

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: P332026

Luminaire Tested: **S123DIP-S1000D805U835-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332026
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D805U835-4F0-1E-UDD-F4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7027.5 lumens
Efficiency: N/A
Efficacy: 129.2 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

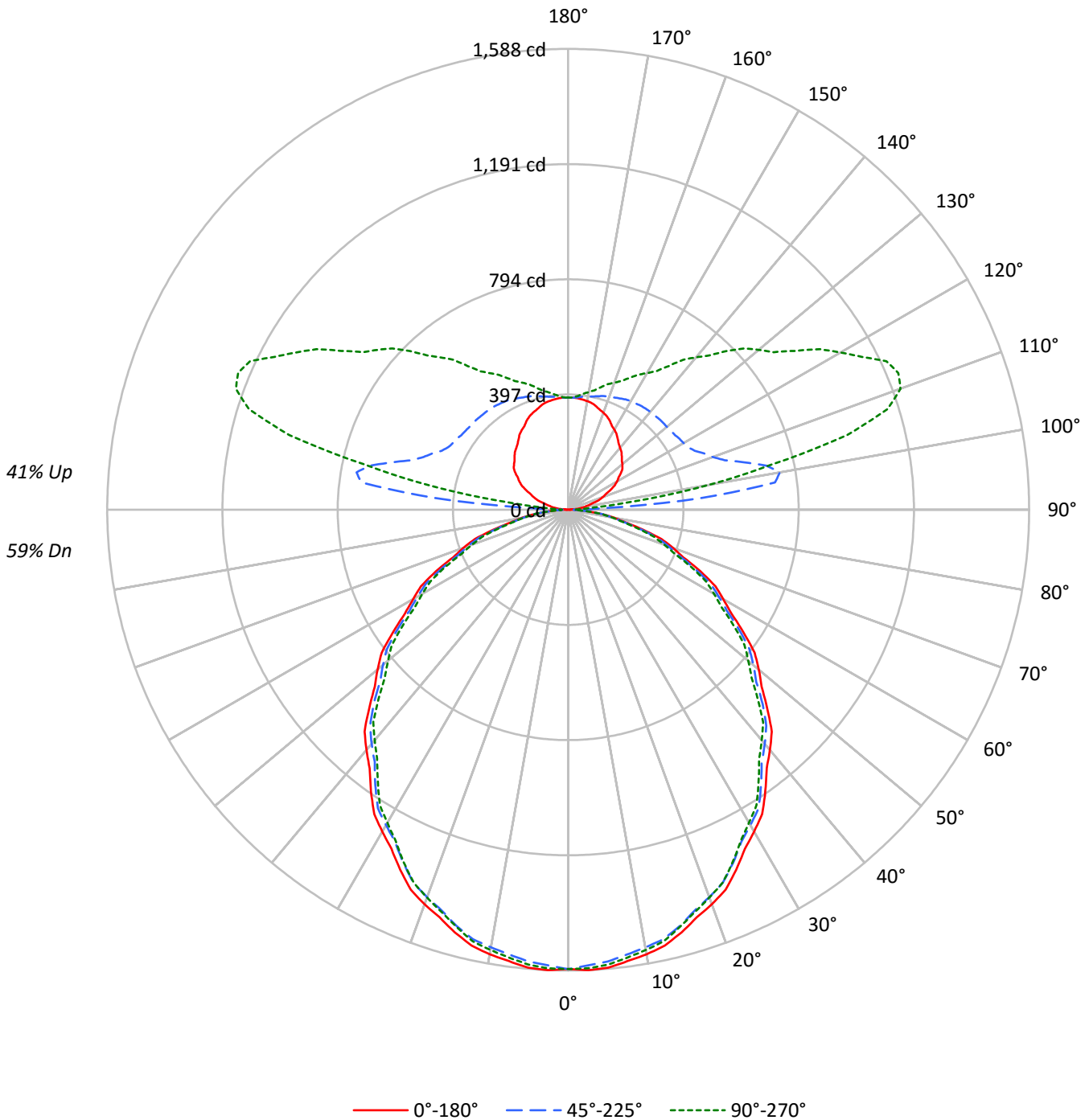
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332026

CATALOG NUMBER: S123DIP-S1000D805U835-4F0-1E-UDD-F4

Luminous Intensity Polar Plot





TEST NUMBER: P332026

CATALOG NUMBER: S123DIP-S1000D805U835-4F0-1E-UDD-F4

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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	100	95	91	88	93	89	86	82	77	75	72	66	65	63	57	55	54	49
2	91	83	77	72	84	78	72	68	68	63	60	58	55	52	50	47	45	41
3	83	73	66	60	77	68	62	56	60	55	50	52	48	44	44	41	39	35
4	76	65	57	50	70	61	53	48	53	47	43	46	42	38	39	36	33	30
5	70	58	49	43	65	54	47	41	47	42	37	41	37	33	35	32	29	26
6	64	52	44	38	60	49	41	36	43	37	32	37	33	29	32	28	26	23
7	59	47	39	33	55	44	37	31	39	33	29	34	29	26	29	26	23	20
8	55	43	35	29	51	40	33	28	35	30	25	31	26	23	27	23	20	18
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	25	21	18	16
10	48	36	28	23	45	34	27	22	30	24	21	26	22	19	23	19	17	15

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: P332026

CATALOG NUMBER: S123DIP-S1000D805U835-4F0-1E-UDD-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.1	2.1
10°-20°	421.0	6.0
20°-30°	621.9	8.8
30°-40°	726.5	10.3
40°-50°	730.4	10.4
50°-60°	641.5	9.1
60°-70°	478.0	6.8
70°-80°	272.3	3.9
80°-90°	81.2	1.2
90°-100°	214.9	3.1
100°-110°	608.6	8.7
110°-120°	598.7	8.5
120°-130°	477.5	6.8
130°-140°	376.5	5.4
140°-150°	281.0	4.0
150°-160°	195.9	2.8
160°-170°	115.1	1.6
170°-180°	37.4	0.5
0°-30°	1192.0	17.0
0°-40°	1918.5	27.3
0°-60°	3290.4	46.8
0°-90°	4121.8	58.7
90°-120°	1422.2	20.2
90°-150°	2557.3	36.4
90°-180°	2906.0	41.4
0°-180°	7027.5	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°	2	9	20	22	23	6
95°	27	86	464	135	91	29
105°	91	134	629	1099	994	96
115°	160	200	481	1054	1210	159
125°	223	263	449	813	954	198
135°	261	312	442	670	773	202
145°	298	341	437	549	604	187
155°	338	365	423	481	501	156
165°	370	380	405	430	437	104
175°	385	386	389	394	393	37
180°	386	386	386	386	386	



TEST NUMBER: P332026

CATALOG NUMBER: S123DIP-S1000D805U835-4F0-1E-UDD-F4

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°	28.6	28.2	27.8	27.5	27.1	27.0	27.2	27.4	27.6	27.9	27.5
90°	1.6	3.1	4.7	7.0	8.6	10.2	12.5	14.9	17.2	19.5	18.8
92.5°	9.7	14.4	21.0	27.1	33.6	45.2	65.7	99.3	132.3	120.2	90.7
95°	26.6	28.9	37.5	50.8	71.1	101.6	168.1	284.6	412.8	463.6	376.1
97.5°	45.3	46.1	52.9	64.4	84.4	117.4	180.9	312.3	526.0	718.5	768.7
100°	57.9	58.6	64.1	75.1	93.8	124.3	179.0	294.7	500.4	740.4	894.4
102.5°	71.0	72.4	77.2	87.6	104.5	132.4	181.5	279.7	462.8	699.7	900.7
105°	90.7	93.0	97.7	107.1	122.0	146.2	188.4	268.9	416.7	628.6	853.0
107.5°	111.6	114.0	118.5	127.7	141.7	164.2	201.2	268.2	387.3	565.7	769.5
110°	126.7	129.0	132.9	141.5	154.8	176.7	211.9	271.3	376.1	530.1	716.9



TEST NUMBER: P332026

CATALOG NUMBER: S123DIP-S1000D805U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	140.4	142.8	146.7	155.3	168.6	189.8	222.5	277.5	369.8	506.3	671.3
115°	160.3	163.4	168.1	175.9	189.2	210.3	240.0	287.7	367.5	480.8	616.1
117.5°	180.1	183.7	187.6	194.8	209.7	229.2	258.6	301.2	368.9	465.8	582.8
120°	193.9	196.2	200.1	208.0	222.8	242.4	270.5	311.2	371.4	458.9	565.3
122.5°	205.8	208.1	212.0	220.5	234.7	255.5	283.0	320.5	375.7	454.6	550.9
125°	222.8	224.4	229.1	237.7	252.5	273.6	301.0	335.4	382.3	448.8	532.4
127.5°	235.8	238.1	243.9	252.7	269.1	290.2	316.6	347.6	389.8	446.0	516.2
130°	243.9	246.3	253.3	262.7	279.1	300.2	326.0	355.7	394.8	444.1	507.4
132.5°	250.2	253.2	260.8	272.1	288.5	309.0	334.1	363.2	398.6	443.4	499.3
135°	261.1	264.3	272.9	284.6	301.0	322.1	346.3	372.9	404.2	442.5	488.6
137.5°	271.4	274.7	283.2	295.7	311.9	331.5	354.8	380.1	408.0	440.8	479.4
140°	278.3	282.2	290.1	302.6	318.2	337.7	360.4	383.9	410.5	440.2	473.8
142.5°	285.8	289.1	297.6	308.8	324.5	342.7	364.8	387.6	412.3	438.9	468.8
145°	297.9	300.2	307.3	319.0	332.3	350.3	370.6	391.7	413.6	437.0	462.1
147.5°	310.1	311.5	318.4	328.5	341.3	356.7	375.3	394.2	413.6	434.1	455.5
150°	318.2	319.0	325.2	335.4	346.3	360.4	378.4	394.8	413.6	431.6	451.1
152.5°	326.3	326.5	332.7	341.7	351.3	364.8	380.3	396.1	411.7	428.4	446.1
155°	338.5	338.5	343.2	351.0	359.6	370.6	383.9	396.4	409.7	423.0	438.6
157.5°	348.2	348.8	352.6	359.5	366.8	375.3	385.9	397.2	407.0	418.1	430.2
160°	355.7	355.7	358.9	365.1	370.6	378.4	387.8	397.2	405.8	414.4	424.5
162.5°	361.4	361.4	363.9	368.9	373.7	380.3	388.4	396.5	403.3	410.6	418.9
165°	369.8	369.0	370.6	374.5	377.6	383.1	389.3	394.8	399.5	405.0	411.2
167.5°	376.2	375.3	376.1	379.0	381.2	384.7	389.2	393.6	395.8	399.4	403.9
170°	380.0	378.4	379.2	381.5	383.1	384.7	388.6	391.7	393.3	395.6	399.5
172.5°	382.5	381.5	381.7	383.4	384.3	385.3	388.6	391.1	391.4	392.5	395.1
175°	385.4	384.7	383.9	385.4	385.4	386.2	387.8	389.3	388.6	388.6	390.1
177.5°	386.8	386.2	385.6	386.2	386.2	386.2	386.8	388.1	386.8	386.2	386.8
180°	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2



TEST NUMBER: P332026

CATALOG NUMBER: S123DIP-S1000D805U835-4F0-1E-UDD-F4

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°	27.4	27.3	27.2	27.4	27.2	27.4	27.6	27.4
90°	19.5	20.3	21.1	22.7	21.9	22.7	23.5	22.7
92.5°	65.8	52.2	46.1	42.1	40.7	38.3	39.1	37.7
95°	281.5	190.8	149.3	121.2	106.3	99.3	93.8	90.7
97.5°	701.6	562.0	461.1	367.6	309.9	274.7	253.6	246.9
100°	921.8	858.4	767.0	655.9	577.0	519.9	489.4	490.2
102.5°	994.9	992.9	939.6	869.2	807.8	762.6	737.1	719.1
105°	1016.4	1094.5	1109.4	1089.1	1053.1	1023.4	998.4	994.5
107.5°	954.8	1081.7	1150.2	1178.0	1178.7	1168.7	1160.2	1153.0
110°	896.0	1039.8	1138.3	1193.1	1214.9	1221.2	1219.6	1218.1



TEST NUMBER: P332026

CATALOG NUMBER: S123DIP-S1000D805U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	837.8	984.8	1095.2	1165.5	1205.6	1225.0	1230.9	1231.2
115°	760.7	896.7	1011.7	1096.9	1155.5	1189.9	1205.6	1209.5
117.5°	704.9	822.3	925.5	1012.0	1073.1	1112.5	1135.0	1140.4
120°	675.5	781.0	874.9	953.8	1015.6	1059.4	1078.1	1082.8
122.5°	652.4	747.9	834.8	908.2	963.0	1002.4	1023.1	1029.0
125°	621.5	706.8	781.8	844.4	894.4	928.8	948.3	953.8
127.5°	594.7	670.6	738.4	795.3	839.8	869.2	886.9	891.9
130°	577.8	648.1	711.5	764.6	806.1	834.2	850.6	856.9
132.5°	562.1	626.9	685.8	736.5	775.4	803.6	818.1	822.5
135°	541.0	596.5	647.3	691.9	730.2	753.7	767.7	773.2
137.5°	521.8	567.3	611.1	649.7	681.9	705.7	717.6	721.2
140°	510.5	550.4	587.9	621.5	651.3	673.1	685.7	684.9
142.5°	499.9	534.1	566.7	595.9	621.2	640.6	651.9	651.1
145°	487.1	512.9	537.9	560.6	580.1	596.5	602.8	604.3
147.5°	476.6	497.1	517.3	533.4	548.2	559.3	565.3	565.9
150°	469.1	487.1	503.5	518.3	530.1	538.7	543.4	543.4
152.5°	462.2	477.7	492.2	504.6	513.8	521.8	524.6	524.6
155°	451.9	464.4	476.1	485.5	492.5	498.8	500.4	501.1
157.5°	440.9	451.4	460.5	467.8	473.9	478.6	479.9	479.7
160°	434.7	443.3	451.1	456.6	462.1	466.7	466.7	466.0
162.5°	427.2	434.5	441.7	446.6	450.2	454.2	454.2	453.5
165°	417.5	422.2	427.7	431.6	434.7	437.8	437.0	437.0
167.5°	409.0	412.6	415.8	418.6	420.0	422.2	421.4	421.4
170°	403.4	405.8	408.9	410.5	411.2	412.8	412.0	412.0
172.5°	398.4	400.1	402.6	403.6	403.7	405.3	403.9	403.3
175°	391.7	392.5	394.0	394.0	394.0	394.8	394.0	393.3
177.5°	387.5	388.1	388.7	388.7	388.1	388.7	387.5	387.5
180°	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2

(END OF REPORT)