

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: P332339-940

Luminaire Tested: **S123RDIP-S1000D585U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332339-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDIP-S1000D585U940-4F0-1E-UDD-F
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 585 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5470.1 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.06 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Semi-Direct

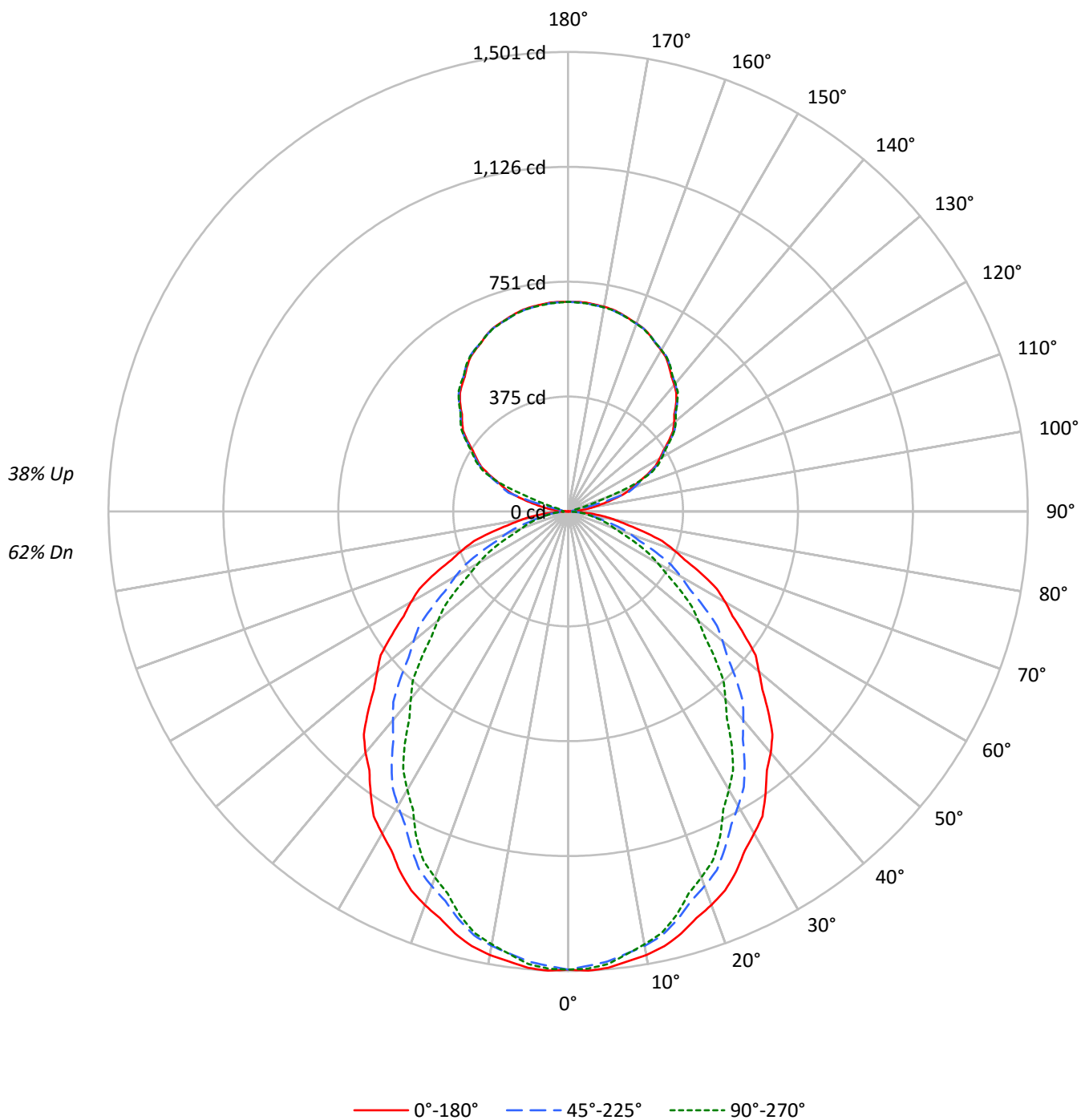
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332339-940

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-UDD-F

Luminous Intensity Polar Plot



TEST NUMBER: P332339-940

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-UDD-F

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	110	110	110	110	103	103	103	103	90	90	90		78	78	78		67
1	101	97	93	89	94	91	87	84	80	77	75		69	67	66		60
2	92	85	79	74	86	80	74	70	70	66	63		61	58	56		53
3	84	75	68	62	79	71	64	59	62	57	53		55	51	47		47
4	77	67	59	53	72	63	56	50	56	50	46		49	45	41		43
5	71	60	51	45	67	56	49	44	50	44	40		44	39	36		39
6	66	54	46	40	61	51	43	38	45	39	35		40	35	32		35
7	61	49	41	35	57	46	39	34	41	35	31		37	32	28		32
8	57	44	37	31	53	42	35	30	38	32	28		34	29	25		30
9	53	41	33	28	50	39	32	27	35	29	25		31	26	23		27
10	49	37	30	25	46	36	29	24	32	26	23		29	24	21		26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16108	16108	16108
5°	16170	15946	16038
10°	16078	15746	15692
15°	15905	15377	15216
20°	15668	14917	14569
25°	15423	14400	13938
30°	15100	13803	13048
35°	14767	13205	12232
40°	14462	12500	11221
45°	14059	11805	10310
50°	13618	11015	9287
55°	13165	10113	8336
60°	12751	9145	7289
65°	12210	8099	6243
70°	11534	6801	5042
75°	10551	5352	4741
80°	9403	4736	4364
85°	7941	4199	3903

TEST NUMBER: P332339-940

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.5	2.6
10°-20°	391.0	7.1
20°-30°	563.0	10.3
30°-40°	634.1	11.6
40°-50°	606.7	11.1
50°-60°	496.8	9.1
60°-70°	335.2	6.1
70°-80°	168.6	3.1
80°-90°	46.5	0.9
90°-100°	24.9	0.5
100°-110°	118.6	2.2
110°-120°	284.9	5.2
120°-130°	362.8	6.6
130°-140°	387.7	7.1
140°-150°	362.5	6.6
150°-160°	292.4	5.3
160°-170°	188.7	3.5
170°-180°	65.0	1.2
0°-30°	1094.5	20.0
0°-40°	1728.6	31.6
0°-60°	2832.1	51.8
0°-90°	3382.5	61.8
90°-120°	428.4	7.8
90°-150°	1541.4	28.2
90°-180°	2088.0	38.2
0°-180°	5470.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1496	1496	1496	1496	1496	
5°	1496	1490	1476	1486	1484	142
15°	1427	1413	1380	1374	1365	402
25°	1299	1267	1212	1188	1174	597
35°	1124	1078	1005	954	931	703
45°	924	867	776	709	677	712
55°	702	640	539	471	444	629
65°	479	411	318	261	245	474
75°	254	195	129	117	114	270
85°	64	39	34	32	32	72
90°	0	6	12	14	15	5
95°	31	12	16	19	19	38
105°	152	154	111	26	22	161
115°	284	287	292	297	299	281
125°	401	405	407	408	409	358
135°	499	502	504	505	504	384
145°	576	579	580	581	581	360
155°	634	633	634	636	633	292
165°	669	667	667	670	667	189
175°	685	682	682	686	682	65
180°	685	685	685	685	685	

TEST NUMBER: P332339-940

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1496.5	1496.5	1496.5	1496.5	1496.5	1496.5	1496.5	1496.5	1496.5	1496.5	1496.5
2.5°	1501.3	1500.4	1499.6	1498.7	1497.8	1496.1	1493.5	1490.9	1488.4	1485.8	1488.1
5°	1496.5	1495.0	1493.7	1492.4	1491.0	1488.7	1485.5	1482.3	1479.1	1475.8	1478.2
7.5°	1482.6	1481.1	1479.7	1478.2	1476.8	1473.9	1469.7	1465.5	1461.3	1457.1	1458.5
10°	1471.0	1469.1	1467.1	1465.3	1463.4	1460.0	1455.2	1450.3	1445.5	1440.6	1440.9
12.5°	1454.5	1452.3	1450.3	1448.1	1446.0	1442.0	1436.1	1430.1	1424.2	1418.3	1418.1
15°	1427.3	1424.3	1421.3	1418.4	1415.4	1410.2	1402.6	1395.0	1387.5	1379.9	1378.6
17.5°	1393.0	1389.6	1386.2	1382.7	1379.2	1372.7	1363.1	1353.5	1343.9	1334.3	1331.4
20°	1367.8	1363.5	1359.1	1354.9	1350.5	1343.3	1333.0	1322.8	1312.5	1302.3	1298.8
22.5°	1339.6	1334.7	1329.7	1324.7	1319.8	1311.9	1300.9	1290.0	1279.2	1268.3	1263.9
25°	1298.6	1291.9	1285.1	1278.4	1271.7	1262.0	1249.6	1237.2	1224.9	1212.5	1206.8
27.5°	1248.8	1241.4	1233.9	1226.5	1219.1	1208.4	1194.6	1180.8	1167.0	1153.2	1145.3
30°	1214.9	1206.8	1198.7	1190.6	1182.5	1170.9	1155.8	1140.7	1125.6	1110.5	1101.4
32.5°	1180.9	1171.7	1162.5	1153.3	1144.2	1131.7	1115.7	1099.7	1083.7	1067.7	1057.7
35°	1123.8	1114.1	1104.4	1094.8	1085.0	1071.7	1055.1	1038.3	1021.6	1004.9	993.3
37.5°	1066.0	1055.3	1044.5	1033.7	1022.9	1008.6	990.8	972.9	955.0	937.2	924.0
40°	1029.2	1017.4	1005.4	993.5	981.7	966.2	947.1	927.9	908.7	889.6	875.6
42.5°	987.4	975.5	963.7	951.8	940.0	924.2	904.4	884.6	864.8	845.0	829.6
45°	923.6	911.4	899.3	887.2	875.0	858.6	837.9	817.1	796.3	775.5	760.2
47.5°	859.8	846.4	833.1	819.7	806.5	789.4	768.7	747.9	727.1	706.3	689.6
50°	813.2	800.5	787.8	775.2	762.4	745.2	723.4	701.5	679.7	657.8	641.1
52.5°	771.4	757.7	743.9	730.1	716.4	698.7	677.1	655.4	633.8	612.2	594.8
55°	701.5	688.3	675.0	661.8	648.6	630.5	607.6	584.7	561.8	538.9	523.3
57.5°	636.9	622.5	608.1	593.7	579.3	560.6	537.5	514.5	491.5	468.5	453.7
60°	592.3	577.5	562.6	547.8	532.9	514.3	492.0	469.6	447.2	424.8	410.2
62.5°	547.6	532.8	517.9	503.1	488.3	469.7	447.3	424.9	402.5	380.1	366.4
65°	479.4	464.6	449.7	434.9	420.1	402.2	381.1	360.1	339.0	318.0	304.8
67.5°	411.2	396.2	381.2	366.2	351.2	333.6	313.4	293.3	273.1	252.9	243.1
70°	366.5	352.0	337.4	322.8	308.3	291.6	272.7	253.8	234.9	216.1	206.6
72.5°	321.8	307.6	293.2	278.8	264.5	248.7	231.6	214.5	197.2	180.1	172.4
75°	253.7	240.7	227.7	214.8	201.9	188.0	173.2	158.3	143.5	128.7	125.9
77.5°	191.5	179.8	168.1	156.4	144.7	134.0	124.5	114.9	105.4	95.9	94.4
80°	151.7	140.6	129.6	118.5	107.5	99.2	93.5	87.7	82.1	76.4	75.6
82.5°	113.9	104.3	94.8	85.2	75.6	69.6	66.9	64.3	61.6	58.9	58.1
85°	64.3	58.4	52.4	46.5	40.6	37.2	36.4	35.6	34.8	34.0	33.4
87.5°	23.4	21.2	19.1	16.9	14.8	13.9	14.2	14.4	14.8	15.1	15.0
90°	0.5	1.6	2.8	3.9	5.0	6.3	7.8	9.3	10.7	12.2	12.7
92.5°	9.5	9.2	8.8	8.5	8.2	8.6	9.7	10.8	11.9	13.0	13.7
95°	31.0	26.4	21.8	17.1	12.5	10.8	12.0	13.3	14.5	15.8	16.6
97.5°	62.3	60.3	58.2	56.1	54.0	49.0	40.8	32.6	24.5	16.4	17.3
100°	86.0	88.2	90.5	92.7	95.0	87.3	69.6	52.1	34.4	16.8	17.7
102.5°	112.8	114.4	116.1	117.7	119.3	110.5	91.2	72.0	52.7	33.4	30.7
105°	151.6	152.8	154.1	155.2	156.5	152.0	141.9	131.7	121.5	111.4	91.4
107.5°	192.4	193.4	194.5	195.5	196.4	197.7	199.3	200.9	202.5	204.1	189.5
110°	219.7	220.6	221.5	222.4	223.3	224.4	225.6	226.9	228.1	229.3	225.6

TEST NUMBER: P332339-940

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	245.8	246.6	247.4	248.2	249.0	250.0	251.3	252.5	253.8	255.0	255.1
115°	284.3	285.0	285.6	286.3	287.0	287.8	288.9	289.9	290.9	291.9	293.1
117.5°	321.6	322.4	323.3	324.1	324.9	325.7	326.2	326.7	327.3	327.7	328.7
120°	344.8	345.8	346.9	347.9	348.9	349.6	349.9	350.3	350.6	350.9	351.9
122.5°	368.5	369.3	370.1	371.0	371.8	372.4	372.8	373.3	373.7	374.2	374.8
125°	400.7	401.7	402.6	403.5	404.4	405.1	405.6	406.0	406.4	406.9	407.1
127.5°	432.1	433.0	433.9	434.8	435.7	436.4	436.9	437.6	438.1	438.6	439.0
130°	451.7	452.5	453.4	454.3	455.2	455.9	456.4	456.8	457.3	457.7	458.2
132.5°	470.4	471.3	472.2	473.1	473.9	474.6	474.9	475.3	475.6	476.1	476.5
135°	498.9	499.6	500.2	501.0	501.7	502.2	502.7	503.1	503.5	504.0	504.4
137.5°	523.3	524.2	525.0	525.9	526.7	527.4	527.5	527.8	528.1	528.3	528.9
140°	539.6	540.3	541.0	541.6	542.3	542.9	543.1	543.5	543.9	544.2	544.7
142.5°	554.6	555.4	556.1	556.7	557.4	557.9	558.2	558.6	558.9	559.3	559.6
145°	575.7	576.5	577.3	578.1	578.9	579.4	579.6	579.9	580.1	580.3	580.5
147.5°	595.6	596.1	596.6	597.1	597.6	598.0	598.2	598.4	598.7	599.0	599.1
150°	607.8	608.1	608.4	608.8	609.1	609.4	609.7	609.8	610.1	610.3	610.6
152.5°	618.8	618.9	619.0	619.2	619.4	619.6	619.6	619.8	619.9	620.1	620.5
155°	634.2	634.0	633.7	633.6	633.3	633.3	633.4	633.5	633.6	633.7	634.3
157.5°	646.2	646.2	646.1	646.1	646.1	646.0	646.0	645.9	645.7	645.6	646.3
160°	653.5	653.4	653.4	653.2	653.1	653.0	652.8	652.7	652.6	652.6	653.2
162.5°	660.5	660.1	659.9	659.6	659.2	659.1	659.0	658.9	658.7	658.6	659.4
165°	668.8	668.4	668.2	667.8	667.4	667.2	667.1	667.0	666.9	666.7	667.7
167.5°	675.3	674.8	674.4	674.0	673.5	673.2	673.2	673.2	673.2	673.2	674.2
170°	678.9	678.5	678.1	677.6	677.2	676.9	676.9	676.9	676.9	676.9	677.9
172.5°	681.4	680.9	680.3	679.8	679.2	679.0	679.1	679.2	679.3	679.4	680.3
175°	684.6	684.0	683.4	682.9	682.3	682.1	682.2	682.3	682.4	682.5	683.3
177.5°	685.4	684.9	684.5	684.0	683.6	683.4	683.5	683.6	683.7	683.8	684.5
180°	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6

TEST NUMBER: P332339-940

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1496.5	1496.5	1496.5	1496.5	1496.5	1496.5	1496.5	1496.5
2.5°	1490.5	1492.9	1495.2	1496.2	1495.8	1495.4	1495.0	1494.5
5°	1480.7	1483.1	1485.5	1486.5	1485.9	1485.4	1484.9	1484.3
7.5°	1459.8	1461.2	1462.5	1462.8	1461.8	1460.9	1460.0	1459.0
10°	1441.2	1441.5	1441.7	1441.2	1439.8	1438.4	1437.1	1435.7
12.5°	1417.9	1417.8	1417.6	1416.8	1415.2	1413.6	1412.1	1410.5
15°	1377.2	1375.9	1374.6	1372.9	1371.0	1369.1	1367.3	1365.4
17.5°	1328.6	1325.7	1322.9	1320.0	1317.2	1314.4	1311.6	1308.8
20°	1295.2	1291.7	1288.3	1284.9	1281.7	1278.4	1275.1	1271.9
22.5°	1259.5	1255.2	1250.8	1247.1	1244.1	1241.1	1238.1	1235.0
25°	1201.1	1195.4	1189.8	1185.4	1182.5	1179.6	1176.6	1173.6
27.5°	1137.5	1129.6	1121.7	1115.5	1111.0	1106.4	1101.9	1097.4
30°	1092.2	1083.0	1073.8	1067.1	1062.7	1058.5	1054.1	1049.8
32.5°	1047.7	1037.7	1027.6	1020.4	1015.8	1011.3	1006.7	1002.2
35°	981.7	970.1	958.5	950.3	945.5	940.6	935.8	930.9
37.5°	910.9	897.7	884.6	874.9	869.0	863.0	857.0	851.0
40°	861.6	847.6	833.5	823.4	817.2	811.0	804.8	798.6
42.5°	814.3	799.0	783.6	773.2	767.7	762.1	756.5	751.0
45°	744.8	729.4	714.0	703.1	696.6	690.2	683.7	677.3
47.5°	672.9	656.2	639.4	628.2	622.4	616.7	610.9	605.1
50°	624.4	607.6	590.9	579.4	573.3	567.0	560.9	554.6
52.5°	577.5	560.1	542.7	531.2	525.7	520.1	514.6	509.0
55°	507.6	492.0	476.3	465.7	460.4	455.0	449.6	444.2
57.5°	438.9	424.1	409.4	399.7	395.1	390.5	385.9	381.3
60°	395.7	381.1	366.5	357.0	352.4	347.8	343.2	338.6
62.5°	352.7	339.0	325.3	316.0	311.3	306.5	301.7	296.9
65°	291.6	278.3	265.1	257.0	254.0	251.1	248.2	245.1
67.5°	233.2	223.3	213.5	206.9	203.8	200.5	197.3	194.2
70°	197.2	187.7	178.3	172.1	169.1	166.1	163.2	160.2
72.5°	164.7	156.9	149.3	144.8	143.6	142.3	141.1	139.8
75°	123.2	120.6	117.9	116.3	115.7	115.1	114.6	114.0
77.5°	93.0	91.5	90.1	89.1	88.5	88.0	87.5	86.9
80°	74.8	74.0	73.2	72.6	72.1	71.5	70.9	70.4
82.5°	57.3	56.5	55.7	55.3	55.2	55.1	54.9	54.8
85°	32.9	32.4	31.8	31.6	31.6	31.6	31.6	31.6
87.5°	14.8	14.7	14.5	14.4	14.3	14.1	13.9	13.7
90°	13.1	13.6	14.0	14.4	14.6	14.8	15.1	15.2
92.5°	14.4	15.2	15.9	16.3	16.5	16.6	16.8	16.9
95°	17.4	18.1	18.9	19.4	19.4	19.4	19.4	19.4
97.5°	18.2	19.1	20.0	20.5	20.6	20.7	20.9	21.0
100°	18.5	19.5	20.4	20.9	21.0	21.1	21.2	21.4
102.5°	27.8	25.1	22.3	21.0	21.1	21.4	21.6	21.8
105°	71.3	51.4	31.4	21.5	21.7	21.9	22.1	22.4
107.5°	174.8	160.2	145.4	130.6	115.5	100.4	85.3	70.3
110°	221.9	218.2	214.5	204.5	188.3	172.2	156.0	139.8

TEST NUMBER: P332339-940

CATALOG NUMBER: S123RDIP-S1000D585U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	255.1	255.2	255.3	253.6	250.2	246.7	243.3	240.0
115°	294.2	295.3	296.5	297.2	297.7	298.2	298.6	299.1
117.5°	329.6	330.5	331.4	331.9	332.0	332.1	332.2	332.3
120°	352.8	353.7	354.5	355.0	355.0	355.0	355.0	355.0
122.5°	375.4	376.0	376.7	377.0	377.1	377.2	377.3	377.4
125°	407.3	407.5	407.8	408.0	408.2	408.5	408.7	408.9
127.5°	439.3	439.7	440.1	440.1	439.9	439.7	439.4	439.3
130°	458.6	459.1	459.5	459.7	459.4	459.2	459.0	458.8
132.5°	477.0	477.4	477.9	478.0	477.6	477.2	477.0	476.6
135°	504.7	505.1	505.3	505.3	505.1	504.7	504.4	504.0
137.5°	529.4	529.9	530.5	530.7	530.4	530.2	529.9	529.8
140°	545.1	545.5	546.0	546.1	545.9	545.6	545.5	545.2
142.5°	560.0	560.4	560.7	560.7	560.4	560.1	559.7	559.5
145°	580.8	580.9	581.2	581.3	581.3	581.3	581.3	581.3
147.5°	599.4	599.6	599.9	599.7	599.1	598.6	598.2	597.6
150°	610.7	611.0	611.2	611.2	610.8	610.5	610.1	609.8
152.5°	620.9	621.3	621.7	621.6	621.2	620.6	620.1	619.6
155°	634.8	635.4	636.0	635.9	635.3	634.5	633.9	633.2
157.5°	646.9	647.6	648.4	648.2	647.3	646.5	645.6	644.7
160°	653.9	654.5	655.2	655.1	654.4	653.6	652.8	652.0
162.5°	660.1	660.9	661.7	661.7	661.0	660.3	659.6	659.0
165°	668.6	669.5	670.4	670.5	669.7	668.9	668.1	667.3
167.5°	675.1	676.0	676.9	676.9	676.0	675.1	674.2	673.2
170°	678.8	679.7	680.6	680.6	679.7	678.8	677.9	676.9
172.5°	681.2	682.1	683.0	683.0	682.0	681.0	679.9	678.9
175°	684.1	684.9	685.7	685.6	684.7	683.9	683.0	682.0
177.5°	685.2	685.9	686.6	686.5	685.6	684.7	683.9	683.0
180°	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6

(END OF REPORT)