

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: P333380-935

Luminaire Tested: **S125DIW-S610D770U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333380-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIW-S610D770U935-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 770 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4796.3 lumens  
Efficiency: N/A  
Efficacy: 127.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

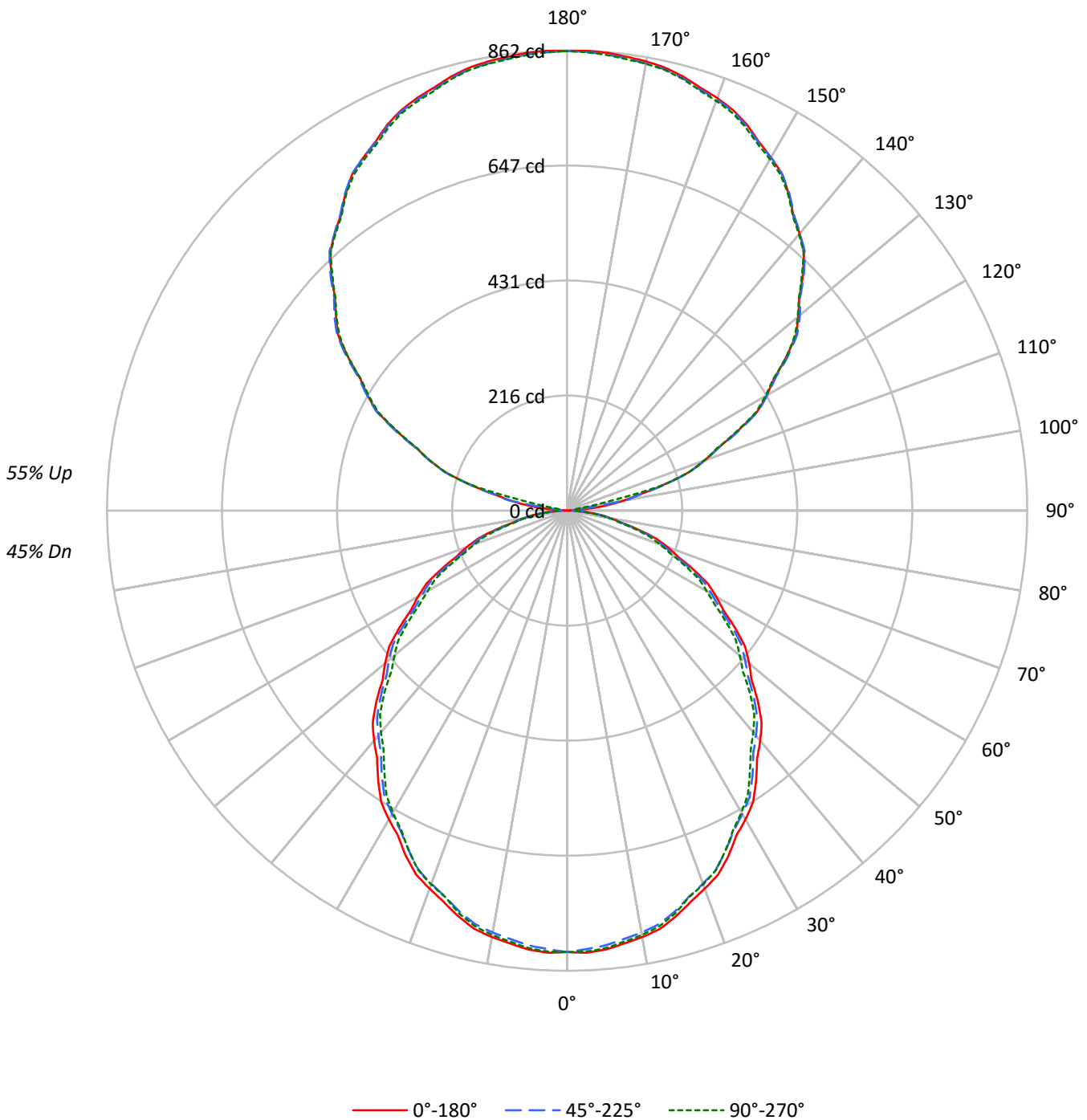
Input Watts (W): 37.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	97	92	88	85	88	85	81	78	70	68	66	57	56	54	45	44	43	38
2	88	81	74	69	80	74	69	64	62	58	55	50	48	45	40	38	36	32
3	80	71	63	58	73	65	59	54	54	50	46	44	41	38	35	33	31	27
4	73	63	55	49	67	58	51	45	48	43	39	40	36	33	32	29	27	23
5	67	56	48	42	61	51	44	39	43	38	34	36	31	28	28	26	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	20	18	15
8	53	41	33	28	49	38	31	26	32	27	23	27	23	19	22	19	16	14
9	49	37	30	25	45	35	28	23	29	24	20	25	20	17	20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	18	15	13	11

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

	0°	45°	90°
0°	5340	5340	5340
5°	5352	5301	5335
10°	5319	5264	5294
15°	5262	5201	5223
20°	5179	5112	5121
25°	5091	5007	5002
30°	4981	4894	4869
35°	4864	4771	4704
40°	4743	4639	4572
45°	4613	4517	4427
50°	4470	4372	4240
55°	4332	4206	4088
60°	4166	4039	3896
65°	3969	3839	3709
70°	3780	3609	3484
75°	3444	3331	3216
80°	3065	3016	2942
85°	2668	2712	2571



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.0	1.6
10°-20°	220.2	4.6
20°-30°	325.2	6.8
30°-40°	379.4	7.9
40°-50°	381.1	7.9
50°-60°	334.5	7.0
60°-70°	249.3	5.2
70°-80°	142.5	3.0
80°-90°	43.3	0.9
90°-100°	31.3	0.7
100°-110°	192.7	4.0
110°-120°	349.6	7.3
120°-130°	448.6	9.4
130°-140°	482.6	10.1
140°-150°	452.9	9.4
150°-160°	366.4	7.6
160°-170°	237.0	4.9
170°-180°	81.7	1.7
0°-30°	623.4	13.0
0°-40°	1002.8	20.9
0°-60°	1718.4	35.8
0°-90°	2153.5	44.9
90°-120°	573.6	12.0
90°-150°	1957.7	40.8
90°-180°	2643.0	55.1
0°-180°	4796.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	827	827	827	827	827	
5°	826	824	818	823	823	78
15°	787	785	778	781	781	222
25°	714	711	703	704	702	329
35°	617	614	605	602	597	386
45°	505	502	495	487	485	389
55°	385	382	374	368	363	343
65°	260	258	251	246	243	258
75°	138	137	134	131	129	147
85°	36	37	37	36	35	40
90°	1	6	10	13	15	3
95°	36	33	10	13	13	46
105°	188	190	190	190	190	199
115°	352	355	356	353	350	349
125°	501	505	505	503	501	447
135°	625	628	627	626	622	481
145°	724	725	725	726	722	453
155°	798	794	795	796	792	367
165°	842	838	838	842	837	238
175°	861	857	858	862	857	82
180°	861	861	861	861	861	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9
2.5°	829.0	828.6	828.3	827.9	827.6	826.8	825.7	824.5	823.4	822.2	823.4
5°	825.6	825.3	825.0	824.7	824.4	823.5	822.1	820.6	819.2	817.7	819.1
7.5°	817.9	817.7	817.4	817.1	816.8	815.9	814.2	812.7	811.1	809.5	810.7
10°	811.1	810.9	810.6	810.3	810.0	809.1	807.4	805.9	804.3	802.7	803.8
12.5°	802.8	802.3	801.8	801.2	800.7	799.7	798.2	796.8	795.2	793.8	794.7
15°	787.0	786.5	786.1	785.7	785.2	784.2	782.6	781.0	779.4	777.8	778.5
17.5°	768.8	768.2	767.5	766.9	766.2	765.1	763.4	761.7	760.1	758.5	759.3
20°	753.6	753.3	753.0	752.8	752.4	751.4	749.5	747.6	745.7	743.8	744.9
22.5°	738.4	737.9	737.4	736.8	736.3	735.2	733.4	731.7	729.9	728.1	728.8
25°	714.4	713.6	712.9	712.2	711.4	710.2	708.3	706.4	704.5	702.6	702.9
27.5°	686.2	685.8	685.4	684.9	684.5	683.3	681.3	679.4	677.4	675.5	675.5
30°	667.9	667.4	667.0	666.6	666.2	664.9	662.7	660.5	658.3	656.2	655.8
32.5°	648.0	647.4	646.7	646.0	645.3	644.0	642.1	640.2	638.2	636.3	635.8
35°	616.9	616.3	615.7	615.2	614.6	613.3	611.2	609.2	607.2	605.1	604.4
37.5°	584.5	583.8	583.2	582.4	581.7	580.3	578.4	576.5	574.5	572.7	571.6
40°	562.6	561.9	561.1	560.4	559.6	558.3	556.3	554.2	552.2	550.2	548.9
42.5°	539.1	538.5	537.8	537.2	536.6	535.3	533.2	531.2	529.2	527.1	526.0
45°	505.1	504.5	503.9	503.3	502.7	501.5	499.8	498.1	496.3	494.6	492.8
47.5°	468.4	468.4	468.5	468.5	468.5	467.4	465.4	463.3	461.2	459.1	457.4
50°	444.9	444.4	443.9	443.5	443.1	442.0	440.2	438.5	436.8	435.1	433.2
52.5°	420.8	420.4	420.2	419.8	419.5	418.4	416.6	414.7	412.8	411.0	409.3
55°	384.7	384.2	383.7	383.3	382.9	381.7	379.6	377.6	375.6	373.5	372.2
57.5°	346.6	346.4	346.1	345.9	345.7	344.7	342.9	341.2	339.5	337.9	336.1
60°	322.5	321.9	321.3	320.7	320.2	319.1	317.5	315.9	314.3	312.7	311.3
62.5°	297.4	297.0	296.4	296.0	295.5	294.6	293.3	291.9	290.5	289.1	287.6
65°	259.7	259.4	259.2	258.8	258.6	257.6	256.0	254.4	252.8	251.2	249.9
67.5°	223.2	222.6	222.0	221.4	220.8	219.9	218.7	217.5	216.3	215.1	214.0
70°	200.2	199.5	198.7	198.0	197.3	196.2	194.9	193.6	192.3	191.1	190.1
72.5°	175.0	174.5	174.1	173.6	173.1	172.4	171.6	170.7	169.9	169.0	168.1
75°	138.0	137.8	137.4	137.2	136.9	136.4	135.6	134.9	134.1	133.5	133.0
77.5°	103.9	103.8	103.7	103.5	103.4	103.1	102.7	102.4	101.9	101.5	101.3
80°	82.4	82.4	82.4	82.4	82.4	82.3	82.0	81.7	81.5	81.1	80.9
82.5°	63.6	63.4	63.1	62.9	62.7	62.5	62.4	62.4	62.3	62.3	62.0
85°	36.0	36.2	36.2	36.4	36.6	36.6	36.6	36.6	36.6	36.6	36.5
87.5°	14.3	14.5	14.7	14.9	15.2	15.3	15.4	15.5	15.6	15.7	15.8
90°	0.6	1.8	2.9	4.0	5.2	6.2	7.2	8.3	9.2	10.2	10.9
92.5°	9.8	9.0	8.3	7.4	6.6	6.7	7.6	8.4	9.3	10.2	10.9
95°	36.3	35.9	35.5	35.1	34.7	31.8	26.3	21.0	15.6	10.2	10.9
97.5°	75.9	76.7	77.5	78.2	79.0	74.0	63.4	52.7	42.0	31.4	27.4
100°	106.5	106.9	107.4	107.8	108.2	108.7	109.3	109.9	110.5	111.0	89.9
102.5°	137.7	138.2	138.8	139.3	139.8	140.3	140.6	140.9	141.3	141.6	137.7
105°	187.5	188.1	188.7	189.2	189.9	190.1	190.1	190.1	190.1	190.1	190.1
107.5°	239.4	239.4	239.4	239.4	239.4	239.5	239.8	240.0	240.4	240.6	240.6
110°	273.0	273.0	273.0	273.0	273.0	273.2	273.5	273.8	274.1	274.3	273.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	304.7	305.1	305.4	305.7	306.1	306.3	306.5	306.7	306.9	307.0	306.4
115°	352.1	352.8	353.6	354.3	355.0	355.4	355.6	355.7	355.9	356.0	355.4
117.5°	401.3	401.2	401.2	401.2	401.1	401.4	402.0	402.5	403.0	403.6	402.9
120°	431.9	431.8	431.6	431.4	431.4	431.4	431.9	432.3	432.7	433.2	432.9
122.5°	458.9	459.5	460.0	460.5	461.2	461.5	461.7	461.8	462.1	462.3	462.0
125°	500.8	501.8	502.8	503.8	504.8	505.2	505.2	505.2	505.2	505.2	504.7
127.5°	540.7	541.5	542.2	542.9	543.5	543.9	543.8	543.7	543.6	543.5	543.2
130°	565.2	565.9	566.6	567.4	568.1	568.5	568.6	568.8	568.9	569.0	568.6
132.5°	589.7	590.6	591.4	592.2	593.1	593.3	593.0	592.6	592.4	592.0	591.9
135°	624.6	625.4	626.3	627.2	628.0	628.3	628.0	627.7	627.4	627.2	626.8
137.5°	656.6	657.4	658.1	658.8	659.5	659.8	659.5	659.3	659.0	658.8	658.8
140°	677.5	677.8	678.1	678.4	678.6	678.7	678.6	678.5	678.3	678.1	678.5
142.5°	696.4	696.5	696.7	696.9	697.1	697.2	697.5	697.7	697.8	698.1	698.1
145°	724.1	724.4	724.7	725.0	725.2	725.4	725.4	725.4	725.4	725.4	725.5
147.5°	748.4	748.3	748.2	748.2	748.1	748.2	748.4	748.5	748.6	748.8	749.0
150°	763.6	763.4	763.1	762.8	762.5	762.5	762.8	763.1	763.4	763.6	764.0
152.5°	778.4	777.8	777.2	776.6	775.9	775.8	776.1	776.4	776.6	776.9	777.2
155°	797.5	796.6	795.7	794.9	794.1	793.8	794.1	794.4	794.6	794.9	795.3
157.5°	812.1	811.7	811.1	810.6	810.1	809.9	809.9	809.9	809.9	809.9	810.5
160°	822.3	821.5	820.6	819.8	819.0	818.6	818.7	818.9	819.0	819.2	819.8
162.5°	830.5	829.7	828.8	827.9	827.1	826.7	826.9	827.1	827.2	827.3	828.1
165°	841.5	840.6	839.8	839.0	838.1	837.8	837.8	838.0	838.2	838.3	839.1
167.5°	849.6	848.8	847.9	847.1	846.1	845.8	845.9	846.0	846.2	846.4	847.3
170°	854.3	853.3	852.2	851.3	850.2	849.8	850.0	850.2	850.2	850.4	851.5
172.5°	857.3	856.4	855.3	854.3	853.3	853.0	853.3	853.5	853.8	854.0	855.0
175°	860.7	859.8	858.9	858.1	857.2	856.9	857.0	857.1	857.3	857.5	858.6
177.5°	862.1	861.4	860.8	860.1	859.5	859.1	859.3	859.4	859.5	859.6	860.4
180°	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	826.9	826.9	826.9	826.9	826.9	826.9	826.9	826.9
2.5°	824.5	825.7	826.8	827.3	827.2	827.1	827.0	826.9
5°	820.4	821.7	822.9	823.5	823.4	823.3	823.1	822.9
7.5°	812.0	813.3	814.6	815.2	815.0	814.9	814.8	814.6
10°	805.0	806.2	807.4	807.9	807.7	807.5	807.4	807.3
12.5°	795.7	796.6	797.5	798.0	797.9	797.9	797.9	797.8
15°	779.3	780.0	780.8	781.1	781.1	781.1	781.1	781.1
17.5°	760.3	761.1	762.1	762.2	761.4	760.7	760.0	759.2
20°	745.8	746.8	747.9	748.0	747.3	746.6	745.8	745.1
22.5°	729.4	730.1	730.8	730.9	730.4	729.9	729.4	728.9
25°	703.2	703.4	703.8	703.7	703.3	702.8	702.4	702.0
27.5°	675.6	675.7	675.7	675.5	675.1	674.7	674.2	673.8
30°	655.6	655.3	655.0	654.6	654.2	653.8	653.3	652.9
32.5°	635.2	634.6	634.1	633.5	632.7	632.0	631.1	630.3
35°	603.6	603.0	602.2	601.2	600.1	598.9	597.8	596.6
37.5°	570.5	569.5	568.3	567.5	566.8	566.2	565.5	564.8
40°	547.5	546.2	544.9	544.1	543.6	543.2	542.8	542.3
42.5°	524.8	523.6	522.4	521.4	520.7	520.1	519.4	518.8
45°	491.0	489.3	487.6	486.5	486.0	485.6	485.2	484.7
47.5°	455.6	453.7	452.0	450.6	449.6	448.6	447.5	446.5
50°	431.3	429.4	427.5	426.0	425.0	424.0	422.9	422.0
52.5°	407.6	406.0	404.3	402.9	401.8	400.6	399.5	398.4
55°	370.9	369.6	368.3	367.1	366.1	365.1	364.1	363.1
57.5°	334.4	332.8	331.1	329.9	329.4	328.8	328.3	327.8
60°	309.8	308.3	306.9	305.7	304.6	303.6	302.6	301.6
62.5°	286.0	284.5	282.8	281.7	280.9	280.1	279.3	278.5
65°	248.6	247.3	246.0	245.0	244.4	243.8	243.3	242.7
67.5°	212.9	211.8	210.7	209.9	209.6	209.2	208.9	208.5
70°	189.2	188.4	187.5	186.8	186.2	185.6	185.0	184.5
72.5°	167.0	166.1	165.1	164.3	163.7	163.2	162.6	162.0
75°	132.6	132.2	131.7	131.2	130.6	130.0	129.5	128.9
77.5°	101.0	100.7	100.5	100.1	99.7	99.4	98.9	98.5
80°	80.8	80.7	80.5	80.3	80.0	79.7	79.5	79.1
82.5°	61.7	61.5	61.2	61.0	61.0	61.0	60.9	60.9
85°	36.3	36.2	36.1	35.8	35.6	35.2	35.0	34.7
87.5°	15.9	16.1	16.2	16.2	16.1	15.9	15.8	15.6
90°	11.6	12.3	13.0	13.6	14.0	14.5	14.9	15.3
92.5°	11.6	12.3	13.0	13.5	13.7	13.9	14.1	14.3
95°	11.6	12.3	13.0	13.4	13.4	13.4	13.4	13.4
97.5°	23.4	19.4	15.4	13.4	13.4	13.4	13.4	13.4
100°	68.8	47.6	26.5	15.7	15.1	14.6	13.9	13.4
102.5°	133.6	129.7	125.6	118.8	109.2	99.5	89.9	80.2
105°	190.1	190.1	190.1	190.0	189.9	189.8	189.6	189.5
107.5°	240.7	240.7	240.7	240.6	240.1	239.7	239.3	238.8
110°	273.5	273.0	272.6	272.5	272.6	272.8	272.9	273.0





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	305.9	305.4	304.8	304.4	304.3	304.1	303.8	303.7
115°	354.8	354.3	353.7	353.0	352.1	351.3	350.4	349.6
117.5°	402.1	401.4	400.6	400.1	399.7	399.3	399.0	398.6
120°	432.7	432.3	432.0	431.5	430.8	430.2	429.5	428.7
122.5°	461.7	461.4	461.2	460.5	459.8	458.9	458.1	457.3
125°	504.1	503.6	503.0	502.5	502.0	501.6	501.3	500.8
127.5°	542.9	542.6	542.3	541.7	540.5	539.5	538.5	537.4
130°	568.3	567.8	567.4	566.8	566.1	565.4	564.6	564.0
132.5°	591.9	591.8	591.7	591.3	590.6	589.9	589.2	588.5
135°	626.5	626.3	626.0	625.4	624.6	623.7	622.8	622.0
137.5°	658.9	658.9	659.0	658.7	657.9	657.2	656.4	655.7
140°	678.7	679.0	679.3	679.0	678.1	677.3	676.5	675.6
142.5°	698.2	698.3	698.3	697.9	697.1	696.2	695.3	694.5
145°	725.7	725.8	725.9	725.6	724.7	723.8	723.1	722.2
147.5°	749.2	749.3	749.5	749.1	748.1	747.1	746.1	745.0
150°	764.2	764.5	764.8	764.4	763.2	762.1	761.0	759.8
152.5°	777.5	777.7	778.1	777.7	776.6	775.7	774.6	773.6
155°	795.7	796.2	796.6	796.3	795.1	794.0	792.9	791.7
157.5°	810.9	811.3	811.8	811.4	810.3	809.2	808.0	806.9
160°	820.3	820.9	821.4	821.1	820.0	818.9	817.8	816.6
162.5°	828.9	829.7	830.5	830.3	829.1	827.8	826.6	825.3
165°	840.0	840.9	841.7	841.5	840.4	839.3	838.2	837.0
167.5°	848.3	849.4	850.4	850.3	849.0	847.7	846.4	845.2
170°	852.6	853.9	855.0	854.9	853.6	852.3	851.0	849.8
172.5°	856.0	857.0	858.1	857.9	856.7	855.4	854.1	852.8
175°	859.7	860.8	861.9	861.9	860.7	859.4	858.1	856.8
177.5°	861.2	861.9	862.8	862.7	861.8	860.9	860.0	859.1
180°	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7

(END OF REPORT)