

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: P332620-927

Luminaire Tested: **SA4XXDIP-C795D1205U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332620-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C795D1205U927-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5870.2 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

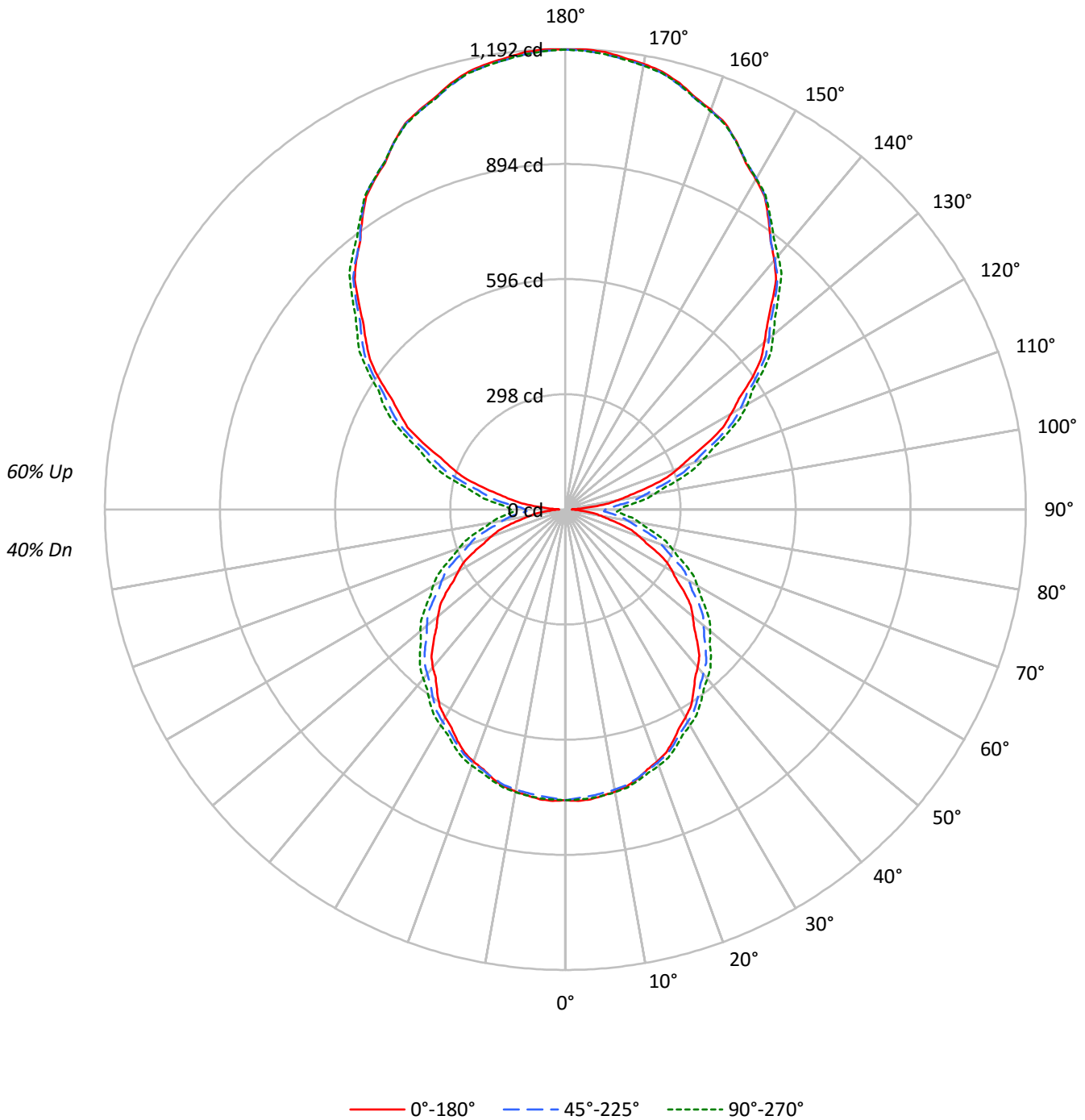
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									20									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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	47	47	47	40	40	40	40	40	40	40	40	40	40	40	40																
	1	95	90	86	82	86	82	79	75	67	65	62	53	52	50	41	39	38	32	32	32	32	32	32	32	32	32	32	32	32																
	2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	32	26	26	26	26	26	26	26	26	26	26	26	26																
	3	78	68	61	55	71	62	56	51	51	46	42	41	37	34	31	29	26	22	22	22	22	22	22	22	22	22	22	22	22																
	4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19	19	19	19	19	19	19	19	19	19	19	19																
	5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	25	22	19	16	16	16	16	16	16	16	16	16	16	16	16																
	6	60	48	40	34	54	44	37	31	36	31	26	29	25	22	22	19	17	14	14	14	14	14	14	14	14	14	14	14	14																
	7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	20	17	15	12	12	12	12	12	12	12	12	12	12	12	12																
	8	51	39	31	26	47	36	29	24	30	24	20	24	20	17	19	16	13	11	11	11	11	11	11	11	11	11	11	11	11																
	9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10	10	10	10	10	10	10	10	10	10	10	10																
	10	45	32	25	20	40	30	23	19	25	20	16	20	16	14	16	13	11	9	9	9	9	9	9	9	9	9	9	9	9																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6075	6075	6075
5°	6093	5937	5954
10°	6056	5839	5835
15°	6002	5727	5695
20°	5920	5603	5561
25°	5828	5464	5411
30°	5728	5326	5258
35°	5615	5184	5124
40°	5525	5049	4984
45°	5391	4925	4864
50°	5277	4781	4738
55°	5160	4647	4588
60°	4976	4475	4453
65°	4776	4290	4285
70°	4532	4078	4091
75°	4196	3847	3915
80°	3817	3624	3742
85°	3344	3427	3643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	1.2
10°-20°	204.2	3.5
20°-30°	308.7	5.3
30°-40°	373.5	6.4
40°-50°	394.9	6.7
50°-60°	371.6	6.3
60°-70°	308.3	5.3
70°-80°	216.6	3.7
80°-90°	126.0	2.1
90°-100°	151.2	2.6
100°-110°	286.3	4.9
110°-120°	430.8	7.3
120°-130°	540.8	9.2
130°-140°	593.2	10.1
140°-150°	576.1	9.8
150°-160°	483.0	8.2
160°-170°	321.4	5.5
170°-180°	112.5	1.9
0°-30°	584.1	10.0
0°-40°	957.6	16.3
0°-60°	1724.1	29.4
0°-90°	2375.0	40.5
90°-120°	868.3	14.8
90°-150°	2578.3	43.9
90°-180°	3495.0	59.5
0°-180°	5870.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	753	751	745	751	751	71
15°	722	723	720	728	727	203
25°	661	666	668	677	678	304
35°	578	588	597	608	611	362
45°	482	498	514	528	532	372
55°	378	396	420	437	442	336
65°	261	288	317	337	345	259
75°	145	176	212	234	243	154
85°	45	80	118	142	152	48
90°	16	60	104	132	142	12
95°	66	102	143	168	176	70
105°	222	241	275	298	308	236
115°	406	415	439	456	462	401
125°	588	588	607	621	624	524
135°	755	761	767	778	781	584
145°	917	919	920	924	925	573
155°	1049	1049	1048	1052	1048	483
165°	1142	1139	1138	1143	1139	322
175°	1188	1184	1183	1188	1183	113
180°	1190	1190	1190	1190	1190	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	755.2	754.7	754.2	753.8	753.4	752.6	751.3	750.1	748.9	747.7	748.8
5°	753.3	752.7	752.2	751.6	751.1	750.1	748.8	747.5	746.2	744.9	746.4
7.5°	746.9	746.6	746.2	745.9	745.5	744.8	743.8	742.7	741.6	740.5	742.2
10°	741.5	741.3	741.2	740.9	740.8	740.2	739.3	738.3	737.4	736.4	738.2
12.5°	734.1	734.0	734.0	734.0	734.0	733.6	733.0	732.3	731.7	731.0	732.6
15°	722.2	722.3	722.5	722.7	722.9	722.7	722.2	721.6	721.0	720.4	722.2
17.5°	705.8	706.3	706.9	707.5	708.1	708.2	708.1	708.1	707.9	707.8	709.6
20°	694.3	694.9	695.5	696.0	696.6	697.0	697.1	697.3	697.5	697.7	699.6
22.5°	681.5	682.2	682.9	683.7	684.4	684.9	685.2	685.6	685.9	686.3	688.1
25°	660.6	661.7	662.9	664.0	665.1	666.0	666.5	667.1	667.7	668.2	670.3
27.5°	637.4	639.0	640.6	642.3	644.0	645.2	646.1	646.9	647.8	648.6	650.5
30°	621.9	623.4	624.9	626.4	627.9	629.2	630.6	631.8	633.2	634.5	636.5
32.5°	605.0	606.8	608.6	610.4	612.2	613.8	615.3	616.7	618.2	619.6	622.0
35°	578.1	580.3	582.6	584.8	587.0	589.1	591.0	592.9	594.7	596.6	599.2
37.5°	550.9	553.5	556.1	558.6	561.3	563.7	566.0	568.3	570.7	573.0	575.7
40°	533.4	535.8	538.2	540.7	543.1	545.7	548.3	550.9	553.5	556.1	559.0
42.5°	513.2	515.9	518.6	521.3	524.1	527.0	530.0	533.1	536.2	539.2	542.4
45°	482.0	485.5	489.1	492.7	496.2	499.8	503.4	506.9	510.4	514.0	517.2
47.5°	452.2	455.8	459.5	463.2	466.8	470.7	474.8	479.0	483.1	487.2	490.5
50°	430.6	434.7	438.8	442.9	447.0	451.1	455.3	459.4	463.5	467.6	471.4
52.5°	409.0	413.1	417.2	421.4	425.5	429.9	434.6	439.3	444.1	448.8	452.5
55°	377.5	381.4	385.4	389.3	393.2	398.0	403.6	409.2	414.9	420.5	424.2
57.5°	342.3	347.1	352.0	356.9	361.7	366.9	372.6	378.1	383.7	389.3	393.7
60°	319.3	324.2	329.1	334.0	338.8	344.4	350.5	356.7	362.9	369.1	373.4
62.5°	297.1	302.5	307.8	313.1	318.4	324.2	330.3	336.5	342.7	348.9	353.2
65°	261.2	267.2	273.2	279.2	285.2	291.4	297.7	304.1	310.5	316.8	321.5
67.5°	226.6	233.1	239.4	245.7	252.2	258.7	265.5	272.4	279.2	286.0	290.7
70°	203.0	209.5	215.8	222.2	228.5	235.3	242.4	249.5	256.6	263.7	268.8
72.5°	180.1	186.6	193.2	199.7	206.2	213.3	220.9	228.4	236.0	243.5	248.4
75°	145.0	151.9	158.8	165.7	172.6	180.1	187.9	195.7	203.7	211.5	216.7
77.5°	112.1	119.4	126.7	134.1	141.4	149.2	157.5	165.7	174.0	182.2	187.5
80°	91.8	99.3	106.8	114.3	121.8	129.7	137.9	146.2	154.4	162.6	168.3
82.5°	71.6	79.4	87.2	95.0	102.7	110.8	119.1	127.3	135.5	143.8	149.5
85°	44.7	52.5	60.4	68.3	76.1	84.3	92.7	101.1	109.6	118.0	123.6
87.5°	25.5	33.6	41.7	49.7	57.8	66.1	74.7	83.3	91.7	100.3	105.9
90°	16.2	26.0	35.7	45.5	55.2	64.9	74.6	84.3	94.0	103.7	110.4
92.5°	32.5	41.8	51.2	60.4	69.8	79.1	88.2	97.4	106.6	115.8	121.8
95°	66.1	74.2	82.2	90.2	98.2	106.8	115.9	125.0	134.1	143.2	148.9
97.5°	106.4	113.2	120.0	126.7	133.6	141.6	150.9	160.2	169.4	178.7	184.3
100°	138.2	143.8	149.5	155.2	160.9	168.3	177.4	186.6	195.7	204.9	210.3
102.5°	172.0	176.6	181.2	185.8	190.4	197.1	205.9	214.8	223.6	232.4	237.9
105°	222.0	226.0	229.9	233.9	237.8	243.7	251.4	259.2	266.9	274.6	280.0
107.5°	276.2	279.5	282.8	286.1	289.5	294.5	301.1	307.8	314.4	321.2	326.3
110°	312.3	315.4	318.4	321.4	324.4	329.1	335.5	341.8	348.2	354.5	358.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	349.9	352.3	354.7	357.1	359.5	363.7	369.6	375.4	381.4	387.2	391.3
115°	406.3	408.1	409.7	411.4	413.0	416.7	422.3	427.9	433.5	439.0	443.0
117.5°	460.3	461.4	462.6	463.8	465.0	468.2	473.5	478.8	484.1	489.4	492.6
120°	495.7	497.1	498.4	499.8	501.2	504.3	509.1	514.0	518.7	523.6	526.3
122.5°	533.2	533.7	534.1	534.6	535.0	537.7	542.5	547.3	552.2	557.0	560.1
125°	587.8	587.6	587.4	587.2	587.1	589.2	593.7	598.2	602.6	607.1	610.2
127.5°	637.9	638.3	638.7	639.1	639.6	641.4	644.7	648.0	651.3	654.5	657.4
130°	672.6	673.0	673.4	673.8	674.2	676.0	679.0	682.0	684.9	687.9	690.9
132.5°	708.6	708.9	709.2	709.4	709.6	710.9	713.1	715.4	717.6	719.9	722.6
135°	755.4	756.7	757.9	759.1	760.3	761.6	763.0	764.2	765.6	766.9	769.4
137.5°	807.4	807.8	808.1	808.5	808.9	809.6	810.6	811.5	812.5	813.4	815.6
140°	841.9	842.2	842.4	842.6	842.9	843.0	843.3	843.4	843.6	843.8	846.1
142.5°	873.0	873.3	873.7	874.1	874.4	874.5	874.3	873.9	873.7	873.4	875.5
145°	916.6	917.2	917.8	918.5	919.1	919.6	919.7	920.0	920.1	920.4	921.3
147.5°	960.0	960.8	961.6	962.4	963.2	963.5	963.4	963.2	963.1	962.9	962.9
150°	986.5	987.1	987.8	988.4	989.0	989.4	989.4	989.4	989.4	989.4	989.4
152.5°	1010.9	1011.4	1011.8	1012.3	1012.7	1013.0	1013.2	1013.4	1013.5	1013.7	1014.2
155°	1049.2	1049.2	1049.2	1049.2	1049.2	1049.1	1048.9	1048.7	1048.5	1048.3	1049.1
157.5°	1081.6	1081.2	1080.9	1080.5	1080.1	1079.9	1079.9	1079.8	1079.8	1079.7	1080.4
160°	1100.7	1100.6	1100.3	1100.1	1099.9	1099.7	1099.5	1099.3	1099.1	1098.9	1099.5
162.5°	1118.4	1117.8	1117.4	1116.8	1116.3	1115.9	1115.7	1115.6	1115.3	1115.1	1116.2
165°	1142.2	1141.5	1140.9	1140.3	1139.7	1139.2	1138.8	1138.4	1138.0	1137.6	1138.8
167.5°	1160.4	1159.5	1158.6	1157.8	1157.0	1156.5	1156.6	1156.6	1156.7	1156.7	1157.9
170°	1170.7	1169.7	1168.6	1167.6	1166.6	1166.2	1166.4	1166.6	1166.8	1167.0	1168.2
172.5°	1178.1	1177.2	1176.3	1175.4	1174.6	1174.2	1174.3	1174.3	1174.3	1174.4	1175.8
175°	1188.2	1187.2	1186.1	1185.1	1184.1	1183.4	1183.3	1183.0	1182.9	1182.6	1184.1
177.5°	1191.5	1190.6	1189.9	1189.1	1188.2	1187.8	1187.8	1187.8	1187.8	1187.8	1189.0
180°	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	749.8	750.9	751.9	752.4	752.3	752.1	751.9	751.8
5°	747.9	749.4	750.8	751.5	751.3	751.1	751.0	750.8
7.5°	743.9	745.5	747.3	748.0	747.8	747.6	747.4	747.3
10°	739.8	741.5	743.2	743.9	743.8	743.5	743.4	743.2
12.5°	734.1	735.7	737.2	737.9	737.9	737.8	737.8	737.8
15°	723.8	725.5	727.1	727.9	727.8	727.5	727.4	727.1
17.5°	711.2	713.0	714.7	715.5	715.3	715.2	715.0	714.9
20°	701.4	703.3	705.2	706.2	706.2	706.2	706.2	706.2
22.5°	690.0	691.8	693.7	694.8	695.1	695.4	695.7	696.0
25°	672.3	674.4	676.4	677.6	677.7	677.9	678.1	678.3
27.5°	652.4	654.3	656.3	657.4	657.6	657.8	658.1	658.2
30°	638.6	640.6	642.7	644.0	644.4	644.7	645.1	645.5
32.5°	624.4	626.8	629.1	630.5	630.8	631.2	631.6	632.0
35°	601.8	604.4	607.0	608.6	609.2	609.7	610.4	610.9
37.5°	578.3	581.0	583.6	585.3	585.8	586.5	587.0	587.6
40°	561.7	564.6	567.4	569.1	569.9	570.6	571.4	572.1
42.5°	545.5	548.6	551.7	553.6	554.1	554.8	555.4	556.0
45°	520.4	523.6	526.7	528.8	529.7	530.7	531.6	532.5
47.5°	493.8	497.1	500.4	502.6	503.7	504.9	506.0	507.1
50°	475.2	478.9	482.6	485.1	486.2	487.4	488.5	489.6
52.5°	456.3	460.0	463.7	466.2	467.3	468.4	469.5	470.7
55°	427.9	431.7	435.5	437.9	439.0	440.1	441.2	442.4
57.5°	398.2	402.7	407.1	409.9	410.9	411.9	413.0	414.1
60°	377.7	382.0	386.3	389.2	390.7	392.2	393.7	395.2
62.5°	357.4	361.8	366.1	369.0	370.5	372.0	373.4	374.9
65°	326.2	330.9	335.6	338.7	340.2	341.7	343.1	344.6
67.5°	295.5	300.2	305.0	308.1	309.6	311.0	312.5	313.9
70°	273.9	278.9	284.0	287.2	288.4	289.8	291.0	292.4
72.5°	253.3	258.3	263.2	266.3	267.8	269.3	270.7	272.2
75°	222.0	227.2	232.5	235.9	237.7	239.3	241.0	242.6
77.5°	192.8	198.1	203.4	207.0	208.8	210.6	212.4	214.2
80°	173.9	179.5	185.1	188.6	190.1	191.6	193.1	194.6
82.5°	155.3	161.1	166.8	170.6	172.1	173.8	175.5	177.1
85°	129.2	134.8	140.5	144.2	146.1	147.9	149.8	151.7
87.5°	111.6	117.3	122.9	126.7	128.4	130.2	131.9	133.6
90°	117.0	123.7	130.3	134.6	136.5	138.4	140.3	142.2
92.5°	127.9	133.9	139.9	143.8	145.5	147.3	149.0	150.8
95°	154.6	160.3	166.0	169.6	171.3	173.0	174.7	176.3
97.5°	190.0	195.7	201.3	204.9	206.5	208.1	209.8	211.4
100°	215.8	221.3	226.7	230.1	231.4	232.7	234.0	235.4
102.5°	243.4	248.8	254.3	257.9	259.5	261.1	262.8	264.4
105°	285.3	290.6	295.8	299.5	301.7	303.8	305.9	308.0
107.5°	331.4	336.7	341.8	345.1	346.4	347.7	349.0	350.3
110°	362.3	366.2	370.1	373.1	375.2	377.3	379.5	381.5



TEST NUMBER: P332620-927

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	395.4	399.4	403.5	406.4	408.0	409.6	411.2	412.9
115°	446.9	450.8	454.7	457.2	458.3	459.4	460.5	461.6
117.5°	495.7	499.0	502.2	504.3	505.4	506.5	507.6	508.7
120°	529.0	531.7	534.5	536.8	538.7	540.6	542.5	544.4
122.5°	563.1	566.2	569.2	571.0	571.6	572.3	572.9	573.5
125°	613.4	616.6	619.7	621.6	622.3	623.1	623.8	624.5
127.5°	660.4	663.4	666.4	668.3	669.2	670.2	671.1	672.1
130°	693.9	696.8	699.8	701.4	701.7	702.0	702.3	702.7
132.5°	725.5	728.3	731.1	732.9	733.7	734.5	735.3	736.1
135°	772.1	774.7	777.2	778.8	779.3	779.8	780.3	780.8
137.5°	817.8	820.1	822.2	823.9	824.9	826.0	827.0	828.1
140°	848.3	850.5	852.7	854.2	854.9	855.6	856.4	857.1
142.5°	877.6	879.6	881.8	883.2	883.9	884.7	885.4	886.1
145°	922.2	923.1	924.0	924.6	924.7	924.8	925.0	925.1
147.5°	962.8	962.8	962.8	963.0	963.4	963.8	964.2	964.6
150°	989.4	989.4	989.4	989.3	989.0	988.9	988.6	988.5
152.5°	1014.6	1015.2	1015.7	1015.7	1015.1	1014.5	1014.0	1013.5
155°	1050.0	1050.8	1051.5	1051.5	1050.8	1050.0	1049.1	1048.3
157.5°	1081.0	1081.6	1082.2	1082.2	1081.5	1080.8	1080.1	1079.4
160°	1100.1	1100.7	1101.4	1101.1	1100.1	1099.1	1098.1	1097.1
162.5°	1117.3	1118.4	1119.5	1119.6	1118.6	1117.5	1116.5	1115.5
165°	1140.0	1141.2	1142.5	1142.6	1141.9	1141.1	1140.2	1139.4
167.5°	1159.1	1160.4	1161.6	1161.6	1160.3	1159.0	1157.8	1156.5
170°	1169.5	1170.7	1172.0	1171.8	1170.4	1168.9	1167.5	1166.1
172.5°	1177.2	1178.5	1180.0	1180.0	1178.5	1177.0	1175.6	1174.2
175°	1185.5	1186.9	1188.4	1188.4	1186.9	1185.5	1184.1	1182.6
177.5°	1190.1	1191.3	1192.4	1192.3	1191.0	1189.7	1188.4	1187.1
180°	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0

(END OF REPORT)