

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: P333707-840

Luminaire Tested: **S125RDIW-S1090D770U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333707-840
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: S125RDIW-S1090D770U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6954.4 lumens
Efficiency: N/A
Efficacy: 129.7 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: Semi-Direct

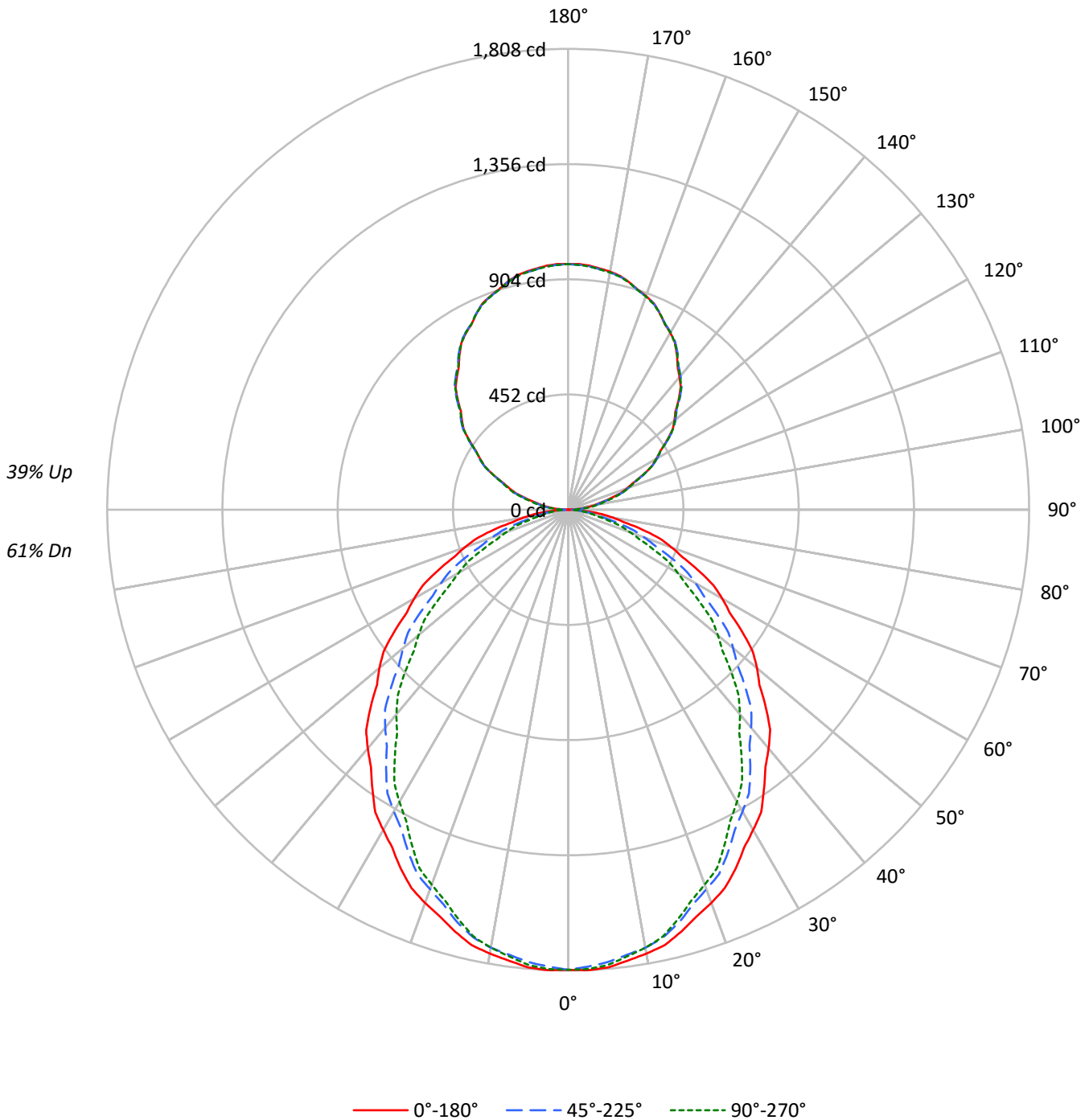
Input Watts (W): 53.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	101	96	92	89	94	90	87	84	79	77	74	69	67	65	59	58	57	52
2	92	84	78	73	86	79	74	69	70	66	62	61	58	55	52	50	48	44
3	84	74	67	61	78	70	63	58	62	57	52	54	50	47	47	44	41	38
4	77	66	58	52	72	62	55	50	55	49	45	48	44	40	42	39	36	33
5	71	59	51	45	66	56	48	43	49	43	39	43	39	35	38	34	31	28
6	65	53	45	39	61	50	43	37	45	39	34	39	35	31	34	31	28	25
7	60	48	40	34	57	45	38	33	41	35	30	36	31	27	32	28	25	22
8	56	44	36	31	53	41	34	29	37	31	27	33	28	25	29	25	22	20
9	52	40	33	27	49	38	31	26	34	28	24	30	26	22	27	23	20	18
10	49	37	30	25	46	35	28	24	31	26	22	28	23	20	25	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11657	11657	11657
5°	11684	11551	11622
10°	11596	11444	11444
15°	11457	11212	11120
20°	11281	10888	10757
25°	11075	10570	10337
30°	10818	10197	9871
35°	10555	9813	9351
40°	10309	9413	8838
45°	10011	8965	8280
50°	9711	8478	7698
55°	9364	8014	7076
60°	9016	7448	6409
65°	8604	6791	5645
70°	8135	5973	4864
75°	7483	5036	4047
80°	6590	3954	3396
85°	5550	3231	3031



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.7	2.4
10°-20°	474.3	6.8
20°-30°	687.8	9.9
30°-40°	783.9	11.3
40°-50°	764.1	11.0
50°-60°	643.2	9.2
60°-70°	450.9	6.5
70°-80°	231.8	3.3
80°-90°	60.6	0.9
90°-100°	64.5	0.9
100°-110°	190.5	2.7
110°-120°	322.7	4.6
120°-130°	424.7	6.1
130°-140°	475.9	6.8
140°-150°	466.4	6.7
150°-160°	391.7	5.6
160°-170°	260.4	3.7
170°-180°	91.1	1.3
0°-30°	1331.9	19.2
0°-40°	2115.8	30.4
0°-60°	3523.1	50.7
0°-90°	4266.3	61.3
90°-120°	577.8	8.3
90°-150°	1944.8	28.0
90°-180°	2688.0	38.7
0°-180°	6954.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1805	1805	1805	1805	1805	
5°	1802	1796	1782	1794	1793	171
15°	1714	1704	1677	1675	1663	483
25°	1554	1532	1483	1466	1451	715
35°	1339	1304	1245	1206	1186	838
45°	1096	1055	982	929	907	845
55°	832	786	712	652	628	744
65°	563	515	444	392	369	558
75°	300	258	202	173	162	317
85°	75	51	44	42	41	84
90°	1	7	12	16	18	6
95°	49	51	58	63	64	52
105°	171	175	179	184	186	183
115°	323	326	328	327	326	319
125°	472	476	477	475	474	422
135°	613	618	618	618	616	472
145°	743	746	748	748	746	464
155°	850	850	851	853	850	391
165°	924	923	924	926	922	261
175°	961	958	958	962	957	91
180°	963	963	963	963	963	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0
2.5°	1808.3	1807.6	1806.9	1806.0	1805.3	1803.8	1801.4	1799.0	1796.5	1794.1	1796.5
5°	1802.3	1801.1	1799.9	1798.7	1797.5	1795.1	1791.8	1788.5	1785.1	1781.8	1784.8
7.5°	1784.5	1783.4	1782.2	1781.1	1779.9	1777.4	1773.3	1769.4	1765.3	1761.4	1763.5
10°	1768.2	1767.3	1766.4	1765.4	1764.5	1762.0	1757.8	1753.5	1749.3	1745.0	1746.0
12.5°	1749.6	1748.5	1747.4	1746.2	1745.0	1741.6	1736.0	1730.2	1724.5	1718.8	1719.5
15°	1713.6	1711.8	1710.0	1708.2	1706.4	1702.3	1696.0	1689.6	1683.2	1676.9	1676.6
17.5°	1673.0	1670.2	1667.5	1664.7	1661.8	1656.5	1648.5	1640.5	1632.4	1624.5	1623.0
20°	1641.4	1638.4	1635.4	1632.3	1629.3	1623.0	1613.3	1603.6	1593.9	1584.2	1582.7
22.5°	1606.5	1603.5	1600.4	1597.4	1594.4	1587.8	1577.6	1567.4	1557.2	1547.0	1544.1
25°	1554.2	1549.6	1545.1	1540.5	1536.0	1528.1	1516.9	1505.7	1494.5	1483.3	1479.4
27.5°	1494.2	1488.6	1483.1	1477.6	1472.1	1463.4	1451.4	1439.4	1427.3	1415.3	1409.9
30°	1450.6	1444.8	1439.1	1433.3	1427.5	1418.3	1405.5	1392.8	1380.1	1367.4	1360.4
32.5°	1408.0	1401.3	1394.5	1387.9	1381.1	1371.3	1358.3	1345.3	1332.3	1319.4	1311.7
35°	1338.8	1331.5	1324.2	1317.0	1309.7	1299.2	1285.6	1271.9	1258.3	1244.7	1235.9
37.5°	1270.8	1262.0	1253.1	1244.4	1235.5	1224.1	1209.9	1195.9	1181.8	1167.8	1157.2
40°	1222.8	1213.8	1204.7	1195.6	1186.5	1174.7	1160.1	1145.6	1131.0	1116.5	1105.0
42.5°	1172.7	1163.4	1154.1	1144.7	1135.4	1123.2	1108.1	1093.2	1078.1	1063.1	1052.1
45°	1096.1	1087.3	1078.5	1069.8	1061.0	1048.2	1031.6	1014.9	998.3	981.6	969.5
47.5°	1016.7	1007.4	998.2	989.0	979.7	966.6	949.9	933.0	916.3	899.5	887.0
50°	966.5	956.5	946.5	936.5	926.6	912.9	895.6	878.4	861.1	843.8	831.1
52.5°	912.0	901.8	891.5	881.3	871.1	857.8	841.5	825.2	808.9	792.6	778.9
55°	831.6	821.9	812.2	802.5	792.8	779.5	762.5	745.6	728.6	711.7	698.0
57.5°	750.3	740.0	729.6	719.2	708.9	695.6	679.2	662.9	646.5	630.2	616.8
60°	698.0	687.4	676.8	666.2	655.6	642.1	625.7	609.4	593.0	576.6	563.3
62.5°	642.4	632.3	622.2	612.0	601.9	588.5	572.0	555.3	538.8	522.1	509.8
65°	563.0	552.7	542.4	532.1	521.8	508.7	492.6	476.6	460.5	444.4	432.3
67.5°	484.2	473.9	463.6	453.3	443.0	430.2	414.8	399.4	384.1	368.6	357.6
70°	430.8	420.5	410.2	399.9	389.6	376.9	361.7	346.6	331.4	316.3	306.9
72.5°	378.5	368.4	358.3	348.3	338.2	326.1	311.9	297.7	283.6	269.4	260.7
75°	299.9	290.8	281.8	272.7	263.6	252.7	239.9	227.2	214.5	201.8	195.1
77.5°	222.0	214.7	207.4	200.2	192.9	184.1	174.0	163.8	153.6	143.4	138.8
80°	177.2	170.0	162.7	155.4	148.1	140.3	131.8	123.3	114.8	106.3	103.6
82.5°	133.6	127.0	120.5	114.0	107.4	101.3	95.4	89.6	83.8	78.0	76.7
85°	74.9	69.5	64.0	58.6	53.1	49.7	48.2	46.7	45.1	43.6	43.3
87.5°	25.2	23.8	22.4	20.9	19.5	18.8	18.8	18.8	18.8	18.8	18.9
90°	0.7	2.1	3.4	4.7	6.1	7.4	8.5	9.7	10.8	12.0	12.8
92.5°	18.2	19.1	20.0	20.9	21.9	23.0	24.5	26.0	27.4	28.8	29.9
95°	48.8	49.1	49.4	49.7	50.1	51.1	52.7	54.4	56.0	57.8	58.9
97.5°	81.0	81.1	81.2	81.4	81.5	82.7	85.0	87.4	89.6	91.9	93.0
100°	104.9	104.9	104.9	104.9	104.9	106.0	108.2	110.4	112.5	114.7	116.2
102.5°	130.8	131.4	132.1	132.7	133.4	134.3	135.4	136.5	137.5	138.7	140.4
105°	171.0	171.8	172.6	173.4	174.3	175.2	176.2	177.1	178.1	179.2	180.2
107.5°	215.3	216.1	217.0	217.8	218.6	219.4	220.3	221.0	221.8	222.5	223.0
110°	245.9	246.7	247.5	248.4	249.2	249.8	250.3	250.9	251.4	251.9	252.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	277.1	277.5	277.9	278.4	278.8	279.3	279.9	280.6	281.2	281.9	282.2
115°	323.2	323.8	324.5	325.1	325.8	326.3	326.6	326.9	327.3	327.6	327.4
117.5°	369.3	369.6	369.9	370.2	370.5	370.8	371.1	371.4	371.7	372.0	372.1
120°	398.1	398.9	399.7	400.6	401.4	401.9	402.0	402.2	402.4	402.5	402.5
122.5°	429.3	429.6	429.9	430.2	430.5	430.8	431.2	431.7	432.1	432.5	432.4
125°	471.5	472.5	473.5	474.5	475.5	476.2	476.3	476.5	476.7	476.8	476.5
127.5°	516.5	517.1	517.7	518.3	518.8	519.2	519.4	519.6	519.8	520.0	519.8
130°	543.5	544.3	545.2	546.0	546.8	547.4	547.8	548.1	548.5	548.8	548.6
132.5°	570.5	571.9	573.2	574.6	575.9	576.6	576.5	576.4	576.4	576.3	576.2
135°	613.2	614.2	615.2	616.2	617.2	617.8	617.9	618.1	618.3	618.4	618.4
137.5°	653.4	654.4	655.3	656.3	657.3	657.9	658.3	658.6	659.0	659.4	659.6
140°	679.2	680.0	680.9	681.7	682.6	683.2	683.7	684.2	684.7	685.2	685.5
142.5°	705.0	705.7	706.4	707.1	707.8	708.4	709.1	709.7	710.3	710.9	711.1
145°	743.0	743.6	744.3	744.9	745.6	746.2	746.7	747.2	747.7	748.2	748.2
147.5°	778.0	778.4	778.7	779.1	779.5	779.8	780.2	780.6	781.0	781.4	781.8
150°	801.4	801.2	801.0	800.9	800.7	801.0	801.6	802.3	802.9	803.7	803.7
152.5°	820.6	820.8	821.0	821.3	821.5	821.7	822.0	822.3	822.5	822.8	823.2
155°	850.1	850.1	850.1	850.1	850.1	850.2	850.4	850.5	850.7	850.9	851.5
157.5°	876.6	876.2	875.8	875.5	875.0	874.9	875.1	875.3	875.5	875.7	876.3
160°	892.1	891.6	891.1	890.6	890.1	889.9	890.1	890.3	890.4	890.6	891.3
162.5°	905.9	905.5	905.1	904.8	904.4	904.2	904.3	904.3	904.3	904.4	905.2
165°	924.3	924.0	923.7	923.3	923.0	922.9	923.1	923.2	923.4	923.6	924.2
167.5°	940.0	939.3	938.6	938.0	937.3	937.0	937.0	937.0	937.0	937.0	938.0
170°	948.4	947.7	947.0	946.3	945.6	945.3	945.3	945.3	945.3	945.3	946.3
172.5°	954.3	953.6	953.0	952.3	951.7	951.3	951.3	951.3	951.3	951.3	952.3
175°	961.1	960.4	959.8	959.1	958.4	958.1	958.1	958.1	958.1	958.1	959.1
177.5°	964.5	964.0	963.4	962.9	962.4	962.1	961.9	961.8	961.7	961.5	962.3
180°	963.3	963.3	963.3	963.3	963.3	963.3	963.3	963.3	963.3	963.3	963.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0
2.5°	1799.0	1801.4	1803.8	1804.8	1804.6	1804.4	1804.1	1803.9
5°	1787.9	1790.9	1793.9	1795.1	1794.5	1793.9	1793.3	1792.7
7.5°	1765.6	1767.8	1769.9	1770.6	1769.9	1769.3	1768.6	1767.9
10°	1746.9	1747.8	1748.7	1748.7	1747.8	1746.9	1746.0	1745.0
12.5°	1720.2	1720.8	1721.5	1721.1	1719.7	1718.4	1717.0	1715.6
15°	1676.3	1676.0	1675.7	1674.2	1671.4	1668.7	1666.0	1663.2
17.5°	1621.4	1619.9	1618.4	1616.6	1614.3	1612.0	1609.8	1607.6
20°	1581.1	1579.6	1578.1	1576.0	1573.3	1570.5	1567.8	1565.1
22.5°	1541.2	1538.1	1535.2	1532.6	1530.3	1528.1	1525.8	1523.6
25°	1475.4	1471.5	1467.5	1463.9	1460.6	1457.2	1453.9	1450.6
27.5°	1404.3	1398.9	1393.3	1389.0	1385.7	1382.5	1379.3	1376.1
30°	1353.4	1346.5	1339.5	1334.6	1331.9	1329.2	1326.5	1323.7
32.5°	1304.0	1296.3	1288.6	1283.0	1279.6	1276.2	1272.6	1269.2
35°	1227.1	1218.3	1209.5	1203.1	1198.8	1194.6	1190.3	1186.1
37.5°	1146.7	1136.2	1125.6	1118.3	1114.2	1110.0	1105.9	1101.8
40°	1093.5	1082.0	1070.5	1062.9	1059.2	1055.6	1052.0	1048.3
42.5°	1041.1	1030.0	1019.0	1010.8	1005.4	1000.2	994.8	989.5
45°	957.4	945.2	933.1	924.7	920.2	915.6	911.1	906.6
47.5°	874.5	862.0	849.6	840.8	835.8	830.7	825.8	820.7
50°	818.4	805.7	792.9	784.4	779.8	775.3	770.7	766.2
52.5°	765.3	751.5	737.8	728.7	724.2	719.6	715.1	710.5
55°	684.4	670.8	657.1	647.8	643.0	638.1	633.3	628.4
57.5°	603.5	590.2	576.8	567.9	563.7	559.4	555.0	550.8
60°	550.0	536.6	523.3	514.4	509.9	505.3	500.8	496.2
62.5°	497.5	485.0	472.7	464.2	459.7	455.1	450.6	446.1
65°	420.2	408.1	396.0	387.6	383.0	378.5	374.0	369.4
67.5°	346.5	335.4	324.3	316.9	313.3	309.6	306.0	302.4
70°	297.5	288.1	278.7	272.2	268.5	264.9	261.3	257.6
72.5°	252.1	243.4	234.7	229.1	226.7	224.3	221.9	219.4
75°	188.4	181.8	175.1	170.7	168.5	166.4	164.3	162.2
77.5°	134.1	129.5	124.7	121.6	120.1	118.5	116.9	115.3
80°	100.9	98.2	95.4	93.7	93.1	92.5	91.9	91.3
82.5°	75.4	74.1	72.9	72.1	71.7	71.3	71.0	70.6
85°	43.0	42.7	42.4	42.1	41.8	41.5	41.2	40.9
87.5°	19.1	19.3	19.4	19.4	19.3	19.2	19.0	18.9
90°	13.6	14.5	15.3	16.0	16.5	17.0	17.5	18.0
92.5°	31.0	32.1	33.2	33.9	34.3	34.6	35.0	35.3
95°	60.1	61.2	62.4	63.1	63.5	63.8	64.1	64.4
97.5°	94.1	95.2	96.3	96.9	97.1	97.4	97.6	97.8
100°	117.6	119.2	120.7	121.6	122.0	122.3	122.6	122.9
102.5°	142.0	143.6	145.2	146.2	146.7	147.2	147.6	148.1
105°	181.2	182.2	183.2	183.9	184.4	184.9	185.4	185.9
107.5°	223.5	224.0	224.5	224.7	224.7	224.7	224.6	224.6
110°	252.9	253.4	253.9	254.1	253.9	253.7	253.6	253.4



TEST NUMBER: P333707-840

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	282.4	282.6	282.8	282.8	282.5	282.2	281.9	281.6
115°	327.3	327.1	326.9	326.8	326.6	326.5	326.3	326.1
117.5°	372.2	372.3	372.5	372.2	371.6	370.9	370.2	369.6
120°	402.5	402.5	402.5	402.2	401.6	400.9	400.2	399.6
122.5°	432.3	432.1	432.0	431.7	431.1	430.6	430.1	429.6
125°	476.2	475.7	475.4	475.2	475.0	474.8	474.7	474.5
127.5°	519.7	519.5	519.3	519.1	518.8	518.4	518.1	517.8
130°	548.5	548.3	548.1	547.9	547.5	547.1	546.8	546.5
132.5°	576.0	575.8	575.7	575.3	574.9	574.4	574.0	573.5
135°	618.4	618.4	618.4	618.1	617.4	616.8	616.1	615.5
137.5°	659.8	660.0	660.2	659.8	659.0	658.2	657.4	656.5
140°	685.9	686.2	686.5	686.3	685.5	684.6	683.8	683.0
142.5°	711.3	711.6	711.8	711.4	710.6	709.8	708.9	708.1
145°	748.2	748.2	748.2	747.9	747.4	746.9	746.4	745.9
147.5°	782.2	782.6	783.0	782.6	781.5	780.4	779.3	778.2
150°	803.7	803.7	803.7	803.4	803.1	802.8	802.4	802.1
152.5°	823.6	824.0	824.5	824.4	823.7	823.1	822.5	821.9
155°	852.2	852.8	853.5	853.4	852.6	851.8	850.9	850.1
157.5°	877.0	877.6	878.3	878.1	877.0	875.9	874.7	873.6
160°	891.9	892.6	893.2	893.2	892.3	891.5	890.7	889.9
162.5°	906.1	906.8	907.6	907.6	906.6	905.5	904.6	903.6
165°	924.9	925.6	926.2	926.0	925.1	924.1	923.1	922.1
167.5°	939.0	940.0	940.9	940.9	939.9	938.9	937.9	936.8
170°	947.4	948.4	949.4	949.3	948.1	947.0	945.7	944.6
172.5°	953.3	954.3	955.3	955.3	954.3	953.2	952.2	951.2
175°	960.1	961.1	962.1	962.0	960.8	959.7	958.5	957.4
177.5°	963.1	963.9	964.7	964.6	963.7	962.8	961.9	960.9
180°	963.3	963.3	963.3	963.3	963.3	963.3	963.3	963.3

(END OF REPORT)