

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: P333486-840

Luminaire Tested: **S125DIW-S1270D1560U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333486-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIW-S1270D1560U840-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1560 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

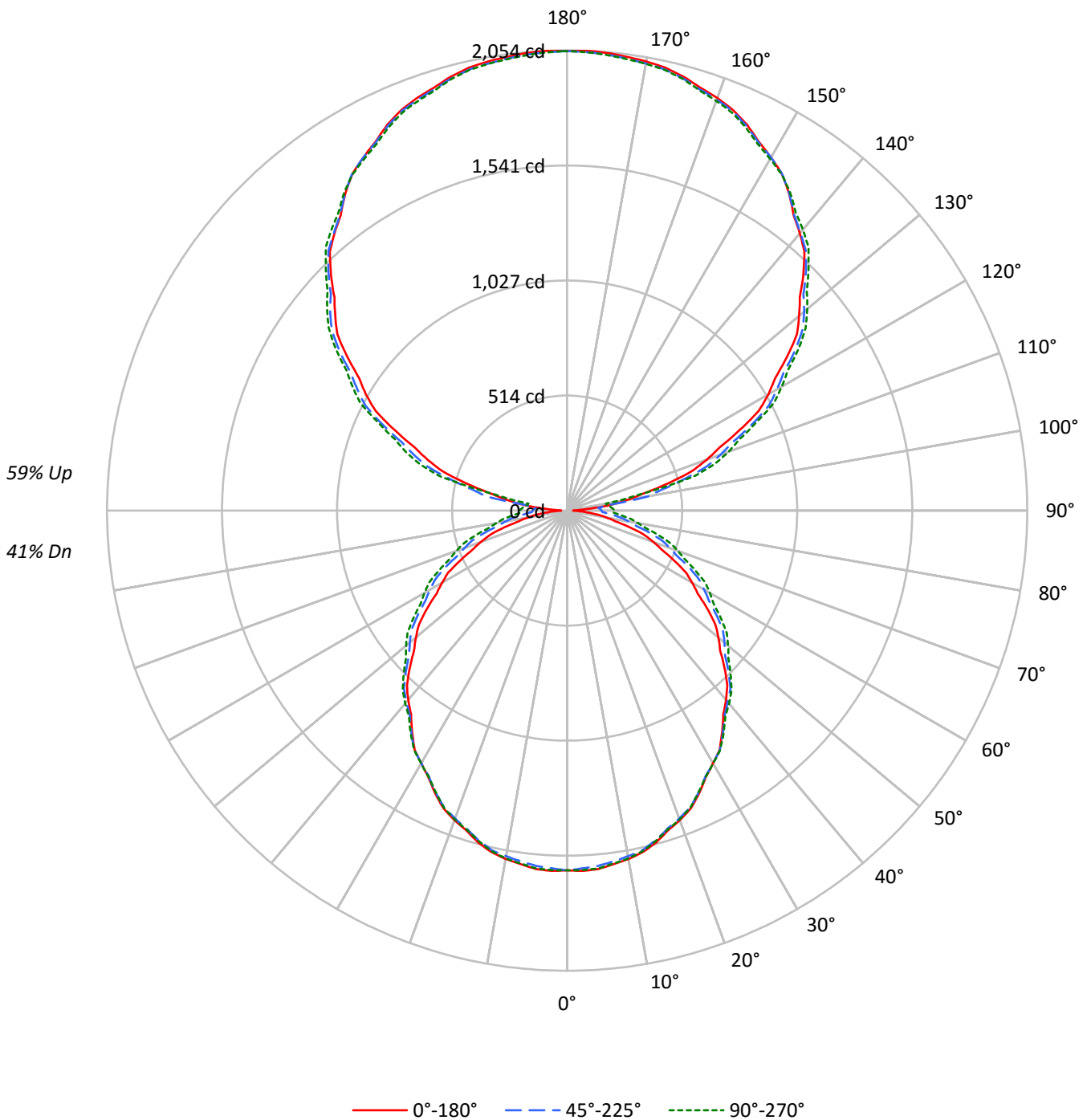
Lumens per Lamp: N/A  
Luminaire Lumens: 11276.1 lumens  
Efficiency: N/A  
Efficacy: 136.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse  
  
Input Watts (W): 82.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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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CATALOG NUMBER: S125DIW-S1270D1560U840-4F0-1E-UDD-D

**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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48	41
1	95	91	87	83	87	83	79	76	68	65	63	54	53	51	42	41	40	34
2	86	79	73	67	78	72	67	62	59	55	52	47	44	42	36	34	33	28
3	79	69	62	56	71	63	57	51	52	47	43	42	38	35	32	30	28	23
4	72	61	53	47	65	56	49	43	46	41	37	37	33	30	28	26	24	20
5	66	54	46	40	60	50	42	37	41	36	31	33	29	26	26	23	20	17
6	61	48	40	34	55	44	37	32	37	31	27	30	26	23	23	20	18	15
7	56	44	36	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	40	32	26	47	36	29	25	30	25	21	25	21	18	19	16	14	12
9	48	36	29	23	44	33	26	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	30	24	20	26	20	17	21	17	14	17	14	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10372	10372	10372
5°	10393	10181	10213
10°	10318	9998	9984
15°	10197	9781	9692
20°	10031	9512	9401
25°	9834	9224	9042
30°	9595	8907	8715
35°	9372	8616	8417
40°	9145	8310	8116
45°	8889	8048	7849
50°	8644	7763	7614
55°	8351	7495	7337
60°	8029	7187	7054
65°	7692	6868	6736
70°	7312	6430	6408
75°	6707	6007	6007
80°	5917	5497	5569
85°	5183	5154	5432



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.9	1.3
10°-20°	431.1	3.8
20°-30°	641.1	5.7
30°-40°	759.4	6.7
40°-50°	785.2	7.0
50°-60°	723.3	6.4
60°-70°	584.7	5.2
70°-80°	391.6	3.5
80°-90°	207.3	1.8
90°-100°	188.5	1.7
100°-110°	543.3	4.8
110°-120°	889.3	7.9
120°-130°	1101.0	9.8
130°-140°	1163.8	10.3
140°-150°	1082.1	9.6
150°-160°	873.1	7.7
160°-170°	564.7	5.0
170°-180°	194.8	1.7
0°-30°	1224.1	10.9
0°-40°	1983.5	17.6
0°-60°	3491.9	31.0
0°-90°	4675.5	41.5
90°-120°	1621.1	14.4
90°-150°	4968.1	44.1
90°-180°	6601.0	58.5
0°-180°	11276.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1606	1606	1606	1606	1606	
5°	1606	1602	1592	1604	1603	152
15°	1534	1534	1524	1533	1527	432
25°	1393	1397	1389	1394	1387	641
35°	1206	1216	1212	1217	1217	755
45°	994	1010	1019	1029	1031	766
55°	764	789	814	831	838	682
65°	526	562	600	623	630	522
75°	290	331	381	411	420	307
85°	87	139	194	227	241	92
90°	27	89	153	196	213	20
95°	107	141	139	180	192	126
105°	461	493	540	570	581	489
115°	849	869	910	931	932	841
125°	1200	1210	1240	1258	1263	1071
135°	1492	1499	1507	1523	1523	1149
145°	1727	1728	1728	1737	1735	1079
155°	1900	1892	1894	1898	1886	875
165°	2005	1997	1998	2006	1994	566
175°	2051	2042	2043	2054	2042	195
180°	2051	2051	2051	2051	2051	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0
2.5°	1609.7	1609.2	1608.6	1608.1	1607.5	1606.3	1604.3	1602.4	1600.4	1598.4	1600.4
5°	1606.0	1605.3	1604.6	1603.9	1603.2	1601.6	1599.1	1596.7	1594.3	1591.9	1594.6
7.5°	1591.9	1591.5	1591.2	1590.9	1590.7	1589.3	1586.8	1584.3	1581.8	1579.2	1581.7
10°	1579.2	1579.2	1579.2	1579.2	1579.2	1577.8	1575.0	1572.3	1569.4	1566.6	1569.0
12.5°	1561.6	1561.9	1562.2	1562.5	1562.7	1561.8	1559.5	1557.2	1555.0	1552.8	1554.7
15°	1533.6	1533.9	1534.3	1534.6	1535.0	1533.9	1531.5	1529.0	1526.6	1524.1	1526.2
17.5°	1497.0	1497.7	1498.4	1499.1	1499.9	1498.9	1496.5	1494.1	1491.6	1489.1	1490.8
20°	1470.6	1471.3	1472.0	1472.7	1473.4	1472.5	1470.1	1467.6	1465.1	1462.7	1463.8
22.5°	1440.4	1441.6	1442.9	1444.1	1445.4	1444.6	1441.9	1439.2	1436.4	1433.7	1435.0
25°	1393.4	1394.5	1395.5	1396.5	1397.7	1397.1	1395.0	1392.9	1390.8	1388.7	1390.1
27.5°	1341.2	1342.7	1344.2	1345.7	1347.4	1346.9	1344.5	1342.1	1339.8	1337.4	1338.4
30°	1302.1	1304.2	1306.3	1308.4	1310.5	1310.5	1308.4	1306.3	1304.2	1302.1	1302.8
32.5°	1266.9	1268.7	1270.5	1272.3	1274.1	1274.2	1272.7	1271.2	1269.6	1268.1	1268.8
35°	1206.1	1208.5	1210.9	1213.5	1215.9	1216.6	1215.5	1214.5	1213.5	1212.3	1213.5
37.5°	1145.3	1147.5	1149.7	1152.1	1154.3	1155.2	1154.9	1154.5	1154.2	1153.8	1155.2
40°	1103.7	1106.5	1109.3	1112.2	1114.9	1116.1	1115.8	1115.4	1115.1	1114.8	1116.1
42.5°	1058.3	1062.0	1065.6	1069.2	1073.0	1075.1	1075.9	1076.7	1077.4	1078.2	1079.8
45°	993.5	997.3	1001.2	1005.0	1008.9	1011.7	1013.5	1015.2	1016.9	1018.7	1021.2
47.5°	927.1	930.6	934.2	937.8	941.3	944.6	947.7	950.7	953.6	956.6	960.3
50°	881.7	885.6	889.4	893.2	897.2	901.0	904.8	908.7	912.5	916.4	920.2
52.5°	833.8	838.6	843.2	847.9	852.6	857.3	862.0	866.7	871.3	876.1	880.2
55°	763.7	769.2	774.9	780.4	786.0	791.6	797.2	802.8	808.4	814.1	817.9
57.5°	691.9	698.5	705.3	712.0	718.7	725.3	731.7	738.1	744.6	751.0	755.5
60°	644.0	651.0	657.9	665.0	672.0	678.9	686.0	693.0	699.9	706.9	712.2
62.5°	597.3	604.4	611.4	618.3	625.3	632.7	640.2	647.7	655.3	662.9	668.6
65°	525.8	533.9	542.0	550.1	558.1	566.3	574.7	583.1	591.5	599.9	605.1
67.5°	458.5	466.3	474.0	481.8	489.6	497.8	506.2	514.8	523.3	531.9	538.3
70°	409.4	417.4	425.5	433.5	441.5	450.1	459.2	468.4	477.5	486.6	493.2
72.5°	361.5	369.8	378.2	386.5	394.9	403.9	413.8	423.8	433.7	443.7	450.9
75°	289.7	298.8	307.9	317.0	326.1	336.3	347.4	358.6	369.8	381.0	388.0
77.5°	220.8	231.3	241.8	252.3	262.8	273.4	284.2	294.9	305.7	316.5	324.2
80°	177.9	188.4	198.9	209.4	219.9	231.1	243.0	254.9	266.8	278.7	286.4
82.5°	138.9	150.0	161.0	172.1	183.1	194.7	206.9	219.0	231.3	243.4	250.9
85°	86.6	98.2	109.7	121.3	132.8	144.7	156.9	169.2	181.4	193.7	201.4
87.5°	49.4	61.2	72.9	84.6	96.3	108.5	120.8	133.2	145.5	157.9	166.3
90°	26.8	40.6	54.5	68.4	82.3	96.3	110.7	124.9	139.2	153.4	163.2
92.5°	46.0	54.5	63.0	71.5	80.0	91.3	105.6	119.9	134.1	148.3	157.8
95°	107.1	115.2	123.3	131.4	139.5	143.0	142.1	141.2	140.2	139.3	148.7
97.5°	199.4	209.4	219.5	229.5	239.5	237.6	223.7	209.7	195.8	181.9	179.7
100°	271.1	279.5	287.9	296.3	304.7	315.1	327.6	340.2	352.7	365.3	322.2
102.5°	344.2	352.2	360.2	368.3	376.4	386.3	398.0	409.8	421.5	433.2	430.7
105°	461.1	468.1	475.0	482.0	488.9	497.7	508.2	518.7	529.2	539.6	546.6
107.5°	582.7	587.4	592.2	596.9	601.7	609.5	620.2	631.0	641.7	652.5	659.4
110°	661.7	665.9	670.0	674.3	678.4	685.8	696.3	706.7	717.2	727.7	733.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	737.1	741.2	745.4	749.6	753.8	760.8	770.7	780.6	790.5	800.5	805.6
115°	848.6	852.7	856.9	861.0	865.2	871.9	881.4	890.8	900.2	909.7	914.6
117.5°	964.1	965.6	967.1	968.7	970.3	975.9	985.8	995.7	1005.6	1015.5	1019.8
120°	1037.0	1037.7	1038.4	1039.2	1039.9	1044.8	1053.9	1062.9	1072.0	1081.1	1086.3
122.5°	1100.2	1102.1	1103.8	1105.6	1107.3	1112.4	1120.5	1128.8	1137.1	1145.3	1150.3
125°	1199.6	1201.6	1203.7	1205.7	1207.7	1212.2	1219.2	1226.2	1233.2	1240.2	1244.5
127.5°	1293.2	1294.5	1296.0	1297.3	1298.6	1302.0	1307.6	1313.1	1318.7	1324.1	1328.6
130°	1351.6	1352.9	1354.3	1355.6	1357.0	1360.3	1365.5	1370.8	1375.9	1381.2	1385.1
132.5°	1408.8	1410.6	1412.5	1414.4	1416.3	1418.8	1421.8	1424.8	1427.8	1430.9	1435.6
135°	1491.5	1493.1	1494.8	1496.4	1498.1	1499.9	1501.7	1503.4	1505.2	1506.9	1510.9
137.5°	1567.4	1568.9	1570.3	1571.9	1573.4	1574.4	1575.0	1575.5	1576.1	1576.7	1580.9
140°	1616.0	1616.7	1617.4	1618.1	1618.7	1619.1	1619.1	1619.1	1619.1	1619.1	1623.7
142.5°	1661.0	1661.1	1661.3	1661.4	1661.5	1661.8	1662.4	1662.9	1663.4	1664.1	1667.5
145°	1727.0	1727.4	1727.7	1728.0	1728.3	1728.5	1728.5	1728.5	1728.5	1728.5	1730.6
147.5°	1783.2	1783.0	1782.9	1782.8	1782.6	1782.8	1783.2	1783.6	1784.0	1784.4	1785.3
150°	1819.7	1819.0	1818.4	1817.7	1816.9	1816.9	1817.7	1818.4	1819.0	1819.7	1820.4
152.5°	1854.9	1853.5	1852.0	1850.5	1849.0	1848.6	1849.3	1850.0	1850.7	1851.3	1852.0
155°	1900.3	1898.2	1896.2	1894.2	1892.2	1891.5	1892.2	1892.8	1893.5	1894.2	1895.2
157.5°	1935.2	1934.0	1932.8	1931.6	1930.4	1929.8	1929.9	1930.0	1930.0	1930.1	1931.2
160°	1959.5	1957.5	1955.5	1953.5	1951.5	1950.6	1951.0	1951.3	1951.6	1952.0	1953.3
162.5°	1979.0	1977.0	1975.0	1972.9	1970.9	1970.0	1970.3	1970.8	1971.1	1971.4	1973.3
165°	2005.2	2003.2	2001.0	1999.0	1997.0	1996.2	1996.5	1996.9	1997.2	1997.5	1999.5
167.5°	2024.6	2022.6	2020.4	2018.3	2016.2	2015.4	2015.7	2016.0	2016.4	2016.7	2019.1
170°	2035.6	2033.2	2030.8	2028.4	2026.1	2025.1	2025.4	2025.8	2026.1	2026.4	2029.1
172.5°	2042.9	2040.5	2038.1	2035.8	2033.4	2032.6	2033.2	2033.8	2034.4	2035.0	2037.4
175°	2050.7	2048.7	2046.7	2044.7	2042.7	2041.8	2042.1	2042.5	2042.9	2043.2	2045.9
177.5°	2054.4	2052.8	2051.1	2049.5	2047.9	2047.2	2047.5	2047.8	2048.0	2048.3	2050.2
180°	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0
2.5°	1602.4	1604.3	1606.3	1607.1	1606.8	1606.6	1606.3	1606.0
5°	1597.4	1600.2	1603.1	1604.3	1603.9	1603.6	1603.2	1602.9
7.5°	1584.1	1586.6	1589.0	1590.0	1589.7	1589.3	1589.0	1588.6
10°	1571.6	1574.0	1576.4	1577.5	1577.1	1576.8	1576.4	1576.1
12.5°	1556.5	1558.4	1560.3	1560.8	1559.9	1559.0	1558.1	1557.2
15°	1528.3	1530.5	1532.5	1532.9	1531.5	1530.0	1528.6	1527.2
17.5°	1492.4	1494.0	1495.6	1496.0	1495.1	1494.3	1493.5	1492.6
20°	1464.8	1465.8	1466.9	1467.4	1467.4	1467.4	1467.4	1467.4
22.5°	1436.4	1437.7	1439.1	1439.3	1438.5	1437.6	1436.7	1435.9
25°	1391.5	1392.9	1394.3	1394.1	1392.4	1390.6	1388.9	1387.2
27.5°	1339.4	1340.3	1341.3	1341.5	1340.8	1340.2	1339.6	1339.0
30°	1303.5	1304.2	1304.9	1305.0	1304.7	1304.3	1304.0	1303.6
32.5°	1269.5	1270.2	1270.9	1271.1	1270.7	1270.4	1270.0	1269.7
35°	1214.5	1215.5	1216.6	1217.1	1217.1	1217.1	1217.1	1217.1
37.5°	1156.6	1158.0	1159.4	1160.0	1159.8	1159.7	1159.6	1159.4
40°	1117.5	1118.9	1120.3	1121.4	1122.1	1122.8	1123.5	1124.2
42.5°	1081.6	1083.3	1084.9	1085.8	1086.0	1086.1	1086.3	1086.4
45°	1023.6	1026.0	1028.4	1029.9	1030.3	1030.6	1031.0	1031.3
47.5°	963.8	967.3	971.0	973.1	973.9	974.6	975.4	976.2
50°	924.0	927.9	931.8	934.2	935.2	936.3	937.4	938.4
52.5°	884.3	888.5	892.5	895.0	895.8	896.6	897.4	898.1
55°	821.7	825.6	829.4	832.0	833.4	834.9	836.3	837.7
57.5°	759.8	764.3	768.7	771.4	772.4	773.5	774.6	775.6
60°	717.4	722.7	727.9	731.0	732.2	733.2	734.3	735.3
62.5°	674.5	680.2	686.1	689.6	690.9	692.4	693.7	695.0
65°	610.4	615.6	620.9	624.2	625.6	627.0	628.4	629.8
67.5°	544.6	551.0	557.3	561.4	563.2	565.0	566.9	568.8
70°	499.8	506.4	513.1	517.5	519.6	521.7	523.8	525.8
72.5°	458.1	465.3	472.5	476.9	478.5	480.0	481.5	483.0
75°	395.1	402.0	409.0	413.4	415.2	416.9	418.7	420.4
77.5°	331.8	339.5	347.3	351.8	353.3	354.6	356.0	357.4
80°	294.1	301.7	309.5	314.1	315.4	316.8	318.2	319.6
82.5°	258.2	265.7	273.1	278.0	280.5	283.1	285.6	288.1
85°	209.0	216.7	224.5	229.7	232.5	235.3	238.1	240.9
87.5°	174.7	183.1	191.5	196.9	199.7	202.3	204.9	207.5
90°	172.9	182.7	192.4	198.9	202.5	205.9	209.3	212.8
92.5°	167.3	176.7	186.2	192.4	195.3	198.2	201.2	204.1
95°	158.0	167.4	176.8	182.7	185.2	187.6	190.1	192.5
97.5°	177.5	175.3	173.2	173.3	175.6	178.0	180.4	182.8
100°	279.3	236.3	193.3	172.2	173.0	173.7	174.5	175.2
102.5°	428.3	425.9	423.3	411.7	390.8	370.0	349.1	328.2
105°	553.6	560.6	567.6	572.2	574.3	576.4	578.5	580.6
107.5°	666.4	673.5	680.4	684.5	685.7	686.8	688.0	689.1
110°	738.9	744.6	750.2	754.5	757.2	760.0	762.8	765.6





TEST NUMBER: P333486-840

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	810.6	815.8	820.8	824.4	826.4	828.3	830.3	832.2
115°	919.6	924.5	929.5	932.0	932.0	932.1	932.2	932.3
117.5°	1023.9	1028.1	1032.3	1035.1	1036.6	1038.1	1039.7	1041.2
120°	1091.6	1096.8	1102.2	1105.0	1105.4	1105.8	1106.2	1106.6
122.5°	1155.3	1160.3	1165.3	1167.8	1168.0	1168.1	1168.3	1168.4
125°	1248.7	1252.9	1257.2	1259.7	1260.4	1261.1	1261.9	1262.6
127.5°	1333.0	1337.5	1341.9	1343.9	1343.4	1342.9	1342.5	1342.0
130°	1389.0	1392.9	1396.7	1398.8	1398.8	1398.9	1398.9	1399.0
132.5°	1440.3	1445.0	1449.7	1451.9	1451.7	1451.5	1451.3	1451.1
135°	1514.7	1518.5	1522.5	1524.3	1524.0	1523.7	1523.4	1523.2
137.5°	1585.2	1589.5	1593.8	1595.7	1595.4	1595.0	1594.6	1594.3
140°	1628.2	1632.6	1637.2	1639.2	1638.5	1637.9	1637.3	1636.7
142.5°	1670.9	1674.4	1677.7	1679.1	1678.5	1677.9	1677.3	1676.6
145°	1732.6	1734.7	1736.9	1737.6	1737.0	1736.3	1735.7	1735.0
147.5°	1786.4	1787.4	1788.3	1787.9	1786.0	1784.2	1782.4	1780.7
150°	1821.0	1821.7	1822.4	1821.6	1819.2	1816.8	1814.5	1812.1
152.5°	1852.7	1853.3	1854.0	1853.2	1850.8	1848.5	1846.0	1843.7
155°	1896.2	1897.2	1898.2	1897.3	1894.7	1892.0	1889.3	1886.5
157.5°	1932.2	1933.3	1934.4	1933.6	1930.9	1928.1	1925.4	1922.8
160°	1954.6	1956.0	1957.3	1956.7	1954.0	1951.3	1948.5	1945.9
162.5°	1975.2	1977.1	1978.9	1978.4	1975.5	1972.5	1969.5	1966.5
165°	2001.6	2003.7	2005.7	2005.3	2002.7	1999.9	1997.2	1994.5
167.5°	2021.5	2024.0	2026.4	2026.1	2023.1	2020.0	2017.0	2014.0
170°	2031.8	2034.6	2037.2	2037.1	2034.1	2031.0	2027.9	2024.9
172.5°	2039.8	2042.3	2044.7	2044.4	2041.3	2038.3	2035.3	2032.3
175°	2048.5	2051.2	2054.0	2053.8	2050.7	2047.7	2044.7	2041.6
177.5°	2052.1	2054.0	2055.9	2055.8	2053.6	2051.4	2049.2	2047.1
180°	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7

(END OF REPORT)