

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: P333695-940

Luminaire Tested: **S125RDIW-S850D1340U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333695-940
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: S125RDIW-S850D1340U940-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7047.5 lumens
Efficiency: N/A
Efficacy: 114.8 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

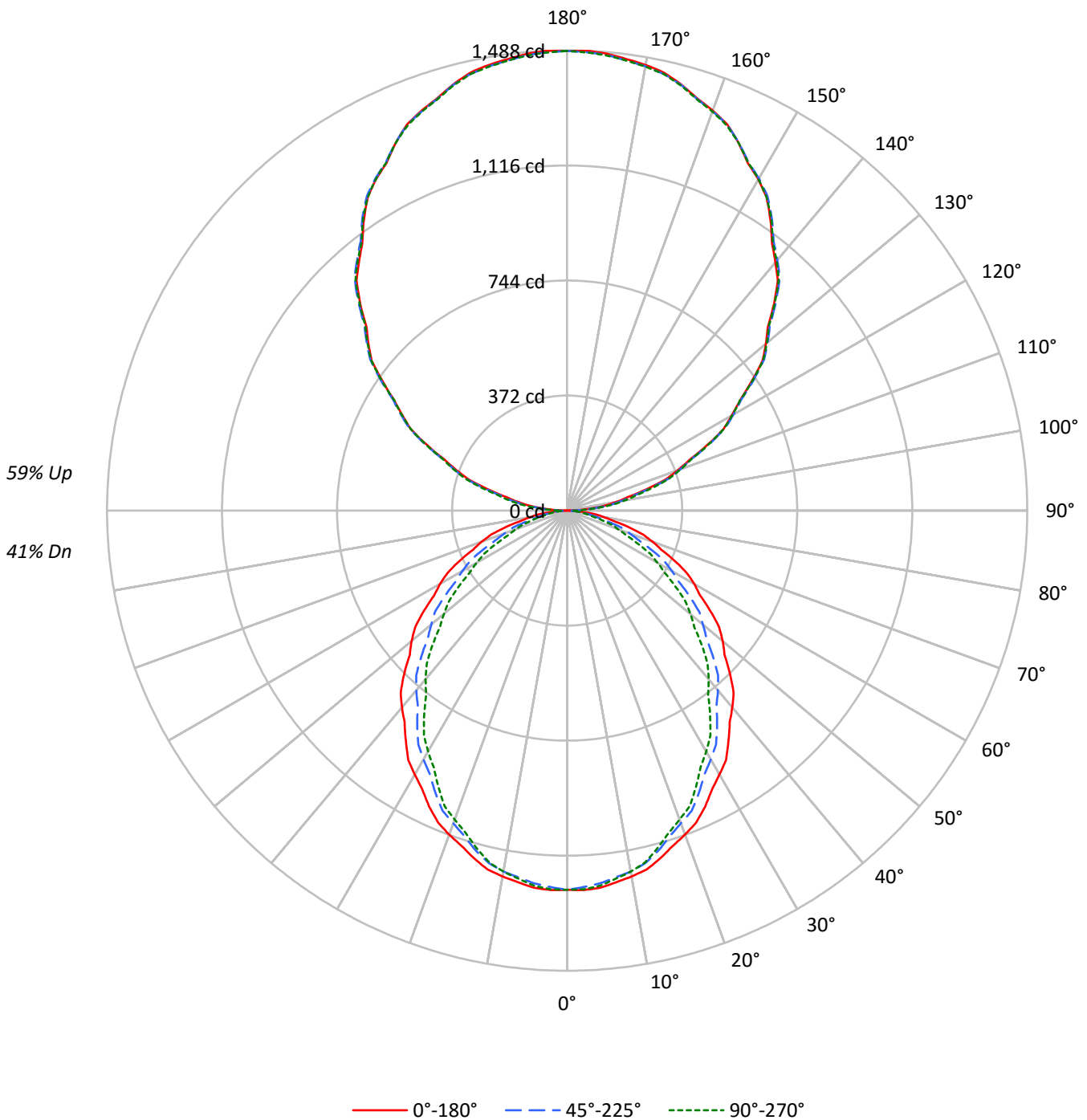
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	105	105	105	105	96	96	96	96	78	78	78	63	63	63	48	48	48	41
1	96	92	88	85	87	84	81	78	69	67	65	55	54	52	43	42	41	35
2	88	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30
3	80	71	64	58	73	65	59	54	54	49	45	43	40	37	34	31	30	25
4	73	63	55	49	66	57	51	46	48	43	39	39	35	32	30	28	26	22
5	67	56	48	42	61	51	44	39	43	37	33	35	31	28	27	25	22	19
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	25	22	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	48	38	31	26	32	27	23	26	22	19	21	18	16	13
9	49	37	30	25	45	35	28	24	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7919	7919	7919
5°	7937	7847	7895
10°	7877	7774	7774
15°	7783	7616	7554
20°	7663	7396	7307
25°	7524	7180	7021
30°	7348	6927	6706
35°	7171	6666	6352
40°	7003	6395	6004
45°	6801	6090	5624
50°	6597	5760	5230
55°	6361	5443	4808
60°	6124	5059	4354
65°	5845	4614	3834
70°	5527	4056	3305
75°	5085	3421	2750
80°	4478	2685	2310
85°	3772	2193	2060



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	1.6
10°-20°	322.2	4.6
20°-30°	467.2	6.6
30°-40°	532.5	7.6
40°-50°	519.1	7.4
50°-60°	436.9	6.2
60°-70°	306.3	4.3
70°-80°	157.4	2.2
80°-90°	43.0	0.6
90°-100°	99.5	1.4
100°-110°	294.0	4.2
110°-120°	497.9	7.1
120°-130°	655.3	9.3
130°-140°	734.3	10.4
140°-150°	719.7	10.2
150°-160°	604.5	8.6
160°-170°	401.8	5.7
170°-180°	140.6	2.0
0°-30°	904.7	12.8
0°-40°	1437.3	20.4
0°-60°	2393.2	34.0
0°-90°	2900.0	41.1
90°-120°	891.4	12.6
90°-150°	3000.7	42.6
90°-180°	4148.0	58.9
0°-180°	7047.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1226	1226	1226	1226	1226	
5°	1224	1220	1210	1219	1218	116
15°	1164	1158	1139	1138	1130	328
25°	1056	1041	1008	996	985	486
35°	910	886	846	819	806	569
45°	745	716	667	631	616	574
55°	565	534	483	443	427	505
65°	382	350	302	266	251	379
75°	204	175	137	118	110	216
85°	51	35	30	29	28	57
90°	1	10	18	24	28	7
95°	75	78	89	97	100	80
105°	264	270	276	283	287	282
115°	499	503	506	504	503	493
125°	728	734	736	733	732	651
135°	946	953	954	954	950	729
145°	1146	1151	1154	1154	1151	716
155°	1312	1312	1313	1317	1312	604
165°	1426	1424	1425	1429	1423	402
175°	1483	1479	1478	1484	1477	141
180°	1486	1486	1486	1486	1486	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2
2.5°	1228.3	1227.9	1227.4	1226.9	1226.4	1225.3	1223.7	1222.0	1220.4	1218.7	1220.4
5°	1224.3	1223.5	1222.6	1221.8	1221.0	1219.5	1217.2	1215.0	1212.6	1210.4	1212.5
7.5°	1212.3	1211.5	1210.7	1209.9	1209.2	1207.4	1204.7	1201.9	1199.3	1196.5	1197.9
10°	1201.1	1200.5	1199.9	1199.3	1198.6	1196.9	1194.1	1191.1	1188.3	1185.4	1186.0
12.5°	1188.6	1187.8	1187.0	1186.2	1185.4	1183.1	1179.2	1175.4	1171.5	1167.6	1168.1
15°	1164.1	1162.9	1161.6	1160.4	1159.1	1156.4	1152.1	1147.7	1143.4	1139.1	1138.9
17.5°	1136.5	1134.6	1132.7	1130.9	1128.9	1125.2	1119.8	1114.4	1108.9	1103.5	1102.5
20°	1115.0	1112.9	1110.9	1108.8	1106.8	1102.4	1095.9	1089.3	1082.7	1076.1	1075.1
22.5°	1091.3	1089.2	1087.2	1085.1	1083.1	1078.6	1071.7	1064.8	1057.8	1051.0	1048.9
25°	1055.8	1052.7	1049.5	1046.5	1043.4	1038.0	1030.5	1022.8	1015.2	1007.6	1005.0
27.5°	1015.0	1011.3	1007.5	1003.8	1000.1	994.1	986.0	977.8	969.6	961.4	957.7
30°	985.3	981.4	977.6	973.7	969.7	963.4	954.8	946.2	937.5	928.9	924.2
32.5°	956.4	951.9	947.4	942.8	938.2	931.5	922.7	913.9	905.1	896.3	891.1
35°	909.5	904.5	899.6	894.6	889.7	882.5	873.3	864.1	854.8	845.5	839.5
37.5°	863.3	857.3	851.3	845.3	839.3	831.5	822.0	812.3	802.8	793.3	786.1
40°	830.7	824.6	818.3	812.2	806.0	798.0	788.1	778.2	768.4	758.5	750.6
42.5°	796.7	790.3	784.0	777.6	771.2	763.0	752.8	742.6	732.4	722.2	714.7
45°	744.6	738.6	732.6	726.7	720.7	712.0	700.7	689.5	678.1	666.8	658.5
47.5°	690.7	684.4	678.1	671.8	665.5	656.7	645.2	633.8	622.4	611.0	602.5
50°	656.6	649.8	643.0	636.2	629.5	620.2	608.4	596.7	585.0	573.3	564.6
52.5°	619.6	612.6	605.6	598.7	591.7	582.7	571.7	560.6	549.5	538.4	529.1
55°	564.9	558.3	551.8	545.2	538.6	529.5	518.0	506.5	495.0	483.4	474.1
57.5°	509.7	502.7	495.6	488.6	481.6	472.5	461.4	450.2	439.2	428.0	419.0
60°	474.1	467.0	459.8	452.5	445.3	436.2	425.1	413.9	402.9	391.7	382.7
62.5°	436.4	429.5	422.7	415.7	408.8	399.8	388.5	377.3	366.0	354.7	346.3
65°	382.5	375.5	368.5	361.5	354.5	345.5	334.7	323.7	312.8	301.9	293.6
67.5°	329.0	321.9	315.0	308.0	301.0	292.2	281.8	271.3	260.9	250.4	242.9
70°	292.7	285.6	278.7	271.6	264.7	256.0	245.8	235.4	225.2	214.8	208.5
72.5°	257.1	250.2	243.4	236.6	229.8	221.5	211.9	202.2	192.6	183.0	177.1
75°	203.8	197.6	191.4	185.2	179.1	171.7	163.0	154.4	145.7	137.1	132.5
77.5°	150.8	145.8	140.9	136.0	131.0	125.1	118.2	111.3	104.3	97.5	94.3
80°	120.4	115.5	110.5	105.6	100.7	95.3	89.5	83.7	78.0	72.2	70.4
82.5°	90.8	86.3	81.9	77.4	72.9	68.8	64.8	60.9	56.9	53.0	52.1
85°	50.9	47.3	43.5	39.9	36.1	33.7	32.7	31.7	30.7	29.6	29.4
87.5°	17.3	16.5	15.8	15.1	14.3	14.0	14.3	14.4	14.6	14.8	15.1
90°	1.2	3.2	5.3	7.3	9.4	11.3	13.1	14.9	16.7	18.5	19.8
92.5°	28.0	29.4	30.9	32.3	33.7	35.6	37.8	40.0	42.2	44.4	46.1
95°	75.2	75.7	76.2	76.7	77.2	78.8	81.3	83.9	86.5	89.1	90.9
97.5°	124.9	125.1	125.4	125.6	125.7	127.6	131.2	134.7	138.3	141.8	143.5
100°	161.9	161.9	161.9	161.9	161.9	163.6	166.9	170.3	173.6	177.0	179.3
102.5°	201.7	202.8	203.8	204.8	205.8	207.2	208.9	210.6	212.3	214.0	216.5
105°	263.8	265.0	266.3	267.6	268.9	270.3	271.8	273.4	274.9	276.4	278.0
107.5°	332.2	333.5	334.7	336.1	337.3	338.6	339.7	340.9	342.1	343.3	344.1
110°	379.4	380.7	382.0	383.3	384.5	385.6	386.4	387.1	387.9	388.6	389.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	427.5	428.2	428.8	429.5	430.2	431.1	431.9	432.9	433.9	434.9	435.2
115°	498.6	499.5	500.6	501.6	502.7	503.5	503.9	504.4	505.0	505.5	505.2
117.5°	569.8	570.2	570.7	571.1	571.7	572.1	572.6	573.0	573.5	574.0	574.2
120°	614.2	615.5	616.8	618.0	619.4	620.1	620.4	620.6	620.9	621.2	621.2
122.5°	662.4	662.8	663.3	663.7	664.1	664.8	665.4	666.1	666.7	667.4	667.2
125°	727.5	729.1	730.7	732.2	733.7	734.6	734.9	735.1	735.4	735.7	735.1
127.5°	796.9	797.8	798.7	799.6	800.5	801.0	801.4	801.6	802.0	802.3	802.0
130°	838.6	839.9	841.2	842.5	843.7	844.6	845.2	845.7	846.1	846.7	846.4
132.5°	880.2	882.3	884.5	886.5	888.7	889.7	889.6	889.5	889.4	889.3	889.0
135°	946.2	947.7	949.2	950.8	952.3	953.2	953.5	953.8	954.0	954.3	954.3
137.5°	1008.2	1009.7	1011.2	1012.6	1014.1	1015.1	1015.7	1016.3	1016.9	1017.4	1017.7
140°	1047.9	1049.3	1050.5	1051.9	1053.1	1054.1	1054.9	1055.7	1056.4	1057.2	1057.7
142.5°	1087.8	1088.9	1089.9	1091.0	1092.1	1093.1	1094.0	1095.0	1096.0	1097.0	1097.3
145°	1146.3	1147.3	1148.3	1149.3	1150.4	1151.3	1152.1	1152.8	1153.6	1154.4	1154.4
147.5°	1200.4	1201.0	1201.6	1202.1	1202.7	1203.3	1203.9	1204.5	1205.1	1205.8	1206.4
150°	1236.5	1236.3	1236.0	1235.7	1235.5	1235.8	1236.9	1238.0	1238.9	1240.0	1240.0
152.5°	1266.1	1266.5	1266.9	1267.2	1267.6	1267.9	1268.4	1268.7	1269.2	1269.6	1270.2
155°	1311.7	1311.7	1311.7	1311.7	1311.7	1311.8	1312.1	1312.3	1312.6	1312.9	1313.8
157.5°	1352.4	1351.8	1351.3	1350.7	1350.1	1350.0	1350.2	1350.5	1350.8	1351.0	1352.0
160°	1376.4	1375.7	1374.9	1374.1	1373.4	1373.1	1373.4	1373.7	1373.9	1374.1	1375.2
162.5°	1397.8	1397.2	1396.6	1396.1	1395.5	1395.3	1395.3	1395.3	1395.3	1395.4	1396.7
165°	1426.2	1425.7	1425.1	1424.7	1424.2	1424.1	1424.2	1424.5	1424.8	1425.0	1426.1
167.5°	1450.3	1449.2	1448.2	1447.2	1446.2	1445.6	1445.6	1445.6	1445.6	1445.6	1447.2
170°	1463.2	1462.2	1461.2	1460.2	1459.1	1458.6	1458.6	1458.6	1458.6	1458.6	1460.2
172.5°	1472.5	1471.4	1470.4	1469.4	1468.4	1467.8	1467.8	1467.8	1467.8	1467.8	1469.4
175°	1482.9	1481.8	1480.9	1479.8	1478.8	1478.3	1478.3	1478.3	1478.3	1478.3	1479.8
177.5°	1488.2	1487.4	1486.6	1485.8	1484.9	1484.4	1484.2	1484.0	1483.8	1483.5	1484.8
180°	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2
2.5°	1222.0	1223.7	1225.3	1226.1	1225.9	1225.7	1225.6	1225.4
5°	1214.5	1216.6	1218.6	1219.5	1219.1	1218.6	1218.3	1217.8
7.5°	1199.4	1200.9	1202.3	1202.7	1202.3	1201.8	1201.4	1201.0
10°	1186.6	1187.2	1187.8	1187.8	1187.2	1186.6	1186.0	1185.4
12.5°	1168.5	1168.9	1169.4	1169.2	1168.2	1167.2	1166.4	1165.4
15°	1138.7	1138.4	1138.3	1137.3	1135.4	1133.5	1131.7	1129.8
17.5°	1101.4	1100.5	1099.4	1098.1	1096.6	1095.1	1093.6	1092.1
20°	1074.1	1073.0	1072.0	1070.6	1068.7	1066.8	1065.0	1063.2
22.5°	1046.9	1044.9	1042.9	1041.1	1039.6	1038.0	1036.5	1035.0
25°	1002.3	999.6	996.9	994.4	992.1	989.9	987.7	985.3
27.5°	954.0	950.2	946.5	943.5	941.4	939.1	937.0	934.8
30°	919.4	914.7	909.9	906.7	904.8	902.9	901.1	899.2
32.5°	885.8	880.6	875.4	871.6	869.2	866.9	864.5	862.2
35°	833.6	827.6	821.6	817.3	814.3	811.5	808.6	805.7
37.5°	779.0	771.8	764.6	759.6	756.9	754.0	751.3	748.5
40°	742.8	735.0	727.2	722.0	719.6	717.1	714.6	712.2
42.5°	707.2	699.7	692.2	686.6	683.1	679.4	675.7	672.2
45°	650.3	642.1	633.8	628.2	625.1	622.1	618.9	615.8
47.5°	594.1	585.6	577.1	571.1	567.8	564.4	560.9	557.5
50°	556.0	547.3	538.7	532.8	529.8	526.6	523.5	520.5
52.5°	519.9	510.5	501.2	495.0	492.0	488.8	485.8	482.7
55°	464.9	455.7	446.4	440.1	436.8	433.5	430.3	427.0
57.5°	409.9	400.9	391.8	385.8	382.9	380.0	377.1	374.2
60°	373.6	364.5	355.5	349.5	346.3	343.3	340.2	337.1
62.5°	337.9	329.5	321.1	315.4	312.3	309.2	306.1	303.0
65°	285.4	277.2	268.9	263.3	260.2	257.2	254.0	250.9
67.5°	235.3	227.8	220.3	215.3	212.9	210.4	207.9	205.5
70°	202.1	195.7	189.3	184.9	182.4	179.9	177.5	175.0
72.5°	171.2	165.3	159.4	155.7	154.0	152.4	150.8	149.1
75°	128.0	123.5	119.0	116.0	114.5	113.1	111.6	110.2
77.5°	91.0	87.9	84.7	82.7	81.6	80.5	79.5	78.4
80°	68.6	66.7	64.8	63.7	63.3	62.9	62.4	62.1
82.5°	51.3	50.4	49.5	49.0	48.7	48.5	48.2	48.0
85°	29.2	29.0	28.8	28.6	28.4	28.2	28.0	27.8
87.5°	15.3	15.6	15.9	16.0	16.0	16.0	16.0	16.0
90°	21.0	22.4	23.6	24.7	25.4	26.2	27.0	27.7
92.5°	47.8	49.5	51.2	52.3	52.9	53.5	54.0	54.6
95°	92.6	94.4	96.3	97.4	97.9	98.4	99.0	99.5
97.5°	145.2	146.9	148.6	149.6	149.9	150.3	150.5	150.9
100°	181.6	183.9	186.2	187.6	188.2	188.7	189.2	189.7
102.5°	219.0	221.5	224.1	225.7	226.4	227.1	227.8	228.5
105°	279.6	281.1	282.6	283.7	284.5	285.3	286.1	286.9
107.5°	344.8	345.6	346.4	346.8	346.7	346.6	346.6	346.5
110°	390.2	390.9	391.7	392.0	391.7	391.5	391.2	390.9



TEST NUMBER: P333695-940

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	435.6	436.0	436.3	436.3	435.9	435.4	434.9	434.4
115°	505.0	504.7	504.4	504.2	503.9	503.6	503.5	503.2
117.5°	574.4	574.5	574.8	574.4	573.4	572.3	571.3	570.2
120°	621.2	621.2	621.2	620.6	619.6	618.6	617.5	616.5
122.5°	667.0	666.8	666.6	666.1	665.2	664.4	663.6	662.8
125°	734.6	734.1	733.6	733.3	733.0	732.7	732.5	732.2
127.5°	801.7	801.5	801.3	800.8	800.4	799.9	799.3	798.8
130°	846.1	846.0	845.7	845.3	844.8	844.3	843.7	843.2
132.5°	888.8	888.5	888.2	887.8	887.1	886.3	885.6	884.8
135°	954.3	954.3	954.3	953.8	952.7	951.7	950.7	949.7
137.5°	1018.1	1018.3	1018.7	1018.2	1016.9	1015.6	1014.3	1013.1
140°	1058.3	1058.7	1059.3	1058.9	1057.6	1056.3	1055.1	1053.7
142.5°	1097.6	1098.0	1098.2	1097.8	1096.4	1095.2	1093.9	1092.6
145°	1154.4	1154.4	1154.4	1154.0	1153.2	1152.4	1151.6	1150.9
147.5°	1206.9	1207.6	1208.2	1207.6	1205.9	1204.2	1202.4	1200.7
150°	1240.0	1240.0	1240.0	1239.7	1239.2	1238.7	1238.1	1237.7
152.5°	1270.8	1271.4	1272.0	1271.9	1271.0	1270.1	1269.1	1268.2
155°	1314.9	1315.9	1317.0	1316.8	1315.5	1314.3	1313.0	1311.7
157.5°	1353.1	1354.1	1355.1	1354.8	1353.1	1351.4	1349.7	1348.0
160°	1376.2	1377.2	1378.2	1378.1	1376.9	1375.6	1374.3	1373.0
162.5°	1397.9	1399.1	1400.3	1400.3	1398.7	1397.2	1395.8	1394.3
165°	1427.1	1428.2	1429.1	1428.9	1427.4	1425.8	1424.2	1422.7
167.5°	1448.8	1450.3	1451.8	1451.8	1450.2	1448.6	1447.0	1445.4
170°	1461.7	1463.2	1464.7	1464.6	1462.9	1461.1	1459.2	1457.4
172.5°	1471.0	1472.5	1474.0	1474.0	1472.4	1470.8	1469.2	1467.6
175°	1481.3	1482.9	1484.4	1484.3	1482.5	1480.7	1478.9	1477.1
177.5°	1486.0	1487.3	1488.5	1488.4	1486.9	1485.5	1484.1	1482.6
180°	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4

(END OF REPORT)