

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: P333396

Luminaire Tested: **S125DIW-S610D1560U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333396  
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-S610D1560U835-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 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: 8640.6 lumens  
Efficiency: N/A  
Efficacy: 142.6 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: Semi-Indirect

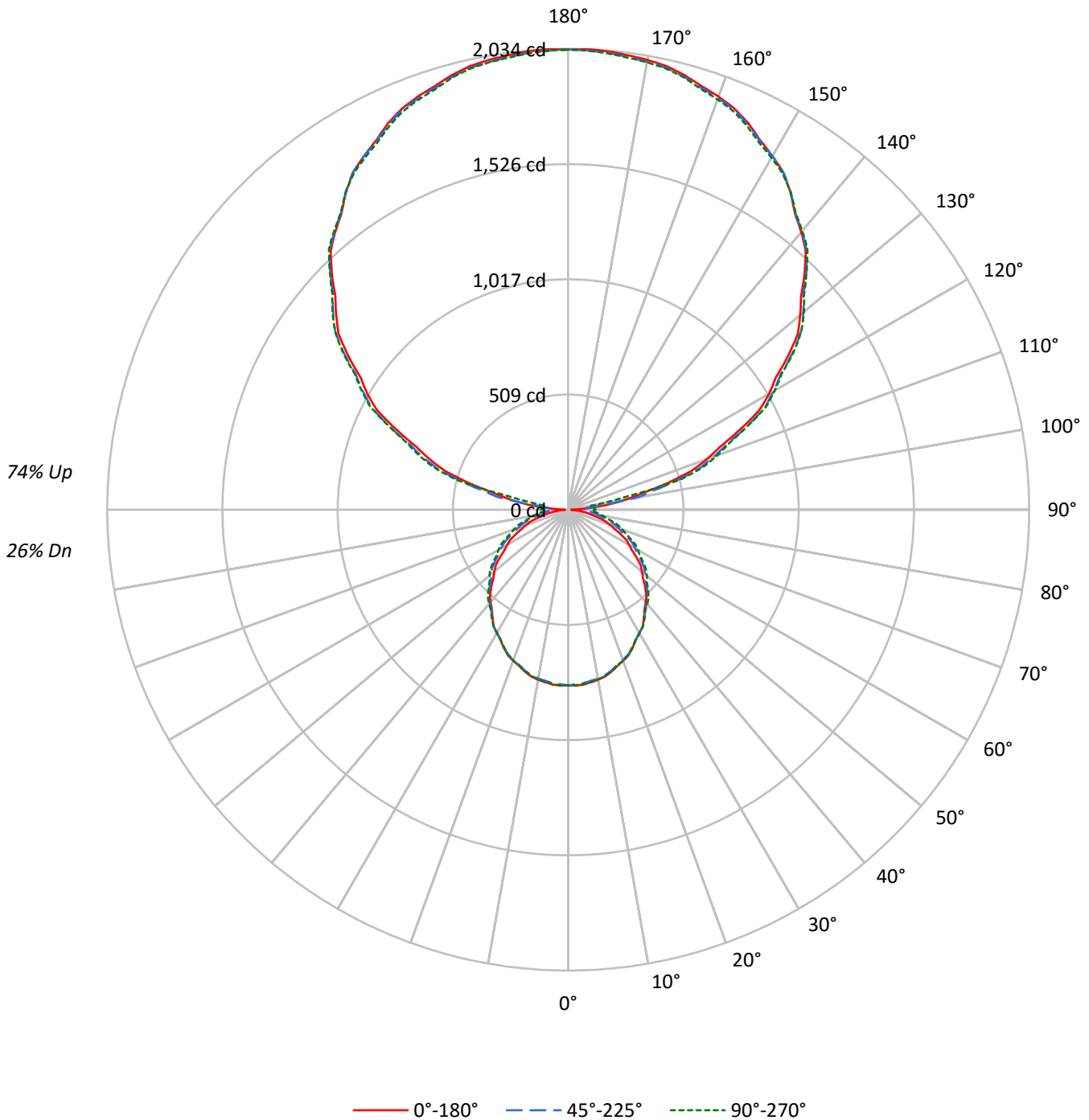
Input Watts (W): 60.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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	101	101	101	101	91	91	91	91	70	70	70	51	51	51	34	34	34	26
1	92	88	84	80	82	78	75	72	61	58	56	44	43	42	30	29	28	21
2	84	76	70	65	74	68	63	59	53	49	46	39	37	35	26	24	23	17
3	76	67	60	54	68	60	54	49	46	42	39	34	31	29	23	21	20	15
4	69	59	51	45	62	53	46	41	41	36	33	30	27	25	20	18	17	12
5	64	52	44	39	56	47	40	35	37	32	28	27	24	21	18	16	15	11
6	58	47	39	33	52	42	35	30	33	28	24	24	21	18	16	14	13	9
7	54	42	34	29	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	28	23	27	22	19	20	17	14	14	12	10	7
9	46	34	27	22	41	31	25	20	25	20	17	18	15	13	13	10	9	7
10	43	31	24	20	38	28	22	18	22	18	15	17	14	11	12	10	8	6

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

	0°	45°	90°
0°	5005	5005	5005
5°	5015	4912	4928
10°	4980	4825	4817
15°	4920	4720	4677
20°	4840	4590	4536
25°	4745	4451	4363
30°	4630	4298	4206
35°	4523	4158	4062
40°	4413	4010	3916
45°	4289	3884	3788
50°	4172	3746	3674
55°	4029	3616	3540
60°	3875	3468	3404
65°	3713	3314	3250
70°	3527	3103	3093
75°	3237	2899	2899
80°	2857	2653	2687
85°	2502	2488	2620



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.3	0.8
10°-20°	208.0	2.4
20°-30°	309.4	3.6
30°-40°	366.5	4.2
40°-50°	378.9	4.4
50°-60°	349.0	4.0
60°-70°	282.1	3.3
70°-80°	189.0	2.2
80°-90°	102.2	1.2
90°-100°	128.8	1.5
100°-110°	495.4	5.7
110°-120°	852.0	9.9
120°-130°	1074.0	12.4
130°-140°	1145.4	13.3
140°-150°	1070.1	12.4
150°-160°	864.6	10.0
160°-170°	559.1	6.5
170°-180°	192.9	2.2
0°-30°	590.7	6.8
0°-40°	957.1	11.1
0°-60°	1685.1	19.5
0°-90°	2258.4	26.1
90°-120°	1476.2	17.1
90°-150°	4765.7	55.2
90°-180°	6382.0	73.9
0°-180°	8640.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	775	773	768	774	774	73
15°	740	740	736	740	737	208
25°	672	674	670	673	669	309
35°	582	587	585	587	587	364
45°	479	488	492	497	498	370
55°	368	381	393	401	404	329
65°	254	271	290	300	304	252
75°	140	160	184	198	203	148
85°	42	67	94	110	116	45
90°	14	50	86	111	121	12
95°	96	108	80	103	109	117
105°	449	468	490	505	509	476
115°	836	849	870	877	873	828
125°	1185	1195	1210	1216	1215	1058
135°	1475	1483	1486	1492	1488	1137
145°	1709	1711	1712	1716	1711	1068
155°	1882	1873	1876	1879	1868	867
165°	1986	1977	1978	1986	1975	561
175°	2031	2022	2023	2034	2022	193
180°	2031	2031	2031	2031	2031	



TEST NUMBER: P333396

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0
2.5°	776.8	776.5	776.3	776.0	775.7	775.1	774.2	773.2	772.3	771.3	772.3
5°	775.0	774.6	774.3	774.0	773.6	772.9	771.7	770.5	769.3	768.1	769.5
7.5°	768.1	768.0	767.9	767.7	767.6	766.9	765.7	764.5	763.3	762.1	763.2
10°	762.1	762.1	762.1	762.1	762.1	761.4	760.0	758.7	757.3	756.0	757.2
12.5°	753.6	753.7	753.8	754.0	754.1	753.6	752.5	751.5	750.4	749.3	750.2
15°	740.0	740.2	740.4	740.5	740.7	740.2	739.0	737.8	736.7	735.5	736.5
17.5°	722.4	722.7	723.1	723.4	723.8	723.3	722.2	721.0	719.8	718.6	719.4
20°	709.6	710.0	710.3	710.7	711.0	710.6	709.4	708.2	707.0	705.8	706.3
22.5°	695.1	695.7	696.3	696.9	697.5	697.1	695.8	694.5	693.2	691.9	692.5
25°	672.4	672.9	673.4	673.9	674.4	674.2	673.2	672.2	671.1	670.1	670.8
27.5°	647.2	647.9	648.7	649.4	650.2	650.0	648.8	647.7	646.5	645.4	645.8
30°	628.3	629.4	630.4	631.4	632.4	632.4	631.4	630.4	629.4	628.3	628.7
32.5°	611.3	612.2	613.1	614.0	614.8	614.9	614.2	613.4	612.7	611.9	612.3
35°	582.0	583.2	584.4	585.5	586.7	587.1	586.6	586.0	585.5	585.0	585.5
37.5°	552.7	553.8	554.8	555.9	557.0	557.4	557.3	557.1	556.9	556.8	557.4
40°	532.6	534.0	535.3	536.7	538.0	538.6	538.4	538.3	538.1	537.9	538.6
42.5°	510.7	512.5	514.2	516.0	517.8	518.8	519.2	519.6	519.9	520.3	521.1
45°	479.4	481.3	483.1	485.0	486.9	488.2	489.1	489.9	490.7	491.6	492.8
47.5°	447.4	449.1	450.8	452.5	454.3	455.8	457.3	458.7	460.2	461.6	463.4
50°	425.5	427.3	429.2	431.1	432.9	434.8	436.6	438.5	440.3	442.2	444.1
52.5°	402.4	404.6	406.9	409.2	411.4	413.7	416.0	418.2	420.5	422.7	424.7
55°	368.5	371.2	373.9	376.6	379.3	382.0	384.7	387.4	390.1	392.8	394.7
57.5°	333.9	337.1	340.3	343.6	346.8	350.0	353.1	356.2	359.3	362.4	364.5
60°	310.8	314.1	317.5	320.9	324.3	327.6	331.0	334.4	337.8	341.1	343.7
62.5°	288.3	291.6	295.0	298.4	301.8	305.3	308.9	312.6	316.2	319.9	322.7
65°	253.8	257.7	261.5	265.4	269.3	273.3	277.3	281.4	285.4	289.5	292.0
67.5°	221.3	225.0	228.7	232.5	236.2	240.2	244.3	248.4	252.5	256.7	259.7
70°	197.5	201.4	205.3	209.2	213.1	217.2	221.6	226.0	230.4	234.8	238.0
72.5°	174.4	178.5	182.5	186.5	190.5	194.9	199.7	204.5	209.3	214.1	217.6
75°	139.8	144.2	148.6	153.0	157.4	162.3	167.7	173.1	178.5	183.9	187.2
77.5°	106.5	111.6	116.7	121.7	126.8	131.9	137.1	142.3	147.5	152.7	156.4
80°	85.9	90.9	96.0	101.1	106.1	111.5	117.3	123.0	128.7	134.5	138.2
82.5°	67.0	72.3	77.7	83.0	88.4	94.0	99.8	105.7	111.6	117.5	121.0
85°	41.8	47.4	52.9	58.5	64.1	69.8	75.7	81.6	87.5	93.5	97.2
87.5°	24.0	29.9	35.9	41.8	47.8	53.8	60.0	66.3	72.5	78.7	82.9
90°	13.7	21.7	29.8	37.9	46.0	54.1	62.1	70.2	78.3	86.4	91.9
92.5°	34.1	37.2	40.4	43.5	46.6	52.2	60.1	68.1	76.0	84.0	89.4
95°	95.7	99.1	102.5	105.8	109.2	107.4	100.5	93.5	86.5	79.6	84.9
97.5°	188.1	193.9	199.6	205.4	211.1	204.2	184.6	165.0	145.3	125.7	119.8
100°	259.8	264.3	268.9	273.4	277.9	283.6	290.3	297.1	303.8	310.6	264.3
102.5°	332.6	337.2	341.7	346.2	350.8	356.1	362.2	368.2	374.3	380.4	374.4
105°	449.4	453.5	457.5	461.5	465.6	470.1	475.2	480.3	485.3	490.4	493.8
107.5°	570.7	573.0	575.3	577.6	579.9	583.8	589.4	594.9	600.4	606.0	609.4
110°	649.6	651.6	653.7	655.7	657.7	661.4	666.8	672.2	677.6	683.0	685.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	724.3	726.7	729.1	731.5	734.0	737.7	742.7	747.7	752.7	757.7	759.5
115°	835.5	838.4	841.2	844.1	846.9	850.7	855.4	860.2	864.9	869.6	871.3
117.5°	950.7	951.4	952.1	952.8	953.5	956.6	962.0	967.4	972.8	978.3	979.4
120°	1022.9	1023.1	1023.3	1023.4	1023.6	1026.1	1031.0	1035.9	1040.8	1045.7	1047.9
122.5°	1086.1	1087.6	1089.2	1090.7	1092.2	1095.0	1099.3	1103.5	1107.7	1111.9	1114.0
125°	1184.7	1186.9	1189.1	1191.3	1193.4	1196.2	1199.6	1203.0	1206.3	1209.7	1211.1
127.5°	1278.2	1279.7	1281.2	1282.7	1284.2	1286.3	1288.8	1291.4	1294.0	1296.5	1298.3
130°	1336.0	1337.5	1339.0	1340.5	1342.0	1344.1	1346.8	1349.5	1352.2	1354.9	1356.3
132.5°	1393.2	1395.1	1397.0	1398.9	1400.8	1402.3	1403.4	1404.5	1405.6	1406.7	1408.9
135°	1475.3	1477.1	1478.9	1480.8	1482.6	1483.8	1484.3	1484.8	1485.3	1485.8	1487.4
137.5°	1550.7	1552.3	1553.9	1555.5	1557.1	1557.9	1557.9	1557.8	1557.8	1557.8	1559.9
140°	1599.4	1600.1	1600.8	1601.5	1602.1	1602.4	1602.2	1602.0	1601.9	1601.7	1604.2
142.5°	1644.0	1644.3	1644.5	1644.8	1645.1	1645.5	1646.0	1646.5	1647.0	1647.5	1649.2
145°	1709.3	1709.8	1710.3	1710.8	1711.3	1711.6	1711.6	1711.6	1711.6	1711.6	1712.8
147.5°	1765.8	1765.6	1765.5	1765.4	1765.2	1765.4	1765.8	1766.2	1766.6	1767.0	1767.7
150°	1801.9	1801.2	1800.6	1799.9	1799.2	1799.2	1799.9	1800.6	1801.2	1801.9	1802.6
152.5°	1836.8	1835.4	1833.9	1832.4	1830.9	1830.5	1831.2	1831.9	1832.6	1833.2	1833.9
155°	1881.7	1879.7	1877.7	1875.7	1873.7	1873.0	1873.7	1874.3	1875.0	1875.7	1876.7
157.5°	1916.3	1915.1	1913.9	1912.7	1911.5	1910.9	1911.0	1911.1	1911.1	1911.2	1912.3
160°	1940.4	1938.4	1936.4	1934.4	1932.4	1931.5	1931.9	1932.2	1932.5	1932.9	1934.2
162.5°	1959.7	1957.7	1955.7	1953.6	1951.6	1950.8	1951.1	1951.5	1951.8	1952.1	1954.0
165°	1985.6	1983.6	1981.5	1979.5	1977.5	1976.7	1977.0	1977.4	1977.7	1978.0	1980.0
167.5°	2004.8	2002.8	2000.7	1998.6	1996.5	1995.7	1996.0	1996.3	1996.7	1997.0	1999.4
170°	2015.7	2013.3	2011.0	2008.6	2006.3	2005.3	2005.6	2006.0	2006.3	2006.6	2009.3
172.5°	2022.9	2020.6	2018.2	2015.9	2013.5	2012.7	2013.3	2013.9	2014.5	2015.1	2017.5
175°	2030.7	2028.7	2026.7	2024.7	2022.7	2021.9	2022.2	2022.5	2022.9	2023.2	2025.9
177.5°	2034.3	2032.7	2031.1	2029.5	2027.9	2027.2	2027.5	2027.8	2028.0	2028.3	2030.2
180°	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	775.0	775.0	775.0	775.0	775.0	775.0	775.0	775.0
2.5°	773.2	774.2	775.1	775.5	775.4	775.3	775.1	775.0
5°	770.8	772.2	773.5	774.1	774.0	773.8	773.6	773.5
7.5°	764.4	765.6	766.8	767.3	767.1	767.0	766.8	766.6
10°	758.4	759.5	760.7	761.2	761.1	760.9	760.7	760.5
12.5°	751.1	752.0	753.0	753.2	752.7	752.3	751.9	751.4
15°	737.5	738.5	739.5	739.7	739.0	738.3	737.7	737.0
17.5°	720.2	720.9	721.7	721.9	721.5	721.1	720.7	720.3
20°	706.9	707.4	707.9	708.1	708.1	708.1	708.1	708.1
22.5°	693.1	693.8	694.4	694.5	694.1	693.7	693.3	692.9
25°	671.5	672.2	672.8	672.8	671.9	671.1	670.2	669.4
27.5°	646.3	646.8	647.3	647.3	647.0	646.7	646.4	646.1
30°	629.0	629.4	629.7	629.8	629.6	629.4	629.3	629.1
32.5°	612.6	612.9	613.3	613.4	613.2	613.0	612.9	612.7
35°	586.0	586.6	587.1	587.3	587.3	587.3	587.3	587.3
37.5°	558.1	558.8	559.5	559.8	559.7	559.6	559.6	559.5
40°	539.3	540.0	540.6	541.1	541.5	541.8	542.2	542.5
42.5°	521.9	522.7	523.5	524.0	524.1	524.1	524.2	524.3
45°	493.9	495.1	496.3	497.0	497.2	497.3	497.5	497.7
47.5°	465.1	466.8	468.5	469.6	470.0	470.3	470.7	471.1
50°	445.9	447.8	449.6	450.8	451.3	451.8	452.3	452.8
52.5°	426.7	428.7	430.7	431.9	432.3	432.6	433.0	433.4
55°	396.5	398.4	400.2	401.5	402.2	402.9	403.5	404.2
57.5°	366.7	368.8	370.9	372.2	372.8	373.3	373.8	374.3
60°	346.2	348.7	351.3	352.8	353.3	353.8	354.3	354.8
62.5°	325.5	328.3	331.1	332.8	333.4	334.1	334.7	335.4
65°	294.5	297.1	299.6	301.2	301.9	302.6	303.2	303.9
67.5°	262.8	265.9	268.9	270.9	271.8	272.7	273.6	274.4
70°	241.2	244.4	247.6	249.7	250.7	251.7	252.8	253.8
72.5°	221.1	224.5	228.0	230.1	230.9	231.6	232.4	233.1
75°	190.6	194.0	197.4	199.5	200.3	201.2	202.0	202.9
77.5°	160.1	163.9	167.6	169.8	170.4	171.1	171.8	172.5
80°	141.9	145.6	149.3	151.5	152.2	152.9	153.6	154.2
82.5°	124.6	128.2	131.8	134.2	135.4	136.6	137.8	139.0
85°	100.9	104.6	108.3	110.8	112.2	113.5	114.9	116.2
87.5°	87.1	91.3	95.5	98.3	99.7	101.1	102.5	103.9
90°	97.5	103.1	108.6	112.5	114.7	116.9	119.0	121.2
92.5°	94.8	100.2	105.6	109.2	110.8	112.5	114.1	115.8
95°	90.3	95.7	101.1	104.4	105.6	106.7	107.9	109.1
97.5°	114.0	108.1	102.2	99.8	101.0	102.1	103.3	104.4
100°	218.0	171.7	125.4	102.1	101.7	101.4	101.1	100.8
102.5°	368.3	362.3	356.3	342.4	320.7	298.9	277.2	255.5
105°	497.1	500.5	503.9	506.0	506.9	507.7	508.5	509.4
107.5°	612.8	616.2	619.6	621.3	621.4	621.4	621.5	621.5
110°	687.4	689.6	691.8	693.7	695.2	696.7	698.2	699.8





TEST NUMBER: P333396

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	761.3	763.1	764.9	766.1	766.8	767.5	768.3	769.0
115°	873.0	874.7	876.4	876.8	875.8	874.8	873.8	872.8
117.5°	980.5	981.7	982.8	983.5	983.8	984.1	984.3	984.6
120°	1050.1	1052.3	1054.5	1055.3	1054.6	1053.9	1053.3	1052.6
122.5°	1116.0	1118.1	1120.2	1120.7	1119.8	1118.9	1118.0	1117.0
125°	1212.4	1213.8	1215.2	1215.8	1215.6	1215.5	1215.3	1215.1
127.5°	1300.1	1301.8	1303.6	1303.7	1302.2	1300.7	1299.2	1297.7
130°	1357.7	1359.0	1360.4	1360.6	1359.8	1359.0	1358.2	1357.3
132.5°	1411.0	1413.2	1415.3	1415.9	1415.0	1414.0	1413.1	1412.1
135°	1488.9	1490.4	1491.9	1492.1	1491.0	1489.8	1488.6	1487.5
137.5°	1562.0	1564.1	1566.3	1566.8	1565.7	1564.7	1563.6	1562.5
140°	1606.8	1609.3	1611.8	1612.4	1611.1	1609.7	1608.4	1607.1
142.5°	1650.9	1652.6	1654.3	1654.5	1653.2	1651.9	1650.5	1649.2
145°	1713.9	1715.1	1716.3	1716.2	1714.9	1713.6	1712.2	1710.9
147.5°	1768.3	1769.0	1769.7	1769.0	1766.8	1764.7	1762.6	1760.5
150°	1803.2	1803.9	1804.6	1803.7	1801.2	1798.7	1796.1	1793.6
152.5°	1834.6	1835.2	1835.9	1835.0	1832.7	1830.3	1827.9	1825.5
155°	1877.7	1878.7	1879.7	1878.8	1876.2	1873.5	1870.8	1868.1
157.5°	1913.3	1914.4	1915.5	1914.7	1912.0	1909.3	1906.6	1904.0
160°	1935.5	1936.9	1938.2	1937.6	1934.9	1932.2	1929.5	1926.9
162.5°	1955.9	1957.8	1959.6	1959.1	1956.2	1953.2	1950.3	1947.3
165°	1982.0	1984.1	1986.1	1985.7	1983.1	1980.4	1977.7	1975.0
167.5°	2001.8	2004.2	2006.6	2006.3	2003.3	2000.3	1997.3	1994.3
170°	2012.0	2014.7	2017.3	2017.2	2014.2	2011.2	2008.1	2005.1
172.5°	2019.9	2022.3	2024.7	2024.4	2021.4	2018.4	2015.4	2012.4
175°	2028.5	2031.2	2033.9	2033.7	2030.7	2027.7	2024.7	2021.7
177.5°	2032.1	2033.9	2035.8	2035.7	2033.5	2031.4	2029.2	2027.1
180°	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7

(END OF REPORT)