

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: P332615-940

Luminaire Tested: **SA4XXDIP-C795D1035U940-4F0-1E-UDD-F4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332615-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C795D1035U940-4F0-1E-UDD-F4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

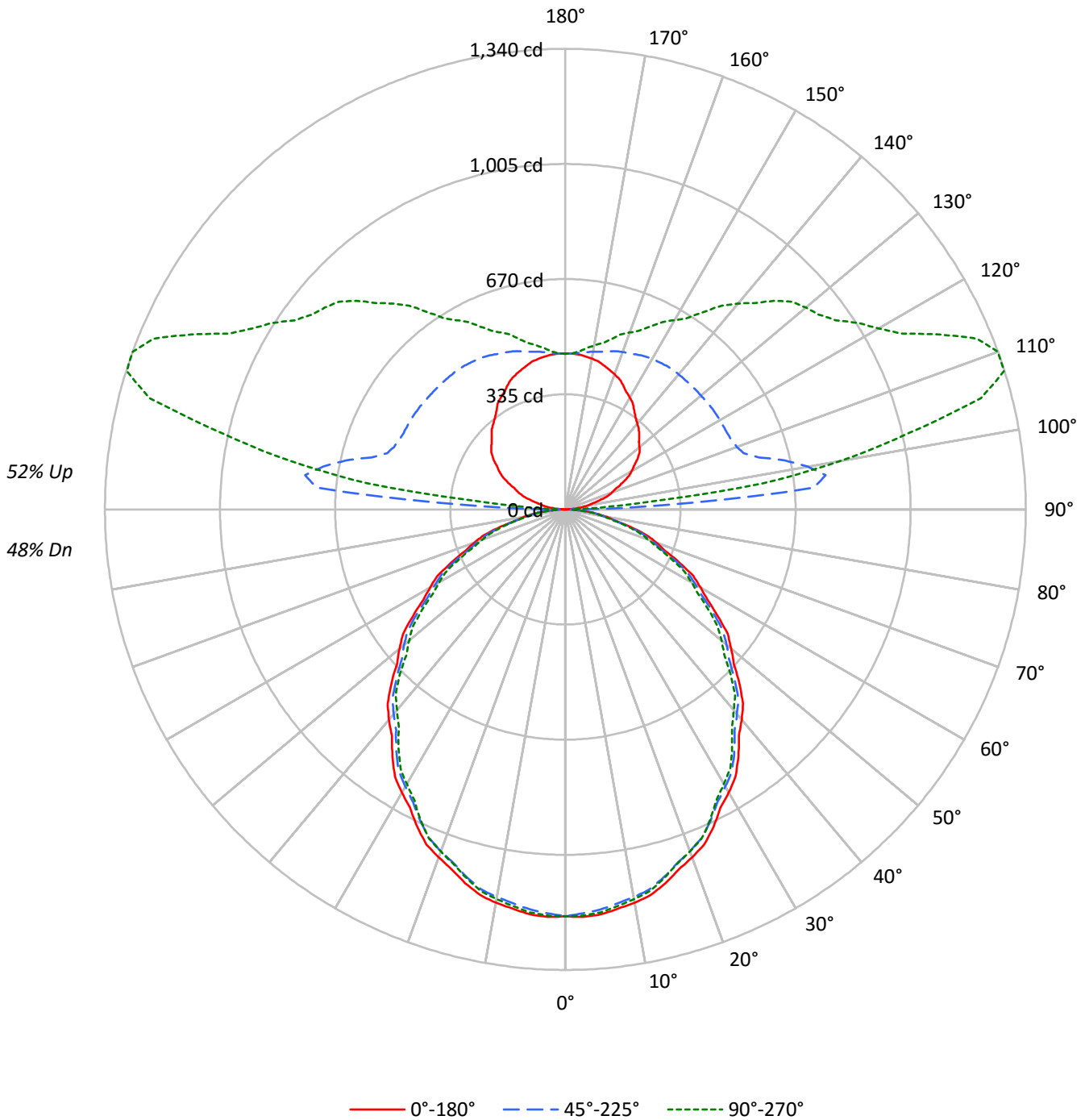
Lumens per Lamp: N/A
Luminaire Lumens: 6335.5 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 52
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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48	48	48	48	
1	97	93	89	86	89	86	82	79	72	70	67	59	58	56	48	47	46	40	40	40	40	
2	89	81	75	70	81	75	70	65	63	59	56	52	49	47	42	40	38	34	34	34	34	
3	81	71	64	58	74	66	59	54	56	51	47	46	43	40	37	35	33	29	29	29	29	
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	31	28	25	25	25	25	
5	68	56	48	42	62	52	45	40	44	39	34	37	33	29	30	27	25	21	21	21	21	
6	62	50	42	37	57	47	40	34	40	34	30	33	29	26	27	24	22	19	19	19	19	
7	58	45	38	32	53	42	35	30	36	31	26	30	26	23	25	22	19	17	17	17	17	
8	54	41	34	28	49	38	31	27	33	27	23	28	23	20	23	20	17	15	15	15	15	
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	13	13	13	13	
10	47	35	27	23	43	32	26	21	28	23	19	24	19	17	20	16	14	12	12	12	12	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9556	9556	9556
5°	9585	9469	9539
10°	9525	9393	9439
15°	9410	9260	9283
20°	9257	9094	9101
25°	9082	8905	8879
30°	8869	8682	8603
35°	8647	8451	8339
40°	8416	8186	8037
45°	8176	7927	7775
50°	7910	7695	7458
55°	7623	7396	7156
60°	7335	7061	6846
65°	7011	6739	6468
70°	6649	6314	6069
75°	6095	5798	5652
80°	5421	5202	5072
85°	4742	4566	4474



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.5	1.8
10°-20°	314.1	5.0
20°-30°	462.3	7.3
30°-40°	537.4	8.5
40°-50°	537.5	8.5
50°-60°	470.1	7.4
60°-70°	349.1	5.5
70°-80°	198.4	3.1
80°-90°	59.7	0.9
90°-100°	327.3	5.2
100°-110°	681.1	10.8
110°-120°	610.1	9.6
120°-130°	513.2	8.1
130°-140°	427.9	6.8
140°-150°	326.9	5.2
150°-160°	229.8	3.6
160°-170°	135.2	2.1
170°-180°	44.0	0.7
0°-30°	887.8	14.0
0°-40°	1425.3	22.5
0°-60°	2432.8	38.4
0°-90°	3040.1	48.0
90°-120°	1618.5	25.5
90°-150°	2886.5	45.6
90°-180°	3295.0	52.0
0°-180°	6335.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1184	1184	1184	1184	1184	
5°	1183	1179	1168	1178	1177	112
15°	1126	1122	1108	1113	1111	317
25°	1020	1013	1000	1000	997	469
35°	877	870	858	851	846	548
45°	716	709	694	684	681	552
55°	542	538	526	514	508	485
65°	367	362	353	344	339	363
75°	195	191	186	182	181	208
85°	51	51	49	49	48	56
90°	1	7	16	18	19	4
95°	29	93	726	359	217	33
105°	104	151	584	1257	1252	111
115°	183	230	521	1001	1203	182
125°	256	304	518	851	960	227
135°	304	361	514	756	858	235
145°	350	401	511	637	701	220
155°	398	430	497	563	587	183
165°	434	447	476	504	512	122
175°	452	453	457	463	461	43
180°	453	453	453	453	453	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7
2.5°	1186.8	1186.2	1185.7	1185.3	1184.7	1183.6	1181.7	1179.8	1177.9	1176.2	1177.8
5°	1182.8	1182.0	1181.1	1180.3	1179.4	1177.8	1175.5	1173.1	1170.8	1168.5	1170.8
7.5°	1171.8	1170.9	1170.1	1169.2	1168.4	1166.7	1164.1	1161.5	1159.0	1156.4	1158.2
10°	1161.9	1161.1	1160.2	1159.4	1158.5	1156.7	1154.0	1151.3	1148.5	1145.8	1147.5
12.5°	1149.0	1148.2	1147.3	1146.5	1145.7	1143.7	1140.9	1137.9	1135.1	1132.1	1134.0
15°	1125.9	1125.0	1124.2	1123.3	1122.5	1120.5	1117.3	1114.2	1111.0	1107.9	1109.1
17.5°	1098.0	1096.9	1095.8	1094.8	1093.8	1091.7	1088.8	1085.7	1082.7	1079.8	1080.6
20°	1077.5	1076.4	1075.4	1074.3	1073.3	1071.1	1068.0	1064.8	1061.7	1058.5	1059.2
22.5°	1055.5	1054.1	1052.7	1051.3	1049.9	1047.7	1044.5	1041.3	1038.1	1035.0	1036.2
25°	1019.6	1018.2	1016.6	1015.2	1013.7	1011.5	1008.5	1005.6	1002.6	999.7	999.9
27.5°	978.7	977.1	975.6	974.1	972.6	970.4	967.7	965.0	962.2	959.5	958.9
30°	951.4	949.7	948.0	946.3	944.6	942.4	939.6	936.9	934.2	931.4	930.6
32.5°	922.5	921.0	919.4	917.9	916.4	914.2	911.3	908.4	905.5	902.6	901.6
35°	877.4	875.8	874.4	872.9	871.5	869.2	866.3	863.4	860.4	857.5	856.0
37.5°	829.7	828.4	827.1	825.7	824.3	822.1	818.9	815.7	812.6	809.4	807.8
40°	798.6	796.9	795.2	793.5	791.8	789.4	786.3	783.1	780.0	776.8	774.7
42.5°	765.3	764.2	763.2	762.2	761.2	758.9	755.5	752.0	748.4	744.9	742.5
45°	716.1	714.6	713.2	711.7	710.2	707.8	704.5	701.1	697.7	694.3	692.0
47.5°	664.7	663.7	662.7	661.6	660.7	658.6	655.5	652.4	649.3	646.1	643.5
50°	629.8	628.9	628.1	627.2	626.4	624.6	621.6	618.7	615.6	612.7	609.8
52.5°	595.7	594.7	593.6	592.6	591.6	589.5	586.4	583.3	580.1	577.0	574.4
55°	541.6	540.9	540.3	539.7	539.0	537.3	534.3	531.4	528.4	525.5	522.9
57.5°	490.0	489.3	488.6	487.9	487.1	485.3	482.4	479.5	476.6	473.7	471.3
60°	454.3	453.3	452.2	451.2	450.1	448.2	445.5	442.7	440.0	437.3	435.3
62.5°	419.5	418.6	417.7	416.8	415.9	414.0	411.1	408.1	405.3	402.3	400.6
65°	367.0	366.0	365.0	363.9	362.8	361.2	359.2	357.0	354.9	352.8	350.7
67.5°	314.3	313.3	312.4	311.4	310.5	309.0	306.9	304.9	302.9	300.9	298.8
70°	281.7	280.3	278.7	277.2	275.8	274.2	272.5	270.8	269.1	267.5	265.8
72.5°	246.8	245.3	243.9	242.4	240.9	239.5	238.2	236.7	235.4	234.1	232.7
75°	195.4	194.3	193.3	192.3	191.2	190.1	189.0	188.0	187.0	185.9	185.0
77.5°	146.2	145.8	145.3	144.9	144.4	143.7	142.8	141.9	140.9	140.0	139.7
80°	116.6	116.0	115.4	114.8	114.1	113.6	113.2	112.8	112.4	111.9	111.5
82.5°	87.8	87.6	87.2	86.9	86.7	86.5	86.4	86.3	86.2	86.1	85.9
85°	51.2	51.2	51.2	51.2	51.2	51.0	50.6	50.2	49.8	49.3	49.3
87.5°	19.9	20.1	20.4	20.5	20.5	20.3	21.2	21.0	21.2	21.4	21.2
90°	0.9	2.7	5.4	6.2	7.1	7.1	12.5	12.5	14.3	16.1	15.2
92.5°	10.2	14.8	23.2	34.0	47.0	65.5	110.8	179.9	247.1	282.4	235.2
95°	29.3	32.0	40.9	52.5	73.9	111.3	188.7	334.7	547.5	725.5	746.0
97.5°	52.7	52.7	60.4	71.1	89.3	120.7	180.4	300.9	512.4	764.1	937.2
100°	67.7	67.7	73.9	84.5	101.5	130.0	182.5	283.1	464.7	715.7	943.6
102.5°	81.9	83.3	88.8	98.8	115.0	142.0	189.6	278.1	432.7	655.2	890.2
105°	104.2	106.8	111.3	122.0	137.9	163.8	206.5	280.4	405.0	584.0	793.2
107.5°	128.8	130.5	134.9	146.3	161.7	187.1	226.3	293.6	400.0	544.1	714.8
110°	145.1	146.9	151.3	162.0	178.1	202.1	241.2	303.5	401.4	530.6	675.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	160.8	162.6	167.7	177.7	193.7	217.8	255.5	314.2	405.7	524.1	653.6
115°	183.4	186.0	192.3	201.2	218.1	242.1	277.8	331.2	413.9	520.8	632.9
117.5°	206.9	209.4	214.9	224.7	240.5	265.5	299.3	348.4	422.7	519.9	623.7
120°	222.6	224.4	230.6	240.3	255.5	280.4	314.2	360.5	429.1	519.9	618.7
122.5°	236.8	238.5	244.8	253.9	270.5	294.6	328.5	371.9	435.5	519.2	613.0
125°	255.5	259.0	264.4	274.2	291.1	316.0	348.0	389.1	445.1	518.1	603.6
127.5°	272.1	274.9	281.3	292.5	310.1	335.3	366.2	403.8	452.7	516.1	590.9
130°	281.3	284.9	291.9	305.3	322.3	348.0	378.4	413.0	458.4	515.4	583.1
132.5°	290.5	293.4	302.6	315.3	333.7	358.0	388.3	422.3	463.4	514.7	576.0
135°	303.5	307.1	316.0	331.2	349.8	373.0	402.3	434.4	470.9	513.6	565.3
137.5°	316.6	319.9	329.8	344.1	363.6	385.7	413.0	443.0	475.4	513.4	556.0
140°	325.8	328.5	338.3	353.4	372.1	393.5	420.2	448.6	478.9	512.7	551.1
142.5°	335.8	338.5	347.5	361.9	380.0	400.6	426.6	452.9	481.8	512.7	546.8
145°	349.8	352.5	361.4	373.9	390.8	410.4	433.5	457.5	483.4	511.0	539.5
147.5°	365.7	366.6	374.4	387.3	401.3	418.9	440.7	461.6	484.3	507.7	532.9
150°	375.7	376.6	383.7	394.4	407.7	424.6	444.3	463.8	484.3	505.6	527.9
152.5°	385.0	385.1	392.3	402.2	414.1	429.6	447.1	465.2	482.9	502.0	522.2
155°	397.9	398.8	404.1	413.0	422.8	436.2	451.3	466.5	480.7	496.8	513.6
157.5°	410.5	410.5	415.5	422.5	431.1	441.6	454.3	466.5	478.4	491.2	504.9
160°	418.4	418.4	422.0	428.2	435.3	445.1	455.8	466.5	476.3	487.0	498.6
162.5°	425.5	424.8	427.7	433.2	439.6	447.3	457.2	466.5	474.1	482.7	492.8
165°	433.5	433.5	435.3	439.8	444.3	449.5	457.5	464.7	470.0	476.3	483.4
167.5°	441.6	440.7	441.6	445.0	447.5	451.5	457.4	462.5	465.7	469.8	474.8
170°	445.1	444.3	445.1	447.8	449.5	452.2	456.6	461.1	462.9	465.6	469.1
172.5°	448.6	447.8	447.9	449.9	450.9	452.9	455.9	459.7	460.0	461.3	464.1
175°	452.2	451.3	451.3	452.2	453.1	453.1	454.9	457.5	456.6	456.6	458.4
177.5°	453.8	453.1	452.4	453.1	453.1	453.1	453.8	455.2	453.8	453.8	454.5
180°	453.1	453.1	453.1	453.1	453.1	453.1	453.1	453.1	453.1	453.1	453.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7
2.5°	1179.5	1181.2	1182.9	1183.7	1183.5	1183.3	1183.1	1182.9
5°	1173.1	1175.5	1177.8	1178.8	1178.3	1177.9	1177.5	1177.1
7.5°	1160.1	1162.0	1163.8	1164.6	1164.4	1164.1	1163.9	1163.6
10°	1149.1	1150.8	1152.5	1153.2	1152.7	1152.3	1151.9	1151.5
12.5°	1135.9	1137.6	1139.5	1140.1	1139.6	1139.0	1138.4	1137.8
15°	1110.4	1111.6	1112.9	1113.2	1112.6	1112.0	1111.3	1110.7
17.5°	1081.4	1082.2	1083.0	1083.2	1082.7	1082.3	1081.9	1081.5
20°	1059.8	1060.4	1061.0	1061.1	1060.7	1060.3	1059.9	1059.4
22.5°	1037.2	1038.4	1039.6	1039.7	1038.9	1038.2	1037.4	1036.7
25°	1000.1	1000.3	1000.6	1000.2	999.4	998.5	997.7	996.8
27.5°	958.5	958.0	957.4	956.7	955.6	954.6	953.5	952.4
30°	929.7	928.9	928.0	927.1	926.0	925.0	923.9	922.9
32.5°	900.5	899.6	898.6	897.5	896.4	895.4	894.3	893.3
35°	854.5	853.0	851.5	850.2	849.2	848.2	847.1	846.1
37.5°	806.2	804.6	803.1	801.6	800.1	798.8	797.4	795.9
40°	772.6	770.5	768.4	766.8	765.7	764.7	763.7	762.6
42.5°	740.0	737.6	735.1	733.6	732.9	732.2	731.5	730.8
45°	689.6	687.3	685.0	683.6	682.9	682.2	681.6	681.0
47.5°	640.9	638.3	635.6	633.6	632.0	630.4	628.7	627.1
50°	606.8	603.9	600.9	598.8	597.5	596.3	595.0	593.8
52.5°	571.9	569.2	566.6	564.5	562.9	561.3	559.7	558.1
55°	520.4	517.9	515.3	513.4	512.2	511.0	509.6	508.4
57.5°	468.9	466.5	464.0	462.3	461.0	459.8	458.6	457.4
60°	433.5	431.6	429.6	428.2	427.1	426.1	425.0	424.0
62.5°	398.9	397.2	395.5	394.0	393.0	391.9	390.9	389.9
65°	348.7	346.5	344.4	342.9	341.8	340.7	339.7	338.6
67.5°	296.9	294.8	292.7	291.6	291.3	291.1	290.7	290.4
70°	264.1	262.4	260.7	259.6	259.0	258.3	257.7	257.1
72.5°	231.4	230.1	228.7	227.7	227.0	226.4	225.8	225.2
75°	184.2	183.3	182.5	182.0	181.8	181.6	181.4	181.2
77.5°	139.5	139.2	139.0	138.6	138.0	137.5	137.0	136.4
80°	111.1	110.7	110.2	109.9	109.7	109.5	109.3	109.1
82.5°	85.6	85.3	85.1	84.9	84.7	84.4	84.3	84.0
85°	49.3	49.3	49.3	49.2	49.0	48.8	48.6	48.3
87.5°	21.4	21.6	21.8	21.8	21.9	22.1	21.9	21.9
90°	16.1	16.9	17.8	17.8	18.7	19.6	18.7	18.7
92.5°	174.9	131.6	104.7	86.9	76.4	71.6	68.6	68.6
95°	659.6	521.7	402.3	316.0	272.4	244.8	228.8	217.2
97.5°	974.6	923.3	836.2	743.3	679.4	625.8	599.1	580.6
100°	1073.6	1091.4	1047.8	981.9	904.5	850.2	823.4	816.4
102.5°	1068.6	1156.9	1169.6	1142.1	1094.6	1055.3	1027.2	1021.5
105°	997.0	1151.0	1239.1	1275.7	1277.5	1270.3	1257.8	1252.5
107.5°	895.4	1059.4	1183.5	1262.8	1306.8	1327.1	1336.1	1338.4
110°	834.1	988.1	1117.2	1215.1	1278.4	1315.7	1331.8	1339.8



TEST NUMBER: P332615-940

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	789.3	925.4	1047.4	1145.3	1217.1	1262.3	1284.8	1297.7
115°	744.2	853.7	957.9	1043.3	1113.7	1167.1	1195.5	1202.7
117.5°	722.1	812.8	894.7	967.1	1027.2	1072.0	1100.8	1106.3
120°	712.1	795.0	866.2	929.3	980.1	1019.3	1042.4	1052.2
122.5°	703.6	783.5	848.4	903.7	946.6	980.1	999.7	1009.5
125°	689.0	765.5	827.0	875.9	911.6	937.4	954.3	959.7
127.5°	671.2	744.4	805.7	852.1	887.9	910.9	925.1	930.4
130°	657.0	727.3	787.8	835.0	871.5	893.8	908.0	913.4
132.5°	642.0	708.1	767.1	814.4	850.2	875.2	888.8	894.1
135°	621.3	679.2	733.5	778.0	813.7	838.6	852.8	858.2
137.5°	602.7	651.7	697.4	737.6	770.9	795.5	807.3	813.7
140°	592.0	633.8	673.9	711.2	742.4	762.1	774.5	781.6
142.5°	582.0	618.8	653.3	685.6	713.2	731.4	742.4	747.4
145°	567.9	598.2	624.9	649.9	672.1	687.2	696.2	700.6
147.5°	556.3	580.4	601.8	621.3	637.8	650.8	657.5	659.1
150°	549.3	569.7	587.5	603.6	617.8	629.4	634.7	635.6
152.5°	541.4	559.0	575.4	588.6	600.7	610.1	613.3	614.2
155°	529.7	543.9	557.2	567.9	576.8	584.0	586.7	586.7
157.5°	517.0	529.0	540.2	548.8	555.4	560.8	562.4	562.4
160°	509.2	519.0	528.8	535.9	541.3	546.6	547.5	547.5
162.5°	501.3	509.7	517.4	523.8	527.7	533.1	534.0	533.2
165°	490.5	495.9	502.0	506.5	510.1	513.6	512.7	511.8
167.5°	480.0	484.1	489.1	491.8	493.6	495.9	495.7	495.0
170°	473.6	476.3	479.8	482.5	484.3	485.2	484.3	484.3
172.5°	467.9	469.8	472.0	473.9	475.0	475.9	475.0	473.6
175°	460.2	461.1	462.9	462.9	462.9	464.7	462.9	461.1
177.5°	455.2	455.9	455.9	456.6	455.9	456.6	455.2	453.8
180°	453.1	453.1	453.1	453.1	453.1	453.1	453.1	453.1

(END OF REPORT)