

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: P333062-927

Luminaire Tested: **S124RDIW-S795D770U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333062-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDIW-S795D770U927-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4654.0 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

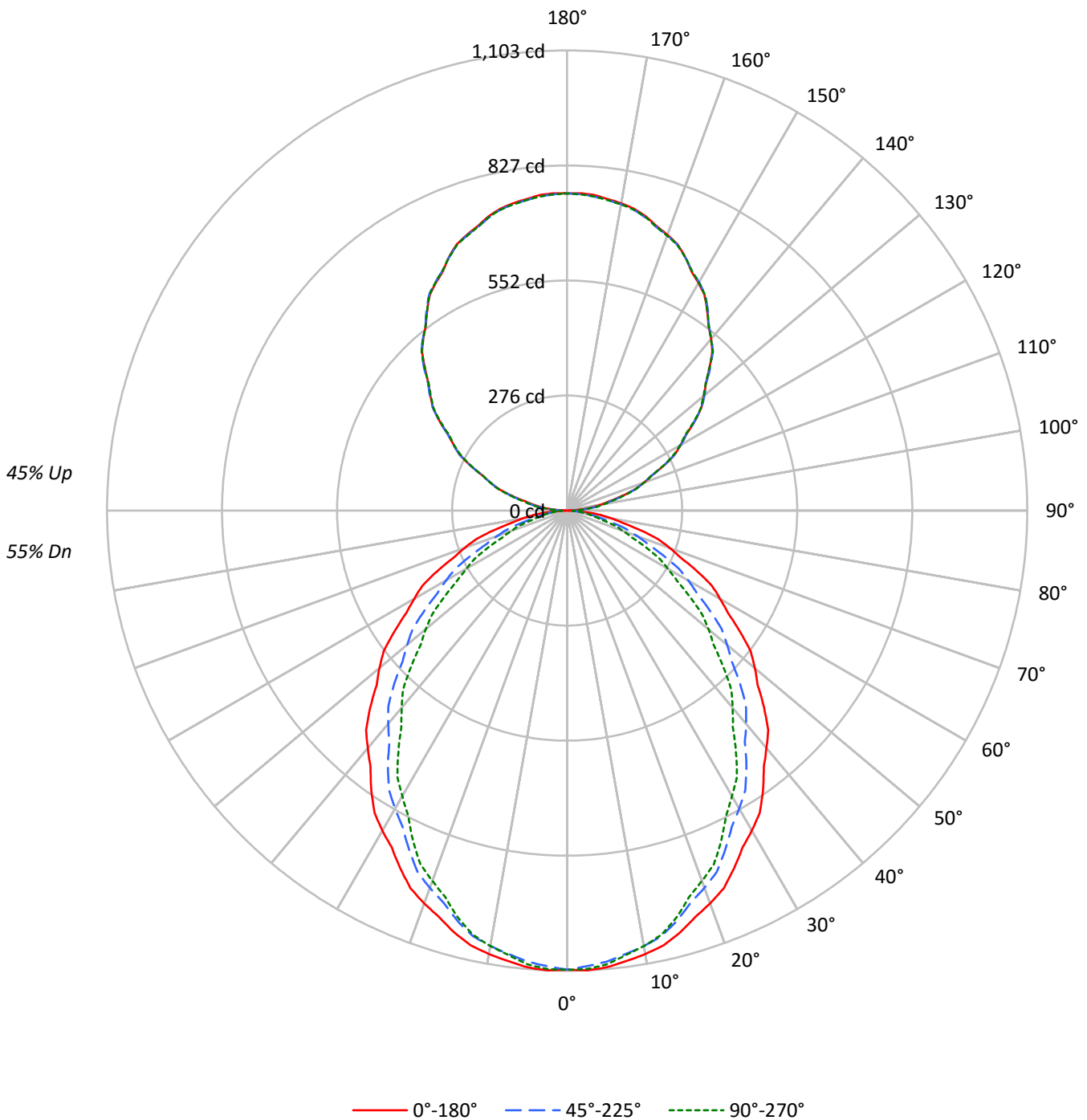
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55
1	99	95	91	88	92	88	85	82	76	73	71	64	63	61	54	53	52	47
2	90	83	77	72	84	77	72	68	67	63	59	57	54	51	48	46	44	40
3	83	73	66	60	77	68	62	57	59	54	50	51	47	44	43	40	38	34
4	76	65	57	51	70	61	54	49	53	47	43	45	41	38	38	35	33	29
5	70	58	50	44	65	54	47	42	47	42	37	41	36	33	35	31	29	26
6	64	52	44	38	60	49	42	37	43	37	33	37	32	29	31	28	25	23
7	60	47	39	34	55	44	37	32	39	33	29	34	29	26	29	25	23	20
8	55	43	35	30	51	40	33	29	35	30	26	31	26	23	26	23	20	18
9	52	39	32	27	48	37	30	26	33	27	23	28	24	21	24	21	18	16
10	48	36	29	24	45	34	28	23	30	25	21	26	22	19	23	19	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8884	8884	8884
5°	8904	8795	8849
10°	8848	8689	8689
15°	8747	8507	8444
20°	8607	8267	8115
25°	8429	7986	7783
30°	8255	7690	7368
35°	8064	7383	6951
40°	7832	7032	6500
45°	7618	6687	6042
50°	7376	6286	5556
55°	7116	5871	5029
60°	6830	5414	4490
65°	6567	4846	3960
70°	6187	4216	3361
75°	5702	3497	2732
80°	4974	2664	2506
85°	4215	2418	2260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.4	2.2
10°-20°	288.3	6.2
20°-30°	416.3	8.9
30°-40°	471.8	10.1
40°-50°	455.6	9.8
50°-60°	378.9	8.1
60°-70°	261.6	5.6
70°-80°	132.6	2.8
80°-90°	36.3	0.8
90°-100°	50.1	1.1
100°-110°	148.5	3.2
110°-120°	252.1	5.4
120°-130°	332.4	7.1
130°-140°	373.3	8.0
140°-150°	366.9	7.9
150°-160°	308.6	6.6
160°-170°	205.3	4.4
170°-180°	71.9	1.5
0°-30°	807.9	17.4
0°-40°	1279.7	27.5
0°-60°	2114.3	45.4
0°-90°	2544.8	54.7
90°-120°	450.8	9.7
90°-150°	1523.4	32.7
90°-180°	2109.0	45.3
0°-180°	4654.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1099	1095	1085	1093	1092	104
15°	1047	1038	1018	1016	1010	295
25°	946	930	896	883	874	436
35°	818	790	749	721	705	511
45°	667	635	586	546	529	514
55°	506	471	417	375	357	452
65°	344	307	254	219	207	339
75°	183	151	112	93	88	193
85°	46	29	26	24	24	51
90°	2	8	13	16	18	4
95°	35	40	45	46	46	39
105°	137	138	140	142	144	145
115°	256	256	255	255	254	253
125°	373	373	373	372	370	333
135°	482	485	485	484	482	372
145°	585	587	588	587	586	366
155°	670	670	670	672	670	308
165°	730	728	727	730	728	206
175°	759	756	756	759	756	72
180°	760	760	760	760	760	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5
2.5°	1103.2	1102.6	1101.9	1101.4	1100.7	1099.6	1098.0	1096.4	1094.7	1093.1	1094.7
5°	1098.8	1098.0	1097.3	1096.5	1095.7	1094.3	1092.0	1089.8	1087.5	1085.3	1087.2
7.5°	1088.9	1088.1	1087.3	1086.5	1085.7	1083.9	1080.9	1078.0	1075.1	1072.1	1073.3
10°	1079.4	1078.5	1077.5	1076.6	1075.6	1073.5	1070.2	1066.8	1063.4	1060.0	1060.7
12.5°	1067.2	1066.2	1065.1	1064.0	1063.0	1060.4	1056.5	1052.4	1048.5	1044.5	1045.0
15°	1046.6	1044.9	1043.1	1041.5	1039.8	1036.6	1031.9	1027.2	1022.5	1017.9	1017.5
17.5°	1021.4	1019.0	1016.5	1014.2	1011.7	1007.7	1002.0	996.4	990.8	985.2	984.1
20°	1001.9	999.4	997.0	994.6	992.1	987.8	981.4	975.0	968.6	962.3	960.8
22.5°	980.3	977.6	974.9	972.1	969.4	964.6	957.7	950.9	944.1	937.3	935.1
25°	946.3	942.9	939.5	936.1	932.8	927.2	919.6	911.9	904.2	896.5	893.3
27.5°	910.5	906.3	902.1	897.9	893.6	887.4	879.2	871.0	862.8	854.6	850.6
30°	885.6	880.9	876.2	871.6	866.9	860.2	851.4	842.6	833.7	824.9	820.2
32.5°	859.3	854.1	848.7	843.4	838.2	831.0	821.9	812.8	803.7	794.6	789.2
35°	818.2	812.2	806.2	800.2	794.2	786.6	777.2	767.8	758.4	749.1	742.8
37.5°	774.2	768.0	761.8	755.7	749.5	741.2	730.9	720.5	710.1	699.7	692.6
40°	743.2	737.0	730.9	724.7	718.5	710.0	699.3	688.7	678.0	667.3	659.5
42.5°	713.5	707.0	700.6	694.1	687.6	678.8	667.7	656.6	645.5	634.3	626.3
45°	667.3	660.4	653.5	646.6	639.6	630.6	619.3	608.1	596.8	585.7	576.5
47.5°	619.6	612.5	605.4	598.2	591.0	581.6	570.0	558.3	546.6	534.9	525.4
50°	587.3	580.0	572.7	565.4	558.1	548.4	536.5	524.5	512.5	500.5	491.2
52.5°	554.3	547.2	540.0	532.8	525.7	515.9	503.7	491.4	479.1	466.8	457.3
55°	505.6	498.0	490.6	483.1	475.6	465.8	453.6	441.4	429.3	417.1	407.3
57.5°	457.4	449.6	441.8	434.0	426.2	416.3	404.3	392.4	380.4	368.4	358.5
60°	423.0	415.5	408.1	400.5	393.0	383.3	371.3	359.3	347.4	335.3	325.6
62.5°	392.0	384.2	376.4	368.6	360.8	350.8	338.5	326.2	313.9	301.7	292.6
65°	343.8	335.7	327.6	319.6	311.6	301.6	289.5	277.6	265.6	253.7	245.6
67.5°	293.7	286.1	278.3	270.6	262.8	253.5	242.3	231.2	220.1	209.0	202.0
70°	262.1	254.2	246.3	238.4	230.6	221.3	210.6	199.9	189.3	178.6	172.5
72.5°	228.4	221.3	214.1	207.0	199.9	191.3	181.3	171.1	161.1	151.0	145.7
75°	182.8	175.9	169.0	162.1	155.1	147.3	138.5	129.7	120.9	112.1	107.7
77.5°	136.7	130.8	124.9	119.1	113.1	106.6	99.6	92.4	85.3	78.2	75.7
80°	107.0	101.6	96.2	90.7	85.3	79.8	74.1	68.5	62.9	57.3	56.7
82.5°	81.4	76.4	71.5	66.5	61.5	57.4	54.2	50.9	47.7	44.5	44.0
85°	45.5	41.7	38.0	34.3	30.5	28.4	27.8	27.3	26.7	26.1	25.7
87.5°	15.8	15.0	14.0	13.2	12.2	11.8	11.9	11.9	12.0	12.0	12.0
90°	1.7	3.2	4.7	6.1	7.5	8.8	9.8	10.9	11.9	12.9	13.7
92.5°	12.6	14.3	15.8	17.5	19.2	20.4	21.1	21.8	22.6	23.3	23.8
95°	35.3	36.4	37.6	38.8	40.0	41.0	41.9	42.9	43.8	44.7	45.1
97.5°	61.6	62.6	63.5	64.4	65.4	66.4	67.5	68.5	69.6	70.7	71.1
100°	82.3	82.9	83.3	83.9	84.4	85.2	86.4	87.6	88.8	90.0	90.2
102.5°	103.9	104.2	104.3	104.6	104.8	105.4	106.5	107.6	108.6	109.7	110.1
105°	137.0	137.1	137.3	137.4	137.5	137.8	138.4	138.9	139.4	139.9	140.3
107.5°	171.7	171.8	172.0	172.1	172.3	172.5	172.5	172.6	172.7	172.8	173.1
110°	195.2	195.4	195.7	196.0	196.2	196.3	196.1	196.1	195.9	195.7	195.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	219.7	219.7	219.8	219.8	219.8	219.8	219.5	219.3	219.0	218.8	218.8
115°	256.4	256.4	256.4	256.4	256.4	256.2	256.0	255.7	255.4	255.2	255.0
117.5°	290.9	291.0	291.1	291.2	291.4	291.3	291.1	291.0	290.7	290.6	290.1
120°	313.9	314.5	315.0	315.5	316.1	316.1	315.8	315.4	315.0	314.6	313.9
122.5°	337.9	338.2	338.3	338.6	338.8	338.8	338.7	338.4	338.3	338.1	337.6
125°	373.4	373.4	373.4	373.4	373.4	373.3	373.1	373.0	372.9	372.7	372.5
127.5°	405.4	405.8	406.2	406.6	407.0	407.1	406.9	406.7	406.5	406.3	406.0
130°	428.0	428.4	428.8	429.2	429.6	429.8	429.8	429.8	429.8	429.8	429.5
132.5°	451.1	451.4	451.6	451.9	452.3	452.3	452.2	452.1	452.0	451.9	451.6
135°	481.6	482.3	483.1	483.9	484.7	485.1	485.1	485.1	485.1	485.1	484.8
137.5°	514.7	515.1	515.4	515.8	516.2	516.4	516.7	516.8	517.1	517.3	516.9
140°	536.8	537.0	537.3	537.6	537.8	538.0	538.0	538.0	538.0	538.0	537.8
142.5°	557.0	557.3	557.5	557.8	558.1	558.2	558.0	557.9	557.9	557.7	557.7
145°	585.0	585.5	586.1	586.6	587.1	587.4	587.6	587.7	587.8	588.0	587.8
147.5°	612.8	613.4	614.0	614.7	615.3	615.5	615.4	615.3	615.2	615.1	615.0
150°	629.7	630.2	630.7	631.3	631.8	632.1	632.1	632.1	632.1	632.1	632.1
152.5°	645.7	646.0	646.3	646.7	647.0	647.1	647.2	647.4	647.5	647.5	647.8
155°	670.3	670.3	670.3	670.3	670.3	670.2	670.0	669.9	669.8	669.7	670.2
157.5°	690.9	690.7	690.5	690.2	690.0	689.9	689.8	689.8	689.8	689.8	690.1
160°	703.2	703.1	702.9	702.8	702.7	702.5	702.4	702.3	702.1	702.0	702.4
162.5°	714.5	714.2	713.8	713.4	713.1	712.9	712.7	712.6	712.5	712.3	713.0
165°	729.7	729.3	728.9	728.5	728.1	727.8	727.5	727.2	727.0	726.7	727.5
167.5°	741.2	740.8	740.2	739.7	739.1	738.8	738.9	738.9	738.9	738.9	739.7
170°	747.9	747.2	746.6	745.9	745.3	745.0	745.1	745.3	745.4	745.5	746.3
172.5°	752.6	752.0	751.5	750.9	750.4	750.1	750.1	750.2	750.2	750.2	751.1
175°	759.1	758.4	757.7	757.1	756.5	756.1	755.9	755.7	755.7	755.5	756.5
177.5°	761.1	760.7	760.1	759.6	759.1	758.8	758.8	758.8	758.8	758.8	759.5
180°	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5
2.5°	1096.4	1098.0	1099.6	1100.4	1100.3	1100.1	1099.9	1099.8
5°	1089.0	1090.9	1092.8	1093.5	1093.1	1092.8	1092.4	1092.0
7.5°	1074.5	1075.8	1077.0	1077.2	1076.7	1076.0	1075.5	1074.8
10°	1061.5	1062.2	1063.0	1063.0	1062.2	1061.5	1060.7	1060.0
12.5°	1045.4	1045.8	1046.3	1046.0	1045.0	1043.9	1042.8	1041.8
15°	1017.2	1016.8	1016.4	1015.6	1014.2	1012.9	1011.6	1010.3
17.5°	983.1	982.1	981.0	979.5	977.5	975.5	973.5	971.5
20°	959.3	957.7	956.2	954.3	951.9	949.4	947.0	944.6
22.5°	932.9	930.6	928.4	926.2	924.2	922.3	920.3	918.3
25°	890.2	887.0	883.8	881.3	879.4	877.6	875.7	873.8
27.5°	846.7	842.8	838.8	835.5	832.8	830.1	827.4	824.7
30°	815.6	810.9	806.2	802.3	799.4	796.4	793.4	790.4
32.5°	783.7	778.3	772.9	768.7	765.9	763.0	760.2	757.3
35°	736.3	730.0	723.7	718.7	715.4	712.0	708.6	705.3
37.5°	685.5	678.3	671.2	666.0	662.7	659.3	655.9	652.5
40°	651.6	643.7	635.9	630.3	626.9	623.5	620.2	616.8
42.5°	618.3	610.3	602.3	596.5	592.9	589.5	586.0	582.4
45°	567.3	558.1	548.9	542.6	539.2	535.9	532.5	529.2
47.5°	515.9	506.4	496.9	490.2	486.6	482.8	479.1	475.4
50°	481.8	472.5	463.0	456.6	453.0	449.5	445.9	442.4
52.5°	447.8	438.3	428.7	422.2	418.4	414.7	411.1	407.3
55°	397.6	387.9	378.2	371.5	368.0	364.4	360.8	357.3
57.5°	348.6	338.7	328.8	322.6	319.9	317.2	314.5	311.8
60°	315.9	306.2	296.4	290.0	287.1	284.1	281.1	278.1
62.5°	283.7	274.7	265.7	260.0	257.6	255.2	252.8	250.4
65°	237.5	229.5	221.4	216.3	214.0	211.8	209.5	207.3
67.5°	195.1	188.2	181.3	176.6	174.1	171.6	169.1	166.7
70°	166.3	160.1	153.9	149.9	148.1	146.2	144.3	142.4
72.5°	140.5	135.1	129.8	126.4	124.7	122.9	121.2	119.5
75°	103.5	99.2	94.8	92.1	91.0	89.9	88.7	87.6
77.5°	73.2	70.7	68.1	66.7	66.4	66.1	65.8	65.4
80°	56.2	55.6	55.1	54.7	54.5	54.3	54.1	53.9
82.5°	43.6	43.3	42.9	42.5	42.4	42.1	42.0	41.8
85°	25.3	25.0	24.6	24.4	24.4	24.4	24.4	24.4
87.5°	12.0	12.0	12.0	12.1	12.4	12.6	12.8	13.0
90°	14.5	15.3	16.1	16.6	16.9	17.1	17.3	17.7
92.5°	24.2	24.7	25.2	25.5	25.7	25.8	26.0	26.1
95°	45.5	45.9	46.3	46.4	46.4	46.4	46.4	46.4
97.5°	71.6	72.1	72.6	72.8	72.8	72.8	72.8	72.8
100°	90.5	90.7	91.0	91.1	91.1	91.1	91.1	91.1
102.5°	110.4	110.8	111.1	111.4	111.5	111.6	111.7	111.9
105°	140.7	141.1	141.5	141.9	142.3	142.7	143.1	143.5
107.5°	173.5	173.8	174.2	174.4	174.4	174.4	174.3	174.3
110°	195.3	195.0	194.7	194.8	195.2	195.6	196.0	196.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	218.7	218.6	218.6	218.6	218.7	218.8	218.9	219.0
115°	254.9	254.8	254.6	254.5	254.4	254.3	254.1	254.0
117.5°	289.7	289.2	288.8	288.4	288.2	287.9	287.6	287.4
120°	313.2	312.6	312.0	311.7	312.0	312.3	312.5	312.8
122.5°	337.2	336.8	336.3	335.8	335.3	334.9	334.5	334.0
125°	372.2	372.0	371.7	371.5	371.2	370.9	370.7	370.4
127.5°	405.8	405.5	405.2	405.0	404.8	404.6	404.3	404.2
130°	429.3	429.0	428.7	428.3	427.9	427.3	426.7	426.3
132.5°	451.4	451.1	450.8	450.6	450.4	450.2	450.0	449.8
135°	484.5	484.3	484.0	483.7	483.3	482.9	482.5	482.1
137.5°	516.6	516.3	515.9	515.8	515.9	515.9	516.0	516.1
140°	537.7	537.6	537.4	537.3	537.2	537.0	536.9	536.8
142.5°	557.7	557.6	557.6	557.6	557.5	557.5	557.5	557.5
145°	587.7	587.6	587.4	587.2	586.8	586.4	586.0	585.6
147.5°	614.9	614.8	614.7	614.6	614.4	614.3	614.2	614.0
150°	632.1	632.1	632.1	632.0	631.8	631.7	631.6	631.4
152.5°	648.2	648.5	648.8	648.8	648.5	648.2	647.8	647.5
155°	670.7	671.2	671.8	671.8	671.2	670.7	670.2	669.7
157.5°	690.5	690.9	691.3	691.3	690.9	690.5	690.0	689.5
160°	702.8	703.2	703.6	703.5	702.8	702.1	701.5	700.8
162.5°	713.8	714.5	715.2	715.2	714.5	713.9	713.3	712.6
165°	728.3	729.0	729.8	730.0	729.4	728.9	728.4	727.9
167.5°	740.5	741.2	742.0	742.0	741.2	740.5	739.7	738.8
170°	747.1	747.9	748.7	748.6	747.7	746.8	745.8	745.0
172.5°	752.0	752.9	753.8	753.8	752.8	751.9	751.0	750.1
175°	757.3	758.3	759.1	759.1	758.3	757.3	756.5	755.5
177.5°	760.3	761.0	761.8	761.7	760.8	760.0	759.1	758.4
180°	760.2	760.2	760.2	760.2	760.2	760.2	760.2	760.2

(END OF REPORT)