

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: P332904-927

Luminaire Tested: **SA4XXRDIP-C575D590U927-4F0-1E-UDD-F**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332904-927  
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: SA4XXRDIP-C575D590U927-4F0-1E-UDD-F  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3730.7 lumens  
Efficiency: N/A  
Efficacy: 113.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: General Diffuse

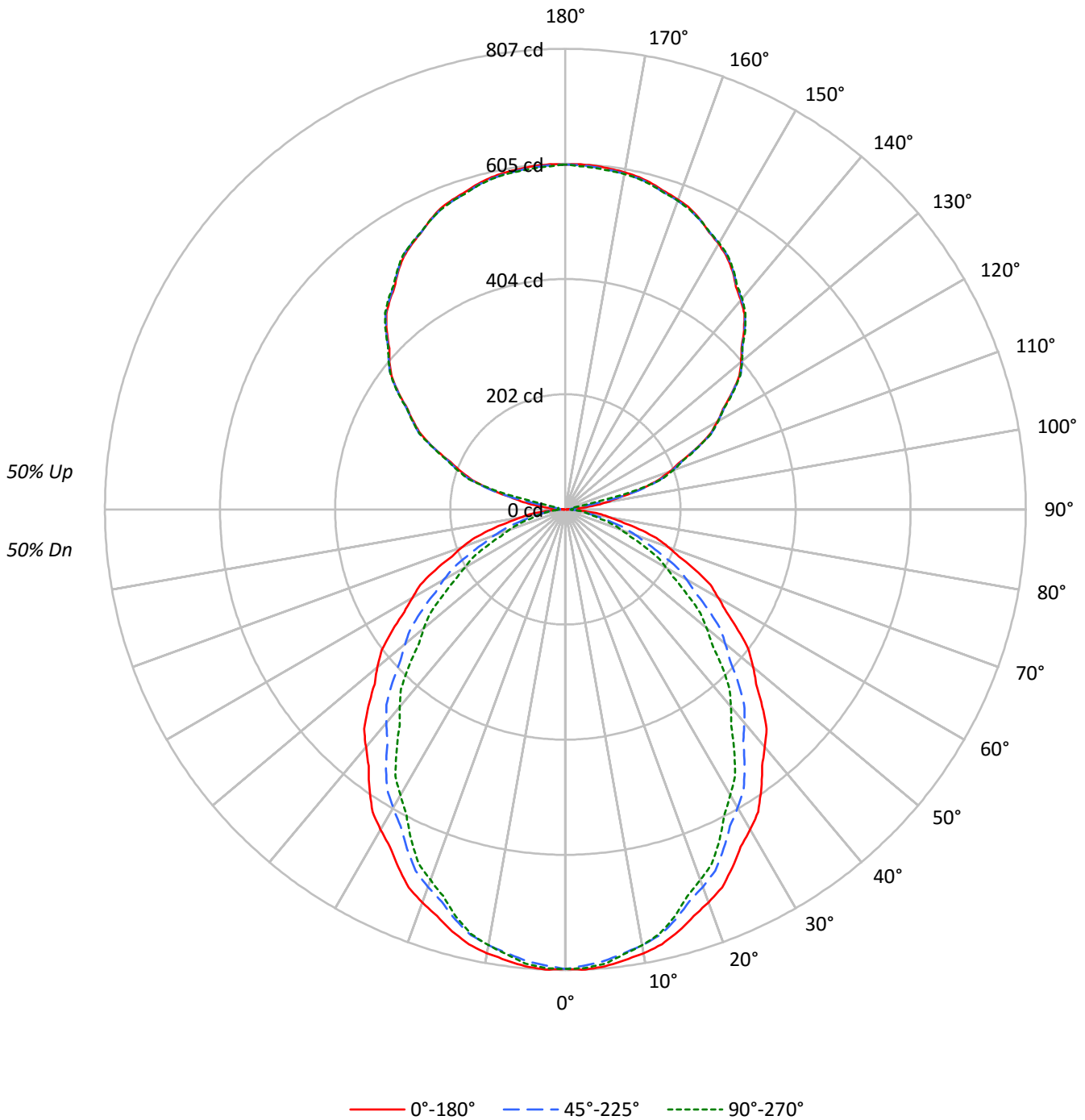
Input Watts (W): 32.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	98	94	90	87	90	87	83	81	73	71	69	61	60	58	50	49	48	43				
2	89	82	76	71	82	76	71	66	65	61	57	54	51	49	44	42	41	36				
3	82	72	65	60	75	67	61	56	57	52	49	48	45	42	39	37	35	31				
4	75	64	57	51	69	60	53	48	51	46	42	43	39	36	35	33	30	27				
5	69	57	49	43	63	53	46	41	46	40	36	39	34	31	32	29	27	23				
6	63	52	44	38	58	48	41	36	41	36	32	35	31	27	29	26	23	21				
7	59	47	39	33	54	43	36	31	37	32	28	32	28	24	27	23	21	18				
8	55	42	35	29	50	40	33	28	34	29	25	29	25	22	24	21	19	16				
9	51	39	31	26	47	36	30	25	31	26	22	27	23	20	23	19	17	15				
10	47	36	28	24	44	33	27	22	29	24	20	25	21	18	21	18	16	14				

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

	0°	45°	90°
0°	6500	6500	6500
5°	6514	6434	6474
10°	6473	6357	6357
15°	6399	6224	6177
20°	6296	6048	5936
25°	6167	5842	5694
30°	6039	5626	5390
35°	5899	5401	5084
40°	5730	5145	4755
45°	5574	4891	4419
50°	5397	4598	4064
55°	5206	4294	3678
60°	4996	3961	3284
65°	4804	3543	2896
70°	4525	3085	2460
75°	4173	2558	1999
80°	3640	1948	1836
85°	3084	1769	1658



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.6	2.0
10°-20°	210.9	5.7
20°-30°	304.5	8.2
30°-40°	345.2	9.3
40°-50°	333.3	8.9
50°-60°	277.2	7.4
60°-70°	191.4	5.1
70°-80°	97.0	2.6
80°-90°	26.6	0.7
90°-100°	20.7	0.6
100°-110°	131.7	3.5
110°-120°	252.0	6.8
120°-130°	319.9	8.6
130°-140°	342.3	9.2
140°-150°	320.1	8.6
150°-160°	258.1	6.9
160°-170°	166.5	4.5
170°-180°	57.4	1.5
0°-30°	591.0	15.8
0°-40°	936.2	25.1
0°-60°	1546.7	41.5
0°-90°	1861.8	49.9
90°-120°	404.5	10.8
90°-150°	1386.8	37.2
90°-180°	1869.0	50.1
0°-180°	3730.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	805	805	805	805	805	
5°	804	801	794	800	799	76
15°	766	760	745	743	739	216
25°	692	680	656	646	639	319
35°	599	578	548	528	516	374
45°	488	465	428	399	387	376
55°	370	344	305	274	261	331
65°	252	224	186	160	152	248
75°	134	111	82	68	64	141
85°	33	22	19	18	18	37
90°	1	6	10	13	14	3
95°	25	10	10	13	13	32
105°	136	139	141	144	129	142
115°	254	255	255	256	256	250
125°	357	359	358	359	360	319
135°	443	442	444	445	446	341
145°	511	512	512	512	513	319
155°	560	560	559	561	559	258
165°	591	588	588	592	588	167
175°	604	602	602	605	601	58
180°	604	604	604	604	604	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	807.1	806.6	806.2	805.7	805.3	804.5	803.3	802.1	800.8	799.6	800.8
5°	803.8	803.3	802.7	802.2	801.7	800.6	798.9	797.3	795.6	794.0	795.4
7.5°	796.5	796.0	795.4	794.9	794.2	792.9	790.8	788.6	786.5	784.3	785.2
10°	789.6	789.0	788.3	787.6	787.0	785.4	782.9	780.4	777.9	775.5	776.0
12.5°	780.8	780.0	779.2	778.4	777.6	775.8	772.9	769.9	767.1	764.1	764.5
15°	765.6	764.4	763.2	761.9	760.7	758.4	754.9	751.5	748.1	744.7	744.4
17.5°	747.3	745.4	743.7	741.9	740.1	737.2	733.1	729.0	724.8	720.7	720.0
20°	732.9	731.2	729.4	727.6	725.8	722.6	718.0	713.3	708.6	704.0	702.9
22.5°	717.2	715.2	713.2	711.1	709.2	705.7	700.7	695.7	690.7	685.7	684.0
25°	692.3	689.8	687.3	684.8	682.4	678.3	672.7	667.1	661.5	655.9	653.6
27.5°	666.1	663.1	660.0	656.9	653.7	649.2	643.2	637.2	631.2	625.2	622.3
30°	647.8	644.4	641.0	637.6	634.2	629.2	622.8	616.4	609.9	603.5	600.1
32.5°	628.7	624.8	620.9	617.0	613.2	607.9	601.3	594.6	588.0	581.3	577.3
35°	598.6	594.2	589.8	585.4	581.1	575.4	568.5	561.7	554.8	548.0	543.4
37.5°	566.4	561.9	557.4	552.9	548.3	542.2	534.6	527.0	519.5	511.9	506.7
40°	543.7	539.2	534.6	530.1	525.6	519.4	511.7	503.8	496.1	488.2	482.4
42.5°	522.0	517.3	512.5	507.8	503.0	496.6	488.5	480.3	472.2	464.1	458.2
45°	488.2	483.2	478.1	473.0	467.9	461.3	453.0	444.9	436.7	428.4	421.7
47.5°	453.4	448.1	442.8	437.6	432.4	425.5	416.9	408.4	399.9	391.3	384.4
50°	429.7	424.3	419.0	413.6	408.3	401.2	392.4	383.7	374.9	366.1	359.3
52.5°	405.5	400.3	395.1	389.8	384.5	377.5	368.4	359.5	350.5	341.5	334.5
55°	369.9	364.4	358.9	353.4	347.9	340.7	331.8	323.0	314.0	305.1	298.0
57.5°	334.6	328.9	323.2	317.5	311.8	304.6	295.8	287.0	278.3	269.5	262.3
60°	309.4	304.0	298.5	293.0	287.6	280.4	271.6	262.8	254.1	245.3	238.2
62.5°	286.8	281.1	275.4	269.7	264.0	256.7	247.6	238.7	229.7	220.7	214.1
65°	251.5	245.7	239.7	233.9	227.9	220.6	211.8	203.1	194.3	185.5	179.7
67.5°	214.9	209.2	203.6	198.0	192.3	185.4	177.3	169.1	161.1	152.9	147.8
70°	191.7	185.9	180.2	174.4	168.7	161.9	154.1	146.3	138.5	130.7	126.2
72.5°	167.1	161.8	156.6	151.5	146.2	140.0	132.6	125.2	117.8	110.4	106.6
75°	133.8	128.7	123.7	118.6	113.5	107.7	101.3	94.8	88.4	82.0	78.8
77.5°	100.0	95.7	91.4	87.1	82.8	78.0	72.8	67.7	62.4	57.2	55.4
80°	78.3	74.3	70.3	66.4	62.4	58.4	54.3	50.1	46.0	41.9	41.5
82.5°	59.6	55.9	52.3	48.6	45.0	42.0	39.6	37.2	34.9	32.6	32.2
85°	33.3	30.6	27.8	25.0	22.3	20.8	20.4	20.0	19.5	19.1	18.9
87.5°	11.6	10.9	10.3	9.7	9.0	8.7	8.7	8.8	8.9	8.9	8.9
90°	1.3	2.5	3.6	4.7	5.8	6.7	7.5	8.3	9.1	9.9	10.5
92.5°	5.7	5.8	5.8	5.9	5.9	6.3	7.2	8.0	8.8	9.6	10.2
95°	24.9	21.5	18.1	14.6	11.2	9.5	9.7	9.7	9.8	9.9	10.5
97.5°	52.8	54.9	57.0	59.2	61.3	56.7	45.6	34.4	23.1	12.0	12.0
100°	74.1	75.9	77.7	79.5	81.4	75.3	61.5	47.6	33.7	19.9	18.1
102.5°	98.0	99.3	100.6	102.0	103.3	103.1	101.2	99.4	97.6	95.8	77.4
105°	136.0	136.7	137.2	137.8	138.4	138.9	139.5	140.0	140.5	141.0	141.9
107.5°	171.3	171.7	172.0	172.2	172.5	173.0	173.7	174.4	175.1	175.8	176.3
110°	195.2	195.5	195.8	196.1	196.4	196.9	197.5	198.0	198.7	199.3	199.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	218.3	218.9	219.4	220.0	220.5	220.9	221.2	221.5	221.8	222.0	222.0
115°	254.0	254.3	254.5	254.8	255.2	255.2	255.2	255.1	254.9	254.8	255.1
117.5°	286.1	286.5	286.8	287.2	287.6	288.0	288.2	288.4	288.6	288.8	288.8
120°	307.8	308.2	308.6	309.0	309.3	309.5	309.4	309.3	309.2	309.1	309.3
122.5°	328.0	328.2	328.4	328.7	328.9	329.2	329.3	329.4	329.5	329.7	329.8
125°	357.0	357.4	357.8	358.2	358.6	358.7	358.5	358.3	358.1	357.9	358.2
127.5°	384.4	384.5	384.7	384.8	384.8	385.2	385.6	386.0	386.5	387.0	386.9
130°	402.2	402.3	402.3	402.5	402.6	402.7	403.1	403.4	403.7	404.0	404.1
132.5°	418.4	418.6	418.8	419.0	419.1	419.5	419.9	420.2	420.6	421.0	421.0
135°	442.8	442.8	442.7	442.5	442.4	442.6	443.0	443.4	443.8	444.2	444.4
137.5°	464.5	464.5	464.5	464.5	464.6	464.9	465.2	465.7	466.2	466.6	466.8
140°	478.6	478.7	479.0	479.1	479.3	479.5	479.7	480.0	480.1	480.4	480.6
142.5°	491.2	491.5	491.9	492.3	492.7	492.9	493.0	493.1	493.2	493.4	493.6
145°	510.6	511.0	511.2	511.5	511.8	512.0	512.0	512.0	512.0	512.0	512.1
147.5°	526.1	526.6	527.2	527.8	528.3	528.5	528.5	528.4	528.2	528.1	528.2
150°	537.3	537.7	538.1	538.5	538.9	539.1	538.9	538.8	538.8	538.6	538.6
152.5°	546.7	547.0	547.3	547.6	548.0	548.0	547.9	547.7	547.5	547.3	547.5
155°	559.9	560.0	560.1	560.2	560.3	560.2	559.9	559.6	559.3	559.0	559.4
157.5°	571.0	570.9	570.8	570.8	570.8	570.5	570.2	569.9	569.5	569.2	569.7
160°	577.5	577.2	576.9	576.6	576.3	576.1	576.0	575.9	575.8	575.7	576.3
162.5°	583.3	582.9	582.5	582.2	581.8	581.5	581.4	581.3	581.2	581.1	581.7
165°	590.6	590.1	589.6	589.1	588.6	588.4	588.4	588.4	588.4	588.4	589.1
167.5°	596.4	595.9	595.3	594.8	594.3	594.0	594.0	593.9	593.8	593.7	594.7
170°	599.7	599.0	598.4	597.9	597.2	597.0	597.1	597.1	597.3	597.4	598.2
172.5°	601.8	601.2	600.6	600.0	599.4	599.1	599.3	599.4	599.4	599.5	600.4
175°	604.2	603.6	602.9	602.4	601.7	601.5	601.6	601.7	601.8	601.9	602.8
177.5°	605.2	604.7	604.1	603.6	603.0	602.8	602.9	603.1	603.2	603.4	604.1
180°	604.2	604.2	604.2	604.2	604.2	604.2	604.2	604.2	604.2	604.2	604.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	802.1	803.3	804.5	805.0	804.9	804.8	804.7	804.6
5°	796.7	798.1	799.5	800.0	799.7	799.5	799.2	798.9
7.5°	786.1	787.0	787.9	788.1	787.7	787.2	786.8	786.3
10°	776.6	777.1	777.7	777.7	777.1	776.6	776.0	775.5
12.5°	764.8	765.1	765.5	765.2	764.5	763.7	763.0	762.2
15°	744.1	743.9	743.5	743.0	742.0	741.0	740.1	739.1
17.5°	719.2	718.4	717.6	716.5	715.1	713.7	712.2	710.7
20°	701.8	700.7	699.6	698.2	696.4	694.6	692.8	691.0
22.5°	682.5	680.8	679.1	677.6	676.1	674.7	673.3	671.8
25°	651.3	648.9	646.6	644.8	643.3	642.0	640.6	639.2
27.5°	619.4	616.6	613.7	611.2	609.3	607.3	605.4	603.4
30°	596.7	593.2	589.8	587.0	584.8	582.6	580.4	578.2
32.5°	573.4	569.4	565.4	562.4	560.3	558.3	556.1	554.1
35°	538.7	534.0	529.4	525.9	523.4	520.9	518.4	515.9
37.5°	501.5	496.3	491.1	487.3	484.7	482.3	479.8	477.4
40°	476.7	471.0	465.2	461.1	458.6	456.1	453.7	451.2
42.5°	452.3	446.5	440.6	436.4	433.8	431.3	428.6	426.1
45°	415.0	408.3	401.6	397.0	394.5	392.1	389.6	387.1
47.5°	377.4	370.4	363.5	358.6	355.9	353.2	350.5	347.8
50°	352.4	345.6	338.7	334.1	331.4	328.8	326.2	323.6
52.5°	327.6	320.6	313.7	308.9	306.1	303.4	300.7	298.0
55°	290.9	283.8	276.6	271.8	269.2	266.6	264.0	261.3
57.5°	255.0	247.8	240.6	236.0	234.0	232.0	230.0	228.1
60°	231.1	223.9	216.8	212.2	210.0	207.8	205.7	203.4
62.5°	207.6	201.0	194.4	190.2	188.5	186.7	185.0	183.2
65°	173.8	167.9	162.0	158.2	156.6	155.0	153.3	151.6
67.5°	142.8	137.7	132.6	129.2	127.4	125.6	123.7	121.9
70°	121.7	117.2	112.6	109.6	108.3	106.9	105.5	104.2
72.5°	102.7	98.9	95.0	92.4	91.2	89.9	88.6	87.4
75°	75.7	72.6	69.4	67.4	66.5	65.8	65.0	64.1
77.5°	53.6	51.7	49.8	48.8	48.6	48.3	48.1	47.8
80°	41.1	40.7	40.2	40.0	39.8	39.7	39.6	39.5
82.5°	31.9	31.6	31.4	31.1	31.0	30.8	30.7	30.6
85°	18.5	18.3	18.0	17.9	17.9	17.9	17.9	17.9
87.5°	9.0	9.0	9.0	9.0	9.2	9.3	9.4	9.6
90°	11.2	11.7	12.4	12.8	13.0	13.2	13.4	13.5
92.5°	10.8	11.4	12.0	12.3	12.4	12.4	12.4	12.4
95°	11.2	11.7	12.4	12.7	12.8	12.9	13.0	13.1
97.5°	12.0	12.1	12.2	12.3	12.4	12.4	12.5	12.7
100°	16.5	14.7	13.1	12.3	12.4	12.4	12.5	12.7
102.5°	58.9	40.6	22.1	12.9	13.0	13.0	13.0	13.0
105°	142.8	143.7	144.6	143.2	139.7	136.0	132.4	128.8
107.5°	176.7	177.1	177.5	177.9	178.3	178.7	179.1	179.5
110°	199.7	199.9	200.1	200.3	200.7	200.9	201.2	201.5





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	222.0	222.0	221.9	222.0	222.4	222.8	223.2	223.6
115°	255.2	255.5	255.6	255.8	255.8	255.8	255.8	255.8
117.5°	288.8	288.8	288.7	288.7	288.6	288.6	288.5	288.5
120°	309.5	309.7	309.9	309.9	309.7	309.5	309.3	309.1
122.5°	329.9	330.0	330.2	330.1	329.9	329.7	329.5	329.3
125°	358.5	358.8	359.1	359.3	359.4	359.5	359.6	359.7
127.5°	386.9	386.8	386.7	386.7	386.6	386.5	386.4	386.3
130°	404.2	404.3	404.4	404.4	404.4	404.4	404.4	404.4
132.5°	421.2	421.3	421.4	421.4	421.3	421.2	421.1	421.0
135°	444.6	444.8	445.0	445.2	445.4	445.6	445.8	446.0
137.5°	467.1	467.3	467.5	467.5	467.5	467.5	467.4	467.3
140°	480.9	481.3	481.6	481.7	481.9	482.0	482.0	482.1
142.5°	493.8	494.0	494.2	494.4	494.4	494.4	494.4	494.5
145°	512.1	512.3	512.4	512.5	512.7	512.9	513.2	513.3
147.5°	528.3	528.4	528.5	528.5	528.7	528.8	528.9	528.9
150°	538.6	538.6	538.6	538.7	538.8	538.9	539.0	539.1
152.5°	547.6	547.8	548.0	548.0	548.0	547.9	547.8	547.8
155°	559.8	560.2	560.5	560.6	560.3	560.0	559.8	559.4
157.5°	570.2	570.8	571.2	571.2	570.8	570.2	569.7	569.2
160°	576.9	577.5	578.1	578.1	577.5	576.9	576.3	575.7
162.5°	582.3	582.9	583.5	583.5	582.8	582.1	581.5	580.7
165°	589.9	590.7	591.6	591.5	590.6	589.7	588.8	587.9
167.5°	595.6	596.4	597.3	597.2	596.3	595.2	594.2	593.3
170°	599.0	599.8	600.6	600.5	599.5	598.5	597.5	596.5
172.5°	601.2	602.0	602.8	602.6	601.6	600.5	599.4	598.3
175°	603.7	604.6	605.5	605.4	604.2	602.9	601.7	600.6
177.5°	604.8	605.4	606.0	605.9	604.9	604.0	602.9	602.0
180°	604.2	604.2	604.2	604.2	604.2	604.2	604.2	604.2

(END OF REPORT)