

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: P333381-830

Luminaire Tested: **S125DIW-S610D770U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333381-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIW-S610D770U830-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4866.3 lumens  
Efficiency: N/A  
Efficacy: 129.4 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

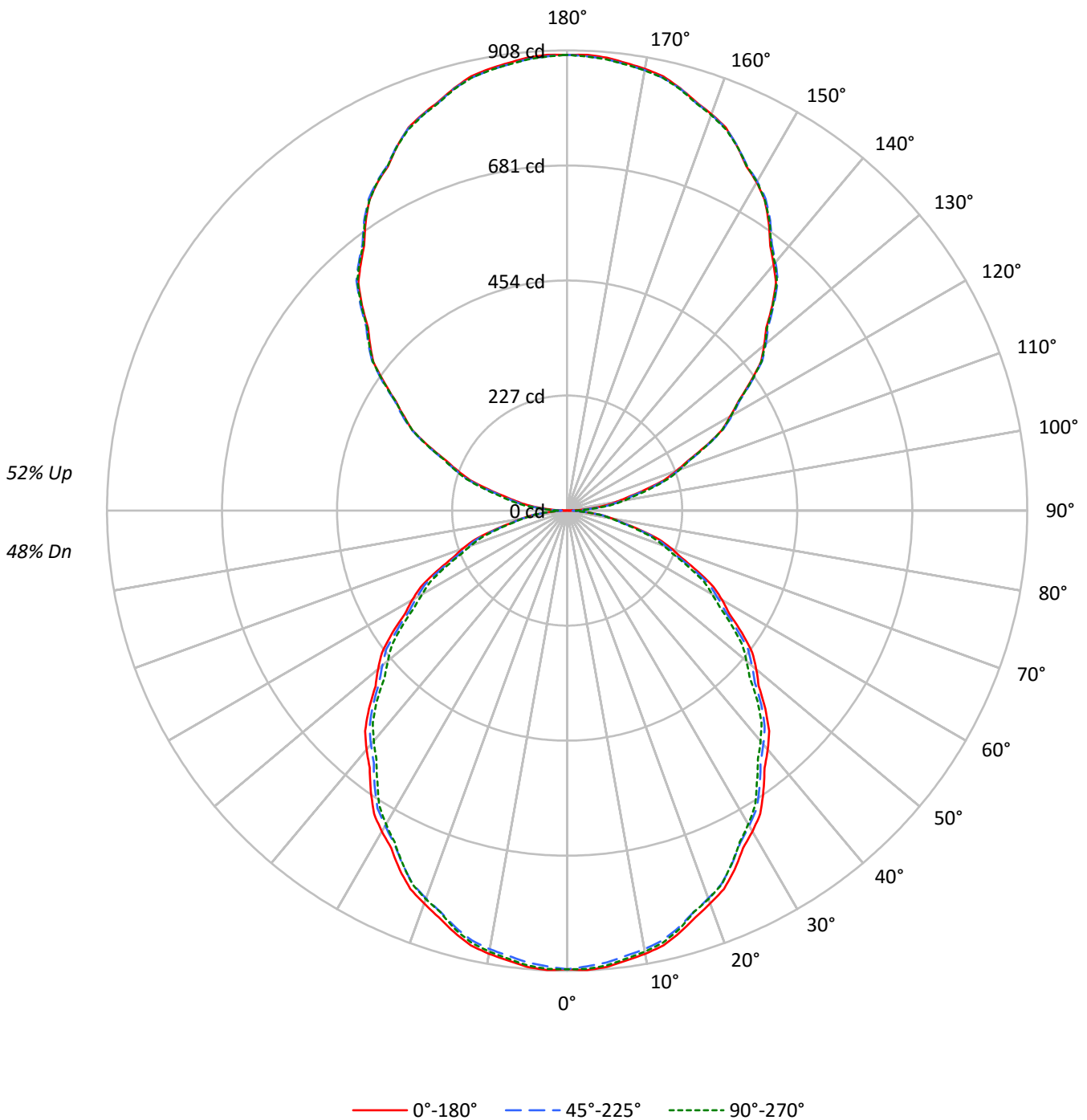
Input Watts (W): 37.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	107	107	107	107	98	98	98	98	82	82	82	68	68	68	55	55	55	48					48			
1	97	93	89	86	89	86	82	79	72	70	68	60	58	56	48	47	46					41				
2	89	81	75	70	81	75	70	65	63	59	56	52	50	47	42	40	39					34				
3	81	71	64	58	74	66	60	54	56	51	47	46	43	40	38	35	33					29				
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	34	31	28					25				
5	68	56	48	42	62	52	45	39	44	39	34	37	33	30	30	27	25					21				
6	62	50	42	36	57	47	40	34	40	34	30	33	29	26	27	24	22					19				
7	58	45	38	32	53	42	35	30	36	31	26	30	26	23	25	22	19					17				
8	54	41	34	28	49	38	31	27	33	27	23	28	23	20	23	20	17					15				
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16					13				
10	47	35	27	23	43	32	26	21	28	23	19	24	19	17	20	16	14					12				

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

	0°	45°	90°
0°	5846	5846	5846
5°	5859	5803	5841
10°	5823	5762	5795
15°	5760	5693	5717
20°	5670	5597	5606
25°	5573	5481	5476
30°	5452	5357	5330
35°	5324	5222	5149
40°	5193	5078	5005
45°	5050	4945	4847
50°	4893	4786	4641
55°	4741	4604	4476
60°	4561	4421	4265
65°	4345	4202	4060
70°	4137	3950	3814
75°	3770	3646	3521
80°	3355	3303	3221
85°	2920	2971	2816



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.3	1.8
10°-20°	241.1	5.0
20°-30°	356.0	7.3
30°-40°	415.4	8.5
40°-50°	417.2	8.6
50°-60°	366.2	7.5
60°-70°	272.9	5.6
70°-80°	156.0	3.2
80°-90°	47.3	1.0
90°-100°	60.2	1.2
100°-110°	177.8	3.7
110°-120°	301.2	6.2
120°-130°	396.4	8.1
130°-140°	444.2	9.1
140°-150°	435.3	8.9
150°-160°	365.6	7.5
160°-170°	243.1	5.0
170°-180°	85.1	1.7
0°-30°	682.4	14.0
0°-40°	1097.8	22.6
0°-60°	1881.2	38.7
0°-90°	2357.4	48.4
90°-120°	539.3	11.1
90°-150°	1815.1	37.3
90°-180°	2509.0	51.6
0°-180°	4866.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	904	902	895	901	901	86
15°	862	859	852	855	855	243
25°	782	778	769	770	768	360
35°	675	672	662	659	653	422
45°	553	550	541	533	531	426
55°	421	418	409	403	398	376
65°	284	282	275	269	266	282
75°	151	150	146	144	141	161
85°	39	40	40	39	38	44
90°	1	6	11	15	17	5
95°	46	47	54	59	60	49
105°	160	163	167	171	174	170
115°	302	304	306	305	304	298
125°	440	444	445	444	443	394
135°	572	576	577	577	574	441
145°	693	696	698	698	696	433
155°	793	793	794	797	793	365
165°	863	861	862	864	861	243
175°	897	894	894	898	894	85
180°	899	899	899	899	899	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2
2.5°	907.5	907.1	906.7	906.3	906.0	905.1	903.9	902.6	901.4	900.0	901.4
5°	903.8	903.4	903.1	902.8	902.5	901.5	899.9	898.3	896.7	895.1	896.6
7.5°	895.4	895.1	894.8	894.5	894.2	893.2	891.4	889.7	887.9	886.2	887.5
10°	888.0	887.7	887.4	887.0	886.7	885.7	883.9	882.2	880.4	878.7	880.0
12.5°	878.8	878.3	877.7	877.1	876.6	875.4	873.8	872.2	870.5	868.9	870.0
15°	861.5	861.0	860.5	860.1	859.6	858.5	856.8	855.0	853.2	851.5	852.2
17.5°	841.6	840.9	840.2	839.5	838.8	837.5	835.8	833.9	832.1	830.3	831.2
20°	825.0	824.6	824.3	824.1	823.7	822.6	820.5	818.4	816.3	814.3	815.4
22.5°	808.3	807.8	807.2	806.6	806.1	804.8	802.9	801.0	799.0	797.0	797.8
25°	782.0	781.2	780.4	779.7	778.8	777.4	775.3	773.3	771.2	769.1	769.5
27.5°	751.2	750.7	750.3	749.8	749.3	748.0	745.8	743.8	741.6	739.5	739.5
30°	731.1	730.7	730.2	729.7	729.2	727.8	725.5	723.0	720.7	718.3	717.9
32.5°	709.4	708.7	707.9	707.2	706.4	705.0	702.9	700.8	698.6	696.5	696.0
35°	675.3	674.7	674.0	673.4	672.8	671.4	669.1	666.8	664.7	662.4	661.7
37.5°	639.9	639.1	638.4	637.5	636.8	635.3	633.2	631.1	629.0	626.9	625.8
40°	615.9	615.1	614.3	613.5	612.7	611.1	609.0	606.7	604.5	602.3	600.9
42.5°	590.1	589.5	588.7	588.1	587.4	586.0	583.7	581.5	579.3	577.0	575.8
45°	552.9	552.2	551.6	550.9	550.4	549.0	547.1	545.3	543.3	541.4	539.5
47.5°	512.7	512.7	512.8	512.8	512.8	511.7	509.4	507.2	504.9	502.6	500.7
50°	487.0	486.4	486.0	485.5	485.0	483.9	481.9	480.0	478.2	476.3	474.2
52.5°	460.6	460.2	460.0	459.6	459.2	458.0	456.0	453.9	451.9	449.9	448.1
55°	421.1	420.6	420.1	419.6	419.1	417.8	415.6	413.4	411.1	408.9	407.5
57.5°	379.4	379.2	378.9	378.6	378.4	377.3	375.4	373.5	371.6	369.9	368.0
60°	353.1	352.4	351.8	351.1	350.5	349.3	347.6	345.8	344.0	342.3	340.7
62.5°	325.6	325.1	324.5	324.0	323.5	322.5	321.0	319.5	318.0	316.5	314.8
65°	284.3	284.0	283.7	283.3	283.0	282.0	280.2	278.5	276.7	275.0	273.5
67.5°	244.3	243.6	243.0	242.3	241.7	240.7	239.4	238.1	236.8	235.4	234.2
70°	219.1	218.4	217.5	216.8	215.9	214.8	213.4	212.0	210.6	209.2	208.1
72.5°	191.6	191.1	190.6	190.0	189.5	188.7	187.8	186.9	186.0	185.0	184.0
75°	151.1	150.8	150.4	150.1	149.9	149.3	148.5	147.7	146.8	146.1	145.6
77.5°	113.8	113.6	113.5	113.3	113.2	112.9	112.4	112.1	111.6	111.1	110.8
80°	90.2	90.2	90.2	90.2	90.2	90.1	89.7	89.4	89.2	88.8	88.6
82.5°	69.7	69.4	69.1	68.8	68.6	68.4	68.3	68.3	68.2	68.1	67.9
85°	39.4	39.6	39.7	39.9	40.1	40.1	40.1	40.1	40.1	40.1	40.0
87.5°	15.6	15.8	16.1	16.4	16.6	16.8	16.9	17.0	17.1	17.2	17.2
90°	0.7	2.0	3.2	4.4	5.7	6.9	7.9	9.0	10.1	11.2	12.0
92.5°	17.0	17.8	18.7	19.5	20.5	21.5	22.9	24.2	25.5	26.9	27.9
95°	45.5	45.8	46.1	46.4	46.8	47.7	49.2	50.8	52.3	53.9	55.0
97.5°	75.6	75.7	75.8	76.0	76.1	77.2	79.4	81.5	83.6	85.8	86.8
100°	97.9	97.9	97.9	97.9	97.9	99.0	100.9	103.0	105.0	107.1	108.5
102.5°	122.1	122.6	123.3	123.9	124.5	125.4	126.4	127.4	128.4	129.4	131.0
105°	159.6	160.3	161.1	161.8	162.7	163.5	164.5	165.3	166.3	167.2	168.1
107.5°	201.0	201.7	202.6	203.3	204.1	204.8	205.6	206.2	207.0	207.6	208.1
110°	229.5	230.3	231.0	231.9	232.6	233.2	233.7	234.1	234.6	235.1	235.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	258.6	259.0	259.4	259.9	260.2	260.7	261.3	261.9	262.5	263.1	263.3
115°	301.6	302.2	302.8	303.4	304.1	304.5	304.8	305.1	305.5	305.8	305.6
117.5°	344.7	345.0	345.3	345.5	345.8	346.1	346.4	346.7	346.9	347.2	347.3
120°	371.6	372.3	373.1	373.9	374.7	375.1	375.2	375.4	375.6	375.7	375.7
122.5°	400.7	401.0	401.2	401.5	401.8	402.1	402.5	402.9	403.3	403.7	403.6
125°	440.1	441.0	442.0	442.9	443.8	444.4	444.5	444.7	444.9	445.0	444.7
127.5°	482.1	482.6	483.1	483.7	484.2	484.6	484.7	484.9	485.1	485.3	485.1
130°	507.3	508.0	508.9	509.6	510.4	511.0	511.2	511.5	511.9	512.2	512.0
132.5°	532.4	533.8	535.0	536.3	537.5	538.2	538.1	538.0	538.0	537.9	537.8
135°	572.3	573.3	574.2	575.1	576.1	576.6	576.7	576.9	577.1	577.2	577.2
137.5°	609.8	610.8	611.6	612.6	613.5	614.1	614.4	614.7	615.1	615.5	615.7
140°	634.0	634.7	635.5	636.2	637.1	637.6	638.1	638.6	639.0	639.5	639.8
142.5°	658.0	658.6	659.3	660.0	660.6	661.2	661.9	662.4	663.0	663.5	663.7
145°	693.4	694.0	694.7	695.2	695.9	696.4	696.9	697.4	697.9	698.3	698.3
147.5°	726.1	726.5	726.8	727.2	727.5	727.8	728.2	728.6	729.0	729.3	729.7
150°	748.0	747.8	747.6	747.5	747.3	747.6	748.2	748.9	749.4	750.1	750.1
152.5°	765.9	766.1	766.3	766.6	766.8	766.9	767.2	767.5	767.7	768.0	768.4
155°	793.4	793.4	793.4	793.4	793.4	793.5	793.7	793.8	794.0	794.2	794.8
157.5°	818.1	817.7	817.4	817.1	816.7	816.6	816.8	816.9	817.1	817.3	817.8
160°	832.6	832.2	831.7	831.2	830.8	830.6	830.8	830.9	831.0	831.2	831.9
162.5°	845.6	845.2	844.8	844.5	844.1	844.0	844.0	844.0	844.0	844.1	844.9
165°	862.7	862.4	862.1	861.8	861.5	861.4	861.6	861.7	861.9	862.0	862.6
167.5°	877.3	876.7	876.0	875.4	874.8	874.5	874.5	874.5	874.5	874.5	875.4
170°	885.1	884.5	883.8	883.3	882.6	882.3	882.3	882.3	882.3	882.3	883.3
172.5°	890.7	890.0	889.5	888.8	888.3	887.9	887.9	887.9	887.9	887.9	888.8
175°	897.0	896.4	895.8	895.1	894.5	894.2	894.2	894.2	894.2	894.2	895.1
177.5°	900.2	899.8	899.2	898.7	898.2	898.0	897.8	897.7	897.6	897.4	898.1
180°	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2
2.5°	902.6	903.9	905.1	905.7	905.6	905.4	905.3	905.2
5°	898.1	899.5	900.9	901.5	901.4	901.3	901.1	900.9
7.5°	888.9	890.3	891.7	892.4	892.2	892.0	891.9	891.7
10°	881.3	882.5	883.8	884.4	884.2	884.0	883.8	883.7
12.5°	871.0	872.0	873.0	873.5	873.5	873.5	873.5	873.4
15°	853.1	853.8	854.7	855.1	855.1	855.1	855.1	855.1
17.5°	832.3	833.2	834.2	834.3	833.5	832.7	832.0	831.1
20°	816.4	817.6	818.7	818.9	818.0	817.3	816.4	815.7
22.5°	798.5	799.3	800.0	800.1	799.6	799.0	798.4	798.0
25°	769.8	770.1	770.4	770.3	769.9	769.4	768.9	768.5
27.5°	739.6	739.7	739.7	739.5	739.0	738.6	738.1	737.6
30°	717.7	717.4	717.0	716.6	716.1	715.7	715.2	714.7
32.5°	695.4	694.7	694.2	693.5	692.7	691.8	690.9	690.0
35°	660.8	660.1	659.2	658.2	657.0	655.6	654.4	653.1
37.5°	624.5	623.4	622.2	621.2	620.5	619.8	619.1	618.3
40°	599.4	597.9	596.5	595.6	595.1	594.7	594.2	593.7
42.5°	574.5	573.2	571.8	570.8	570.0	569.4	568.6	567.9
45°	537.5	535.6	533.8	532.5	532.1	531.6	531.1	530.7
47.5°	498.7	496.7	494.8	493.3	492.2	491.1	489.9	488.8
50°	472.1	470.0	468.0	466.4	465.2	464.1	463.0	461.9
52.5°	446.2	444.4	442.6	441.1	439.9	438.6	437.3	436.1
55°	406.0	404.6	403.2	401.9	400.8	399.6	398.6	397.5
57.5°	366.1	364.3	362.4	361.2	360.6	360.0	359.4	358.8
60°	339.1	337.5	335.9	334.6	333.5	332.3	331.2	330.2
62.5°	313.1	311.4	309.6	308.4	307.6	306.6	305.8	304.9
65°	272.1	270.7	269.3	268.2	267.6	266.9	266.4	265.7
67.5°	233.1	231.9	230.6	229.8	229.4	229.0	228.7	228.3
70°	207.2	206.2	205.3	204.5	203.9	203.2	202.6	202.0
72.5°	182.9	181.8	180.7	179.8	179.2	178.6	178.0	177.3
75°	145.2	144.7	144.2	143.6	143.0	142.3	141.8	141.1
77.5°	110.6	110.3	110.0	109.6	109.1	108.8	108.3	107.8
80°	88.5	88.3	88.1	87.9	87.6	87.3	87.0	86.6
82.5°	67.6	67.3	67.0	66.8	66.8	66.7	66.6	66.6
85°	39.8	39.6	39.5	39.2	38.9	38.5	38.3	38.0
87.5°	17.4	17.6	17.7	17.7	17.6	17.4	17.2	17.2
90°	12.7	13.6	14.3	14.9	15.4	15.8	16.3	16.8
92.5°	28.9	30.0	31.0	31.7	32.0	32.3	32.7	33.0
95°	56.1	57.1	58.2	58.9	59.3	59.6	59.9	60.1
97.5°	87.8	88.9	89.9	90.5	90.7	90.9	91.0	91.2
100°	109.8	111.2	112.6	113.5	113.9	114.1	114.4	114.7
102.5°	132.5	134.0	135.5	136.5	137.0	137.4	137.8	138.3
105°	169.1	170.0	171.0	171.6	172.1	172.6	173.1	173.5
107.5°	208.6	209.1	209.5	209.7	209.7	209.7	209.6	209.6
110°	236.0	236.5	237.0	237.1	237.0	236.8	236.7	236.5





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	263.5	263.7	263.9	263.9	263.6	263.3	263.1	262.8
115°	305.5	305.3	305.1	305.0	304.8	304.7	304.5	304.3
117.5°	347.4	347.5	347.7	347.4	346.9	346.2	345.5	345.0
120°	375.7	375.7	375.7	375.4	374.8	374.2	373.5	373.0
122.5°	403.5	403.3	403.2	402.9	402.4	401.9	401.4	401.0
125°	444.4	444.0	443.7	443.6	443.4	443.2	443.1	442.9
127.5°	485.0	484.8	484.7	484.5	484.2	483.8	483.5	483.2
130°	511.9	511.7	511.5	511.3	511.0	510.7	510.4	510.1
132.5°	537.6	537.4	537.3	537.0	536.6	536.1	535.7	535.3
135°	577.2	577.2	577.2	576.9	576.3	575.7	575.0	574.5
137.5°	615.9	616.0	616.2	615.9	615.1	614.3	613.6	612.7
140°	640.2	640.5	640.7	640.6	639.8	638.9	638.2	637.4
142.5°	663.9	664.1	664.3	664.0	663.3	662.5	661.7	660.9
145°	698.3	698.3	698.3	698.0	697.6	697.1	696.6	696.2
147.5°	730.1	730.5	730.8	730.5	729.4	728.4	727.4	726.3
150°	750.1	750.1	750.1	749.9	749.6	749.3	748.9	748.7
152.5°	768.7	769.1	769.5	769.4	768.8	768.3	767.7	767.1
155°	795.4	796.0	796.6	796.5	795.8	795.0	794.2	793.4
157.5°	818.5	819.1	819.7	819.5	818.5	817.5	816.4	815.4
160°	832.5	833.1	833.7	833.7	832.8	832.1	831.3	830.6
162.5°	845.6	846.3	847.1	847.1	846.1	845.2	844.3	843.4
165°	863.3	863.9	864.5	864.3	863.5	862.5	861.6	860.6
167.5°	876.4	877.3	878.2	878.2	877.2	876.3	875.3	874.3
170°	884.2	885.1	886.1	886.0	884.9	883.8	882.7	881.7
172.5°	889.8	890.7	891.6	891.6	890.7	889.7	888.7	887.8
175°	896.1	897.0	898.0	897.9	896.7	895.7	894.6	893.5
177.5°	898.9	899.7	900.4	900.3	899.5	898.6	897.8	896.8
180°	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1

(END OF REPORT)