

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: P333572-830

Luminaire Tested: **S125RDIP-S850D1035U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333572-830
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-S850D1035U830-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1035 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6438.6 lumens
Efficiency: N/A
Efficacy: 123.8 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: General Diffuse

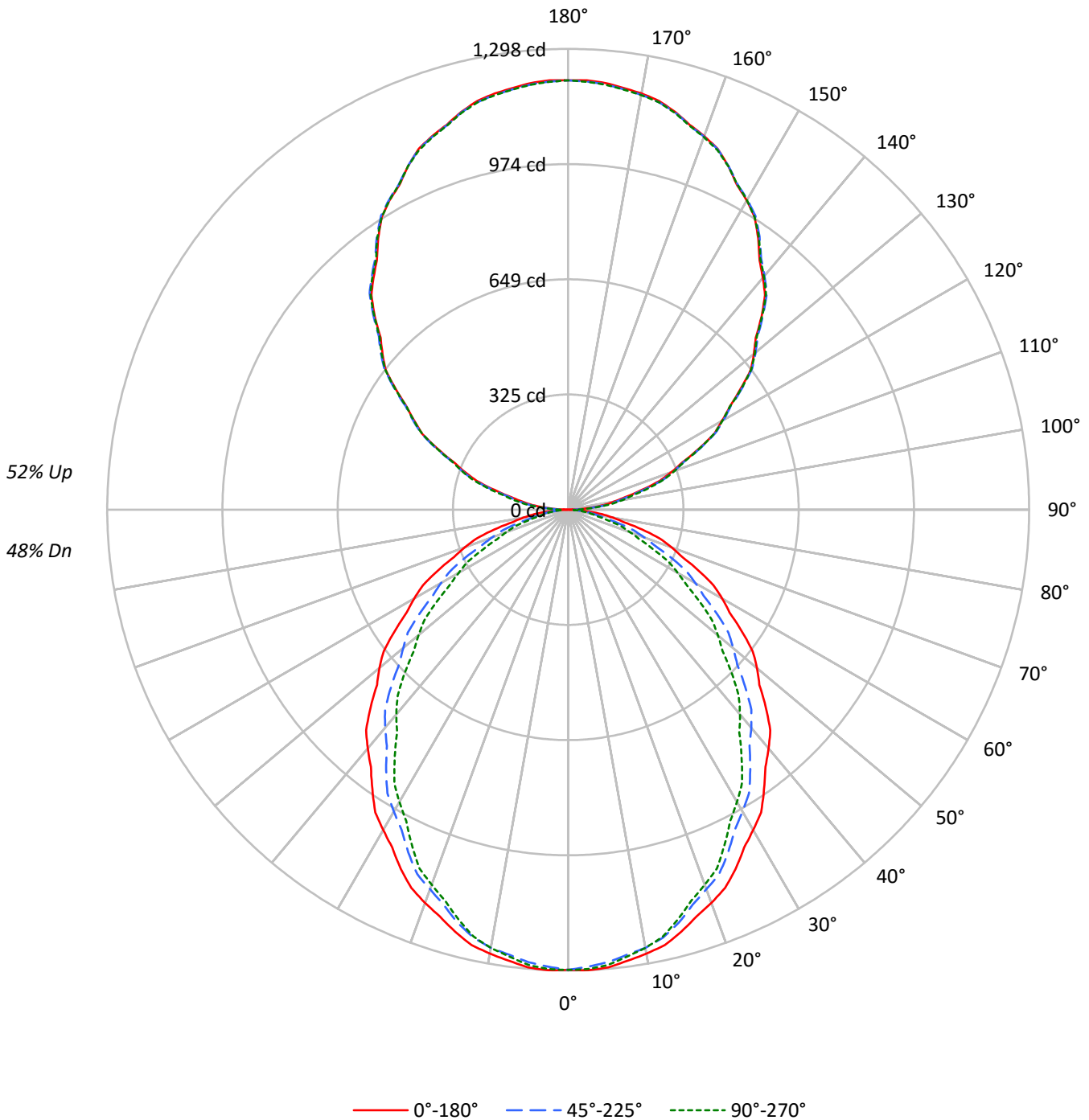
Input Watts (W): 52
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
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	50	30	10	50	30	10	0														
RCR																																						
0	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	48						48														
1	97	93	89	86	90	86	83	80	72	70	68	60	58	57	48	47	46						41															
2	89	82	76	71	82	75	70	66	63	60	56	53	50	47	42	41	39						34															
3	81	72	65	59	74	66	60	55	56	51	48	47	43	40	38	35	33						29															
4	74	64	56	50	68	59	52	47	50	45	41	42	38	35	34	31	29						25															
5	68	57	49	43	63	53	46	40	45	39	35	37	33	30	31	28	25						22															
6	63	51	43	37	58	47	40	35	40	35	31	34	30	27	28	25	22						19															
7	58	46	38	33	53	43	36	31	37	31	27	31	27	24	25	22	20						17															
8	54	42	34	29	50	39	32	27	33	28	24	28	24	21	23	20	18						16															
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	18	16						14															
10	47	35	28	23	43	33	26	22	28	23	20	24	20	17	20	17	15						13															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8371	8371	8371
5°	8390	8294	8345
10°	8326	8217	8217
15°	8227	8050	7985
20°	8100	7818	7724
25°	7953	7590	7422
30°	7767	7322	7088
35°	7579	7046	6714
40°	7403	6759	6347
45°	7188	6437	5945
50°	6973	6089	5528
55°	6723	5754	5082
60°	6473	5349	4602
65°	6178	4876	4053
70°	5840	4288	3493
75°	5375	3616	2907
80°	4731	2838	2440
85°	3987	2319	2179



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.9	1.9
10°-20°	340.6	5.3
20°-30°	493.9	7.7
30°-40°	562.9	8.7
40°-50°	548.6	8.5
50°-60°	461.8	7.2
60°-70°	323.7	5.0
70°-80°	166.4	2.6
80°-90°	44.7	0.7
90°-100°	81.0	1.3
100°-110°	239.1	3.7
110°-120°	405.1	6.3
120°-130°	533.1	8.3
130°-140°	597.3	9.3
140°-150°	585.5	9.1
150°-160°	491.7	7.6
160°-170°	326.9	5.1
170°-180°	114.4	1.8
0°-30°	956.3	14.9
0°-40°	1519.2	23.6
0°-60°	2529.7	39.3
0°-90°	3064.5	47.6
90°-120°	725.2	11.3
90°-150°	2441.1	37.9
90°-180°	3374.0	52.4
0°-180°	6438.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1296	1296	1296	1296	1296	
5°	1294	1290	1279	1289	1287	123
15°	1230	1224	1204	1203	1194	347
25°	1116	1100	1065	1052	1042	513
35°	961	937	894	866	852	602
45°	787	757	705	667	651	607
55°	597	564	511	468	451	534
65°	404	370	319	281	265	400
75°	215	185	145	124	116	228
85°	54	37	31	30	29	60
90°	1	8	15	20	23	6
95°	61	64	72	79	81	65
105°	214	219	225	230	233	229
115°	406	409	411	410	409	401
125°	592	597	598	597	596	530
135°	770	775	776	776	772	593
145°	933	936	939	939	936	583
155°	1067	1067	1068	1071	1067	491
165°	1160	1159	1159	1162	1157	327
175°	1206	1203	1203	1208	1202	115
180°	1209	1209	1209	1209	1209	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1298.4	1297.9	1297.3	1296.8	1296.3	1295.1	1293.5	1291.7	1290.0	1288.2	1290.0
5°	1294.1	1293.3	1292.3	1291.5	1290.6	1289.0	1286.6	1284.2	1281.8	1279.4	1281.6
7.5°	1281.4	1280.5	1279.7	1278.8	1278.1	1276.2	1273.4	1270.5	1267.6	1264.7	1266.2
10°	1269.6	1268.9	1268.3	1267.6	1267.0	1265.2	1262.2	1259.0	1256.0	1253.0	1253.6
12.5°	1256.3	1255.5	1254.6	1253.9	1253.0	1250.6	1246.4	1242.4	1238.3	1234.2	1234.6
15°	1230.5	1229.2	1227.9	1226.5	1225.2	1222.3	1217.8	1213.1	1208.6	1204.0	1203.8
17.5°	1201.3	1199.3	1197.3	1195.3	1193.3	1189.4	1183.6	1177.9	1172.1	1166.4	1165.4
20°	1178.6	1176.4	1174.2	1172.1	1169.9	1165.3	1158.4	1151.4	1144.4	1137.5	1136.4
22.5°	1153.5	1151.3	1149.1	1147.0	1144.8	1140.1	1132.7	1125.5	1118.1	1110.9	1108.7
25°	1116.0	1112.7	1109.4	1106.2	1102.9	1097.2	1089.2	1081.1	1073.1	1065.1	1062.2
27.5°	1072.9	1068.9	1065.0	1061.0	1057.1	1050.7	1042.2	1033.5	1024.9	1016.2	1012.3
30°	1041.5	1037.4	1033.3	1029.2	1025.0	1018.3	1009.3	1000.1	991.0	981.8	976.9
32.5°	1011.0	1006.2	1001.4	996.6	991.6	984.6	975.3	966.0	956.7	947.3	941.9
35°	961.3	956.0	950.8	945.6	940.4	932.8	923.1	913.3	903.5	893.7	887.4
37.5°	912.5	906.2	899.8	893.4	887.1	878.9	868.8	858.7	848.6	838.5	830.9
40°	878.1	871.6	865.0	858.5	852.0	843.5	833.0	822.6	812.2	801.7	793.4
42.5°	842.1	835.4	828.7	821.9	815.2	806.5	795.7	784.9	774.1	763.4	755.4
45°	787.0	780.7	774.4	768.1	761.8	752.6	740.6	728.8	716.8	704.8	696.1
47.5°	730.1	723.4	716.7	710.1	703.4	694.1	682.0	670.0	657.9	645.8	636.9
50°	694.0	686.8	679.7	672.5	665.3	655.5	643.1	630.7	618.3	606.0	596.8
52.5°	654.9	647.5	640.2	632.8	625.5	616.0	604.3	592.6	580.8	569.1	559.3
55°	597.1	590.1	583.2	576.3	569.3	559.7	547.5	535.4	523.2	511.0	501.1
57.5°	538.8	531.3	523.9	516.4	509.1	499.5	487.7	475.9	464.2	452.4	442.9
60°	501.1	493.6	486.0	478.3	470.7	461.1	449.3	437.5	425.8	414.1	404.5
62.5°	461.3	454.0	446.8	439.4	432.2	422.6	410.7	398.8	386.8	374.9	366.1
65°	404.3	396.9	389.5	382.1	374.7	365.2	353.7	342.1	330.6	319.1	310.4
67.5°	347.7	340.3	332.9	325.6	318.1	308.9	297.8	286.8	275.8	264.7	256.7
70°	309.3	301.9	294.5	287.1	279.7	270.6	259.8	248.8	238.0	227.1	220.4
72.5°	271.7	264.5	257.3	250.1	242.9	234.1	223.9	213.8	203.6	193.4	187.2
75°	215.4	208.9	202.3	195.8	189.3	181.4	172.3	163.2	154.0	144.9	140.1
77.5°	159.4	154.1	148.9	143.7	138.5	132.2	124.9	117.6	110.3	103.0	99.6
80°	127.2	122.1	116.8	111.6	106.4	100.8	94.6	88.5	82.5	76.3	74.4
82.5°	96.0	91.2	86.5	81.8	77.1	72.7	68.5	64.4	60.1	56.0	55.0
85°	53.8	50.0	46.0	42.1	38.2	35.6	34.6	33.5	32.4	31.3	31.1
87.5°	18.2	17.3	16.4	15.6	14.7	14.3	14.4	14.5	14.6	14.8	15.0
90°	0.9	2.6	4.2	5.9	7.6	9.2	10.7	12.2	13.6	15.1	16.1
92.5°	22.8	23.9	25.1	26.3	27.4	28.9	30.7	32.5	34.3	36.1	37.5
95°	61.2	61.5	62.0	62.4	62.9	64.1	66.2	68.2	70.4	72.5	73.9
97.5°	101.6	101.8	102.0	102.2	102.3	103.9	106.7	109.6	112.4	115.4	116.8
100°	131.8	131.8	131.8	131.8	131.8	133.1	135.8	138.6	141.3	143.9	145.8
102.5°	164.1	164.9	165.8	166.6	167.5	168.5	169.9	171.4	172.7	174.1	176.2
105°	214.5	215.6	216.6	217.7	218.8	219.9	221.1	222.3	223.7	224.9	226.1
107.5°	270.2	271.3	272.3	273.4	274.5	275.4	276.4	277.4	278.3	279.3	279.9
110°	308.7	309.7	310.8	311.8	312.8	313.7	314.2	314.9	315.6	316.1	316.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	347.8	348.4	348.8	349.4	350.0	350.6	351.5	352.2	353.0	353.8	354.1
115°	405.6	406.4	407.3	408.1	408.9	409.5	409.9	410.4	410.8	411.2	411.0
117.5°	463.5	463.9	464.3	464.7	465.1	465.4	465.8	466.2	466.6	466.9	467.1
120°	499.6	500.7	501.7	502.8	503.9	504.4	504.6	504.9	505.1	505.3	505.3
122.5°	538.9	539.2	539.6	540.0	540.4	540.7	541.3	541.9	542.4	542.9	542.8
125°	591.9	593.1	594.4	595.7	596.9	597.7	597.9	598.0	598.2	598.5	598.0
127.5°	648.4	649.0	649.8	650.4	651.2	651.7	652.0	652.1	652.4	652.7	652.4
130°	682.2	683.2	684.3	685.3	686.4	687.1	687.6	688.0	688.3	688.8	688.6
132.5°	716.0	717.8	719.5	721.2	722.9	723.8	723.7	723.6	723.5	723.4	723.2
135°	769.8	771.0	772.2	773.5	774.8	775.5	775.7	775.9	776.1	776.3	776.3
137.5°	820.2	821.3	822.6	823.8	825.0	825.9	826.3	826.8	827.3	827.6	827.9
140°	852.5	853.6	854.6	855.6	856.7	857.5	858.2	858.8	859.4	860.1	860.4
142.5°	884.9	885.8	886.6	887.5	888.4	889.3	890.0	890.9	891.6	892.4	892.7
145°	932.6	933.4	934.2	935.0	935.9	936.6	937.3	937.8	938.5	939.1	939.1
147.5°	976.6	977.0	977.5	978.0	978.4	978.9	979.4	979.9	980.3	980.9	981.4
150°	1005.9	1005.7	1005.5	1005.3	1005.1	1005.4	1006.3	1007.1	1007.9	1008.7	1008.7
152.5°	1030.0	1030.3	1030.6	1030.9	1031.1	1031.5	1031.8	1032.2	1032.5	1032.8	1033.3
155°	1067.1	1067.1	1067.1	1067.1	1067.1	1067.1	1067.4	1067.6	1067.8	1068.0	1068.8
157.5°	1100.2	1099.8	1099.3	1098.8	1098.3	1098.3	1098.4	1098.6	1098.9	1099.1	1099.9
160°	1119.7	1119.2	1118.5	1117.9	1117.3	1117.1	1117.3	1117.5	1117.7	1117.9	1118.7
162.5°	1137.1	1136.6	1136.1	1135.7	1135.3	1135.0	1135.1	1135.1	1135.2	1135.2	1136.2
165°	1160.3	1159.8	1159.4	1159.0	1158.6	1158.5	1158.7	1158.9	1159.0	1159.3	1160.2
167.5°	1179.8	1178.9	1178.2	1177.3	1176.5	1176.0	1176.0	1176.0	1176.0	1176.0	1177.3
170°	1190.3	1189.5	1188.6	1187.9	1187.0	1186.6	1186.6	1186.6	1186.6	1186.6	1187.9
172.5°	1197.9	1197.0	1196.2	1195.3	1194.6	1194.1	1194.1	1194.1	1194.1	1194.1	1195.3
175°	1206.4	1205.5	1204.7	1203.8	1203.0	1202.6	1202.6	1202.6	1202.6	1202.6	1203.8
177.5°	1210.7	1210.0	1209.4	1208.6	1208.0	1207.6	1207.4	1207.2	1207.1	1206.9	1208.0
180°	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1291.7	1293.5	1295.1	1296.0	1295.8	1295.6	1295.4	1295.2
5°	1283.7	1285.9	1288.1	1289.0	1288.5	1288.1	1287.7	1287.2
7.5°	1267.8	1269.3	1270.8	1271.3	1270.8	1270.4	1269.9	1269.4
10°	1254.2	1254.9	1255.6	1255.6	1254.9	1254.2	1253.6	1253.0
12.5°	1235.1	1235.6	1236.1	1235.9	1234.8	1233.8	1232.8	1231.8
15°	1203.6	1203.3	1203.2	1202.1	1200.1	1198.2	1196.2	1194.2
17.5°	1164.2	1163.2	1162.1	1160.7	1159.1	1157.5	1155.9	1154.3
20°	1135.3	1134.2	1133.1	1131.6	1129.6	1127.7	1125.7	1123.8
22.5°	1106.5	1104.5	1102.3	1100.4	1098.8	1097.2	1095.6	1094.0
25°	1059.4	1056.6	1053.8	1051.1	1048.7	1046.3	1044.0	1041.5
27.5°	1008.3	1004.4	1000.4	997.3	995.0	992.7	990.4	988.1
30°	971.9	966.9	961.8	958.4	956.4	954.4	952.4	950.5
32.5°	936.3	930.8	925.3	921.2	918.8	916.3	913.8	911.3
35°	881.1	874.8	868.5	863.8	860.7	857.7	854.7	851.6
37.5°	823.4	815.8	808.2	803.0	800.0	797.0	794.1	791.2
40°	785.1	776.9	768.6	763.2	760.6	758.0	755.4	752.8
42.5°	747.5	739.6	731.7	725.8	722.0	718.1	714.3	710.5
45°	687.4	678.7	670.0	664.0	660.7	657.5	654.2	650.9
47.5°	627.9	619.0	610.0	603.7	600.1	596.5	592.9	589.3
50°	587.7	578.5	569.4	563.2	560.0	556.7	553.4	550.2
52.5°	549.5	539.6	529.8	523.2	520.0	516.7	513.5	510.2
55°	491.4	481.6	471.8	465.1	461.8	458.3	454.8	451.3
57.5°	433.3	423.8	414.2	407.8	404.7	401.6	398.6	395.5
60°	394.9	385.3	375.8	369.4	366.1	362.9	359.6	356.3
62.5°	357.1	348.3	339.4	333.4	330.1	326.8	323.6	320.3
65°	301.7	293.0	284.3	278.3	275.0	271.8	268.5	265.2
67.5°	248.7	240.8	232.8	227.5	225.0	222.3	219.7	217.2
70°	213.6	206.9	200.1	195.5	192.8	190.2	187.7	185.0
72.5°	181.0	174.7	168.5	164.6	162.8	161.1	159.4	157.6
75°	135.3	130.5	125.7	122.6	121.0	119.5	118.0	116.5
77.5°	96.2	92.9	89.5	87.4	86.2	85.1	84.0	82.8
80°	72.5	70.5	68.5	67.3	66.9	66.4	66.0	65.6
82.5°	54.2	53.3	52.3	51.7	51.5	51.3	51.0	50.7
85°	30.9	30.6	30.4	30.3	30.0	29.8	29.6	29.4
87.5°	15.2	15.4	15.6	15.6	15.6	15.6	15.6	15.5
90°	17.2	18.2	19.2	20.1	20.7	21.3	22.0	22.6
92.5°	38.9	40.2	41.7	42.6	43.1	43.5	43.9	44.4
95°	75.4	76.8	78.3	79.3	79.6	80.1	80.5	81.0
97.5°	118.1	119.5	120.9	121.7	122.0	122.2	122.4	122.7
100°	147.7	149.6	151.5	152.7	153.1	153.4	153.9	154.3
102.5°	178.1	180.2	182.3	183.6	184.2	184.7	185.4	186.0
105°	227.4	228.7	229.9	230.8	231.5	232.1	232.7	233.4
107.5°	280.5	281.2	281.8	282.1	282.0	282.0	282.0	281.9
110°	317.4	318.0	318.7	318.9	318.7	318.5	318.3	318.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	354.4	354.7	355.0	355.0	354.6	354.2	353.8	353.5
115°	410.8	410.6	410.4	410.2	409.9	409.7	409.5	409.3
117.5°	467.2	467.4	467.6	467.2	466.4	465.6	464.8	463.9
120°	505.3	505.3	505.3	504.9	504.1	503.2	502.4	501.5
122.5°	542.6	542.4	542.2	541.9	541.2	540.5	539.9	539.2
125°	597.7	597.2	596.8	596.4	596.3	596.1	595.9	595.7
127.5°	652.2	652.1	651.9	651.5	651.1	650.6	650.3	649.9
130°	688.3	688.2	688.0	687.7	687.2	686.8	686.4	686.0
132.5°	723.0	722.8	722.6	722.2	721.6	721.0	720.5	719.8
135°	776.3	776.3	776.3	775.9	775.1	774.2	773.4	772.5
137.5°	828.2	828.4	828.7	828.3	827.3	826.2	825.2	824.2
140°	860.9	861.3	861.8	861.4	860.4	859.3	858.3	857.2
142.5°	893.0	893.2	893.4	893.1	892.0	891.0	889.9	888.8
145°	939.1	939.1	939.1	938.8	938.2	937.5	936.9	936.3
147.5°	981.8	982.4	982.9	982.4	981.0	979.6	978.2	976.8
150°	1008.7	1008.7	1008.7	1008.5	1008.1	1007.7	1007.3	1006.8
152.5°	1033.9	1034.3	1034.8	1034.7	1034.0	1033.2	1032.5	1031.7
155°	1069.7	1070.5	1071.4	1071.3	1070.3	1069.1	1068.1	1067.1
157.5°	1100.7	1101.5	1102.4	1102.1	1100.8	1099.4	1098.0	1096.6
160°	1119.6	1120.4	1121.2	1121.2	1120.1	1119.1	1118.0	1116.9
162.5°	1137.2	1138.2	1139.3	1139.2	1137.9	1136.7	1135.5	1134.3
165°	1160.9	1161.8	1162.6	1162.4	1161.2	1159.9	1158.7	1157.4
167.5°	1178.6	1179.8	1181.1	1181.0	1179.8	1178.5	1177.1	1175.8
170°	1189.1	1190.3	1191.6	1191.5	1190.1	1188.5	1187.1	1185.6
172.5°	1196.7	1197.9	1199.1	1199.1	1197.8	1196.6	1195.2	1193.9
175°	1205.1	1206.4	1207.6	1207.5	1206.1	1204.6	1203.1	1201.6
177.5°	1208.9	1209.9	1210.9	1210.9	1209.7	1208.5	1207.3	1206.2
180°	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2

(END OF REPORT)