

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: P333710-927

Luminaire Tested: **S125RDIW-S1090D1050U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333710-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIW-S1090D1050U927-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6666.2 lumens
Efficiency: N/A
Efficacy: 108.9 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

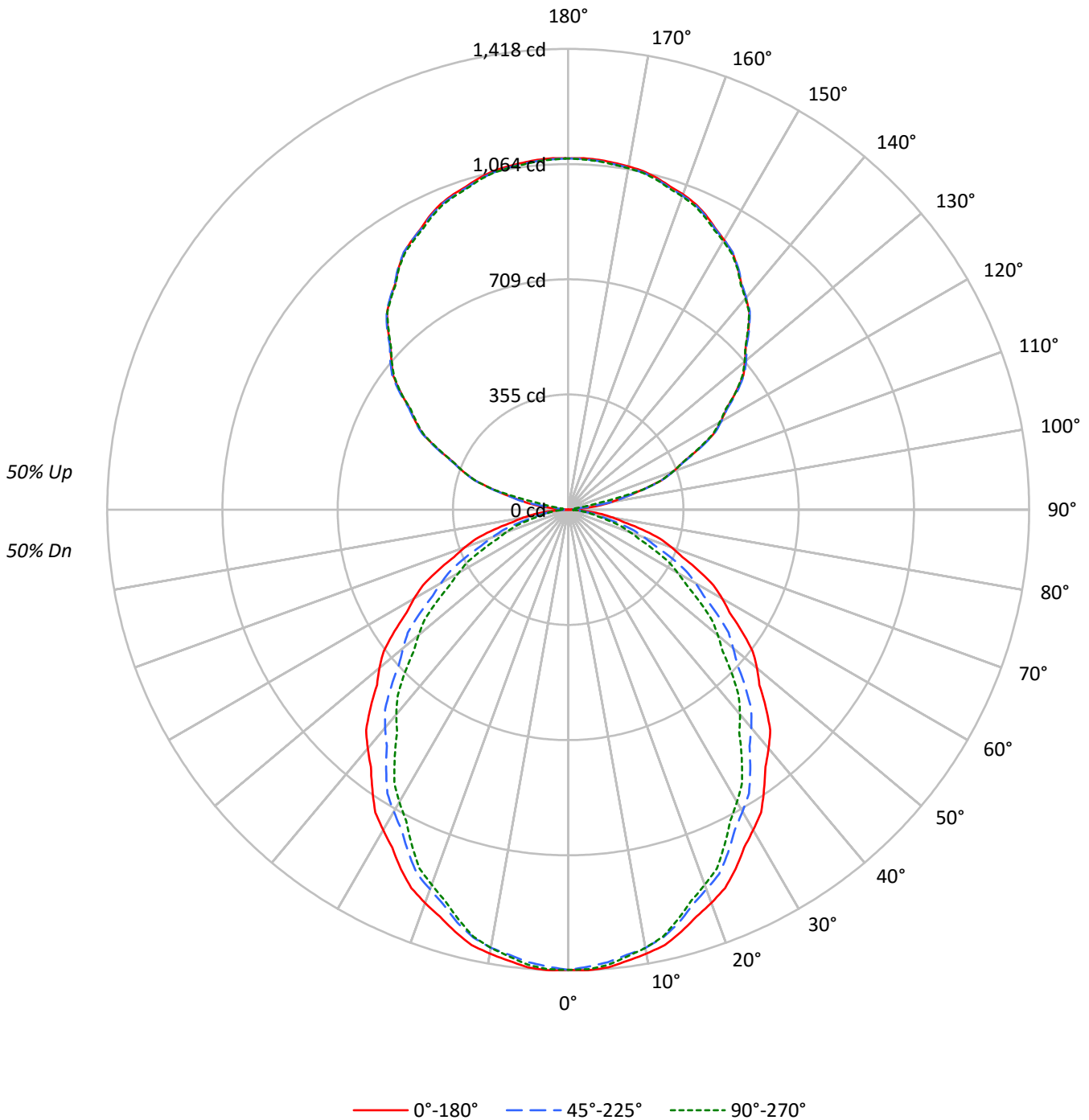
Input Watts (W): 61.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	0	
RCR																						
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	98	94	90	87	90	87	83	81	74	71	69	61	60	58	50	49	48	43				
2	89	82	76	71	82	76	71	66	65	61	57	54	51	49	44	42	41	36				
3	82	72	65	59	75	67	61	56	57	52	49	48	45	42	39	37	35	31				
4	75	64	56	50	69	60	53	47	51	46	42	43	39	36	35	33	30	27				
5	69	57	49	43	63	53	46	41	46	40	36	39	34	31	32	29	26	23				
6	63	51	43	38	58	48	41	36	41	36	31	35	31	27	29	26	23	20				
7	59	46	39	33	54	43	36	31	37	32	28	32	27	24	27	23	21	18				
8	54	42	35	29	50	39	33	28	34	29	25	29	25	22	24	21	19	16				
9	51	39	31	26	47	36	29	25	31	26	22	27	23	20	23	19	17	15				
10	47	35	28	23	44	33	27	22	29	24	20	25	21	18	21	18	15	13				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9144	9144	9144
5°	9166	9061	9117
10°	9096	8977	8977
15°	8988	8795	8723
20°	8849	8541	8438
25°	8688	8292	8109
30°	8486	7999	7744
35°	8280	7698	7335
40°	8088	7384	6933
45°	7853	7033	6495
50°	7618	6650	6038
55°	7346	6286	5551
60°	7073	5842	5028
65°	6748	5327	4429
70°	6381	4685	3816
75°	5871	3950	3174
80°	5170	3102	2663
85°	4357	2534	2379



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.1	2.0
10°-20°	372.1	5.6
20°-30°	539.6	8.1
30°-40°	614.9	9.2
40°-50°	599.4	9.0
50°-60°	504.6	7.6
60°-70°	353.7	5.3
70°-80°	181.8	2.7
80°-90°	48.2	0.7
90°-100°	39.3	0.6
100°-110°	242.1	3.6
110°-120°	439.0	6.6
120°-130°	563.4	8.5
130°-140°	606.0	9.1
140°-150°	568.8	8.5
150°-160°	460.1	6.9
160°-170°	297.6	4.5
170°-180°	102.6	1.5
0°-30°	1044.8	15.7
0°-40°	1659.7	24.9
0°-60°	2763.6	41.5
0°-90°	3347.3	50.2
90°-120°	720.3	10.8
90°-150°	2458.6	36.9
90°-180°	3319.0	49.8
0°-180°	6666.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1414	1409	1398	1408	1406	134
15°	1344	1337	1315	1314	1305	379
25°	1219	1202	1164	1150	1138	561
35°	1050	1023	976	946	930	657
45°	860	827	770	729	711	663
55°	652	617	558	512	493	583
65°	442	404	349	307	290	437
75°	235	202	158	136	127	249
85°	59	40	34	33	32	66
90°	1	7	13	17	19	5
95°	46	42	13	17	17	58
105°	236	239	239	239	238	250
115°	442	446	447	444	439	438
125°	629	634	634	631	629	562
135°	784	789	788	786	781	604
145°	909	911	911	911	907	568
155°	1002	997	998	1000	994	461
165°	1057	1052	1053	1057	1051	298
175°	1081	1076	1077	1082	1076	103
180°	1081	1081	1081	1081	1081	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9
2.5°	1418.5	1417.9	1417.4	1416.7	1416.2	1415.0	1413.1	1411.2	1409.3	1407.4	1409.3
5°	1413.8	1412.9	1411.9	1411.0	1410.0	1408.2	1405.6	1403.0	1400.3	1397.7	1400.1
7.5°	1399.9	1399.0	1398.0	1397.2	1396.2	1394.2	1391.1	1388.0	1384.8	1381.7	1383.4
10°	1387.0	1386.3	1385.6	1384.9	1384.2	1382.2	1378.9	1375.5	1372.2	1368.9	1369.6
12.5°	1372.5	1371.6	1370.7	1369.8	1368.9	1366.2	1361.8	1357.2	1352.8	1348.3	1348.8
15°	1344.3	1342.8	1341.4	1340.0	1338.6	1335.4	1330.4	1325.4	1320.4	1315.4	1315.2
17.5°	1312.4	1310.2	1308.1	1305.8	1303.6	1299.4	1293.2	1286.9	1280.6	1274.3	1273.1
20°	1287.6	1285.2	1282.9	1280.5	1278.1	1273.1	1265.5	1257.9	1250.3	1242.7	1241.5
22.5°	1260.2	1257.8	1255.5	1253.1	1250.7	1245.5	1237.5	1229.5	1221.5	1213.5	1211.2
25°	1219.2	1215.6	1212.0	1208.5	1204.9	1198.7	1189.9	1181.1	1172.4	1163.6	1160.5
27.5°	1172.1	1167.8	1163.4	1159.1	1154.8	1148.0	1138.5	1129.1	1119.7	1110.2	1106.0
30°	1137.9	1133.4	1128.9	1124.3	1119.8	1112.5	1102.6	1092.6	1082.6	1072.6	1067.1
32.5°	1104.5	1099.2	1093.9	1088.7	1083.4	1075.7	1065.5	1055.3	1045.1	1035.0	1029.0
35°	1050.2	1044.5	1038.8	1033.1	1027.4	1019.1	1008.4	997.8	987.1	976.4	969.5
37.5°	996.9	990.0	983.0	976.1	969.2	960.2	949.1	938.1	927.1	916.1	907.8
40°	959.3	952.1	945.0	937.9	930.7	921.5	910.1	898.7	887.2	875.8	866.8
42.5°	919.9	912.6	905.3	897.9	890.7	881.1	869.3	857.5	845.7	833.9	825.3
45°	859.8	852.9	846.1	839.2	832.3	822.3	809.2	796.1	783.1	770.0	760.5
47.5°	797.6	790.3	783.0	775.8	768.5	758.3	745.1	731.9	718.7	705.6	695.8
50°	758.2	750.4	742.5	734.7	726.8	716.1	702.6	689.0	675.5	661.9	652.0
52.5°	715.4	707.4	699.3	691.3	683.3	672.9	660.1	647.3	634.5	621.8	611.0
55°	652.4	644.8	637.2	629.5	621.9	611.5	598.2	584.9	571.6	558.3	547.6
57.5°	588.6	580.5	572.4	564.2	556.1	545.7	532.8	520.0	507.2	494.3	483.9
60°	547.6	539.2	530.9	522.6	514.3	503.7	490.8	478.0	465.2	452.3	441.9
62.5°	503.9	496.0	488.1	480.1	472.1	461.7	448.7	435.6	422.6	409.6	399.9
65°	441.6	433.6	425.5	417.4	409.3	399.0	386.4	373.8	361.2	348.6	339.1
67.5°	379.9	371.8	363.7	355.6	347.5	337.5	325.3	313.3	301.3	289.1	280.5
70°	337.9	329.9	321.8	313.7	305.6	295.6	283.8	271.9	260.0	248.1	240.7
72.5°	296.9	289.0	281.1	273.2	265.3	255.8	244.7	233.5	222.4	211.4	204.5
75°	235.3	228.1	221.0	213.9	206.8	198.2	188.2	178.2	168.3	158.3	153.0
77.5°	174.1	168.4	162.7	157.0	151.3	144.4	136.5	128.5	120.5	112.5	108.8
80°	139.0	133.3	127.6	121.9	116.2	110.0	103.4	96.7	90.1	83.4	81.3
82.5°	104.8	99.7	94.5	89.4	84.3	79.5	74.9	70.3	65.8	61.2	60.2
85°	58.8	54.5	50.2	45.9	41.7	39.0	37.8	36.6	35.4	34.2	34.0
87.5°	19.8	18.8	17.7	16.7	15.7	15.1	15.2	15.3	15.4	15.4	15.6
90°	0.8	2.2	3.6	5.1	6.5	7.8	9.1	10.3	11.6	12.8	13.7
92.5°	12.4	11.3	10.4	9.3	8.3	8.4	9.5	10.6	11.7	12.8	13.7
95°	45.6	45.2	44.6	44.0	43.6	39.8	33.1	26.4	19.6	12.8	13.7
97.5°	95.4	96.3	97.3	98.2	99.2	93.0	79.6	66.2	52.8	39.5	34.4
100°	133.8	134.4	134.8	135.4	135.9	136.6	137.3	138.0	138.7	139.4	112.9
102.5°	172.9	173.6	174.3	174.9	175.6	176.2	176.6	177.0	177.4	177.8	172.9
105°	235.5	236.2	236.9	237.7	238.4	238.8	238.8	238.8	238.8	238.8	238.8
107.5°	300.6	300.6	300.6	300.6	300.6	300.8	301.1	301.5	301.8	302.2	302.2
110°	342.9	342.9	342.9	342.9	342.9	343.1	343.4	343.8	344.1	344.5	344.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	382.6	383.1	383.5	383.9	384.4	384.7	384.9	385.1	385.3	385.6	384.8
115°	442.3	443.1	444.0	444.9	445.8	446.3	446.6	446.7	446.9	447.0	446.3
117.5°	504.0	503.9	503.9	503.8	503.8	504.1	504.8	505.5	506.1	506.8	505.9
120°	542.4	542.2	542.0	541.9	541.7	541.9	542.4	543.0	543.4	544.0	543.7
122.5°	576.4	577.0	577.7	578.4	579.1	579.6	579.8	580.0	580.3	580.5	580.2
125°	628.9	630.2	631.4	632.6	633.9	634.5	634.5	634.5	634.5	634.5	633.8
127.5°	679.1	680.0	680.9	681.8	682.6	683.0	682.9	682.9	682.7	682.6	682.2
130°	709.9	710.7	711.6	712.5	713.4	713.9	714.2	714.3	714.5	714.6	714.2
132.5°	740.6	741.6	742.7	743.7	744.7	745.0	744.7	744.3	743.9	743.5	743.4
135°	784.3	785.4	786.5	787.6	788.6	789.0	788.6	788.3	787.9	787.6	787.2
137.5°	824.6	825.5	826.4	827.4	828.3	828.6	828.3	828.0	827.6	827.3	827.4
140°	850.9	851.2	851.6	851.9	852.3	852.4	852.2	852.0	851.8	851.7	852.0
142.5°	874.6	874.8	875.0	875.2	875.4	875.7	875.9	876.2	876.4	876.6	876.7
145°	909.3	909.7	910.1	910.5	910.8	910.9	910.9	910.9	910.9	910.9	911.2
147.5°	939.8	939.8	939.7	939.6	939.5	939.6	939.8	940.0	940.2	940.4	940.6
150°	959.0	958.7	958.3	958.0	957.6	957.6	958.0	958.3	958.7	959.0	959.4
152.5°	977.6	976.8	976.0	975.3	974.5	974.3	974.6	975.0	975.3	975.7	976.0
155°	1001.5	1000.4	999.3	998.3	997.2	996.9	997.2	997.6	997.9	998.3	998.8
157.5°	1019.9	1019.3	1018.7	1018.0	1017.3	1017.1	1017.1	1017.1	1017.2	1017.2	1017.8
160°	1032.8	1031.7	1030.6	1029.5	1028.5	1028.0	1028.2	1028.4	1028.6	1028.7	1029.4
162.5°	1043.0	1042.0	1040.8	1039.8	1038.7	1038.2	1038.5	1038.6	1038.8	1038.9	1040.0
165°	1056.8	1055.7	1054.6	1053.6	1052.5	1052.0	1052.3	1052.4	1052.6	1052.7	1053.8
167.5°	1067.0	1066.0	1064.9	1063.7	1062.6	1062.2	1062.3	1062.5	1062.7	1062.9	1064.1
170°	1072.8	1071.6	1070.3	1069.1	1067.8	1067.3	1067.5	1067.6	1067.8	1068.0	1069.4
172.5°	1076.7	1075.4	1074.1	1072.9	1071.7	1071.2	1071.5	1071.8	1072.1	1072.5	1073.7
175°	1080.8	1079.7	1078.6	1077.6	1076.5	1076.1	1076.3	1076.4	1076.7	1076.8	1078.2
177.5°	1082.8	1081.9	1081.0	1080.1	1079.3	1079.0	1079.1	1079.3	1079.3	1079.5	1080.5
180°	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9
2.5°	1411.2	1413.1	1415.0	1415.8	1415.6	1415.5	1415.2	1415.1
5°	1402.5	1404.9	1407.2	1408.2	1407.7	1407.2	1406.8	1406.3
7.5°	1385.1	1386.7	1388.4	1388.9	1388.4	1387.9	1387.3	1386.8
10°	1370.3	1371.0	1371.7	1371.7	1371.0	1370.3	1369.6	1368.9
12.5°	1349.4	1349.9	1350.4	1350.1	1349.0	1348.0	1346.9	1345.8
15°	1314.9	1314.7	1314.5	1313.3	1311.1	1309.0	1306.9	1304.7
17.5°	1271.9	1270.7	1269.6	1268.1	1266.3	1264.6	1262.8	1261.1
20°	1240.3	1239.1	1237.9	1236.3	1234.1	1232.0	1229.9	1227.7
22.5°	1208.9	1206.6	1204.3	1202.2	1200.5	1198.7	1196.9	1195.2
25°	1157.4	1154.3	1151.2	1148.3	1145.7	1143.1	1140.5	1137.9
27.5°	1101.6	1097.3	1093.0	1089.6	1087.0	1084.5	1082.0	1079.5
30°	1061.7	1056.2	1050.8	1046.9	1044.8	1042.7	1040.5	1038.4
32.5°	1022.9	1016.8	1010.8	1006.5	1003.8	1001.1	998.3	995.6
35°	962.6	955.7	948.8	943.7	940.4	937.1	933.7	930.4
37.5°	899.5	891.3	883.0	877.3	874.0	870.8	867.5	864.3
40°	857.8	848.7	839.7	833.8	830.9	828.1	825.2	822.4
42.5°	816.7	807.9	799.3	792.9	788.7	784.6	780.4	776.2
45°	751.0	741.5	732.0	725.4	721.8	718.3	714.7	711.1
47.5°	686.0	676.2	666.5	659.6	655.6	651.6	647.8	643.8
50°	642.0	632.0	622.0	615.3	611.7	608.2	604.6	601.0
52.5°	600.3	589.5	578.8	571.6	568.1	564.5	560.9	557.4
55°	536.9	526.2	515.5	508.2	504.4	500.6	496.8	493.0
57.5°	473.4	463.0	452.5	445.5	442.2	438.8	435.4	432.1
60°	431.4	421.0	410.5	403.5	400.0	396.4	392.8	389.3
62.5°	390.2	380.5	370.8	364.2	360.6	357.0	353.5	349.9
65°	329.6	320.1	310.6	304.0	300.5	296.9	293.3	289.8
67.5°	271.8	263.1	254.4	248.6	245.7	242.9	240.0	237.2
70°	233.4	226.0	218.6	213.5	210.6	207.8	204.9	202.1
72.5°	197.7	190.9	184.1	179.7	177.8	175.9	174.0	172.1
75°	147.8	142.6	137.4	133.9	132.2	130.6	128.9	127.2
77.5°	105.2	101.6	97.8	95.4	94.2	92.9	91.7	90.5
80°	79.1	77.0	74.9	73.5	73.0	72.6	72.1	71.6
82.5°	59.2	58.1	57.2	56.6	56.2	55.9	55.7	55.4
85°	33.7	33.5	33.3	33.0	32.8	32.6	32.3	32.1
87.5°	15.8	15.9	16.1	16.2	16.1	16.0	15.9	15.8
90°	14.6	15.5	16.4	17.1	17.7	18.1	18.7	19.3
92.5°	14.6	15.5	16.4	17.0	17.2	17.4	17.7	18.0
95°	14.6	15.5	16.4	16.8	16.8	16.8	16.8	16.8
97.5°	29.4	24.3	19.3	16.8	16.8	16.8	16.8	16.8
100°	86.3	59.8	33.3	19.6	18.9	18.2	17.5	16.8
102.5°	167.8	162.8	157.8	149.2	137.1	125.0	112.9	100.8
105°	238.8	238.8	238.8	238.7	238.5	238.3	238.1	238.0
107.5°	302.3	302.3	302.4	302.1	301.6	301.0	300.5	300.0
110°	343.4	342.9	342.4	342.2	342.4	342.5	342.7	342.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	384.2	383.5	382.9	382.4	382.1	381.8	381.6	381.4
115°	445.6	444.9	444.2	443.3	442.3	441.2	440.1	439.0
117.5°	505.0	504.1	503.1	502.4	502.0	501.5	501.1	500.6
120°	543.3	543.0	542.6	541.9	541.1	540.2	539.3	538.4
122.5°	579.8	579.5	579.1	578.5	577.4	576.4	575.4	574.3
125°	633.1	632.4	631.7	631.1	630.6	630.0	629.5	628.9
127.5°	681.8	681.4	681.0	680.2	678.9	677.6	676.2	674.9
130°	713.6	713.0	712.5	711.8	710.9	710.0	709.2	708.3
132.5°	743.3	743.1	743.1	742.6	741.7	740.8	739.9	739.0
135°	786.9	786.5	786.2	785.4	784.3	783.3	782.2	781.2
137.5°	827.4	827.5	827.6	827.2	826.2	825.3	824.4	823.5
140°	852.4	852.7	853.1	852.7	851.7	850.6	849.5	848.4
142.5°	876.8	876.9	876.9	876.5	875.4	874.3	873.2	872.2
145°	911.3	911.5	911.6	911.2	910.1	909.1	908.0	907.0
147.5°	940.9	941.1	941.3	940.8	939.4	938.2	936.9	935.6
150°	959.7	960.1	960.4	959.9	958.5	957.0	955.6	954.2
152.5°	976.4	976.8	977.1	976.7	975.3	974.1	972.8	971.5
155°	999.3	999.9	1000.4	1000.0	998.5	997.1	995.7	994.3
157.5°	1018.4	1018.9	1019.5	1019.1	1017.6	1016.2	1014.8	1013.4
160°	1030.2	1030.9	1031.6	1031.2	1029.8	1028.4	1027.0	1025.6
162.5°	1041.0	1042.0	1043.0	1042.7	1041.1	1039.6	1038.0	1036.4
165°	1054.9	1056.0	1057.0	1056.9	1055.4	1054.0	1052.6	1051.1
167.5°	1065.4	1066.7	1068.0	1067.9	1066.2	1064.6	1063.0	1061.4
170°	1070.9	1072.3	1073.7	1073.6	1072.0	1070.4	1068.8	1067.1
172.5°	1075.1	1076.3	1077.6	1077.4	1075.9	1074.2	1072.6	1071.0
175°	1079.7	1081.1	1082.5	1082.4	1080.8	1079.2	1077.6	1076.0
177.5°	1081.5	1082.5	1083.5	1083.5	1082.3	1081.2	1080.1	1078.9
180°	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8

(END OF REPORT)