

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: P332034

Luminaire Tested: **S123DIP-S1000D1025U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332034
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D1025U835-4F0-1E-UDD-F1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1025 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7643.3 lumens
Efficiency: N/A
Efficacy: 126.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: General Diffuse

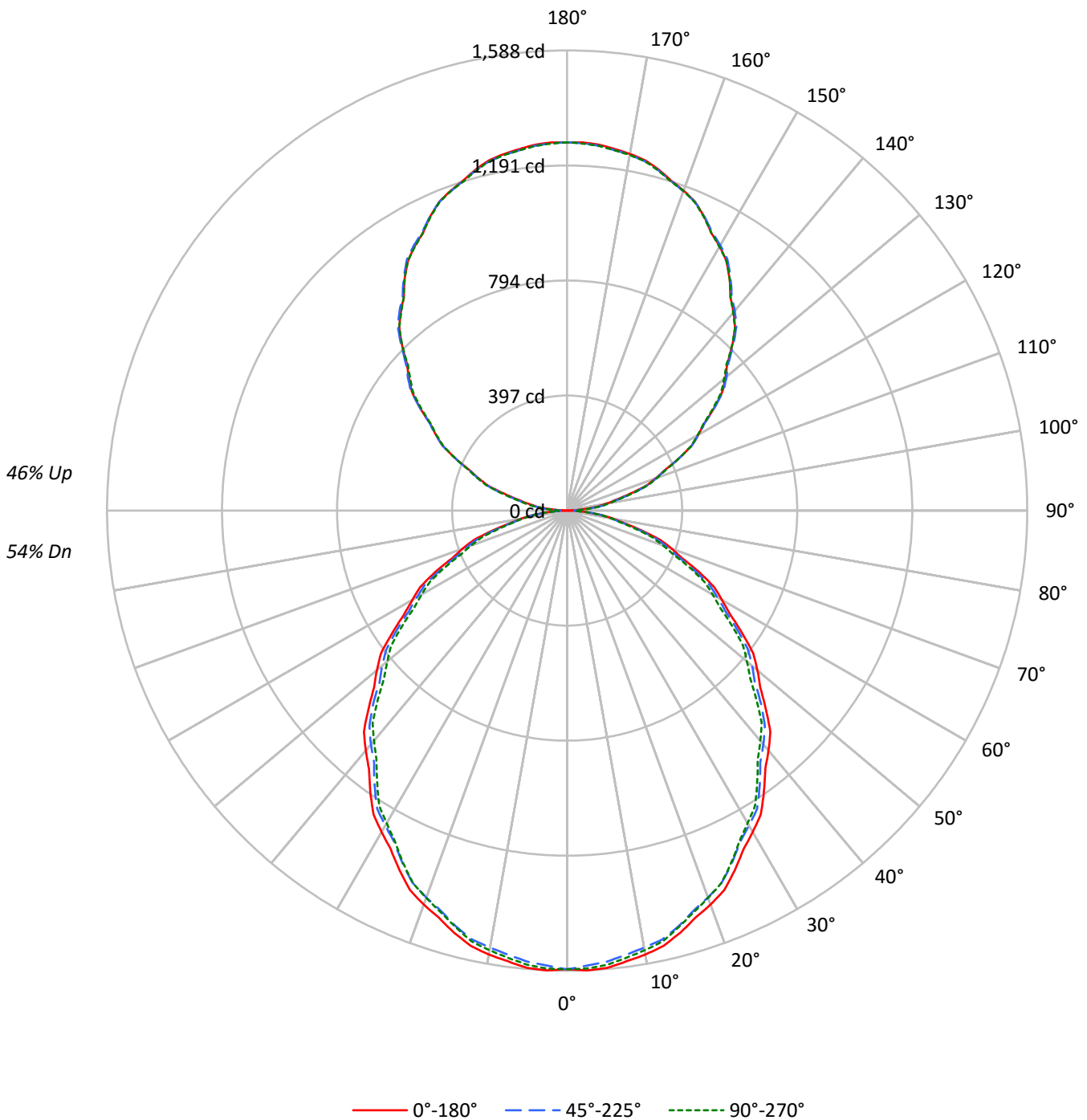
Input Watts (W): 60.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332034

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P332034

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-F1

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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	94	90	87	91	87	84	81	75	72	70	63	62	60	53	51	50	45
2	90	82	76	71	83	76	71	66	66	62	58	56	53	50	46	44	42	38
3	82	72	65	59	76	67	61	55	58	53	49	49	45	42	41	38	36	32
4	75	64	56	50	69	60	53	47	51	46	42	44	40	36	37	34	31	27
5	69	57	49	43	63	53	46	40	46	40	36	39	35	31	33	30	27	24
6	63	51	43	37	59	48	40	35	41	36	31	36	31	27	30	26	24	21
7	59	46	38	33	54	43	36	31	38	32	28	32	28	24	27	24	21	19
8	54	42	34	29	50	39	32	27	34	29	24	30	25	22	25	22	19	17
9	51	38	31	26	47	36	29	24	31	26	22	27	23	19	23	20	17	15
10	47	35	28	23	44	33	26	22	29	24	20	25	21	18	22	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17038	17038	17038
5°	17117	16883	17001
10°	17004	16736	16840
15°	16805	16547	16577
20°	16573	16276	16292
25°	16262	15954	15922
30°	15918	15597	15478
35°	15559	15219	15023
40°	15185	14802	14573
45°	14772	14420	14067
50°	14359	13949	13561
55°	13818	13461	13052
60°	13272	12893	12482
65°	12791	12271	11889
70°	12079	11566	11050
75°	11038	10643	10189
80°	9955	9534	9447
85°	8744	8410	8065



TEST NUMBER: P332034

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.1	2.0
10°-20°	421.0	5.5
20°-30°	621.9	8.1
30°-40°	726.5	9.5
40°-50°	730.4	9.6
50°-60°	641.5	8.4
60°-70°	478.0	6.3
70°-80°	272.3	3.6
80°-90°	81.9	1.1
90°-100°	82.8	1.1
100°-110°	247.8	3.2
110°-120°	421.4	5.5
120°-130°	554.3	7.3
130°-140°	623.0	8.2
140°-150°	612.4	8.0
150°-160°	515.6	6.7
160°-170°	343.2	4.5
170°-180°	120.2	1.6
0°-30°	1192.0	15.6
0°-40°	1918.5	25.1
0°-60°	3290.4	43.0
0°-90°	4122.6	53.9
90°-120°	752.0	9.8
90°-150°	2541.8	33.3
90°-180°	3521.0	46.1
0°-180°	7643.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1583	1583	1583	1583	1583	
5°	1584	1577	1562	1575	1573	150
15°	1508	1502	1485	1495	1488	425
25°	1369	1360	1343	1344	1341	630
35°	1184	1175	1158	1150	1143	740
45°	970	964	947	932	924	749
55°	736	734	717	703	696	659
65°	502	495	482	471	467	495
75°	265	260	256	249	245	284
85°	71	68	68	65	65	78
90°	1	11	24	28	30	7
95°	59	66	74	78	78	66
105°	225	227	236	236	238	241
115°	424	427	425	426	425	420
125°	621	624	622	618	614	553
135°	806	811	810	807	805	621
145°	977	979	982	981	977	610
155°	1119	1119	1120	1123	1117	515
165°	1219	1216	1216	1221	1215	344
175°	1268	1264	1264	1269	1263	120
180°	1271	1271	1271	1271	1271	



TEST NUMBER: P332034

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1582.9	1582.9	1582.9	1582.9	1582.9	1582.9	1582.9	1582.9	1582.9	1582.9	1582.9
2.5°	1588.3	1587.4	1586.4	1585.4	1584.5	1582.6	1580.0	1577.3	1574.7	1572.0	1574.4
5°	1584.2	1582.7	1581.2	1579.7	1578.2	1575.8	1572.5	1569.1	1565.8	1562.5	1565.5
7.5°	1568.7	1567.2	1565.7	1564.2	1562.7	1560.2	1556.8	1553.3	1549.9	1546.4	1549.1
10°	1555.7	1554.2	1552.6	1551.1	1549.6	1546.9	1543.0	1539.0	1535.1	1531.2	1533.9
12.5°	1538.2	1537.0	1535.7	1534.4	1533.2	1530.7	1527.0	1523.3	1519.6	1515.9	1517.9
15°	1508.0	1506.8	1505.6	1504.4	1503.2	1500.6	1496.7	1492.8	1488.8	1484.9	1487.3
17.5°	1472.9	1471.3	1469.8	1468.2	1466.6	1463.9	1459.9	1456.0	1452.1	1448.1	1449.8
20°	1446.8	1445.0	1443.2	1441.3	1439.5	1436.6	1432.7	1428.8	1424.9	1420.9	1422.1
22.5°	1417.4	1415.6	1413.8	1411.9	1410.1	1407.3	1403.3	1399.4	1395.5	1391.5	1392.5
25°	1369.2	1367.4	1365.6	1363.8	1361.9	1359.1	1355.1	1351.2	1347.3	1343.3	1343.6
27.5°	1317.8	1316.0	1314.2	1312.5	1310.7	1307.7	1303.5	1299.3	1295.0	1290.8	1291.0
30°	1280.7	1279.2	1277.7	1276.2	1274.7	1271.8	1267.6	1263.3	1259.1	1254.9	1254.9
32.5°	1243.7	1241.7	1239.7	1237.7	1235.7	1233.1	1229.8	1226.6	1223.3	1220.0	1218.3
35°	1184.1	1182.3	1180.5	1178.7	1176.8	1174.0	1170.0	1166.1	1162.2	1158.2	1156.4
37.5°	1123.1	1120.8	1118.5	1116.2	1113.9	1110.8	1106.8	1102.8	1098.8	1094.8	1092.6
40°	1080.7	1078.8	1077.0	1075.2	1073.4	1070.4	1066.1	1061.9	1057.7	1053.4	1051.0
42.5°	1038.2	1036.1	1034.1	1032.0	1030.0	1026.8	1022.6	1018.4	1014.1	1009.9	1007.5
45°	970.4	969.2	968.0	966.8	965.6	963.0	959.1	955.1	951.2	947.3	943.7
47.5°	903.2	901.4	899.7	897.9	896.2	893.4	889.8	886.1	882.4	878.7	875.1
50°	857.5	855.9	854.4	852.9	851.4	848.7	844.7	840.8	836.9	833.0	829.6
52.5°	809.5	808.5	807.5	806.5	805.4	802.8	798.7	794.5	790.3	786.1	783.3
55°	736.3	736.0	735.7	735.4	735.1	733.0	729.1	725.1	721.2	717.3	713.9
57.5°	666.6	665.6	664.6	663.6	662.5	660.4	657.3	654.1	651.0	647.9	644.9
60°	616.5	616.2	615.9	615.6	615.3	613.4	609.7	606.1	602.5	598.9	596.1
62.5°	571.9	571.1	570.3	569.5	568.8	566.6	562.9	559.3	555.7	552.0	549.3
65°	502.2	500.7	499.2	497.7	496.2	493.9	490.9	487.9	484.8	481.8	479.4
67.5°	428.5	427.1	425.8	424.5	423.1	421.3	419.0	416.7	414.4	412.1	410.0
70°	383.8	382.0	380.2	378.4	376.6	374.7	372.9	371.1	369.3	367.5	365.4
72.5°	337.0	335.7	334.3	333.0	331.7	330.0	327.9	325.9	323.8	321.7	319.9
75°	265.4	264.2	263.0	261.8	260.6	259.5	258.6	257.7	256.8	255.9	254.4
77.5°	202.0	201.3	200.6	200.0	199.3	198.4	197.4	196.3	195.2	194.1	193.1
80°	160.6	159.7	158.8	157.9	157.0	156.2	155.6	155.0	154.4	153.8	153.5
82.5°	120.3	120.1	120.0	119.8	119.6	119.4	119.3	119.2	119.1	119.0	118.4
85°	70.8	70.2	69.6	69.0	68.4	68.1	68.1	68.1	68.1	68.1	67.4
87.5°	28.5	28.2	27.9	27.7	27.4	27.4	27.7	28.1	28.4	28.7	28.7
90°	1.0	3.2	5.4	7.7	9.9	12.4	15.3	18.2	21.1	24.0	24.8
92.5°	24.2	25.7	27.2	28.7	30.2	31.8	33.4	35.0	36.7	38.3	39.0
95°	58.9	60.4	62.0	63.6	65.1	66.8	68.5	70.3	72.1	73.9	74.8
97.5°	104.6	105.8	106.9	108.1	109.2	110.4	111.7	113.0	114.3	115.6	116.6
100°	135.8	137.1	138.4	139.7	141.1	142.3	143.4	144.5	145.6	146.7	147.4
102.5°	171.7	172.5	173.3	174.1	174.9	176.0	177.5	178.9	180.4	181.9	182.5
105°	224.6	225.0	225.5	225.9	226.4	227.6	229.6	231.6	233.6	235.6	235.6
107.5°	286.1	286.4	286.6	286.9	287.2	287.7	288.5	289.3	290.1	290.9	291.6
110°	324.4	324.9	325.3	325.7	326.2	326.6	327.1	327.5	328.0	328.4	329.3



TEST NUMBER: P332034

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	364.3	364.6	364.9	365.1	365.4	365.6	365.7	365.8	365.9	365.9	367.0
115°	424.2	424.9	425.6	426.2	426.9	427.0	426.6	426.1	425.7	425.2	425.5
117.5°	484.5	485.0	485.4	485.9	486.3	486.2	485.7	485.1	484.5	483.9	483.9
120°	522.1	523.4	524.7	526.1	527.4	527.5	526.4	525.3	524.2	523.1	522.8
122.5°	561.2	562.2	563.1	564.1	565.1	565.3	564.7	564.1	563.6	563.0	562.4
125°	620.9	621.6	622.2	622.9	623.5	623.7	623.2	622.8	622.3	621.9	621.0
127.5°	676.0	677.4	678.8	680.2	681.7	682.1	681.6	681.2	680.7	680.2	678.9
130°	712.7	714.5	716.3	718.0	719.8	720.4	719.7	719.0	718.4	717.7	716.8
132.5°	749.5	751.2	753.0	754.8	756.6	757.2	756.7	756.2	755.7	755.2	754.2
135°	805.6	806.9	808.2	809.5	810.9	811.4	811.2	811.0	810.8	810.5	809.7
137.5°	857.5	858.6	859.7	860.8	861.9	862.7	863.3	863.9	864.5	865.0	864.1
140°	893.4	894.5	895.6	896.7	897.8	898.5	898.7	898.9	899.2	899.4	899.2
142.5°	926.1	927.2	928.4	929.5	930.6	931.3	931.7	932.1	932.5	932.9	932.7
145°	977.2	977.7	978.1	978.6	979.0	979.6	980.2	980.9	981.6	982.2	982.0
147.5°	1022.0	1022.8	1023.6	1024.4	1025.2	1025.9	1026.5	1027.1	1027.7	1028.4	1028.4
150°	1053.1	1053.6	1054.0	1054.4	1054.9	1055.3	1055.8	1056.2	1056.7	1057.1	1057.1
152.5°	1078.7	1079.3	1079.9	1080.5	1081.1	1081.6	1081.9	1082.1	1082.4	1082.7	1083.0
155°	1119.0	1119.0	1119.0	1119.0	1119.0	1119.1	1119.3	1119.5	1119.8	1120.0	1120.9
157.5°	1153.3	1153.1	1152.8	1152.5	1152.3	1152.2	1152.4	1152.6	1152.8	1152.9	1153.9
160°	1174.9	1174.4	1174.0	1173.6	1173.1	1172.9	1172.9	1172.9	1172.9	1172.9	1174.0
162.5°	1194.1	1193.4	1192.8	1192.2	1191.6	1191.4	1191.5	1191.7	1191.9	1192.1	1193.2
165°	1218.8	1218.1	1217.5	1216.8	1216.2	1215.8	1215.8	1215.8	1215.8	1215.8	1217.1
167.5°	1238.6	1237.7	1236.8	1235.9	1235.0	1234.7	1234.9	1235.0	1235.2	1235.4	1236.8
170°	1249.8	1248.9	1248.0	1247.1	1246.2	1245.8	1245.8	1245.8	1245.8	1245.8	1247.3
172.5°	1258.5	1257.7	1256.8	1255.9	1255.0	1254.5	1254.5	1254.5	1254.5	1254.5	1255.9
175°	1267.7	1266.8	1265.9	1265.1	1264.2	1263.7	1263.7	1263.7	1263.7	1263.7	1265.1
177.5°	1271.5	1270.8	1270.1	1269.4	1268.7	1268.3	1268.3	1268.3	1268.3	1268.3	1269.4
180°	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7



TEST NUMBER: P332034

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1582.9	1582.9	1582.9	1582.9	1582.9	1582.9	1582.9	1582.9
2.5°	1576.8	1579.3	1581.7	1582.8	1582.5	1582.3	1582.0	1581.8
5°	1568.5	1571.5	1574.6	1575.8	1575.2	1574.6	1574.0	1573.4
7.5°	1551.9	1554.6	1557.3	1558.5	1558.1	1557.8	1557.4	1557.0
10°	1536.6	1539.3	1542.1	1543.1	1542.5	1541.9	1541.3	1540.7
12.5°	1519.9	1521.9	1523.9	1524.7	1524.4	1524.0	1523.6	1523.3
15°	1489.7	1492.1	1494.6	1494.9	1493.1	1491.2	1489.4	1487.6
17.5°	1451.5	1453.2	1454.9	1455.4	1454.8	1454.1	1453.4	1452.8
20°	1423.3	1424.6	1425.8	1425.9	1425.0	1424.1	1423.2	1422.3
22.5°	1393.5	1394.4	1395.4	1395.3	1394.2	1393.0	1391.9	1390.7
25°	1343.9	1344.3	1344.6	1344.3	1343.3	1342.4	1341.5	1340.6
27.5°	1291.3	1291.5	1291.8	1291.3	1290.2	1289.0	1287.9	1286.7
30°	1254.9	1254.9	1254.9	1253.8	1251.7	1249.6	1247.5	1245.3
32.5°	1216.6	1215.0	1213.3	1211.8	1210.7	1209.5	1208.4	1207.2
35°	1154.6	1152.8	1151.0	1149.3	1147.8	1146.3	1144.8	1143.3
37.5°	1090.5	1088.3	1086.1	1084.5	1083.6	1082.6	1081.6	1080.7
40°	1048.6	1046.2	1043.8	1041.9	1040.7	1039.5	1038.3	1037.1
42.5°	1005.0	1002.6	1000.2	998.4	997.2	996.0	994.8	993.6
45°	940.0	936.4	932.8	930.2	928.7	927.2	925.7	924.1
47.5°	871.5	868.0	864.4	862.0	860.6	859.3	858.0	856.6
50°	826.3	823.0	819.6	817.1	815.3	813.4	811.6	809.8
52.5°	780.4	777.6	774.8	772.4	770.6	768.8	767.0	765.2
55°	710.6	707.3	704.0	701.5	700.0	698.5	697.0	695.5
57.5°	641.9	639.0	636.0	633.6	631.9	630.1	628.4	626.6
60°	593.4	590.7	588.0	585.9	584.3	582.8	581.3	579.8
62.5°	546.6	543.9	541.1	539.3	538.2	537.2	536.2	535.2
65°	477.0	474.5	472.1	470.5	469.6	468.7	467.7	466.8
67.5°	407.9	405.8	403.7	402.0	400.7	399.4	398.1	396.9
70°	363.2	361.1	359.0	357.2	355.7	354.2	352.7	351.1
72.5°	318.0	316.1	314.2	312.9	312.1	311.3	310.6	309.8
75°	252.9	251.3	249.8	248.6	247.7	246.8	245.9	245.0
77.5°	192.0	191.0	190.0	189.5	189.5	189.5	189.5	189.5
80°	153.2	152.9	152.6	152.4	152.4	152.4	152.4	152.4
82.5°	117.9	117.3	116.8	116.4	116.1	115.9	115.7	115.4
85°	66.8	66.2	65.6	65.3	65.3	65.3	65.3	65.3
87.5°	28.6	28.6	28.5	28.5	28.6	28.7	28.8	28.9
90°	25.7	26.6	27.5	28.2	28.6	29.1	29.5	29.9
92.5°	39.8	40.5	41.2	41.4	41.1	40.9	40.6	40.3
95°	75.6	76.5	77.4	77.9	77.9	77.9	77.9	77.9
97.5°	117.6	118.7	119.7	120.1	120.1	120.0	119.9	119.8
100°	148.1	148.7	149.4	150.0	150.4	150.8	151.3	151.7
102.5°	183.2	183.9	184.5	184.8	184.7	184.6	184.6	184.5
105°	235.6	235.6	235.6	235.8	236.2	236.7	237.1	237.6
107.5°	292.3	293.0	293.7	293.9	293.7	293.4	293.1	292.9
110°	330.2	331.1	332.0	332.2	331.7	331.3	330.9	330.4



TEST NUMBER: P332034

CATALOG NUMBER: S123DIP-S1000D1025U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	368.1	369.1	370.2	370.7	370.6	370.5	370.4	370.3
115°	425.7	425.9	426.1	426.1	425.9	425.7	425.5	425.2
117.5°	483.8	483.8	483.8	483.4	482.8	482.2	481.6	480.9
120°	522.6	522.4	522.2	521.8	521.4	521.0	520.5	520.1
122.5°	561.8	561.3	560.7	560.1	559.5	558.8	558.2	557.6
125°	620.1	619.2	618.3	617.4	616.6	615.7	614.8	613.9
127.5°	677.7	676.5	675.2	674.1	673.1	672.0	671.0	670.0
130°	715.9	715.0	714.2	712.9	711.4	709.8	708.3	706.7
132.5°	753.1	752.1	751.0	749.9	748.7	747.5	746.3	745.1
135°	808.8	807.9	807.0	806.3	805.9	805.4	805.0	804.6
137.5°	863.2	862.3	861.3	860.4	859.6	858.7	857.9	857.1
140°	898.9	898.7	898.5	897.6	896.1	894.5	893.0	891.4
142.5°	932.5	932.3	932.0	931.3	930.1	928.9	927.7	926.5
145°	981.8	981.6	981.3	980.8	979.9	979.0	978.1	977.2
147.5°	1028.4	1028.4	1028.4	1027.7	1026.4	1025.0	1023.7	1022.4
150°	1057.1	1057.1	1057.1	1056.4	1055.1	1053.8	1052.4	1051.1
152.5°	1083.4	1083.7	1084.1	1083.7	1082.5	1081.4	1080.2	1079.1
155°	1121.8	1122.7	1123.5	1123.2	1121.7	1120.1	1118.5	1117.0
157.5°	1154.8	1155.7	1156.7	1156.5	1155.3	1154.0	1152.8	1151.5
160°	1175.1	1176.2	1177.3	1177.4	1176.6	1175.7	1174.8	1173.9
162.5°	1194.3	1195.4	1196.5	1196.3	1194.9	1193.5	1192.1	1190.7
165°	1218.5	1219.8	1221.1	1221.0	1219.5	1217.9	1216.4	1214.8
167.5°	1238.1	1239.5	1240.9	1240.9	1239.5	1238.1	1236.8	1235.4
170°	1248.9	1250.4	1252.0	1252.0	1250.4	1248.9	1247.3	1245.8
172.5°	1257.3	1258.7	1260.0	1260.0	1258.4	1256.9	1255.3	1253.7
175°	1266.4	1267.7	1269.1	1268.9	1267.4	1265.8	1264.3	1262.7
177.5°	1270.5	1271.5	1272.6	1272.5	1271.3	1270.0	1268.8	1267.5
180°	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7	1270.7

(END OF REPORT)