

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: P332584-940

Luminaire Tested: **SA4XXDIP-C795D365U940-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332584-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C795D365U940-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4018.9 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

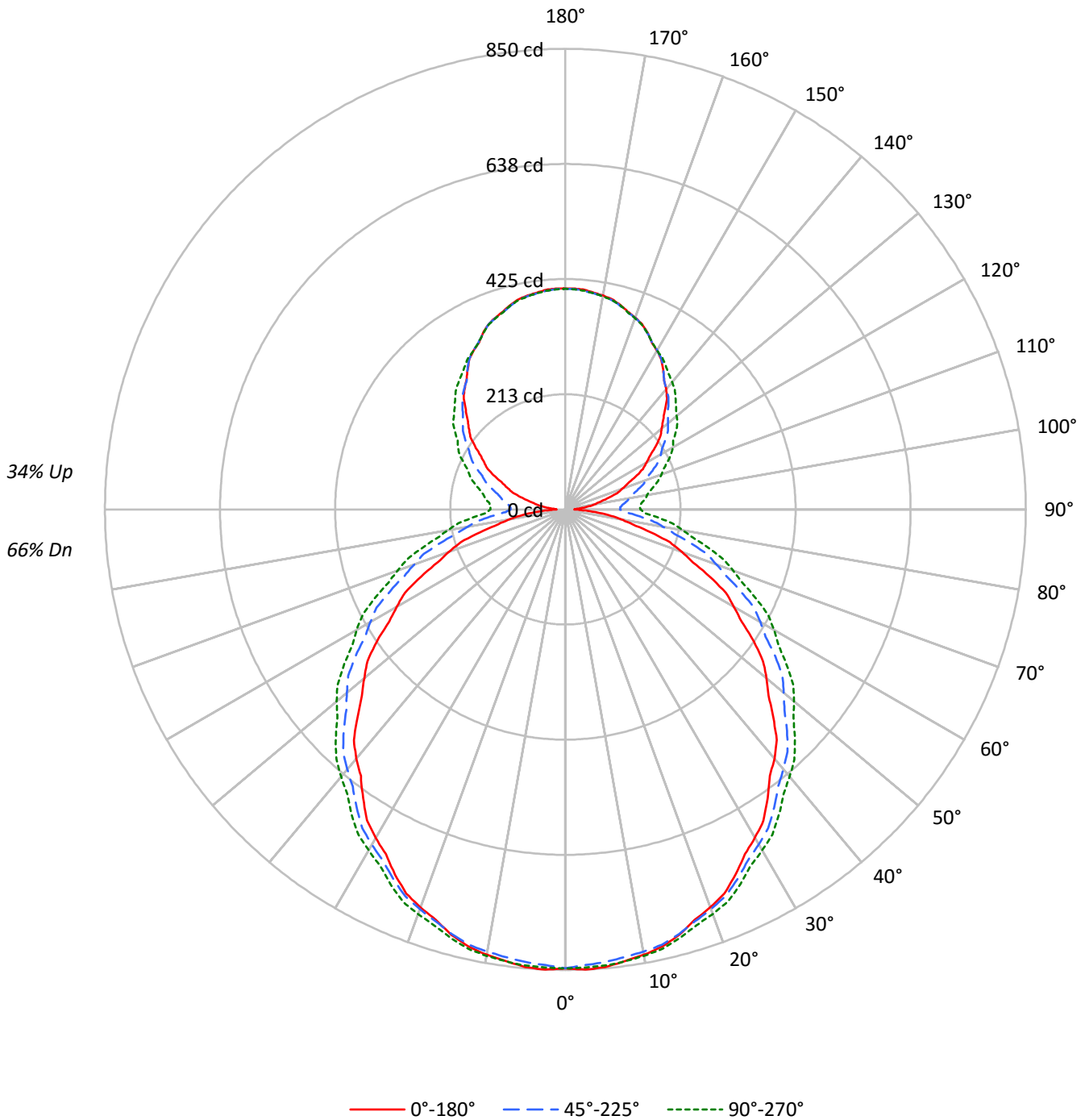
Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66				
1	100	95	91	87	94	90	86	82	79	76	73	70	67	65	61	59	58	53				
2	91	82	75	70	85	78	71	66	69	64	60	60	57	53	53	50	47	43				
3	82	72	64	57	77	68	61	55	60	54	50	53	48	45	46	43	40	36				
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34	31				
5	69	56	48	41	64	53	45	39	47	41	36	42	37	33	37	33	29	26				
6	63	51	42	36	59	48	40	34	43	36	31	38	32	28	33	29	26	23				
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	23	20				
8	54	41	33	28	51	39	32	26	35	29	24	31	26	22	28	23	20	18				
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	26	21	18	16				
10	47	35	27	22	45	33	26	21	30	24	20	27	22	18	24	20	16	15				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6838	6838	6838
5°	6859	6683	6702
10°	6817	6573	6568
15°	6756	6446	6411
20°	6664	6307	6259
25°	6560	6151	6092
30°	6448	5995	5919
35°	6321	5835	5768
40°	6219	5684	5610
45°	6067	5543	5475
50°	5939	5383	5333
55°	5808	5231	5164
60°	5601	5036	5013
65°	5376	4829	4824
70°	5101	4592	4605
75°	4723	4331	4407
80°	4295	4081	4213
85°	3763	3857	4101



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	2.0
10°-20°	229.8	5.7
20°-30°	347.5	8.6
30°-40°	420.4	10.5
40°-50°	444.5	11.1
50°-60°	418.3	10.4
60°-70°	347.1	8.6
70°-80°	243.8	6.1
80°-90°	139.0	3.5
90°-100°	108.7	2.7
100°-110°	140.2	3.5
110°-120°	175.8	4.4
120°-130°	201.1	5.0
130°-140°	210.0	5.2
140°-150°	198.6	4.9
150°-160°	165.4	4.1
160°-170°	110.0	2.7
170°-180°	38.5	1.0
0°-30°	657.5	16.4
0°-40°	1077.9	26.8
0°-60°	1940.7	48.3
0°-90°	2670.6	66.5
90°-120°	424.7	10.6
90°-150°	1034.4	25.7
90°-180°	1348.0	33.5
0°-180°	4018.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	847	847	847	847	847	
5°	848	845	838	846	845	80
15°	813	814	811	819	818	229
25°	744	749	752	762	764	342
35°	651	662	672	684	688	407
45°	542	561	578	594	599	419
55°	425	445	473	492	498	378
65°	294	324	357	379	388	291
75°	163	198	238	264	273	174
85°	50	90	133	160	171	53
90°	16	58	101	129	138	11
95°	31	66	106	132	142	31
105°	82	102	138	161	171	88
115°	143	153	181	201	208	141
125°	204	204	226	243	249	182
135°	260	262	268	282	288	201
145°	314	315	315	320	323	197
155°	359	359	359	360	359	165
165°	391	390	390	391	390	110
175°	407	405	405	407	405	39
180°	407	407	407	407	407	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0
2.5°	850.1	849.5	849.0	848.6	848.0	847.1	845.7	844.4	843.0	841.7	842.8
5°	847.9	847.3	846.7	846.1	845.4	844.4	842.8	841.4	839.9	838.5	840.2
7.5°	840.7	840.3	840.0	839.6	839.2	838.4	837.2	836.0	834.7	833.6	835.4
10°	834.6	834.5	834.3	834.0	833.8	833.2	832.1	831.1	830.0	828.9	830.9
12.5°	826.3	826.3	826.3	826.2	826.2	825.8	825.1	824.3	823.6	822.9	824.7
15°	812.9	813.1	813.2	813.5	813.7	813.5	812.9	812.3	811.5	810.9	812.9
17.5°	794.4	795.0	795.7	796.4	797.0	797.2	797.1	797.0	796.8	796.7	798.7
20°	781.6	782.2	782.8	783.5	784.1	784.5	784.7	784.9	785.2	785.3	787.5
22.5°	767.1	767.9	768.7	769.5	770.3	771.0	771.3	771.7	772.0	772.5	774.5
25°	743.6	744.8	746.2	747.4	748.7	749.7	750.3	750.9	751.5	752.2	754.5
27.5°	717.5	719.3	721.1	723.0	724.9	726.3	727.3	728.2	729.2	730.1	732.3
30°	700.0	701.7	703.4	705.1	706.8	708.3	709.8	711.2	712.7	714.2	716.5
32.5°	681.0	683.1	685.1	687.1	689.1	690.9	692.6	694.2	695.9	697.5	700.2
35°	650.7	653.2	655.8	658.3	660.8	663.1	665.2	667.4	669.4	671.5	674.5
37.5°	620.1	623.0	626.0	628.8	631.8	634.5	637.1	639.7	642.4	645.0	648.0
40°	600.4	603.2	605.8	608.6	611.4	614.2	617.2	620.1	623.0	626.0	629.2
42.5°	577.7	580.7	583.8	586.8	590.0	593.2	596.6	600.1	603.6	607.0	610.6
45°	542.5	546.5	550.5	554.6	558.6	562.6	566.6	570.6	574.5	578.5	582.2
47.5°	509.0	513.1	517.2	521.4	525.5	529.9	534.5	539.1	543.8	548.4	552.1
50°	484.6	489.3	493.9	498.6	503.2	507.8	512.5	517.1	521.7	526.4	530.7
52.5°	460.4	465.0	469.7	474.3	478.9	483.9	489.2	494.5	499.9	505.2	509.3
55°	424.9	429.4	433.8	438.2	442.6	448.0	454.3	460.7	467.0	473.3	477.5
57.5°	385.3	390.7	396.3	401.7	407.2	413.0	419.4	425.6	431.9	438.2	443.2
60°	359.4	365.0	370.4	375.9	381.4	387.6	394.6	401.5	408.5	415.4	420.3
62.5°	334.4	340.5	346.4	352.4	358.4	364.9	371.8	378.8	385.8	392.7	397.5
65°	294.0	300.8	307.6	314.2	321.0	328.0	335.1	342.3	349.5	356.6	361.9
67.5°	255.1	262.3	269.5	276.6	283.8	291.2	298.9	306.6	314.2	321.9	327.3
70°	228.5	235.8	242.9	250.1	257.3	264.8	272.9	280.9	288.8	296.9	302.6
72.5°	202.8	210.1	217.5	224.8	232.1	240.0	248.6	257.1	265.6	274.1	279.6
75°	163.2	170.9	178.7	186.5	194.3	202.7	211.5	220.3	229.3	238.1	244.0
77.5°	126.2	134.4	142.7	151.0	159.2	168.0	177.3	186.5	195.8	205.1	211.1
80°	103.3	111.8	120.2	128.7	137.1	146.0	155.2	164.5	173.8	183.1	189.4
82.5°	80.6	89.3	98.2	106.9	115.7	124.8	134.0	143.3	152.6	161.8	168.3
85°	50.3	59.1	67.9	76.9	85.7	94.9	104.3	113.8	123.3	132.8	139.1
87.5°	28.3	37.0	45.7	54.5	63.3	72.3	81.7	91.0	100.3	109.7	115.9
90°	16.1	25.3	34.5	43.7	53.0	62.3	72.0	81.6	91.2	100.9	107.4
92.5°	21.1	29.6	38.1	46.5	55.0	64.0	73.5	82.9	92.4	101.8	108.0
95°	31.2	38.8	46.4	54.0	61.6	69.9	79.1	88.2	97.4	106.5	112.4
97.5°	44.2	50.7	57.2	63.7	70.2	78.0	87.1	96.2	105.4	114.5	120.3
100°	54.6	60.3	66.1	71.9	77.6	84.9	93.7	102.6	111.5	120.3	126.1
102.5°	66.2	71.1	76.0	80.9	85.8	92.6	101.2	109.9	118.4	127.1	132.8
105°	81.9	86.2	90.5	94.8	99.1	105.3	113.3	121.5	129.5	137.6	143.0
107.5°	100.3	103.9	107.5	111.0	114.5	120.0	127.4	134.8	142.2	149.7	155.1
110°	112.2	115.3	118.4	121.5	124.6	129.7	137.1	144.4	151.7	159.0	163.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	124.6	127.2	129.8	132.5	135.1	139.9	146.8	153.7	160.6	167.6	172.2
115°	143.0	145.0	146.9	148.7	150.7	154.9	161.5	168.1	174.7	181.4	185.9
117.5°	161.4	162.6	163.8	165.0	166.2	169.9	176.0	182.3	188.4	194.6	198.8
120°	173.0	173.9	174.9	175.8	176.6	180.0	185.9	191.9	197.8	203.7	207.5
122.5°	185.8	186.1	186.4	186.5	186.8	189.8	195.5	201.2	206.8	212.5	216.4
125°	203.8	203.7	203.5	203.2	203.0	205.5	210.7	216.0	221.1	226.3	230.2
127.5°	220.9	220.9	220.9	220.9	220.9	222.8	226.8	230.8	234.7	238.6	242.3
130°	232.2	232.2	232.2	232.2	232.2	233.9	237.3	240.7	244.1	247.4	251.1
132.5°	244.6	244.5	244.5	244.4	244.3	245.7	248.3	250.9	253.6	256.2	259.7
135°	259.9	260.4	260.8	261.2	261.6	262.6	264.0	265.6	267.0	268.5	271.7
137.5°	277.8	277.7	277.7	277.7	277.7	278.1	278.9	279.7	280.5	281.4	284.3
140°	289.6	289.5	289.4	289.4	289.3	289.4	289.5	289.8	290.0	290.3	292.9
142.5°	299.7	299.8	299.9	300.0	300.1	300.0	299.8	299.6	299.4	299.3	301.7
145°	314.5	314.5	314.6	314.7	314.8	314.9	314.9	315.0	315.0	315.1	316.3
147.5°	329.3	329.5	329.6	329.8	329.8	329.8	329.8	329.8	329.8	329.7	329.8
150°	338.4	338.5	338.6	338.7	338.7	338.8	338.8	338.8	338.8	338.8	338.8
152.5°	346.3	346.3	346.5	346.6	346.7	346.8	346.9	347.0	347.0	347.1	347.2
155°	359.2	359.2	359.2	359.2	359.2	359.2	359.1	359.0	359.0	358.9	359.2
157.5°	370.3	370.1	370.1	370.0	369.8	369.7	369.7	369.7	369.7	369.7	369.9
160°	376.8	376.7	376.7	376.7	376.6	376.5	376.5	376.4	376.3	376.2	376.5
162.5°	382.9	382.7	382.5	382.4	382.2	382.1	382.0	381.9	381.8	381.7	382.2
165°	391.0	390.8	390.7	390.4	390.2	390.0	389.9	389.8	389.6	389.5	389.9
167.5°	397.3	397.0	396.7	396.4	396.1	395.9	396.0	396.0	396.0	396.0	396.5
170°	400.8	400.5	400.1	399.8	399.4	399.3	399.3	399.4	399.5	399.6	399.9
172.5°	403.3	403.1	402.7	402.4	402.2	402.0	402.0	402.1	402.1	402.1	402.5
175°	406.8	406.4	406.1	405.7	405.4	405.2	405.1	405.0	405.0	404.9	405.4
177.5°	408.0	407.7	407.3	407.1	406.8	406.7	406.7	406.7	406.7	406.7	407.1
180°	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0
2.5°	844.0	845.3	846.4	846.9	846.8	846.6	846.4	846.2
5°	841.9	843.6	845.2	846.0	845.7	845.5	845.3	845.1
7.5°	837.3	839.2	841.2	842.0	841.8	841.5	841.3	841.2
10°	832.8	834.6	836.6	837.4	837.2	837.0	836.8	836.6
12.5°	826.3	828.1	829.8	830.6	830.6	830.5	830.5	830.5
15°	814.8	816.6	818.5	819.4	819.2	818.9	818.8	818.5
17.5°	800.6	802.5	804.5	805.4	805.2	805.0	804.9	804.7
20°	789.5	791.7	793.8	794.9	794.9	794.9	794.9	794.9
22.5°	776.7	778.7	780.9	782.1	782.5	782.7	783.1	783.5
25°	756.8	759.1	761.4	762.7	762.9	763.1	763.3	763.6
27.5°	734.4	736.6	738.8	739.9	740.2	740.5	740.7	740.9
30°	718.8	721.1	723.4	724.9	725.3	725.7	726.1	726.6
32.5°	702.8	705.5	708.1	709.7	710.1	710.5	711.0	711.4
35°	677.4	680.4	683.3	685.1	685.7	686.3	687.1	687.7
37.5°	650.9	654.0	656.9	658.8	659.4	660.1	660.8	661.5
40°	632.3	635.5	638.6	640.6	641.5	642.3	643.2	644.0
42.5°	614.0	617.5	621.0	623.1	623.8	624.5	625.2	625.8
45°	585.8	589.3	592.9	595.2	596.3	597.4	598.4	599.4
47.5°	555.8	559.5	563.3	565.7	567.0	568.3	569.5	570.8
50°	534.8	539.0	543.2	546.0	547.2	548.6	549.8	551.1
52.5°	513.6	517.8	522.0	524.8	526.0	527.3	528.5	529.9
55°	481.7	486.0	490.2	492.9	494.2	495.4	496.7	497.9
57.5°	448.3	453.3	458.3	461.4	462.5	463.7	464.9	466.1
60°	425.2	430.0	434.8	438.1	439.8	441.5	443.2	444.9
62.5°	402.3	407.2	412.1	415.4	417.1	418.7	420.4	422.0
65°	367.2	372.5	377.7	381.2	382.9	384.6	386.2	387.9
67.5°	332.6	338.0	343.3	346.8	348.5	350.1	351.8	353.4
70°	308.3	314.0	319.7	323.2	324.7	326.2	327.6	329.1
72.5°	285.2	290.7	296.2	299.8	301.4	303.1	304.7	306.4
75°	249.9	255.7	261.7	265.6	267.5	269.4	271.3	273.1
77.5°	217.0	223.0	229.0	233.0	235.1	237.0	239.1	241.1
80°	195.7	202.1	208.4	212.3	214.0	215.7	217.4	219.1
82.5°	174.8	181.3	187.8	192.0	193.8	195.6	197.5	199.4
85°	145.4	151.8	158.1	162.3	164.4	166.5	168.6	170.8
87.5°	122.1	128.3	134.5	138.6	140.4	142.3	144.2	146.1
90°	113.9	120.5	127.0	131.2	133.0	134.8	136.6	138.5
92.5°	114.2	120.4	126.6	130.6	132.3	134.1	135.9	137.7
95°	118.2	124.1	130.1	133.9	135.9	137.8	139.6	141.5
97.5°	126.1	131.8	137.6	141.4	143.2	145.0	146.9	148.6
100°	132.0	137.8	143.7	147.3	148.7	150.3	151.7	153.2
102.5°	138.5	144.3	150.0	153.6	155.3	157.0	158.8	160.5
105°	148.6	154.0	159.5	163.2	165.1	167.0	168.9	170.8
107.5°	160.4	165.9	171.2	174.7	176.1	177.6	179.1	180.7
110°	168.4	173.1	177.8	181.1	183.0	184.9	186.8	188.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	176.8	181.5	186.2	189.3	191.1	192.8	194.6	196.3
115°	190.5	195.0	199.6	202.6	204.0	205.4	206.8	208.2
117.5°	202.9	207.1	211.2	214.0	215.6	217.1	218.6	220.3
120°	211.4	215.3	219.1	221.9	223.8	225.6	227.5	229.3
122.5°	220.4	224.4	228.4	231.0	232.3	233.5	234.8	236.0
125°	234.1	237.9	241.8	244.3	245.4	246.6	247.6	248.8
127.5°	245.9	249.6	253.2	255.7	257.0	258.3	259.7	261.0
130°	254.8	258.3	262.0	264.3	265.4	266.4	267.3	268.3
132.5°	263.2	266.7	270.2	272.5	273.7	274.8	276.0	277.1
135°	274.9	278.2	281.4	283.6	284.6	285.7	286.8	287.8
137.5°	287.2	290.1	293.0	295.0	296.0	297.2	298.3	299.3
140°	295.5	298.2	300.9	302.7	303.7	304.7	305.7	306.7
142.5°	304.1	306.5	308.8	310.5	311.3	312.2	313.1	314.0
145°	317.4	318.7	319.9	320.7	321.5	322.1	322.7	323.3
147.5°	329.8	330.0	330.1	330.5	331.1	331.7	332.3	332.9
150°	338.8	338.8	338.8	338.7	338.7	338.6	338.5	338.4
152.5°	347.4	347.6	347.8	347.7	347.5	347.3	347.1	347.0
155°	359.4	359.7	360.0	360.0	359.7	359.4	359.2	358.9
157.5°	370.1	370.3	370.5	370.5	370.2	370.1	369.8	369.5
160°	376.7	376.8	377.1	377.0	376.7	376.3	375.9	375.6
162.5°	382.5	382.9	383.3	383.3	383.0	382.6	382.3	381.9
165°	390.3	390.7	391.1	391.2	390.9	390.7	390.4	390.1
167.5°	396.9	397.3	397.7	397.7	397.3	396.8	396.4	395.9
170°	400.4	400.8	401.3	401.2	400.7	400.2	399.8	399.2
172.5°	403.1	403.5	403.9	403.9	403.5	403.0	402.5	402.0
175°	405.9	406.4	406.9	406.9	406.4	405.9	405.4	404.9
177.5°	407.4	407.9	408.2	408.2	407.8	407.3	406.9	406.4
180°	407.4	407.4	407.4	407.4	407.4	407.4	407.4	407.4

(END OF REPORT)