

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: P333453-830

Luminaire Tested: **S125DIW-S1090D1340U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333453-830
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: S125DIW-S1090D1340U830-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8572.5 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

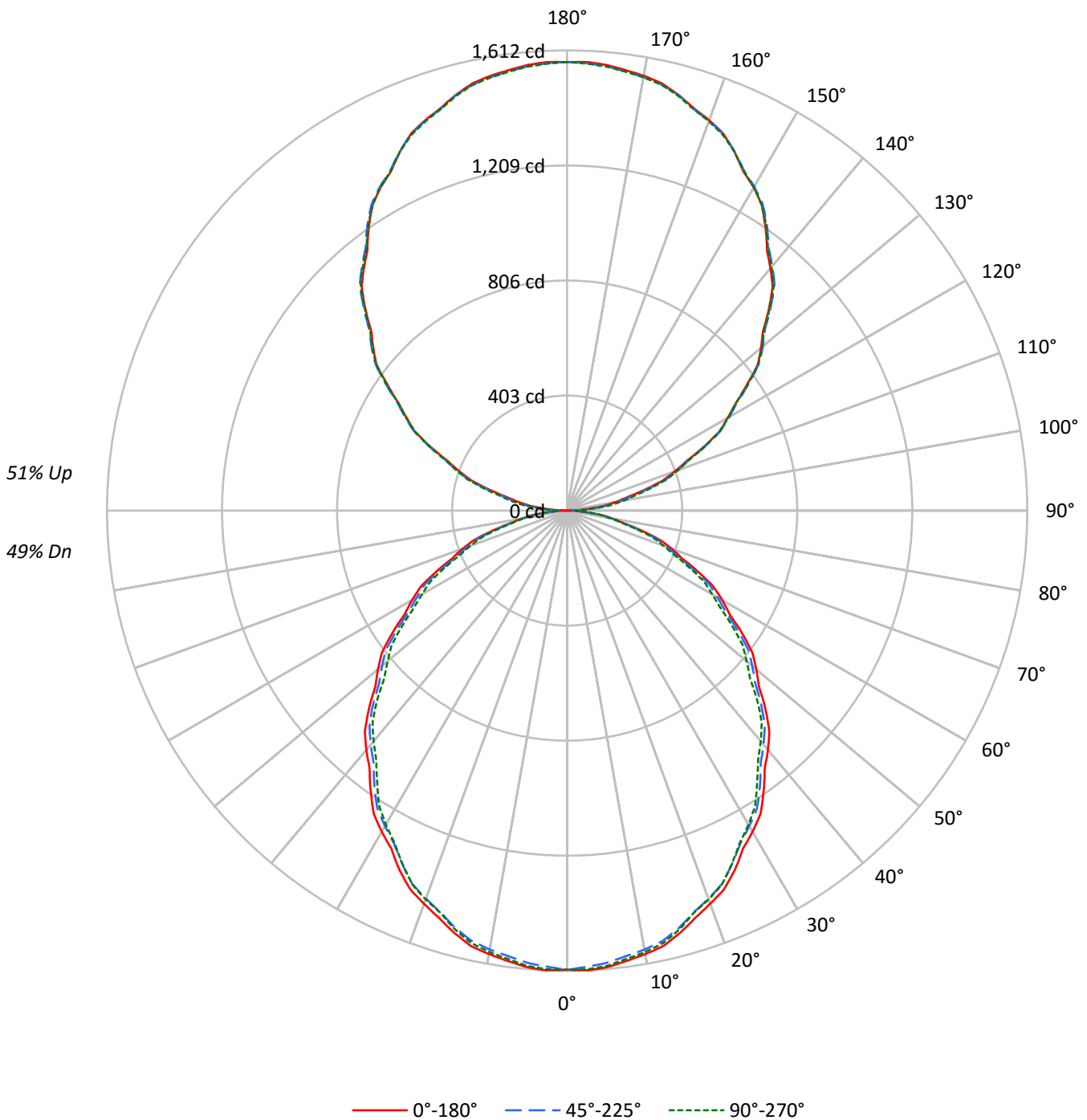
Input Watts (W): 69.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	97	93	89	86	90	86	83	80	72	70	68	60	58	57	49	47	46	41
2	89	81	75	70	81	75	70	65	63	59	56	53	50	47	43	41	39	34
3	81	71	64	58	74	66	60	54	56	51	47	47	43	40	38	35	33	29
4	74	63	55	49	68	58	52	46	50	44	40	41	37	34	34	31	29	25
5	68	56	48	42	62	52	45	40	44	39	35	37	33	30	30	27	25	22
6	63	50	42	37	57	47	40	34	40	34	30	34	29	26	28	24	22	19
7	58	46	38	32	53	42	35	30	36	31	27	31	26	23	25	22	19	17
8	54	41	34	28	49	38	32	27	33	27	24	28	24	20	23	20	17	15
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	14
10	47	35	27	23	43	32	26	21	28	23	19	24	20	17	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10388	10388	10388
5°	10410	10311	10377
10°	10347	10238	10297
15°	10235	10116	10158
20°	10074	9943	9961
25°	9902	9738	9729
30°	9688	9517	9470
35°	9460	9280	9150
40°	9226	9022	8893
45°	8972	8786	8611
50°	8694	8501	8246
55°	8425	8180	7952
60°	8103	7856	7576
65°	7719	7467	7213
70°	7353	7017	6775
75°	6697	6478	6253
80°	5962	5869	5724
85°	5180	5283	4994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.6	1.8
10°-20°	428.4	5.0
20°-30°	632.5	7.4
30°-40°	738.0	8.6
40°-50°	741.2	8.6
50°-60°	650.7	7.6
60°-70°	484.8	5.7
70°-80°	277.2	3.2
80°-90°	84.1	1.0
90°-100°	105.2	1.2
100°-110°	310.7	3.6
110°-120°	526.3	6.1
120°-130°	692.7	8.1
130°-140°	776.1	9.1
140°-150°	760.7	8.9
150°-160°	638.9	7.5
160°-170°	424.7	5.0
170°-180°	148.6	1.7
0°-30°	1212.5	14.1
0°-40°	1950.5	22.8
0°-60°	3342.4	39.0
0°-90°	4188.6	48.9
90°-120°	942.3	11.0
90°-150°	3171.8	37.0
90°-180°	4384.0	51.1
0°-180°	8572.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1608	1608	1608	1608	1608	
5°	1606	1603	1590	1601	1601	152
15°	1531	1526	1513	1519	1519	431
25°	1390	1383	1367	1369	1365	639
35°	1200	1194	1177	1170	1160	750
45°	982	977	962	947	943	757
55°	748	744	726	715	706	668
65°	505	502	489	477	472	501
75°	268	266	260	256	251	286
85°	70	71	71	70	67	78
90°	1	11	20	26	29	8
95°	80	82	94	102	105	85
105°	279	285	292	299	303	298
115°	527	532	534	533	532	521
125°	769	776	778	775	774	688
135°	1000	1007	1009	1008	1004	771
145°	1212	1216	1220	1220	1216	757
155°	1386	1387	1388	1392	1386	638
165°	1508	1505	1506	1510	1504	425
175°	1567	1563	1562	1569	1561	149
180°	1571	1571	1571	1571	1571	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4
2.5°	1612.4	1611.7	1611.0	1610.3	1609.7	1608.2	1605.9	1603.6	1601.4	1599.1	1601.4
5°	1605.8	1605.2	1604.7	1604.1	1603.5	1601.9	1599.0	1596.2	1593.4	1590.5	1593.1
7.5°	1591.0	1590.4	1589.9	1589.3	1588.7	1586.9	1583.8	1580.6	1577.5	1574.4	1577.0
10°	1577.8	1577.3	1576.7	1576.1	1575.6	1573.7	1570.6	1567.4	1564.3	1561.2	1563.5
12.5°	1561.5	1560.5	1559.4	1558.4	1557.5	1555.5	1552.6	1549.7	1546.8	1543.9	1545.8
15°	1530.7	1529.8	1529.0	1528.1	1527.3	1525.3	1522.2	1519.1	1516.0	1512.9	1514.3
17.5°	1495.3	1494.1	1492.8	1491.6	1490.3	1488.1	1484.9	1481.7	1478.5	1475.2	1477.0
20°	1465.8	1465.3	1464.7	1464.1	1463.6	1461.4	1457.7	1454.1	1450.4	1446.7	1448.7
22.5°	1436.2	1435.3	1434.3	1433.2	1432.2	1429.9	1426.5	1423.1	1419.7	1416.2	1417.5
25°	1389.5	1388.1	1386.7	1385.3	1383.8	1381.3	1377.6	1373.9	1370.3	1366.6	1367.2
27.5°	1334.7	1333.9	1333.0	1332.2	1331.3	1329.1	1325.2	1321.4	1317.7	1313.9	1314.0
30°	1299.1	1298.3	1297.4	1296.6	1295.7	1293.2	1288.9	1284.7	1280.4	1276.2	1275.6
32.5°	1260.5	1259.1	1257.8	1256.5	1255.3	1252.7	1248.9	1245.1	1241.3	1237.6	1236.5
35°	1199.9	1198.7	1197.6	1196.5	1195.3	1192.8	1188.8	1184.9	1180.9	1177.0	1175.5
37.5°	1137.0	1135.6	1134.2	1132.7	1131.3	1128.8	1125.0	1121.3	1117.6	1113.9	1111.7
40°	1094.3	1092.9	1091.5	1090.1	1088.6	1085.9	1081.9	1078.0	1074.0	1070.1	1067.5
42.5°	1048.5	1047.3	1046.1	1044.9	1043.7	1041.1	1037.2	1033.2	1029.3	1025.3	1022.9
45°	982.3	981.2	980.1	978.9	977.8	975.5	972.1	968.7	965.4	962.0	958.6
47.5°	911.1	911.1	911.2	911.3	911.3	909.3	905.2	901.1	897.0	893.0	889.5
50°	865.3	864.4	863.6	862.7	861.9	859.7	856.3	852.9	849.5	846.1	842.4
52.5°	818.4	817.7	817.2	816.5	816.0	813.8	810.2	806.5	803.0	799.3	796.1
55°	748.2	747.3	746.5	745.6	744.8	742.3	738.4	734.4	730.5	726.5	724.0
57.5°	674.1	673.6	673.3	672.8	672.3	670.4	667.0	663.7	660.4	657.0	653.7
60°	627.3	626.1	625.0	623.9	622.7	620.7	617.6	614.4	611.3	608.2	605.4
62.5°	578.4	577.5	576.6	575.7	574.9	573.1	570.3	567.7	565.1	562.4	559.3
65°	505.1	504.5	504.0	503.4	502.8	501.1	497.9	494.8	491.7	488.6	486.1
67.5°	434.1	432.9	431.8	430.6	429.4	427.6	425.3	423.0	420.7	418.4	416.2
70°	389.4	388.0	386.5	385.1	383.7	381.7	379.2	376.6	374.1	371.6	369.9
72.5°	340.5	339.5	338.6	337.6	336.7	335.4	333.8	332.1	330.5	328.8	326.9
75°	268.4	267.9	267.3	266.7	266.2	265.2	263.8	262.4	261.0	259.6	258.7
77.5°	202.1	201.8	201.6	201.4	201.1	200.7	199.8	199.1	198.3	197.5	197.0
80°	160.3	160.3	160.3	160.3	160.3	160.0	159.5	158.9	158.3	157.8	157.5
82.5°	123.7	123.2	122.8	122.3	121.9	121.6	121.5	121.4	121.2	121.1	120.6
85°	69.9	70.2	70.5	70.8	71.1	71.3	71.3	71.3	71.3	71.3	71.0
87.5°	27.7	28.2	28.6	29.0	29.5	29.8	29.9	30.1	30.3	30.3	30.6
90°	1.2	3.4	5.6	7.7	9.9	12.0	13.9	15.7	17.6	19.6	20.9
92.5°	29.6	31.1	32.6	34.1	35.6	37.6	40.0	42.3	44.6	46.9	48.7
95°	79.5	80.0	80.6	81.1	81.6	83.3	86.0	88.7	91.4	94.2	96.0
97.5°	132.1	132.2	132.5	132.7	132.9	134.9	138.6	142.4	146.2	149.9	151.7
100°	171.2	171.2	171.2	171.2	171.2	173.0	176.4	180.0	183.5	187.1	189.5
102.5°	213.2	214.3	215.4	216.5	217.5	219.0	220.8	222.6	224.4	226.2	228.8
105°	278.8	280.1	281.4	282.9	284.2	285.7	287.3	289.0	290.6	292.2	293.9
107.5°	351.1	352.5	353.8	355.2	356.6	357.9	359.1	360.3	361.7	362.9	363.7
110°	401.1	402.4	403.8	405.1	406.4	407.6	408.4	409.2	410.0	410.8	411.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	451.9	452.6	453.3	454.0	454.7	455.6	456.6	457.6	458.6	459.7	460.1
115°	527.0	528.0	529.1	530.2	531.3	532.2	532.6	533.2	533.8	534.3	534.0
117.5°	602.3	602.8	603.2	603.7	604.3	604.7	605.2	605.7	606.1	606.7	606.9
120°	649.2	650.5	652.0	653.3	654.7	655.4	655.7	656.0	656.3	656.6	656.6
122.5°	700.1	700.6	701.1	701.5	702.0	702.7	703.3	704.1	704.7	705.5	705.2
125°	769.0	770.6	772.3	773.9	775.5	776.5	776.7	777.0	777.3	777.6	777.0
127.5°	842.4	843.3	844.2	845.2	846.1	846.7	847.1	847.3	847.7	848.0	847.7
130°	886.4	887.8	889.1	890.5	891.8	892.8	893.3	893.9	894.4	894.9	894.7
132.5°	930.4	932.6	934.9	937.1	939.3	940.4	940.3	940.2	940.1	940.0	939.7
135°	1000.1	1001.7	1003.3	1005.0	1006.6	1007.6	1007.9	1008.1	1008.4	1008.7	1008.7
137.5°	1065.6	1067.2	1068.8	1070.4	1072.0	1073.0	1073.7	1074.2	1074.9	1075.4	1075.7
140°	1107.7	1109.1	1110.4	1111.8	1113.1	1114.2	1115.0	1115.9	1116.6	1117.5	1118.0
142.5°	1149.8	1150.9	1152.1	1153.2	1154.3	1155.4	1156.4	1157.4	1158.5	1159.5	1159.9
145°	1211.6	1212.7	1213.8	1214.8	1216.0	1216.9	1217.8	1218.5	1219.4	1220.2	1220.2
147.5°	1268.9	1269.4	1270.1	1270.6	1271.2	1271.9	1272.5	1273.2	1273.8	1274.5	1275.2
150°	1307.0	1306.7	1306.5	1306.2	1305.9	1306.3	1307.4	1308.5	1309.6	1310.7	1310.7
152.5°	1338.3	1338.7	1339.1	1339.4	1339.8	1340.2	1340.7	1341.0	1341.5	1342.0	1342.7
155°	1386.5	1386.5	1386.5	1386.5	1386.5	1386.6	1386.9	1387.1	1387.4	1387.7	1388.7
157.5°	1429.5	1428.9	1428.3	1427.7	1427.1	1426.9	1427.2	1427.5	1427.8	1428.0	1429.1
160°	1454.9	1454.2	1453.3	1452.5	1451.7	1451.4	1451.7	1452.0	1452.2	1452.5	1453.6
162.5°	1477.4	1476.9	1476.2	1475.6	1475.1	1474.8	1474.8	1474.9	1474.9	1475.0	1476.3
165°	1507.5	1506.9	1506.4	1505.9	1505.3	1505.2	1505.4	1505.7	1506.0	1506.3	1507.4
167.5°	1533.0	1531.8	1530.8	1529.7	1528.6	1528.0	1528.0	1528.0	1528.0	1528.0	1529.7
170°	1546.6	1545.6	1544.5	1543.4	1542.3	1541.7	1541.7	1541.7	1541.7	1541.7	1543.4
172.5°	1556.4	1555.3	1554.3	1553.1	1552.1	1551.5	1551.5	1551.5	1551.5	1551.5	1553.1
175°	1567.4	1566.3	1565.3	1564.1	1563.1	1562.5	1562.5	1562.5	1562.5	1562.5	1564.1
177.5°	1573.0	1572.2	1571.3	1570.5	1569.5	1569.1	1568.8	1568.6	1568.4	1568.1	1569.4
180°	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4
2.5°	1603.6	1605.9	1608.2	1609.2	1609.0	1608.7	1608.5	1608.4
5°	1595.6	1598.2	1600.7	1601.9	1601.6	1601.3	1601.0	1600.7
7.5°	1579.4	1582.0	1584.4	1585.5	1585.3	1585.0	1584.7	1584.4
10°	1565.8	1568.0	1570.3	1571.3	1571.0	1570.7	1570.5	1570.2
12.5°	1547.6	1549.4	1551.1	1552.1	1552.0	1551.9	1551.9	1551.8
15°	1515.7	1517.1	1518.5	1519.3	1519.3	1519.3	1519.3	1519.3
17.5°	1478.8	1480.5	1482.2	1482.4	1481.0	1479.6	1478.2	1476.8
20°	1450.7	1452.6	1454.6	1454.9	1453.5	1452.1	1450.7	1449.3
22.5°	1418.8	1420.1	1421.4	1421.5	1420.6	1419.7	1418.7	1417.7
25°	1367.7	1368.3	1368.9	1368.7	1367.8	1367.0	1366.1	1365.3
27.5°	1314.1	1314.2	1314.4	1314.0	1313.2	1312.3	1311.5	1310.6
30°	1275.1	1274.5	1273.9	1273.3	1272.4	1271.6	1270.7	1269.9
32.5°	1235.5	1234.4	1233.5	1232.2	1230.7	1229.2	1227.6	1226.1
35°	1174.1	1172.7	1171.3	1169.5	1167.2	1165.0	1162.7	1160.5
37.5°	1109.7	1107.6	1105.5	1103.8	1102.5	1101.2	1099.9	1098.6
40°	1065.0	1062.4	1059.9	1058.2	1057.3	1056.5	1055.6	1054.8
42.5°	1020.7	1018.3	1016.1	1014.2	1013.0	1011.6	1010.3	1009.0
45°	955.2	951.8	948.4	946.2	945.4	944.5	943.7	942.8
47.5°	886.1	882.6	879.2	876.5	874.5	872.5	870.5	868.6
50°	838.8	835.1	831.4	828.6	826.6	824.6	822.7	820.7
52.5°	792.9	789.7	786.5	783.7	781.5	779.3	777.1	774.9
55°	721.4	718.9	716.3	714.1	712.1	710.1	708.1	706.2
57.5°	650.5	647.2	643.9	641.8	640.7	639.6	638.6	637.4
60°	602.6	599.7	596.9	594.5	592.5	590.5	588.5	586.5
62.5°	556.3	553.3	550.2	547.9	546.4	544.9	543.3	541.8
65°	483.5	481.0	478.4	476.5	475.4	474.3	473.2	472.0
67.5°	414.1	411.9	409.7	408.3	407.6	407.0	406.3	405.7
70°	368.2	366.5	364.8	363.4	362.2	361.1	360.0	358.8
72.5°	325.0	323.0	321.1	319.6	318.5	317.4	316.2	315.1
75°	257.9	257.0	256.2	255.1	254.0	252.9	251.8	250.6
77.5°	196.4	196.0	195.5	194.8	194.0	193.2	192.4	191.6
80°	157.2	156.9	156.7	156.2	155.6	155.0	154.5	153.9
82.5°	120.1	119.6	119.1	118.8	118.7	118.6	118.5	118.3
85°	70.7	70.4	70.1	69.7	69.1	68.5	68.0	67.4
87.5°	30.9	31.2	31.5	31.5	31.2	30.9	30.6	30.3
90°	22.2	23.7	25.0	26.1	26.9	27.7	28.6	29.3
92.5°	50.5	52.3	54.1	55.3	55.9	56.6	57.1	57.7
95°	97.9	99.8	101.8	102.9	103.5	104.1	104.6	105.2
97.5°	153.4	155.2	157.0	158.2	158.4	158.8	159.1	159.5
100°	192.0	194.4	196.8	198.3	198.9	199.4	200.0	200.5
102.5°	231.5	234.1	236.9	238.6	239.3	240.1	240.8	241.6
105°	295.5	297.1	298.7	299.9	300.8	301.6	302.4	303.2
107.5°	364.5	365.3	366.2	366.6	366.5	366.4	366.4	366.3
110°	412.5	413.2	414.1	414.3	414.1	413.8	413.5	413.2



TEST NUMBER: P333453-830

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	460.4	460.8	461.2	461.2	460.7	460.2	459.7	459.2
115°	533.8	533.5	533.2	532.9	532.6	532.3	532.2	531.9
117.5°	607.1	607.3	607.6	607.1	606.1	604.9	603.9	602.8
120°	656.6	656.6	656.6	656.0	654.9	653.8	652.7	651.7
122.5°	705.0	704.8	704.6	704.1	703.1	702.3	701.4	700.6
125°	776.5	776.0	775.4	775.1	774.8	774.5	774.2	773.9
127.5°	847.4	847.2	847.0	846.5	846.0	845.5	844.9	844.3
130°	894.4	894.2	893.9	893.4	893.0	892.4	891.8	891.3
132.5°	939.4	939.1	938.9	938.4	937.6	936.8	936.0	935.3
135°	1008.7	1008.7	1008.7	1008.1	1007.0	1006.0	1004.8	1003.8
137.5°	1076.1	1076.4	1076.8	1076.2	1074.9	1073.5	1072.1	1070.8
140°	1118.6	1119.1	1119.6	1119.3	1117.9	1116.5	1115.2	1113.8
142.5°	1160.2	1160.6	1160.8	1160.4	1159.0	1157.6	1156.2	1154.9
145°	1220.2	1220.2	1220.2	1219.7	1219.0	1218.1	1217.3	1216.5
147.5°	1275.7	1276.4	1277.1	1276.5	1274.6	1272.8	1270.9	1269.1
150°	1310.7	1310.7	1310.7	1310.4	1309.9	1309.3	1308.7	1308.2
152.5°	1343.2	1343.9	1344.5	1344.4	1343.4	1342.5	1341.4	1340.5
155°	1389.9	1390.9	1392.0	1391.9	1390.5	1389.2	1387.8	1386.5
157.5°	1430.2	1431.3	1432.4	1432.0	1430.2	1428.4	1426.6	1424.8
160°	1454.6	1455.8	1456.8	1456.7	1455.4	1454.0	1452.6	1451.2
162.5°	1477.6	1478.8	1480.2	1480.1	1478.5	1476.9	1475.4	1473.8
165°	1508.4	1509.6	1510.6	1510.3	1508.7	1507.1	1505.4	1503.8
167.5°	1531.3	1533.0	1534.6	1534.6	1532.9	1531.2	1529.5	1527.8
170°	1545.0	1546.6	1548.2	1548.1	1546.2	1544.4	1542.4	1540.5
172.5°	1554.8	1556.4	1558.0	1558.0	1556.3	1554.6	1552.9	1551.2
175°	1565.8	1567.4	1569.1	1568.9	1567.0	1565.1	1563.2	1561.3
177.5°	1570.7	1572.1	1573.4	1573.3	1571.7	1570.2	1568.7	1567.2
180°	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1

(END OF REPORT)