

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: P333293-840

Luminaire Tested: **S125DIP-S1090D1205U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333293-840
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: S125DIP-S1090D1205U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8695.2 lumens
Efficiency: N/A
Efficacy: 133.0 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

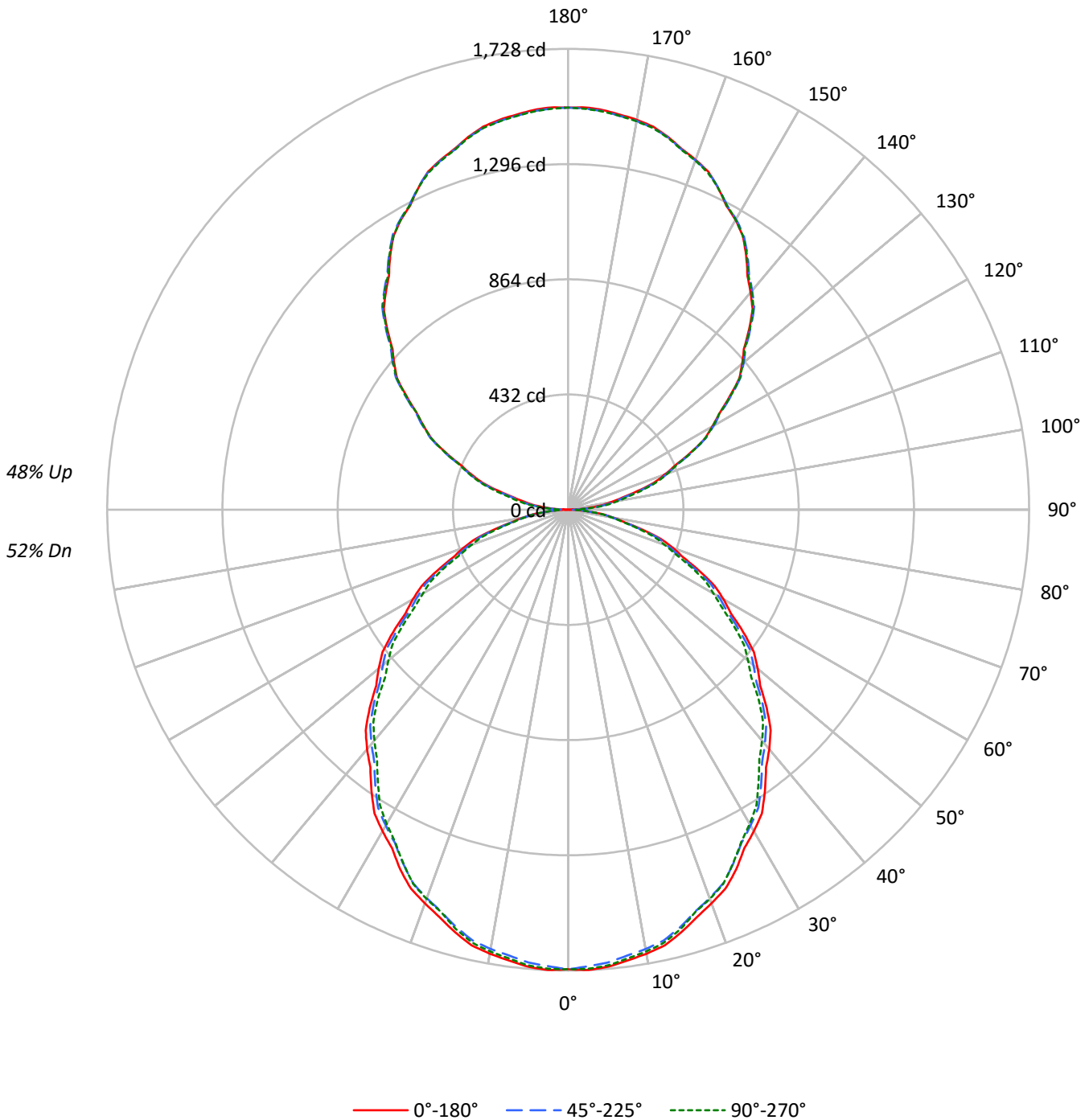
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	52																												
1	98	94	90	86	91	87	83	80	74	71	69	62	60	58	51	50	49	43																												
2	89	82	76	70	82	76	70	66	65	61	57	54	51	49	45	43	41	36																												
3	81	72	64	59	75	67	60	55	57	52	48	48	44	41	40	37	35	31																												
4	74	64	56	50	69	59	52	47	51	45	41	43	39	35	35	32	30	26																												
5	68	57	48	42	63	53	45	40	45	40	35	38	34	31	32	29	26	23																												
6	63	51	43	37	58	47	40	35	41	35	31	35	30	27	29	26	23	20																												
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20	18																												
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	21	18	16																												
9	50	38	31	25	46	36	29	24	31	25	22	27	22	19	22	19	16	14																												
10	47	35	28	23	43	33	26	22	28	23	19	25	20	17	21	17	15	13																												

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	1.9
10°-20°	459.0	5.3
20°-30°	677.7	7.8
30°-40°	790.7	9.1
40°-50°	794.2	9.1
50°-60°	697.1	8.0
60°-70°	519.5	6.0
70°-80°	297.0	3.4
80°-90°	89.7	1.0
90°-100°	101.0	1.2
100°-110°	298.2	3.4
110°-120°	505.2	5.8
120°-130°	664.8	7.6
130°-140°	745.0	8.6
140°-150°	730.1	8.4
150°-160°	613.2	7.1
160°-170°	407.6	4.7
170°-180°	142.7	1.6
0°-30°	1299.1	14.9
0°-40°	2089.8	24.0
0°-60°	3581.2	41.2
0°-90°	4487.3	51.6
90°-120°	904.4	10.4
90°-150°	3044.3	35.0
90°-180°	4208.0	48.4
0°-180°	8695.2	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	10	19	24	28	8
95°	76	79	90	98	101	81
105°	268	274	280	287	291	286
115°	506	510	513	512	510	500
125°	738	745	746	744	743	661
135°	960	967	968	968	963	740
145°	1163	1168	1171	1171	1168	727
155°	1331	1331	1332	1336	1331	613
165°	1447	1445	1446	1450	1443	408
175°	1504	1500	1500	1506	1498	143
180°	1508	1508	1508	1508	1508	



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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	30.1	30.5	30.9	31.3	31.6	31.7	31.9	32.0	32.1	32.4
90°	1.2	3.2	5.4	7.5	9.5	11.5	13.3	15.1	17.0	18.8	20.1
92.5°	28.4	29.9	31.3	32.8	34.2	36.1	38.4	40.6	42.8	45.0	46.8
95°	76.2	76.7	77.4	77.9	78.4	79.9	82.5	85.1	87.8	90.4	92.2
97.5°	126.7	126.9	127.1	127.3	127.5	129.5	133.1	136.6	140.3	143.9	145.6
100°	164.3	164.3	164.3	164.3	164.3	166.0	169.4	172.8	176.1	179.6	181.9
102.5°	204.7	205.7	206.7	207.8	208.8	210.3	212.0	213.7	215.4	217.1	219.6
105°	267.5	268.8	270.1	271.5	272.8	274.2	275.8	277.3	278.9	280.4	282.1
107.5°	337.0	338.3	339.6	340.9	342.2	343.5	344.7	345.9	347.1	348.3	349.1
110°	385.0	386.2	387.5	388.8	390.1	391.1	391.9	392.7	393.5	394.3	395.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	433.7	434.4	435.0	435.8	436.5	437.3	438.3	439.3	440.2	441.2	441.6
115°	505.7	506.9	507.9	508.9	510.0	510.7	511.3	511.8	512.3	512.8	512.6
117.5°	578.0	578.6	579.1	579.5	580.0	580.4	580.9	581.4	581.8	582.3	582.5
120°	623.1	624.4	625.7	627.0	628.3	629.1	629.3	629.7	630.0	630.2	630.2
122.5°	672.0	672.5	672.9	673.4	673.8	674.4	675.1	675.8	676.4	677.1	676.9
125°	738.1	739.7	741.2	742.9	744.4	745.3	745.6	745.8	746.1	746.4	745.8
127.5°	808.6	809.4	810.3	811.2	812.1	812.7	813.0	813.3	813.6	814.0	813.6
130°	850.8	852.1	853.4	854.7	856.0	857.0	857.5	858.0	858.5	859.0	858.8
132.5°	893.0	895.1	897.4	899.5	901.6	902.6	902.5	902.4	902.3	902.2	901.9
135°	960.0	961.5	963.1	964.6	966.2	967.1	967.3	967.7	967.9	968.2	968.2
137.5°	1022.8	1024.3	1025.8	1027.3	1028.9	1030.0	1030.5	1031.1	1031.7	1032.2	1032.5
140°	1063.2	1064.5	1065.8	1067.1	1068.4	1069.4	1070.3	1071.1	1071.8	1072.6	1073.1
142.5°	1103.6	1104.7	1105.8	1106.8	1107.9	1109.0	1109.9	1111.0	1112.0	1113.0	1113.3
145°	1163.0	1164.0	1165.1	1166.1	1167.1	1168.0	1168.8	1169.6	1170.3	1171.1	1171.1
147.5°	1217.9	1218.4	1219.0	1219.6	1220.1	1220.7	1221.4	1222.0	1222.6	1223.2	1223.9
150°	1254.5	1254.3	1253.9	1253.7	1253.4	1253.8	1254.9	1255.9	1257.0	1258.0	1258.0
152.5°	1284.5	1284.9	1285.3	1285.7	1286.0	1286.4	1286.8	1287.2	1287.7	1288.1	1288.7
155°	1330.8	1330.8	1330.8	1330.8	1330.8	1330.9	1331.2	1331.4	1331.7	1331.9	1333.0
157.5°	1372.1	1371.5	1370.9	1370.4	1369.8	1369.6	1369.9	1370.2	1370.4	1370.7	1371.7
160°	1396.4	1395.7	1394.9	1394.1	1393.3	1393.1	1393.3	1393.6	1393.9	1394.1	1395.1
162.5°	1418.1	1417.5	1416.9	1416.3	1415.7	1415.5	1415.5	1415.6	1415.6	1415.7	1416.9
165°	1446.9	1446.4	1445.9	1445.4	1444.8	1444.7	1445.0	1445.2	1445.5	1445.7	1446.8
167.5°	1471.4	1470.3	1469.3	1468.2	1467.1	1466.6	1466.6	1466.6	1466.6	1466.6	1468.2
170°	1484.5	1483.5	1482.4	1481.4	1480.4	1479.8	1479.8	1479.8	1479.8	1479.8	1481.4
172.5°	1493.9	1492.9	1491.8	1490.8	1489.8	1489.1	1489.1	1489.1	1489.1	1489.1	1490.8
175°	1504.4	1503.4	1502.4	1501.3	1500.3	1499.8	1499.8	1499.8	1499.8	1499.8	1501.3
177.5°	1509.8	1509.0	1508.1	1507.3	1506.5	1506.0	1505.8	1505.6	1505.3	1505.1	1506.4
180°	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9



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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°	32.6	32.9	33.1	33.1	32.8	32.4	32.1	31.8
90°	21.4	22.7	24.0	25.0	25.9	26.6	27.4	28.2
92.5°	48.5	50.2	51.9	53.1	53.6	54.2	54.8	55.3
95°	94.0	95.8	97.7	98.9	99.4	99.9	100.4	100.9
97.5°	147.3	149.1	150.8	151.8	152.1	152.4	152.7	153.0
100°	184.2	186.6	188.9	190.4	190.9	191.4	192.0	192.5
102.5°	222.2	224.8	227.3	228.9	229.7	230.5	231.2	231.9
105°	283.6	285.2	286.7	287.9	288.7	289.4	290.2	291.0
107.5°	349.8	350.6	351.4	351.8	351.7	351.7	351.6	351.5
110°	395.9	396.7	397.4	397.7	397.4	397.2	396.9	396.7



TEST NUMBER: P333293-840

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	442.0	442.3	442.7	442.6	442.2	441.7	441.2	440.8
115°	512.3	512.0	511.8	511.5	511.3	511.0	510.7	510.5
117.5°	582.7	582.9	583.1	582.7	581.7	580.7	579.6	578.6
120°	630.2	630.2	630.2	629.7	628.6	627.5	626.5	625.5
122.5°	676.7	676.5	676.3	675.8	674.9	674.1	673.3	672.5
125°	745.3	744.8	744.3	743.9	743.7	743.4	743.1	742.9
127.5°	813.4	813.1	812.9	812.5	812.0	811.4	810.9	810.4
130°	858.5	858.2	858.0	857.6	857.1	856.6	856.0	855.5
132.5°	901.7	901.4	901.1	900.7	899.9	899.2	898.5	897.8
135°	968.2	968.2	968.2	967.7	966.5	965.5	964.5	963.4
137.5°	1032.9	1033.2	1033.5	1033.0	1031.7	1030.4	1029.1	1027.7
140°	1073.6	1074.2	1074.7	1074.3	1073.0	1071.7	1070.4	1069.0
142.5°	1113.6	1113.9	1114.2	1113.7	1112.4	1111.2	1109.8	1108.5
145°	1171.1	1171.1	1171.1	1170.7	1170.0	1169.2	1168.4	1167.6
147.5°	1224.6	1225.2	1225.8	1225.2	1223.5	1221.6	1219.9	1218.1
150°	1258.0	1258.0	1258.0	1257.8	1257.2	1256.7	1256.2	1255.7
152.5°	1289.3	1289.9	1290.5	1290.4	1289.5	1288.5	1287.6	1286.7
155°	1334.0	1335.0	1336.2	1336.0	1334.6	1333.3	1332.1	1330.8
157.5°	1372.7	1373.8	1374.8	1374.5	1372.8	1371.1	1369.4	1367.7
160°	1396.2	1397.2	1398.3	1398.2	1396.8	1395.5	1394.2	1393.0
162.5°	1418.3	1419.5	1420.8	1420.6	1419.1	1417.5	1416.0	1414.5
165°	1447.8	1448.9	1450.0	1449.7	1448.1	1446.5	1445.0	1443.4
167.5°	1469.8	1471.4	1472.9	1472.9	1471.3	1469.7	1468.0	1466.4
170°	1482.9	1484.5	1486.0	1485.9	1484.1	1482.3	1480.5	1478.6
172.5°	1492.3	1493.9	1495.4	1495.4	1493.8	1492.2	1490.6	1488.9
175°	1502.9	1504.4	1506.0	1505.9	1504.1	1502.3	1500.4	1498.5
177.5°	1507.6	1508.9	1510.2	1510.1	1508.6	1507.1	1505.7	1504.2
180°	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9	1507.9

(END OF REPORT)