

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: P332624

Luminaire Tested: **SA4XXDIP-C795D1205U835-4F0-1E-UDD-F4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332624
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-C795D1205U835-4F0-1E-UDD-F4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

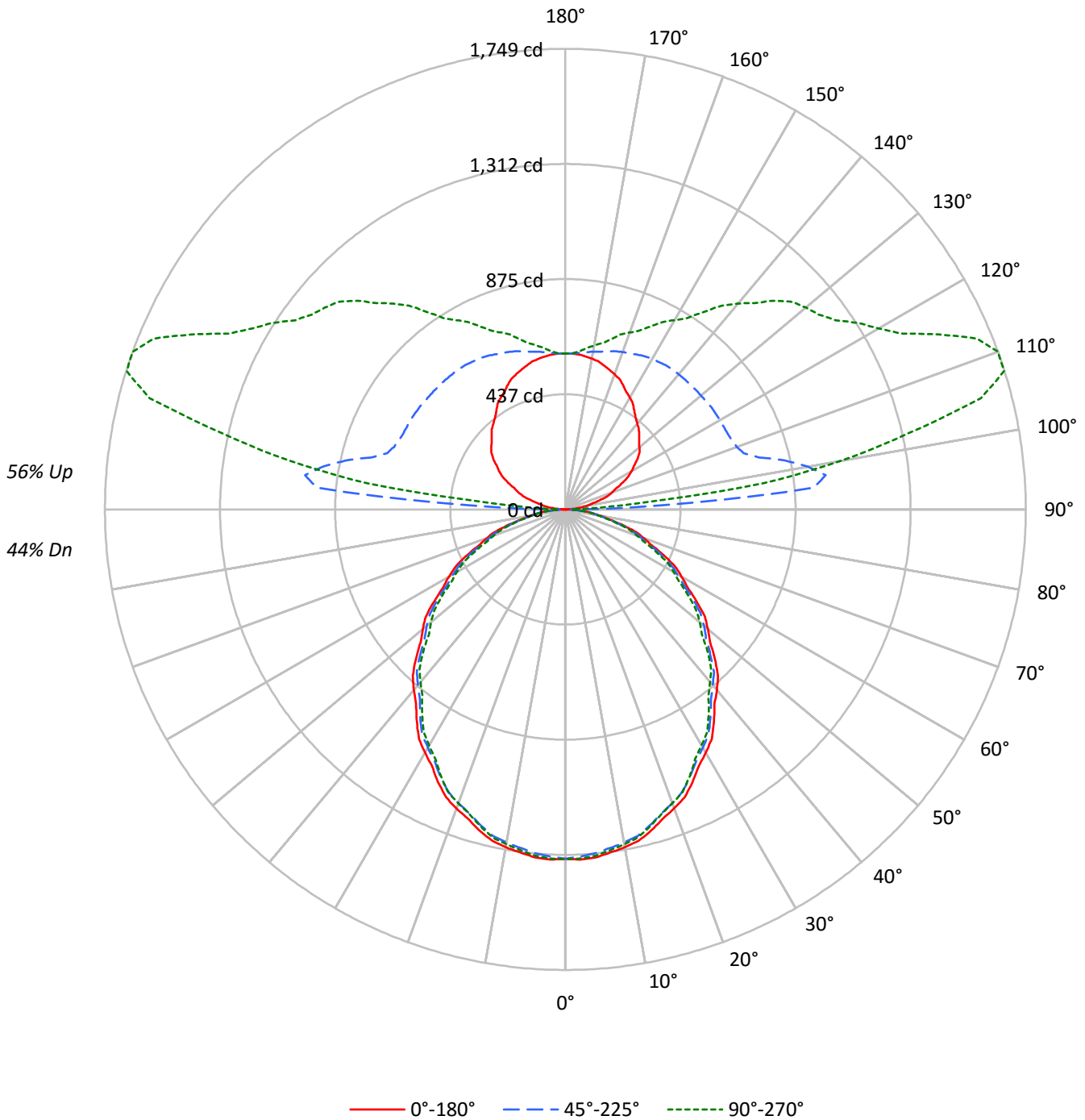
Lumens per Lamp: N/A
Luminaire Lumens: 7711.3 lumens
Efficiency: N/A
Efficacy: 135.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	92	88	85	88	84	81	78	70	68	66	57	55	54	45	44	43	37
2	88	80	74	69	80	74	69	64	61	58	54	50	47	45	39	38	36	31
3	80	71	63	58	73	65	59	54	54	49	46	44	41	38	35	33	31	26
4	73	63	55	49	67	58	51	45	48	43	39	39	36	33	31	29	26	23
5	67	56	48	42	61	51	44	39	43	38	33	35	31	28	28	25	23	20
6	62	50	42	36	56	46	39	34	39	33	29	32	28	25	26	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	48	38	31	26	32	27	23	27	22	19	21	18	16	14
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10717	10717	10717
5°	10749	10619	10697
10°	10681	10533	10585
15°	10552	10384	10410
20°	10381	10198	10207
25°	10185	9986	9958
30°	9945	9737	9648
35°	9697	9477	9351
40°	9438	9180	9013
45°	9169	8889	8719
50°	8871	8629	8363
55°	8549	8294	8024
60°	8226	7918	7677
65°	7862	7559	7253
70°	7456	7081	6805
75°	6834	6503	6338
80°	6081	5835	5686
85°	5317	5122	5020



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.0	1.6
10°-20°	352.2	4.6
20°-30°	518.4	6.7
30°-40°	602.7	7.8
40°-50°	602.7	7.8
50°-60°	527.2	6.8
60°-70°	391.5	5.1
70°-80°	222.4	2.9
80°-90°	67.5	0.9
90°-100°	427.2	5.5
100°-110°	889.1	11.5
110°-120°	796.4	10.3
120°-130°	669.9	8.7
130°-140°	558.5	7.2
140°-150°	426.7	5.5
150°-160°	299.9	3.9
160°-170°	176.4	2.3
170°-180°	57.4	0.7
0°-30°	995.7	12.9
0°-40°	1598.4	20.7
0°-60°	2728.3	35.4
0°-90°	3409.7	44.2
90°-120°	2112.7	27.4
90°-150°	3767.8	48.9
90°-180°	4302.0	55.8
0°-180°	7711.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1328	1328	1328	1328	1328	
5°	1326	1322	1310	1321	1320	126
15°	1263	1258	1242	1248	1246	356
25°	1143	1136	1121	1122	1118	526
35°	984	976	962	954	949	615
45°	803	795	779	767	764	619
55°	607	604	589	577	570	544
65°	412	406	396	385	380	407
75°	219	214	208	204	203	233
85°	57	57	55	55	54	63
90°	1	9	21	23	24	5
95°	38	121	947	469	284	43
105°	136	197	762	1641	1635	145
115°	239	300	680	1306	1570	237
125°	334	396	676	1111	1253	297
135°	396	472	670	987	1120	306
145°	457	523	667	832	914	287
155°	519	561	648	734	766	239
165°	566	583	622	658	668	160
175°	590	592	596	604	602	56
180°	592	592	592	592	592	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5
2.5°	1330.9	1330.3	1329.7	1329.2	1328.6	1327.3	1325.2	1323.1	1321.0	1319.0	1320.8
5°	1326.4	1325.5	1324.5	1323.6	1322.6	1320.8	1318.2	1315.6	1313.0	1310.4	1313.0
7.5°	1314.1	1313.1	1312.2	1311.2	1310.3	1308.4	1305.5	1302.6	1299.7	1296.8	1298.9
10°	1303.0	1302.1	1301.1	1300.2	1299.2	1297.2	1294.1	1291.1	1288.0	1284.9	1286.8
12.5°	1288.5	1287.6	1286.6	1285.7	1284.8	1282.6	1279.4	1276.1	1272.9	1269.6	1271.7
15°	1262.6	1261.6	1260.7	1259.7	1258.8	1256.6	1253.0	1249.5	1245.9	1242.4	1243.8
17.5°	1231.3	1230.1	1228.9	1227.8	1226.6	1224.3	1221.0	1217.6	1214.2	1210.9	1211.8
20°	1208.3	1207.1	1206.0	1204.8	1203.6	1201.2	1197.7	1194.1	1190.6	1187.1	1187.8
22.5°	1183.7	1182.1	1180.5	1179.0	1177.4	1174.9	1171.3	1167.8	1164.2	1160.7	1162.0
25°	1143.4	1141.8	1140.1	1138.5	1136.8	1134.3	1131.0	1127.7	1124.4	1121.1	1121.3
27.5°	1097.5	1095.8	1094.1	1092.4	1090.7	1088.3	1085.2	1082.2	1079.1	1076.0	1075.4
30°	1066.9	1065.0	1063.1	1061.2	1059.3	1056.8	1053.7	1050.7	1047.6	1044.5	1043.6
32.5°	1034.5	1032.8	1031.1	1029.4	1027.7	1025.2	1022.0	1018.7	1015.5	1012.2	1011.1
35°	983.9	982.2	980.6	978.9	977.3	974.8	971.5	968.2	964.9	961.6	959.9
37.5°	930.5	929.0	927.5	926.0	924.4	921.9	918.4	914.8	911.3	907.7	905.9
40°	895.6	893.7	891.8	889.9	888.0	885.3	881.8	878.2	874.7	871.1	868.8
42.5°	858.2	857.0	855.9	854.8	853.6	851.1	847.2	843.3	839.3	835.4	832.7
45°	803.1	801.4	799.8	798.1	796.5	793.7	790.0	786.2	782.4	778.6	776.0
47.5°	745.4	744.3	743.2	742.0	740.9	738.6	735.1	731.6	728.1	724.6	721.6
50°	706.3	705.3	704.4	703.4	702.5	700.4	697.1	693.8	690.4	687.1	683.8
52.5°	668.0	666.9	665.7	664.6	663.4	661.1	657.6	654.1	650.6	647.1	644.2
55°	607.4	606.6	605.9	605.2	604.5	602.5	599.2	595.9	592.6	589.3	586.4
57.5°	549.5	548.7	547.9	547.1	546.3	544.2	541.0	537.7	534.5	531.2	528.5
60°	509.5	508.3	507.1	506.0	504.8	502.6	499.6	496.5	493.4	490.4	488.2
62.5°	470.4	469.4	468.4	467.4	466.4	464.3	461.0	457.7	454.5	451.2	449.3
65°	411.6	410.5	409.3	408.1	406.9	405.1	402.8	400.4	398.0	395.7	393.3
67.5°	352.5	351.4	350.3	349.2	348.2	346.5	344.2	341.9	339.7	337.4	335.1
70°	315.9	314.3	312.6	310.9	309.3	307.5	305.6	303.7	301.8	300.0	298.1
72.5°	276.8	275.1	273.5	271.8	270.1	268.6	267.1	265.5	264.0	262.5	261.0
75°	219.1	217.9	216.8	215.6	214.4	213.2	212.0	210.8	209.7	208.5	207.5
77.5°	164.0	163.5	163.0	162.5	161.9	161.2	160.1	159.1	158.0	157.0	156.7
80°	130.8	130.1	129.4	128.7	128.0	127.4	126.9	126.5	126.0	125.5	125.0
82.5°	98.5	98.2	97.8	97.5	97.2	97.0	96.9	96.8	96.7	96.6	96.3
85°	57.4	57.4	57.4	57.4	57.4	57.2	56.7	56.3	55.8	55.3	55.3
87.5°	22.4	22.6	23.1	23.2	23.2	23.0	24.2	24.1	24.3	24.6	24.4
90°	1.2	3.5	7.0	8.1	9.3	9.3	16.3	16.3	18.6	20.9	19.8
92.5°	13.2	19.3	30.2	44.4	61.4	85.5	144.6	234.7	322.6	368.6	307.0
95°	38.3	41.8	53.5	68.6	96.4	145.3	246.3	436.9	714.6	947.0	973.8
97.5°	68.8	68.8	78.8	92.7	116.7	157.6	235.4	392.8	668.8	997.5	1223.4
100°	88.3	88.3	96.4	110.4	132.5	169.7	238.2	369.5	606.6	934.2	1231.7
102.5°	106.9	108.8	116.0	129.0	150.1	185.5	247.5	363.0	564.7	855.2	1162.0
105°	136.0	139.4	145.3	159.2	180.1	213.8	269.6	366.0	528.7	762.3	1035.3
107.5°	168.0	170.3	176.2	191.0	211.0	244.3	295.4	383.2	522.2	710.2	933.1
110°	189.4	191.7	197.5	211.5	232.4	263.8	314.9	396.2	524.1	692.6	882.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	209.9	212.2	218.9	231.9	252.9	284.2	333.5	410.2	529.6	684.2	853.1
115°	239.4	242.9	251.0	262.6	284.7	316.1	362.5	432.3	540.3	679.8	826.2
117.5°	270.0	273.3	280.5	293.3	314.0	346.5	390.7	454.8	551.7	678.6	814.1
120°	290.5	292.8	301.0	313.7	333.5	366.0	410.2	470.6	560.1	678.6	807.6
122.5°	309.1	311.4	319.6	331.4	353.0	384.6	428.8	485.5	568.5	677.7	800.2
125°	333.5	338.1	345.1	357.9	380.0	412.5	454.3	507.8	581.0	676.3	787.8
127.5°	355.1	358.8	367.2	381.8	404.8	437.6	478.0	527.1	591.0	673.7	771.3
130°	367.2	371.8	381.1	398.6	420.6	454.3	493.9	539.2	598.4	672.8	761.1
132.5°	379.3	383.0	395.1	411.6	435.5	467.4	506.9	551.3	604.9	671.9	751.8
135°	396.2	400.9	412.5	432.3	456.7	486.9	525.2	567.1	614.7	670.5	737.9
137.5°	413.2	417.6	430.4	449.2	474.6	503.4	539.2	578.2	620.5	670.2	725.8
140°	425.3	428.8	441.6	461.3	485.7	513.6	548.5	585.6	625.2	669.3	719.3
142.5°	438.3	441.8	453.6	472.5	495.9	522.9	556.8	591.2	628.9	669.3	713.7
145°	456.7	460.2	471.8	488.0	510.1	535.7	565.9	597.3	631.0	667.0	704.2
147.5°	477.3	478.5	488.7	505.5	523.8	546.8	575.2	602.6	632.1	662.8	695.6
150°	490.4	491.5	500.8	514.8	532.2	554.3	579.8	605.4	632.1	660.0	689.1
152.5°	502.4	502.7	512.0	525.0	540.6	560.8	583.6	607.3	630.3	655.4	681.6
155°	519.4	520.6	527.5	539.2	552.0	569.4	589.1	608.9	627.5	648.4	670.5
157.5°	535.9	535.9	542.4	551.5	562.6	576.4	593.1	608.9	624.5	641.2	659.1
160°	546.1	546.1	550.8	558.9	568.2	581.0	594.9	608.9	621.7	635.6	650.7
162.5°	555.4	554.5	558.2	565.4	573.8	583.8	596.8	608.9	618.9	630.0	643.3
165°	565.9	565.9	568.2	574.0	579.8	586.8	597.3	606.6	613.5	621.7	631.0
167.5°	576.4	575.2	576.4	580.8	584.0	589.4	597.0	603.8	608.0	613.3	619.8
170°	581.0	579.8	581.0	584.5	586.8	590.3	596.1	601.9	604.2	607.7	612.4
172.5°	585.6	584.5	584.7	587.3	588.7	591.2	595.2	600.1	600.5	602.1	605.9
175°	590.3	589.1	589.1	590.3	591.5	591.5	593.8	597.3	596.1	596.1	598.4
177.5°	592.4	591.5	590.5	591.5	591.5	591.5	592.4	594.2	592.4	592.4	593.3
180°	591.5	591.5	591.5	591.5	591.5	591.5	591.5	591.5	591.5	591.5	591.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5
2.5°	1322.7	1324.6	1326.5	1327.4	1327.2	1327.0	1326.8	1326.6
5°	1315.6	1318.2	1320.8	1321.9	1321.4	1321.0	1320.5	1320.0
7.5°	1301.0	1303.1	1305.1	1306.0	1305.8	1305.5	1305.2	1304.9
10°	1288.7	1290.6	1292.5	1293.2	1292.7	1292.2	1291.8	1291.3
12.5°	1273.8	1275.8	1277.9	1278.6	1278.0	1277.3	1276.6	1276.0
15°	1245.2	1246.6	1248.0	1248.4	1247.7	1247.0	1246.3	1245.6
17.5°	1212.7	1213.6	1214.5	1214.7	1214.2	1213.7	1213.3	1212.8
20°	1188.5	1189.2	1189.9	1190.0	1189.5	1189.1	1188.6	1188.1
22.5°	1163.2	1164.5	1165.8	1166.0	1165.1	1164.3	1163.4	1162.6
25°	1121.6	1121.8	1122.1	1121.7	1120.8	1119.8	1118.9	1117.9
27.5°	1074.9	1074.3	1073.7	1072.9	1071.7	1070.5	1069.3	1068.1
30°	1042.6	1041.7	1040.7	1039.7	1038.5	1037.3	1036.1	1035.0
32.5°	1009.9	1008.8	1007.7	1006.5	1005.3	1004.1	1002.9	1001.8
35°	958.3	956.6	954.9	953.5	952.3	951.2	950.0	948.8
37.5°	904.1	902.3	900.6	898.9	897.3	895.8	894.2	892.6
40°	866.4	864.1	861.7	859.9	858.7	857.6	856.4	855.2
42.5°	829.9	827.2	824.4	822.7	821.9	821.1	820.3	819.5
45°	773.4	770.8	768.2	766.6	765.8	765.1	764.4	763.7
47.5°	718.7	715.8	712.8	710.5	708.7	706.9	705.1	703.3
50°	680.5	677.2	673.9	671.5	670.1	668.7	667.3	665.9
52.5°	641.3	638.3	635.4	633.1	631.3	629.5	627.7	625.9
55°	583.6	580.8	577.9	575.8	574.4	573.0	571.5	570.1
57.5°	525.8	523.1	520.4	518.4	517.0	515.6	514.3	512.9
60°	486.1	484.0	481.8	480.2	479.0	477.8	476.6	475.5
62.5°	447.3	445.4	443.5	441.9	440.7	439.5	438.4	437.2
65°	391.0	388.6	386.2	384.5	383.3	382.1	380.9	379.7
67.5°	332.9	330.6	328.3	327.0	326.7	326.4	326.0	325.7
70°	296.2	294.3	292.4	291.1	290.4	289.7	289.0	288.3
72.5°	259.5	258.0	256.5	255.4	254.6	253.9	253.2	252.5
75°	206.6	205.6	204.7	204.1	203.9	203.6	203.4	203.2
77.5°	156.4	156.1	155.9	155.4	154.8	154.2	153.6	153.0
80°	124.6	124.1	123.6	123.3	123.0	122.8	122.6	122.3
82.5°	96.0	95.7	95.4	95.2	95.0	94.7	94.5	94.2
85°	55.3	55.3	55.3	55.2	55.0	54.7	54.5	54.2
87.5°	24.6	24.8	25.1	25.1	25.3	25.5	25.3	25.3
90°	20.9	22.1	23.2	23.2	24.4	25.6	24.4	24.4
92.5°	228.2	171.7	136.7	113.4	99.7	93.4	89.5	89.5
95°	861.0	680.9	525.2	412.5	355.6	319.6	298.6	283.5
97.5°	1272.2	1205.2	1091.6	970.3	886.8	816.9	782.0	757.9
100°	1401.4	1424.6	1367.7	1281.7	1180.6	1109.7	1074.9	1065.6
102.5°	1394.9	1510.1	1526.6	1490.8	1428.8	1377.4	1340.7	1333.3
105°	1301.4	1502.5	1617.5	1665.1	1667.5	1658.2	1641.9	1634.9
107.5°	1168.7	1382.8	1544.8	1648.4	1705.8	1732.3	1743.9	1747.0
110°	1088.8	1289.8	1458.3	1586.1	1668.6	1717.4	1738.4	1748.8



TEST NUMBER: P332624

CATALOG NUMBER: SA4XXDIP-C795D1205U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1030.2	1208.0	1367.2	1495.0	1588.7	1647.7	1677.0	1694.0
115°	971.4	1114.4	1250.3	1361.9	1453.7	1523.4	1560.6	1569.9
117.5°	942.6	1060.9	1167.8	1262.4	1340.7	1399.3	1436.9	1444.1
120°	929.6	1037.7	1130.6	1213.1	1279.4	1330.5	1360.7	1373.5
122.5°	918.4	1022.8	1107.4	1179.7	1235.7	1279.4	1304.9	1317.7
125°	899.4	999.3	1079.5	1143.4	1189.9	1223.6	1245.7	1252.6
127.5°	876.1	971.7	1051.6	1112.3	1159.0	1189.0	1207.6	1214.5
130°	857.6	949.4	1028.4	1090.0	1137.6	1166.6	1185.2	1192.2
132.5°	838.0	924.3	1001.4	1063.0	1109.7	1142.5	1160.1	1167.1
135°	811.1	886.6	957.5	1015.6	1062.1	1094.6	1113.2	1120.2
137.5°	786.7	850.6	910.3	962.8	1006.3	1038.4	1053.7	1062.1
140°	772.7	827.3	879.6	928.4	969.1	994.7	1010.9	1020.2
142.5°	759.7	807.8	852.7	895.0	931.0	954.7	969.1	975.6
145°	741.4	780.9	815.7	848.3	877.3	897.1	908.7	914.5
147.5°	726.3	757.6	785.5	811.1	832.5	849.4	858.3	860.3
150°	717.0	743.7	766.9	787.8	806.4	821.5	828.5	829.7
152.5°	706.7	729.7	751.1	768.3	784.1	796.4	800.6	801.8
155°	691.4	710.0	727.4	741.4	753.0	762.3	765.8	765.8
157.5°	674.9	690.5	705.1	716.3	725.1	732.1	734.2	734.2
160°	664.7	677.4	690.2	699.5	706.5	713.5	714.6	714.6
162.5°	654.4	665.4	675.4	683.7	688.8	695.8	697.0	696.0
165°	640.3	647.2	655.4	661.2	665.8	670.5	669.3	668.2
167.5°	626.6	631.9	638.4	641.9	644.2	647.2	647.0	646.1
170°	618.2	621.7	626.3	629.8	632.1	633.3	632.1	632.1
172.5°	610.7	613.3	616.1	618.6	620.0	621.2	620.0	618.2
175°	600.8	601.9	604.2	604.2	604.2	606.6	604.2	601.9
177.5°	594.2	595.2	595.2	596.1	595.2	596.1	594.2	592.4
180°	591.5	591.5	591.5	591.5	591.5	591.5	591.5	591.5

(END OF REPORT)