.1	402.4	402.7	402.9	403.1	403.1	403.1	403.1	403.1	404.3
17.5°	391.7	392.2	392.8	393.4	394.0	394.4	394.8	395.3	395.7	396.2	397.4
20°	384.8	385.5	386.2	386.9	387.5	388.2	388.7	389.2	389.8	390.3	391.8
22.5°	377.5	378.3	379.1	379.8	380.7	381.4	382.2	382.9	383.7	384.5	386.0
25°	365.3	366.3	367.2	368.2	369.1	370.2	371.5	372.7	373.9	375.0	376.7
27.5°	350.7	352.3	353.8	355.4	356.9	358.4	359.8	361.3	362.6	364.1	366.2
30°	341.0	342.8	344.5	346.3	348.1	349.8	351.6	353.3	355.1	356.8	359.0
32.5°	330.3	332.2	334.2	336.2	338.2	340.2	342.3	344.4	346.4	348.5	351.0
35°	314.8	317.1	319.4	321.7	324.0	326.4	329.0	331.6	334.1	336.7	339.7
37.5°	298.0	300.7	303.3	306.0	308.6	311.6	315.0	318.2	321.6	324.9	328.2
40°	286.8	289.8	292.8	295.7	298.7	302.0	305.7	309.3	313.0	316.7	320.2
42.5°	276.1	279.1	282.0	285.0	288.0	291.6	295.8	299.9	304.2	308.3	312.2
45°	258.2	261.8	265.5	269.1	272.8	277.0	281.7	286.4	291.2	296.0	300.1
47.5°	240.5	244.5	248.5	252.4	256.4	261.2	266.8	272.3	277.9	283.4	287.8
50°	228.4	232.5	236.8	240.9	245.1	250.2	256.3	262.4	268.6	274.6	279.2
52.5°	216.6	221.0	225.4	229.9	234.3	239.7	246.1	252.5	258.9	265.4	270.0
55°	197.9	202.8	207.7	212.5	217.4	223.3	230.4	237.4	244.4	251.4	256.3
57.5°	179.4	184.9	190.4	195.8	201.4	207.7	214.8	222.0	229.2	236.4	241.7
60°	166.2	172.0	177.9	183.7	189.5	196.2	204.0	211.7	219.4	227.1	232.3
62.5°	154.5	160.5	166.6	172.7	178.7	185.6	193.2	201.0	208.7	216.4	221.8
65°	135.2	141.8	148.5	155.1	161.7	169.0	177.0	185.0	193.0	201.0	206.5
67.5°	117.4	124.3	131.3	138.2	145.1	152.6	160.9	169.0	177.2	185.3	190.9
70°	104.8	111.8	118.8	125.8	132.9	140.6	149.0	157.4	165.8	174.1	179.9
72.5°	93.0	100.3	107.5	114.8	122.1	130.0	138.4	146.9	155.4	163.9	169.7
75°	74.9	82.5	90.0	97.6	105.2	113.3	122.0	130.6	139.3	148.0	153.8
77.5°	57.4	65.3	73.2	81.1	89.1	97.4	106.2	115.0	123.8	132.6	138.4
80°	45.7	53.9	62.2	70.4	78.7	87.2	96.0	104.8	113.6	122.4	128.1
82.5°	36.0	44.1	52.2	60.3	68.5	77.0	85.9	94.8	103.7	112.7	118.3
85°	21.9	30.3	38.7	47.1	55.4	64.0	72.6	81.3	90.0	98.7	104.4
87.5°	12.0	20.2	28.4	36.6	44.8	53.2	62.0	70.8	79.5	88.2	93.8
90°	6.4	14.8	23.3	31.8	40.4	49.2	58.3	67.4	76.6	85.6	91.3
92.5°	10.9	18.2	25.4	32.7	39.9	47.9	56.4	65.0	73.5	82.1	87.6
95°	22.0	26.4	30.8	35.3	39.7	46.2	54.7	63.3	71.7	80.3	85.8
97.5°	38.2	38.5	38.6	38.9	39.1	43.5	52.3	61.1	69.8	78.5	83.8
100°	51.0	47.9	44.9	41.8	38.8	41.7	50.2	58.8	67.3	75.9	81.4
102.5°	64.3	67.3	70.1	73.0	75.8	76.8	75.8	74.8	73.9	72.9	78.4
105°	83.2	88.9	94.6	100.2	105.9	104.3	95.3	86.3	77.4	68.5	73.8
107.5°	105.3	109.9	114.5	119.0	123.6	119.7	107.2	94.7	82.3	69.9	73.8
110°	119.2	123.2	127.1	131.0	134.9	131.8	121.5	111.2	100.9	90.6	89.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	132.7	136.1	139.4	142.8	146.2	148.9	151.0	153.1	155.3	157.4	140.4
115°	154.0	156.5	159.0	161.4	164.0	168.9	176.5	184.1	191.6	199.2	176.1
117.5°	172.4	174.6	176.6	178.7	180.8	185.2	191.8	198.4	205.0	211.7	209.1
120°	186.4	187.8	189.2	190.6	192.0	196.0	202.4	208.9	215.4	221.8	226.3
122.5°	198.2	199.3	200.5	201.6	202.8	206.4	212.6	218.9	225.1	231.4	235.5
125°	215.6	216.3	217.0	217.8	218.6	221.7	227.1	232.6	238.0	243.4	247.5
127.5°	231.8	232.5	233.3	233.9	234.6	237.2	241.5	245.8	250.1	254.5	258.4
130°	242.1	243.0	243.8	244.6	245.4	247.5	251.0	254.5	258.0	261.5	265.4
132.5°	252.7	253.4	254.0	254.7	255.4	257.1	259.9	262.8	265.6	268.5	272.1
135°	265.8	266.8	267.7	268.6	269.5	270.9	272.8	274.8	276.6	278.5	281.9
137.5°	279.6	280.3	281.0	281.5	282.2	283.1	284.3	285.5	286.7	287.9	290.9
140°	288.7	289.1	289.4	289.8	290.1	290.7	291.6	292.5	293.4	294.3	297.0
142.5°	296.4	296.6	296.9	297.2	297.5	298.0	298.8	299.6	300.4	301.2	303.4
145°	307.6	307.6	307.5	307.4	307.4	307.9	308.8	309.9	310.9	311.9	313.1
147.5°	318.0	317.8	317.6	317.3	317.2	317.5	318.5	319.5	320.5	321.5	321.9
150°	324.7	324.3	323.9	323.5	323.1	323.4	324.3	325.3	326.2	327.2	327.5
152.5°	330.4	330.0	329.5	329.1	328.6	328.8	329.7	330.6	331.5	332.4	332.7
155°	338.8	338.2	337.7	337.1	336.6	336.7	337.5	338.1	338.8	339.5	339.9
157.5°	345.2	344.8	344.3	343.9	343.4	343.5	344.0	344.5	345.0	345.4	345.8
160°	349.0	348.7	348.3	348.0	347.6	347.6	348.0	348.3	348.7	349.0	349.4
162.5°	352.4	352.0	351.7	351.3	351.0	351.0	351.2	351.6	351.9	352.2	352.6
165°	356.9	356.6	356.2	355.9	355.6	355.5	355.6	355.8	356.0	356.1	356.5
167.5°	360.3	360.0	359.6	359.2	358.9	358.8	359.0	359.1	359.3	359.5	359.9
170°	362.2	361.8	361.5	361.2	360.8	360.7	360.8	360.9	361.0	361.2	361.6
172.5°	363.5	363.1	362.7	362.4	362.1	361.9	362.1	362.2	362.3	362.4	362.8
175°	365.1	364.7	364.3	363.9	363.5	363.3	363.5	363.5	363.7	363.8	364.2
177.5°	365.3	365.0	364.7	364.4	364.0	363.9	363.9	364.0	364.0	364.1	364.4
180°	364.3	364.3	364.3	364.3	364.3	364.3	364.3	364.3	364.3	364.3	364.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1
2.5°	418.8	419.3	419.9	420.0	419.8	419.6	419.4	419.1
5°	417.5	418.3	419.1	419.5	419.3	419.2	419.1	418.9
7.5°	415.5	416.5	417.4	417.8	417.8	417.6	417.4	417.4
10°	413.8	414.8	416.0	416.5	416.3	416.1	416.0	415.9
12.5°	410.8	412.0	413.0	413.5	413.4	413.2	413.1	412.9
15°	405.5	406.8	408.0	408.5	408.4	408.2	408.1	408.0
17.5°	398.7	400.0	401.2	401.9	401.9	401.9	401.9	401.9
20°	393.3	394.8	396.2	397.0	397.0	397.0	397.0	397.0
22.5°	387.4	388.9	390.4	391.3	391.5	391.7	391.9	392.2
25°	378.3	379.9	381.6	382.6	383.0	383.4	383.8	384.3
27.5°	368.3	370.3	372.3	373.5	373.8	374.1	374.4	374.7
30°	361.2	363.3	365.5	366.7	367.1	367.5	367.9	368.4
32.5°	353.5	356.0	358.5	360.1	360.9	361.6	362.3	363.1
35°	342.7	345.7	348.6	350.6	351.6	352.5	353.4	354.4
37.5°	331.5	334.8	338.1	340.2	341.3	342.3	343.2	344.3
40°	323.7	327.2	330.7	333.0	334.3	335.5	336.7	337.9
42.5°	316.0	319.8	323.7	326.3	327.4	328.6	329.9	331.1
45°	304.4	308.5	312.7	315.4	316.8	318.2	319.5	320.9
47.5°	292.1	296.5	300.9	303.9	305.3	306.8	308.3	309.8
50°	283.8	288.4	293.0	296.0	297.6	299.1	300.5	302.0
52.5°	274.8	279.5	284.2	287.3	288.9	290.6	292.1	293.8
55°	261.2	266.1	270.9	274.3	276.1	277.8	279.6	281.3
57.5°	246.9	252.1	257.4	260.9	262.7	264.5	266.3	268.1
60°	237.4	242.6	247.7	251.2	253.1	255.0	256.9	258.8
62.5°	227.3	232.8	238.2	241.9	243.7	245.5	247.3	249.1
65°	212.1	217.6	223.1	226.8	228.5	230.3	232.0	233.8
67.5°	196.6	202.1	207.7	211.5	213.3	215.2	217.0	218.8
70°	185.8	191.6	197.4	201.1	202.8	204.4	206.0	207.7
72.5°	175.4	181.1	186.8	190.6	192.5	194.4	196.4	198.4
75°	159.6	165.4	171.2	175.0	176.8	178.6	180.3	182.1
77.5°	144.2	150.0	155.8	159.6	161.5	163.4	165.3	167.2
80°	133.8	139.4	145.1	148.9	150.8	152.7	154.6	156.5
82.5°	124.0	129.7	135.3	139.1	140.9	142.7	144.5	146.3
85°	110.0	115.7	121.4	125.1	127.0	129.0	130.9	132.7
87.5°	99.4	105.0	110.6	114.2	116.0	117.7	119.5	121.2
90°	97.0	102.7	108.4	112.2	113.9	115.7	117.4	119.1
92.5°	93.0	98.5	104.0	107.5	109.2	110.9	112.6	114.3
95°	91.2	96.6	102.1	105.6	107.1	108.7	110.2	111.8
97.5°	89.0	94.2	99.5	103.0	104.6	106.3	107.9	109.7
100°	86.8	92.4	97.8	101.3	103.0	104.6	106.2	107.8
102.5°	84.0	89.4	95.0	98.6	100.2	101.8	103.5	105.2
105°	79.2	84.5	89.9	93.5	95.2	96.9	98.7	100.4
107.5°	77.7	81.5	85.4	88.2	90.0	91.7	93.4	95.1
110°	87.6	86.0	84.5	84.5	86.3	88.0	89.8	91.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	123.4	106.3	89.3	81.5	83.2	84.9	86.6	88.3
115°	153.0	130.0	107.0	94.0	91.3	88.5	85.9	83.1
117.5°	206.6	204.0	201.5	194.0	181.5	169.0	156.5	144.1
120°	230.8	235.3	239.8	238.9	232.4	226.0	219.6	213.2
122.5°	239.5	243.7	247.8	249.7	249.4	249.2	248.9	248.7
125°	251.6	255.7	259.7	262.4	263.8	265.2	266.6	268.0
127.5°	262.4	266.4	270.3	272.9	274.1	275.3	276.5	277.8
130°	269.2	273.1	277.0	279.5	280.5	281.5	282.6	283.6
132.5°	275.8	279.5	283.2	285.5	286.6	287.6	288.6	289.7
135°	285.4	288.8	292.2	294.4	295.4	296.3	297.3	298.2
137.5°	294.0	297.1	300.1	302.0	302.7	303.5	304.2	304.9
140°	299.7	302.4	305.1	306.7	307.2	307.8	308.3	308.8
142.5°	305.6	307.9	310.1	311.4	311.8	312.2	312.6	313.0
145°	314.3	315.5	316.7	317.6	317.9	318.3	318.7	319.1
147.5°	322.3	322.7	323.1	323.3	323.4	323.5	323.6	323.7
150°	327.8	328.2	328.6	328.6	328.3	328.0	327.7	327.4
152.5°	333.1	333.5	333.8	333.8	333.4	333.0	332.6	332.2
155°	340.2	340.6	341.0	340.9	340.4	340.0	339.5	339.0
157.5°	346.3	346.7	347.0	347.0	346.5	346.1	345.6	345.2
160°	349.8	350.1	350.4	350.4	350.0	349.6	349.2	348.8
162.5°	352.9	353.4	353.8	353.8	353.2	352.7	352.2	351.7
165°	356.9	357.3	357.8	357.8	357.3	356.9	356.5	356.1
167.5°	360.3	360.7	361.1	361.0	360.5	360.0	359.5	358.9
170°	362.0	362.4	362.8	362.7	362.2	361.7	361.2	360.6
172.5°	363.2	363.6	364.0	364.0	363.5	363.0	362.4	361.9
175°	364.6	365.0	365.4	365.3	364.8	364.2	363.5	363.0
177.5°	364.8	365.1	365.4	365.3	364.9	364.5	364.1	363.7
180°	364.3	364.3	364.3	364.3	364.3	364.3	364.3	364.3

(END OF REPORT)