

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: P333682-930

Luminaire Tested: **S125RDIW-S850D470U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333682-930
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: S125RDIW-S850D470U930-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4177.5 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Direct

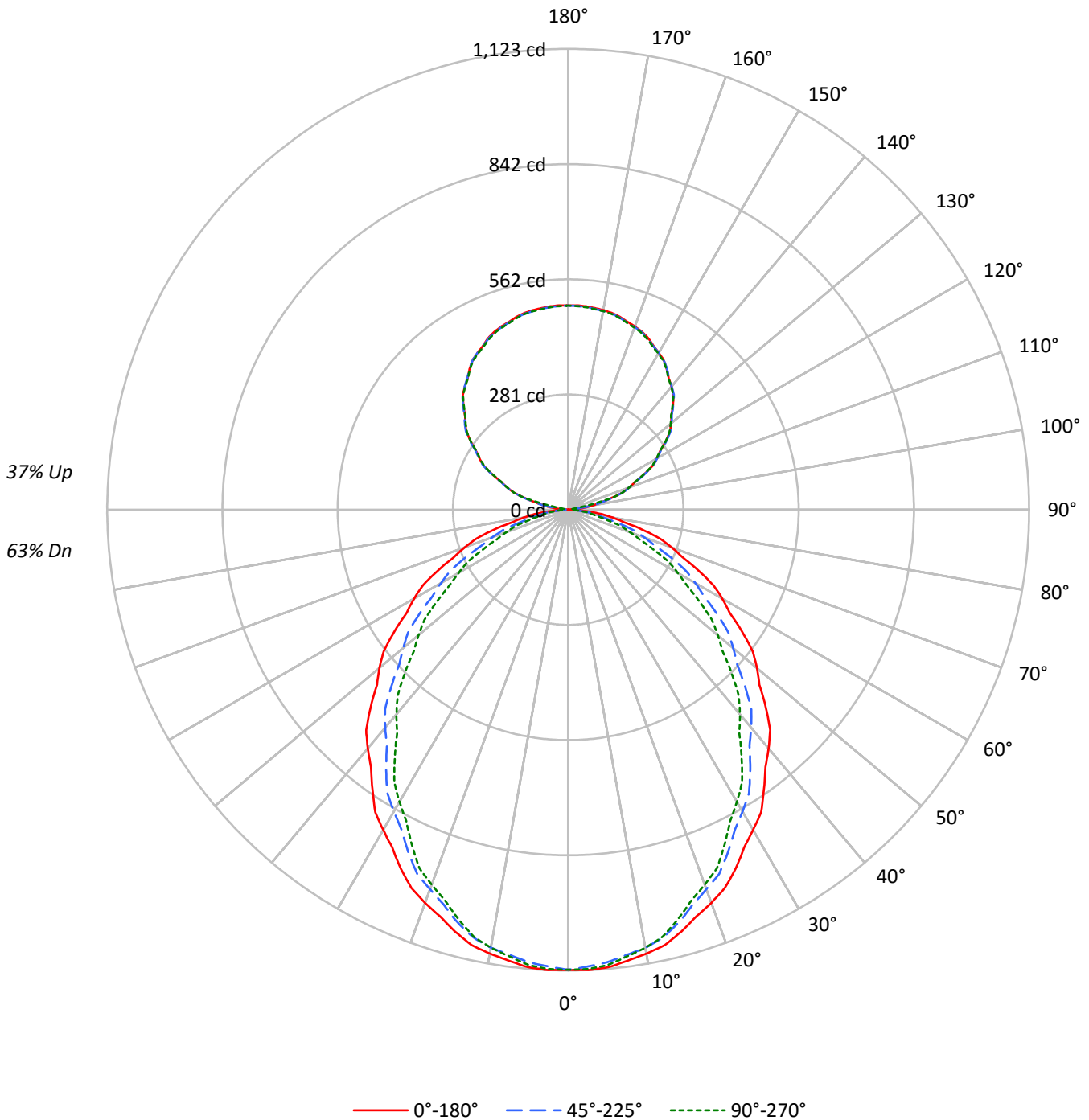
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333682-930

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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	110	110	110	110	104	104	104	104	91	91	91	79	79	79	68	68	68	63
1	101	97	93	89	95	91	88	85	80	78	75	70	68	67	61	60	58	54
2	92	85	79	74	86	80	74	70	71	66	63	62	59	56	54	52	50	46
3	84	75	67	62	79	71	64	59	62	57	53	55	51	48	48	45	43	39
4	77	66	58	52	72	63	56	50	56	50	46	49	45	41	43	40	37	34
5	71	59	51	45	67	56	49	43	50	44	39	44	40	36	39	35	32	29
6	66	53	45	39	61	51	43	38	45	39	35	40	35	32	35	32	29	26
7	61	48	40	35	57	46	39	33	41	35	31	37	32	28	32	28	25	23
8	57	44	36	31	53	42	35	30	38	32	27	34	29	25	30	26	23	21
9	53	40	33	28	50	38	31	27	35	29	25	31	26	23	28	24	21	19
10	49	37	30	25	46	35	29	24	32	26	22	29	24	21	26	22	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7240	7240	7240
5°	7257	7175	7219
10°	7202	7108	7108
15°	7117	6964	6907
20°	7007	6762	6681
25°	6879	6565	6420
30°	6718	6334	6131
35°	6556	6095	5807
40°	6403	5847	5490
45°	6218	5569	5142
50°	6031	5267	4782
55°	5816	4977	4396
60°	5599	4627	3981
65°	5344	4219	3506
70°	5053	3709	3021
75°	4649	3127	2515
80°	4095	2455	2109
85°	3453	2008	1882



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.4	2.5
10°-20°	294.6	7.1
20°-30°	427.2	10.2
30°-40°	486.9	11.7
40°-50°	474.6	11.4
50°-60°	399.5	9.6
60°-70°	280.0	6.7
70°-80°	143.9	3.4
80°-90°	37.4	0.9
90°-100°	18.1	0.4
100°-110°	111.4	2.7
110°-120°	202.1	4.8
120°-130°	259.4	6.2
130°-140°	279.0	6.7
140°-150°	261.9	6.3
150°-160°	211.8	5.1
160°-170°	137.0	3.3
170°-180°	47.3	1.1
0°-30°	827.2	19.8
0°-40°	1314.1	31.5
0°-60°	2188.2	52.4
0°-90°	2649.5	63.4
90°-120°	331.6	7.9
90°-150°	1131.8	27.1
90°-180°	1528.0	36.6
0°-180°	4177.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1119	1116	1107	1115	1114	106
15°	1064	1059	1042	1040	1033	300
25°	965	952	921	910	901	444
35°	832	810	773	749	737	520
45°	681	655	610	577	563	525
55°	516	488	442	405	390	462
65°	350	320	276	243	229	346
75°	186	160	125	107	101	197
85°	47	32	27	26	25	52
90°	0	3	6	8	9	3
95°	21	19	6	8	8	27
105°	108	110	110	110	110	115
115°	204	205	206	204	202	202
125°	290	292	292	291	290	259
135°	361	363	363	362	360	278
145°	419	419	419	420	418	262
155°	461	459	460	460	458	212
165°	486	484	485	487	484	137
175°	498	496	496	498	495	47
180°	498	498	498	498	498	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1
2.5°	1123.1	1122.7	1122.2	1121.8	1121.3	1120.3	1118.8	1117.3	1115.8	1114.3	1115.8
5°	1119.4	1118.7	1117.9	1117.1	1116.4	1115.0	1112.9	1110.8	1108.7	1106.7	1108.6
7.5°	1108.4	1107.7	1106.9	1106.2	1105.5	1103.9	1101.5	1098.9	1096.5	1094.0	1095.3
10°	1098.2	1097.6	1097.1	1096.5	1095.9	1094.4	1091.8	1089.1	1086.5	1083.9	1084.3
12.5°	1086.7	1086.0	1085.2	1084.6	1083.9	1081.7	1078.2	1074.6	1071.1	1067.6	1068.0
15°	1064.4	1063.2	1062.1	1060.9	1059.8	1057.3	1053.4	1049.4	1045.5	1041.5	1041.3
17.5°	1039.1	1037.4	1035.7	1034.0	1032.2	1028.8	1023.9	1018.9	1013.9	1008.9	1008.0
20°	1019.5	1017.6	1015.7	1013.8	1011.9	1008.0	1002.0	996.0	989.9	983.9	983.0
22.5°	997.8	995.9	994.0	992.1	990.3	986.2	979.8	973.5	967.2	960.9	959.0
25°	965.3	962.5	959.6	956.8	954.0	949.1	942.2	935.1	928.2	921.3	918.8
27.5°	928.1	924.6	921.2	917.8	914.4	908.9	901.5	894.0	886.6	879.1	875.6
30°	900.9	897.3	893.8	890.2	886.6	880.8	873.0	865.1	857.2	849.3	845.0
32.5°	874.5	870.3	866.2	862.0	857.8	851.7	843.7	835.6	827.5	819.5	814.7
35°	831.5	827.0	822.5	817.9	813.4	806.9	798.5	790.0	781.5	773.1	767.6
37.5°	789.3	783.8	778.4	772.8	767.4	760.3	751.5	742.7	734.0	725.3	718.8
40°	759.5	753.9	748.2	742.6	736.9	729.6	720.6	711.5	702.5	693.5	686.3
42.5°	728.4	722.6	716.8	710.9	705.2	697.7	688.3	679.0	669.6	660.3	653.5
45°	680.8	675.3	669.8	664.4	658.9	651.0	640.7	630.4	620.0	609.7	602.1
47.5°	631.5	625.7	620.0	614.2	608.5	600.4	590.0	579.5	569.1	558.6	550.9
50°	600.3	594.1	587.9	581.7	575.5	567.0	556.3	545.6	534.8	524.2	516.2
52.5°	566.5	560.1	553.8	547.4	541.0	532.8	522.7	512.6	502.4	492.3	483.8
55°	516.5	510.5	504.5	498.5	492.4	484.1	473.6	463.1	452.6	442.0	433.5
57.5°	466.0	459.6	453.1	446.7	440.3	432.0	421.8	411.6	401.5	391.3	383.1
60°	433.5	427.0	420.4	413.8	407.2	398.8	388.7	378.5	368.4	358.2	349.9
62.5°	399.0	392.7	386.5	380.1	373.8	365.6	355.2	345.0	334.6	324.3	316.7
65°	349.7	343.3	336.9	330.5	324.1	315.9	306.0	296.0	286.0	276.1	268.5
67.5°	300.8	294.3	288.0	281.6	275.2	267.2	257.6	248.1	238.6	228.9	222.1
70°	267.6	261.1	254.8	248.3	242.0	234.1	224.7	215.2	205.9	196.4	190.6
72.5°	235.1	228.8	222.6	216.3	210.1	202.5	193.7	184.9	176.1	167.3	161.9
75°	186.3	180.7	175.0	169.3	163.7	156.9	149.0	141.1	133.2	125.3	121.2
77.5°	137.9	133.3	128.8	124.3	119.8	114.4	108.0	101.7	95.4	89.1	86.2
80°	110.1	105.6	101.0	96.5	92.0	87.2	81.9	76.6	71.3	66.0	64.3
82.5°	83.0	78.9	74.8	70.8	66.7	62.9	59.3	55.7	52.0	48.4	47.6
85°	46.6	43.2	39.8	36.4	33.0	30.8	29.9	28.9	28.0	27.1	26.9
87.5°	15.7	14.8	13.8	12.9	12.0	11.5	11.4	11.4	11.4	11.3	11.4
90°	0.4	1.1	1.7	2.4	3.0	3.6	4.2	4.7	5.3	5.9	6.3
92.5°	5.7	5.2	4.7	4.3	3.8	3.8	4.4	4.9	5.4	5.9	6.3
95°	21.0	20.8	20.5	20.3	20.1	18.3	15.2	12.1	9.0	5.9	6.3
97.5°	43.9	44.4	44.8	45.2	45.7	42.8	36.6	30.5	24.3	18.2	15.8
100°	61.6	61.9	62.1	62.4	62.6	62.9	63.2	63.5	63.8	64.2	51.9
102.5°	79.6	79.9	80.2	80.6	80.9	81.1	81.3	81.4	81.7	81.9	79.6
105°	108.4	108.8	109.1	109.4	109.7	109.9	109.9	109.9	109.9	109.9	109.9
107.5°	138.4	138.4	138.4	138.4	138.4	138.4	138.6	138.8	138.9	139.1	139.2
110°	157.8	157.8	157.8	157.8	157.8	157.9	158.1	158.2	158.4	158.6	158.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	176.2	176.3	176.5	176.8	176.9	177.1	177.2	177.3	177.4	177.5	177.2
115°	203.6	204.0	204.4	204.8	205.2	205.5	205.5	205.6	205.7	205.8	205.5
117.5°	232.0	232.0	232.0	232.0	232.0	232.1	232.4	232.7	233.0	233.3	232.9
120°	249.7	249.6	249.6	249.5	249.4	249.5	249.7	250.0	250.2	250.5	250.3
122.5°	265.4	265.6	266.0	266.3	266.6	266.8	266.9	267.0	267.2	267.3	267.1
125°	289.5	290.1	290.7	291.2	291.8	292.1	292.1	292.1	292.1	292.1	291.8
127.5°	312.6	313.1	313.5	313.9	314.3	314.5	314.4	314.4	314.3	314.2	314.1
130°	326.8	327.2	327.6	328.0	328.4	328.6	328.7	328.8	328.9	329.0	328.7
132.5°	341.0	341.4	341.9	342.3	342.8	343.0	342.8	342.7	342.4	342.3	342.3
135°	361.1	361.6	362.1	362.6	363.1	363.2	363.1	362.9	362.7	362.6	362.4
137.5°	379.6	380.0	380.4	380.9	381.3	381.5	381.3	381.2	381.0	380.8	380.9
140°	391.7	391.8	392.0	392.2	392.3	392.4	392.3	392.2	392.2	392.1	392.2
142.5°	402.6	402.8	402.8	402.9	403.0	403.1	403.2	403.3	403.5	403.6	403.6
145°	418.7	418.8	419.0	419.1	419.3	419.4	419.4	419.4	419.4	419.4	419.5
147.5°	432.7	432.6	432.6	432.5	432.5	432.5	432.7	432.8	432.8	432.9	433.0
150°	441.5	441.3	441.2	441.0	440.8	440.8	441.0	441.2	441.3	441.5	441.6
152.5°	450.0	449.7	449.3	449.0	448.6	448.5	448.7	448.8	449.0	449.1	449.3
155°	461.1	460.6	460.1	459.6	459.1	458.9	459.1	459.3	459.4	459.6	459.8
157.5°	469.5	469.2	469.0	468.6	468.3	468.2	468.2	468.2	468.2	468.3	468.6
160°	475.4	474.9	474.4	473.9	473.4	473.3	473.4	473.4	473.5	473.6	473.9
162.5°	480.1	479.6	479.2	478.7	478.2	478.0	478.1	478.2	478.3	478.3	478.7
165°	486.5	486.0	485.5	485.0	484.5	484.3	484.4	484.5	484.5	484.6	485.1
167.5°	491.2	490.7	490.2	489.7	489.2	488.9	489.0	489.1	489.2	489.3	489.9
170°	493.9	493.3	492.7	492.1	491.5	491.3	491.4	491.5	491.5	491.6	492.3
172.5°	495.6	495.0	494.5	493.9	493.3	493.2	493.3	493.4	493.6	493.7	494.3
175°	497.6	497.1	496.6	496.1	495.6	495.4	495.5	495.5	495.6	495.7	496.4
177.5°	498.5	498.1	497.7	497.3	496.8	496.7	496.8	496.8	496.9	497.0	497.4
180°	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1
2.5°	1117.3	1118.8	1120.3	1121.0	1120.9	1120.7	1120.5	1120.4
5°	1110.4	1112.3	1114.2	1115.0	1114.6	1114.2	1113.9	1113.5
7.5°	1096.7	1098.0	1099.3	1099.7	1099.3	1098.9	1098.5	1098.0
10°	1084.9	1085.5	1086.1	1086.1	1085.5	1084.9	1084.3	1083.9
12.5°	1068.4	1068.8	1069.2	1069.0	1068.1	1067.2	1066.4	1065.5
15°	1041.1	1040.9	1040.7	1039.8	1038.1	1036.4	1034.7	1033.0
17.5°	1007.1	1006.2	1005.2	1004.0	1002.7	1001.3	999.9	998.5
20°	982.0	981.0	980.2	978.8	977.1	975.4	973.7	972.1
22.5°	957.2	955.4	953.5	951.9	950.5	949.1	947.7	946.3
25°	916.4	914.0	911.5	909.2	907.1	905.1	903.0	900.9
27.5°	872.2	868.8	865.4	862.7	860.7	858.7	856.7	854.7
30°	840.7	836.3	831.9	829.0	827.3	825.6	823.9	822.1
32.5°	809.9	805.1	800.4	796.9	794.8	792.6	790.4	788.3
35°	762.1	756.7	751.2	747.2	744.5	741.9	739.3	736.6
37.5°	712.2	705.6	699.1	694.6	692.0	689.4	686.9	684.4
40°	679.1	672.1	664.9	660.1	657.9	655.7	653.4	651.2
42.5°	646.6	639.8	632.9	627.8	624.5	621.2	617.8	614.6
45°	594.6	587.1	579.5	574.4	571.5	568.8	565.9	563.0
47.5°	543.2	535.4	527.7	522.2	519.1	516.0	512.8	509.7
50°	508.3	500.4	492.5	487.1	484.4	481.5	478.7	475.9
52.5°	475.3	466.8	458.3	452.6	449.8	446.9	444.2	441.3
55°	425.1	416.6	408.1	402.4	399.4	396.4	393.4	390.4
57.5°	374.8	366.6	358.2	352.8	350.1	347.4	344.8	342.1
60°	341.6	333.3	325.1	319.5	316.7	313.9	311.0	308.2
62.5°	308.9	301.3	293.6	288.4	285.5	282.7	279.9	277.0
65°	261.0	253.5	245.9	240.8	237.9	235.1	232.3	229.4
67.5°	215.2	208.3	201.4	196.8	194.6	192.3	190.0	187.8
70°	184.7	179.0	173.1	169.1	166.8	164.5	162.3	160.0
72.5°	156.5	151.2	145.8	142.4	140.8	139.3	137.9	136.3
75°	117.1	112.9	108.8	106.1	104.7	103.4	102.1	100.8
77.5°	83.2	80.4	77.5	75.6	74.6	73.6	72.6	71.7
80°	62.7	61.0	59.3	58.2	57.9	57.5	57.1	56.7
82.5°	46.9	46.1	45.2	44.8	44.5	44.4	44.1	43.9
85°	26.7	26.5	26.3	26.2	25.9	25.8	25.6	25.4
87.5°	11.5	11.6	11.7	11.7	11.6	11.5	11.3	11.3
90°	6.7	7.1	7.5	7.9	8.2	8.4	8.6	8.9
92.5°	6.7	7.1	7.5	7.8	7.9	8.1	8.2	8.2
95°	6.7	7.1	7.5	7.7	7.7	7.7	7.7	7.7
97.5°	13.5	11.3	8.9	7.7	7.7	7.7	7.7	7.7
100°	39.8	27.6	15.3	9.0	8.7	8.4	8.1	7.7
102.5°	77.3	74.9	72.6	68.7	63.1	57.6	51.9	46.4
105°	109.9	109.9	109.9	109.9	109.8	109.7	109.7	109.6
107.5°	139.2	139.2	139.2	139.1	138.8	138.6	138.4	138.1
110°	158.1	157.8	157.6	157.5	157.6	157.7	157.8	157.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	176.8	176.5	176.3	176.0	175.9	175.8	175.7	175.5
115°	205.1	204.8	204.5	204.1	203.6	203.1	202.6	202.1
117.5°	232.4	232.0	231.6	231.3	231.1	230.9	230.6	230.5
120°	250.1	250.0	249.8	249.5	249.1	248.7	248.3	247.9
122.5°	266.9	266.8	266.6	266.3	265.8	265.3	264.9	264.4
125°	291.5	291.1	290.8	290.5	290.2	290.0	289.8	289.5
127.5°	313.9	313.7	313.6	313.2	312.5	311.9	311.3	310.7
130°	328.5	328.2	328.0	327.7	327.3	326.9	326.4	326.0
132.5°	342.2	342.1	342.1	341.9	341.4	341.0	340.6	340.2
135°	362.2	362.1	361.9	361.6	361.1	360.6	360.1	359.6
137.5°	380.9	381.0	381.0	380.8	380.3	379.9	379.5	379.1
140°	392.4	392.6	392.7	392.6	392.1	391.6	391.1	390.6
142.5°	403.7	403.7	403.7	403.5	403.0	402.5	402.0	401.5
145°	419.6	419.6	419.7	419.5	419.0	418.5	418.0	417.5
147.5°	433.2	433.3	433.3	433.1	432.5	431.9	431.3	430.7
150°	441.8	442.0	442.1	441.9	441.2	440.6	439.9	439.3
152.5°	449.5	449.6	449.8	449.6	449.0	448.4	447.8	447.3
155°	460.1	460.3	460.6	460.3	459.7	459.0	458.4	457.7
157.5°	468.8	469.0	469.3	469.1	468.5	467.8	467.2	466.5
160°	474.3	474.6	474.9	474.7	474.1	473.4	472.8	472.1
162.5°	479.2	479.7	480.1	480.0	479.3	478.6	477.8	477.1
165°	485.7	486.2	486.7	486.6	485.9	485.2	484.5	483.9
167.5°	490.5	491.1	491.6	491.6	490.8	490.1	489.3	488.6
170°	492.9	493.7	494.3	494.2	493.5	492.8	492.0	491.3
172.5°	494.9	495.5	496.1	496.0	495.3	494.6	493.8	493.1
175°	497.0	497.7	498.3	498.3	497.6	496.8	496.1	495.4
177.5°	497.9	498.3	498.8	498.8	498.2	497.7	497.2	496.7
180°	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6

(END OF REPORT)