

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: P332015-935

Luminaire Tested: **S123DIP-S1000D585U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332015-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D585U935-4F0-1E-UDD-F
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 585 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5563.8 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Semi-Direct

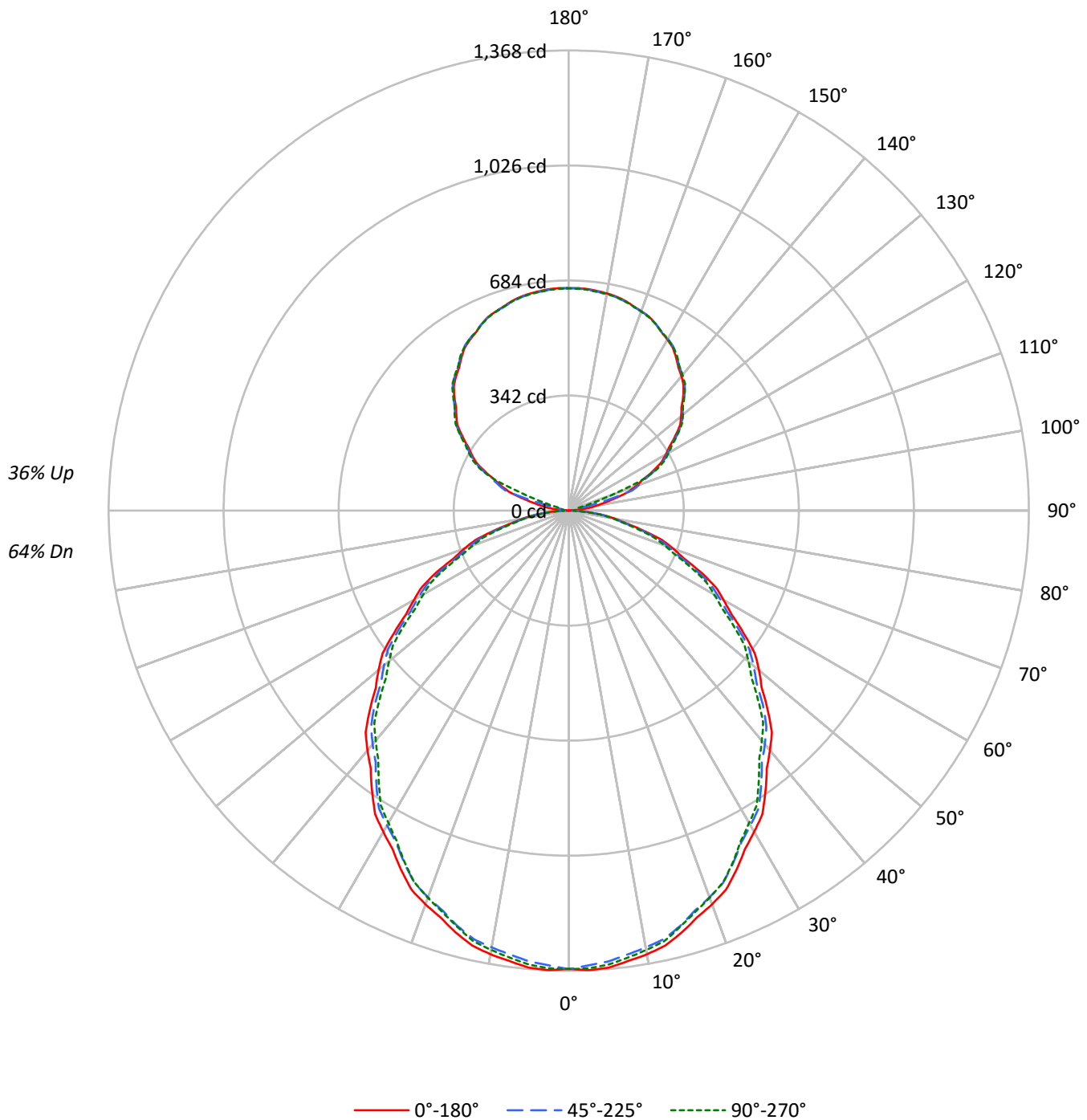
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	110	110	110	110	104	104	104	104	91	91	91		79	79	79		69
1	101	96	92	89	94	91	87	84	80	77	75		70	68	66		61
2	92	84	78	72	86	79	74	69	70	66	62		61	58	55		53
3	84	74	66	60	78	70	63	58	62	56	52		54	50	47		47
4	77	65	57	51	72	62	54	49	55	49	44		48	44	40		42
5	70	58	50	44	66	55	48	42	49	43	38		43	38	35		38
6	65	52	44	38	61	50	42	37	44	38	33		39	34	30		35
7	60	47	39	34	56	45	37	32	40	34	30		36	31	27		32
8	56	43	35	30	52	41	34	29	37	31	26		33	28	24		29
9	52	39	32	27	49	37	30	26	34	28	24		30	25	22		27
10	49	36	29	24	46	35	28	23	31	25	21		28	23	20		25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14670	14670	14670
5°	14738	14536	14638
10°	14641	14410	14499
15°	14469	14247	14273
20°	14269	14014	14027
25°	14001	13737	13709
30°	13706	13430	13326
35°	13397	13104	12935
40°	13075	12745	12546
45°	12718	12415	12113
50°	12363	12010	11675
55°	11898	11590	11237
60°	11427	11102	10747
65°	11013	10565	10236
70°	10401	9958	9514
75°	9503	9162	8771
80°	8573	8207	8133
85°	7534	7237	6941

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.4	2.3
10°-20°	362.5	6.5
20°-30°	535.5	9.6
30°-40°	625.5	11.2
40°-50°	628.8	11.3
50°-60°	552.4	9.9
60°-70°	411.5	7.4
70°-80°	234.5	4.2
80°-90°	69.1	1.2
90°-100°	24.0	0.4
100°-110°	114.5	2.1
110°-120°	275.1	4.9
120°-130°	350.3	6.3
130°-140°	374.3	6.7
140°-150°	350.0	6.3
150°-160°	282.3	5.1
160°-170°	182.2	3.3
170°-180°	62.8	1.1
0°-30°	1026.3	18.4
0°-40°	1651.8	29.7
0°-60°	2833.0	50.9
0°-90°	3548.1	63.8
90°-120°	413.7	7.4
90°-150°	1488.3	26.8
90°-180°	2016.0	36.2
0°-180°	5563.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1363	1363	1363	1363	1363	
5°	1364	1358	1345	1356	1355	129
15°	1298	1293	1278	1287	1281	366
25°	1179	1171	1157	1158	1154	543
35°	1020	1012	997	990	984	638
45°	836	830	816	802	796	645
55°	634	632	618	605	599	568
65°	432	426	415	406	402	427
75°	228	224	220	215	211	244
85°	61	59	59	56	56	67
90°	0	5	12	14	15	5
95°	30	11	15	18	19	37
105°	146	149	108	26	22	155
115°	274	278	282	287	289	271
125°	387	391	393	394	395	345
135°	482	485	487	488	487	371
145°	556	559	560	561	561	348
155°	612	612	612	614	611	282
165°	646	644	644	647	644	182
175°	661	659	659	662	658	63
180°	661	661	661	661	661	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1362.9	1362.9	1362.9	1362.9	1362.9	1362.9	1362.9	1362.9	1362.9	1362.9	1362.9
2.5°	1367.5	1366.8	1365.9	1365.0	1364.3	1362.6	1360.4	1358.1	1355.8	1353.5	1355.6
5°	1364.0	1362.7	1361.4	1360.1	1358.8	1356.8	1353.9	1351.0	1348.2	1345.3	1347.9
7.5°	1350.7	1349.4	1348.1	1346.8	1345.5	1343.3	1340.4	1337.4	1334.5	1331.5	1333.8
10°	1339.5	1338.2	1336.8	1335.5	1334.2	1331.9	1328.5	1325.1	1321.7	1318.4	1320.7
12.5°	1324.4	1323.4	1322.2	1321.1	1320.1	1317.9	1314.7	1311.6	1308.4	1305.2	1306.9
15°	1298.4	1297.4	1296.3	1295.3	1294.3	1292.0	1288.7	1285.3	1281.9	1278.5	1280.6
17.5°	1268.2	1266.8	1265.5	1264.1	1262.7	1260.4	1257.0	1253.6	1250.3	1246.8	1248.3
20°	1245.7	1244.1	1242.6	1241.0	1239.4	1236.9	1233.6	1230.2	1226.8	1223.4	1224.4
22.5°	1220.4	1218.8	1217.3	1215.6	1214.1	1211.7	1208.2	1204.9	1201.5	1198.1	1198.9
25°	1178.9	1177.3	1175.8	1174.2	1172.6	1170.2	1166.7	1163.4	1160.0	1156.6	1156.8
27.5°	1134.6	1133.1	1131.5	1130.1	1128.5	1125.9	1122.3	1118.7	1115.0	1111.4	1111.6
30°	1102.7	1101.4	1100.1	1098.8	1097.5	1095.0	1091.4	1087.7	1084.1	1080.5	1080.5
32.5°	1070.8	1069.1	1067.4	1065.7	1063.9	1061.7	1058.9	1056.1	1053.3	1050.4	1049.0
35°	1019.5	1018.0	1016.4	1014.9	1013.2	1010.8	1007.4	1004.0	1000.7	997.2	995.7
37.5°	967.0	965.0	963.0	961.0	959.1	956.4	953.0	949.5	946.1	942.6	940.7
40°	930.5	928.8	927.3	925.7	924.2	921.6	917.9	914.3	910.7	907.0	904.9
42.5°	893.9	892.1	890.4	888.6	886.8	884.1	880.5	876.8	873.1	869.5	867.5
45°	835.5	834.5	833.4	832.4	831.4	829.1	825.8	822.3	819.0	815.6	812.5
47.5°	777.7	776.1	774.6	773.1	771.6	769.2	766.1	762.9	759.7	756.6	753.5
50°	738.3	736.9	735.6	734.3	733.1	730.7	727.3	723.9	720.6	717.2	714.3
52.5°	697.0	696.1	695.3	694.4	693.4	691.2	687.7	684.1	680.4	676.8	674.4
55°	634.0	633.7	633.4	633.2	632.9	631.1	627.8	624.3	621.0	617.6	614.7
57.5°	573.9	573.1	572.2	571.4	570.4	568.6	565.9	563.2	560.5	557.8	555.3
60°	530.8	530.5	530.3	530.0	529.8	528.1	525.0	521.9	518.8	515.7	513.2
62.5°	492.4	491.7	491.0	490.3	489.7	487.8	484.7	481.6	478.5	475.3	472.9
65°	432.4	431.1	429.8	428.5	427.2	425.2	422.7	420.1	417.4	414.8	412.8
67.5°	368.9	367.7	366.6	365.5	364.3	362.7	360.8	358.8	356.8	354.8	353.0
70°	330.5	328.9	327.4	325.8	324.3	322.6	321.1	319.5	318.0	316.4	314.6
72.5°	290.2	289.0	287.8	286.7	285.6	284.1	282.3	280.6	278.8	277.0	275.4
75°	228.5	227.5	226.4	225.4	224.4	223.4	222.7	221.9	221.1	220.3	219.0
77.5°	173.9	173.3	172.7	172.2	171.6	170.8	170.0	169.0	168.1	167.1	166.3
80°	138.3	137.5	136.7	136.0	135.2	134.5	134.0	133.5	132.9	132.4	132.2
82.5°	103.6	103.4	103.3	103.1	103.0	102.8	102.7	102.6	102.5	102.5	101.9
85°	61.0	60.4	59.9	59.4	58.9	58.6	58.6	58.6	58.6	58.6	58.0
87.5°	24.5	24.1	23.7	23.2	22.8	22.6	22.7	22.8	22.9	23.0	22.9
90°	0.5	1.5	2.7	3.8	4.8	6.1	7.5	9.0	10.3	11.8	12.2
92.5°	9.1	8.9	8.5	8.2	7.9	8.3	9.4	10.4	11.5	12.6	13.3
95°	30.0	25.5	21.0	16.5	12.1	10.4	11.6	12.8	14.0	15.2	16.0
97.5°	60.2	58.2	56.2	54.2	52.2	47.3	39.3	31.5	23.7	15.8	16.7
100°	83.0	85.2	87.4	89.5	91.7	84.3	67.2	50.3	33.2	16.2	17.0
102.5°	108.9	110.5	112.1	113.7	115.2	106.7	88.1	69.5	50.9	32.3	29.6
105°	146.4	147.6	148.8	149.9	151.1	146.8	137.0	127.2	117.4	107.5	88.3
107.5°	185.8	186.8	187.8	188.7	189.7	190.9	192.4	194.0	195.5	197.1	183.0
110°	212.2	213.0	213.9	214.7	215.6	216.7	217.8	219.0	220.2	221.4	217.8

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	237.3	238.1	238.8	239.6	240.4	241.4	242.6	243.8	245.0	246.2	246.3
115°	274.5	275.2	275.8	276.5	277.2	277.9	279.0	279.9	280.9	281.9	283.0
117.5°	310.6	311.3	312.2	313.0	313.7	314.4	315.0	315.5	316.0	316.4	317.4
120°	332.9	333.9	334.9	335.9	336.9	337.5	337.9	338.2	338.5	338.8	339.8
122.5°	355.8	356.5	357.3	358.2	359.0	359.6	360.0	360.4	360.8	361.3	361.9
125°	386.9	387.9	388.7	389.6	390.5	391.2	391.6	392.0	392.4	392.9	393.0
127.5°	417.2	418.1	419.0	419.8	420.7	421.4	421.9	422.5	423.0	423.5	423.9
130°	436.1	437.0	437.8	438.7	439.5	440.2	440.7	441.1	441.5	442.0	442.4
132.5°	454.2	455.0	455.9	456.8	457.6	458.2	458.6	458.9	459.3	459.7	460.1
135°	481.7	482.4	483.0	483.7	484.4	484.9	485.3	485.8	486.2	486.6	487.0
137.5°	505.3	506.2	507.0	507.8	508.6	509.2	509.4	509.6	509.9	510.1	510.7
140°	521.0	521.7	522.4	523.0	523.7	524.2	524.4	524.8	525.1	525.5	525.9
142.5°	535.5	536.2	536.9	537.5	538.2	538.6	539.0	539.3	539.7	540.0	540.4
145°	555.9	556.6	557.4	558.2	559.0	559.5	559.6	559.9	560.1	560.3	560.5
147.5°	575.1	575.6	576.1	576.5	577.0	577.4	577.6	577.8	578.1	578.3	578.5
150°	586.9	587.2	587.5	587.8	588.1	588.4	588.7	588.8	589.1	589.3	589.5
152.5°	597.4	597.6	597.7	597.9	598.1	598.2	598.3	598.5	598.6	598.7	599.1
155°	612.3	612.2	611.9	611.7	611.5	611.5	611.6	611.7	611.7	611.9	612.4
157.5°	624.0	624.0	623.9	623.9	623.9	623.8	623.7	623.6	623.5	623.4	624.1
160°	631.0	630.9	630.9	630.7	630.6	630.5	630.3	630.3	630.2	630.1	630.7
162.5°	637.7	637.4	637.1	636.9	636.5	636.4	636.3	636.2	636.0	635.9	636.7
165°	645.8	645.4	645.1	644.8	644.5	644.2	644.1	644.0	643.9	643.8	644.7
167.5°	652.0	651.6	651.2	650.7	650.3	650.1	650.1	650.1	650.1	650.1	651.0
170°	655.6	655.1	654.7	654.3	653.8	653.6	653.6	653.6	653.6	653.6	654.5
172.5°	658.0	657.5	656.9	656.3	655.8	655.7	655.7	655.8	655.9	656.0	656.9
175°	661.0	660.5	659.9	659.4	658.8	658.6	658.7	658.8	658.9	659.0	659.8
177.5°	661.8	661.3	660.9	660.5	660.0	659.9	660.0	660.0	660.1	660.2	660.9
180°	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1362.9	1362.9	1362.9	1362.9	1362.9	1362.9	1362.9	1362.9
2.5°	1357.6	1359.8	1361.8	1362.8	1362.5	1362.4	1362.1	1361.9
5°	1350.5	1353.1	1355.7	1356.8	1356.2	1355.7	1355.2	1354.7
7.5°	1336.2	1338.5	1340.8	1341.9	1341.5	1341.3	1340.9	1340.6
10°	1323.0	1325.3	1327.7	1328.6	1328.1	1327.6	1327.1	1326.5
12.5°	1308.6	1310.4	1312.1	1312.8	1312.5	1312.2	1311.8	1311.6
15°	1282.6	1284.7	1286.9	1287.1	1285.6	1283.9	1282.4	1280.8
17.5°	1249.7	1251.2	1252.7	1253.1	1252.6	1252.0	1251.4	1250.9
20°	1225.5	1226.6	1227.6	1227.7	1226.9	1226.2	1225.4	1224.6
22.5°	1199.8	1200.6	1201.4	1201.4	1200.4	1199.4	1198.4	1197.4
25°	1157.1	1157.4	1157.7	1157.4	1156.6	1155.8	1155.0	1154.3
27.5°	1111.8	1112.0	1112.2	1111.8	1110.9	1109.8	1108.9	1107.8
30°	1080.5	1080.5	1080.5	1079.5	1077.7	1075.9	1074.1	1072.2
32.5°	1047.5	1046.1	1044.7	1043.4	1042.4	1041.4	1040.4	1039.4
35°	994.1	992.6	991.0	989.5	988.3	987.0	985.7	984.4
37.5°	938.9	937.0	935.1	933.8	933.0	932.1	931.3	930.5
40°	902.8	900.8	898.7	897.1	896.0	895.0	894.0	892.9
42.5°	865.3	863.2	861.2	859.6	858.6	857.6	856.5	855.5
45°	809.3	806.2	803.1	800.9	799.6	798.3	797.0	795.7
47.5°	750.4	747.3	744.2	742.2	741.0	739.9	738.7	737.5
50°	711.4	708.6	705.7	703.5	702.0	700.3	698.8	697.2
52.5°	671.9	669.5	667.1	665.0	663.5	661.9	660.4	658.8
55°	611.8	609.0	606.1	604.0	602.7	601.4	600.1	598.8
57.5°	552.7	550.2	547.6	545.5	544.1	542.5	541.1	539.5
60°	510.9	508.6	506.3	504.5	503.1	501.8	500.5	499.2
62.5°	470.6	468.3	465.9	464.3	463.4	462.5	461.7	460.8
65°	410.7	408.5	406.5	405.1	404.3	403.6	402.7	401.9
67.5°	351.2	349.4	347.6	346.1	345.0	343.9	342.8	341.7
70°	312.7	310.9	309.1	307.5	306.3	305.0	303.7	302.3
72.5°	273.8	272.2	270.5	269.4	268.7	268.0	267.4	266.7
75°	217.7	216.4	215.1	214.0	213.3	212.5	211.7	210.9
77.5°	165.3	164.5	163.6	163.2	163.2	163.2	163.2	163.2
80°	131.9	131.6	131.4	131.2	131.2	131.2	131.2	131.2
82.5°	101.5	101.0	100.6	100.2	100.0	99.8	99.6	99.4
85°	57.5	57.0	56.5	56.2	56.2	56.2	56.2	56.2
87.5°	22.7	22.6	22.5	22.5	22.5	22.6	22.6	22.6
90°	12.7	13.1	13.5	13.9	14.1	14.3	14.6	14.7
92.5°	13.9	14.6	15.3	15.8	15.9	16.0	16.2	16.3
95°	16.8	17.5	18.3	18.7	18.7	18.7	18.7	18.7
97.5°	17.6	18.4	19.3	19.8	19.9	20.0	20.1	20.2
100°	17.9	18.9	19.7	20.1	20.3	20.4	20.5	20.7
102.5°	26.9	24.2	21.5	20.2	20.4	20.7	20.8	21.0
105°	68.9	49.6	30.3	20.8	20.9	21.2	21.4	21.6
107.5°	168.8	154.6	140.4	126.1	111.5	96.9	82.4	67.8
110°	214.3	210.7	207.1	197.4	181.8	166.3	150.7	135.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	246.3	246.4	246.5	244.9	241.6	238.2	235.0	231.7
115°	284.0	285.2	286.3	287.0	287.4	287.9	288.3	288.8
117.5°	318.2	319.1	319.9	320.5	320.6	320.6	320.7	320.8
120°	340.6	341.5	342.3	342.8	342.8	342.8	342.8	342.8
122.5°	362.5	363.1	363.7	364.0	364.1	364.2	364.3	364.4
125°	393.3	393.5	393.7	394.0	394.2	394.4	394.6	394.9
127.5°	424.2	424.6	424.9	425.0	424.7	424.6	424.3	424.1
130°	442.8	443.2	443.7	443.8	443.6	443.4	443.2	443.0
132.5°	460.5	461.0	461.4	461.5	461.2	460.8	460.5	460.2
135°	487.3	487.7	487.9	487.9	487.7	487.3	487.0	486.6
137.5°	511.2	511.7	512.2	512.4	512.1	512.0	511.7	511.5
140°	526.3	526.8	527.2	527.3	527.1	526.8	526.7	526.4
142.5°	540.7	541.1	541.4	541.4	541.1	540.8	540.4	540.2
145°	560.8	560.9	561.2	561.3	561.3	561.3	561.3	561.3
147.5°	578.8	578.9	579.2	579.0	578.5	578.0	577.6	577.0
150°	589.7	590.0	590.1	590.1	589.8	589.4	589.1	588.8
152.5°	599.5	599.9	600.3	600.2	599.8	599.3	598.7	598.2
155°	612.9	613.5	614.1	614.0	613.4	612.7	612.1	611.4
157.5°	624.7	625.3	626.0	625.9	625.0	624.2	623.4	622.5
160°	631.4	632.0	632.7	632.6	631.9	631.1	630.3	629.6
162.5°	637.4	638.2	638.9	638.9	638.3	637.6	636.9	636.3
165°	645.6	646.4	647.3	647.4	646.6	645.8	645.1	644.3
167.5°	651.9	652.7	653.6	653.6	652.7	651.9	651.0	650.1
170°	655.4	656.3	657.1	657.1	656.3	655.4	654.5	653.6
172.5°	657.7	658.6	659.4	659.4	658.5	657.5	656.5	655.6
175°	660.6	661.3	662.1	662.0	661.2	660.3	659.4	658.5
177.5°	661.6	662.3	663.0	662.9	662.0	661.2	660.3	659.4
180°	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0

(END OF REPORT)