

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: P333221-930

Luminaire Tested: **S125DIP-S850D590U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333221-930
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: S125DIP-S850D590U930-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4454.1 lumens
Efficiency: N/A
Efficacy: 110.5 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: Semi-Direct

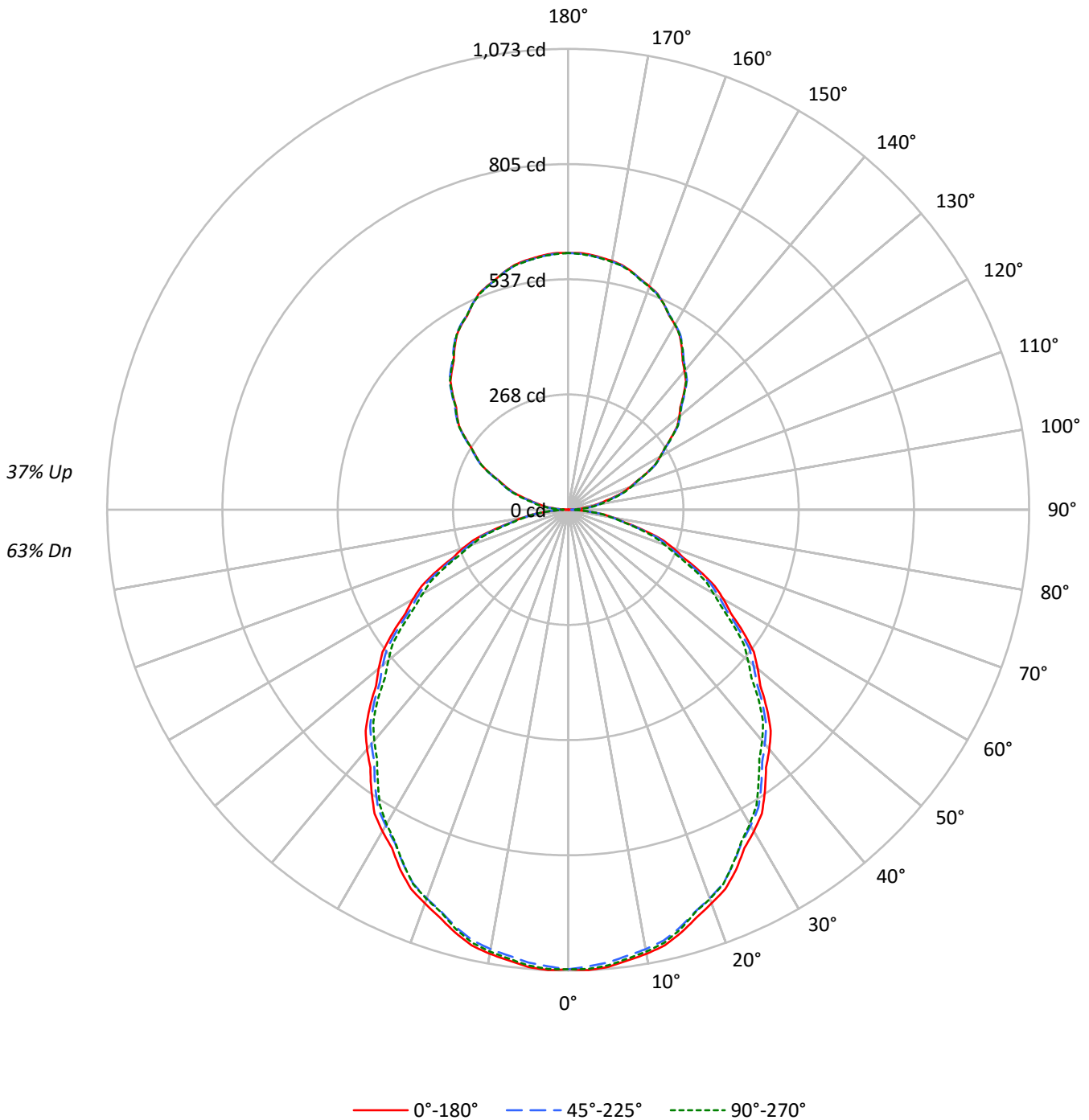
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68	63
1	101	96	92	88	94	90	87	84	79	77	74	69	67	65	60	58	57	53
2	92	84	78	72	85	79	73	69	69	65	61	61	57	54	52	50	48	44
3	83	74	66	60	78	69	63	57	61	56	52	54	49	46	46	43	41	37
4	76	65	57	51	71	62	54	49	54	49	44	48	43	39	42	38	35	32
5	70	58	50	44	66	55	47	42	49	43	38	43	38	34	37	34	31	28
6	65	52	44	38	60	49	42	36	44	38	33	39	34	30	34	30	27	24
7	60	47	39	33	56	45	37	32	40	34	29	35	30	27	31	27	24	22
8	56	43	35	30	52	41	33	28	36	30	26	32	27	24	29	25	22	19
9	52	39	32	26	49	37	30	25	33	28	23	30	25	21	26	22	19	17
10	49	36	29	24	45	34	28	23	31	25	21	28	23	19	24	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6912	6912	6912
5°	6928	6862	6906
10°	6885	6813	6852
15°	6811	6731	6760
20°	6704	6616	6628
25°	6589	6480	6475
30°	6447	6334	6302
35°	6296	6176	6089
40°	6139	6004	5918
45°	5971	5847	5731
50°	5785	5657	5488
55°	5606	5444	5291
60°	5391	5227	5043
65°	5136	4968	4800
70°	4893	4670	4509
75°	4457	4312	4162
80°	3968	3905	3812
85°	3453	3520	3320



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	2.3
10°-20°	285.1	6.4
20°-30°	420.9	9.4
30°-40°	491.1	11.0
40°-50°	493.3	11.1
50°-60°	433.0	9.7
60°-70°	322.6	7.2
70°-80°	184.5	4.1
80°-90°	55.0	1.2
90°-100°	40.0	0.9
100°-110°	118.2	2.7
110°-120°	200.2	4.5
120°-130°	263.5	5.9
130°-140°	295.3	6.6
140°-150°	289.4	6.5
150°-160°	243.0	5.5
160°-170°	161.6	3.6
170°-180°	56.5	1.3
0°-30°	806.9	18.1
0°-40°	1298.0	29.1
0°-60°	2224.3	49.9
0°-90°	2786.4	62.6
90°-120°	358.5	8.0
90°-150°	1206.6	27.1
90°-180°	1668.0	37.4
0°-180°	4454.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1069	1066	1058	1066	1065	101
15°	1019	1016	1007	1011	1011	287
25°	925	920	909	911	909	425
35°	798	795	783	779	772	499
45°	654	650	640	630	628	504
55°	498	495	484	476	470	444
65°	336	334	325	318	314	333
75°	179	177	173	170	167	190
85°	47	47	48	46	45	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°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1073.0	1072.5	1072.1	1071.6	1071.1	1070.2	1068.7	1067.2	1065.7	1064.2	1065.7
5°	1068.6	1068.2	1067.8	1067.5	1067.1	1065.9	1064.0	1062.2	1060.3	1058.4	1060.1
7.5°	1058.7	1058.4	1058.0	1057.6	1057.3	1056.1	1053.9	1051.9	1049.9	1047.7	1049.4
10°	1049.9	1049.6	1049.2	1048.8	1048.5	1047.3	1045.1	1043.1	1041.1	1038.9	1040.5
12.5°	1039.1	1038.4	1037.8	1037.1	1036.4	1035.1	1033.2	1031.3	1029.3	1027.4	1028.7
15°	1018.6	1018.1	1017.5	1016.9	1016.4	1015.0	1013.0	1010.9	1008.9	1006.7	1007.7
17.5°	995.1	994.3	993.4	992.6	991.8	990.3	988.1	986.0	983.8	981.7	982.8
20°	975.4	975.1	974.7	974.3	974.0	972.5	970.0	967.6	965.2	962.7	964.1
22.5°	955.8	955.1	954.5	953.7	953.1	951.6	949.3	947.0	944.7	942.4	943.3
25°	924.6	923.7	922.8	921.8	920.9	919.2	916.7	914.3	911.8	909.4	909.8
27.5°	888.2	887.7	887.1	886.6	886.0	884.4	881.9	879.4	876.9	874.3	874.4
30°	864.5	864.0	863.4	862.8	862.3	860.5	857.8	854.9	852.1	849.3	848.9
32.5°	838.8	837.9	837.1	836.2	835.4	833.6	831.1	828.6	826.1	823.5	822.9
35°	798.5	797.7	797.0	796.2	795.5	793.8	791.2	788.5	785.9	783.3	782.3
37.5°	756.7	755.7	754.7	753.8	752.8	751.1	748.7	746.2	743.7	741.3	739.8
40°	728.2	727.2	726.4	725.4	724.4	722.7	720.0	717.4	714.8	712.1	710.5
42.5°	697.7	696.9	696.1	695.4	694.6	692.8	690.2	687.5	684.9	682.3	680.8
45°	653.7	652.9	652.2	651.4	650.7	649.1	646.9	644.7	642.4	640.2	637.9
47.5°	606.3	606.3	606.3	606.3	606.4	605.1	602.3	599.7	597.0	594.3	591.9
50°	575.8	575.2	574.6	574.1	573.6	572.1	569.9	567.6	565.3	563.0	560.6
52.5°	544.6	544.2	543.8	543.4	543.0	541.5	539.2	536.7	534.3	531.9	529.8
55°	497.9	497.3	496.8	496.2	495.6	494.0	491.4	488.8	486.1	483.5	481.8
57.5°	448.6	448.3	448.0	447.7	447.4	446.1	443.9	441.7	439.4	437.2	435.0
60°	417.4	416.7	416.0	415.2	414.4	413.0	410.9	408.9	406.8	404.7	402.8
62.5°	384.9	384.3	383.8	383.1	382.5	381.3	379.6	377.8	376.0	374.2	372.3
65°	336.1	335.7	335.4	335.0	334.7	333.5	331.3	329.3	327.2	325.1	323.4
67.5°	288.9	288.1	287.3	286.5	285.8	284.5	283.1	281.5	280.0	278.4	277.0
70°	259.1	258.1	257.2	256.2	255.4	254.0	252.3	250.6	248.9	247.3	246.1
72.5°	226.6	225.9	225.3	224.7	224.0	223.1	222.1	220.9	219.9	218.8	217.5
75°	178.6	178.3	177.9	177.6	177.2	176.5	175.5	174.6	173.7	172.8	172.2
77.5°	134.4	134.3	134.2	134.0	133.9	133.5	133.0	132.5	131.9	131.4	131.1
80°	106.7	106.7	106.7	106.7	106.7	106.5	106.2	105.7	105.3	105.0	104.8
82.5°	82.3	82.0	81.7	81.4	81.1	80.9	80.8	80.8	80.7	80.6	80.3
85°	46.6	46.8	47.0	47.1	47.3	47.5	47.5	47.5	47.5	47.5	47.2
87.5°	18.3	18.5	18.8	18.9	19.1	19.2	19.1	19.1	19.1	19.1	19.2
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°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1067.2	1068.7	1070.2	1070.9	1070.7	1070.6	1070.4	1070.2
5°	1061.8	1063.5	1065.2	1065.9	1065.8	1065.6	1065.4	1065.2
7.5°	1051.1	1052.7	1054.3	1055.1	1054.9	1054.8	1054.5	1054.3
10°	1042.0	1043.5	1045.0	1045.6	1045.5	1045.2	1045.1	1044.9
12.5°	1029.8	1031.0	1032.3	1032.8	1032.8	1032.7	1032.7	1032.7
15°	1008.7	1009.6	1010.6	1011.0	1011.0	1011.0	1011.0	1011.0
17.5°	984.1	985.2	986.3	986.5	985.5	984.6	983.7	982.8
20°	965.4	966.7	968.0	968.2	967.3	966.3	965.4	964.4
22.5°	944.1	945.0	945.9	946.0	945.3	944.7	944.0	943.5
25°	910.1	910.5	910.9	910.8	910.3	909.7	909.1	908.6
27.5°	874.5	874.6	874.7	874.4	873.8	873.3	872.7	872.1
30°	848.6	848.2	847.7	847.3	846.8	846.2	845.6	845.1
32.5°	822.1	821.5	820.8	819.9	819.0	817.9	816.9	816.0
35°	781.4	780.4	779.5	778.3	776.7	775.3	773.7	772.3
37.5°	738.4	737.0	735.6	734.5	733.7	732.8	732.0	731.1
40°	708.7	707.0	705.3	704.2	703.6	703.1	702.5	702.0
42.5°	679.2	677.7	676.1	674.9	674.1	673.2	672.3	671.5
45°	635.6	633.3	631.1	629.7	629.2	628.6	628.0	627.5
47.5°	589.6	587.3	585.1	583.3	582.0	580.7	579.3	578.0
50°	558.2	555.7	553.3	551.4	550.1	548.8	547.5	546.2
52.5°	527.7	525.5	523.3	521.5	520.1	518.6	517.1	515.7
55°	480.1	478.4	476.7	475.2	473.9	472.5	471.2	469.9
57.5°	432.9	430.7	428.5	427.1	426.3	425.7	424.9	424.2
60°	401.0	399.1	397.2	395.6	394.3	393.0	391.7	390.4
62.5°	370.2	368.2	366.2	364.6	363.6	362.6	361.6	360.5
65°	321.8	320.1	318.4	317.2	316.4	315.7	314.9	314.1
67.5°	275.6	274.1	272.7	271.7	271.3	270.8	270.4	269.9
70°	245.0	243.9	242.7	241.8	241.0	240.3	239.5	238.8
72.5°	216.2	215.0	213.7	212.6	211.9	211.2	210.4	209.6
75°	171.6	171.0	170.5	169.8	169.1	168.3	167.5	166.8
77.5°	130.8	130.4	130.0	129.6	129.1	128.6	128.1	127.5
80°	104.6	104.4	104.3	104.0	103.6	103.2	102.8	102.5
82.5°	79.9	79.6	79.2	79.1	79.0	78.9	78.8	78.8
85°	47.0	46.9	46.6	46.4	46.0	45.7	45.2	44.8
87.5°	19.3	19.4	19.5	19.5	19.2	19.0	18.8	18.5
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)