

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: P332916-935

Luminaire Tested: **SA4XXRDIP-C575D1035U935-4F0-1E-UDD-F**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332916-935  
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: SA4XXRDIP-C575D1035U935-4F0-1E-UDD-F  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1035 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

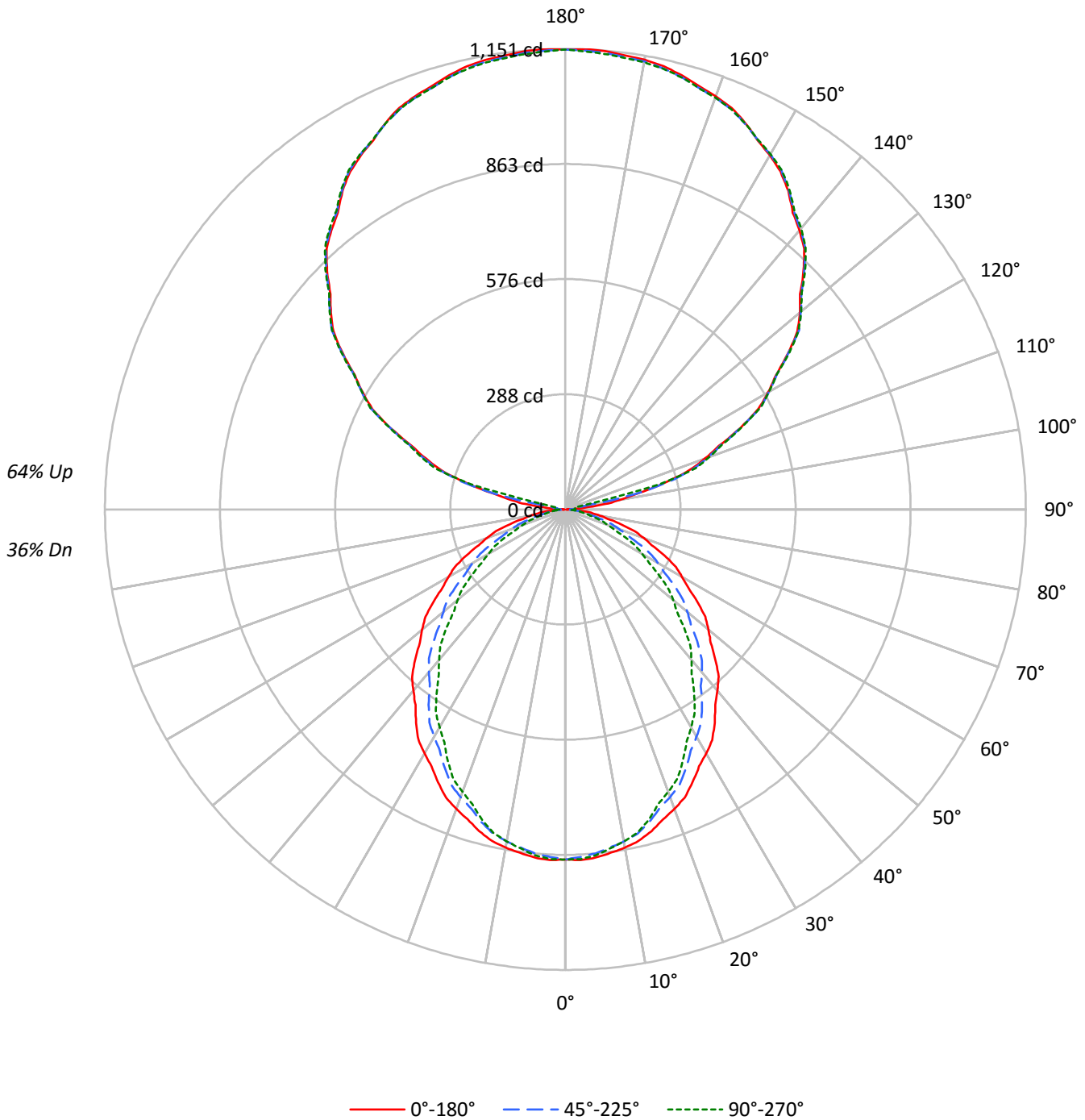
Lumens per Lamp: N/A  
Luminaire Lumens: 5579.7 lumens  
Efficiency: N/A  
Efficacy: 125.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 44.5  
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	50	30	10	0	
RCR																						
0	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	36				
1	95	91	87	84	86	82	79	76	67	64	62	52	51	49	39	38	37	31				
2	87	79	74	69	78	72	67	63	59	55	52	46	44	41	34	33	32	26				
3	79	70	63	57	71	64	58	53	52	47	44	41	38	35	31	29	27	22				
4	72	62	54	48	65	56	50	45	46	41	37	36	33	30	27	25	23	19				
5	66	55	47	42	60	50	44	38	41	36	32	33	29	26	25	22	20	17				
6	61	49	42	36	55	45	38	33	37	32	28	30	26	23	22	20	18	15				
7	56	45	37	31	51	41	34	29	34	29	25	27	23	20	21	18	16	13				
8	52	40	33	28	47	37	30	26	31	26	22	25	21	18	19	16	14	12				
9	49	37	30	25	44	34	27	23	28	23	20	23	19	16	17	15	13	11				
10	45	34	27	22	41	31	25	21	26	21	18	21	17	15	16	14	12	10				

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

	0°	45°	90°
0°	7064	7064	7064
5°	7080	6994	7037
10°	7035	6909	6909
15°	6955	6764	6714
20°	6844	6574	6453
25°	6702	6350	6188
30°	6564	6114	5858
35°	6412	5870	5527
40°	6227	5592	5168
45°	6058	5316	4804
50°	5865	4999	4417
55°	5658	4669	3997
60°	5430	4306	3570
65°	5223	3851	3148
70°	4919	3354	2672
75°	4535	2779	2174
80°	3956	2115	1994
85°	3353	1927	1806



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.2	1.5
10°-20°	229.2	4.1
20°-30°	331.0	5.9
30°-40°	375.2	6.7
40°-50°	362.3	6.5
50°-60°	301.3	5.4
60°-70°	208.0	3.7
70°-80°	105.4	1.9
80°-90°	30.4	0.5
90°-100°	39.3	0.7
100°-110°	250.6	4.5
110°-120°	479.4	8.6
120°-130°	608.6	10.9
130°-140°	651.1	11.7
140°-150°	608.9	10.9
150°-160°	491.0	8.8
160°-170°	316.7	5.7
170°-180°	109.2	2.0
0°-30°	642.4	11.5
0°-40°	1017.6	18.2
0°-60°	1681.1	30.1
0°-90°	2025.0	36.3
90°-120°	769.3	13.8
90°-150°	2637.9	47.3
90°-180°	3555.0	63.7
0°-180°	5579.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	874	871	863	869	868	83
15°	832	825	809	808	803	234
25°	752	740	713	702	695	347
35°	651	628	596	573	561	406
45°	531	505	466	434	421	409
55°	402	374	332	298	284	359
65°	273	244	202	174	165	270
75°	145	120	89	74	70	154
85°	36	23	21	20	20	41
90°	3	12	19	24	26	4
95°	47	20	19	24	25	61
105°	259	264	268	274	245	271
115°	483	485	485	486	486	475
125°	679	682	681	683	684	606
135°	842	842	845	847	848	649
145°	971	974	974	975	976	607
155°	1065	1066	1063	1066	1064	491
165°	1123	1119	1119	1125	1118	317
175°	1149	1144	1145	1152	1142	109
180°	1149	1149	1149	1149	1149	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	875.0	875.0	875.0	875.0	875.0	875.0	875.0	875.0	875.0	875.0	875.0
2.5°	877.2	876.7	876.2	875.7	875.3	874.3	873.1	871.8	870.4	869.1	870.4
5°	873.7	873.1	872.5	871.8	871.3	870.1	868.3	866.5	864.7	863.0	864.4
7.5°	865.7	865.1	864.5	863.9	863.2	861.8	859.5	857.1	854.8	852.5	853.4
10°	858.2	857.6	856.8	856.0	855.3	853.6	850.9	848.2	845.5	842.8	843.4
12.5°	848.6	847.7	846.9	846.0	845.2	843.2	840.0	836.8	833.7	830.5	830.9
15°	832.2	830.8	829.5	828.1	826.7	824.2	820.5	816.8	813.0	809.3	809.1
17.5°	812.2	810.2	808.3	806.3	804.4	801.2	796.8	792.3	787.8	783.3	782.6
20°	796.6	794.7	792.7	790.8	788.8	785.4	780.3	775.2	770.2	765.2	764.0
22.5°	779.5	777.3	775.2	772.9	770.8	767.0	761.6	756.1	750.7	745.3	743.5
25°	752.4	749.8	747.0	744.3	741.7	737.3	731.2	725.0	718.9	712.9	710.3
27.5°	724.0	720.7	717.3	713.9	710.5	705.6	699.0	692.6	686.0	679.5	676.4
30°	704.1	700.4	696.7	693.0	689.3	683.9	676.9	669.9	662.9	655.9	652.2
32.5°	683.3	679.1	674.9	670.6	666.5	660.7	653.5	646.3	639.0	631.8	627.5
35°	650.6	645.8	641.0	636.3	631.5	625.4	617.9	610.5	603.0	595.6	590.6
37.5°	615.6	610.7	605.8	600.9	595.9	589.4	581.1	572.8	564.6	556.4	550.7
40°	590.9	586.0	581.1	576.2	571.3	564.6	556.1	547.6	539.2	530.6	524.3
42.5°	567.3	562.2	557.1	551.9	546.7	539.8	530.9	522.0	513.2	504.4	498.0
45°	530.6	525.1	519.6	514.1	508.6	501.4	492.4	483.5	474.6	465.6	458.3
47.5°	492.8	487.1	481.3	475.6	469.9	462.4	453.1	443.9	434.6	425.3	417.8
50°	467.0	461.2	455.4	449.5	443.8	436.1	426.5	417.1	407.5	398.0	390.5
52.5°	440.7	435.1	429.4	423.7	417.9	410.3	400.5	390.7	380.9	371.2	363.6
55°	402.0	396.1	390.1	384.1	378.2	370.3	360.7	351.0	341.3	331.7	323.9
57.5°	363.7	357.5	351.3	345.1	338.9	331.1	321.5	311.9	302.5	292.9	285.1
60°	336.3	330.4	324.4	318.5	312.5	304.8	295.2	285.7	276.2	266.7	258.9
62.5°	311.7	305.5	299.3	293.1	286.9	279.0	269.1	259.4	249.6	239.9	232.7
65°	273.4	267.0	260.5	254.2	247.7	239.8	230.2	220.8	211.2	201.6	195.3
67.5°	233.6	227.4	221.3	215.2	209.1	201.6	192.7	183.8	175.0	166.2	160.7
70°	208.4	202.1	195.9	189.6	183.4	176.0	167.5	159.0	150.5	142.1	137.2
72.5°	181.6	175.9	170.2	164.6	158.9	152.1	144.1	136.1	128.0	120.0	115.9
75°	145.4	139.9	134.4	128.9	123.4	117.1	110.1	103.1	96.1	89.1	85.7
77.5°	108.7	104.0	99.4	94.6	90.0	84.8	79.1	73.5	67.8	62.2	60.2
80°	85.1	80.8	76.5	72.2	67.8	63.5	59.0	54.5	50.0	45.5	45.1
82.5°	64.7	60.8	56.8	52.9	48.9	45.6	43.0	40.5	38.0	35.4	35.0
85°	36.2	33.2	30.2	27.2	24.3	22.6	22.1	21.7	21.2	20.8	20.5
87.5°	12.8	12.3	11.8	11.3	10.7	10.5	10.8	10.9	11.1	11.3	11.4
90°	2.6	4.6	6.8	8.9	11.0	12.8	14.3	15.8	17.4	18.9	20.1
92.5°	10.8	10.9	11.0	11.2	11.3	12.1	13.6	15.2	16.7	18.3	19.4
95°	47.3	40.8	34.3	27.8	21.3	18.2	18.3	18.5	18.7	18.9	20.1
97.5°	100.4	104.4	108.5	112.5	116.6	108.0	86.6	65.3	44.0	22.7	22.8
100°	140.9	144.4	147.8	151.3	154.7	143.3	116.9	90.6	64.1	37.8	34.6
102.5°	186.3	188.9	191.4	193.9	196.4	196.0	192.5	189.1	185.6	182.2	147.1
105°	258.7	259.8	261.0	262.2	263.3	264.3	265.3	266.2	267.3	268.2	269.9
107.5°	325.9	326.5	327.1	327.6	328.2	329.2	330.5	331.7	333.0	334.3	335.2
110°	371.3	371.9	372.5	373.0	373.6	374.4	375.6	376.8	377.9	379.0	379.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	415.3	416.4	417.4	418.4	419.5	420.3	420.8	421.3	421.8	422.3	422.3
115°	483.0	483.6	484.2	484.7	485.3	485.5	485.3	485.2	484.9	484.7	485.2
117.5°	544.1	544.8	545.6	546.4	547.2	547.7	548.1	548.5	549.0	549.4	549.3
120°	585.3	586.1	586.9	587.6	588.4	588.7	588.5	588.3	588.1	587.9	588.3
122.5°	623.8	624.3	624.7	625.2	625.7	626.0	626.3	626.5	626.8	627.1	627.3
125°	679.0	679.8	680.5	681.3	682.1	682.3	681.9	681.5	681.1	680.7	681.3
127.5°	731.2	731.4	731.7	731.8	732.0	732.5	733.5	734.3	735.2	736.1	736.0
130°	765.0	765.2	765.3	765.5	765.7	766.1	766.7	767.2	767.8	768.4	768.6
132.5°	795.9	796.3	796.6	796.9	797.3	797.8	798.6	799.3	800.0	800.7	800.9
135°	842.3	842.1	842.0	841.7	841.5	841.8	842.6	843.3	844.1	844.9	845.2
137.5°	883.4	883.5	883.6	883.6	883.7	884.2	885.0	885.9	886.7	887.5	887.9
140°	910.2	910.6	911.0	911.4	911.7	912.1	912.5	912.9	913.3	913.7	914.2
142.5°	934.3	935.0	935.6	936.3	937.0	937.5	937.7	938.0	938.1	938.4	938.8
145°	971.2	971.8	972.4	972.9	973.5	973.8	973.8	973.8	973.8	973.8	974.0
147.5°	1000.7	1001.7	1002.8	1003.8	1005.0	1005.4	1005.1	1005.0	1004.8	1004.6	1004.8
150°	1021.9	1022.7	1023.5	1024.2	1025.0	1025.3	1025.1	1024.9	1024.8	1024.5	1024.5
152.5°	1039.8	1040.4	1041.0	1041.6	1042.2	1042.4	1042.1	1041.7	1041.4	1041.0	1041.4
155°	1065.0	1065.1	1065.3	1065.5	1065.7	1065.5	1065.0	1064.4	1063.8	1063.2	1063.9
157.5°	1086.1	1086.0	1085.8	1085.7	1085.6	1085.2	1084.6	1083.9	1083.3	1082.6	1083.7
160°	1098.5	1097.9	1097.3	1096.7	1096.1	1095.8	1095.6	1095.4	1095.2	1095.0	1096.1
162.5°	1109.5	1108.7	1108.0	1107.2	1106.6	1106.1	1105.9	1105.7	1105.5	1105.4	1106.5
165°	1123.3	1122.4	1121.5	1120.5	1119.6	1119.0	1119.0	1119.0	1119.0	1119.0	1120.6
167.5°	1134.4	1133.4	1132.4	1131.4	1130.4	1129.9	1129.7	1129.6	1129.5	1129.4	1131.1
170°	1140.6	1139.4	1138.2	1137.1	1136.0	1135.5	1135.7	1135.9	1136.1	1136.3	1137.8
172.5°	1144.7	1143.6	1142.4	1141.3	1140.1	1139.6	1139.8	1140.1	1140.2	1140.4	1141.9
175°	1149.2	1148.1	1146.9	1145.7	1144.6	1144.1	1144.3	1144.5	1144.7	1144.9	1146.6
177.5°	1151.2	1150.1	1149.1	1148.1	1146.9	1146.6	1146.9	1147.2	1147.5	1147.8	1149.0
180°	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	875.0	875.0	875.0	875.0	875.0	875.0	875.0	875.0
2.5°	871.8	873.1	874.3	874.9	874.9	874.7	874.6	874.5
5°	865.9	867.5	868.9	869.5	869.2	868.9	868.6	868.3
7.5°	854.4	855.3	856.4	856.5	856.1	855.6	855.1	854.6
10°	844.0	844.6	845.2	845.2	844.6	844.0	843.4	842.8
12.5°	831.2	831.6	832.0	831.7	830.9	830.1	829.2	828.4
15°	808.7	808.5	808.1	807.5	806.4	805.4	804.3	803.3
17.5°	781.7	780.8	780.0	778.8	777.2	775.7	774.0	772.5
20°	762.8	761.6	760.3	758.8	756.9	754.9	753.0	751.1
22.5°	741.8	739.9	738.1	736.5	734.9	733.3	731.8	730.1
25°	707.8	705.2	702.7	700.8	699.2	697.8	696.3	694.7
27.5°	673.2	670.1	667.0	664.3	662.2	660.0	658.0	655.8
30°	648.5	644.7	641.0	638.0	635.6	633.2	630.9	628.4
32.5°	623.2	618.9	614.5	611.2	609.0	606.7	604.4	602.2
35°	585.5	580.4	575.4	571.5	568.9	566.1	563.4	560.8
37.5°	545.0	539.4	533.7	529.6	526.8	524.2	521.5	518.8
40°	518.1	511.9	505.6	501.2	498.4	495.8	493.1	490.4
42.5°	491.6	485.3	478.9	474.3	471.5	468.7	465.9	463.1
45°	451.1	443.8	436.4	431.4	428.8	426.1	423.4	420.8
47.5°	410.2	402.6	395.0	389.8	386.8	383.9	381.0	378.0
50°	383.1	375.7	368.2	363.1	360.2	357.4	354.6	351.7
52.5°	356.0	348.4	341.0	335.7	332.7	329.8	326.8	323.9
55°	316.2	308.4	300.7	295.4	292.6	289.7	286.9	284.0
57.5°	277.2	269.3	261.5	256.5	254.3	252.2	250.0	247.9
60°	251.2	243.4	235.7	230.7	228.3	225.8	223.5	221.1
62.5°	225.6	218.4	211.3	206.7	204.8	202.9	201.0	199.1
65°	188.9	182.4	176.1	171.9	170.2	168.4	166.6	164.8
67.5°	155.2	149.6	144.1	140.4	138.4	136.5	134.5	132.5
70°	132.2	127.3	122.3	119.2	117.7	116.2	114.7	113.2
72.5°	111.7	107.5	103.2	100.5	99.1	97.7	96.3	95.0
75°	82.2	78.9	75.4	73.3	72.3	71.5	70.6	69.7
77.5°	58.2	56.2	54.2	53.0	52.8	52.5	52.3	52.0
80°	44.7	44.3	43.7	43.5	43.3	43.1	43.0	42.9
82.5°	34.7	34.4	34.1	33.8	33.7	33.5	33.4	33.2
85°	20.1	19.9	19.5	19.5	19.5	19.5	19.5	19.5
87.5°	11.5	11.6	11.7	11.9	12.1	12.3	12.5	12.7
90°	21.2	22.4	23.5	24.3	24.6	25.1	25.4	25.7
92.5°	20.5	21.7	22.8	23.4	23.5	23.6	23.7	23.8
95°	21.2	22.4	23.5	24.2	24.4	24.5	24.7	24.9
97.5°	22.9	23.1	23.2	23.3	23.5	23.7	23.8	24.1
100°	31.3	28.1	24.8	23.3	23.5	23.7	23.8	24.1
102.5°	112.2	77.1	42.1	24.6	24.6	24.7	24.7	24.8
105°	271.6	273.3	275.0	272.5	265.6	258.7	251.8	245.0
107.5°	336.0	336.9	337.7	338.5	339.2	339.9	340.7	341.4
110°	379.8	380.2	380.6	381.1	381.6	382.2	382.8	383.3





TEST NUMBER: P332916-935

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	422.2	422.1	422.1	422.4	423.1	423.9	424.6	425.2
115°	485.5	485.9	486.3	486.5	486.5	486.5	486.5	486.5
117.5°	549.2	549.1	549.1	549.1	549.0	548.9	548.8	548.7
120°	588.7	589.0	589.4	589.4	589.0	588.7	588.3	587.9
122.5°	627.6	627.8	628.0	627.9	627.6	627.2	626.8	626.4
125°	681.9	682.4	683.0	683.4	683.6	683.8	684.0	684.2
127.5°	735.9	735.7	735.6	735.5	735.4	735.2	735.0	734.9
130°	768.8	769.0	769.1	769.3	769.3	769.3	769.3	769.3
132.5°	801.1	801.3	801.5	801.5	801.3	801.2	801.1	800.9
135°	845.7	846.0	846.4	846.8	847.2	847.6	847.9	848.3
137.5°	888.4	888.8	889.2	889.3	889.2	889.2	889.0	888.9
140°	914.8	915.4	915.9	916.4	916.5	916.7	916.9	917.1
142.5°	939.3	939.7	940.1	940.3	940.4	940.4	940.5	940.5
145°	974.2	974.4	974.6	974.9	975.3	975.6	976.0	976.4
147.5°	1004.9	1005.0	1005.2	1005.4	1005.6	1005.7	1006.0	1006.2
150°	1024.5	1024.5	1024.5	1024.6	1024.8	1025.0	1025.2	1025.4
152.5°	1041.6	1042.0	1042.2	1042.3	1042.2	1042.2	1042.0	1041.9
155°	1064.7	1065.5	1066.3	1066.3	1065.8	1065.2	1064.6	1064.1
157.5°	1084.6	1085.6	1086.6	1086.6	1085.6	1084.6	1083.7	1082.6
160°	1097.3	1098.5	1099.6	1099.6	1098.5	1097.3	1096.1	1095.0
162.5°	1107.6	1108.8	1109.9	1109.8	1108.5	1107.2	1106.0	1104.7
165°	1122.1	1123.7	1125.2	1125.1	1123.3	1121.6	1119.9	1118.2
167.5°	1132.7	1134.5	1136.1	1136.0	1134.1	1132.2	1130.2	1128.3
170°	1139.4	1140.8	1142.4	1142.2	1140.3	1138.4	1136.4	1134.5
172.5°	1143.5	1145.0	1146.5	1146.2	1144.2	1142.1	1140.1	1138.0
175°	1148.3	1150.0	1151.8	1151.4	1149.2	1146.9	1144.6	1142.3
177.5°	1150.2	1151.4	1152.7	1152.4	1150.6	1148.7	1146.9	1145.0
180°	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2

(END OF REPORT)