

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: P333723-840

Luminaire Tested: **S125RDIW-S1270D470U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333723-840
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-S1270D470U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6567.4 lumens
Efficiency: N/A
Efficacy: 125.3 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

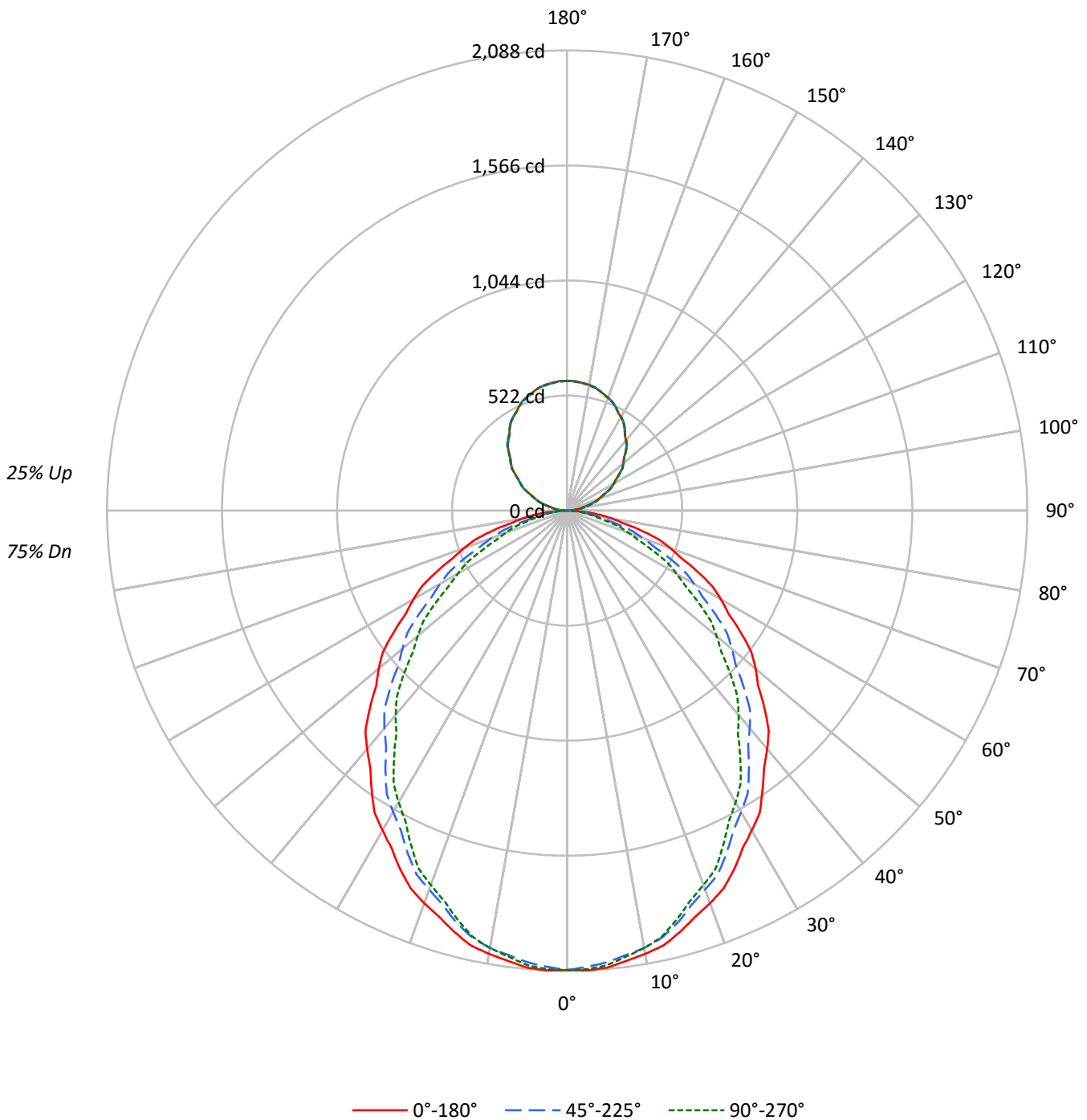
Input Watts (W): 52.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	113	113	113	113	108	108	108	108	97	97	97	88	88	88	79	79	79	75
1	104	99	95	92	99	95	91	88	86	83	81	78	76	74	70	69	68	64
2	95	87	81	76	90	83	78	73	76	71	67	69	65	62	62	60	57	54
3	87	77	69	63	82	74	67	61	67	62	57	61	57	53	56	52	49	46
4	80	68	60	54	75	65	58	52	60	54	49	55	50	46	50	46	43	40
5	73	61	53	47	69	59	51	45	54	47	43	49	44	40	45	41	37	35
6	68	55	47	41	64	53	45	40	49	42	37	45	39	35	41	37	33	31
7	63	50	42	36	60	48	41	35	44	38	33	41	35	31	38	33	30	27
8	58	46	38	32	55	44	37	31	41	34	30	38	32	28	35	30	27	24
9	55	42	34	29	52	40	33	28	37	31	27	35	29	25	32	27	24	22
10	51	39	31	26	49	37	30	26	35	29	24	32	27	23	30	25	22	20

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	3.0
10°-20°	547.8	8.3
20°-30°	794.4	12.1
30°-40°	905.3	13.8
40°-50°	882.5	13.4
50°-60°	742.8	11.3
60°-70°	520.7	7.9
70°-80°	267.7	4.1
80°-90°	68.9	1.0
90°-100°	39.4	0.6
100°-110°	116.3	1.8
110°-120°	197.1	3.0
120°-130°	259.3	3.9
130°-140°	290.6	4.4
140°-150°	284.8	4.3
150°-160°	239.2	3.6
160°-170°	159.0	2.4
170°-180°	55.6	0.8
0°-30°	1538.2	23.4
0°-40°	2443.5	37.2
0°-60°	4068.9	62.0
0°-90°	4926.1	75.0
90°-120°	352.8	5.4
90°-150°	1187.4	18.1
90°-180°	1641.0	25.0
0°-180°	6567.4	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°	0	4	7	10	11	6
95°	30	31	35	38	39	32
105°	104	107	109	112	114	111
115°	197	199	200	200	199	195
125°	288	290	291	290	290	258
135°	374	377	378	378	376	288
145°	454	455	457	457	455	283
155°	519	519	520	521	519	239
165°	564	564	564	565	563	159
175°	587	585	585	587	584	56
180°	588	588	588	588	588	



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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	27.3	25.4	23.6	21.9	20.9	20.8	20.6	20.5	20.4	20.5
90°	0.5	1.3	2.1	2.9	3.7	4.4	5.2	5.9	6.6	7.4	7.9
92.5°	11.1	11.6	12.2	12.8	13.3	14.0	14.9	15.9	16.7	17.6	18.3
95°	29.8	30.0	30.2	30.4	30.6	31.2	32.2	33.2	34.2	35.2	36.0
97.5°	49.4	49.5	49.6	49.7	49.8	50.5	51.9	53.3	54.7	56.1	56.8
100°	64.1	64.1	64.1	64.1	64.1	64.7	66.0	67.4	68.7	70.0	71.0
102.5°	79.8	80.2	80.7	81.1	81.5	82.0	82.7	83.3	84.0	84.6	85.6
105°	104.3	104.8	105.3	105.8	106.4	106.9	107.6	108.2	108.8	109.4	110.0
107.5°	131.5	132.0	132.5	133.0	133.5	134.0	134.4	134.9	135.4	135.8	136.1
110°	150.2	150.7	151.2	151.7	152.2	152.6	152.9	153.2	153.5	153.8	154.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	169.2	169.5	169.7	170.0	170.3	170.6	171.0	171.4	171.7	172.1	172.3
115°	197.2	197.6	198.1	198.5	198.9	199.2	199.4	199.7	199.9	200.1	200.0
117.5°	225.5	225.6	225.8	226.0	226.2	226.4	226.6	226.7	226.9	227.1	227.2
120°	243.1	243.6	244.1	244.6	245.1	245.4	245.5	245.6	245.7	245.8	245.8
122.5°	262.1	262.3	262.5	262.7	262.8	263.1	263.3	263.6	263.9	264.1	264.0
125°	287.9	288.5	289.1	289.7	290.3	290.7	290.8	290.9	291.0	291.1	290.9
127.5°	315.4	315.7	316.1	316.4	316.8	317.0	317.1	317.2	317.3	317.5	317.4
130°	331.8	332.3	332.9	333.4	333.9	334.3	334.5	334.7	334.9	335.1	335.0
132.5°	348.3	349.1	350.0	350.8	351.6	352.0	352.0	351.9	351.9	351.8	351.7
135°	374.4	375.1	375.7	376.3	376.9	377.2	377.3	377.4	377.5	377.6	377.6
137.5°	398.9	399.5	400.1	400.7	401.3	401.7	401.9	402.1	402.3	402.6	402.7
140°	414.7	415.2	415.7	416.2	416.7	417.2	417.5	417.8	418.1	418.4	418.6
142.5°	430.4	430.8	431.3	431.7	432.1	432.5	432.9	433.3	433.7	434.1	434.2
145°	453.6	454.0	454.4	454.8	455.2	455.6	455.9	456.2	456.5	456.8	456.8
147.5°	475.0	475.2	475.4	475.6	475.9	476.2	476.4	476.7	476.9	477.2	477.4
150°	489.3	489.2	489.1	489.0	488.9	489.1	489.5	489.9	490.3	490.7	490.7
152.5°	501.0	501.2	501.3	501.4	501.6	501.7	501.9	502.1	502.2	502.4	502.6
155°	519.1	519.1	519.1	519.1	519.1	519.1	519.2	519.3	519.4	519.5	519.9
157.5°	535.1	534.9	534.7	534.5	534.2	534.2	534.3	534.4	534.5	534.6	535.0
160°	544.7	544.4	544.0	543.7	543.4	543.3	543.4	543.5	543.6	543.7	544.2
162.5°	553.1	552.9	552.7	552.4	552.2	552.1	552.1	552.1	552.2	552.2	552.7
165°	564.3	564.1	563.9	563.7	563.5	563.5	563.6	563.7	563.8	563.9	564.3
167.5°	573.9	573.5	573.1	572.7	572.3	572.1	572.1	572.1	572.1	572.1	572.7
170°	579.0	578.6	578.1	577.7	577.3	577.1	577.1	577.1	577.1	577.1	577.7
172.5°	582.7	582.3	581.9	581.5	581.1	580.9	580.9	580.9	580.9	580.9	581.5
175°	586.8	586.3	585.9	585.5	585.1	584.9	584.9	584.9	584.9	584.9	585.5
177.5°	588.9	588.5	588.2	587.9	587.5	587.3	587.3	587.2	587.1	587.0	587.5
180°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1



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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°	20.6	20.7	20.8	20.7	20.5	20.3	20.1	19.8
90°	8.4	8.9	9.4	9.8	10.1	10.4	10.7	11.0
92.5°	18.9	19.6	20.3	20.7	20.9	21.1	21.4	21.6
95°	36.7	37.4	38.1	38.6	38.8	39.0	39.2	39.4
97.5°	57.5	58.2	58.8	59.2	59.3	59.5	59.6	59.7
100°	71.9	72.8	73.7	74.2	74.4	74.6	74.8	75.0
102.5°	86.6	87.7	88.7	89.3	89.6	89.9	90.2	90.5
105°	110.6	111.2	111.8	112.3	112.6	112.9	113.2	113.5
107.5°	136.4	136.7	137.0	137.2	137.2	137.1	137.1	137.1
110°	154.4	154.7	155.0	155.1	155.0	154.9	154.8	154.7



TEST NUMBER: P333723-840

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	172.4	172.5	172.7	172.7	172.5	172.3	172.1	171.9
115°	199.9	199.8	199.7	199.5	199.4	199.3	199.2	199.1
117.5°	227.3	227.3	227.4	227.3	226.9	226.5	226.0	225.6
120°	245.8	245.8	245.8	245.6	245.2	244.8	244.4	244.0
122.5°	264.0	263.9	263.8	263.6	263.3	263.0	262.6	262.3
125°	290.7	290.5	290.3	290.1	290.0	289.9	289.8	289.7
127.5°	317.3	317.2	317.1	316.9	316.7	316.5	316.3	316.1
130°	334.9	334.8	334.7	334.5	334.3	334.1	333.9	333.7
132.5°	351.6	351.5	351.4	351.3	351.0	350.7	350.4	350.1
135°	377.6	377.6	377.6	377.4	377.0	376.6	376.2	375.8
137.5°	402.8	402.9	403.1	402.9	402.4	401.9	401.3	400.8
140°	418.8	419.0	419.2	419.0	418.5	418.0	417.5	417.0
142.5°	434.3	434.4	434.5	434.3	433.8	433.3	432.8	432.3
145°	456.8	456.8	456.8	456.7	456.4	456.1	455.8	455.4
147.5°	477.6	477.9	478.1	477.9	477.2	476.5	475.7	475.1
150°	490.7	490.7	490.7	490.6	490.4	490.2	490.0	489.8
152.5°	502.9	503.1	503.3	503.3	502.9	502.6	502.2	501.8
155°	520.3	520.7	521.1	521.1	520.6	520.1	519.6	519.1
157.5°	535.4	535.8	536.2	536.1	535.4	534.7	534.1	533.4
160°	544.6	545.0	545.4	545.3	544.8	544.3	543.8	543.3
162.5°	553.2	553.6	554.1	554.1	553.5	552.9	552.3	551.7
165°	564.7	565.1	565.5	565.4	564.8	564.2	563.6	563.0
167.5°	573.3	573.9	574.5	574.5	573.8	573.2	572.6	572.0
170°	578.3	579.0	579.7	579.6	578.9	578.1	577.4	576.7
172.5°	582.1	582.7	583.3	583.3	582.6	582.0	581.4	580.8
175°	586.1	586.8	587.4	587.3	586.6	585.9	585.2	584.5
177.5°	588.0	588.5	589.1	589.0	588.4	587.8	587.2	586.7
180°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1

(END OF REPORT)