

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

Luminaire Tested: **SA4XXDIP-C795D1205U835-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332620
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-C795D1205U835-4F0-1E-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

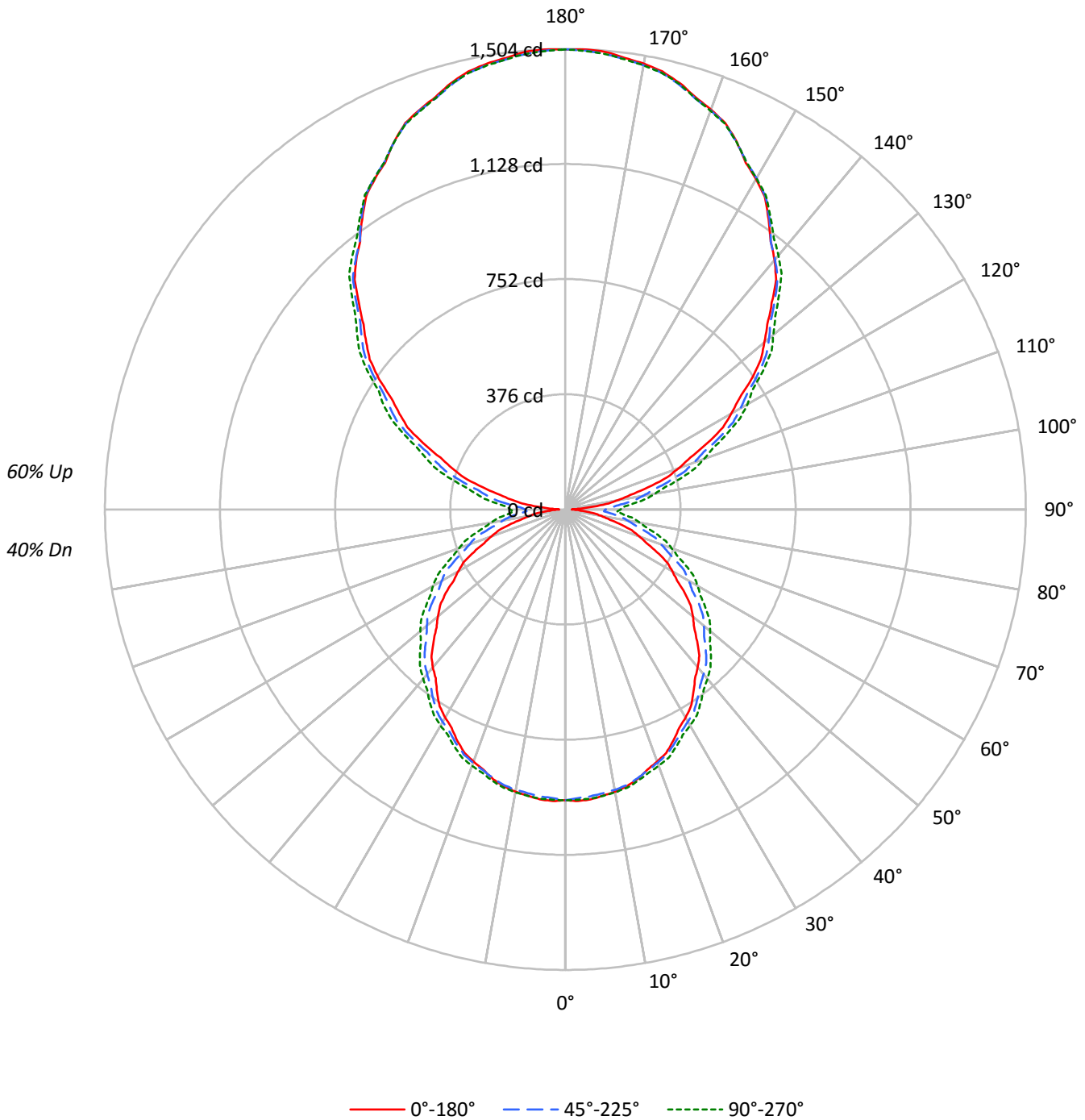
Lumens per Lamp: N/A
Luminaire Lumens: 7410.2 lumens
Efficiency: N/A
Efficacy: 130.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7668	7668	7668
5°	7692	7494	7516
10°	7645	7371	7366
15°	7577	7230	7190
20°	7473	7073	7019
25°	7357	6898	6831
30°	7231	6723	6637
35°	7088	6544	6468
40°	6974	6374	6291
45°	6804	6217	6140
50°	6661	6036	5980
55°	6513	5866	5792
60°	6282	5649	5621
65°	6029	5415	5409
70°	5722	5149	5165
75°	5296	4857	4943
80°	4819	4575	4724
85°	4219	4325	4598



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	1.2
10°-20°	257.7	3.5
20°-30°	389.7	5.3
30°-40°	471.5	6.4
40°-50°	498.5	6.7
50°-60°	469.1	6.3
60°-70°	389.2	5.3
70°-80°	273.4	3.7
80°-90°	159.0	2.1
90°-100°	190.9	2.6
100°-110°	361.4	4.9
110°-120°	543.8	7.3
120°-130°	682.6	9.2
130°-140°	748.8	10.1
140°-150°	727.2	9.8
150°-160°	609.7	8.2
160°-170°	405.7	5.5
170°-180°	142.1	1.9
0°-30°	737.4	10.0
0°-40°	1208.8	16.3
0°-60°	2176.4	29.4
0°-90°	2998.0	40.5
90°-120°	1096.1	14.8
90°-150°	3254.7	43.9
90°-180°	4412.0	59.5
0°-180°	7410.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	950	950	950	950	950	
5°	951	948	940	948	948	90
15°	912	912	909	918	918	257
25°	834	840	844	855	856	384
35°	730	742	753	767	771	457
45°	608	629	649	666	672	470
55°	476	499	531	551	558	424
65°	330	364	400	426	435	327
75°	183	223	267	296	306	195
85°	56	101	149	180	192	60
90°	20	76	131	167	180	16
95°	84	129	181	212	223	89
105°	280	304	347	376	389	298
115°	513	524	554	576	583	506
125°	742	742	766	784	788	661
135°	954	961	968	982	986	738
145°	1157	1160	1162	1167	1168	724
155°	1324	1324	1323	1327	1323	609
165°	1442	1438	1436	1442	1438	406
175°	1500	1494	1493	1500	1493	142
180°	1502	1502	1502	1502	1502	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	953.3	952.7	952.1	951.6	951.0	950.0	948.4	946.9	945.4	943.9	945.2
5°	950.9	950.2	949.5	948.8	948.1	946.9	945.2	943.6	941.9	940.3	942.2
7.5°	942.8	942.4	942.0	941.6	941.1	940.2	938.9	937.5	936.1	934.8	936.9
10°	936.0	935.8	935.6	935.3	935.1	934.4	933.2	932.0	930.8	929.6	931.8
12.5°	926.7	926.6	926.6	926.5	926.5	926.1	925.3	924.4	923.6	922.8	924.8
15°	911.6	911.8	912.0	912.3	912.5	912.3	911.6	910.9	910.1	909.4	911.6
17.5°	890.9	891.6	892.3	893.1	893.8	894.0	893.9	893.8	893.6	893.5	895.7
20°	876.5	877.2	877.9	878.6	879.3	879.8	880.0	880.2	880.5	880.7	883.1
22.5°	860.3	861.2	862.1	863.0	863.9	864.6	865.0	865.4	865.8	866.3	868.6
25°	833.9	835.3	836.8	838.2	839.6	840.7	841.4	842.1	842.8	843.5	846.1
27.5°	804.6	806.6	808.7	810.8	812.9	814.5	815.6	816.6	817.7	818.8	821.2
30°	785.0	786.9	788.8	790.7	792.6	794.3	796.0	797.6	799.3	800.9	803.5
32.5°	763.7	766.0	768.3	770.5	772.8	774.8	776.7	778.5	780.4	782.2	785.2
35°	729.7	732.5	735.4	738.2	741.0	743.6	746.0	748.4	750.7	753.1	756.4
37.5°	695.4	698.7	702.0	705.2	708.5	711.6	714.5	717.4	720.4	723.3	726.7
40°	673.3	676.4	679.4	682.5	685.6	688.8	692.1	695.4	698.7	702.0	705.6
42.5°	647.8	651.2	654.7	658.1	661.6	665.2	669.1	673.0	676.9	680.7	684.7
45°	608.4	612.9	617.4	621.9	626.4	630.9	635.4	639.9	644.3	648.8	652.9
47.5°	570.8	575.4	580.0	584.7	589.3	594.2	599.4	604.6	609.8	615.0	619.2
50°	543.5	548.7	553.9	559.1	564.3	569.5	574.7	579.9	585.1	590.3	595.1
52.5°	516.3	521.5	526.7	531.9	537.1	542.7	548.6	554.6	560.6	566.5	571.2
55°	476.5	481.5	486.5	491.4	496.4	502.4	509.5	516.6	523.7	530.8	535.5
57.5°	432.1	438.2	444.4	450.5	456.6	463.2	470.3	477.3	484.4	491.4	497.0
60°	403.1	409.3	415.4	421.6	427.7	434.7	442.5	450.3	458.1	465.9	471.3
62.5°	375.0	381.8	388.5	395.2	401.9	409.2	417.0	424.8	432.6	440.4	445.8
65°	329.7	337.3	344.9	352.4	360.0	367.8	375.8	383.9	391.9	399.9	405.8
67.5°	286.1	294.2	302.2	310.2	318.3	326.6	335.2	343.8	352.4	361.0	367.0
70°	256.3	264.4	272.4	280.5	288.5	297.0	306.0	315.0	323.9	332.9	339.3
72.5°	227.4	235.6	243.9	252.1	260.3	269.2	278.8	288.3	297.9	307.4	313.6
75°	183.0	191.7	200.4	209.2	217.9	227.3	237.2	247.1	257.1	267.0	273.6
77.5°	141.5	150.7	160.0	169.3	178.5	188.4	198.8	209.2	219.6	230.0	236.7
80°	115.9	125.4	134.8	144.3	153.8	163.7	174.1	184.5	194.9	205.3	212.4
82.5°	90.4	100.2	110.1	119.9	129.7	139.9	150.3	160.7	171.1	181.5	188.7
85°	56.4	66.3	76.2	86.2	96.1	106.4	117.0	127.6	138.3	148.9	156.0
87.5°	32.2	42.4	52.6	62.8	73.0	83.5	94.3	105.1	115.8	126.6	133.7
90°	20.5	32.8	45.1	57.4	69.7	81.9	94.2	106.4	118.6	130.9	139.3
92.5°	41.0	52.8	64.6	76.3	88.1	99.8	111.4	123.0	134.6	146.2	153.8
95°	83.5	93.7	103.8	113.9	124.0	134.8	146.3	157.8	169.3	180.8	188.0
97.5°	134.3	142.9	151.5	160.0	168.6	178.7	190.5	202.2	213.9	225.6	232.7
100°	174.4	181.5	188.7	195.9	203.1	212.4	224.0	235.5	247.1	258.6	265.5
102.5°	217.1	222.9	228.7	234.5	240.3	248.8	259.9	271.1	282.2	293.4	300.3
105°	280.3	285.3	290.2	295.2	300.2	307.6	317.4	327.2	336.9	346.7	353.4
107.5°	348.6	352.8	357.0	361.2	365.4	371.7	380.1	388.5	396.9	405.4	411.9
110°	394.2	398.1	401.9	405.7	409.5	415.4	423.5	431.5	439.5	447.5	452.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	441.7	444.7	447.8	450.8	453.8	459.1	466.5	473.9	481.4	488.8	493.9
115°	512.9	515.1	517.2	519.3	521.4	526.0	533.1	540.1	547.2	554.2	559.2
117.5°	581.0	582.5	584.0	585.5	587.0	591.0	597.7	604.4	611.1	617.8	621.8
120°	625.7	627.5	629.2	630.9	632.7	636.6	642.7	648.8	654.8	660.9	664.4
122.5°	673.1	673.7	674.2	674.8	675.3	678.7	684.8	690.9	697.0	703.1	707.0
125°	742.0	741.8	741.5	741.3	741.1	743.8	749.4	755.1	760.7	766.4	770.3
127.5°	805.2	805.8	806.3	806.8	807.4	809.7	813.8	818.0	822.1	826.2	829.9
130°	849.0	849.5	850.1	850.6	851.1	853.3	857.1	860.9	864.6	868.4	872.2
132.5°	894.5	894.9	895.2	895.5	895.8	897.4	900.2	903.1	905.9	908.7	912.2
135°	953.6	955.2	956.7	958.3	959.8	961.4	963.1	964.7	966.4	968.1	971.3
137.5°	1019.2	1019.7	1020.1	1020.6	1021.1	1022.0	1023.2	1024.4	1025.6	1026.8	1029.6
140°	1062.8	1063.1	1063.4	1063.7	1064.0	1064.2	1064.5	1064.7	1064.9	1065.2	1068.0
142.5°	1102.0	1102.4	1102.9	1103.4	1103.8	1103.9	1103.6	1103.2	1102.9	1102.5	1105.2
145°	1157.1	1157.8	1158.6	1159.4	1160.2	1160.8	1161.0	1161.3	1161.5	1161.8	1163.0
147.5°	1211.9	1212.9	1213.9	1214.9	1215.9	1216.3	1216.1	1215.9	1215.7	1215.5	1215.5
150°	1245.3	1246.1	1246.9	1247.7	1248.5	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9
152.5°	1276.1	1276.7	1277.2	1277.8	1278.4	1278.8	1279.0	1279.2	1279.4	1279.6	1280.2
155°	1324.4	1324.4	1324.4	1324.4	1324.4	1324.3	1324.1	1323.8	1323.5	1323.3	1324.3
157.5°	1365.3	1364.9	1364.4	1364.0	1363.5	1363.2	1363.2	1363.1	1363.1	1363.0	1363.8
160°	1389.5	1389.3	1389.0	1388.7	1388.5	1388.2	1388.0	1387.7	1387.4	1387.2	1388.0
162.5°	1411.8	1411.1	1410.5	1409.8	1409.1	1408.7	1408.4	1408.2	1407.9	1407.6	1409.0
165°	1441.8	1441.0	1440.2	1439.5	1438.7	1438.0	1437.5	1437.0	1436.5	1436.0	1437.5
167.5°	1464.8	1463.7	1462.6	1461.5	1460.5	1459.9	1460.0	1460.0	1460.1	1460.1	1461.7
170°	1477.8	1476.5	1475.2	1473.9	1472.6	1472.1	1472.4	1472.6	1472.9	1473.2	1474.7
172.5°	1487.1	1486.0	1484.9	1483.8	1482.8	1482.2	1482.3	1482.4	1482.4	1482.5	1484.2
175°	1499.9	1498.6	1497.3	1496.0	1494.7	1493.9	1493.7	1493.4	1493.2	1492.9	1494.7
177.5°	1504.1	1503.0	1502.0	1501.0	1499.9	1499.4	1499.4	1499.4	1499.4	1499.4	1500.9
180°	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	946.5	947.9	949.2	949.8	949.6	949.4	949.2	949.0
5°	944.1	946.0	947.8	948.7	948.4	948.2	948.0	947.7
7.5°	939.0	941.1	943.3	944.2	944.0	943.7	943.5	943.3
10°	933.9	936.0	938.2	939.1	938.9	938.6	938.4	938.2
12.5°	926.7	928.7	930.6	931.5	931.5	931.4	931.4	931.3
15°	913.7	915.8	917.9	918.9	918.7	918.4	918.2	917.9
17.5°	897.8	900.0	902.2	903.2	903.0	902.8	902.6	902.4
20°	885.4	887.8	890.2	891.4	891.4	891.4	891.4	891.4
22.5°	871.0	873.3	875.7	877.1	877.5	877.8	878.2	878.6
25°	848.7	851.3	853.9	855.3	855.5	855.8	856.0	856.3
27.5°	823.6	826.0	828.5	829.8	830.1	830.4	830.7	830.9
30°	806.1	808.7	811.3	812.9	813.4	813.8	814.3	814.8
32.5°	788.2	791.2	794.1	795.9	796.3	796.8	797.3	797.8
35°	759.7	763.0	766.3	768.3	769.0	769.7	770.5	771.2
37.5°	730.0	733.4	736.7	738.8	739.5	740.3	741.0	741.8
40°	709.1	712.7	716.2	718.4	719.4	720.3	721.3	722.2
42.5°	688.6	692.5	696.4	698.8	699.5	700.3	701.1	701.8
45°	656.9	660.9	664.9	667.5	668.7	669.9	671.1	672.2
47.5°	623.3	627.5	631.7	634.4	635.9	637.3	638.7	640.1
50°	599.8	604.5	609.2	612.3	613.7	615.2	616.6	618.0
52.5°	576.0	580.7	585.4	588.5	589.9	591.3	592.7	594.2
55°	540.2	545.0	549.7	552.8	554.2	555.6	557.0	558.4
57.5°	502.7	508.3	513.9	517.4	518.7	520.0	521.4	522.7
60°	476.8	482.2	487.6	491.3	493.2	495.1	497.0	498.9
62.5°	451.2	456.7	462.1	465.8	467.7	469.6	471.4	473.3
65°	411.8	417.7	423.6	427.5	429.4	431.3	433.1	435.0
67.5°	373.0	379.0	385.0	388.9	390.8	392.6	394.5	396.3
70°	345.7	352.1	358.5	362.5	364.1	365.8	367.4	369.1
72.5°	319.8	326.0	332.2	336.2	338.0	339.9	341.7	343.6
75°	280.2	286.8	293.5	297.8	300.0	302.1	304.2	306.3
77.5°	243.4	250.1	256.8	261.3	263.6	265.8	268.1	270.4
80°	219.5	226.6	233.7	238.1	240.0	241.9	243.8	245.7
82.5°	196.0	203.3	210.6	215.3	217.3	219.4	221.5	223.6
85°	163.1	170.2	177.3	182.0	184.4	186.7	189.1	191.5
87.5°	140.9	148.1	155.2	159.9	162.1	164.3	166.5	168.6
90°	147.7	156.1	164.5	169.9	172.3	174.7	177.1	179.5
92.5°	161.4	169.0	176.6	181.5	183.7	185.9	188.1	190.3
95°	195.1	202.3	209.5	214.1	216.2	218.4	220.5	222.6
97.5°	239.8	247.0	254.1	258.7	260.7	262.7	264.8	266.8
100°	272.4	279.3	286.2	290.5	292.1	293.8	295.4	297.1
102.5°	307.2	314.1	321.0	325.5	327.6	329.6	331.7	333.7
105°	360.1	366.8	373.4	378.1	380.8	383.5	386.1	388.8
107.5°	418.4	425.0	431.5	435.6	437.3	438.9	440.6	442.2
110°	457.3	462.3	467.2	471.0	473.6	476.3	479.0	481.6



TEST NUMBER: P332620

CATALOG NUMBER: SA4XXDIP-C795D1205U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	499.1	504.2	509.4	513.0	515.0	517.1	519.1	521.2
115°	564.1	569.0	574.0	577.1	578.5	579.9	581.3	582.7
117.5°	625.8	629.9	633.9	636.6	638.0	639.4	640.8	642.1
120°	667.8	671.2	674.7	677.6	680.0	682.4	684.8	687.2
122.5°	710.8	714.7	718.5	720.8	721.6	722.4	723.2	723.9
125°	774.3	778.3	782.3	784.7	785.6	786.5	787.4	788.3
127.5°	833.7	837.4	841.2	843.6	844.8	846.0	847.2	848.4
130°	875.9	879.6	883.4	885.4	885.8	886.2	886.6	887.0
132.5°	915.8	919.3	922.9	925.2	926.2	927.2	928.2	929.2
135°	974.6	977.9	981.1	983.1	983.7	984.4	985.0	985.6
137.5°	1032.4	1035.2	1037.9	1040.0	1041.3	1042.7	1044.0	1045.4
140°	1070.8	1073.6	1076.4	1078.3	1079.2	1080.1	1081.1	1082.0
142.5°	1107.8	1110.4	1113.1	1114.9	1115.8	1116.8	1117.7	1118.6
145°	1164.1	1165.3	1166.4	1167.1	1167.3	1167.4	1167.6	1167.8
147.5°	1215.4	1215.4	1215.4	1215.6	1216.1	1216.6	1217.1	1217.6
150°	1248.9	1248.9	1248.9	1248.8	1248.5	1248.3	1248.0	1247.8
152.5°	1280.8	1281.5	1282.1	1282.1	1281.4	1280.7	1280.0	1279.4
155°	1325.4	1326.4	1327.4	1327.4	1326.4	1325.4	1324.3	1323.3
157.5°	1364.6	1365.3	1366.1	1366.1	1365.2	1364.3	1363.4	1362.6
160°	1388.7	1389.5	1390.3	1390.0	1388.7	1387.4	1386.2	1384.9
162.5°	1410.4	1411.8	1413.2	1413.3	1412.0	1410.7	1409.4	1408.1
165°	1439.1	1440.6	1442.2	1442.4	1441.4	1440.4	1439.3	1438.3
167.5°	1463.2	1464.8	1466.3	1466.3	1464.7	1463.1	1461.5	1459.9
170°	1476.3	1477.8	1479.4	1479.2	1477.4	1475.6	1473.8	1472.0
172.5°	1486.0	1487.7	1489.5	1489.5	1487.6	1485.8	1484.0	1482.2
175°	1496.5	1498.3	1500.1	1500.1	1498.3	1496.5	1494.7	1492.9
177.5°	1502.3	1503.8	1505.2	1505.1	1503.4	1501.8	1500.1	1498.5
180°	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2

(END OF REPORT)