

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

Luminaire Tested: **S125RDIW-S1270D470U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333723
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-S1270D470U835-4F0-1E-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: 6503.2 lumens
Efficiency: N/A
Efficacy: 124.1 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

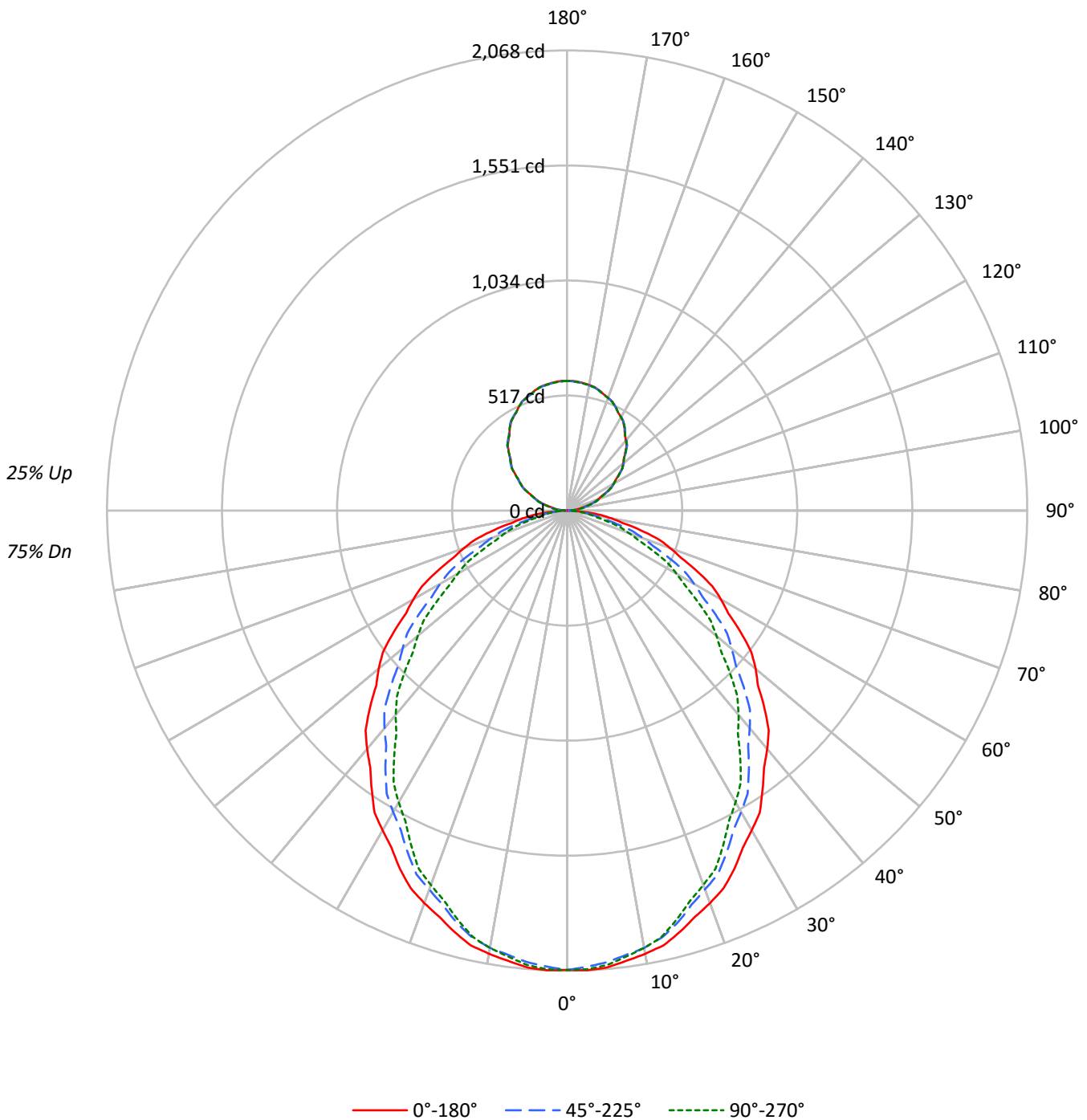
Input Watts (W): 52.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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	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°	13332	13332	13332
5°	13363	13211	13291
10°	13262	13088	13088
15°	13104	12822	12718
20°	12902	12451	12302
25°	12666	12088	11821
30°	12371	11662	11290
35°	12071	11223	10694
40°	11790	10765	10108
45°	11449	10253	9470
50°	11106	9697	8804
55°	10709	9164	8094
60°	10311	8519	7330
65°	9840	7768	6457
70°	9304	6830	5565
75°	8559	5757	4629
80°	7539	4523	3887
85°	6358	3698	3468



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.1	3.0
10°-20°	542.5	8.3
20°-30°	786.6	12.1
30°-40°	896.5	13.8
40°-50°	873.9	13.4
50°-60°	735.6	11.3
60°-70°	515.6	7.9
70°-80°	265.0	4.1
80°-90°	68.2	1.0
90°-100°	39.0	0.6
100°-110°	115.2	1.8
110°-120°	195.1	3.0
120°-130°	256.8	3.9
130°-140°	287.7	4.4
140°-150°	282.0	4.3
150°-160°	236.9	3.6
160°-170°	157.4	2.4
170°-180°	55.1	0.8
0°-30°	1523.2	23.4
0°-40°	2419.7	37.2
0°-60°	4029.1	62.0
0°-90°	4878.0	75.0
90°-120°	349.3	5.4
90°-150°	1175.8	18.1
90°-180°	1625.0	25.0
0°-180°	6503.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2064	2064	2064	2064	2064	
5°	2061	2054	2038	2052	2050	195
15°	1960	1949	1918	1915	1902	552
25°	1777	1752	1696	1676	1659	817
35°	1531	1492	1424	1380	1356	958
45°	1254	1206	1123	1062	1037	967
55°	951	899	814	746	719	850
65°	644	589	508	448	422	638
75°	343	295	231	198	186	363
85°	86	59	50	48	47	96
90°	0	4	7	10	11	6
95°	30	31	35	38	39	31
105°	103	106	108	111	112	110
115°	195	197	198	198	197	193
125°	285	288	288	287	287	255
135°	371	373	374	374	372	286
145°	449	451	452	452	451	281
155°	514	514	514	516	514	237
165°	559	558	558	560	558	158
175°	581	579	579	582	579	55
180°	582	582	582	582	582	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2064.3	2064.3	2064.3	2064.3	2064.3	2064.3	2064.3	2064.3	2064.3	2064.3	2064.3
2.5°	2068.0	2067.2	2066.3	2065.5	2064.7	2062.9	2060.1	2057.3	2054.6	2051.8	2054.6
5°	2061.2	2059.8	2058.4	2057.0	2055.6	2053.0	2049.2	2045.4	2041.6	2037.8	2041.2
7.5°	2040.9	2039.6	2038.3	2036.9	2035.6	2032.7	2028.1	2023.5	2019.0	2014.4	2016.8
10°	2022.2	2021.1	2020.1	2019.1	2018.0	2015.1	2010.2	2005.4	2000.5	1995.7	1996.7
12.5°	2001.0	1999.7	1998.3	1997.0	1995.7	1991.8	1985.3	1978.8	1972.2	1965.7	1966.5
15°	1959.8	1957.7	1955.7	1953.6	1951.5	1946.8	1939.5	1932.3	1925.0	1917.7	1917.4
17.5°	1913.3	1910.2	1907.0	1903.8	1900.6	1894.4	1885.3	1876.1	1867.0	1857.8	1856.1
20°	1877.2	1873.7	1870.2	1866.8	1863.3	1856.0	1845.0	1833.9	1822.8	1811.7	1810.0
22.5°	1837.3	1833.8	1830.3	1826.9	1823.4	1815.9	1804.2	1792.6	1780.9	1769.3	1765.9
25°	1777.4	1772.2	1767.0	1761.8	1756.6	1747.6	1734.8	1722.0	1709.1	1696.3	1691.8
27.5°	1708.8	1702.5	1696.2	1689.9	1683.6	1673.6	1659.8	1646.1	1632.4	1618.7	1612.4
30°	1658.9	1652.3	1645.7	1639.2	1632.6	1622.0	1607.4	1592.9	1578.3	1563.8	1555.8
32.5°	1610.3	1602.6	1594.9	1587.2	1579.5	1568.2	1553.4	1538.6	1523.7	1508.9	1500.1
35°	1531.1	1522.7	1514.4	1506.1	1497.8	1485.8	1470.2	1454.7	1439.1	1423.5	1413.4
37.5°	1453.4	1443.3	1433.2	1423.1	1412.9	1399.8	1383.8	1367.7	1351.6	1335.5	1323.5
40°	1398.5	1388.1	1377.7	1367.3	1357.0	1343.4	1326.8	1310.2	1293.5	1276.9	1263.8
42.5°	1341.2	1330.5	1319.8	1309.1	1298.5	1284.5	1267.4	1250.2	1233.0	1215.8	1203.2
45°	1253.5	1243.5	1233.4	1223.4	1213.3	1198.8	1179.7	1160.7	1141.6	1122.6	1108.7
47.5°	1162.8	1152.2	1141.6	1131.0	1120.4	1105.5	1086.3	1067.1	1047.9	1028.7	1014.4
50°	1105.4	1094.0	1082.5	1071.1	1059.7	1044.1	1024.3	1004.6	984.8	965.1	950.5
52.5°	1043.0	1031.3	1019.6	1007.9	996.2	981.0	962.4	943.8	925.1	906.5	890.8
55°	951.1	940.0	928.9	917.8	906.7	891.5	872.1	852.7	833.3	813.9	798.3
57.5°	858.1	846.3	834.4	822.6	810.7	795.5	776.8	758.0	739.3	720.6	705.4
60°	798.3	786.1	774.0	761.9	749.8	734.3	715.6	696.9	678.2	659.5	644.3
62.5°	734.7	723.1	711.5	699.9	688.4	673.1	654.1	635.1	616.1	597.1	583.0
65°	643.9	632.1	620.4	608.6	596.8	581.7	563.4	545.0	526.6	508.3	494.4
67.5°	553.8	542.0	530.2	518.5	506.7	492.0	474.4	456.8	439.2	421.6	408.9
70°	492.7	480.9	469.1	457.3	445.6	431.0	413.7	396.4	379.0	361.7	351.0
72.5°	432.8	421.3	409.8	398.3	386.8	372.9	356.7	340.5	324.3	308.1	298.2
75°	343.0	332.6	322.2	311.8	301.4	289.0	274.4	259.9	245.3	230.7	223.1
77.5°	253.8	245.5	237.2	228.9	220.6	210.6	198.9	187.3	175.7	164.0	158.7
80°	202.7	194.4	186.1	177.7	169.4	160.4	150.7	141.0	131.3	121.6	118.5
82.5°	152.8	145.3	137.8	130.3	122.9	115.8	109.1	102.5	95.8	89.2	87.7
85°	85.8	79.5	73.3	67.0	60.8	56.8	55.1	53.4	51.6	49.9	49.5
87.5°	28.8	27.0	25.2	23.4	21.7	20.7	20.6	20.4	20.3	20.2	20.3
90°	0.5	1.3	2.1	2.9	3.7	4.4	5.1	5.8	6.5	7.3	7.8
92.5°	11.0	11.5	12.1	12.7	13.2	13.9	14.8	15.7	16.5	17.4	18.1
95°	29.5	29.7	29.9	30.1	30.3	30.9	31.9	32.9	33.9	34.9	35.6
97.5°	48.9	49.0	49.1	49.2	49.3	50.0	51.4	52.8	54.2	55.6	56.2
100°	63.5	63.5	63.5	63.5	63.5	64.1	65.4	66.7	68.0	69.3	70.3
102.5°	79.0	79.4	79.9	80.3	80.7	81.2	81.9	82.5	83.2	83.8	84.8
105°	103.3	103.8	104.3	104.8	105.4	105.9	106.5	107.1	107.7	108.3	108.9
107.5°	130.2	130.7	131.2	131.7	132.2	132.7	133.1	133.6	134.1	134.5	134.8
110°	148.7	149.2	149.7	150.2	150.7	151.1	151.4	151.7	152.0	152.3	152.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	167.5	167.8	168.0	168.3	168.6	168.9	169.3	169.7	170.0	170.4	170.6
115°	195.3	195.7	196.2	196.6	197.0	197.3	197.5	197.7	197.9	198.1	198.0
117.5°	223.3	223.4	223.6	223.8	224.0	224.2	224.4	224.5	224.7	224.9	225.0
120°	240.7	241.2	241.7	242.2	242.7	243.0	243.1	243.2	243.3	243.4	243.4
122.5°	259.5	259.7	259.9	260.1	260.2	260.5	260.7	261.0	261.3	261.5	261.4
125°	285.1	285.7	286.3	286.9	287.5	287.9	288.0	288.1	288.2	288.3	288.1
127.5°	312.3	312.6	313.0	313.3	313.7	313.9	314.0	314.1	314.2	314.4	314.3
130°	328.6	329.1	329.6	330.1	330.6	331.0	331.2	331.4	331.6	331.8	331.7
132.5°	344.9	345.7	346.6	347.4	348.2	348.6	348.6	348.5	348.5	348.4	348.3
135°	370.7	371.4	372.0	372.6	373.2	373.5	373.6	373.7	373.8	373.9	373.9
137.5°	395.0	395.6	396.2	396.8	397.4	397.8	398.0	398.2	398.4	398.7	398.8
140°	410.6	411.1	411.6	412.1	412.6	413.1	413.4	413.7	414.0	414.3	414.5
142.5°	426.2	426.6	427.1	427.5	427.9	428.3	428.7	429.1	429.5	429.9	430.0
145°	449.2	449.6	450.0	450.4	450.8	451.1	451.4	451.7	452.0	452.3	452.3
147.5°	470.4	470.6	470.8	471.0	471.3	471.5	471.7	472.0	472.2	472.5	472.7
150°	484.5	484.4	484.3	484.2	484.1	484.3	484.7	485.1	485.5	485.9	485.9
152.5°	496.1	496.3	496.4	496.5	496.7	496.8	497.0	497.2	497.3	497.5	497.7
155°	514.0	514.0	514.0	514.0	514.0	514.0	514.1	514.2	514.3	514.4	514.8
157.5°	529.9	529.7	529.5	529.3	529.0	529.0	529.1	529.2	529.3	529.4	529.8
160°	539.4	539.1	538.7	538.4	538.1	538.0	538.1	538.2	538.3	538.4	538.9
162.5°	547.7	547.5	547.3	547.0	546.8	546.7	546.7	546.7	546.8	546.8	547.3
165°	558.8	558.6	558.4	558.2	558.0	558.0	558.1	558.2	558.3	558.4	558.8
167.5°	568.3	567.9	567.5	567.1	566.7	566.5	566.5	566.5	566.5	566.5	567.1
170°	573.3	572.9	572.5	572.1	571.7	571.5	571.5	571.5	571.5	571.5	572.1
172.5°	577.0	576.6	576.2	575.8	575.4	575.2	575.2	575.2	575.2	575.2	575.8
175°	581.1	580.6	580.2	579.8	579.4	579.2	579.2	579.2	579.2	579.2	579.8
177.5°	583.1	582.8	582.5	582.2	581.8	581.6	581.6	581.5	581.4	581.3	581.8
180°	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2064.3	2064.3	2064.3	2064.3	2064.3	2064.3	2064.3	2064.3
2.5°	2057.3	2060.1	2062.9	2064.1	2063.9	2063.6	2063.3	2063.0
5°	2044.7	2048.2	2051.6	2053.0	2052.3	2051.6	2050.9	2050.2
7.5°	2019.2	2021.7	2024.1	2024.9	2024.1	2023.4	2022.6	2021.9
10°	1997.7	1998.8	1999.8	1999.8	1998.8	1997.7	1996.7	1995.7
12.5°	1967.3	1968.0	1968.8	1968.4	1966.8	1965.2	1963.6	1962.0
15°	1917.0	1916.7	1916.3	1914.6	1911.5	1908.4	1905.2	1902.1
17.5°	1854.4	1852.6	1850.9	1848.8	1846.2	1843.6	1841.1	1838.5
20°	1808.2	1806.5	1804.8	1802.3	1799.2	1796.1	1793.0	1789.9
22.5°	1762.5	1759.1	1755.7	1752.7	1750.2	1747.6	1745.0	1742.5
25°	1687.3	1682.8	1678.3	1674.1	1670.3	1666.5	1662.7	1658.9
27.5°	1606.1	1599.8	1593.5	1588.5	1584.8	1581.1	1577.4	1573.8
30°	1547.9	1539.9	1531.9	1526.4	1523.3	1520.1	1517.0	1513.9
32.5°	1491.3	1482.5	1473.7	1467.3	1463.4	1459.4	1455.5	1451.5
35°	1403.4	1393.3	1383.3	1375.8	1371.0	1366.1	1361.3	1356.4
37.5°	1311.4	1299.4	1287.3	1278.9	1274.2	1269.5	1264.8	1260.1
40°	1250.6	1237.4	1224.3	1215.6	1211.4	1207.3	1203.1	1199.0
42.5°	1190.6	1178.0	1165.4	1156.0	1149.9	1143.8	1137.7	1131.6
45°	1094.8	1081.0	1067.1	1057.6	1052.4	1047.2	1042.0	1036.8
47.5°	1000.2	985.9	971.6	961.6	955.8	950.1	944.3	938.6
50°	936.0	921.4	906.9	897.0	891.8	886.6	881.4	876.2
52.5°	875.1	859.5	843.8	833.4	828.2	823.0	817.8	812.6
55°	782.7	767.1	751.5	740.9	735.4	729.8	724.3	718.8
57.5°	690.1	674.9	659.6	649.6	644.6	639.7	634.8	629.9
60°	629.0	613.8	598.5	588.3	583.1	577.9	572.7	567.5
62.5°	568.9	554.7	540.6	530.9	525.7	520.5	515.3	510.1
65°	480.6	466.7	452.8	443.3	438.1	432.9	427.7	422.5
67.5°	396.2	383.5	370.9	362.4	358.3	354.1	350.0	345.8
70°	340.2	329.5	318.8	311.3	307.1	303.0	298.8	294.7
72.5°	288.3	278.4	268.4	262.1	259.3	256.6	253.8	251.0
75°	215.5	207.9	200.3	195.2	192.8	190.4	188.0	185.5
77.5°	153.3	148.0	142.7	139.1	137.3	135.5	133.7	131.9
80°	115.4	112.3	109.1	107.2	106.5	105.8	105.2	104.5
82.5°	86.3	84.8	83.4	82.4	82.0	81.6	81.2	80.8
85°	49.2	48.9	48.5	48.2	47.8	47.5	47.1	46.8
87.5°	20.4	20.5	20.6	20.5	20.3	20.1	19.9	19.6
90°	8.3	8.8	9.3	9.7	10.0	10.3	10.6	10.9
92.5°	18.7	19.4	20.1	20.5	20.7	20.9	21.2	21.4
95°	36.3	37.0	37.7	38.2	38.4	38.6	38.8	39.0
97.5°	56.9	57.6	58.2	58.6	58.7	58.9	59.0	59.1
100°	71.2	72.1	73.0	73.5	73.7	73.9	74.1	74.3
102.5°	85.8	86.8	87.8	88.4	88.7	89.0	89.3	89.6
105°	109.5	110.1	110.7	111.2	111.5	111.8	112.1	112.4
107.5°	135.1	135.4	135.7	135.9	135.9	135.8	135.8	135.8
110°	152.9	153.2	153.5	153.6	153.5	153.4	153.3	153.2



TEST NUMBER: P333723

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	170.7	170.8	171.0	171.0	170.8	170.6	170.4	170.2
115°	197.9	197.8	197.7	197.6	197.5	197.4	197.3	197.2
117.5°	225.1	225.1	225.2	225.1	224.7	224.3	223.8	223.4
120°	243.4	243.4	243.4	243.2	242.8	242.4	242.0	241.6
122.5°	261.4	261.3	261.2	261.0	260.7	260.4	260.0	259.7
125°	287.9	287.7	287.5	287.3	287.2	287.1	287.0	286.9
127.5°	314.2	314.1	314.0	313.8	313.6	313.4	313.2	313.0
130°	331.6	331.5	331.4	331.2	331.0	330.8	330.6	330.4
132.5°	348.2	348.1	348.0	347.9	347.6	347.3	347.0	346.7
135°	373.9	373.9	373.9	373.7	373.3	372.9	372.5	372.1
137.5°	398.9	399.0	399.2	399.0	398.5	398.0	397.4	396.9
140°	414.7	414.9	415.1	414.9	414.4	413.9	413.4	412.9
142.5°	430.1	430.2	430.3	430.1	429.6	429.1	428.6	428.1
145°	452.3	452.3	452.3	452.2	451.9	451.6	451.3	451.0
147.5°	472.9	473.2	473.4	473.2	472.5	471.8	471.1	470.5
150°	485.9	485.9	485.9	485.8	485.6	485.4	485.2	485.0
152.5°	498.0	498.2	498.4	498.4	498.0	497.7	497.3	496.9
155°	515.2	515.6	516.0	516.0	515.5	515.0	514.5	514.0
157.5°	530.2	530.6	531.0	530.9	530.2	529.5	528.9	528.2
160°	539.3	539.7	540.1	540.0	539.5	539.0	538.5	538.0
162.5°	547.8	548.2	548.7	548.7	548.1	547.5	546.9	546.3
165°	559.2	559.6	560.0	559.9	559.3	558.7	558.1	557.5
167.5°	567.7	568.3	568.9	568.9	568.2	567.6	567.0	566.4
170°	572.7	573.3	574.0	573.9	573.2	572.5	571.8	571.1
172.5°	576.4	577.0	577.6	577.6	576.9	576.3	575.7	575.1
175°	580.4	581.1	581.7	581.6	580.9	580.2	579.5	578.8
177.5°	582.3	582.8	583.3	583.2	582.7	582.1	581.5	581.0
180°	582.4	582.4	582.4	582.4	582.4	582.4	582.4	582.4

(END OF REPORT)