

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: P333459-927

Luminaire Tested: **S125DIW-S1090D1560U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333459-927  
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-S1090D1560U927-4F0-1E-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**

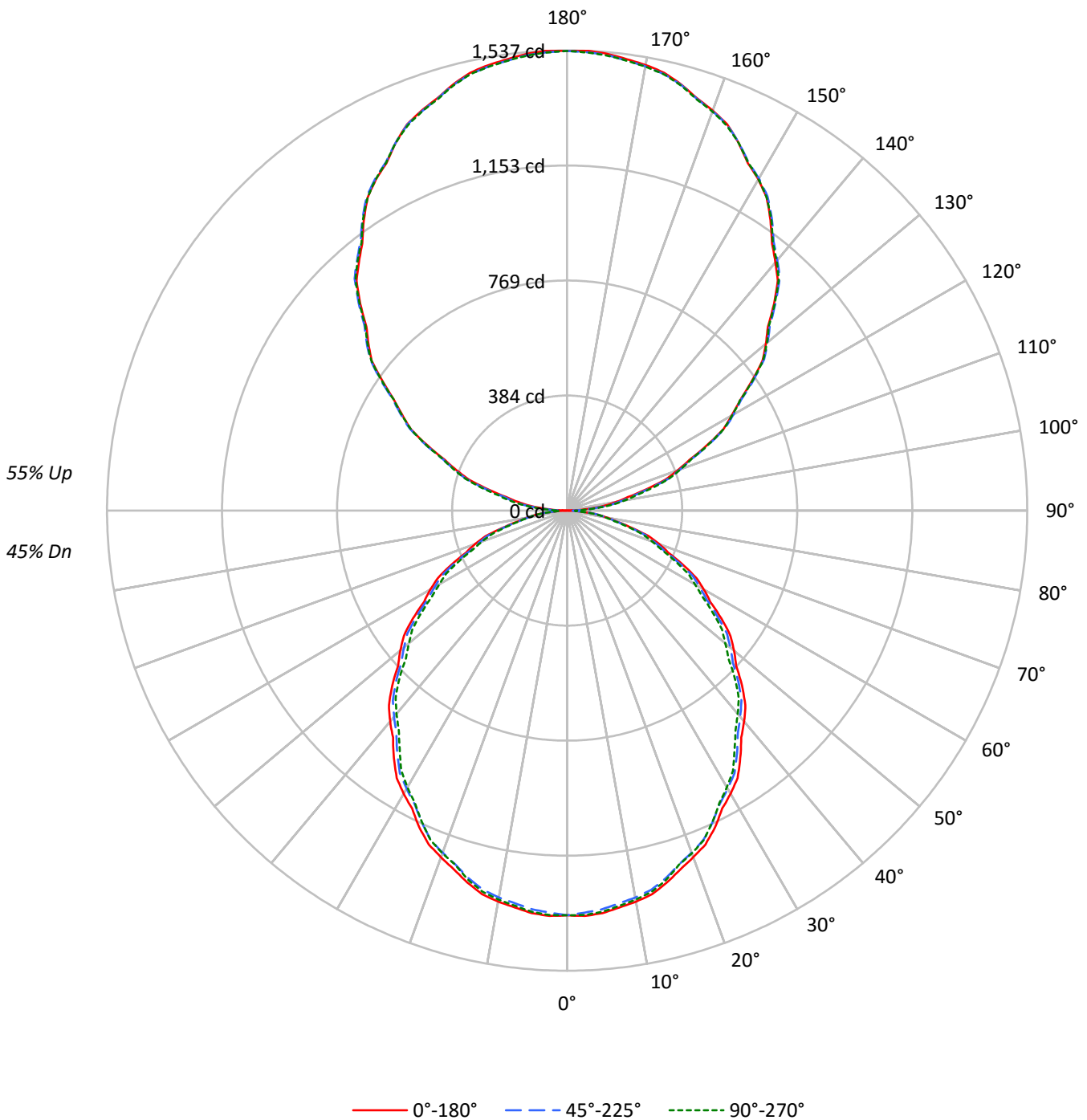
Lumens per Lamp: N/A  
Luminaire Lumens: 7804.8 lumens  
Efficiency: N/A  
Efficacy: 101.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 76.6  
Input Voltage (V): 120  
Input Current (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	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°	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	1.6
10°-20°	360.0	4.6
20°-30°	531.6	6.8
30°-40°	620.3	7.9
40°-50°	623.0	8.0
50°-60°	546.9	7.0
60°-70°	407.5	5.2
70°-80°	233.0	3.0
80°-90°	71.1	0.9
90°-100°	102.8	1.3
100°-110°	303.6	3.9
110°-120°	514.3	6.6
120°-130°	676.9	8.7
130°-140°	758.4	9.7
140°-150°	743.3	9.5
150°-160°	624.3	8.0
160°-170°	415.0	5.3
170°-180°	145.2	1.9
0°-30°	1019.1	13.1
0°-40°	1639.4	21.0
0°-60°	2809.2	36.0
0°-90°	3520.8	45.1
90°-120°	920.8	11.8
90°-150°	3099.4	39.7
90°-180°	4284.0	54.9
0°-180°	7804.8	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	7
95°	78	81	92	100	103	83
105°	272	278	286	292	296	291
115°	515	520	522	521	520	509
125°	752	758	760	758	756	673
135°	977	984	986	985	981	753
145°	1184	1189	1192	1192	1189	740
155°	1355	1355	1356	1360	1355	624
165°	1473	1471	1472	1476	1470	415
175°	1532	1527	1527	1533	1526	145
180°	1535	1535	1535	1535	1535	



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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	7.6	9.7	11.6	13.5	15.4	17.3	19.1	20.4
92.5°	28.9	30.4	31.9	33.4	34.9	36.8	39.1	41.3	43.6	45.9	47.6
95°	77.6	78.2	78.7	79.2	79.8	81.4	84.1	86.7	89.4	92.0	93.9
97.5°	129.0	129.2	129.4	129.7	129.9	131.8	135.5	139.2	142.8	146.5	148.2
100°	167.2	167.2	167.2	167.2	167.2	169.0	172.5	175.9	179.4	182.8	185.2
102.5°	208.3	209.5	210.5	211.5	212.6	214.0	215.8	217.5	219.3	221.0	223.6
105°	272.4	273.7	275.0	276.4	277.7	279.2	280.7	282.3	283.9	285.6	287.2
107.5°	343.1	344.4	345.8	347.1	348.4	349.7	350.9	352.1	353.4	354.6	355.4
110°	391.9	393.2	394.5	395.9	397.2	398.2	399.0	399.8	400.6	401.4	402.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	441.6	442.3	443.0	443.6	444.3	445.2	446.2	447.2	448.2	449.2	449.6
115°	514.9	516.0	517.1	518.1	519.2	520.0	520.5	521.0	521.6	522.1	521.8
117.5°	588.5	589.0	589.5	589.9	590.4	590.9	591.4	591.8	592.3	592.9	593.0
120°	634.4	635.7	637.1	638.4	639.7	640.5	640.8	641.0	641.3	641.6	641.6
122.5°	684.1	684.6	685.1	685.6	686.0	686.6	687.3	688.0	688.6	689.4	689.1
125°	751.5	753.0	754.7	756.3	757.9	758.8	759.1	759.3	759.6	759.9	759.3
127.5°	823.2	824.1	825.0	825.9	826.8	827.4	827.8	828.1	828.4	828.7	828.4
130°	866.2	867.5	868.9	870.1	871.5	872.4	873.0	873.5	874.0	874.6	874.3
132.5°	909.2	911.4	913.5	915.8	917.9	918.9	918.9	918.7	918.6	918.5	918.2
135°	977.3	978.9	980.5	982.1	983.7	984.6	984.8	985.2	985.4	985.6	985.6
137.5°	1041.3	1042.9	1044.4	1045.9	1047.5	1048.5	1049.2	1049.7	1050.3	1050.9	1051.2
140°	1082.4	1083.8	1085.1	1086.4	1087.7	1088.8	1089.6	1090.4	1091.2	1092.0	1092.5
142.5°	1123.6	1124.7	1125.8	1126.9	1128.0	1129.0	1130.0	1131.1	1132.1	1133.1	1133.4
145°	1184.0	1185.0	1186.1	1187.2	1188.3	1189.1	1189.9	1190.7	1191.5	1192.3	1192.3
147.5°	1239.9	1240.5	1241.0	1241.7	1242.2	1242.9	1243.5	1244.1	1244.8	1245.4	1246.0
150°	1277.2	1276.9	1276.7	1276.4	1276.1	1276.5	1277.6	1278.7	1279.7	1280.8	1280.8
152.5°	1307.7	1308.1	1308.5	1308.8	1309.2	1309.6	1310.1	1310.5	1310.9	1311.4	1312.0
155°	1354.9	1354.9	1354.9	1354.9	1354.9	1354.9	1355.3	1355.5	1355.7	1356.1	1357.1
157.5°	1396.9	1396.3	1395.7	1395.1	1394.6	1394.4	1394.6	1395.0	1395.2	1395.4	1396.5
160°	1421.7	1420.9	1420.1	1419.4	1418.6	1418.3	1418.6	1418.8	1419.1	1419.4	1420.4
162.5°	1443.8	1443.1	1442.6	1442.0	1441.4	1441.1	1441.1	1441.2	1441.3	1441.3	1442.6
165°	1473.1	1472.6	1472.0	1471.6	1471.0	1470.8	1471.2	1471.4	1471.6	1472.0	1473.0
167.5°	1497.9	1496.9	1495.9	1494.8	1493.7	1493.2	1493.2	1493.2	1493.2	1493.2	1494.8
170°	1511.3	1510.3	1509.2	1508.2	1507.1	1506.6	1506.6	1506.6	1506.6	1506.6	1508.2
172.5°	1520.9	1519.9	1518.8	1517.7	1516.6	1516.2	1516.2	1516.2	1516.2	1516.2	1517.7
175°	1531.7	1530.6	1529.5	1528.4	1527.4	1526.9	1526.9	1526.9	1526.9	1526.9	1528.4
177.5°	1537.2	1536.3	1535.5	1534.6	1533.7	1533.2	1533.0	1532.8	1532.6	1532.4	1533.7
180°	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2



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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	26.3
90°	21.8	23.1	24.4	25.5	26.3	27.1	27.9	28.7
92.5°	49.4	51.1	52.9	54.0	54.7	55.2	55.8	56.4
95°	95.7	97.6	99.4	100.6	101.2	101.7	102.2	102.7
97.5°	150.0	151.7	153.4	154.6	154.9	155.2	155.5	155.8
100°	187.6	190.0	192.3	193.8	194.3	194.9	195.4	195.9
102.5°	226.2	228.9	231.4	233.1	233.9	234.6	235.4	236.1
105°	288.8	290.3	291.9	293.1	293.9	294.7	295.5	296.3
107.5°	356.2	357.0	357.7	358.1	358.1	358.1	358.0	357.9
110°	403.1	403.9	404.6	404.9	404.6	404.3	404.1	403.9





TEST NUMBER: P333459-927

CATALOG NUMBER: S125DIW-S1090D1560U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	450.0	450.4	450.7	450.7	450.2	449.7	449.2	448.8
115°	521.6	521.3	521.0	520.8	520.5	520.2	520.0	519.8
117.5°	593.3	593.5	593.7	593.3	592.2	591.1	590.1	589.0
120°	641.6	641.6	641.6	641.0	640.0	638.9	637.9	636.8
122.5°	689.0	688.7	688.5	688.0	687.1	686.3	685.4	684.6
125°	758.8	758.3	757.7	757.3	757.1	756.8	756.5	756.3
127.5°	828.1	827.9	827.6	827.2	826.6	826.2	825.6	825.1
130°	874.0	873.8	873.5	873.1	872.6	872.0	871.5	871.0
132.5°	918.0	917.7	917.4	917.0	916.2	915.4	914.7	913.9
135°	985.6	985.6	985.6	985.2	984.0	983.0	981.9	980.9
137.5°	1051.5	1051.9	1052.2	1051.7	1050.4	1049.0	1047.7	1046.3
140°	1093.1	1093.6	1094.1	1093.7	1092.4	1091.1	1089.7	1088.4
142.5°	1133.7	1134.0	1134.4	1133.9	1132.5	1131.2	1129.9	1128.5
145°	1192.3	1192.3	1192.3	1191.9	1191.1	1190.3	1189.5	1188.7
147.5°	1246.7	1247.3	1247.9	1247.4	1245.5	1243.7	1242.0	1240.2
150°	1280.8	1280.8	1280.8	1280.5	1279.9	1279.5	1278.9	1278.3
152.5°	1312.6	1313.3	1313.9	1313.8	1312.8	1311.9	1310.9	1310.0
155°	1358.1	1359.2	1360.3	1360.2	1358.8	1357.5	1356.1	1354.9
157.5°	1397.6	1398.7	1399.7	1399.4	1397.6	1395.8	1394.1	1392.3
160°	1421.5	1422.5	1423.6	1423.5	1422.1	1420.8	1419.5	1418.2
162.5°	1443.9	1445.2	1446.4	1446.3	1444.8	1443.2	1441.7	1440.1
165°	1474.0	1475.1	1476.2	1475.9	1474.3	1472.7	1471.2	1469.5
167.5°	1496.4	1497.9	1499.5	1499.5	1497.9	1496.3	1494.6	1492.9
170°	1509.7	1511.3	1512.9	1512.8	1510.9	1509.1	1507.2	1505.4
172.5°	1519.3	1520.9	1522.5	1522.5	1520.8	1519.2	1517.5	1515.9
175°	1530.1	1531.7	1533.3	1533.1	1531.3	1529.4	1527.6	1525.7
177.5°	1534.9	1536.2	1537.5	1537.4	1535.9	1534.4	1532.9	1531.4
180°	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2

(END OF REPORT)