

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: P332577

Luminaire Tested: **SA4XXDIP-C575D1205U835-4F0-1E-UDD-F**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332577
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C575D1205U835-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

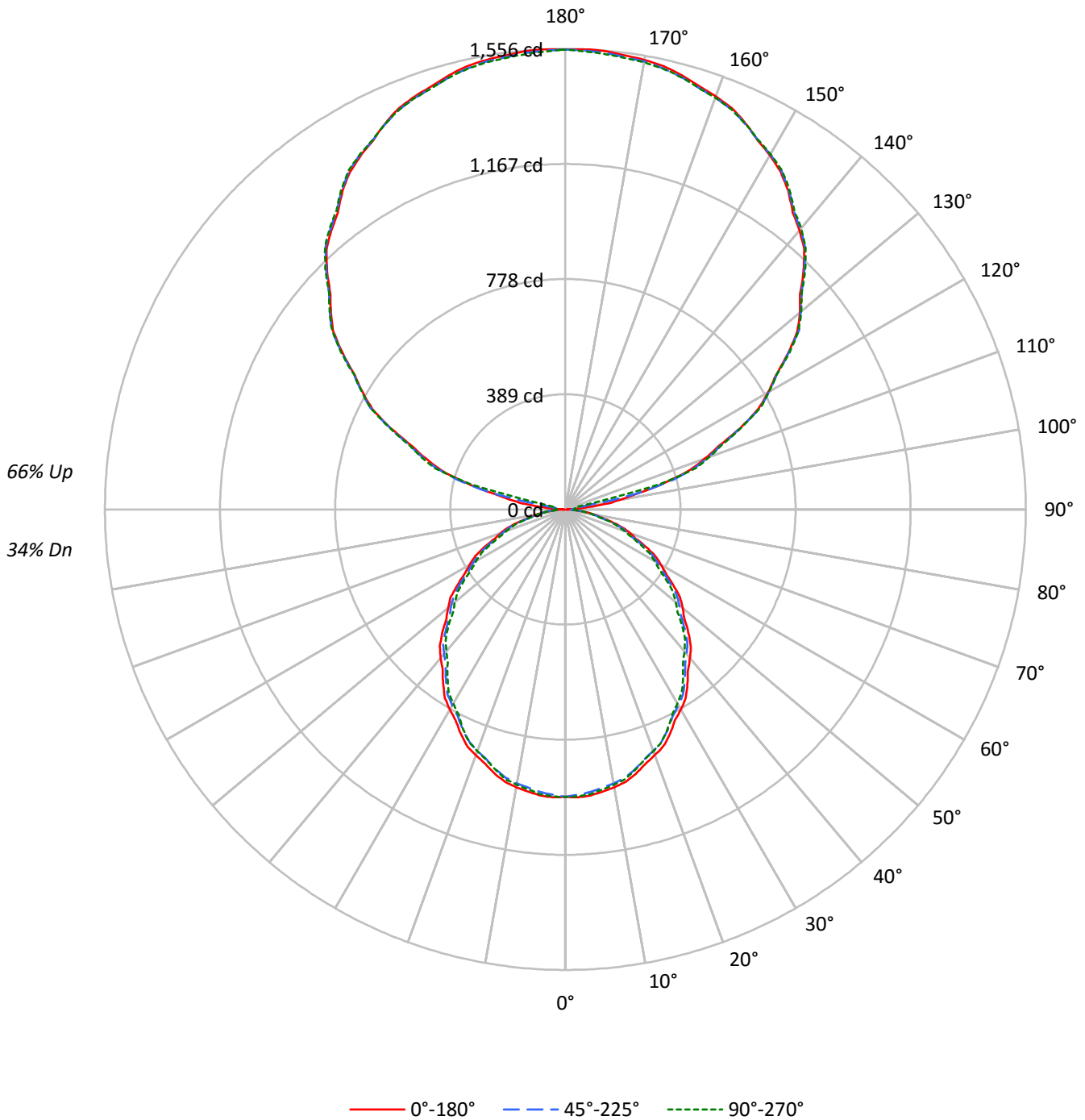
Lumens per Lamp: N/A
Luminaire Lumens: 7302.1 lumens
Efficiency: N/A
Efficacy: 147.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (Ain): 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	103	103	103	103	93	93	93	93	75	75	75	57	57	57	42	42	42	34
1	94	90	86	83	85	81	78	75	65	63	61	50	49	48	37	36	35	29
2	86	79	73	67	77	71	66	62	57	54	50	44	42	40	32	31	29	24
3	78	69	62	56	70	62	56	51	50	46	42	39	36	34	29	27	25	20
4	71	61	53	47	64	55	49	44	45	40	36	35	31	29	26	23	22	17
5	65	54	46	40	59	49	42	37	40	35	31	31	28	25	23	21	19	15
6	60	48	41	35	54	44	37	32	36	31	27	28	24	22	21	18	16	13
7	56	44	36	30	50	40	33	28	32	27	24	25	22	19	19	17	15	12
8	52	40	32	27	46	36	29	25	29	24	21	23	20	17	17	15	13	11
9	48	36	29	24	43	33	26	22	27	22	19	21	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	12	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7840	7840	7840
5°	7864	7769	7826
10°	7814	7706	7744
15°	7720	7596	7616
20°	7594	7460	7467
25°	7451	7306	7285
30°	7276	7124	7058
35°	7094	6933	6841
40°	6905	6716	6593
45°	6707	6503	6379
50°	6489	6314	6118
55°	6253	6068	5871
60°	6018	5792	5616
65°	5752	5530	5307
70°	5455	5179	4978
75°	5000	4757	4635
80°	4449	4268	4161
85°	3890	3751	3677



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.5	1.3
10°-20°	257.7	3.5
20°-30°	379.3	5.2
30°-40°	440.9	6.0
40°-50°	440.9	6.0
50°-60°	385.7	5.3
60°-70°	286.4	3.9
70°-80°	162.7	2.2
80°-90°	51.5	0.7
90°-100°	53.1	0.7
100°-110°	338.8	4.6
110°-120°	648.1	8.9
120°-130°	822.7	11.3
130°-140°	880.2	12.1
140°-150°	823.1	11.3
150°-160°	663.8	9.1
160°-170°	428.1	5.9
170°-180°	147.6	2.0
0°-30°	728.4	10.0
0°-40°	1169.3	16.0
0°-60°	1996.0	27.3
0°-90°	2496.6	34.2
90°-120°	1040.0	14.2
90°-150°	3566.1	48.8
90°-180°	4806.0	65.8
0°-180°	7302.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	971	971	971	971	971	
5°	970	967	959	967	966	92
15°	924	920	909	913	911	260
25°	836	831	820	821	818	385
35°	720	714	704	698	694	450
45°	588	582	570	561	559	453
55°	444	442	431	422	417	398
65°	301	297	290	282	278	298
75°	160	156	152	150	149	170
85°	42	42	40	40	40	46
90°	4	16	26	32	35	5
95°	64	27	26	32	34	82
105°	350	357	362	370	331	366
115°	653	656	655	658	658	642
125°	918	922	920	924	925	819
135°	1139	1138	1142	1145	1147	877
145°	1313	1316	1316	1318	1320	820
155°	1440	1441	1437	1442	1438	663
165°	1519	1513	1513	1521	1512	429
175°	1554	1547	1548	1557	1544	148
180°	1554	1554	1554	1554	1554	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1
2.5°	973.6	973.2	972.8	972.4	972.0	971.0	969.5	968.0	966.4	964.9	966.3
5°	970.4	969.7	969.0	968.3	967.6	966.3	964.4	962.5	960.6	958.7	960.6
7.5°	961.3	960.6	960.0	959.3	958.6	957.2	955.1	953.0	950.8	948.7	950.3
10°	953.2	952.6	951.9	951.2	950.5	949.0	946.8	944.5	942.3	940.0	941.4
12.5°	942.7	942.0	941.3	940.6	939.9	938.4	936.0	933.6	931.2	928.8	930.3
15°	923.7	923.0	922.3	921.6	920.9	919.3	916.7	914.1	911.5	908.9	909.9
17.5°	900.8	899.9	899.1	898.2	897.3	895.7	893.2	890.8	888.3	885.9	886.5
20°	884.0	883.1	882.3	881.4	880.5	878.8	876.2	873.6	871.0	868.4	868.9
22.5°	865.9	864.8	863.7	862.5	861.4	859.5	856.9	854.3	851.7	849.1	850.1
25°	836.5	835.3	834.1	832.9	831.7	829.9	827.4	825.0	822.6	820.2	820.4
27.5°	802.9	801.7	800.4	799.2	797.9	796.2	793.9	791.7	789.4	787.2	786.8
30°	780.5	779.1	777.7	776.3	775.0	773.1	770.9	768.6	766.4	764.2	763.5
32.5°	756.8	755.6	754.3	753.1	751.9	750.0	747.7	745.3	742.9	740.5	739.7
35°	719.8	718.6	717.4	716.2	715.0	713.1	710.7	708.3	705.9	703.5	702.2
37.5°	680.7	679.6	678.5	677.4	676.3	674.5	671.9	669.3	666.7	664.1	662.8
40°	655.2	653.8	652.4	651.1	649.7	647.7	645.1	642.5	639.9	637.3	635.6
42.5°	627.8	627.0	626.2	625.3	624.5	622.6	619.8	616.9	614.0	611.2	609.2
45°	587.5	586.3	585.1	583.9	582.7	580.7	577.9	575.1	572.4	569.6	567.7
47.5°	545.3	544.5	543.7	542.8	542.0	540.3	537.8	535.2	532.6	530.1	527.9
50°	516.7	516.0	515.3	514.6	513.9	512.4	510.0	507.5	505.1	502.7	500.3
52.5°	488.7	487.9	487.0	486.2	485.4	483.7	481.1	478.6	476.0	473.4	471.3
55°	444.3	443.8	443.3	442.8	442.3	440.8	438.4	435.9	433.5	431.1	429.0
57.5°	402.0	401.4	400.8	400.2	399.6	398.2	395.8	393.4	391.0	388.6	386.6
60°	372.7	371.9	371.0	370.1	369.3	367.7	365.5	363.2	361.0	358.7	357.2
62.5°	344.1	343.4	342.6	341.9	341.2	339.6	337.3	334.9	332.5	330.1	328.7
65°	301.1	300.3	299.4	298.6	297.7	296.4	294.7	292.9	291.2	289.5	287.7
67.5°	257.9	257.1	256.3	255.5	254.7	253.5	251.8	250.2	248.5	246.8	245.2
70°	231.1	229.9	228.7	227.5	226.3	225.0	223.6	222.2	220.8	219.4	218.1
72.5°	202.5	201.3	200.1	198.8	197.6	196.5	195.4	194.3	193.2	192.0	190.9
75°	160.3	159.4	158.6	157.7	156.8	156.0	155.1	154.2	153.4	152.5	151.8
77.5°	120.0	119.6	119.2	118.9	118.5	117.9	117.1	116.4	115.6	114.9	114.6
80°	95.7	95.2	94.7	94.2	93.6	93.2	92.9	92.5	92.2	91.8	91.5
82.5°	72.1	71.8	71.6	71.3	71.1	70.9	70.9	70.8	70.7	70.7	70.4
85°	42.0	42.0	42.0	42.0	42.0	41.8	41.5	41.2	40.8	40.5	40.5
87.5°	16.9	17.3	17.7	18.2	18.6	19.0	19.2	19.5	19.8	20.1	20.4
90°	3.5	6.3	9.2	12.0	14.8	17.3	19.4	21.4	23.5	25.6	27.1
92.5°	14.6	14.8	15.0	15.1	15.3	16.4	18.4	20.5	22.6	24.6	26.2
95°	63.9	55.1	46.3	37.6	28.8	24.5	24.8	25.0	25.3	25.6	27.1
97.5°	135.7	141.2	146.7	152.1	157.6	145.9	117.1	88.3	59.5	30.7	30.8
100°	190.6	195.2	199.9	204.5	209.2	193.7	158.0	122.4	86.8	51.1	46.7
102.5°	251.9	255.3	258.7	262.1	265.5	264.9	260.3	255.6	251.0	246.3	199.0
105°	349.7	351.3	352.8	354.4	355.9	357.4	358.7	359.9	361.2	362.5	364.9
107.5°	440.6	441.4	442.2	442.9	443.7	445.0	446.7	448.5	450.2	452.0	453.1
110°	502.0	502.7	503.5	504.3	505.1	506.2	507.8	509.3	510.9	512.4	512.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	561.5	562.9	564.2	565.6	567.0	568.1	568.8	569.5	570.3	571.0	570.9
115°	653.0	653.8	654.6	655.3	656.1	656.4	656.1	655.9	655.6	655.3	655.9
117.5°	735.5	736.5	737.6	738.6	739.6	740.4	741.0	741.6	742.2	742.7	742.6
120°	791.3	792.3	793.4	794.4	795.4	795.8	795.6	795.3	795.0	794.8	795.3
122.5°	843.3	844.0	844.6	845.2	845.8	846.3	846.7	847.0	847.4	847.8	848.1
125°	917.9	919.0	920.0	921.0	922.1	922.3	921.8	921.3	920.8	920.3	921.0
127.5°	988.6	988.8	989.1	989.4	989.6	990.3	991.5	992.7	993.9	995.1	994.9
130°	1034.1	1034.4	1034.7	1034.9	1035.2	1035.7	1036.5	1037.2	1038.0	1038.8	1039.0
132.5°	1076.0	1076.4	1076.9	1077.4	1077.8	1078.6	1079.5	1080.5	1081.5	1082.5	1082.7
135°	1138.7	1138.5	1138.2	1137.9	1137.7	1138.1	1139.1	1140.1	1141.2	1142.2	1142.7
137.5°	1194.3	1194.4	1194.5	1194.6	1194.7	1195.3	1196.4	1197.6	1198.7	1199.8	1200.4
140°	1230.5	1231.0	1231.5	1232.1	1232.6	1233.1	1233.6	1234.1	1234.6	1235.2	1235.9
142.5°	1263.0	1264.0	1264.9	1265.8	1266.8	1267.4	1267.7	1268.0	1268.3	1268.6	1269.2
145°	1313.0	1313.8	1314.6	1315.3	1316.1	1316.5	1316.5	1316.5	1316.5	1316.5	1316.8
147.5°	1352.7	1354.2	1355.6	1357.1	1358.5	1359.1	1358.9	1358.6	1358.3	1358.1	1358.3
150°	1381.6	1382.6	1383.6	1384.7	1385.7	1386.1	1385.8	1385.6	1385.3	1385.0	1385.0
152.5°	1405.7	1406.6	1407.4	1408.2	1409.0	1409.2	1408.8	1408.3	1407.8	1407.4	1407.8
155°	1439.7	1439.9	1440.2	1440.4	1440.7	1440.4	1439.7	1438.9	1438.1	1437.3	1438.4
157.5°	1468.2	1468.1	1467.9	1467.8	1467.6	1467.1	1466.2	1465.4	1464.5	1463.6	1464.9
160°	1485.0	1484.2	1483.4	1482.7	1481.9	1481.4	1481.1	1480.8	1480.6	1480.3	1481.9
162.5°	1499.8	1498.9	1497.9	1496.9	1495.9	1495.3	1495.0	1494.8	1494.5	1494.3	1495.8
165°	1518.7	1517.4	1516.1	1514.8	1513.5	1512.9	1512.9	1512.9	1512.9	1512.9	1514.9
167.5°	1533.5	1532.2	1530.9	1529.5	1528.2	1527.4	1527.3	1527.1	1527.0	1526.8	1529.1
170°	1541.9	1540.4	1538.8	1537.3	1535.7	1535.1	1535.3	1535.6	1535.8	1536.1	1538.2
172.5°	1547.5	1545.9	1544.4	1542.8	1541.3	1540.6	1540.9	1541.2	1541.4	1541.7	1543.7
175°	1553.5	1552.0	1550.4	1548.9	1547.3	1546.7	1546.9	1547.2	1547.5	1547.7	1550.0
177.5°	1556.3	1554.9	1553.4	1552.0	1550.5	1550.0	1550.4	1550.8	1551.3	1551.7	1553.3
180°	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1
2.5°	967.7	969.1	970.5	971.1	970.9	970.8	970.7	970.5
5°	962.5	964.4	966.3	967.1	966.7	966.4	966.0	965.7
7.5°	951.8	953.3	954.8	955.5	955.3	955.1	954.9	954.6
10°	942.8	944.2	945.6	946.1	945.7	945.4	945.0	944.7
12.5°	931.9	933.4	934.9	935.4	934.9	934.4	934.0	933.5
15°	911.0	912.0	913.0	913.3	912.8	912.3	911.7	911.2
17.5°	887.2	887.8	888.5	888.6	888.3	887.9	887.6	887.3
20°	869.5	870.0	870.5	870.6	870.2	869.9	869.6	869.2
22.5°	851.0	851.9	852.9	853.0	852.4	851.8	851.2	850.5
25°	820.5	820.7	820.9	820.6	819.9	819.2	818.5	817.8
27.5°	786.4	785.9	785.5	784.9	784.0	783.2	782.3	781.4
30°	762.8	762.1	761.4	760.6	759.7	758.9	758.0	757.1
32.5°	738.8	738.0	737.2	736.3	735.5	734.6	733.7	732.9
35°	701.0	699.8	698.6	697.6	696.7	695.8	695.0	694.1
37.5°	661.5	660.1	658.8	657.6	656.5	655.3	654.2	653.0
40°	633.9	632.1	630.4	629.1	628.2	627.4	626.5	625.6
42.5°	607.2	605.1	603.1	601.8	601.3	600.7	600.1	599.5
45°	565.8	563.9	562.0	560.8	560.3	559.8	559.2	558.7
47.5°	525.8	523.6	521.5	519.8	518.5	517.1	515.8	514.5
50°	497.8	495.4	493.0	491.3	490.2	489.2	488.2	487.1
52.5°	469.1	467.0	464.9	463.1	461.8	460.5	459.2	457.9
55°	427.0	424.9	422.8	421.2	420.2	419.2	418.1	417.1
57.5°	384.7	382.7	380.7	379.2	378.2	377.2	376.2	375.2
60°	355.6	354.1	352.5	351.3	350.4	349.6	348.7	347.8
62.5°	327.3	325.8	324.4	323.3	322.4	321.6	320.7	319.8
65°	286.0	284.3	282.6	281.3	280.4	279.5	278.7	277.8
67.5°	243.5	241.9	240.2	239.2	239.0	238.8	238.5	238.3
70°	216.7	215.3	213.9	213.0	212.4	211.9	211.4	210.9
72.5°	189.8	188.7	187.6	186.8	186.3	185.8	185.3	184.7
75°	151.1	150.4	149.8	149.3	149.1	149.0	148.8	148.6
77.5°	114.4	114.2	114.0	113.7	113.2	112.8	112.3	111.9
80°	91.1	90.8	90.4	90.2	90.0	89.8	89.7	89.5
82.5°	70.2	70.0	69.8	69.6	69.5	69.3	69.1	68.9
85°	40.5	40.5	40.5	40.4	40.2	40.0	39.9	39.7
87.5°	20.7	21.0	21.3	21.5	21.6	21.7	21.8	21.9
90°	28.7	30.2	31.8	32.8	33.3	33.8	34.3	34.9
92.5°	27.7	29.3	30.8	31.7	31.8	31.9	32.0	32.1
95°	28.7	30.2	31.8	32.7	32.9	33.2	33.4	33.7
97.5°	31.0	31.1	31.3	31.5	31.8	32.0	32.3	32.5
100°	42.3	38.0	33.6	31.5	31.8	32.0	32.3	32.5
102.5°	151.6	104.3	56.9	33.3	33.3	33.4	33.4	33.5
105°	367.2	369.5	371.8	368.3	359.0	349.7	340.5	331.2
107.5°	454.3	455.4	456.5	457.6	458.6	459.6	460.5	461.5
110°	513.5	514.0	514.5	515.1	515.9	516.7	517.5	518.2



TEST NUMBER: P332577

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	570.8	570.7	570.6	571.0	572.0	573.0	574.0	574.9
115°	656.4	656.9	657.4	657.7	657.7	657.7	657.7	657.7
117.5°	742.5	742.4	742.3	742.2	742.1	742.0	741.9	741.8
120°	795.8	796.3	796.8	796.8	796.3	795.8	795.3	794.8
122.5°	848.4	848.7	849.0	848.9	848.4	847.9	847.3	846.8
125°	921.8	922.6	923.4	923.9	924.1	924.4	924.7	924.9
127.5°	994.8	994.6	994.5	994.3	994.1	993.9	993.7	993.5
130°	1039.3	1039.6	1039.8	1039.9	1039.9	1039.9	1039.9	1039.9
132.5°	1083.0	1083.3	1083.5	1083.5	1083.3	1083.1	1082.9	1082.7
135°	1143.2	1143.7	1144.3	1144.8	1145.3	1145.8	1146.3	1146.8
137.5°	1201.0	1201.5	1202.1	1202.3	1202.2	1202.0	1201.8	1201.7
140°	1236.7	1237.5	1238.3	1238.8	1239.0	1239.3	1239.5	1239.8
142.5°	1269.8	1270.3	1270.9	1271.2	1271.3	1271.3	1271.4	1271.4
145°	1317.0	1317.3	1317.5	1317.9	1318.4	1318.9	1319.5	1320.0
147.5°	1358.5	1358.7	1358.9	1359.1	1359.4	1359.7	1359.9	1360.2
150°	1385.0	1385.0	1385.0	1385.2	1385.4	1385.7	1386.0	1386.2
152.5°	1408.2	1408.6	1409.0	1409.1	1409.0	1408.8	1408.7	1408.5
155°	1439.4	1440.4	1441.5	1441.6	1440.8	1440.0	1439.3	1438.5
157.5°	1466.3	1467.6	1469.0	1469.0	1467.6	1466.3	1464.9	1463.6
160°	1483.4	1485.0	1486.5	1486.5	1485.0	1483.4	1481.9	1480.3
162.5°	1497.4	1498.9	1500.5	1500.4	1498.6	1496.9	1495.1	1493.3
165°	1517.0	1519.1	1521.1	1521.0	1518.7	1516.3	1514.0	1511.7
167.5°	1531.4	1533.6	1535.9	1535.7	1533.2	1530.6	1528.0	1525.4
170°	1540.2	1542.3	1544.4	1544.1	1541.5	1538.9	1536.4	1533.8
172.5°	1545.8	1547.9	1549.9	1549.6	1546.8	1544.0	1541.2	1538.4
175°	1552.4	1554.7	1557.0	1556.6	1553.5	1550.4	1547.3	1544.2
177.5°	1555.0	1556.6	1558.3	1557.9	1555.4	1552.9	1550.4	1548.0
180°	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5	1553.5

(END OF REPORT)