

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: P332592-927

Luminaire Tested: **S124DIP-S795D590U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332592-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIP-S795D590U927-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4435.7 lumens  
Efficiency: N/A  
Efficacy: 110.1 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: General Diffuse

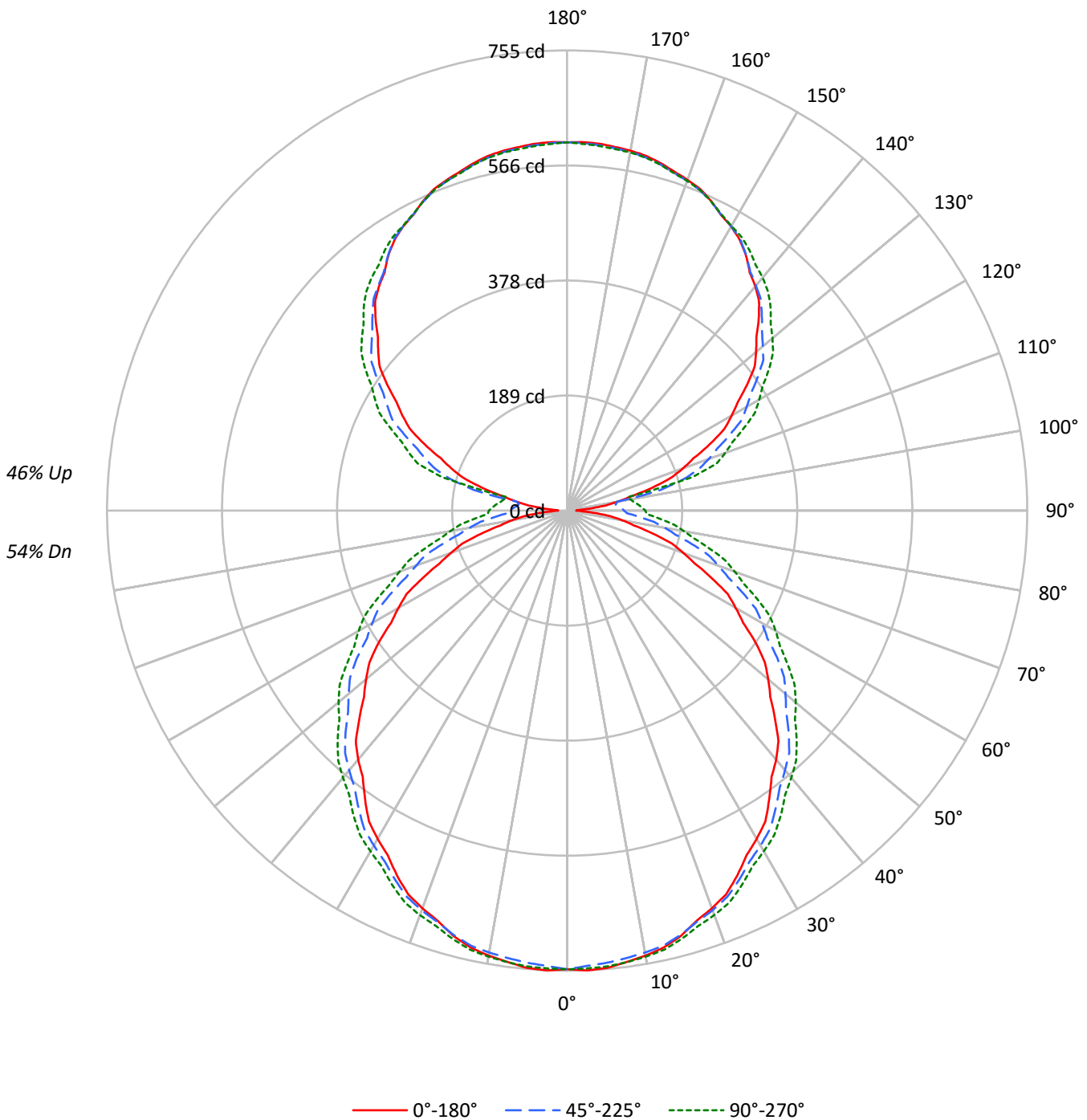
Input Watts (W): 40.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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CATALOG NUMBER: S124DIP-S795D590U927-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P332592-927

CATALOG NUMBER: S124DIP-S795D590U927-4F0-1E-UDD-D

**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	54
1	97	93	88	84	90	86	82	79	73	70	68		61	59	58		51	49	48	43
2	88	80	74	68	81	74	69	64	63	59	55		53	50	47		44	42	40	35
3	80	70	62	56	74	65	58	53	56	50	46		47	43	39		39	36	33	29
4	73	62	54	47	67	57	50	44	49	43	39		41	37	33		34	31	28	25
5	67	55	46	40	62	51	44	38	44	38	33		37	32	29		31	27	24	21
6	62	49	41	35	57	46	38	33	39	33	29		33	29	25		28	24	21	18
7	57	44	36	30	53	41	34	29	36	30	25		30	26	22		25	22	19	16
8	53	40	32	27	49	38	30	25	32	27	22		28	23	20		23	20	17	14
9	49	37	29	24	45	34	27	22	30	24	20		25	21	18		21	18	15	13
10	46	34	26	21	43	31	25	20	27	22	18		23	19	16		20	16	14	12

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

	0°	45°	90°
0°	6075	6075	6075
5°	6093	5937	5954
10°	6056	5839	5835
15°	6002	5727	5695
20°	5920	5603	5561
25°	5828	5464	5411
30°	5728	5326	5258
35°	5615	5184	5124
40°	5525	5049	4984
45°	5391	4925	4864
50°	5277	4781	4738
55°	5160	4647	4588
60°	4976	4475	4453
65°	4776	4290	4285
70°	4532	4078	4091
75°	4196	3847	3915
80°	3817	3624	3742
85°	3344	3427	3643



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.3	1.6
10°-20°	204.2	4.6
20°-30°	308.7	7.0
30°-40°	373.5	8.4
40°-50°	394.9	8.9
50°-60°	371.6	8.4
60°-70°	308.3	7.0
70°-80°	216.6	4.9
80°-90°	124.2	2.8
90°-100°	93.4	2.1
100°-110°	185.6	4.2
110°-120°	288.2	6.5
120°-130°	340.3	7.7
130°-140°	351.1	7.9
140°-150°	321.9	7.3
150°-160°	258.2	5.8
160°-170°	166.5	3.8
170°-180°	57.4	1.3
0°-30°	584.1	13.2
0°-40°	957.6	21.6
0°-60°	1724.1	38.9
0°-90°	2373.2	53.5
90°-120°	567.1	12.8
90°-150°	1580.4	35.6
90°-180°	2062.0	46.5
0°-180°	4435.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	753	751	745	751	751	71
15°	722	723	720	728	727	203
25°	661	666	668	677	678	304
35°	578	588	597	608	611	362
45°	482	498	514	528	532	372
55°	378	396	420	437	442	336
65°	261	288	317	337	345	259
75°	145	176	212	234	243	154
85°	45	80	118	142	152	48
90°	15	54	93	119	128	10
95°	36	50	83	108	117	41
105°	144	164	197	220	212	151
115°	259	269	294	313	320	255
125°	360	362	382	398	404	322
135°	444	445	452	466	472	343
145°	511	512	512	517	522	320
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	



TEST NUMBER: P332592-927

CATALOG NUMBER: S124DIP-S795D590U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	755.2	754.7	754.2	753.8	753.4	752.6	751.3	750.1	748.9	747.7	748.8
5°	753.3	752.7	752.2	751.6	751.1	750.1	748.8	747.5	746.2	744.9	746.4
7.5°	746.9	746.6	746.2	745.9	745.5	744.8	743.8	742.7	741.6	740.5	742.2
10°	741.5	741.3	741.2	740.9	740.8	740.2	739.3	738.3	737.4	736.4	738.2
12.5°	734.1	734.0	734.0	734.0	734.0	733.6	733.0	732.3	731.7	731.0	732.6
15°	722.2	722.3	722.5	722.7	722.9	722.7	722.2	721.6	721.0	720.4	722.2
17.5°	705.8	706.3	706.9	707.5	708.1	708.2	708.1	708.1	707.9	707.8	709.6
20°	694.3	694.9	695.5	696.0	696.6	697.0	697.1	697.3	697.5	697.7	699.6
22.5°	681.5	682.2	682.9	683.7	684.4	684.9	685.2	685.6	685.9	686.3	688.1
25°	660.6	661.7	662.9	664.0	665.1	666.0	666.5	667.1	667.7	668.2	670.3
27.5°	637.4	639.0	640.6	642.3	644.0	645.2	646.1	646.9	647.8	648.6	650.5
30°	621.9	623.4	624.9	626.4	627.9	629.2	630.6	631.8	633.2	634.5	636.5
32.5°	605.0	606.8	608.6	610.4	612.2	613.8	615.3	616.7	618.2	619.6	622.0
35°	578.1	580.3	582.6	584.8	587.0	589.1	591.0	592.9	594.7	596.6	599.2
37.5°	550.9	553.5	556.1	558.6	561.3	563.7	566.0	568.3	570.7	573.0	575.7
40°	533.4	535.8	538.2	540.7	543.1	545.7	548.3	550.9	553.5	556.1	559.0
42.5°	513.2	515.9	518.6	521.3	524.1	527.0	530.0	533.1	536.2	539.2	542.4
45°	482.0	485.5	489.1	492.7	496.2	499.8	503.4	506.9	510.4	514.0	517.2
47.5°	452.2	455.8	459.5	463.2	466.8	470.7	474.8	479.0	483.1	487.2	490.5
50°	430.6	434.7	438.8	442.9	447.0	451.1	455.3	459.4	463.5	467.6	471.4
52.5°	409.0	413.1	417.2	421.4	425.5	429.9	434.6	439.3	444.1	448.8	452.5
55°	377.5	381.4	385.4	389.3	393.2	398.0	403.6	409.2	414.9	420.5	424.2
57.5°	342.3	347.1	352.0	356.9	361.7	366.9	372.6	378.1	383.7	389.3	393.7
60°	319.3	324.2	329.1	334.0	338.8	344.4	350.5	356.7	362.9	369.1	373.4
62.5°	297.1	302.5	307.8	313.1	318.4	324.2	330.3	336.5	342.7	348.9	353.2
65°	261.2	267.2	273.2	279.2	285.2	291.4	297.7	304.1	310.5	316.8	321.5
67.5°	226.6	233.1	239.4	245.7	252.2	258.7	265.5	272.4	279.2	286.0	290.7
70°	203.0	209.5	215.8	222.2	228.5	235.3	242.4	249.5	256.6	263.7	268.8
72.5°	180.1	186.6	193.2	199.7	206.2	213.3	220.9	228.4	236.0	243.5	248.4
75°	145.0	151.9	158.8	165.7	172.6	180.1	187.9	195.7	203.7	211.5	216.7
77.5°	112.1	119.4	126.7	134.1	141.4	149.2	157.5	165.7	174.0	182.2	187.5
80°	91.8	99.3	106.8	114.3	121.8	129.7	137.9	146.2	154.4	162.6	168.3
82.5°	71.6	79.4	87.2	95.0	102.7	110.8	119.1	127.3	135.5	143.8	149.5
85°	44.7	52.5	60.4	68.3	76.1	84.3	92.7	101.1	109.6	118.0	123.6
87.5°	25.2	33.0	41.0	48.8	56.6	64.8	73.1	81.5	89.8	98.2	103.8
90°	14.8	23.4	32.0	40.6	49.2	57.9	66.8	75.7	84.5	93.4	99.4
92.5°	18.5	25.3	32.1	38.9	45.7	53.6	62.4	71.2	80.1	89.0	94.8
95°	35.8	38.6	41.4	44.1	46.9	52.1	59.9	67.7	75.5	83.3	88.9
97.5°	62.7	70.2	77.6	85.1	92.5	94.4	90.9	87.2	83.7	80.0	85.0
100°	83.4	90.1	96.7	103.4	110.1	110.1	103.6	97.0	90.5	83.9	87.3
102.5°	107.3	112.8	118.4	124.1	129.6	135.1	140.5	145.8	151.1	156.5	143.0
105°	143.6	148.0	152.3	156.6	161.0	166.9	174.3	181.7	189.2	196.6	202.2
107.5°	178.8	182.1	185.5	188.9	192.3	197.6	204.8	212.1	219.3	226.5	231.6
110°	201.9	204.9	207.8	210.7	213.7	218.7	225.9	233.0	240.2	247.3	251.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	224.4	227.3	230.1	233.0	235.9	240.6	247.1	253.7	260.2	266.7	270.8
115°	259.0	261.0	263.0	265.0	267.0	270.9	276.8	282.7	288.6	294.5	298.8
117.5°	290.9	292.3	293.7	295.2	296.6	300.2	306.0	311.8	317.6	323.4	327.3
120°	312.0	312.9	313.9	314.8	315.8	318.9	324.2	329.6	334.9	340.2	344.2
122.5°	332.2	332.6	332.9	333.3	333.6	336.4	341.7	347.0	352.2	357.5	361.4
125°	360.4	360.6	360.8	361.0	361.2	363.5	368.0	372.5	377.0	381.5	385.3
127.5°	387.7	387.6	387.5	387.4	387.3	389.3	393.3	397.4	401.5	405.5	408.8
130°	404.7	404.6	404.6	404.4	404.3	406.0	409.2	412.6	415.8	419.1	422.6
132.5°	421.0	421.0	421.0	421.0	421.0	422.3	425.1	427.9	430.6	433.5	436.7
135°	444.5	444.4	444.3	444.3	444.1	445.0	446.6	448.4	450.0	451.8	455.0
137.5°	466.1	466.0	465.8	465.7	465.6	466.0	467.1	468.2	469.2	470.3	473.2
140°	480.2	480.2	480.2	480.3	480.3	480.5	480.9	481.3	481.6	482.0	484.7
142.5°	492.2	492.5	492.8	493.2	493.5	493.7	493.7	493.7	493.7	493.7	496.1
145°	511.4	511.6	511.7	511.8	511.9	512.0	512.0	512.0	512.0	512.0	513.2
147.5°	527.0	527.3	527.7	528.1	528.4	528.5	528.5	528.4	528.2	528.1	528.4
150°	538.1	538.4	538.5	538.8	539.0	539.1	538.9	538.8	538.8	538.6	538.6
152.5°	546.8	547.2	547.4	547.7	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°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	749.8	750.9	751.9	752.4	752.3	752.1	751.9	751.8
5°	747.9	749.4	750.8	751.5	751.3	751.1	751.0	750.8
7.5°	743.9	745.5	747.3	748.0	747.8	747.6	747.4	747.3
10°	739.8	741.5	743.2	743.9	743.8	743.5	743.4	743.2
12.5°	734.1	735.7	737.2	737.9	737.9	737.8	737.8	737.8
15°	723.8	725.5	727.1	727.9	727.8	727.5	727.4	727.1
17.5°	711.2	713.0	714.7	715.5	715.3	715.2	715.0	714.9
20°	701.4	703.3	705.2	706.2	706.2	706.2	706.2	706.2
22.5°	690.0	691.8	693.7	694.8	695.1	695.4	695.7	696.0
25°	672.3	674.4	676.4	677.6	677.7	677.9	678.1	678.3
27.5°	652.4	654.3	656.3	657.4	657.6	657.8	658.1	658.2
30°	638.6	640.6	642.7	644.0	644.4	644.7	645.1	645.5
32.5°	624.4	626.8	629.1	630.5	630.8	631.2	631.6	632.0
35°	601.8	604.4	607.0	608.6	609.2	609.7	610.4	610.9
37.5°	578.3	581.0	583.6	585.3	585.8	586.5	587.0	587.6
40°	561.7	564.6	567.4	569.1	569.9	570.6	571.4	572.1
42.5°	545.5	548.6	551.7	553.6	554.1	554.8	555.4	556.0
45°	520.4	523.6	526.7	528.8	529.7	530.7	531.6	532.5
47.5°	493.8	497.1	500.4	502.6	503.7	504.9	506.0	507.1
50°	475.2	478.9	482.6	485.1	486.2	487.4	488.5	489.6
52.5°	456.3	460.0	463.7	466.2	467.3	468.4	469.5	470.7
55°	427.9	431.7	435.5	437.9	439.0	440.1	441.2	442.4
57.5°	398.2	402.7	407.1	409.9	410.9	411.9	413.0	414.1
60°	377.7	382.0	386.3	389.2	390.7	392.2	393.7	395.2
62.5°	357.4	361.8	366.1	369.0	370.5	372.0	373.4	374.9
65°	326.2	330.9	335.6	338.7	340.2	341.7	343.1	344.6
67.5°	295.5	300.2	305.0	308.1	309.6	311.0	312.5	313.9
70°	273.9	278.9	284.0	287.2	288.4	289.8	291.0	292.4
72.5°	253.3	258.3	263.2	266.3	267.8	269.3	270.7	272.2
75°	222.0	227.2	232.5	235.9	237.7	239.3	241.0	242.6
77.5°	192.8	198.1	203.4	207.0	208.8	210.6	212.4	214.2
80°	173.9	179.5	185.1	188.6	190.1	191.6	193.1	194.6
82.5°	155.3	161.1	166.8	170.6	172.1	173.8	175.5	177.1
85°	129.2	134.8	140.5	144.2	146.1	147.9	149.8	151.7
87.5°	109.3	114.9	120.4	124.1	125.7	127.4	129.1	130.8
90°	105.4	111.5	117.5	121.4	123.0	124.8	126.4	128.2
92.5°	100.7	106.6	112.5	116.2	117.7	119.3	120.8	122.3
95°	94.6	100.2	105.9	109.6	111.4	113.2	114.9	116.8
97.5°	89.9	94.9	99.9	103.2	105.0	106.6	108.4	110.0
100°	90.6	94.0	97.3	99.7	101.1	102.5	103.9	105.4
102.5°	129.4	115.9	102.4	96.4	97.9	99.3	100.8	102.3
105°	207.8	213.3	219.0	220.7	218.6	216.4	214.3	212.2
107.5°	236.6	241.6	246.7	250.1	251.8	253.6	255.2	257.0
110°	256.4	260.9	265.3	268.5	270.3	272.1	273.9	275.7





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	275.0	279.1	283.2	286.2	288.0	289.9	291.8	293.7
115°	303.1	307.4	311.7	314.6	315.8	317.2	318.5	319.8
117.5°	331.1	334.9	338.8	341.4	342.9	344.4	345.9	347.3
120°	348.2	352.1	356.1	358.7	360.0	361.2	362.6	363.8
122.5°	365.2	369.1	373.0	375.5	376.6	377.8	378.9	380.1
125°	389.2	393.1	396.9	399.5	400.7	401.9	403.1	404.3
127.5°	412.2	415.4	418.7	421.0	422.2	423.4	424.6	425.8
130°	426.1	429.6	433.0	435.3	436.5	437.6	438.7	439.8
132.5°	440.1	443.4	446.7	448.9	450.0	451.0	452.0	453.0
135°	458.2	461.4	464.5	466.8	468.2	469.4	470.8	472.1
137.5°	476.3	479.2	482.1	484.0	484.9	485.8	486.7	487.6
140°	487.5	490.2	493.0	494.9	495.9	496.9	498.0	499.0
142.5°	498.4	500.7	503.1	504.7	505.5	506.3	507.2	507.9
145°	514.4	515.6	516.9	517.9	518.9	519.8	520.8	521.7
147.5°	528.6	528.9	529.1	529.6	530.2	530.9	531.6	532.3
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)