

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: P333380-830

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333380-830  
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-S610D770U830-4F0-1E-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**

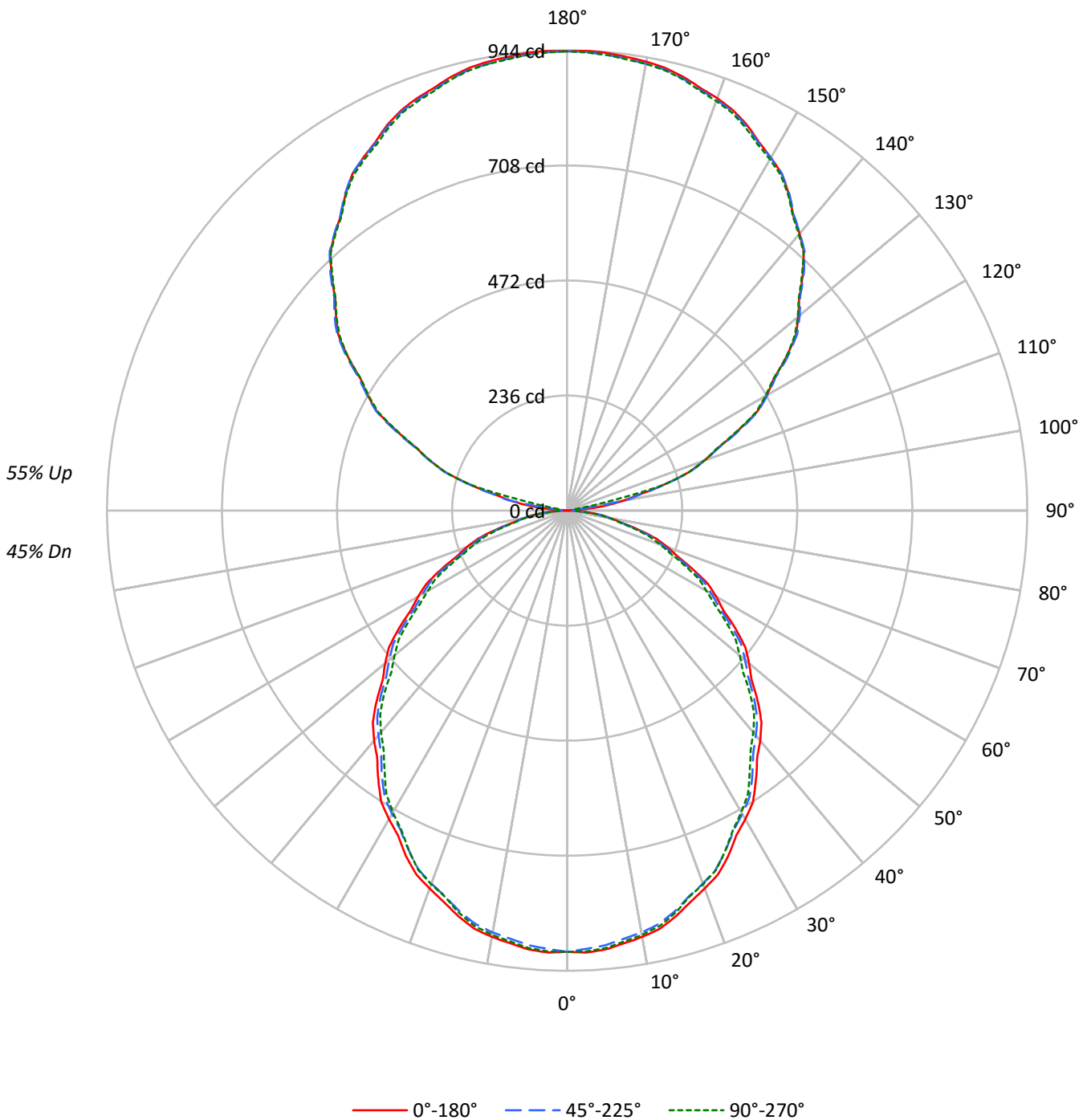
Lumens per Lamp: N/A  
Luminaire Lumens: 5250.5 lumens  
Efficiency: N/A  
Efficacy: 139.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 37.6  
Input Voltage (V): 120  
Input Current (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°	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	1.6
10°-20°	241.1	4.6
20°-30°	356.0	6.8
30°-40°	415.4	7.9
40°-50°	417.2	7.9
50°-60°	366.2	7.0
60°-70°	272.9	5.2
70°-80°	156.0	3.0
80°-90°	47.3	0.9
90°-100°	34.2	0.7
100°-110°	211.0	4.0
110°-120°	382.7	7.3
120°-130°	491.1	9.4
130°-140°	528.2	10.1
140°-150°	495.8	9.4
150°-160°	401.1	7.6
160°-170°	259.4	4.9
170°-180°	89.5	1.7
0°-30°	682.4	13.0
0°-40°	1097.8	20.9
0°-60°	1881.2	35.8
0°-90°	2357.4	44.9
90°-120°	627.9	12.0
90°-150°	2143.1	40.8
90°-180°	2893.0	55.1
0°-180°	5250.5	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	4
95°	40	36	11	14	15	51
105°	205	208	208	208	208	218
115°	386	389	390	387	383	382
125°	548	553	553	550	548	489
135°	684	688	686	685	681	527
145°	793	794	794	794	791	496
155°	873	869	870	872	867	402
165°	921	917	918	921	916	260
175°	942	938	939	944	938	90
180°	942	942	942	942	942	



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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	16.3	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	6.8	7.9	9.0	10.1	11.2	12.0
92.5°	10.7	9.9	9.0	8.1	7.3	7.4	8.3	9.2	10.2	11.2	12.0
95°	39.8	39.3	38.8	38.5	38.0	34.8	28.8	23.0	17.1	11.2	12.0
97.5°	83.1	84.0	84.8	85.6	86.4	81.1	69.4	57.7	46.0	34.4	30.0
100°	116.6	117.1	117.5	118.0	118.5	119.0	119.7	120.3	120.9	121.5	98.4
102.5°	150.7	151.3	151.9	152.5	153.1	153.5	153.9	154.3	154.7	155.0	150.7
105°	205.3	205.9	206.6	207.2	207.8	208.1	208.1	208.1	208.1	208.1	208.1
107.5°	262.0	262.0	262.0	262.0	262.0	262.2	262.5	262.8	263.2	263.4	263.4
110°	298.9	298.9	298.9	298.9	298.9	299.1	299.4	299.7	300.0	300.3	299.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	333.6	333.9	334.3	334.7	335.1	335.4	335.5	335.7	335.9	336.1	335.5
115°	385.5	386.3	387.1	387.9	388.6	389.1	389.3	389.4	389.6	389.7	389.1
117.5°	439.3	439.2	439.2	439.2	439.1	439.4	440.1	440.6	441.2	441.8	441.0
120°	472.8	472.7	472.5	472.3	472.2	472.3	472.8	473.3	473.7	474.2	473.9
122.5°	502.4	503.0	503.6	504.2	504.8	505.2	505.4	505.6	505.9	506.1	505.8
125°	548.3	549.3	550.4	551.5	552.6	553.1	553.1	553.1	553.1	553.1	552.5
127.5°	591.9	592.8	593.5	594.3	595.0	595.4	595.3	595.2	595.1	595.0	594.7
130°	618.8	619.5	620.3	621.1	621.9	622.4	622.5	622.6	622.8	622.9	622.5
132.5°	645.5	646.5	647.4	648.3	649.2	649.5	649.1	648.8	648.5	648.1	648.0
135°	683.7	684.7	685.6	686.5	687.5	687.8	687.5	687.1	686.8	686.5	686.2
137.5°	718.8	719.6	720.4	721.2	722.0	722.3	722.0	721.7	721.4	721.1	721.2
140°	741.7	742.0	742.3	742.6	742.9	743.0	742.8	742.7	742.5	742.3	742.7
142.5°	762.3	762.5	762.7	762.9	763.1	763.3	763.6	763.7	763.9	764.2	764.2
145°	792.7	793.0	793.3	793.6	793.9	794.1	794.1	794.1	794.1	794.1	794.2
147.5°	819.3	819.2	819.1	819.1	819.0	819.1	819.3	819.4	819.5	819.7	819.9
150°	835.9	835.7	835.4	835.0	834.7	834.7	835.0	835.4	835.7	835.9	836.3
152.5°	852.2	851.5	850.8	850.2	849.4	849.2	849.6	849.9	850.2	850.5	850.8
155°	873.0	872.0	871.1	870.2	869.3	868.9	869.3	869.6	869.9	870.2	870.6
157.5°	889.0	888.5	888.0	887.4	886.8	886.6	886.6	886.6	886.6	886.6	887.2
160°	900.2	899.3	898.3	897.4	896.5	896.1	896.3	896.5	896.5	896.7	897.4
162.5°	909.2	908.2	907.3	906.3	905.4	905.0	905.2	905.4	905.5	905.7	906.5
165°	921.1	920.2	919.4	918.4	917.5	917.1	917.2	917.4	917.6	917.7	918.6
167.5°	930.1	929.2	928.2	927.3	926.2	925.9	926.0	926.1	926.3	926.5	927.6
170°	935.2	934.1	932.9	931.9	930.8	930.3	930.5	930.7	930.8	930.9	932.2
172.5°	938.5	937.5	936.3	935.2	934.2	933.8	934.1	934.3	934.6	934.9	935.9
175°	942.2	941.2	940.3	939.3	938.4	938.0	938.2	938.3	938.5	938.7	939.9
177.5°	943.8	943.0	942.4	941.6	940.8	940.5	940.7	940.8	940.8	941.0	941.9
180°	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2



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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	17.1
90°	12.7	13.5	14.2	14.9	15.4	15.8	16.3	16.8
92.5°	12.7	13.5	14.2	14.8	15.0	15.2	15.5	15.6
95°	12.7	13.5	14.2	14.7	14.7	14.7	14.7	14.7
97.5°	25.6	21.2	16.9	14.7	14.7	14.7	14.7	14.7
100°	75.3	52.1	29.0	17.2	16.5	15.9	15.3	14.7
102.5°	146.3	141.9	137.5	130.1	119.5	109.0	98.4	87.8
105°	208.1	208.1	208.1	208.0	207.9	207.7	207.5	207.5
107.5°	263.5	263.5	263.5	263.3	262.9	262.4	261.9	261.5
110°	299.4	298.9	298.4	298.3	298.4	298.6	298.8	298.9





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	334.9	334.3	333.7	333.3	333.1	332.9	332.6	332.4
115°	388.4	387.9	387.2	386.4	385.5	384.6	383.6	382.7
117.5°	440.2	439.4	438.6	438.0	437.5	437.2	436.8	436.4
120°	473.6	473.3	473.0	472.4	471.6	470.9	470.1	469.3
122.5°	505.4	505.1	504.8	504.2	503.3	502.4	501.5	500.6
125°	551.9	551.3	550.6	550.1	549.6	549.1	548.7	548.3
127.5°	594.4	594.0	593.7	593.0	591.7	590.6	589.5	588.3
130°	622.1	621.6	621.1	620.5	619.7	619.0	618.1	617.4
132.5°	647.9	647.8	647.7	647.3	646.5	645.7	645.0	644.2
135°	685.9	685.6	685.3	684.7	683.7	682.8	681.8	680.9
137.5°	721.3	721.3	721.4	721.0	720.2	719.4	718.6	717.8
140°	743.0	743.3	743.7	743.3	742.3	741.5	740.6	739.6
142.5°	764.3	764.4	764.4	764.0	763.1	762.1	761.2	760.3
145°	794.4	794.6	794.7	794.3	793.3	792.4	791.5	790.6
147.5°	820.1	820.3	820.5	820.0	819.0	817.8	816.7	815.6
150°	836.6	836.9	837.3	836.8	835.5	834.2	833.0	831.8
152.5°	851.1	851.4	851.8	851.3	850.2	849.1	848.0	846.9
155°	871.1	871.6	872.0	871.7	870.4	869.2	868.0	866.7
157.5°	887.7	888.2	888.6	888.3	887.0	885.8	884.6	883.4
160°	898.0	898.6	899.2	898.9	897.7	896.5	895.2	893.9
162.5°	907.4	908.2	909.2	908.9	907.6	906.2	904.8	903.4
165°	919.5	920.5	921.4	921.2	920.0	918.8	917.6	916.2
167.5°	928.7	929.8	930.9	930.9	929.4	928.0	926.6	925.2
170°	933.4	934.7	935.9	935.9	934.4	933.0	931.6	930.3
172.5°	937.1	938.2	939.3	939.1	937.8	936.4	935.0	933.6
175°	941.1	942.4	943.6	943.5	942.2	940.8	939.3	937.9
177.5°	942.7	943.6	944.5	944.4	943.4	942.4	941.4	940.5
180°	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2

(END OF REPORT)