

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: P332624-935

Luminaire Tested: **S124DIP-S795D1205U935-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332624-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S795D1205U935-4F0-1E-UDD-F4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6639.5 lumens
Efficiency: N/A
Efficacy: 116.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

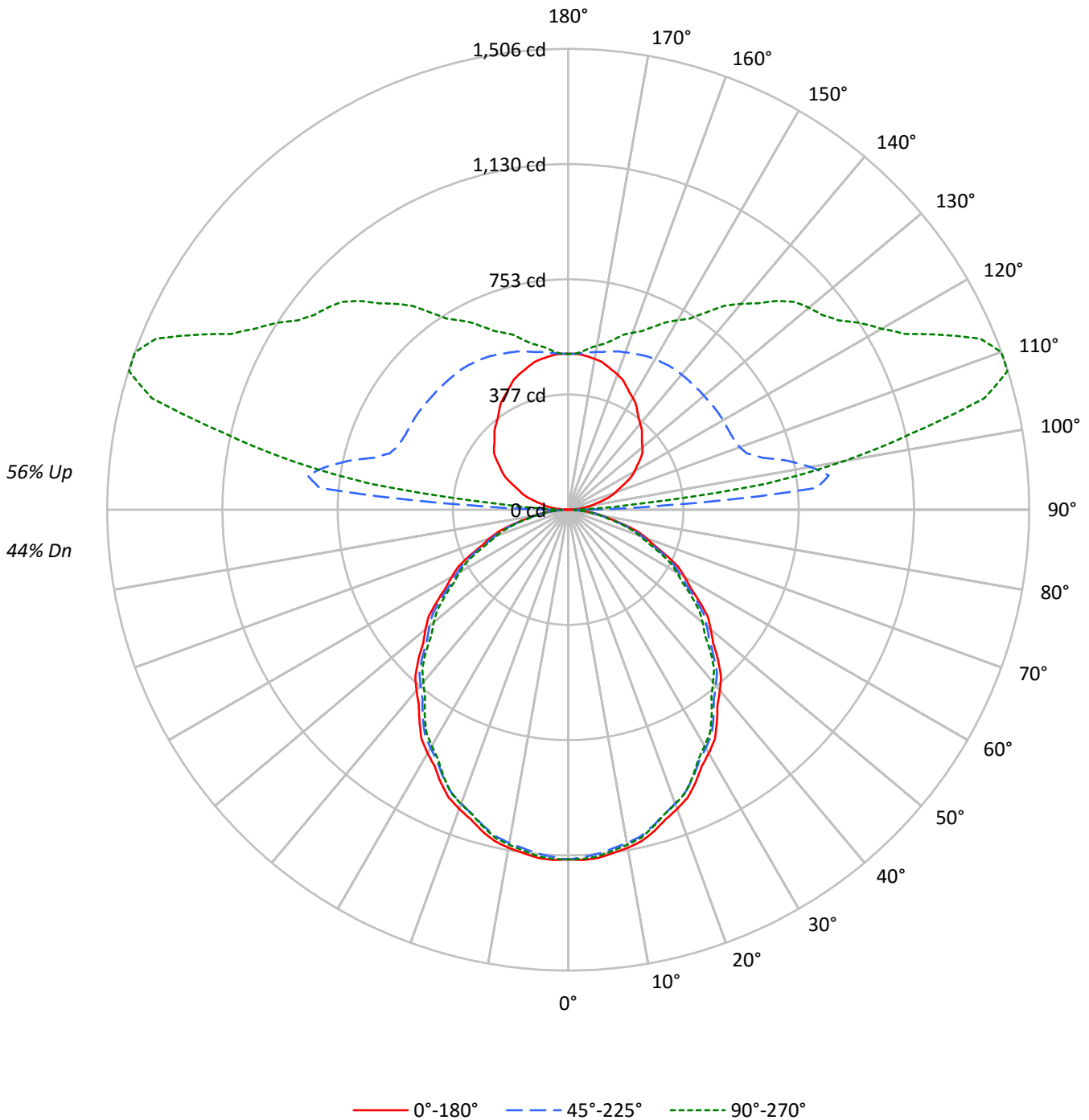
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	30	10
RCR																	
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51
1	96	92	88	85	88	84	81	78	70	68	66	57	55	54	45	44	43
2	88	80	74	69	80	74	69	64	61	58	54	50	47	45	39	38	36
3	80	71	63	58	73	65	59	54	54	49	46	44	41	38	35	33	31
4	73	63	55	49	67	58	51	45	48	43	39	39	36	33	31	29	26
5	67	56	48	42	61	51	44	39	43	38	33	35	31	28	28	25	23
6	62	50	42	36	56	46	39	34	39	33	29	32	28	25	26	23	20
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18
8	53	41	33	28	48	38	31	26	32	27	23	27	22	19	21	18	16
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	20	17	15
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9227	9227	9227
5°	9255	9143	9210
10°	9197	9069	9114
15°	9086	8940	8964
20°	8937	8781	8789
25°	8769	8598	8573
30°	8563	8383	8307
35°	8348	8159	8051
40°	8126	7904	7759
45°	7895	7654	7507
50°	7637	7430	7200
55°	7361	7142	6909
60°	7083	6817	6610
65°	6770	6508	6245
70°	6420	6097	5858
75°	5883	5599	5459
80°	5235	5026	4895
85°	4576	4409	4326



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.6	1.6
10°-20°	303.3	4.6
20°-30°	446.4	6.7
30°-40°	518.9	7.8
40°-50°	518.9	7.8
50°-60°	453.9	6.8
60°-70°	337.1	5.1
70°-80°	191.5	2.9
80°-90°	58.1	0.9
90°-100°	367.8	5.5
100°-110°	765.5	11.5
110°-120°	685.7	10.3
120°-130°	576.8	8.7
130°-140°	480.9	7.2
140°-150°	367.4	5.5
150°-160°	258.2	3.9
160°-170°	151.9	2.3
170°-180°	49.4	0.7
0°-30°	857.3	12.9
0°-40°	1376.2	20.7
0°-60°	2349.1	35.4
0°-90°	2935.8	44.2
90°-120°	1819.0	27.4
90°-150°	3244.1	48.9
90°-180°	3704.0	55.8
0°-180°	6639.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1143	1143	1143	1143	1143	
5°	1142	1138	1128	1138	1136	108
15°	1087	1083	1070	1075	1072	306
25°	984	978	965	966	962	453
35°	847	840	828	822	817	529
45°	692	685	670	661	658	533
55°	523	520	507	497	491	468
65°	354	350	341	332	327	351
75°	189	184	180	176	175	200
85°	49	49	48	48	47	54
90°	1	8	18	20	21	4
95°	33	104	815	404	244	37
105°	117	170	656	1413	1408	125
115°	206	259	585	1125	1352	204
125°	287	341	582	957	1078	256
135°	341	406	577	849	964	264
145°	393	450	574	716	787	247
155°	447	483	558	632	659	206
165°	487	502	535	567	575	138
175°	508	509	513	520	518	48
180°	509	509	509	509	509	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1143.0	1143.0	1143.0	1143.0	1143.0	1143.0	1143.0	1143.0	1143.0	1143.0	1143.0
2.5°	1145.9	1145.4	1144.9	1144.4	1143.9	1142.8	1141.0	1139.2	1137.4	1135.7	1137.2
5°	1142.0	1141.3	1140.4	1139.6	1138.8	1137.2	1135.0	1132.7	1130.5	1128.3	1130.5
7.5°	1131.4	1130.6	1129.8	1128.9	1128.2	1126.5	1124.0	1121.5	1119.0	1116.5	1118.4
10°	1121.9	1121.1	1120.2	1119.5	1118.6	1116.9	1114.2	1111.6	1109.0	1106.3	1107.9
12.5°	1109.4	1108.6	1107.8	1107.0	1106.2	1104.3	1101.6	1098.7	1096.0	1093.1	1094.9
15°	1087.1	1086.2	1085.5	1084.6	1083.8	1081.9	1078.8	1075.8	1072.7	1069.7	1070.9
17.5°	1060.1	1059.1	1058.1	1057.1	1056.1	1054.1	1051.3	1048.4	1045.4	1042.6	1043.4
20°	1040.3	1039.3	1038.4	1037.3	1036.3	1034.2	1031.2	1028.1	1025.1	1022.1	1022.7
22.5°	1019.2	1017.8	1016.4	1015.1	1013.7	1011.6	1008.5	1005.5	1002.4	999.4	1000.5
25°	984.5	983.1	981.6	980.2	978.8	976.6	973.8	970.9	968.1	965.3	965.4
27.5°	944.9	943.5	942.0	940.6	939.1	937.0	934.4	931.8	929.1	926.4	925.9
30°	918.6	917.0	915.3	913.7	912.1	909.9	907.2	904.7	902.0	899.3	898.5
32.5°	890.7	889.2	887.8	886.3	884.8	882.7	879.9	877.1	874.3	871.5	870.6
35°	847.1	845.7	844.3	842.8	841.5	839.3	836.5	833.6	830.8	827.9	826.5
37.5°	801.2	799.9	798.6	797.3	795.9	793.8	790.7	787.6	784.6	781.5	780.0
40°	771.1	769.5	767.8	766.2	764.6	762.2	759.2	756.1	753.1	750.0	748.0
42.5°	738.9	737.9	736.9	736.0	734.9	732.8	729.4	726.1	722.6	719.3	717.0
45°	691.5	690.0	688.6	687.2	685.8	683.4	680.2	676.9	673.6	670.4	668.1
47.5°	641.8	640.8	639.9	638.9	637.9	635.9	632.9	629.9	626.9	623.9	621.3
50°	608.1	607.3	606.5	605.6	604.9	603.0	600.2	597.4	594.4	591.6	588.8
52.5°	575.1	574.2	573.2	572.2	571.2	569.2	566.2	563.2	560.2	557.2	554.7
55°	523.0	522.3	521.7	521.1	520.5	518.8	515.9	513.1	510.2	507.4	504.9
57.5°	473.1	472.4	471.7	471.1	470.4	468.6	465.8	463.0	460.2	457.4	455.0
60°	438.7	437.6	436.6	435.7	434.6	432.7	430.2	427.5	424.8	422.2	420.3
62.5°	405.0	404.2	403.3	402.4	401.6	399.8	396.9	394.1	391.3	388.5	386.8
65°	354.4	353.4	352.4	351.4	350.3	348.8	346.8	344.7	342.7	340.7	338.6
67.5°	303.5	302.6	301.6	300.7	299.8	298.3	296.4	294.4	292.5	290.5	288.5
70°	272.0	270.6	269.1	267.7	266.3	264.8	263.1	261.5	259.8	258.3	256.7
72.5°	238.3	236.9	235.5	234.0	232.6	231.3	230.0	228.6	227.3	226.0	224.7
75°	188.6	187.6	186.7	185.6	184.6	183.6	182.5	181.5	180.6	179.5	178.7
77.5°	141.2	140.8	140.3	139.9	139.4	138.8	137.8	137.0	136.0	135.2	134.9
80°	112.6	112.0	111.4	110.8	110.2	109.7	109.3	108.9	108.5	108.1	107.6
82.5°	84.8	84.6	84.2	83.9	83.7	83.5	83.4	83.3	83.3	83.2	82.9
85°	49.4	49.4	49.4	49.4	49.4	49.2	48.8	48.5	48.0	47.6	47.6
87.5°	19.3	19.5	19.9	20.0	20.0	19.8	20.8	20.8	20.9	21.2	21.0
90°	1.0	3.0	6.0	7.0	8.0	8.0	14.0	14.0	16.0	18.0	17.0
92.5°	11.4	16.6	26.0	38.2	52.9	73.6	124.5	202.1	277.8	317.4	264.3
95°	33.0	36.0	46.1	59.1	83.0	125.1	212.1	376.2	615.3	815.4	838.4
97.5°	59.2	59.2	67.8	79.8	100.5	135.7	202.7	338.2	575.8	858.8	1053.3
100°	76.0	76.0	83.0	95.1	114.1	146.1	205.1	318.1	522.3	804.3	1060.5
102.5°	92.0	93.7	99.9	111.1	129.2	159.7	213.1	312.5	486.2	736.3	1000.5
105°	117.1	120.0	125.1	137.1	155.1	184.1	232.1	315.1	455.2	656.3	891.4
107.5°	144.6	146.6	151.7	164.5	181.7	210.3	254.3	329.9	449.6	611.5	803.4
110°	163.1	165.1	170.0	182.1	200.1	227.1	271.1	341.1	451.3	596.3	759.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	180.7	182.7	188.5	199.7	217.7	244.7	287.1	353.2	456.0	589.1	734.5
115°	206.1	209.1	216.1	226.1	245.1	272.2	312.1	372.2	465.2	585.3	711.4
117.5°	232.5	235.3	241.5	252.5	270.4	298.3	336.4	391.6	475.0	584.3	700.9
120°	250.1	252.1	259.2	270.1	287.1	315.1	353.2	405.2	482.2	584.3	695.3
122.5°	266.1	268.1	275.2	285.3	303.9	331.1	369.2	418.0	489.5	583.5	689.0
125°	287.1	291.1	297.1	308.2	327.2	355.2	391.2	437.2	500.2	582.3	678.3
127.5°	305.7	308.9	316.2	328.7	348.5	376.8	411.6	453.8	508.9	580.1	664.1
130°	316.2	320.1	328.1	343.2	362.1	391.2	425.2	464.3	515.2	579.3	655.3
132.5°	326.6	329.8	340.2	354.4	375.0	402.4	436.4	474.7	520.8	578.5	647.3
135°	341.1	345.2	355.2	372.2	393.2	419.2	452.2	488.3	529.3	577.3	635.3
137.5°	355.8	359.6	370.6	386.8	408.6	433.4	464.3	497.8	534.3	577.0	624.9
140°	366.2	369.2	380.2	397.2	418.2	442.2	472.3	504.2	538.3	576.3	619.3
142.5°	377.4	380.4	390.5	406.8	427.0	450.2	479.4	509.0	541.5	576.3	614.5
145°	393.2	396.2	406.2	420.2	439.2	461.2	487.2	514.3	543.3	574.3	606.3
147.5°	411.0	412.0	420.8	435.2	451.0	470.8	495.2	518.8	544.2	570.7	598.9
150°	422.2	423.2	431.2	443.2	458.2	477.3	499.2	521.2	544.2	568.3	593.3
152.5°	432.6	432.8	440.8	452.0	465.5	482.8	502.5	522.9	542.7	564.3	586.9
155°	447.2	448.2	454.2	464.3	475.3	490.3	507.2	524.3	540.3	558.3	577.3
157.5°	461.4	461.4	467.0	474.8	484.4	496.3	510.7	524.3	537.7	552.1	567.5
160°	470.2	470.2	474.2	481.2	489.2	500.2	512.2	524.3	535.3	547.3	560.3
162.5°	478.2	477.4	480.6	486.8	494.0	502.7	513.8	524.3	532.9	542.4	553.9
165°	487.2	487.2	489.2	494.2	499.2	505.2	514.3	522.3	528.2	535.3	543.3
167.5°	496.3	495.2	496.3	500.1	502.8	507.5	514.0	519.9	523.5	528.1	533.6
170°	500.2	499.2	500.2	503.3	505.2	508.2	513.2	518.2	520.2	523.2	527.3
172.5°	504.2	503.3	503.4	505.7	506.9	509.0	512.5	516.7	517.0	518.4	521.7
175°	508.2	507.2	507.2	508.2	509.3	509.3	511.3	514.3	513.2	513.2	515.2
177.5°	510.1	509.3	508.4	509.3	509.3	509.3	510.1	511.6	510.1	510.1	510.8
180°	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1143.0	1143.0	1143.0	1143.0	1143.0	1143.0	1143.0	1143.0
2.5°	1138.8	1140.5	1142.1	1142.9	1142.7	1142.5	1142.4	1142.2
5°	1132.7	1135.0	1137.2	1138.2	1137.7	1137.4	1137.0	1136.5
7.5°	1120.2	1122.0	1123.7	1124.5	1124.3	1124.0	1123.8	1123.5
10°	1109.6	1111.2	1112.8	1113.4	1113.0	1112.6	1112.2	1111.8
12.5°	1096.7	1098.5	1100.3	1100.9	1100.4	1099.8	1099.2	1098.6
15°	1072.1	1073.3	1074.5	1074.9	1074.3	1073.7	1073.1	1072.5
17.5°	1044.1	1044.9	1045.7	1045.9	1045.4	1045.0	1044.7	1044.2
20°	1023.3	1023.9	1024.5	1024.6	1024.2	1023.8	1023.4	1023.0
22.5°	1001.5	1002.6	1003.8	1003.9	1003.2	1002.5	1001.7	1001.0
25°	965.7	965.9	966.1	965.8	965.0	964.1	963.4	962.5
27.5°	925.5	925.0	924.5	923.8	922.7	921.7	920.7	919.6
30°	897.7	896.9	896.0	895.2	894.1	893.1	892.1	891.1
32.5°	869.5	868.6	867.6	866.6	865.6	864.5	863.5	862.5
35°	825.1	823.6	822.2	821.0	819.9	819.0	817.9	816.9
37.5°	778.4	776.9	775.4	774.0	772.6	771.3	769.9	768.5
40°	746.0	744.0	741.9	740.4	739.3	738.4	737.4	736.3
42.5°	714.5	712.2	709.8	708.3	707.7	707.0	706.3	705.6
45°	665.9	663.7	661.4	660.0	659.4	658.8	658.1	657.5
47.5°	618.8	616.3	613.7	611.7	610.2	608.6	607.1	605.5
50°	585.9	583.1	580.2	578.2	577.0	575.8	574.5	573.3
52.5°	552.2	549.6	547.1	545.1	543.5	542.0	540.4	538.9
55°	502.5	500.1	497.6	495.8	494.6	493.4	492.1	490.9
57.5°	452.7	450.4	448.1	446.3	445.1	443.9	442.8	441.6
60°	418.5	416.7	414.8	413.5	412.4	411.4	410.4	409.4
62.5°	385.1	383.5	381.9	380.5	379.4	378.4	377.5	376.4
65°	336.7	334.6	332.5	331.1	330.0	329.0	328.0	326.9
67.5°	286.6	284.6	282.7	281.5	281.3	281.0	280.7	280.4
70°	255.0	253.4	251.8	250.6	250.0	249.4	248.8	248.2
72.5°	223.4	222.1	220.8	219.9	219.2	218.6	218.0	217.4
75°	177.9	177.0	176.2	175.7	175.6	175.3	175.1	175.0
77.5°	134.7	134.4	134.2	133.8	133.3	132.8	132.2	131.7
80°	107.3	106.9	106.4	106.2	105.9	105.7	105.6	105.3
82.5°	82.7	82.4	82.1	82.0	81.8	81.5	81.4	81.1
85°	47.6	47.6	47.6	47.5	47.4	47.1	46.9	46.7
87.5°	21.2	21.4	21.6	21.6	21.8	22.0	21.8	21.8
90°	18.0	19.0	20.0	20.0	21.0	22.0	21.0	21.0
92.5°	196.5	147.8	117.7	97.6	85.8	80.4	77.1	77.1
95°	741.3	586.3	452.2	355.2	306.2	275.2	257.1	244.1
97.5°	1095.4	1037.7	939.9	835.4	763.5	703.4	673.3	652.6
100°	1206.6	1226.6	1177.6	1103.5	1016.5	955.5	925.5	917.5
102.5°	1201.0	1300.2	1314.4	1283.6	1230.2	1185.9	1154.3	1148.0
105°	1120.5	1293.7	1392.7	1433.7	1435.7	1427.7	1413.7	1407.6
107.5°	1006.3	1190.6	1330.1	1419.3	1468.7	1491.5	1501.5	1504.2
110°	937.5	1110.5	1255.6	1365.6	1436.7	1478.7	1496.8	1505.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	887.0	1040.1	1177.2	1287.2	1367.9	1418.7	1443.9	1458.5
115°	836.4	959.5	1076.5	1172.6	1251.6	1311.6	1343.7	1351.7
117.5°	811.6	913.4	1005.5	1086.9	1154.3	1204.8	1237.2	1243.4
120°	800.4	893.5	973.4	1044.5	1101.6	1145.6	1171.6	1182.6
122.5°	790.7	880.6	953.5	1015.7	1063.9	1101.6	1123.5	1134.5
125°	774.4	860.4	929.4	984.5	1024.5	1053.5	1072.5	1078.5
127.5°	754.3	836.6	905.4	957.7	997.9	1023.7	1039.7	1045.7
130°	738.4	817.4	885.5	938.5	979.5	1004.4	1020.5	1026.5
132.5°	721.5	795.8	862.2	915.2	955.5	983.7	998.8	1004.9
135°	698.4	763.4	824.4	874.4	914.5	942.5	958.5	964.5
137.5°	677.3	732.4	783.8	829.0	866.4	894.1	907.2	914.5
140°	665.3	712.3	757.3	799.4	834.4	856.4	870.4	878.4
142.5°	654.1	695.5	734.2	770.6	801.6	822.0	834.4	840.0
145°	638.3	672.4	702.3	730.4	755.4	772.4	782.4	787.4
147.5°	625.3	652.3	676.3	698.4	716.8	731.3	739.0	740.7
150°	617.3	640.3	660.3	678.3	694.3	707.3	713.3	714.4
152.5°	608.5	628.3	646.7	661.5	675.1	685.7	689.3	690.3
155°	595.3	611.3	626.3	638.3	648.3	656.3	659.4	659.4
157.5°	581.1	594.5	607.1	616.7	624.3	630.3	632.1	632.1
160°	572.3	583.2	594.3	602.3	608.3	614.3	615.3	615.3
162.5°	563.4	572.9	581.5	588.7	593.1	599.1	600.1	599.3
165°	551.3	557.2	564.3	569.3	573.3	577.3	576.3	575.3
167.5°	539.5	544.1	549.7	552.7	554.7	557.2	557.1	556.3
170°	532.3	535.3	539.2	542.3	544.2	545.3	544.2	544.2
172.5°	525.8	528.1	530.5	532.6	533.8	534.9	533.8	532.3
175°	517.3	518.2	520.2	520.2	520.2	522.3	520.2	518.2
177.5°	511.6	512.5	512.5	513.2	512.5	513.2	511.6	510.1
180°	509.3	509.3	509.3	509.3	509.3	509.3	509.3	509.3

(END OF REPORT)