

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: P333727-840

Luminaire Tested: **S125RDIW-S1270D770U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333727-840
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-S1270D770U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1270 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: 7615.0 lumens
Efficiency: N/A
Efficacy: 127.3 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

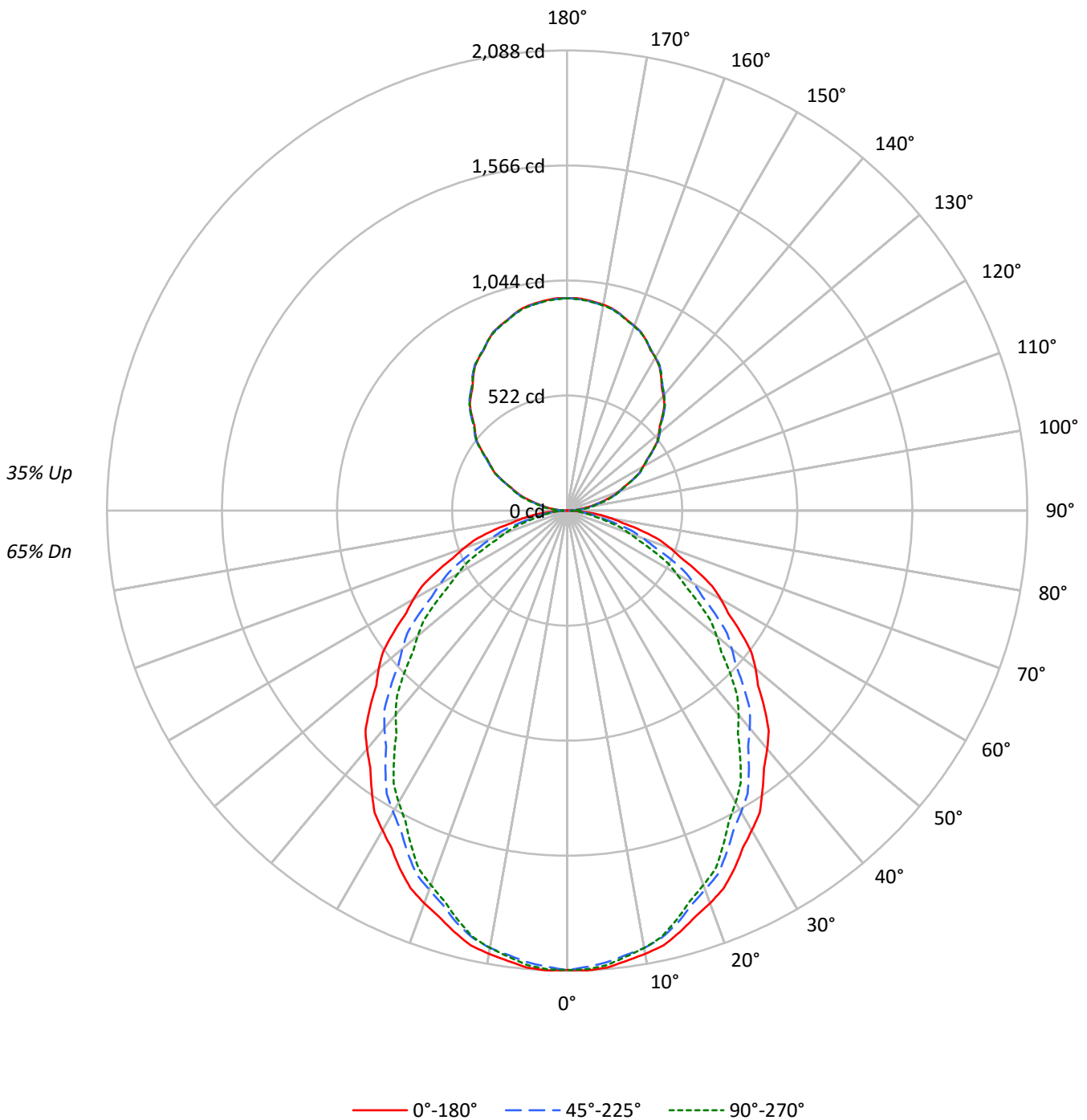
Input Watts (W): 59.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65
1	101	97	93	90	95	91	88	85	81	78	76	71	69	67	62	61	59	55
2	93	85	79	74	87	80	75	70	71	67	63	63	60	57	55	53	50	47
3	85	75	68	62	79	71	64	59	63	58	54	56	52	48	49	46	43	40
4	78	67	59	53	73	63	56	50	56	50	46	50	45	42	44	40	37	34
5	71	60	51	45	67	56	49	43	50	44	40	45	40	36	40	36	33	30
6	66	54	45	40	62	51	43	38	46	39	35	41	36	32	36	32	29	26
7	61	49	41	35	57	46	39	34	41	35	31	37	32	28	33	29	26	23
8	57	44	36	31	53	42	35	30	38	32	28	34	29	25	30	26	23	21
9	53	41	33	28	50	39	32	27	35	29	25	31	26	23	28	24	21	19
10	50	37	30	25	47	36	29	24	32	27	23	29	24	21	26	22	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13464	13464	13464
5°	13494	13341	13422
10°	13392	13217	13217
15°	13233	12948	12843
20°	13029	12575	12423
25°	12790	12207	11938
30°	12493	11777	11401
35°	12191	11334	10800
40°	11907	10871	10208
45°	11562	10355	9563
50°	11216	9792	8890
55°	10815	9254	8173
60°	10413	8603	7403
65°	9938	7844	6521
70°	9396	6898	5620
75°	8644	5814	4674
80°	7613	4567	3924
85°	6417	3735	3505



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.0	2.6
10°-20°	547.8	7.2
20°-30°	794.4	10.4
30°-40°	905.3	11.9
40°-50°	882.5	11.6
50°-60°	742.8	9.8
60°-70°	520.7	6.8
70°-80°	267.7	3.5
80°-90°	69.7	0.9
90°-100°	64.5	0.8
100°-110°	190.5	2.5
110°-120°	322.7	4.2
120°-130°	424.7	5.6
130°-140°	475.9	6.2
140°-150°	466.4	6.1
150°-160°	391.7	5.1
160°-170°	260.4	3.4
170°-180°	91.1	1.2
0°-30°	1538.2	20.2
0°-40°	2443.5	32.1
0°-60°	4068.9	53.4
0°-90°	4927.0	64.7
90°-120°	577.8	7.6
90°-150°	1944.8	25.5
90°-180°	2688.0	35.3
0°-180°	7615.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2085	2085	2085	2085	2085	
5°	2082	2075	2058	2073	2070	197
15°	1979	1968	1937	1934	1921	558
25°	1795	1769	1713	1693	1675	826
35°	1546	1507	1438	1393	1370	968
45°	1266	1218	1134	1073	1047	976
55°	960	908	822	754	726	859
65°	650	595	513	452	427	644
75°	346	298	233	200	187	367
85°	87	59	50	49	47	97
90°	1	7	12	16	18	7
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°	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7
2.5°	2088.4	2087.6	2086.7	2085.9	2085.1	2083.3	2080.4	2077.6	2074.9	2072.0	2074.9
5°	2081.5	2080.1	2078.7	2077.3	2075.9	2073.3	2069.4	2065.6	2061.7	2057.9	2061.3
7.5°	2061.0	2059.7	2058.4	2057.0	2055.7	2052.8	2048.1	2043.5	2038.9	2034.3	2036.7
10°	2042.1	2041.0	2040.0	2039.0	2037.9	2035.0	2030.0	2025.2	2020.2	2015.4	2016.4
12.5°	2020.7	2019.4	2018.0	2016.7	2015.4	2011.4	2004.9	1998.3	1991.7	1985.1	1985.9
15°	1979.1	1977.0	1975.0	1972.9	1970.8	1966.0	1958.6	1951.4	1944.0	1936.6	1936.3
17.5°	1932.2	1929.0	1925.8	1922.6	1919.3	1913.1	1903.9	1894.6	1885.4	1876.1	1874.4
20°	1895.7	1892.2	1888.6	1885.2	1881.7	1874.3	1863.2	1852.0	1840.8	1829.6	1827.9
22.5°	1855.4	1851.9	1848.4	1844.9	1841.4	1833.8	1822.0	1810.3	1798.5	1786.8	1783.3
25°	1794.9	1789.7	1784.4	1779.2	1773.9	1764.8	1751.9	1739.0	1726.0	1713.0	1708.5
27.5°	1725.7	1719.3	1712.9	1706.6	1700.2	1690.1	1676.2	1662.3	1648.5	1634.7	1628.3
30°	1675.3	1668.6	1661.9	1655.4	1648.7	1638.0	1623.3	1608.6	1593.9	1579.2	1571.1
32.5°	1626.2	1618.4	1610.6	1602.9	1595.1	1583.7	1568.7	1553.8	1538.7	1523.8	1514.9
35°	1546.2	1537.7	1529.3	1521.0	1512.6	1500.5	1484.7	1469.1	1453.3	1437.5	1427.3
37.5°	1467.7	1457.5	1447.3	1437.1	1426.8	1413.6	1397.5	1381.2	1364.9	1348.7	1336.6
40°	1412.3	1401.8	1391.3	1380.8	1370.4	1356.7	1339.9	1323.1	1306.3	1289.5	1276.3
42.5°	1354.4	1343.6	1332.8	1322.0	1311.3	1297.2	1279.9	1262.5	1245.2	1227.8	1215.1
45°	1265.9	1255.8	1245.6	1235.5	1225.3	1210.6	1191.3	1172.2	1152.9	1133.7	1119.6
47.5°	1174.3	1163.6	1152.9	1142.2	1131.5	1116.4	1097.0	1077.6	1058.2	1038.8	1024.4
50°	1116.3	1104.8	1093.2	1081.7	1070.2	1054.4	1034.4	1014.5	994.5	974.6	959.9
52.5°	1053.3	1041.5	1029.7	1017.8	1006.0	990.7	971.9	953.1	934.2	915.4	899.6
55°	960.5	949.3	938.1	926.9	915.6	900.3	880.7	861.1	841.5	821.9	806.2
57.5°	866.6	854.6	842.6	830.7	818.7	803.3	784.5	765.5	746.6	727.7	712.4
60°	806.2	793.9	781.6	769.4	757.2	741.5	722.7	703.8	684.9	666.0	650.7
62.5°	741.9	730.2	718.5	706.8	695.2	679.7	660.6	641.4	622.2	603.0	588.8
65°	650.3	638.3	626.5	614.6	602.7	587.4	569.0	550.4	531.8	513.3	499.3
67.5°	559.3	547.3	535.4	523.6	511.7	496.9	479.1	461.3	443.5	425.8	412.9
70°	497.6	485.6	473.7	461.8	450.0	435.3	417.8	400.3	382.7	365.3	354.5
72.5°	437.1	425.5	413.8	402.2	390.6	376.6	360.2	343.9	327.5	311.1	301.1
75°	346.4	335.9	325.4	314.9	304.4	291.9	277.1	262.5	247.7	233.0	225.3
77.5°	256.3	247.9	239.5	231.2	222.8	212.7	200.9	189.1	177.4	165.6	160.3
80°	204.7	196.3	187.9	179.5	171.1	162.0	152.2	142.4	132.6	122.8	119.7
82.5°	154.3	146.7	139.2	131.6	124.1	116.9	110.2	103.5	96.7	90.1	88.6
85°	86.6	80.3	74.0	67.7	61.4	57.4	55.6	53.9	52.1	50.4	50.0
87.5°	29.1	27.5	25.8	24.0	22.3	21.5	21.4	21.4	21.3	21.3	21.4
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°	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7
2.5°	2077.6	2080.4	2083.3	2084.5	2084.3	2084.0	2083.7	2083.4
5°	2064.9	2068.4	2071.8	2073.3	2072.5	2071.8	2071.1	2070.4
7.5°	2039.1	2041.6	2044.1	2044.9	2044.1	2043.4	2042.6	2041.8
10°	2017.4	2018.5	2019.5	2019.5	2018.5	2017.4	2016.4	2015.4
12.5°	1986.7	1987.4	1988.2	1987.8	1986.2	1984.6	1983.0	1981.4
15°	1935.9	1935.6	1935.2	1933.5	1930.4	1927.2	1924.0	1920.9
17.5°	1872.7	1870.9	1869.2	1867.0	1864.4	1861.8	1859.3	1856.6
20°	1826.0	1824.3	1822.6	1820.1	1816.9	1813.8	1810.7	1807.6
22.5°	1779.9	1776.5	1773.0	1770.0	1767.5	1764.8	1762.2	1759.7
25°	1703.9	1699.4	1694.9	1690.6	1686.8	1682.9	1679.1	1675.3
27.5°	1621.9	1615.6	1609.2	1604.2	1600.4	1596.7	1593.0	1589.3
30°	1563.2	1555.1	1547.0	1541.5	1538.3	1535.1	1532.0	1528.8
32.5°	1506.0	1497.1	1488.2	1481.8	1477.8	1473.8	1469.9	1465.8
35°	1417.2	1407.0	1396.9	1389.4	1384.5	1379.6	1374.7	1369.8
37.5°	1324.3	1312.2	1300.0	1291.5	1286.8	1282.0	1277.3	1272.5
40°	1262.9	1249.6	1236.4	1227.6	1223.4	1219.2	1215.0	1210.8
42.5°	1202.3	1189.6	1176.9	1167.4	1161.2	1155.1	1148.9	1142.8
45°	1105.6	1091.7	1077.6	1068.0	1062.8	1057.5	1052.3	1047.0
47.5°	1010.1	995.6	981.2	971.1	965.2	959.5	953.6	947.9
50°	945.2	930.5	915.8	905.8	900.6	895.3	890.1	884.8
52.5°	883.7	868.0	852.1	841.6	836.4	831.1	825.9	820.6
55°	790.4	774.7	758.9	748.2	742.7	737.0	731.4	725.9
57.5°	696.9	681.6	666.1	656.0	651.0	646.0	641.1	636.1
60°	635.2	619.9	604.4	594.1	588.9	583.6	578.3	573.1
62.5°	574.5	560.2	545.9	536.1	530.9	525.6	520.4	515.1
65°	485.3	471.3	457.3	447.7	442.4	437.2	431.9	426.7
67.5°	400.1	387.3	374.6	366.0	361.8	357.6	353.5	349.2
70°	343.6	332.8	321.9	314.4	310.1	306.0	301.7	297.6
72.5°	291.1	281.1	271.0	264.7	261.9	259.1	256.3	253.5
75°	217.6	210.0	202.3	197.1	194.7	192.3	189.9	187.3
77.5°	154.8	149.5	144.1	140.5	138.7	136.8	135.0	133.2
80°	116.5	113.4	110.2	108.3	107.6	106.8	106.2	105.5
82.5°	87.2	85.6	84.2	83.2	82.8	82.4	82.0	81.6
85°	49.7	49.4	49.0	48.7	48.3	48.0	47.6	47.3
87.5°	21.6	21.8	21.9	21.9	21.8	21.6	21.4	21.2
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: P333727-840

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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)