

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: P333459-935

Luminaire Tested: **S125DIW-S1090D1560U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333459-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S1090D1560U935-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8482.8 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

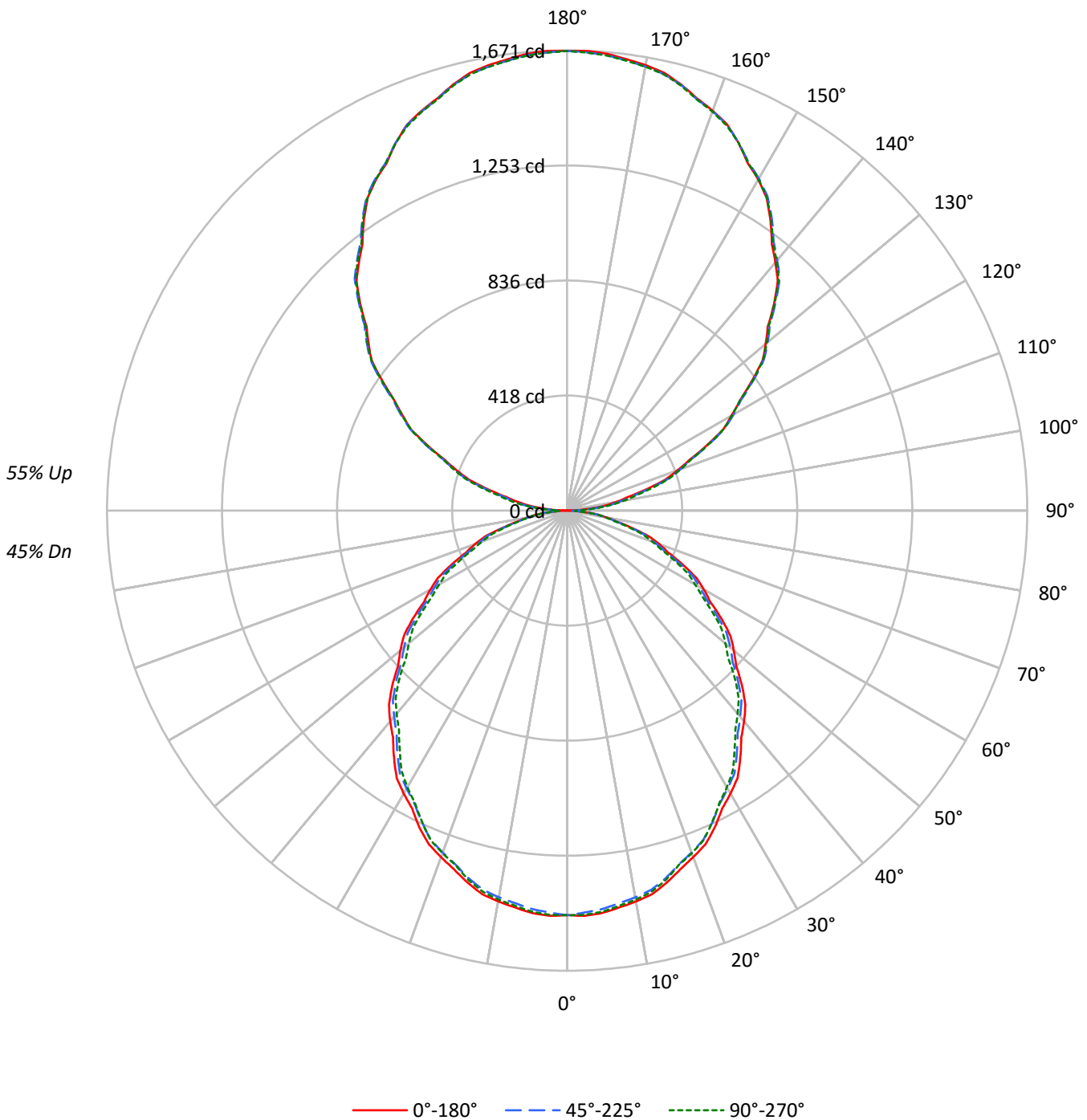
Input Watts (W): 76.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333459-935

CATALOG NUMBER: S125DIW-S1090D1560U935-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P333459-935

CATALOG NUMBER: S125DIW-S1090D1560U935-4F0-1E-UDD-F1

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	50	30	10	0														
RCR																																						
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45																				
1	97	92	88	85	88	85	81	78	71	68	66	58	56	54	46	44	43	38																				
2	88	81	74	69	80	74	69	64	62	58	55	50	48	45	40	38	37	32																				
3	80	71	63	58	73	65	59	54	54	50	46	45	41	38	35	33	31	27																				
4	73	63	55	49	67	58	51	45	48	43	39	40	36	33	32	29	27	23																				
5	67	56	48	42	61	51	44	39	43	38	34	36	32	28	29	26	23	20																				
6	62	50	42	36	57	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	24	21	18	16																				
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16	14																				
9	49	37	30	25	45	35	28	23	29	24	20	25	20	18	20	17	15	13																				
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13	11																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9489	9489	9489
5°	9510	9419	9479
10°	9452	9353	9406
15°	9349	9240	9279
20°	9203	9082	9099
25°	9045	8896	8888
30°	8850	8694	8651
35°	8642	8476	8358
40°	8427	8241	8123
45°	8195	8026	7867
50°	7941	7766	7533
55°	7696	7473	7264
60°	7401	7177	6921
65°	7051	6820	6589
70°	6717	6409	6190
75°	6119	5916	5712
80°	5449	5359	5229
85°	4735	4824	4565



TEST NUMBER: P333459-935

CATALOG NUMBER: S125DIW-S1090D1560U935-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.5	1.6
10°-20°	391.3	4.6
20°-30°	577.8	6.8
30°-40°	674.2	7.9
40°-50°	677.1	8.0
50°-60°	594.4	7.0
60°-70°	442.9	5.2
70°-80°	253.2	3.0
80°-90°	77.3	0.9
90°-100°	111.8	1.3
100°-110°	330.0	3.9
110°-120°	559.0	6.6
120°-130°	735.7	8.7
130°-140°	824.3	9.7
140°-150°	807.9	9.5
150°-160°	678.6	8.0
160°-170°	451.1	5.3
170°-180°	157.9	1.9
0°-30°	1107.6	13.1
0°-40°	1781.8	21.0
0°-60°	3053.3	36.0
0°-90°	3826.7	45.1
90°-120°	1000.8	11.8
90°-150°	3368.6	39.7
90°-180°	4656.0	54.9
0°-180°	8482.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1469	1469	1469	1469	1469	
5°	1467	1464	1453	1463	1462	139
15°	1398	1394	1382	1388	1388	394
25°	1269	1263	1248	1250	1247	584
35°	1096	1091	1075	1069	1060	685
45°	897	892	879	865	861	691
55°	684	679	664	653	645	610
65°	461	458	446	436	431	458
75°	245	243	237	234	229	261
85°	64	65	65	64	62	71
90°	1	12	21	27	31	8
95°	84	88	100	109	112	90
105°	296	303	310	318	322	316
115°	560	565	568	566	565	553
125°	817	824	826	823	822	731
135°	1062	1070	1071	1071	1066	818
145°	1287	1292	1296	1296	1292	804
155°	1473	1473	1474	1478	1473	678
165°	1601	1599	1600	1604	1597	451
175°	1665	1660	1660	1666	1658	158
180°	1669	1669	1669	1669	1669	



TEST NUMBER: P333459-935

CATALOG NUMBER: S125DIW-S1090D1560U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2
2.5°	1472.9	1472.3	1471.6	1471.0	1470.4	1469.0	1467.0	1464.9	1462.8	1460.8	1462.8
5°	1466.9	1466.4	1465.9	1465.3	1464.8	1463.3	1460.7	1458.1	1455.5	1452.9	1455.3
7.5°	1453.4	1452.9	1452.3	1451.8	1451.3	1449.6	1446.7	1443.9	1441.1	1438.2	1440.5
10°	1441.3	1440.8	1440.3	1439.8	1439.2	1437.5	1434.7	1431.8	1429.0	1426.2	1428.2
12.5°	1426.4	1425.5	1424.5	1423.6	1422.7	1420.9	1418.2	1415.7	1413.0	1410.3	1412.0
15°	1398.3	1397.5	1396.7	1395.9	1395.2	1393.4	1390.5	1387.7	1384.8	1382.0	1383.3
17.5°	1366.0	1364.9	1363.7	1362.5	1361.4	1359.3	1356.4	1353.5	1350.6	1347.6	1349.2
20°	1339.0	1338.5	1338.0	1337.5	1337.0	1335.0	1331.6	1328.3	1324.9	1321.5	1323.4
22.5°	1312.0	1311.1	1310.2	1309.2	1308.3	1306.2	1303.1	1299.9	1296.8	1293.7	1294.9
25°	1269.3	1268.0	1266.7	1265.4	1264.1	1261.8	1258.4	1255.1	1251.7	1248.4	1248.9
27.5°	1219.3	1218.5	1217.7	1216.9	1216.2	1214.1	1210.6	1207.1	1203.7	1200.2	1200.3
30°	1186.7	1185.9	1185.2	1184.4	1183.6	1181.3	1177.4	1173.5	1169.7	1165.8	1165.3
32.5°	1151.4	1150.2	1149.0	1147.8	1146.7	1144.4	1140.8	1137.4	1133.9	1130.5	1129.5
35°	1096.1	1095.0	1094.0	1093.0	1091.9	1089.6	1086.0	1082.4	1078.7	1075.1	1073.8
37.5°	1038.6	1037.3	1036.0	1034.7	1033.5	1031.1	1027.7	1024.3	1020.9	1017.5	1015.5
40°	999.6	998.3	997.0	995.7	994.5	992.0	988.3	984.7	981.1	977.5	975.2
42.5°	957.8	956.7	955.6	954.5	953.4	951.1	947.4	943.8	940.2	936.6	934.4
45°	897.3	896.3	895.3	894.2	893.2	891.1	888.0	884.9	881.8	878.7	875.6
47.5°	832.2	832.2	832.3	832.4	832.4	830.6	826.9	823.1	819.4	815.7	812.5
50°	790.4	789.6	788.8	788.1	787.3	785.3	782.2	779.1	776.0	772.9	769.6
52.5°	747.6	747.0	746.5	745.9	745.4	743.4	740.1	736.8	733.5	730.1	727.2
55°	683.5	682.7	681.9	681.1	680.4	678.1	674.5	670.9	667.3	663.7	661.3
57.5°	615.8	615.4	615.0	614.6	614.2	612.4	609.3	606.3	603.3	600.2	597.2
60°	573.0	572.0	570.9	569.9	568.9	567.0	564.1	561.3	558.4	555.6	553.0
62.5°	528.4	527.5	526.8	525.9	525.1	523.5	521.0	518.6	516.2	513.8	510.9
65°	461.4	460.9	460.4	459.9	459.3	457.7	454.9	452.0	449.2	446.3	444.0
67.5°	396.6	395.5	394.4	393.3	392.3	390.6	388.5	386.4	384.3	382.2	380.2
70°	355.7	354.4	353.1	351.8	350.5	348.7	346.4	344.1	341.7	339.4	337.9
72.5°	311.1	310.1	309.3	308.4	307.5	306.3	304.9	303.3	301.9	300.3	298.6
75°	245.2	244.7	244.2	243.7	243.1	242.3	241.0	239.7	238.4	237.1	236.3
77.5°	184.6	184.3	184.2	184.0	183.7	183.3	182.5	181.8	181.2	180.4	179.9
80°	146.5	146.5	146.5	146.5	146.5	146.2	145.7	145.2	144.6	144.1	143.9
82.5°	113.0	112.5	112.2	111.8	111.3	111.1	111.0	110.9	110.7	110.6	110.2
85°	63.9	64.1	64.4	64.7	64.9	65.1	65.1	65.1	65.1	65.1	64.8
87.5°	25.4	25.8	26.3	26.8	27.2	27.6	27.7	27.9	28.2	28.3	28.6
90°	1.3	3.6	5.9	8.3	10.5	12.7	14.7	16.7	18.8	20.8	22.2
92.5°	31.4	33.1	34.7	36.2	37.9	40.0	42.4	44.9	47.4	49.9	51.7
95°	84.4	85.0	85.6	86.1	86.7	88.4	91.4	94.2	97.1	100.0	102.0
97.5°	140.3	140.4	140.7	140.9	141.2	143.3	147.2	151.3	155.2	159.2	161.1
100°	181.8	181.8	181.8	181.8	181.8	183.7	187.4	191.1	194.9	198.6	201.3
102.5°	226.4	227.6	228.8	229.9	231.1	232.6	234.5	236.4	238.3	240.2	243.1
105°	296.1	297.5	298.9	300.4	301.9	303.4	305.1	306.9	308.6	310.4	312.1
107.5°	372.9	374.4	375.8	377.3	378.7	380.1	381.4	382.7	384.1	385.4	386.2
110°	425.9	427.4	428.8	430.2	431.7	432.8	433.7	434.5	435.4	436.3	437.1



TEST NUMBER: P333459-935

CATALOG NUMBER: S125DIW-S1090D1560U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	479.9	480.7	481.5	482.2	482.9	483.9	484.9	486.0	487.2	488.3	488.6
115°	559.6	560.9	562.0	563.1	564.3	565.2	565.8	566.3	566.9	567.5	567.1
117.5°	639.6	640.2	640.7	641.2	641.7	642.2	642.7	643.3	643.8	644.4	644.5
120°	689.5	691.0	692.4	693.9	695.3	696.1	696.5	696.7	697.0	697.3	697.3
122.5°	743.6	744.1	744.6	745.1	745.6	746.2	747.0	747.8	748.5	749.2	749.0
125°	816.7	818.5	820.3	822.0	823.7	824.8	825.0	825.3	825.6	825.9	825.3
127.5°	894.7	895.7	896.6	897.6	898.6	899.3	899.7	900.0	900.3	900.7	900.3
130°	941.4	942.9	944.3	945.7	947.2	948.2	948.8	949.3	949.9	950.5	950.2
132.5°	988.2	990.6	992.9	995.3	997.6	998.8	998.7	998.5	998.4	998.3	998.0
135°	1062.2	1063.9	1065.7	1067.4	1069.1	1070.1	1070.4	1070.7	1071.0	1071.3	1071.3
137.5°	1131.8	1133.5	1135.1	1136.8	1138.5	1139.6	1140.3	1140.9	1141.5	1142.2	1142.5
140°	1176.5	1177.9	1179.3	1180.8	1182.2	1183.4	1184.2	1185.2	1186.0	1186.9	1187.4
142.5°	1221.2	1222.4	1223.6	1224.8	1226.0	1227.1	1228.2	1229.3	1230.5	1231.5	1231.8
145°	1286.9	1288.0	1289.2	1290.3	1291.5	1292.4	1293.3	1294.2	1295.0	1295.9	1295.9
147.5°	1347.6	1348.2	1348.8	1349.5	1350.1	1350.8	1351.5	1352.2	1352.9	1353.6	1354.3
150°	1388.1	1387.8	1387.6	1387.2	1387.0	1387.4	1388.5	1389.7	1390.9	1392.1	1392.1
152.5°	1421.3	1421.8	1422.2	1422.5	1423.0	1423.4	1423.9	1424.4	1424.8	1425.3	1426.0
155°	1472.6	1472.6	1472.6	1472.6	1472.6	1472.7	1473.0	1473.3	1473.5	1473.9	1475.0
157.5°	1518.2	1517.6	1517.0	1516.3	1515.7	1515.5	1515.8	1516.1	1516.4	1516.7	1517.9
160°	1545.2	1544.4	1543.5	1542.7	1541.8	1541.5	1541.8	1542.1	1542.4	1542.7	1543.8
162.5°	1569.2	1568.5	1567.9	1567.3	1566.6	1566.3	1566.3	1566.4	1566.5	1566.5	1568.0
165°	1601.1	1600.5	1599.9	1599.4	1598.8	1598.6	1599.0	1599.2	1599.5	1599.8	1600.9
167.5°	1628.1	1626.9	1625.8	1624.6	1623.5	1622.9	1622.9	1622.9	1622.9	1622.9	1624.6
170°	1642.6	1641.5	1640.3	1639.2	1638.1	1637.4	1637.4	1637.4	1637.4	1637.4	1639.2
172.5°	1653.0	1651.9	1650.7	1649.6	1648.4	1647.9	1647.9	1647.9	1647.9	1647.9	1649.6
175°	1664.7	1663.5	1662.4	1661.2	1660.1	1659.5	1659.5	1659.5	1659.5	1659.5	1661.2
177.5°	1670.7	1669.7	1668.9	1667.9	1667.0	1666.4	1666.2	1665.9	1665.7	1665.5	1666.9
180°	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6



TEST NUMBER: P333459-935

CATALOG NUMBER: S125DIW-S1090D1560U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2
2.5°	1464.9	1467.0	1469.0	1470.0	1469.8	1469.6	1469.4	1469.2
5°	1457.6	1459.9	1462.2	1463.3	1463.0	1462.8	1462.5	1462.2
7.5°	1442.8	1445.1	1447.3	1448.4	1448.1	1447.9	1447.6	1447.3
10°	1430.3	1432.4	1434.4	1435.4	1435.1	1434.9	1434.6	1434.3
12.5°	1413.7	1415.3	1416.9	1417.8	1417.7	1417.6	1417.6	1417.6
15°	1384.6	1385.9	1387.2	1387.8	1387.8	1387.8	1387.8	1387.8
17.5°	1350.8	1352.4	1354.0	1354.2	1352.9	1351.6	1350.3	1349.0
20°	1325.2	1327.0	1328.8	1329.0	1327.7	1326.5	1325.2	1323.9
22.5°	1296.1	1297.3	1298.4	1298.6	1297.7	1296.8	1296.0	1295.0
25°	1249.4	1249.9	1250.4	1250.3	1249.5	1248.7	1247.9	1247.2
27.5°	1200.4	1200.5	1200.7	1200.3	1199.5	1198.8	1198.0	1197.2
30°	1164.8	1164.2	1163.7	1163.1	1162.4	1161.6	1160.8	1160.0
32.5°	1128.6	1127.7	1126.8	1125.6	1124.2	1122.8	1121.4	1120.0
35°	1072.5	1071.3	1070.0	1068.3	1066.3	1064.2	1062.1	1060.1
37.5°	1013.7	1011.8	1009.9	1008.3	1007.1	1005.9	1004.7	1003.6
40°	972.8	970.5	968.2	966.6	965.9	965.1	964.3	963.5
42.5°	932.4	930.2	928.2	926.4	925.3	924.1	922.9	921.7
45°	872.5	869.4	866.3	864.4	863.6	862.8	862.0	861.3
47.5°	809.4	806.2	803.1	800.6	798.8	797.0	795.2	793.4
50°	766.2	762.8	759.5	756.9	755.1	753.3	751.5	749.7
52.5°	724.3	721.3	718.4	715.9	713.9	711.9	709.9	707.8
55°	659.0	656.7	654.4	652.3	650.5	648.7	646.9	645.1
57.5°	594.3	591.2	588.2	586.3	585.3	584.3	583.3	582.3
60°	550.4	547.9	545.3	543.0	541.2	539.4	537.6	535.8
62.5°	508.2	505.4	502.6	500.5	499.1	497.7	496.3	494.9
65°	441.7	439.4	437.0	435.3	434.3	433.3	432.2	431.2
67.5°	378.2	376.3	374.3	373.0	372.4	371.8	371.2	370.6
70°	336.3	334.8	333.2	331.9	330.9	329.8	328.8	327.8
72.5°	296.9	295.1	293.3	292.0	290.9	289.9	288.9	287.8
75°	235.6	234.8	234.0	233.1	232.0	231.0	230.0	228.9
77.5°	179.4	179.0	178.6	178.0	177.2	176.5	175.7	175.0
80°	143.6	143.4	143.1	142.7	142.2	141.6	141.1	140.6
82.5°	109.7	109.3	108.8	108.5	108.4	108.3	108.2	108.1
85°	64.6	64.3	64.1	63.6	63.1	62.6	62.1	61.6
87.5°	28.9	29.2	29.4	29.5	29.3	29.0	28.8	28.6
90°	23.7	25.1	26.5	27.7	28.6	29.4	30.3	31.2
92.5°	53.6	55.5	57.5	58.7	59.4	60.0	60.6	61.3
95°	104.0	106.1	108.1	109.3	109.9	110.6	111.1	111.7
97.5°	163.0	164.9	166.8	168.0	168.3	168.7	169.0	169.4
100°	203.9	206.5	209.1	210.7	211.2	211.8	212.4	212.9
102.5°	245.9	248.7	251.5	253.4	254.2	254.9	255.8	256.6
105°	313.8	315.6	317.3	318.6	319.4	320.3	321.2	322.0
107.5°	387.1	388.0	388.8	389.3	389.2	389.2	389.1	389.0
110°	438.1	438.9	439.8	440.1	439.8	439.5	439.2	438.9



TEST NUMBER: P333459-935

CATALOG NUMBER: S125DIW-S1090D1560U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	489.0	489.5	489.8	489.8	489.3	488.8	488.3	487.8
115°	566.9	566.6	566.3	566.0	565.8	565.4	565.2	564.9
117.5°	644.8	645.1	645.2	644.8	643.6	642.5	641.4	640.2
120°	697.3	697.3	697.3	696.7	695.6	694.4	693.3	692.2
122.5°	748.8	748.6	748.3	747.8	746.8	745.9	744.9	744.1
125°	824.8	824.1	823.5	823.1	822.9	822.5	822.3	822.0
127.5°	900.1	899.8	899.5	899.1	898.5	897.9	897.3	896.7
130°	949.9	949.7	949.3	948.9	948.4	947.8	947.2	946.7
132.5°	997.7	997.5	997.1	996.6	995.8	995.0	994.2	993.3
135°	1071.3	1071.3	1071.3	1070.7	1069.5	1068.4	1067.2	1066.1
137.5°	1142.9	1143.2	1143.6	1143.1	1141.6	1140.1	1138.7	1137.2
140°	1188.0	1188.6	1189.1	1188.7	1187.3	1185.9	1184.4	1182.9
142.5°	1232.2	1232.5	1233.0	1232.3	1230.9	1229.5	1228.0	1226.6
145°	1295.9	1295.9	1295.9	1295.5	1294.6	1293.7	1292.9	1292.0
147.5°	1355.0	1355.6	1356.3	1355.7	1353.8	1351.8	1349.9	1347.9
150°	1392.1	1392.1	1392.1	1391.7	1391.1	1390.6	1390.0	1389.4
152.5°	1426.7	1427.4	1428.1	1427.9	1426.8	1425.8	1424.8	1423.7
155°	1476.1	1477.3	1478.4	1478.3	1476.9	1475.4	1473.9	1472.6
157.5°	1519.0	1520.2	1521.3	1521.0	1519.0	1517.1	1515.2	1513.3
160°	1545.0	1546.1	1547.3	1547.1	1545.7	1544.2	1542.8	1541.4
162.5°	1569.3	1570.7	1572.1	1571.9	1570.3	1568.6	1566.9	1565.2
165°	1602.1	1603.3	1604.4	1604.1	1602.4	1600.7	1599.0	1597.2
167.5°	1626.3	1628.1	1629.8	1629.8	1628.0	1626.3	1624.4	1622.6
170°	1640.9	1642.6	1644.3	1644.3	1642.2	1640.2	1638.1	1636.2
172.5°	1651.3	1653.0	1654.8	1654.8	1652.9	1651.1	1649.3	1647.6
175°	1663.0	1664.7	1666.5	1666.3	1664.3	1662.2	1660.3	1658.2
177.5°	1668.3	1669.7	1671.0	1670.9	1669.3	1667.7	1666.0	1664.5
180°	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6

(END OF REPORT)