

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: P333560-930

Luminaire Tested: **S125RDIP-S850D590U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333560-930
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: S125RDIP-S850D590U930-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4317.5 lumens
Efficiency: N/A
Efficacy: 107.1 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

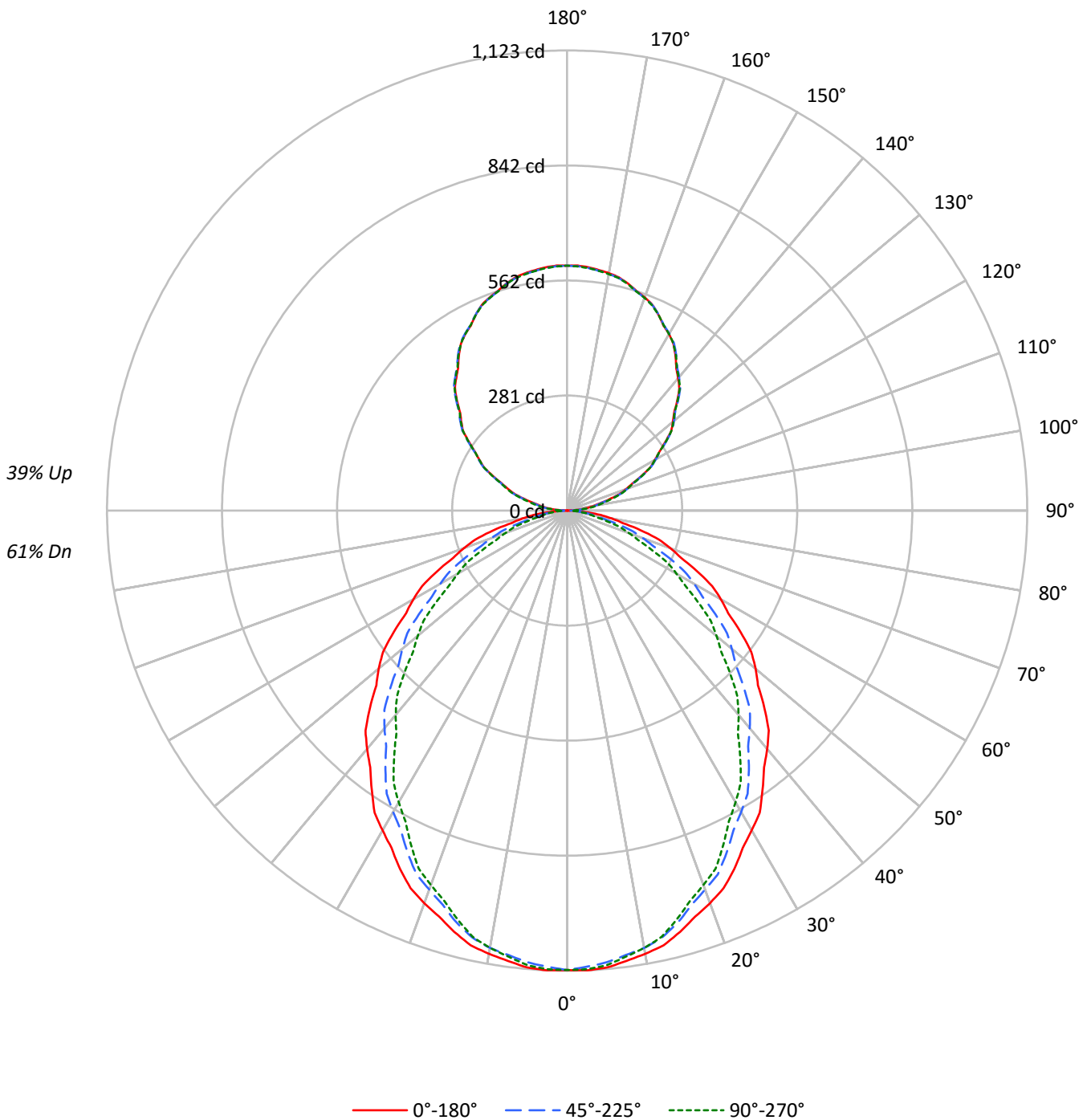
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333560-930

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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	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	101	96	92	89	94	90	87	84	79	77	74	69	67	65	59	58	57	52
2	92	84	78	73	86	79	74	69	70	66	62	61	58	55	52	50	48	44
3	84	74	67	61	78	70	63	58	62	57	52	54	50	47	47	44	41	38
4	77	66	58	52	72	62	55	50	55	49	45	48	44	40	42	39	36	33
5	71	59	51	45	66	56	48	43	49	43	39	43	39	35	38	34	31	28
6	65	53	45	39	61	50	43	37	45	39	34	39	35	31	34	31	28	25
7	60	48	40	34	57	45	38	33	41	35	30	36	31	27	32	28	25	22
8	56	44	36	31	53	41	34	29	37	31	27	33	28	25	29	25	22	20
9	52	40	33	27	49	38	31	26	34	28	24	30	26	22	27	23	20	18
10	49	37	30	25	46	35	28	24	31	26	22	28	23	20	25	21	18	16

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	2.4
10°-20°	294.6	6.8
20°-30°	427.2	9.9
30°-40°	486.9	11.3
40°-50°	474.6	11.0
50°-60°	399.5	9.3
60°-70°	280.0	6.5
70°-80°	143.9	3.3
80°-90°	37.7	0.9
90°-100°	40.0	0.9
100°-110°	118.2	2.7
110°-120°	200.2	4.6
120°-130°	263.5	6.1
130°-140°	295.3	6.8
140°-150°	289.4	6.7
150°-160°	243.0	5.6
160°-170°	161.6	3.7
170°-180°	56.5	1.3
0°-30°	827.2	19.2
0°-40°	1314.1	30.4
0°-60°	2188.2	50.7
0°-90°	2649.8	61.4
90°-120°	358.5	8.3
90°-150°	1206.6	27.9
90°-180°	1668.0	38.6
0°-180°	4317.5	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	4	7	10	11	4
95°	30	31	36	39	40	32
105°	106	108	111	114	115	113
115°	200	202	203	203	202	198
125°	292	295	296	295	294	262
135°	380	383	384	384	382	293
145°	461	463	464	464	463	288
155°	527	527	528	530	527	243
165°	574	573	573	575	572	162
175°	596	594	594	597	594	57
180°	598	598	598	598	598	



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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	13.9	13.0	12.1	11.7	11.7	11.7	11.7	11.7	11.7
90°	0.5	1.3	2.1	2.9	3.8	4.6	5.3	6.0	6.7	7.4	8.0
92.5°	11.3	11.8	12.4	13.0	13.5	14.3	15.2	16.1	17.0	17.9	18.5
95°	30.2	30.4	30.7	30.8	31.1	31.7	32.7	33.8	34.8	35.8	36.5
97.5°	50.2	50.3	50.4	50.5	50.5	51.3	52.7	54.1	55.6	57.0	57.7
100°	65.1	65.1	65.1	65.1	65.1	65.8	67.1	68.5	69.8	71.2	72.1
102.5°	81.1	81.5	81.9	82.3	82.8	83.3	84.0	84.7	85.4	86.0	87.1
105°	106.1	106.6	107.0	107.6	108.1	108.7	109.3	109.9	110.6	111.1	111.8
107.5°	133.5	134.1	134.6	135.1	135.7	136.2	136.6	137.1	137.5	138.0	138.4
110°	152.5	153.0	153.6	154.1	154.7	155.1	155.3	155.6	156.0	156.3	156.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	171.9	172.2	172.4	172.7	173.0	173.3	173.7	174.1	174.5	174.9	175.0
115°	200.5	200.9	201.3	201.7	202.1	202.4	202.6	202.8	203.0	203.3	203.2
117.5°	229.1	229.3	229.5	229.7	229.8	230.1	230.2	230.4	230.6	230.8	230.9
120°	247.0	247.5	248.0	248.5	249.1	249.3	249.5	249.6	249.6	249.7	249.7
122.5°	266.4	266.5	266.7	266.8	267.1	267.3	267.6	267.8	268.1	268.4	268.3
125°	292.5	293.2	293.8	294.4	295.1	295.4	295.5	295.6	295.7	295.8	295.6
127.5°	320.5	320.8	321.1	321.5	321.9	322.1	322.2	322.4	322.5	322.6	322.5
130°	337.2	337.7	338.3	338.8	339.2	339.7	339.8	340.1	340.2	340.5	340.4
132.5°	353.9	354.8	355.6	356.4	357.3	357.8	357.7	357.7	357.6	357.6	357.5
135°	380.4	381.1	381.7	382.3	382.9	383.3	383.4	383.5	383.6	383.7	383.7
137.5°	405.4	406.0	406.6	407.2	407.8	408.2	408.5	408.6	408.9	409.1	409.2
140°	421.3	421.9	422.4	422.9	423.5	423.9	424.2	424.5	424.8	425.1	425.3
142.5°	437.4	437.8	438.2	438.7	439.1	439.5	439.9	440.3	440.8	441.1	441.2
145°	460.9	461.3	461.8	462.2	462.6	462.9	463.3	463.6	463.9	464.1	464.1
147.5°	482.7	482.9	483.1	483.4	483.6	483.8	484.0	484.4	484.6	484.9	485.1
150°	497.2	497.1	497.0	496.9	496.8	496.9	497.3	497.7	498.1	498.6	498.6
152.5°	509.1	509.2	509.4	509.6	509.6	509.8	510.0	510.1	510.3	510.5	510.8
155°	527.4	527.4	527.4	527.4	527.4	527.5	527.6	527.7	527.8	527.9	528.3
157.5°	543.8	543.6	543.3	543.2	542.9	542.8	542.9	543.1	543.2	543.2	543.6
160°	553.5	553.2	552.9	552.5	552.2	552.1	552.2	552.4	552.4	552.5	552.9
162.5°	562.1	561.8	561.6	561.3	561.1	561.0	561.0	561.1	561.1	561.1	561.6
165°	573.5	573.2	573.1	572.8	572.7	572.6	572.7	572.8	572.9	573.0	573.4
167.5°	583.2	582.8	582.3	581.9	581.5	581.3	581.3	581.3	581.3	581.3	581.9
170°	588.3	587.9	587.5	587.1	586.7	586.5	586.5	586.5	586.5	586.5	587.1
172.5°	592.1	591.7	591.3	590.8	590.4	590.2	590.2	590.2	590.2	590.2	590.8
175°	596.2	595.8	595.4	595.0	594.6	594.4	594.4	594.4	594.4	594.4	595.0
177.5°	598.4	598.1	597.8	597.5	597.0	596.9	596.8	596.7	596.6	596.6	597.0
180°	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7



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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°	11.8	12.0	12.1	12.1	12.0	11.9	11.8	11.7
90°	8.5	9.0	9.5	9.9	10.3	10.5	10.8	11.2
92.5°	19.2	19.9	20.6	21.0	21.3	21.5	21.7	21.9
95°	37.3	38.0	38.7	39.1	39.4	39.6	39.8	40.0
97.5°	58.4	59.1	59.8	60.2	60.3	60.4	60.5	60.7
100°	73.1	73.9	74.8	75.4	75.7	75.9	76.1	76.3
102.5°	88.1	89.1	90.1	90.7	91.1	91.3	91.6	91.9
105°	112.4	113.0	113.7	114.1	114.4	114.7	115.0	115.4
107.5°	138.7	139.0	139.3	139.4	139.4	139.4	139.3	139.3
110°	156.9	157.2	157.5	157.6	157.5	157.4	157.3	157.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	175.2	175.3	175.5	175.5	175.3	175.0	174.9	174.7
115°	203.0	202.9	202.8	202.8	202.6	202.5	202.4	202.4
117.5°	231.0	231.1	231.1	231.0	230.6	230.2	229.8	229.3
120°	249.7	249.7	249.7	249.6	249.2	248.7	248.3	247.9
122.5°	268.2	268.2	268.1	267.8	267.5	267.2	266.8	266.5
125°	295.4	295.2	295.0	294.8	294.7	294.6	294.5	294.4
127.5°	322.4	322.3	322.2	322.0	321.8	321.6	321.4	321.2
130°	340.2	340.1	340.1	339.9	339.7	339.5	339.2	339.1
132.5°	357.3	357.3	357.2	356.9	356.7	356.4	356.1	355.8
135°	383.7	383.7	383.7	383.5	383.1	382.7	382.3	381.9
137.5°	409.4	409.4	409.6	409.4	408.9	408.4	407.9	407.3
140°	425.5	425.7	425.9	425.7	425.3	424.8	424.2	423.7
142.5°	441.3	441.5	441.6	441.4	440.9	440.3	439.9	439.4
145°	464.1	464.1	464.1	464.0	463.7	463.4	463.1	462.8
147.5°	485.3	485.6	485.8	485.6	484.9	484.2	483.5	482.8
150°	498.6	498.6	498.6	498.5	498.3	498.1	497.9	497.7
152.5°	511.0	511.3	511.5	511.4	511.0	510.7	510.3	510.0
155°	528.7	529.1	529.5	529.5	529.0	528.5	527.9	527.4
157.5°	544.0	544.5	544.9	544.8	544.0	543.4	542.7	542.0
160°	553.3	553.8	554.2	554.2	553.7	553.1	552.6	552.1
162.5°	562.1	562.6	563.1	563.0	562.5	561.8	561.3	560.6
165°	573.8	574.2	574.7	574.5	574.0	573.3	572.7	572.1
167.5°	582.5	583.2	583.8	583.8	583.1	582.4	581.8	581.2
170°	587.7	588.3	589.0	588.9	588.2	587.5	586.8	586.0
172.5°	591.5	592.1	592.7	592.7	592.1	591.4	590.8	590.1
175°	595.7	596.2	596.9	596.8	596.1	595.4	594.7	593.9
177.5°	597.5	598.0	598.5	598.5	597.9	597.4	596.7	596.1
180°	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7

(END OF REPORT)