

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: P333453-840

Luminaire Tested: **S125DIW-S1090D1340U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333453-840
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-S1090D1340U840-4F0-1E-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: 9184.8 lumens
Efficiency: N/A
Efficacy: 131.6 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

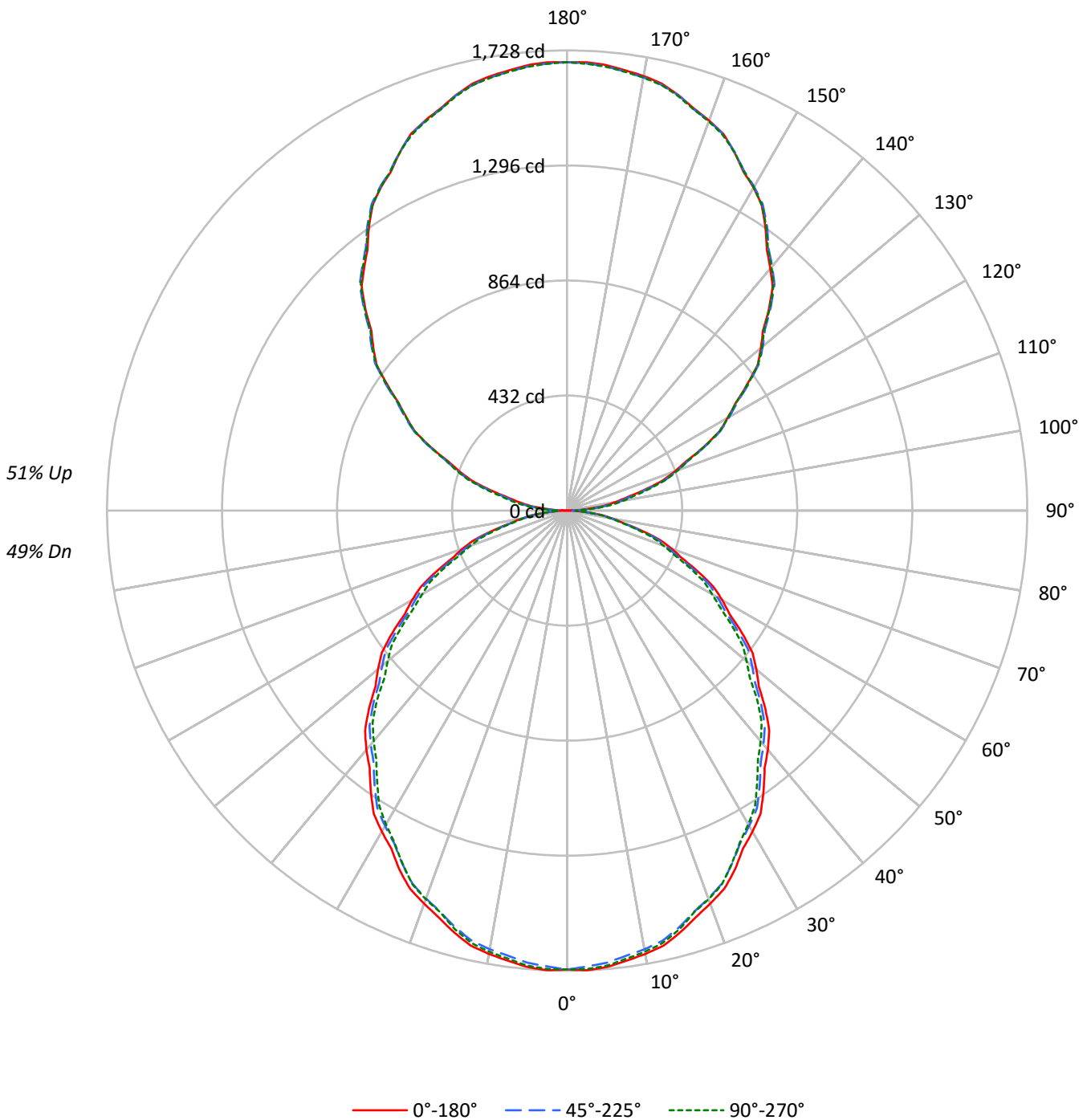
Input Watts (W): 69.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11129	11129	11129
5°	11154	11048	11119
10°	11086	10970	11032
15°	10965	10838	10884
20°	10794	10653	10672
25°	10608	10434	10424
30°	10380	10197	10147
35°	10136	9942	9802
40°	9885	9666	9528
45°	9613	9414	9227
50°	9315	9109	8835
55°	9026	8765	8519
60°	8681	8418	8117
65°	8270	8000	7728
70°	7878	7517	7260
75°	7177	6939	6700
80°	6390	6289	6133
85°	5550	5654	5350



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.5	1.8
10°-20°	459.0	5.0
20°-30°	677.7	7.4
30°-40°	790.7	8.6
40°-50°	794.2	8.6
50°-60°	697.1	7.6
60°-70°	519.5	5.7
70°-80°	297.0	3.2
80°-90°	90.1	1.0
90°-100°	112.7	1.2
100°-110°	332.9	3.6
110°-120°	563.9	6.1
120°-130°	742.1	8.1
130°-140°	831.6	9.1
140°-150°	815.0	8.9
150°-160°	684.5	7.5
160°-170°	455.0	5.0
170°-180°	159.2	1.7
0°-30°	1299.1	14.1
0°-40°	2089.8	22.8
0°-60°	3581.2	39.0
0°-90°	4487.7	48.9
90°-120°	1009.6	11.0
90°-150°	3398.3	37.0
90°-180°	4697.0	51.1
0°-180°	9184.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1723	1723	1723	1723	1723	
5°	1720	1717	1704	1716	1715	163
15°	1640	1635	1621	1627	1628	462
25°	1489	1481	1464	1466	1463	685
35°	1286	1279	1261	1254	1243	804
45°	1052	1046	1031	1015	1010	811
55°	802	797	778	766	757	715
65°	541	538	524	512	506	537
75°	288	285	278	274	268	307
85°	75	76	76	75	72	84
90°	1	12	21	27	31	9
95°	85	88	101	110	113	91
105°	299	305	313	321	325	319
115°	565	570	572	571	570	558
125°	824	831	833	831	829	738
135°	1072	1079	1081	1080	1076	826
145°	1298	1303	1307	1307	1303	811
155°	1486	1486	1487	1491	1486	684
165°	1615	1613	1614	1618	1611	455
175°	1679	1674	1674	1681	1673	160
180°	1683	1683	1683	1683	1683	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2
2.5°	1727.6	1726.9	1726.1	1725.4	1724.6	1723.0	1720.6	1718.2	1715.8	1713.3	1715.8
5°	1720.5	1719.9	1719.3	1718.7	1718.1	1716.3	1713.2	1710.2	1707.2	1704.1	1706.9
7.5°	1704.7	1704.0	1703.4	1702.8	1702.2	1700.2	1696.9	1693.5	1690.2	1686.9	1689.6
10°	1690.5	1689.9	1689.3	1688.7	1688.1	1686.1	1682.7	1679.4	1676.1	1672.7	1675.2
12.5°	1673.0	1671.9	1670.8	1669.7	1668.7	1666.6	1663.4	1660.4	1657.3	1654.2	1656.2
15°	1640.0	1639.1	1638.2	1637.3	1636.4	1634.3	1630.9	1627.6	1624.3	1620.9	1622.4
17.5°	1602.2	1600.8	1599.4	1598.1	1596.8	1594.4	1590.9	1587.5	1584.1	1580.5	1582.5
20°	1570.5	1569.9	1569.3	1568.7	1568.1	1565.8	1561.9	1557.9	1554.0	1550.0	1552.2
22.5°	1538.8	1537.8	1536.7	1535.6	1534.5	1532.1	1528.4	1524.7	1521.1	1517.3	1518.7
25°	1488.7	1487.2	1485.7	1484.2	1482.7	1480.0	1476.0	1472.1	1468.1	1464.2	1464.8
27.5°	1430.1	1429.2	1428.3	1427.3	1426.4	1424.0	1419.9	1415.8	1411.8	1407.8	1407.9
30°	1391.9	1391.0	1390.1	1389.2	1388.3	1385.5	1381.0	1376.4	1371.9	1367.4	1366.8
32.5°	1350.5	1349.1	1347.7	1346.3	1344.9	1342.2	1338.1	1334.0	1330.0	1326.0	1324.8
35°	1285.6	1284.3	1283.1	1281.9	1280.7	1278.0	1273.7	1269.5	1265.3	1261.0	1259.5
37.5°	1218.2	1216.7	1215.2	1213.7	1212.1	1209.4	1205.4	1201.4	1197.4	1193.5	1191.1
40°	1172.5	1170.9	1169.4	1167.9	1166.4	1163.5	1159.2	1155.0	1150.7	1146.5	1143.8
42.5°	1123.4	1122.1	1120.8	1119.5	1118.2	1115.5	1111.3	1107.0	1102.8	1098.5	1096.0
45°	1052.5	1051.3	1050.1	1048.8	1047.6	1045.2	1041.6	1037.9	1034.3	1030.7	1027.0
47.5°	976.1	976.1	976.2	976.3	976.3	974.2	969.9	965.4	961.1	956.7	953.0
50°	927.1	926.1	925.2	924.3	923.4	921.1	917.5	913.8	910.2	906.6	902.6
52.5°	876.9	876.2	875.6	874.8	874.2	871.9	868.1	864.1	860.3	856.4	852.9
55°	801.6	800.7	799.8	798.9	798.0	795.4	791.1	786.9	782.6	778.4	775.7
57.5°	722.3	721.8	721.3	720.8	720.3	718.3	714.7	711.1	707.6	704.0	700.4
60°	672.1	670.9	669.6	668.4	667.2	665.0	661.7	658.3	655.0	651.7	648.6
62.5°	619.8	618.7	617.8	616.8	615.9	614.0	611.1	608.2	605.4	602.6	599.3
65°	541.2	540.6	540.0	539.4	538.8	536.8	533.5	530.2	526.8	523.5	520.8
67.5°	465.1	463.8	462.6	461.3	460.1	458.2	455.7	453.2	450.7	448.3	446.0
70°	417.2	415.7	414.1	412.6	411.1	409.0	406.3	403.5	400.8	398.1	396.3
72.5°	364.9	363.8	362.7	361.7	360.7	359.3	357.6	355.8	354.1	352.2	350.2
75°	287.6	287.0	286.4	285.8	285.2	284.2	282.7	281.1	279.6	278.1	277.2
77.5°	216.5	216.2	216.0	215.8	215.5	215.0	214.1	213.3	212.5	211.6	211.1
80°	171.8	171.8	171.8	171.8	171.8	171.5	170.9	170.3	169.7	169.1	168.7
82.5°	132.5	132.0	131.6	131.1	130.6	130.3	130.2	130.1	129.9	129.8	129.3
85°	74.9	75.2	75.5	75.8	76.1	76.3	76.3	76.3	76.3	76.3	76.0
87.5°	29.7	30.2	30.6	31.1	31.6	31.9	32.0	32.2	32.4	32.5	32.8
90°	1.3	3.6	6.0	8.3	10.6	12.8	14.8	16.9	18.9	21.0	22.4
92.5°	31.7	33.3	34.9	36.6	38.2	40.3	42.8	45.3	47.8	50.3	52.2
95°	85.1	85.7	86.3	86.8	87.5	89.3	92.1	95.0	98.0	100.9	102.9
97.5°	141.5	141.7	142.0	142.2	142.4	144.5	148.6	152.6	156.6	160.6	162.5
100°	183.4	183.4	183.4	183.4	183.4	185.3	189.0	192.9	196.6	200.5	203.1
102.5°	228.4	229.6	230.8	232.0	233.1	234.7	236.6	238.5	240.4	242.4	245.2
105°	298.7	300.1	301.5	303.1	304.5	306.1	307.8	309.6	311.3	313.1	314.9
107.5°	376.2	377.7	379.1	380.6	382.0	383.4	384.8	386.1	387.5	388.8	389.7
110°	429.7	431.1	432.6	434.0	435.5	436.7	437.6	438.4	439.3	440.1	441.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	484.1	484.9	485.6	486.5	487.2	488.2	489.2	490.3	491.4	492.5	492.9
115°	564.6	565.7	566.9	568.0	569.3	570.2	570.7	571.3	571.9	572.5	572.2
117.5°	645.3	645.8	646.3	646.8	647.4	647.9	648.4	648.9	649.4	650.1	650.3
120°	695.6	697.0	698.5	699.9	701.5	702.3	702.6	702.9	703.2	703.5	703.5
122.5°	750.1	750.6	751.1	751.6	752.1	752.9	753.6	754.4	755.1	755.9	755.6
125°	823.9	825.7	827.5	829.2	830.9	831.9	832.2	832.5	832.8	833.1	832.5
127.5°	902.5	903.5	904.5	905.5	906.6	907.2	907.6	907.9	908.3	908.6	908.3
130°	949.7	951.2	952.6	954.1	955.5	956.5	957.2	957.8	958.3	958.9	958.6
132.5°	996.8	999.3	1001.7	1004.0	1006.4	1007.5	1007.4	1007.3	1007.2	1007.1	1006.8
135°	1071.6	1073.3	1075.0	1076.8	1078.5	1079.5	1079.8	1080.2	1080.5	1080.8	1080.8
137.5°	1141.8	1143.5	1145.2	1146.8	1148.5	1149.6	1150.3	1150.9	1151.7	1152.3	1152.6
140°	1186.8	1188.3	1189.7	1191.2	1192.7	1193.8	1194.7	1195.6	1196.4	1197.3	1197.9
142.5°	1231.9	1233.1	1234.4	1235.6	1236.8	1237.9	1239.0	1240.1	1241.2	1242.3	1242.7
145°	1298.2	1299.3	1300.5	1301.6	1302.8	1303.8	1304.7	1305.6	1306.5	1307.4	1307.4
147.5°	1359.5	1360.1	1360.8	1361.4	1362.0	1362.7	1363.4	1364.1	1364.8	1365.5	1366.2
150°	1400.4	1400.1	1399.8	1399.5	1399.2	1399.6	1400.8	1402.0	1403.1	1404.3	1404.3
152.5°	1433.9	1434.3	1434.7	1435.1	1435.5	1435.9	1436.4	1436.8	1437.3	1437.8	1438.6
155°	1485.5	1485.5	1485.5	1485.5	1485.5	1485.6	1485.9	1486.2	1486.5	1486.8	1487.9
157.5°	1531.6	1531.0	1530.3	1529.6	1529.0	1528.8	1529.1	1529.4	1529.7	1530.0	1531.2
160°	1558.8	1558.0	1557.1	1556.2	1555.4	1555.1	1555.4	1555.7	1555.9	1556.2	1557.4
162.5°	1583.0	1582.4	1581.7	1581.0	1580.4	1580.1	1580.1	1580.2	1580.2	1580.3	1581.8
165°	1615.2	1614.6	1614.0	1613.5	1612.9	1612.8	1613.0	1613.3	1613.6	1613.9	1615.1
167.5°	1642.4	1641.2	1640.1	1638.9	1637.8	1637.2	1637.2	1637.2	1637.2	1637.2	1638.9
170°	1657.1	1656.0	1654.8	1653.7	1652.4	1651.8	1651.8	1651.8	1651.8	1651.8	1653.7
172.5°	1667.6	1666.4	1665.3	1664.1	1662.9	1662.3	1662.3	1662.3	1662.3	1662.3	1664.1
175°	1679.4	1678.2	1677.1	1675.9	1674.8	1674.2	1674.2	1674.2	1674.2	1674.2	1675.9
177.5°	1685.4	1684.5	1683.5	1682.6	1681.6	1681.1	1680.8	1680.6	1680.4	1680.1	1681.5
180°	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2
2.5°	1718.2	1720.6	1723.0	1724.1	1723.9	1723.6	1723.4	1723.2
5°	1709.6	1712.3	1715.1	1716.3	1716.0	1715.7	1715.4	1715.1
7.5°	1692.2	1695.0	1697.6	1698.8	1698.5	1698.2	1697.9	1697.6
10°	1677.6	1680.0	1682.4	1683.5	1683.2	1682.9	1682.6	1682.3
12.5°	1658.1	1660.0	1661.9	1662.9	1662.8	1662.7	1662.7	1662.6
15°	1624.0	1625.5	1627.0	1627.8	1627.8	1627.8	1627.8	1627.8
17.5°	1584.4	1586.2	1588.1	1588.3	1586.8	1585.3	1583.8	1582.3
20°	1554.3	1556.4	1558.5	1558.8	1557.3	1555.8	1554.3	1552.8
22.5°	1520.1	1521.6	1522.9	1523.1	1522.1	1521.1	1520.0	1518.9
25°	1465.4	1466.0	1466.6	1466.4	1465.5	1464.6	1463.7	1462.8
27.5°	1408.0	1408.1	1408.3	1407.9	1406.9	1406.0	1405.1	1404.2
30°	1366.1	1365.5	1364.9	1364.2	1363.3	1362.4	1361.5	1360.6
32.5°	1323.7	1322.6	1321.6	1320.2	1318.6	1317.0	1315.2	1313.6
35°	1258.0	1256.5	1255.0	1253.0	1250.6	1248.2	1245.8	1243.3
37.5°	1188.9	1186.7	1184.5	1182.7	1181.2	1179.8	1178.4	1177.1
40°	1141.0	1138.3	1135.6	1133.8	1132.9	1132.0	1131.0	1130.1
42.5°	1093.6	1091.1	1088.6	1086.6	1085.3	1083.9	1082.5	1081.1
45°	1023.4	1019.8	1016.1	1013.8	1012.9	1012.0	1011.1	1010.2
47.5°	949.4	945.6	942.0	939.1	937.0	934.8	932.7	930.6
50°	898.7	894.7	890.8	887.8	885.7	883.5	881.4	879.3
52.5°	849.5	846.1	842.6	839.7	837.3	835.0	832.6	830.2
55°	773.0	770.2	767.5	765.1	763.0	760.8	758.7	756.6
57.5°	697.0	693.5	689.9	687.6	686.5	685.3	684.2	683.0
60°	645.6	642.6	639.5	636.9	634.8	632.7	630.6	628.4
62.5°	596.0	592.8	589.5	587.0	585.4	583.8	582.1	580.5
65°	518.1	515.3	512.6	510.6	509.4	508.2	507.0	505.7
67.5°	443.6	441.3	439.0	437.5	436.8	436.1	435.4	434.6
70°	394.5	392.6	390.8	389.3	388.1	386.9	385.7	384.5
72.5°	348.2	346.1	344.1	342.4	341.2	340.0	338.8	337.6
75°	276.3	275.4	274.5	273.4	272.2	270.9	269.7	268.5
77.5°	210.5	210.0	209.4	208.7	207.8	207.0	206.1	205.3
80°	168.4	168.1	167.8	167.3	166.7	166.1	165.5	164.9
82.5°	128.7	128.2	127.6	127.2	127.1	127.0	126.9	126.7
85°	75.7	75.4	75.1	74.6	74.0	73.4	72.8	72.2
87.5°	33.1	33.4	33.7	33.7	33.4	33.1	32.8	32.4
90°	23.8	25.3	26.8	28.0	28.8	29.7	30.6	31.4
92.5°	54.1	56.0	58.0	59.3	59.9	60.6	61.2	61.8
95°	104.9	106.9	109.1	110.3	110.9	111.5	112.1	112.7
97.5°	164.4	166.3	168.2	169.5	169.8	170.2	170.5	170.9
100°	205.7	208.2	210.9	212.5	213.1	213.7	214.3	214.8
102.5°	248.0	250.9	253.8	255.6	256.4	257.2	258.0	258.8
105°	316.6	318.3	320.0	321.3	322.2	323.2	324.0	324.9
107.5°	390.5	391.4	392.3	392.7	392.6	392.5	392.5	392.4
110°	441.9	442.7	443.6	443.9	443.6	443.3	443.0	442.7



TEST NUMBER: P333453-840

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	493.3	493.7	494.1	494.1	493.6	493.1	492.5	492.0
115°	571.9	571.6	571.3	571.0	570.7	570.4	570.2	569.9
117.5°	650.5	650.7	651.0	650.5	649.3	648.1	647.0	645.8
120°	703.5	703.5	703.5	702.9	701.7	700.5	699.3	698.2
122.5°	755.4	755.2	754.9	754.4	753.4	752.5	751.5	750.6
125°	831.9	831.4	830.8	830.4	830.1	829.8	829.5	829.2
127.5°	908.0	907.7	907.5	907.0	906.5	905.8	905.2	904.6
130°	958.3	958.1	957.8	957.3	956.7	956.1	955.5	954.9
132.5°	1006.5	1006.2	1005.9	1005.4	1004.6	1003.7	1002.9	1002.1
135°	1080.8	1080.8	1080.8	1080.2	1078.9	1077.8	1076.6	1075.5
137.5°	1153.0	1153.3	1153.7	1153.1	1151.7	1150.1	1148.7	1147.3
140°	1198.5	1199.0	1199.6	1199.2	1197.7	1196.3	1194.9	1193.4
142.5°	1243.0	1243.4	1243.7	1243.2	1241.7	1240.3	1238.8	1237.4
145°	1307.4	1307.4	1307.4	1306.9	1306.1	1305.1	1304.2	1303.4
147.5°	1366.9	1367.6	1368.3	1367.7	1365.6	1363.7	1361.7	1359.8
150°	1404.3	1404.3	1404.3	1404.0	1403.4	1402.8	1402.2	1401.7
152.5°	1439.2	1439.9	1440.6	1440.5	1439.4	1438.4	1437.2	1436.2
155°	1489.1	1490.3	1491.5	1491.3	1489.9	1488.4	1486.9	1485.5
157.5°	1532.4	1533.5	1534.7	1534.3	1532.4	1530.5	1528.5	1526.6
160°	1558.5	1559.7	1560.8	1560.7	1559.3	1557.8	1556.4	1554.9
162.5°	1583.2	1584.5	1585.9	1585.8	1584.1	1582.4	1580.7	1579.0
165°	1616.2	1617.4	1618.5	1618.2	1616.5	1614.8	1613.0	1611.2
167.5°	1640.7	1642.4	1644.2	1644.2	1642.3	1640.5	1638.7	1636.9
170°	1655.4	1657.1	1658.8	1658.7	1656.7	1654.7	1652.5	1650.5
172.5°	1665.9	1667.6	1669.3	1669.3	1667.5	1665.7	1663.9	1662.0
175°	1677.6	1679.4	1681.1	1680.9	1678.9	1676.9	1674.9	1672.8
177.5°	1682.9	1684.4	1685.8	1685.7	1683.9	1682.3	1680.7	1679.1
180°	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3

(END OF REPORT)