

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: P332583-930

Luminaire Tested: **SA4XXDIP-C795D365U930-4F0-1E-UDD-D**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332583-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-C795D365U930-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

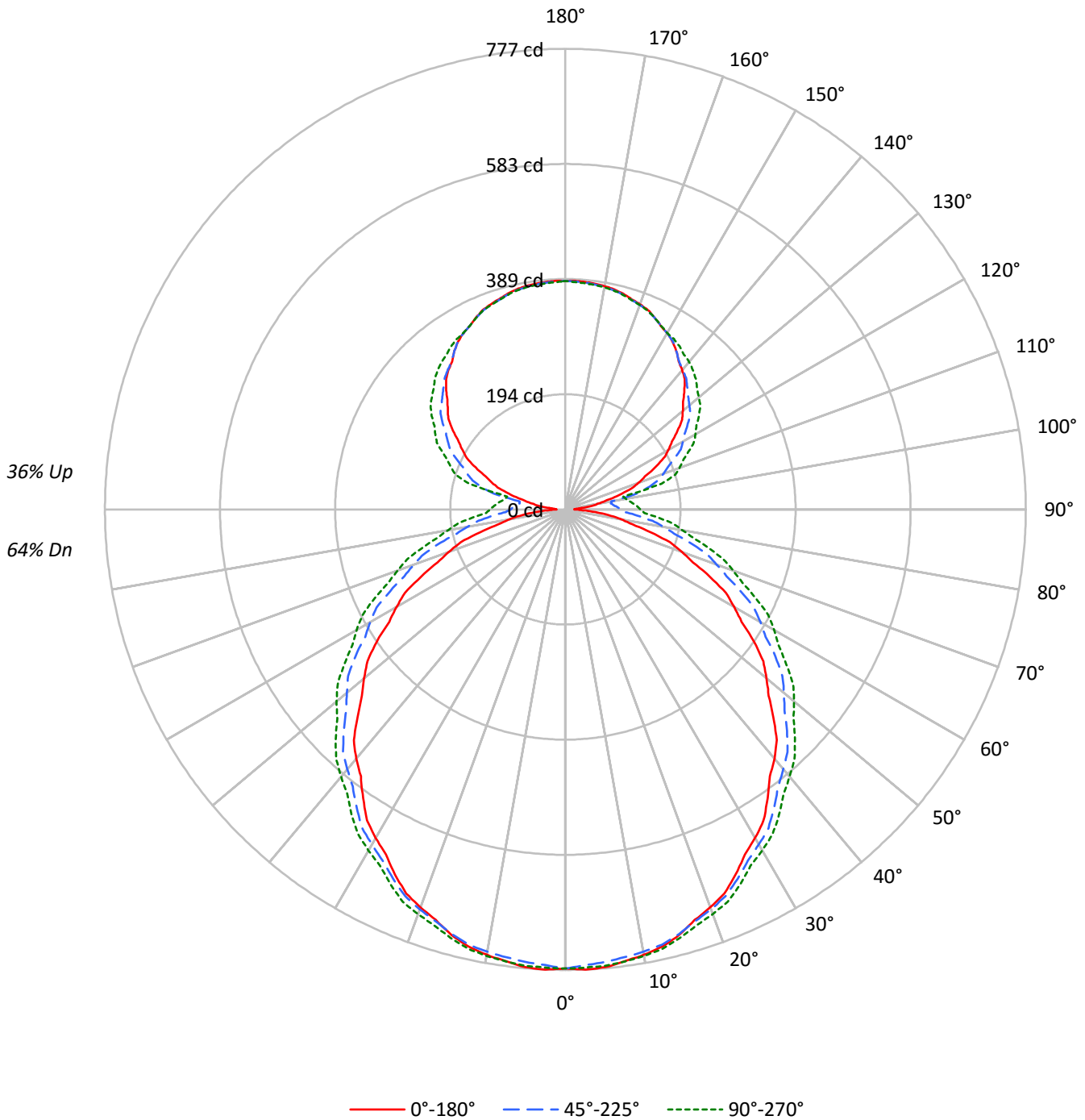
Lumens per Lamp: N/A  
Luminaire Lumens: 3832.7 lumens  
Efficiency: N/A  
Efficacy: 109.5 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: Semi-Direct

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



TEST NUMBER: P332583-930  
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### Luminous Intensity Polar Plot





TEST NUMBER: P332583-930

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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	110	110	110	110	104	104	104	104	91	91	91	79	79	79	69	69	69	64				
1	100	95	90	86	93	89	85	81	78	75	72	68	66	64	59	57	55	51				
2	90	82	75	69	84	77	71	66	68	63	59	59	55	52	51	48	46	42				
3	82	72	64	57	76	67	60	54	59	53	49	52	47	43	45	41	38	35				
4	75	63	55	48	70	59	52	46	52	46	41	46	41	37	40	36	33	29				
5	69	56	47	41	64	53	45	39	47	40	35	41	36	32	36	31	28	25				
6	63	50	42	35	59	47	40	34	42	36	31	37	32	28	32	28	25	22				
7	58	45	37	31	54	43	35	30	38	32	27	34	28	24	29	25	22	19				
8	54	41	33	27	51	39	31	26	35	28	24	31	25	22	27	23	19	17				
9	50	38	30	24	47	36	28	23	32	26	21	28	23	19	25	21	18	15				
10	47	34	27	22	44	33	26	21	29	23	19	26	21	18	23	19	16	14				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6252	6252	6252
5°	6271	6110	6128
10°	6233	6010	6006
15°	6177	5894	5862
20°	6093	5766	5723
25°	5998	5624	5569
30°	5895	5481	5411
35°	5779	5336	5274
40°	5685	5196	5129
45°	5547	5069	5005
50°	5430	4922	4876
55°	5310	4783	4722
60°	5121	4605	4583
65°	4915	4414	4411
70°	4666	4197	4210
75°	4318	3960	4029
80°	3929	3731	3851
85°	3441	3526	3748



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.3	1.9
10°-20°	210.1	5.5
20°-30°	317.7	8.3
30°-40°	384.4	10.0
40°-50°	406.4	10.6
50°-60°	382.5	10.0
60°-70°	317.3	8.3
70°-80°	222.9	5.8
80°-90°	127.1	3.3
90°-100°	88.0	2.3
100°-110°	139.4	3.6
110°-120°	197.9	5.2
120°-130°	225.0	5.9
130°-140°	227.3	5.9
140°-150°	205.9	5.4
150°-160°	164.6	4.3
160°-170°	106.2	2.8
170°-180°	36.6	1.0
0°-30°	601.2	15.7
0°-40°	985.6	25.7
0°-60°	1774.4	46.3
0°-90°	2441.8	63.7
90°-120°	425.3	11.1
90°-150°	1083.5	28.3
90°-180°	1391.0	36.3
0°-180°	3832.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	774	774	774	774	774	
5°	775	772	767	773	773	74
15°	743	744	741	749	748	209
25°	680	685	688	697	698	313
35°	595	605	614	626	629	372
45°	496	513	529	543	548	383
55°	388	407	433	449	455	346
65°	269	297	326	347	355	266
75°	149	182	218	241	250	159
85°	46	83	121	146	156	49
90°	15	53	92	118	127	10
95°	27	47	82	106	115	29
105°	95	114	147	170	168	100
115°	167	177	203	222	229	165
125°	231	233	252	269	275	206
135°	284	284	291	305	311	219
145°	326	326	326	332	336	204
155°	357	357	356	357	357	165
165°	377	375	375	377	375	106
175°	385	384	384	386	383	37
180°	385	385	385	385	385	



TEST NUMBER: P332583-930

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5
2.5°	777.2	776.7	776.2	775.8	775.3	774.5	773.2	772.0	770.8	769.6	770.6
5°	775.3	774.7	774.1	773.6	773.0	772.0	770.6	769.3	767.9	766.6	768.2
7.5°	768.7	768.3	768.0	767.7	767.3	766.5	765.5	764.3	763.2	762.1	763.9
10°	763.1	763.0	762.8	762.5	762.4	761.8	760.8	759.9	758.9	757.9	759.7
12.5°	755.5	755.5	755.5	755.4	755.4	755.0	754.4	753.7	753.0	752.4	754.0
15°	743.2	743.4	743.6	743.8	744.0	743.8	743.2	742.7	742.0	741.4	743.2
17.5°	726.4	726.9	727.5	728.1	728.7	728.9	728.8	728.7	728.6	728.5	730.3
20°	714.6	715.2	715.8	716.3	716.9	717.3	717.5	717.6	717.9	718.0	720.0
22.5°	701.4	702.1	702.9	703.6	704.3	704.9	705.2	705.6	705.9	706.3	708.2
25°	679.9	681.0	682.2	683.4	684.5	685.4	686.0	686.6	687.1	687.7	689.8
27.5°	656.0	657.6	659.3	661.0	662.8	664.1	665.0	665.8	666.7	667.6	669.5
30°	640.0	641.6	643.1	644.7	646.2	647.6	649.0	650.3	651.7	653.0	655.1
32.5°	622.6	624.5	626.4	628.2	630.1	631.7	633.2	634.7	636.3	637.7	640.2
35°	594.9	597.2	599.6	601.9	604.1	606.3	608.2	610.2	612.0	614.0	616.7
37.5°	567.0	569.6	572.3	574.9	577.6	580.2	582.5	584.9	587.3	589.7	592.5
40°	548.9	551.5	553.9	556.4	559.0	561.6	564.3	567.0	569.6	572.3	575.3
42.5°	528.2	530.9	533.8	536.5	539.4	542.3	545.5	548.7	551.9	555.0	558.2
45°	496.0	499.7	503.4	507.0	510.7	514.4	518.0	521.7	525.3	529.0	532.3
47.5°	465.4	469.1	472.9	476.7	480.5	484.5	488.7	492.9	497.2	501.4	504.8
50°	443.1	447.4	451.6	455.8	460.1	464.3	468.6	472.8	477.0	481.3	485.2
52.5°	420.9	425.2	429.4	433.7	437.9	442.5	447.3	452.2	457.1	461.9	465.7
55°	388.5	392.6	396.6	400.6	404.7	409.6	415.4	421.2	427.0	432.8	436.6
57.5°	352.3	357.3	362.3	367.3	372.3	377.6	383.4	389.1	394.9	400.6	405.2
60°	328.6	333.7	338.7	343.7	348.7	354.4	360.8	367.1	373.5	379.8	384.3
62.5°	305.7	311.3	316.7	322.2	327.7	333.6	340.0	346.3	352.7	359.1	363.5
65°	268.8	275.0	281.2	287.3	293.5	299.9	306.4	313.0	319.5	326.0	330.8
67.5°	233.3	239.9	246.4	252.9	259.5	266.3	273.3	280.3	287.3	294.3	299.2
70°	209.0	215.6	222.1	228.7	235.2	242.1	249.5	256.8	264.1	271.4	276.6
72.5°	185.4	192.1	198.9	205.5	212.2	219.5	227.3	235.1	242.9	250.6	255.7
75°	149.2	156.3	163.4	170.6	177.7	185.3	193.4	201.5	209.6	217.7	223.1
77.5°	115.4	122.9	130.4	138.0	145.5	153.6	162.1	170.6	179.0	187.5	193.0
80°	94.5	102.2	109.9	117.6	125.4	133.5	141.9	150.4	158.9	167.4	173.2
82.5°	73.7	81.7	89.8	97.8	105.7	114.1	122.5	131.0	139.5	148.0	153.8
85°	46.0	54.1	62.1	70.3	78.4	86.7	95.4	104.0	112.8	121.4	127.2
87.5°	25.8	33.8	41.8	49.8	57.9	66.1	74.7	83.2	91.7	100.3	106.0
90°	14.8	23.2	31.6	39.9	48.4	57.0	65.8	74.6	83.4	92.2	98.2
92.5°	16.8	23.8	30.7	37.7	44.7	52.6	61.4	70.2	79.0	87.8	93.6
95°	27.1	31.3	35.5	39.7	43.9	49.9	57.9	65.9	73.8	81.8	87.4
97.5°	43.9	50.7	57.6	64.4	71.2	74.9	75.7	76.3	77.0	77.7	82.8
100°	56.8	62.9	69.1	75.3	81.4	83.9	82.5	81.2	79.9	78.6	82.7
102.5°	72.0	77.2	82.5	87.7	92.9	98.7	104.9	111.1	117.3	123.5	116.8
105°	94.6	98.7	103.0	107.2	111.5	117.3	124.8	132.2	139.7	147.2	152.5
107.5°	116.9	120.3	123.6	126.9	130.3	135.6	142.8	149.9	157.1	164.3	169.3
110°	131.4	134.3	137.2	140.1	143.0	148.0	155.2	162.2	169.3	176.5	181.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	145.4	148.2	150.9	153.7	156.4	161.1	167.7	174.3	180.9	187.5	191.8
115°	167.1	169.1	171.0	172.9	174.9	178.9	185.0	191.0	197.1	203.3	207.7
117.5°	187.4	188.7	190.0	191.4	192.6	196.2	202.1	208.0	213.9	219.7	223.7
120°	200.6	201.4	202.2	203.1	203.9	207.1	212.6	218.1	223.6	229.2	233.2
122.5°	213.4	213.8	214.0	214.3	214.5	217.4	222.7	228.1	233.5	238.9	242.8
125°	231.1	231.1	231.2	231.3	231.4	233.7	238.4	243.1	247.8	252.5	256.3
127.5°	248.4	248.3	248.2	248.1	247.9	249.9	253.9	257.9	261.9	265.9	269.3
130°	259.0	258.9	258.8	258.7	258.5	260.1	263.3	266.7	269.9	273.2	276.7
132.5°	269.5	269.4	269.3	269.2	269.1	270.4	273.1	275.8	278.6	281.3	284.6
135°	284.1	284.1	284.0	283.9	283.9	284.6	286.3	287.8	289.4	291.1	294.2
137.5°	297.9	297.7	297.6	297.4	297.2	297.6	298.6	299.5	300.4	301.3	304.3
140°	306.9	306.8	306.7	306.7	306.6	306.7	307.0	307.4	307.7	308.0	310.7
142.5°	314.2	314.5	314.6	314.8	315.0	315.1	315.0	315.0	315.0	315.0	317.2
145°	326.4	326.4	326.4	326.4	326.4	326.4	326.4	326.4	326.4	326.4	327.7
147.5°	336.3	336.5	336.6	336.8	337.0	337.0	337.0	336.9	336.8	336.8	337.0
150°	343.5	343.5	343.6	343.6	343.7	343.7	343.6	343.6	343.5	343.5	343.5
152.5°	348.8	348.9	349.1	349.3	349.4	349.4	349.4	349.2	349.1	349.0	349.1
155°	357.0	357.1	357.1	357.2	357.3	357.2	357.0	356.8	356.6	356.4	356.7
157.5°	364.1	364.0	364.0	363.9	363.9	363.8	363.6	363.4	363.1	363.0	363.3
160°	368.3	368.0	367.9	367.7	367.5	367.4	367.3	367.2	367.1	367.0	367.5
162.5°	371.9	371.7	371.5	371.2	371.0	370.8	370.7	370.6	370.6	370.6	371.0
165°	376.6	376.3	375.9	375.6	375.3	375.1	375.1	375.1	375.1	375.1	375.7
167.5°	380.3	379.9	379.6	379.3	379.0	378.8	378.7	378.7	378.6	378.6	379.2
170°	382.4	382.0	381.6	381.2	380.8	380.7	380.7	380.8	380.8	380.9	381.4
172.5°	383.8	383.4	382.9	382.6	382.2	382.0	382.1	382.2	382.2	382.3	382.8
175°	385.2	384.8	384.5	384.1	383.7	383.5	383.6	383.7	383.8	383.8	384.4
177.5°	386.0	385.6	385.2	384.8	384.5	384.3	384.5	384.6	384.7	384.7	385.2
180°	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5
2.5°	771.7	772.8	773.9	774.4	774.2	774.0	773.9	773.7
5°	769.7	771.3	772.7	773.5	773.2	773.1	772.9	772.7
7.5°	765.6	767.3	769.1	769.8	769.6	769.4	769.2	769.1
10°	761.4	763.1	764.9	765.6	765.5	765.2	765.1	764.9
12.5°	755.5	757.2	758.7	759.5	759.5	759.4	759.4	759.3
15°	744.9	746.7	748.4	749.2	749.0	748.8	748.6	748.4
17.5°	732.0	733.8	735.6	736.4	736.2	736.1	735.9	735.7
20°	721.9	723.8	725.8	726.8	726.8	726.8	726.8	726.8
22.5°	710.1	712.0	714.0	715.1	715.4	715.7	716.0	716.3
25°	691.9	694.1	696.2	697.3	697.5	697.7	697.9	698.1
27.5°	671.5	673.4	675.5	676.5	676.8	677.0	677.3	677.4
30°	657.2	659.3	661.5	662.8	663.2	663.5	663.9	664.3
32.5°	642.6	645.1	647.4	648.9	649.2	649.6	650.0	650.4
35°	619.4	622.1	624.8	626.4	627.0	627.5	628.2	628.8
37.5°	595.2	597.9	600.6	602.3	602.9	603.6	604.1	604.8
40°	578.1	581.1	583.9	585.7	586.5	587.3	588.1	588.8
42.5°	561.4	564.6	567.8	569.7	570.3	571.0	571.6	572.2
45°	535.6	538.8	542.1	544.2	545.2	546.2	547.1	548.0
47.5°	508.2	511.6	515.0	517.2	518.4	519.6	520.7	521.9
50°	489.0	492.8	496.7	499.2	500.3	501.6	502.7	503.9
52.5°	469.6	473.4	477.3	479.8	480.9	482.1	483.2	484.5
55°	440.4	444.3	448.2	450.7	451.8	453.0	454.1	455.3
57.5°	409.9	414.4	419.0	421.8	422.9	424.0	425.1	426.2
60°	388.7	393.1	397.5	400.6	402.1	403.7	405.2	406.8
62.5°	367.9	372.3	376.7	379.8	381.3	382.9	384.3	385.9
65°	335.7	340.6	345.4	348.5	350.1	351.6	353.1	354.7
67.5°	304.1	309.0	313.9	317.1	318.6	320.1	321.6	323.1
70°	281.8	287.1	292.3	295.5	296.9	298.2	299.5	300.9
72.5°	260.7	265.8	270.8	274.1	275.6	277.1	278.6	280.1
75°	228.4	233.8	239.3	242.8	244.6	246.3	248.0	249.7
77.5°	198.4	203.9	209.4	213.0	214.9	216.7	218.6	220.5
80°	179.0	184.7	190.5	194.1	195.7	197.2	198.8	200.3
82.5°	159.8	165.8	171.7	175.5	177.2	178.9	180.6	182.3
85°	133.0	138.8	144.6	148.4	150.3	152.2	154.2	156.1
87.5°	111.6	117.3	122.9	126.7	128.4	130.1	131.8	133.5
90°	104.1	110.1	116.1	119.9	121.6	123.3	124.9	126.6
92.5°	99.5	105.3	111.0	114.8	116.3	117.9	119.4	121.1
95°	92.9	98.6	104.1	107.9	109.7	111.5	113.2	115.0
97.5°	87.9	92.9	98.0	101.4	103.1	104.8	106.6	108.4
100°	86.8	90.9	95.1	97.8	99.2	100.6	102.1	103.5
102.5°	110.1	103.5	96.8	94.2	95.6	97.2	98.7	100.2
105°	157.9	163.3	168.7	171.0	170.2	169.5	168.8	168.0
107.5°	174.3	179.4	184.4	187.7	189.3	190.9	192.6	194.2
110°	185.6	190.2	194.8	197.9	199.6	201.4	203.1	204.8





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	196.1	200.3	204.6	207.6	209.4	211.2	213.0	214.7
115°	212.0	216.4	220.7	223.6	224.9	226.3	227.6	229.0
117.5°	227.7	231.7	235.7	238.4	239.9	241.4	243.0	244.5
120°	237.2	241.1	245.1	247.8	249.2	250.6	252.0	253.5
122.5°	246.7	250.6	254.5	257.1	258.4	259.7	261.0	262.2
125°	260.2	264.1	267.9	270.4	271.7	272.9	274.1	275.3
127.5°	272.7	276.1	279.6	281.9	283.2	284.5	285.7	286.9
130°	280.3	283.8	287.3	289.7	290.8	292.0	293.2	294.3
132.5°	288.0	291.4	294.8	297.0	298.2	299.2	300.4	301.4
135°	297.5	300.7	303.9	306.1	307.4	308.7	310.0	311.3
137.5°	307.3	310.2	313.2	315.1	316.0	317.0	317.9	318.8
140°	313.4	316.1	318.8	320.7	321.7	322.7	323.8	324.8
142.5°	319.6	322.0	324.3	325.9	326.7	327.5	328.3	329.1
145°	328.9	330.1	331.3	332.4	333.3	334.2	335.1	336.0
147.5°	337.2	337.4	337.6	338.0	338.8	339.4	340.1	340.8
150°	343.5	343.5	343.5	343.5	343.6	343.6	343.6	343.7
152.5°	349.2	349.3	349.4	349.4	349.4	349.4	349.4	349.3
155°	356.9	357.2	357.4	357.5	357.3	357.1	356.9	356.7
157.5°	363.6	363.9	364.3	364.3	363.9	363.6	363.3	363.0
160°	367.9	368.3	368.6	368.6	368.3	367.9	367.5	367.0
162.5°	371.3	371.7	372.1	372.0	371.6	371.2	370.7	370.3
165°	376.2	376.7	377.2	377.2	376.6	376.0	375.4	374.9
167.5°	379.8	380.3	380.8	380.8	380.2	379.5	378.9	378.3
170°	382.0	382.5	382.9	382.9	382.3	381.6	381.0	380.3
172.5°	383.4	383.8	384.3	384.3	383.6	382.9	382.2	381.5
175°	385.0	385.6	386.1	386.0	385.2	384.5	383.7	382.9
177.5°	385.6	386.0	386.5	386.3	385.7	385.1	384.5	383.8
180°	385.2	385.2	385.2	385.2	385.2	385.2	385.2	385.2

(END OF REPORT)