

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: P333458-927

Luminaire Tested: **S125DIW-S1090D1560U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333458-927  
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: S125DIW-S1090D1560U927-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1560 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

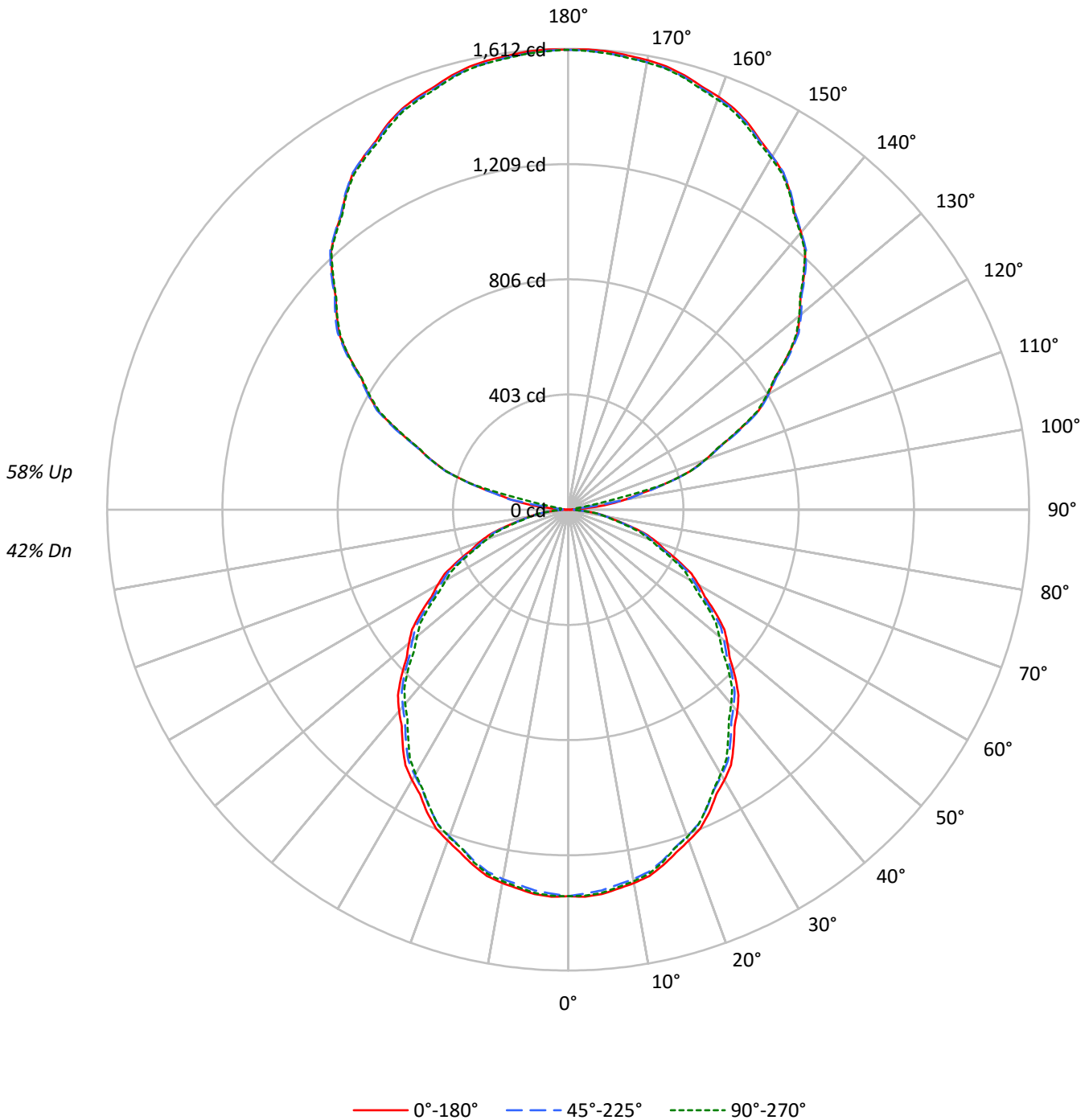
Lumens per Lamp: N/A  
Luminaire Lumens: 8460.9 lumens  
Efficiency: N/A  
Efficacy: 110.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 76.6  
Input Voltage (V): 120  
Input Current (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



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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	96	96	96	96	79	79	79	63	63	63	48	48	48	42
1	96	92	88	84	87	84	80	77	69	67	64	55	54	52	43	42	41	35
2	87	80	74	69	79	73	68	63	60	56	53	48	46	44	38	36	34	29
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	33	31	29	25
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	30	27	25	21
5	67	55	47	41	61	51	44	38	42	37	33	34	30	27	27	24	22	18
6	61	49	41	36	56	45	38	33	38	33	28	31	27	24	24	21	19	16
7	57	45	37	31	52	41	34	29	34	29	25	28	24	21	22	19	17	14
8	53	40	33	28	48	37	30	26	31	26	22	26	22	19	20	17	15	13
9	49	37	29	24	45	34	27	23	29	23	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	15	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8730	8730	8730
5°	8749	8666	8722
10°	8697	8605	8655
15°	8602	8501	8538
20°	8467	8357	8372
25°	8322	8185	8177
30°	8143	7999	7959
35°	7950	7799	7689
40°	7754	7583	7474
45°	7541	7384	7237
50°	7306	7145	6931
55°	7080	6875	6683
60°	6810	6603	6368
65°	6487	6276	6062
70°	6180	5897	5695
75°	5629	5445	5255
80°	5013	4932	4813
85°	4357	4439	4194



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.5	1.5
10°-20°	360.0	4.3
20°-30°	531.6	6.3
30°-40°	620.3	7.3
40°-50°	623.0	7.4
50°-60°	546.9	6.5
60°-70°	407.5	4.8
70°-80°	233.0	2.8
80°-90°	71.1	0.8
90°-100°	58.5	0.7
100°-110°	360.3	4.3
110°-120°	653.4	7.7
120°-130°	838.6	9.9
130°-140°	902.0	10.7
140°-150°	846.7	10.0
150°-160°	684.9	8.1
160°-170°	442.9	5.2
170°-180°	152.8	1.8
0°-30°	1019.1	12.0
0°-40°	1639.4	19.4
0°-60°	2809.2	33.2
0°-90°	3520.8	41.6
90°-120°	1072.2	12.7
90°-150°	3659.5	43.3
90°-180°	4940.0	58.4
0°-180°	8460.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1352	1352	1352	1352	1352	
5°	1350	1347	1337	1346	1345	128
15°	1286	1283	1272	1277	1277	362
25°	1168	1162	1149	1150	1148	537
35°	1008	1004	989	984	975	631
45°	826	821	808	796	792	636
55°	629	625	611	601	594	561
65°	424	422	411	401	397	421
75°	226	223	218	215	211	241
85°	59	60	60	59	57	66
90°	1	11	19	25	29	6
95°	68	62	19	25	25	87
105°	351	355	355	355	354	372
115°	658	664	665	661	654	652
125°	936	944	944	940	936	836
135°	1167	1174	1172	1170	1163	900
145°	1354	1356	1356	1357	1350	846
155°	1491	1484	1486	1489	1480	686
165°	1573	1566	1567	1573	1565	444
175°	1609	1602	1603	1611	1602	153
180°	1609	1609	1609	1609	1609	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8
2.5°	1355.2	1354.6	1354.0	1353.4	1352.9	1351.6	1349.7	1347.8	1345.9	1344.0	1345.9
5°	1349.6	1349.2	1348.7	1348.2	1347.7	1346.3	1343.9	1341.6	1339.2	1336.8	1338.9
7.5°	1337.2	1336.7	1336.3	1335.8	1335.3	1333.7	1331.1	1328.5	1325.9	1323.3	1325.4
10°	1326.1	1325.6	1325.2	1324.7	1324.2	1322.6	1320.0	1317.4	1314.8	1312.2	1314.1
12.5°	1312.4	1311.5	1310.7	1309.8	1309.0	1307.3	1304.9	1302.5	1300.1	1297.6	1299.2
15°	1286.5	1285.8	1285.1	1284.4	1283.7	1282.0	1279.4	1276.8	1274.1	1271.5	1272.7
17.5°	1256.8	1255.8	1254.7	1253.6	1252.6	1250.7	1248.0	1245.3	1242.6	1239.8	1241.3
20°	1232.0	1231.5	1231.1	1230.6	1230.1	1228.3	1225.2	1222.1	1219.0	1215.9	1217.6
22.5°	1207.1	1206.3	1205.5	1204.6	1203.7	1201.8	1199.0	1196.0	1193.2	1190.3	1191.4
25°	1167.8	1166.6	1165.5	1164.3	1163.1	1160.9	1157.9	1154.8	1151.7	1148.6	1149.1
27.5°	1121.8	1121.1	1120.4	1119.7	1119.0	1117.1	1113.8	1110.6	1107.5	1104.3	1104.4
30°	1091.9	1091.2	1090.4	1089.7	1089.0	1086.9	1083.3	1079.7	1076.2	1072.6	1072.1
32.5°	1059.4	1058.3	1057.2	1056.1	1055.0	1052.9	1049.6	1046.5	1043.3	1040.1	1039.3
35°	1008.4	1007.5	1006.5	1005.6	1004.6	1002.5	999.2	995.9	992.5	989.2	988.0
37.5°	955.6	954.4	953.2	952.0	950.9	948.7	945.5	942.5	939.3	936.2	934.4
40°	919.7	918.5	917.3	916.2	915.0	912.7	909.3	906.0	902.7	899.4	897.2
42.5°	881.2	880.2	879.2	878.2	877.2	875.0	871.7	868.4	865.1	861.7	859.8
45°	825.6	824.7	823.7	822.8	821.8	819.9	817.1	814.2	811.4	808.5	805.6
47.5°	765.7	765.7	765.8	765.9	765.9	764.2	760.8	757.3	753.9	750.5	747.6
50°	727.2	726.5	725.8	725.1	724.4	722.5	719.7	716.8	714.0	711.1	708.1
52.5°	687.9	687.3	686.8	686.3	685.8	684.0	681.0	677.9	674.9	671.8	669.1
55°	628.8	628.1	627.4	626.7	626.0	623.9	620.6	617.3	613.9	610.6	608.5
57.5°	566.6	566.2	565.9	565.5	565.1	563.5	560.6	557.9	555.1	552.2	549.5
60°	527.2	526.2	525.3	524.3	523.4	521.7	519.0	516.4	513.8	511.2	508.8
62.5°	486.2	485.4	484.7	483.9	483.2	481.6	479.3	477.1	474.9	472.7	470.1
65°	424.5	424.1	423.6	423.1	422.6	421.1	418.5	415.9	413.3	410.7	408.5
67.5°	364.9	363.8	362.9	361.9	360.9	359.4	357.4	355.5	353.6	351.6	349.8
70°	327.3	326.1	324.9	323.7	322.5	320.8	318.7	316.6	314.4	312.3	310.9
72.5°	286.2	285.3	284.6	283.8	283.0	281.9	280.5	279.1	277.7	276.3	274.7
75°	225.6	225.1	224.7	224.2	223.7	222.9	221.7	220.5	219.4	218.2	217.5
77.5°	169.8	169.6	169.4	169.3	169.1	168.7	167.9	167.3	166.7	166.0	165.6
80°	134.8	134.8	134.8	134.8	134.8	134.5	134.0	133.6	133.1	132.6	132.4
82.5°	103.9	103.5	103.2	102.8	102.4	102.2	102.1	102.0	101.9	101.8	101.4
85°	58.8	59.0	59.3	59.5	59.7	59.9	59.9	59.9	59.9	59.9	59.7
87.5°	23.4	23.8	24.2	24.6	25.0	25.3	25.5	25.7	25.9	26.1	26.3
90°	1.2	3.3	5.5	7.5	9.7	11.6	13.5	15.4	17.2	19.1	20.4
92.5°	18.4	16.9	15.4	13.9	12.4	12.5	14.2	15.8	17.4	19.1	20.4
95°	68.0	67.2	66.4	65.6	64.8	59.3	49.3	39.2	29.2	19.1	20.4
97.5°	141.9	143.3	144.7	146.2	147.7	138.4	118.4	98.5	78.6	58.7	51.2
100°	199.2	199.9	200.7	201.5	202.3	203.3	204.3	205.4	206.4	207.5	168.0
102.5°	257.4	258.3	259.4	260.4	261.3	262.2	262.8	263.5	264.1	264.7	257.3
105°	350.6	351.6	352.8	353.8	354.8	355.4	355.4	355.4	355.4	355.4	355.4
107.5°	447.4	447.4	447.4	447.4	447.4	447.7	448.2	448.8	449.3	449.8	449.9
110°	510.4	510.4	510.4	510.4	510.4	510.6	511.2	511.7	512.2	512.8	512.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	569.6	570.2	570.8	571.5	572.1	572.6	572.9	573.2	573.5	573.9	572.8
115°	658.3	659.6	660.9	662.3	663.5	664.3	664.6	664.9	665.2	665.4	664.3
117.5°	750.1	750.0	750.0	750.0	749.9	750.4	751.4	752.3	753.4	754.4	753.0
120°	807.3	807.1	806.8	806.5	806.3	806.5	807.3	808.1	808.9	809.7	809.2
122.5°	857.9	858.9	859.9	860.9	861.9	862.6	863.0	863.3	863.7	864.1	863.6
125°	936.1	937.9	939.8	941.7	943.6	944.4	944.4	944.4	944.4	944.4	943.4
127.5°	1010.7	1012.1	1013.4	1014.8	1016.1	1016.7	1016.5	1016.4	1016.2	1016.1	1015.4
130°	1056.5	1057.9	1059.2	1060.6	1061.8	1062.6	1063.0	1063.2	1063.4	1063.7	1063.0
132.5°	1102.3	1103.9	1105.4	1107.0	1108.5	1109.0	1108.4	1107.8	1107.2	1106.7	1106.5
135°	1167.4	1169.0	1170.7	1172.3	1173.9	1174.3	1173.9	1173.3	1172.7	1172.3	1171.7
137.5°	1227.3	1228.7	1230.1	1231.4	1232.9	1233.3	1232.8	1232.3	1231.8	1231.4	1231.5
140°	1266.5	1267.0	1267.5	1268.0	1268.6	1268.7	1268.4	1268.2	1267.9	1267.7	1268.2
142.5°	1301.7	1302.0	1302.3	1302.7	1303.0	1303.4	1303.8	1304.1	1304.5	1304.9	1305.0
145°	1353.5	1354.0	1354.6	1355.1	1355.7	1355.9	1355.9	1355.9	1355.9	1355.9	1356.1
147.5°	1398.8	1398.7	1398.6	1398.5	1398.4	1398.5	1398.8	1399.2	1399.5	1399.8	1400.1
150°	1427.4	1426.9	1426.4	1425.8	1425.3	1425.3	1425.8	1426.4	1426.9	1427.4	1428.0
152.5°	1455.1	1454.0	1452.8	1451.6	1450.4	1450.1	1450.6	1451.2	1451.8	1452.2	1452.8
155°	1490.6	1489.1	1487.5	1485.9	1484.3	1483.8	1484.3	1484.8	1485.3	1485.9	1486.7
157.5°	1518.1	1517.1	1516.2	1515.2	1514.3	1513.8	1513.9	1513.9	1513.9	1514.0	1514.9
160°	1537.2	1535.6	1534.0	1532.4	1530.8	1530.1	1530.4	1530.7	1530.9	1531.2	1532.2
162.5°	1552.4	1550.9	1549.3	1547.6	1546.0	1545.4	1545.6	1545.9	1546.2	1546.4	1547.9
165°	1573.0	1571.4	1569.7	1568.1	1566.5	1565.9	1566.1	1566.5	1566.7	1566.9	1568.5
167.5°	1588.2	1586.6	1584.9	1583.3	1581.6	1581.0	1581.2	1581.4	1581.8	1582.0	1583.9
170°	1596.8	1594.9	1593.1	1591.2	1589.4	1588.6	1588.8	1589.1	1589.4	1589.6	1591.7
172.5°	1602.5	1600.7	1598.8	1597.0	1595.1	1594.4	1594.9	1595.4	1595.9	1596.3	1598.2
175°	1608.7	1607.1	1605.5	1603.9	1602.3	1601.7	1602.0	1602.2	1602.5	1602.7	1604.9
177.5°	1611.5	1610.3	1609.0	1607.7	1606.5	1605.9	1606.1	1606.4	1606.5	1606.8	1608.3
180°	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8
2.5°	1347.8	1349.7	1351.6	1352.5	1352.3	1352.1	1351.9	1351.8
5°	1341.1	1343.2	1345.4	1346.3	1346.1	1345.8	1345.6	1345.4
7.5°	1327.5	1329.6	1331.7	1332.6	1332.4	1332.1	1331.9	1331.7
10°	1316.0	1317.9	1319.8	1320.6	1320.4	1320.2	1319.9	1319.7
12.5°	1300.7	1302.2	1303.7	1304.5	1304.4	1304.3	1304.3	1304.2
15°	1273.9	1275.1	1276.3	1276.9	1276.9	1276.9	1276.9	1276.9
17.5°	1242.9	1244.3	1245.8	1245.9	1244.8	1243.6	1242.4	1241.2
20°	1219.2	1220.9	1222.6	1222.8	1221.6	1220.4	1219.2	1218.1
22.5°	1192.5	1193.6	1194.6	1194.8	1194.0	1193.2	1192.4	1191.5
25°	1149.5	1150.0	1150.5	1150.3	1149.6	1148.9	1148.2	1147.5
27.5°	1104.5	1104.5	1104.7	1104.4	1103.7	1103.0	1102.2	1101.5
30°	1071.7	1071.2	1070.7	1070.2	1069.4	1068.7	1068.0	1067.3
32.5°	1038.4	1037.5	1036.7	1035.6	1034.4	1033.1	1031.7	1030.5
35°	986.8	985.6	984.4	982.9	981.0	979.1	977.2	975.3
37.5°	932.6	930.9	929.2	927.7	926.6	925.5	924.4	923.4
40°	895.1	892.9	890.8	889.4	888.7	888.0	887.2	886.5
42.5°	857.9	855.9	854.0	852.4	851.4	850.2	849.1	848.0
45°	802.8	799.9	797.1	795.3	794.6	793.8	793.1	792.4
47.5°	744.7	741.8	738.9	736.7	735.0	733.3	731.7	730.0
50°	705.0	701.9	698.8	696.4	694.7	693.1	691.4	689.8
52.5°	666.4	663.7	661.0	658.7	656.8	655.0	653.2	651.3
55°	606.3	604.2	602.1	600.2	598.5	596.8	595.2	593.5
57.5°	546.8	544.0	541.2	539.4	538.5	537.6	536.7	535.8
60°	506.4	504.1	501.7	499.6	498.0	496.3	494.6	493.0
62.5°	467.5	465.0	462.4	460.5	459.2	458.0	456.6	455.3
65°	406.4	404.3	402.1	400.5	399.6	398.6	397.7	396.7
67.5°	348.0	346.2	344.4	343.2	342.6	342.1	341.5	341.0
70°	309.4	308.0	306.6	305.4	304.4	303.5	302.5	301.6
72.5°	273.1	271.5	269.9	268.6	267.7	266.7	265.8	264.8
75°	216.7	216.0	215.3	214.4	213.5	212.5	211.6	210.6
77.5°	165.1	164.7	164.3	163.7	163.0	162.4	161.7	161.1
80°	132.1	131.9	131.7	131.3	130.8	130.3	129.8	129.4
82.5°	100.9	100.5	100.1	99.8	99.7	99.7	99.6	99.4
85°	59.4	59.2	58.9	58.5	58.1	57.6	57.1	56.6
87.5°	26.6	26.9	27.1	27.2	26.9	26.7	26.5	26.2
90°	21.7	23.1	24.4	25.4	26.2	27.0	27.8	28.6
92.5°	21.7	23.1	24.4	25.2	25.6	26.0	26.4	26.7
95°	21.7	23.1	24.4	25.0	25.0	25.0	25.0	25.0
97.5°	43.7	36.3	28.8	25.0	25.0	25.0	25.0	25.0
100°	128.5	89.0	49.6	29.3	28.2	27.2	26.1	25.0
102.5°	249.8	242.3	234.9	222.1	204.1	186.1	168.0	150.0
105°	355.4	355.4	355.4	355.2	355.0	354.7	354.4	354.2
107.5°	450.0	450.0	450.0	449.6	448.9	448.1	447.3	446.5
110°	511.2	510.4	509.6	509.4	509.6	509.8	510.2	510.4





TEST NUMBER: P333458-927

CATALOG NUMBER: S125DIW-S1090D1560U927-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	571.8	570.8	569.8	569.1	568.8	568.4	568.0	567.6
115°	663.3	662.3	661.2	659.9	658.3	656.6	655.1	653.5
117.5°	751.6	750.3	748.8	747.8	747.2	746.5	745.8	745.0
120°	808.7	808.1	807.6	806.7	805.3	804.0	802.7	801.4
122.5°	863.0	862.5	862.0	860.9	859.4	857.9	856.3	854.8
125°	942.4	941.3	940.2	939.3	938.5	937.7	936.9	936.1
127.5°	1014.9	1014.3	1013.7	1012.4	1010.4	1008.5	1006.5	1004.6
130°	1062.2	1061.4	1060.6	1059.5	1058.2	1056.9	1055.5	1054.2
132.5°	1106.4	1106.2	1106.0	1105.3	1104.0	1102.6	1101.3	1099.9
135°	1171.2	1170.7	1170.1	1169.0	1167.4	1165.9	1164.3	1162.7
137.5°	1231.6	1231.7	1231.8	1231.2	1229.8	1228.4	1227.0	1225.7
140°	1268.7	1269.2	1269.8	1269.2	1267.7	1266.1	1264.5	1262.9
142.5°	1305.0	1305.2	1305.3	1304.6	1302.9	1301.3	1299.7	1298.1
145°	1356.5	1356.7	1356.9	1356.3	1354.7	1353.1	1351.5	1350.0
147.5°	1400.4	1400.7	1401.1	1400.3	1398.4	1396.5	1394.6	1392.7
150°	1428.5	1429.0	1429.6	1428.8	1426.6	1424.5	1422.4	1420.3
152.5°	1453.3	1453.8	1454.4	1453.7	1451.8	1449.9	1448.0	1446.0
155°	1487.5	1488.3	1489.1	1488.4	1486.3	1484.2	1482.0	1479.9
157.5°	1515.7	1516.6	1517.4	1516.8	1514.7	1512.5	1510.4	1508.3
160°	1533.3	1534.4	1535.4	1534.9	1532.8	1530.7	1528.5	1526.5
162.5°	1549.4	1550.9	1552.4	1552.0	1549.7	1547.3	1545.0	1542.6
165°	1570.1	1571.8	1573.4	1573.0	1571.0	1568.8	1566.7	1564.6
167.5°	1585.8	1587.7	1589.6	1589.4	1587.0	1584.6	1582.2	1579.8
170°	1593.9	1596.0	1598.1	1598.0	1595.6	1593.2	1590.8	1588.4
172.5°	1600.1	1602.0	1603.9	1603.7	1601.3	1598.9	1596.6	1594.2
175°	1606.9	1609.1	1611.2	1611.1	1608.7	1606.3	1603.9	1601.6
177.5°	1609.8	1611.2	1612.7	1612.6	1610.9	1609.2	1607.5	1605.8
180°	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7	1608.7

(END OF REPORT)