

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: P332613-940

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

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332613-940
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-C795D1035U940-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6722.5 lumens
Efficiency: N/A
Efficacy: 129.3 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

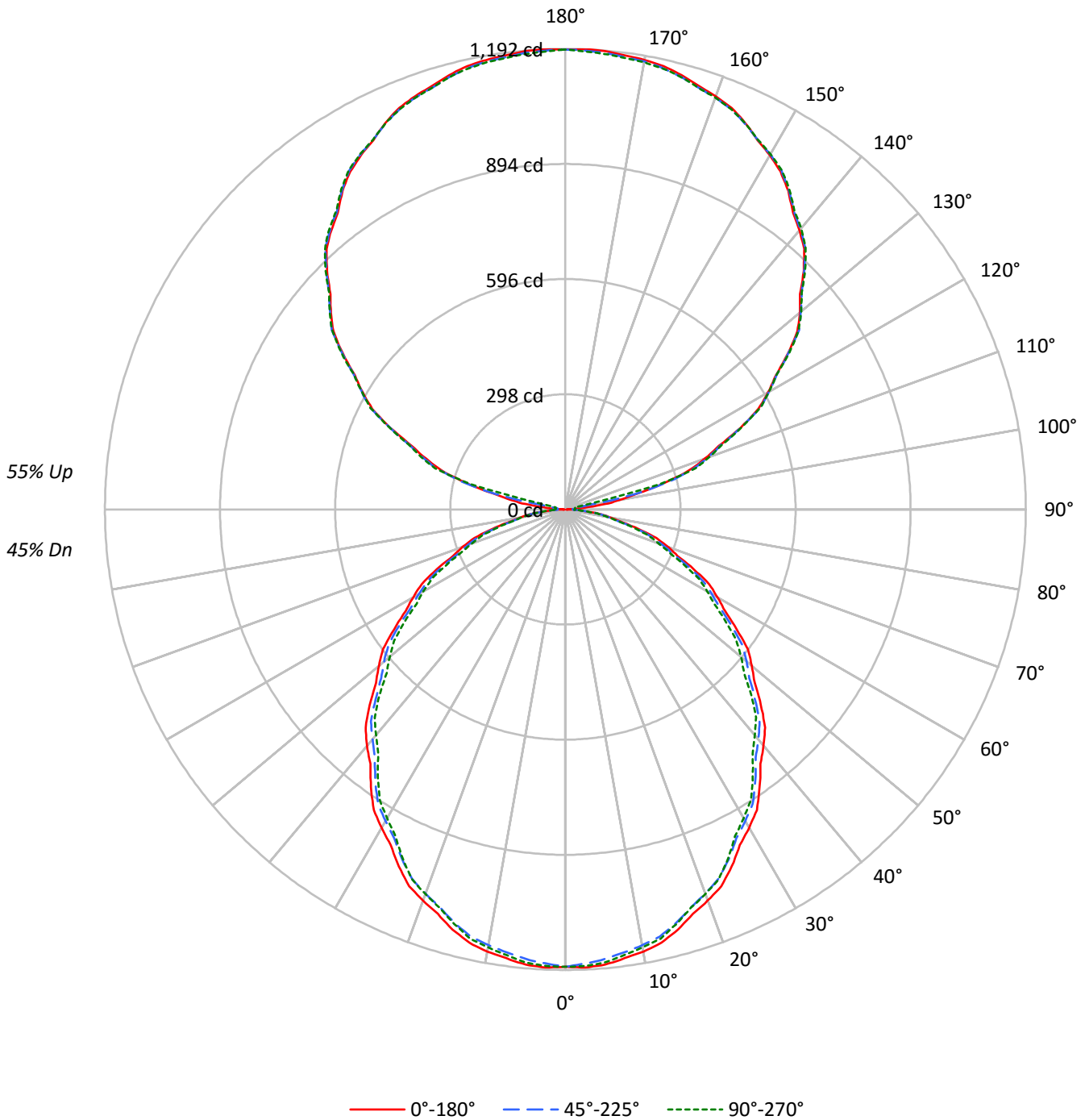
Input Watts (W): 52
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45				
1	97	92	88	85	88	85	81	78	71	68	66	58	56	55	46	45	44	38				
2	88	81	75	69	80	74	69	64	62	58	55	51	48	45	40	38	37	32				
3	80	71	64	58	73	65	59	54	55	50	46	45	41	38	36	33	31	27				
4	73	63	55	49	67	58	51	46	48	43	39	40	36	33	32	29	27	23				
5	67	56	48	42	61	51	44	39	43	38	34	36	32	29	29	26	23	20				
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	21	18				
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	21	18	16				
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16	14				
9	49	37	30	25	45	35	28	23	30	24	21	25	21	18	20	17	15	13				
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13	11				

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	1.7
10°-20°	314.1	4.7
20°-30°	462.3	6.9
30°-40°	537.4	8.0
40°-50°	537.5	8.0
50°-60°	470.1	7.0
60°-70°	349.1	5.2
70°-80°	198.4	3.0
80°-90°	60.7	0.9
90°-100°	40.7	0.6
100°-110°	259.5	3.9
110°-120°	496.5	7.4
120°-130°	630.3	9.4
130°-140°	674.3	10.0
140°-150°	630.6	9.4
150°-160°	508.5	7.6
160°-170°	328.0	4.9
170°-180°	113.0	1.7
0°-30°	887.8	13.2
0°-40°	1425.3	21.2
0°-60°	2432.8	36.2
0°-90°	3041.0	45.2
90°-120°	796.7	11.9
90°-150°	2731.9	40.6
90°-180°	3681.0	54.8
0°-180°	6722.5	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°	3	12	20	25	27	5
95°	49	20	20	25	26	63
105°	268	273	278	284	254	280
115°	500	503	502	504	504	492
125°	703	706	705	708	709	628
135°	872	872	875	877	879	672
145°	1006	1008	1008	1010	1011	628
155°	1103	1104	1101	1104	1102	508
165°	1163	1159	1159	1165	1158	329
175°	1190	1185	1186	1193	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°	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°	20.2	20.5	20.8	21.0	21.3	21.6	21.7	21.8	21.9	22.1	22.4
90°	2.7	4.8	7.0	9.2	11.4	13.3	14.8	16.4	18.0	19.6	20.8
92.5°	11.2	11.3	11.4	11.6	11.7	12.6	14.1	15.7	17.3	18.9	20.1
95°	49.0	42.3	35.5	28.8	22.0	18.8	19.0	19.2	19.4	19.6	20.8
97.5°	104.0	108.2	112.4	116.5	120.7	111.8	89.7	67.7	45.6	23.5	23.6
100°	146.0	149.5	153.1	156.7	160.2	148.4	121.1	93.8	66.4	39.1	35.8
102.5°	193.0	195.6	198.2	200.8	203.4	203.0	199.4	195.8	192.3	188.7	152.4
105°	268.0	269.1	270.3	271.5	272.7	273.8	274.7	275.7	276.8	277.8	279.6
107.5°	337.5	338.1	338.8	339.3	339.9	340.9	342.2	343.6	344.9	346.3	347.1
110°	384.6	385.1	385.8	386.3	386.9	387.8	389.0	390.2	391.4	392.5	393.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	430.2	431.2	432.3	433.4	434.4	435.2	435.8	436.3	436.8	437.4	437.4
115°	500.2	500.9	501.5	502.0	502.7	502.8	502.7	502.5	502.2	502.0	502.5
117.5°	563.5	564.3	565.1	565.9	566.7	567.2	567.7	568.1	568.6	569.0	568.9
120°	606.2	607.0	607.8	608.6	609.4	609.7	609.5	609.3	609.0	608.9	609.3
122.5°	646.0	646.6	647.0	647.5	648.0	648.4	648.6	648.9	649.2	649.4	649.7
125°	703.2	704.0	704.8	705.6	706.4	706.6	706.2	705.8	705.4	705.0	705.6
127.5°	757.3	757.5	757.8	758.0	758.1	758.7	759.6	760.5	761.4	762.3	762.2
130°	792.3	792.5	792.6	792.8	793.0	793.4	794.1	794.6	795.2	795.9	796.0
132.5°	824.3	824.7	825.0	825.4	825.7	826.3	827.1	827.8	828.5	829.3	829.5
135°	872.4	872.2	872.0	871.7	871.6	871.8	872.6	873.4	874.2	875.0	875.4
137.5°	914.9	915.0	915.1	915.2	915.3	915.7	916.6	917.5	918.3	919.2	919.6
140°	942.7	943.1	943.5	943.9	944.2	944.7	945.0	945.5	945.8	946.3	946.8
142.5°	967.6	968.3	969.0	969.7	970.4	970.9	971.2	971.4	971.6	971.9	972.3
145°	1005.8	1006.5	1007.1	1007.6	1008.3	1008.5	1008.5	1008.5	1008.5	1008.5	1008.8
147.5°	1036.3	1037.4	1038.6	1039.6	1040.8	1041.3	1041.0	1040.8	1040.6	1040.4	1040.6
150°	1058.4	1059.2	1060.0	1060.8	1061.6	1061.8	1061.7	1061.5	1061.3	1061.0	1061.0
152.5°	1076.9	1077.5	1078.2	1078.8	1079.4	1079.6	1079.2	1078.9	1078.5	1078.2	1078.5
155°	1103.0	1103.1	1103.3	1103.5	1103.7	1103.5	1103.0	1102.3	1101.7	1101.2	1101.9
157.5°	1124.8	1124.7	1124.5	1124.4	1124.4	1123.9	1123.3	1122.6	1122.0	1121.2	1122.3
160°	1137.6	1137.0	1136.5	1135.9	1135.2	1134.9	1134.7	1134.4	1134.3	1134.1	1135.2
162.5°	1149.1	1148.3	1147.5	1146.7	1146.0	1145.6	1145.3	1145.1	1145.0	1144.8	1145.9
165°	1163.4	1162.4	1161.5	1160.5	1159.5	1159.0	1159.0	1159.0	1159.0	1159.0	1160.6
167.5°	1174.8	1173.8	1172.8	1171.8	1170.7	1170.2	1170.0	1169.9	1169.8	1169.7	1171.4
170°	1181.2	1180.1	1178.8	1177.7	1176.5	1176.0	1176.2	1176.4	1176.6	1176.8	1178.4
172.5°	1185.5	1184.4	1183.1	1182.0	1180.8	1180.3	1180.4	1180.7	1180.9	1181.1	1182.7
175°	1190.2	1189.0	1187.8	1186.6	1185.4	1184.9	1185.1	1185.4	1185.5	1185.7	1187.5
177.5°	1192.3	1191.1	1190.1	1189.0	1187.8	1187.5	1187.8	1188.1	1188.4	1188.7	1190.0
180°	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2



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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°	22.6	22.8	23.1	23.3	23.3	23.4	23.5	23.5
90°	21.9	23.2	24.3	25.1	25.5	25.9	26.3	26.7
92.5°	21.2	22.5	23.6	24.3	24.3	24.4	24.5	24.6
95°	21.9	23.2	24.3	25.1	25.2	25.4	25.6	25.8
97.5°	23.7	23.9	24.0	24.2	24.3	24.5	24.7	25.0
100°	32.5	29.1	25.7	24.2	24.3	24.5	24.7	25.0
102.5°	116.2	79.9	43.6	25.5	25.5	25.6	25.6	25.7
105°	281.3	283.0	284.8	282.2	275.1	268.0	260.8	253.7
107.5°	348.0	348.9	349.7	350.5	351.3	352.0	352.8	353.6
110°	393.3	393.8	394.1	394.7	395.2	395.8	396.5	397.0



TEST NUMBER: P332613-940

CATALOG NUMBER: SA4XXDIP-C795D1035U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	437.3	437.2	437.1	437.5	438.2	439.0	439.7	440.4
115°	502.8	503.3	503.6	503.8	503.8	503.8	503.8	503.8
117.5°	568.8	568.7	568.6	568.6	568.6	568.5	568.4	568.3
120°	609.7	610.0	610.5	610.5	610.0	609.7	609.3	608.9
122.5°	650.0	650.1	650.4	650.3	650.0	649.5	649.2	648.7
125°	706.2	706.8	707.4	707.8	708.0	708.2	708.4	708.6
127.5°	762.1	762.0	761.9	761.7	761.6	761.4	761.3	761.1
130°	796.2	796.4	796.6	796.7	796.7	796.7	796.7	796.7
132.5°	829.6	829.9	830.1	830.1	829.9	829.7	829.6	829.5
135°	875.8	876.2	876.6	877.0	877.4	877.8	878.2	878.6
137.5°	920.1	920.5	921.0	921.0	921.0	920.9	920.7	920.6
140°	947.4	948.1	948.6	949.0	949.2	949.4	949.6	949.9
142.5°	972.8	973.2	973.7	973.8	973.9	973.9	974.0	974.0
145°	1009.0	1009.1	1009.3	1009.7	1010.0	1010.4	1010.8	1011.2
147.5°	1040.7	1040.9	1041.1	1041.3	1041.4	1041.6	1041.9	1042.1
150°	1061.0	1061.0	1061.0	1061.1	1061.4	1061.6	1061.8	1061.9
152.5°	1078.8	1079.1	1079.4	1079.5	1079.4	1079.3	1079.1	1079.1
155°	1102.7	1103.5	1104.3	1104.4	1103.8	1103.2	1102.6	1102.1
157.5°	1123.3	1124.4	1125.3	1125.3	1124.4	1123.3	1122.3	1121.2
160°	1136.5	1137.6	1138.8	1138.8	1137.6	1136.5	1135.2	1134.1
162.5°	1147.1	1148.3	1149.5	1149.4	1148.1	1146.7	1145.4	1144.1
165°	1162.2	1163.8	1165.3	1165.2	1163.4	1161.6	1159.8	1158.1
167.5°	1173.1	1174.9	1176.6	1176.5	1174.6	1172.6	1170.5	1168.6
170°	1180.0	1181.5	1183.1	1182.9	1181.0	1179.0	1177.0	1175.0
172.5°	1184.3	1185.8	1187.4	1187.1	1185.0	1182.9	1180.7	1178.6
175°	1189.3	1191.1	1192.8	1192.5	1190.2	1187.8	1185.4	1183.0
177.5°	1191.2	1192.5	1193.8	1193.5	1191.6	1189.7	1187.8	1185.9
180°	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2

(END OF REPORT)