

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: P333718-935

Luminaire Tested: **S125RDIW-S1090D1560U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333718-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIW-S1090D1560U935-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1560 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9008.5 lumens
Efficiency: N/A
Efficacy: 117.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

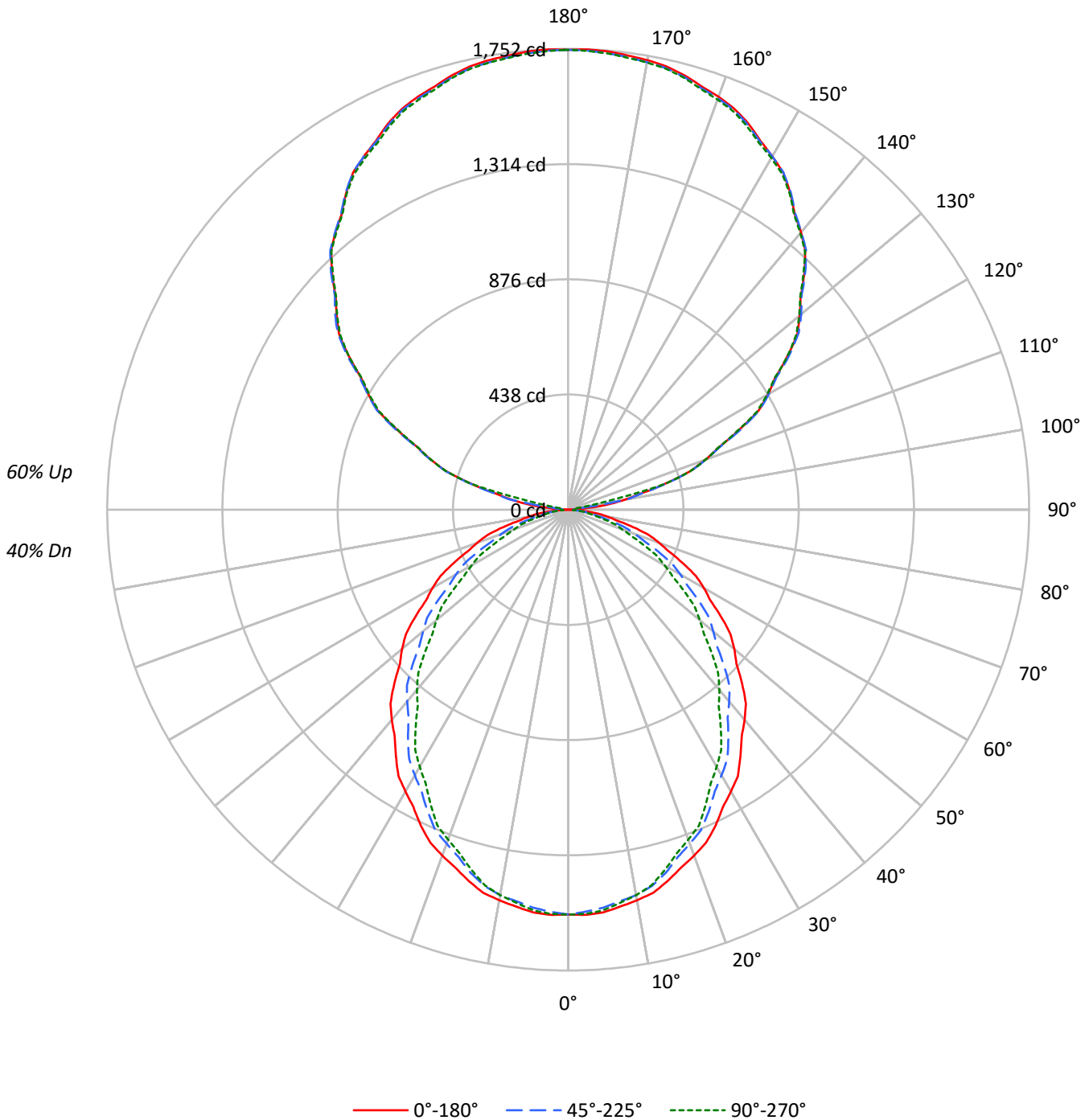
Input Watts (W): 76.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	96	92	88	84	87	84	80	78	69	66	64	55	53	52	42	41	40	34
2	87	80	74	69	79	73	68	64	60	57	53	48	46	44	37	36	34	29
3	80	71	63	58	72	65	58	53	53	49	45	43	40	37	33	31	29	25
4	73	63	55	49	66	57	51	45	47	42	39	38	35	32	30	27	25	21
5	67	56	48	42	61	51	44	39	42	37	33	34	31	28	27	24	22	19
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	24	22	20	16
7	57	45	37	32	52	41	35	30	35	29	26	28	24	21	22	19	17	15
8	53	41	33	28	48	38	31	26	32	26	23	26	22	19	20	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9939	9939	9939
5°	9962	9848	9909
10°	9886	9757	9757
15°	9768	9559	9482
20°	9619	9283	9171
25°	9443	9012	8813
30°	9223	8694	8416
35°	8999	8367	7972
40°	8790	8025	7535
45°	8535	7644	7059
50°	8280	7229	6563
55°	7983	6831	6033
60°	7687	6350	5465
65°	7335	5790	4814
70°	6936	5093	4147
75°	6381	4292	3451
80°	5620	3373	2894
85°	4735	2757	2586



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.7	1.6
10°-20°	404.4	4.5
20°-30°	586.4	6.5
30°-40°	668.3	7.4
40°-50°	651.5	7.2
50°-60°	548.4	6.1
60°-70°	384.4	4.3
70°-80°	197.6	2.2
80°-90°	53.5	0.6
90°-100°	63.5	0.7
100°-110°	391.6	4.3
110°-120°	710.2	7.9
120°-130°	911.5	10.1
130°-140°	980.4	10.9
140°-150°	920.2	10.2
150°-160°	744.4	8.3
160°-170°	481.4	5.3
170°-180°	166.0	1.8
0°-30°	1135.5	12.6
0°-40°	1803.9	20.0
0°-60°	3003.7	33.3
0°-90°	3639.3	40.4
90°-120°	1165.3	12.9
90°-150°	3977.4	44.2
90°-180°	5369.0	59.6
0°-180°	9008.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1539	1539	1539	1539	1539	
5°	1537	1532	1519	1530	1528	146
15°	1461	1453	1430	1428	1418	412
25°	1325	1306	1265	1250	1237	609
35°	1141	1112	1061	1028	1011	714
45°	934	899	837	792	773	721
55°	709	670	607	556	536	634
65°	480	439	379	334	315	475
75°	256	220	172	147	138	271
85°	64	44	37	36	35	72
90°	1	12	21	27	31	6
95°	74	67	21	27	27	94
105°	381	386	386	386	385	404
115°	716	722	723	718	710	709
125°	1017	1026	1026	1021	1017	908
135°	1269	1276	1274	1271	1264	978
145°	1471	1474	1474	1474	1467	920
155°	1620	1613	1615	1618	1608	746
165°	1710	1702	1703	1710	1700	483
175°	1748	1741	1742	1751	1741	166
180°	1748	1748	1748	1748	1748	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1539.0	1539.0	1539.0	1539.0	1539.0	1539.0	1539.0	1539.0	1539.0	1539.0	1539.0
2.5°	1541.7	1541.1	1540.5	1539.8	1539.2	1537.9	1535.9	1533.8	1531.7	1529.7	1531.7
5°	1536.6	1535.6	1534.6	1533.5	1532.5	1530.5	1527.7	1524.8	1522.0	1519.1	1521.7
7.5°	1521.5	1520.5	1519.5	1518.5	1517.5	1515.4	1511.9	1508.6	1505.1	1501.8	1503.6
10°	1507.5	1506.8	1506.0	1505.2	1504.4	1502.3	1498.7	1495.0	1491.4	1487.8	1488.6
12.5°	1491.7	1490.7	1489.8	1488.8	1487.8	1484.9	1480.1	1475.2	1470.3	1465.4	1466.0
15°	1461.0	1459.5	1457.9	1456.4	1454.8	1451.4	1446.0	1440.5	1435.1	1429.7	1429.4
17.5°	1426.4	1424.0	1421.7	1419.3	1416.9	1412.3	1405.5	1398.7	1391.8	1385.0	1383.7
20°	1399.5	1396.9	1394.3	1391.7	1389.1	1383.7	1375.4	1367.2	1358.9	1350.7	1349.4
22.5°	1369.7	1367.1	1364.5	1361.9	1359.3	1353.8	1345.1	1336.4	1327.7	1319.0	1316.5
25°	1325.1	1321.2	1317.3	1313.5	1309.6	1302.9	1293.3	1283.8	1274.2	1264.6	1261.3
27.5°	1273.9	1269.2	1264.5	1259.8	1255.1	1247.7	1237.4	1227.2	1216.9	1206.7	1202.0
30°	1236.7	1231.8	1226.9	1222.0	1217.1	1209.2	1198.3	1187.5	1176.6	1165.8	1159.9
32.5°	1200.4	1194.7	1189.0	1183.3	1177.5	1169.2	1158.0	1147.0	1135.9	1124.9	1118.4
35°	1141.4	1135.2	1129.0	1122.8	1116.6	1107.7	1096.1	1084.4	1072.8	1061.2	1053.7
37.5°	1083.5	1076.0	1068.4	1060.9	1053.3	1043.6	1031.6	1019.6	1007.6	995.7	986.6
40°	1042.6	1034.8	1027.1	1019.3	1011.6	1001.5	989.1	976.7	964.3	951.9	942.1
42.5°	999.8	991.9	984.0	975.9	968.0	957.6	944.8	932.0	919.2	906.4	897.0
45°	934.5	927.0	919.5	912.1	904.6	893.7	879.5	865.3	851.1	836.9	826.6
47.5°	866.9	858.9	851.0	843.2	835.3	824.1	809.9	795.5	781.2	766.9	756.2
50°	824.1	815.5	807.0	798.5	790.0	778.3	763.6	748.9	734.2	719.5	708.6
52.5°	777.6	768.9	760.1	751.4	742.7	731.3	717.5	703.5	689.7	675.8	664.1
55°	709.0	700.8	692.5	684.2	676.0	664.6	650.1	635.7	621.2	606.7	595.1
57.5°	639.7	630.9	622.1	613.2	604.4	593.1	579.1	565.2	551.2	537.3	525.9
60°	595.1	586.1	577.0	568.0	559.0	547.4	533.5	519.5	505.6	491.6	480.3
62.5°	547.7	539.1	530.5	521.8	513.2	501.8	487.7	473.5	459.3	445.1	434.6
65°	480.0	471.2	462.4	453.7	444.9	433.7	420.0	406.3	392.6	378.9	368.6
67.5°	412.8	404.1	395.3	386.5	377.7	366.8	353.6	340.5	327.4	314.3	304.9
70°	367.3	358.5	349.7	341.0	332.2	321.3	308.4	295.5	282.6	269.7	261.7
72.5°	322.7	314.1	305.5	297.0	288.3	278.0	266.0	253.8	241.8	229.7	222.3
75°	255.7	248.0	240.2	232.5	224.7	215.4	204.6	193.7	182.9	172.0	166.3
77.5°	189.2	183.0	176.8	170.7	164.5	157.0	148.4	139.7	131.0	122.3	118.3
80°	151.1	144.9	138.7	132.5	126.3	119.6	112.4	105.1	97.9	90.7	88.3
82.5°	113.9	108.3	102.7	97.2	91.6	86.4	81.4	76.4	71.5	66.5	65.4
85°	63.9	59.2	54.6	49.9	45.3	42.4	41.1	39.8	38.5	37.2	36.9
87.5°	21.6	20.7	19.7	18.7	17.7	17.3	17.5	17.7	17.9	18.1	18.4
90°	1.3	3.6	5.9	8.2	10.5	12.7	14.7	16.7	18.7	20.8	22.2
92.5°	20.0	18.3	16.7	15.2	13.5	13.6	15.4	17.1	18.9	20.8	22.2
95°	73.9	73.0	72.2	71.3	70.4	64.5	53.6	42.6	31.7	20.8	22.2
97.5°	154.2	155.8	157.3	158.9	160.5	150.4	128.7	107.1	85.4	63.8	55.6
100°	216.5	217.3	218.2	219.0	219.9	220.9	222.1	223.3	224.4	225.5	182.6
102.5°	279.7	280.8	281.9	283.0	284.0	285.0	285.7	286.4	287.1	287.7	279.7
105°	381.1	382.2	383.4	384.5	385.6	386.2	386.2	386.2	386.2	386.2	386.2
107.5°	486.3	486.3	486.3	486.3	486.3	486.6	487.2	487.8	488.4	488.9	489.0
110°	554.7	554.7	554.7	554.7	554.7	555.0	555.6	556.2	556.7	557.3	556.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	619.1	619.7	620.4	621.1	621.8	622.3	622.7	623.0	623.4	623.7	622.6
115°	715.5	716.9	718.3	719.8	721.2	722.0	722.4	722.6	723.0	723.2	722.0
117.5°	815.3	815.2	815.1	815.1	815.0	815.5	816.7	817.7	818.8	819.9	818.4
120°	877.4	877.2	876.9	876.6	876.3	876.6	877.4	878.3	879.2	880.0	879.5
122.5°	932.5	933.5	934.6	935.7	936.8	937.5	938.0	938.3	938.7	939.2	938.6
125°	1017.4	1019.4	1021.5	1023.5	1025.5	1026.5	1026.5	1026.5	1026.5	1026.5	1025.4
127.5°	1098.5	1100.0	1101.5	1102.9	1104.3	1105.0	1104.8	1104.7	1104.5	1104.3	1103.6
130°	1148.3	1149.8	1151.2	1152.7	1154.1	1154.9	1155.3	1155.5	1155.8	1156.2	1155.3
132.5°	1198.1	1199.8	1201.4	1203.2	1204.8	1205.3	1204.7	1204.0	1203.4	1202.8	1202.6
135°	1268.9	1270.6	1272.4	1274.1	1275.8	1276.3	1275.8	1275.2	1274.6	1274.1	1273.5
137.5°	1333.9	1335.4	1337.0	1338.4	1340.0	1340.4	1339.9	1339.4	1338.9	1338.3	1338.5
140°	1376.5	1377.1	1377.6	1378.2	1378.8	1378.9	1378.6	1378.4	1378.0	1377.8	1378.4
142.5°	1414.8	1415.1	1415.5	1415.8	1416.2	1416.6	1417.0	1417.4	1417.8	1418.2	1418.3
145°	1471.1	1471.6	1472.2	1472.8	1473.4	1473.7	1473.7	1473.7	1473.7	1473.7	1473.9
147.5°	1520.4	1520.2	1520.1	1520.0	1519.8	1520.0	1520.4	1520.7	1521.0	1521.4	1521.7
150°	1551.4	1550.8	1550.3	1549.7	1549.1	1549.1	1549.7	1550.3	1550.8	1551.4	1552.0
152.5°	1581.5	1580.3	1579.0	1577.7	1576.4	1576.1	1576.7	1577.3	1577.9	1578.4	1579.0
155°	1620.1	1618.4	1616.7	1615.0	1613.3	1612.7	1613.3	1613.8	1614.4	1615.0	1615.8
157.5°	1649.9	1648.9	1647.9	1646.8	1645.8	1645.3	1645.4	1645.5	1645.5	1645.5	1646.5
160°	1670.7	1669.0	1667.2	1665.5	1663.8	1663.0	1663.4	1663.6	1663.9	1664.2	1665.3
162.5°	1687.3	1685.6	1683.9	1682.0	1680.3	1679.6	1679.9	1680.2	1680.5	1680.8	1682.4
165°	1709.6	1707.9	1706.1	1704.3	1702.6	1701.9	1702.2	1702.5	1702.8	1703.1	1704.8
167.5°	1726.1	1724.4	1722.6	1720.8	1719.0	1718.3	1718.6	1718.8	1719.2	1719.4	1721.5
170°	1735.5	1733.5	1731.5	1729.4	1727.4	1726.6	1726.8	1727.2	1727.4	1727.7	1730.0
172.5°	1741.7	1739.7	1737.7	1735.7	1733.6	1732.9	1733.5	1734.0	1734.5	1735.0	1737.1
175°	1748.4	1746.7	1745.0	1743.3	1741.5	1740.9	1741.1	1741.4	1741.7	1742.0	1744.3
177.5°	1751.5	1750.2	1748.8	1747.4	1746.0	1745.4	1745.7	1745.9	1746.1	1746.4	1748.0
180°	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1539.0	1539.0	1539.0	1539.0	1539.0	1539.0	1539.0	1539.0
2.5°	1533.8	1535.9	1537.9	1538.8	1538.6	1538.4	1538.2	1538.0
5°	1524.3	1526.9	1529.5	1530.5	1530.0	1529.5	1529.0	1528.4
7.5°	1505.4	1507.2	1509.0	1509.6	1509.0	1508.5	1507.9	1507.3
10°	1489.4	1490.1	1490.9	1490.9	1490.1	1489.4	1488.6	1487.8
12.5°	1466.6	1467.1	1467.7	1467.4	1466.2	1465.1	1463.9	1462.7
15°	1429.2	1428.9	1428.7	1427.4	1425.0	1422.7	1420.4	1418.1
17.5°	1382.4	1381.1	1379.8	1378.3	1376.3	1374.4	1372.5	1370.6
20°	1348.1	1346.8	1345.5	1343.7	1341.4	1339.0	1336.7	1334.4
22.5°	1314.0	1311.4	1308.9	1306.7	1304.8	1302.9	1300.9	1299.0
25°	1257.9	1254.6	1251.2	1248.1	1245.3	1242.4	1239.6	1236.7
27.5°	1197.3	1192.7	1187.9	1184.2	1181.5	1178.7	1176.0	1173.3
30°	1153.9	1148.0	1142.0	1137.9	1135.6	1133.2	1130.9	1128.6
32.5°	1111.8	1105.2	1098.6	1093.9	1091.0	1088.0	1085.0	1082.1
35°	1046.2	1038.7	1031.2	1025.7	1022.1	1018.5	1014.9	1011.2
37.5°	977.7	968.7	959.7	953.5	949.9	946.4	942.9	939.4
40°	932.3	922.5	912.7	906.2	903.1	900.0	896.9	893.8
42.5°	887.6	878.1	868.7	861.8	857.2	852.7	848.2	843.6
45°	816.2	805.9	795.6	788.4	784.5	780.7	776.8	772.9
47.5°	745.6	734.9	724.4	716.9	712.6	708.3	704.0	699.7
50°	697.8	686.9	676.1	668.7	664.9	661.0	657.1	653.2
52.5°	652.5	640.8	629.0	621.3	617.4	613.5	609.7	605.8
55°	583.5	571.9	560.3	552.3	548.2	544.1	539.9	535.8
57.5°	514.5	503.2	491.8	484.2	480.6	476.9	473.2	469.6
60°	468.9	457.5	446.2	438.6	434.7	430.8	427.0	423.1
62.5°	424.1	413.5	403.0	395.8	391.9	388.1	384.2	380.3
65°	358.3	347.9	337.6	330.5	326.6	322.7	318.8	315.0
67.5°	295.4	285.9	276.5	270.2	267.1	264.0	260.9	257.8
70°	253.7	245.6	237.6	232.0	228.9	225.8	222.7	219.6
72.5°	214.9	207.5	200.1	195.4	193.3	191.2	189.2	187.1
75°	160.7	155.0	149.3	145.5	143.7	141.9	140.1	138.3
77.5°	114.3	110.4	106.3	103.7	102.4	101.0	99.7	98.3
80°	86.0	83.7	81.4	79.9	79.4	78.9	78.4	77.8
82.5°	64.3	63.2	62.2	61.5	61.1	60.8	60.5	60.2
85°	36.7	36.4	36.2	35.9	35.6	35.4	35.1	34.9
87.5°	18.7	18.9	19.3	19.4	19.4	19.3	19.3	19.2
90°	23.6	25.1	26.5	27.6	28.5	29.4	30.2	31.1
92.5°	23.6	25.1	26.5	27.4	27.8	28.2	28.7	29.0
95°	23.6	25.1	26.5	27.2	27.2	27.2	27.2	27.2
97.5°	47.5	39.4	31.3	27.2	27.2	27.2	27.2	27.2
100°	139.7	96.8	53.9	31.9	30.7	29.5	28.4	27.2
102.5°	271.5	263.4	255.3	241.4	221.8	202.2	182.6	163.1
105°	386.2	386.2	386.2	386.1	385.8	385.6	385.2	385.0
107.5°	489.0	489.0	489.1	488.7	487.8	487.0	486.1	485.3
110°	555.6	554.7	553.9	553.6	553.9	554.1	554.5	554.7



TEST NUMBER: P333718-935

CATALOG NUMBER: S125RDIW-S1090D1560U935-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	621.5	620.4	619.3	618.5	618.2	617.8	617.3	616.9
115°	720.9	719.8	718.6	717.2	715.5	713.7	712.0	710.2
117.5°	816.9	815.5	813.9	812.8	812.1	811.3	810.5	809.8
120°	878.9	878.3	877.8	876.8	875.3	873.8	872.5	871.0
122.5°	938.0	937.5	936.9	935.7	934.1	932.4	930.7	929.0
125°	1024.2	1023.0	1021.9	1020.9	1020.0	1019.2	1018.3	1017.4
127.5°	1103.0	1102.4	1101.7	1100.4	1098.2	1096.1	1094.0	1091.8
130°	1154.4	1153.6	1152.7	1151.5	1150.1	1148.7	1147.2	1145.7
132.5°	1202.5	1202.3	1202.1	1201.3	1199.9	1198.4	1197.0	1195.5
135°	1272.9	1272.4	1271.8	1270.6	1268.9	1267.1	1265.4	1263.7
137.5°	1338.6	1338.7	1338.9	1338.2	1336.6	1335.2	1333.6	1332.1
140°	1378.9	1379.5	1380.1	1379.5	1377.8	1376.1	1374.3	1372.6
142.5°	1418.4	1418.6	1418.7	1417.9	1416.1	1414.4	1412.6	1410.9
145°	1474.3	1474.5	1474.8	1474.1	1472.4	1470.7	1469.0	1467.2
147.5°	1522.1	1522.4	1522.8	1521.9	1519.8	1517.8	1515.7	1513.6
150°	1552.6	1553.2	1553.8	1552.9	1550.6	1548.3	1546.0	1543.7
152.5°	1579.6	1580.1	1580.7	1579.9	1577.9	1575.8	1573.7	1571.7
155°	1616.7	1617.6	1618.4	1617.6	1615.4	1613.1	1610.8	1608.4
157.5°	1647.4	1648.3	1649.2	1648.6	1646.2	1643.9	1641.6	1639.3
160°	1666.5	1667.7	1668.8	1668.3	1665.9	1663.6	1661.3	1659.1
162.5°	1684.0	1685.7	1687.2	1686.8	1684.3	1681.7	1679.2	1676.6
165°	1706.5	1708.3	1710.0	1709.7	1707.4	1705.1	1702.8	1700.5
167.5°	1723.5	1725.6	1727.7	1727.4	1724.8	1722.3	1719.7	1717.1
170°	1732.3	1734.7	1736.9	1736.8	1734.2	1731.6	1729.0	1726.4
172.5°	1739.1	1741.2	1743.3	1743.0	1740.4	1737.8	1735.3	1732.7
175°	1746.5	1748.9	1751.2	1751.0	1748.4	1745.8	1743.3	1740.7
177.5°	1749.6	1751.2	1752.8	1752.7	1750.8	1749.0	1747.1	1745.3
180°	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4

(END OF REPORT)