

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: P333452-930

Luminaire Tested: **S125DIW-S1090D1340U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333452-930  
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-S1090D1340U930-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1340 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7996.0 lumens  
Efficiency: N/A  
Efficacy: 114.6 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

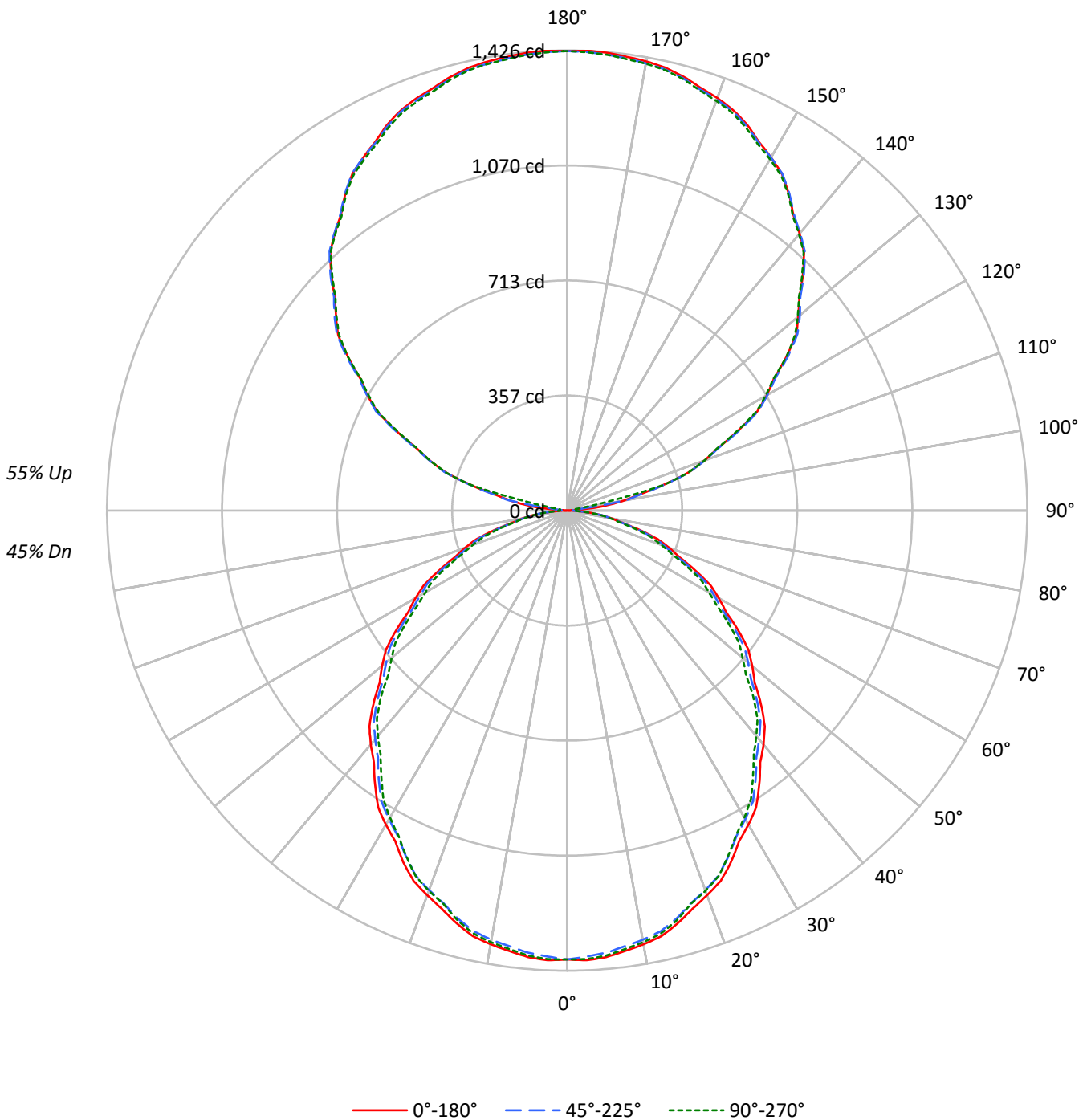
Input Watts (W): 69.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	55	46	45	44	38				
2	88	81	74	69	80	74	69	64	62	58	55	51	48	45	40	38	37	32				
3	80	71	64	58	73	65	59	54	55	50	46	45	41	38	36	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	21	18				
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	21	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°	8985	8985	8985
5°	9005	8919	8976
10°	8950	8857	8907
15°	8852	8750	8787
20°	8715	8601	8616
25°	8565	8424	8416
30°	8380	8232	8192
35°	8183	8027	7914
40°	7981	7804	7692
45°	7761	7600	7448
50°	7519	7354	7133
55°	7287	7076	6877
60°	7009	6795	6554
65°	6677	6460	6240
70°	6360	6069	5861
75°	5794	5602	5410
80°	5159	5077	4950
85°	4483	4565	4320



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.2	1.6
10°-20°	370.5	4.6
20°-30°	547.1	6.8
30°-40°	638.4	8.0
40°-50°	641.2	8.0
50°-60°	562.8	7.0
60°-70°	419.4	5.2
70°-80°	239.8	3.0
80°-90°	72.7	0.9
90°-100°	51.7	0.6
100°-110°	318.9	4.0
110°-120°	578.4	7.2
120°-130°	742.3	9.3
130°-140°	798.4	10.0
140°-150°	749.4	9.4
150°-160°	606.3	7.6
160°-170°	392.1	4.9
170°-180°	135.2	1.7
0°-30°	1048.8	13.1
0°-40°	1687.2	21.1
0°-60°	2891.2	36.2
0°-90°	3623.1	45.3
90°-120°	949.1	11.9
90°-150°	3239.3	40.5
90°-180°	4373.0	54.7
0°-180°	7996.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1389	1386	1376	1385	1385	132
15°	1324	1320	1309	1314	1314	373
25°	1202	1196	1182	1184	1181	553
35°	1038	1033	1018	1012	1004	649
45°	850	845	832	819	816	655
55°	647	643	628	619	611	578
65°	437	434	423	413	408	433
75°	232	230	224	221	217	248
85°	60	62	62	60	58	68
90°	1	10	17	22	25	6
95°	60	55	17	22	22	77
105°	310	314	314	314	314	329
115°	583	588	589	585	578	577
125°	829	836	836	832	829	740
135°	1034	1039	1038	1035	1029	796
145°	1198	1200	1200	1201	1195	749
155°	1320	1314	1315	1318	1310	608
165°	1392	1386	1387	1393	1385	393
175°	1424	1418	1419	1426	1418	136
180°	1424	1424	1424	1424	1424	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2
2.5°	1394.7	1394.2	1393.5	1392.9	1392.4	1391.1	1389.1	1387.2	1385.2	1383.2	1385.2
5°	1389.0	1388.5	1388.0	1387.6	1387.1	1385.6	1383.2	1380.7	1378.3	1375.8	1378.0
7.5°	1376.2	1375.7	1375.2	1374.8	1374.3	1372.6	1369.9	1367.3	1364.6	1361.9	1364.1
10°	1364.8	1364.3	1363.8	1363.3	1362.9	1361.2	1358.5	1355.8	1353.2	1350.5	1352.4
12.5°	1350.7	1349.8	1348.9	1348.0	1347.2	1345.5	1343.0	1340.5	1338.0	1335.5	1337.1
15°	1324.0	1323.3	1322.6	1321.8	1321.1	1319.4	1316.7	1314.0	1311.3	1308.6	1309.9
17.5°	1293.5	1292.4	1291.3	1290.2	1289.2	1287.2	1284.4	1281.7	1278.9	1276.0	1277.6
20°	1268.0	1267.5	1267.0	1266.5	1266.0	1264.1	1260.9	1257.8	1254.6	1251.4	1253.1
22.5°	1242.4	1241.5	1240.6	1239.7	1238.8	1236.9	1234.0	1230.9	1228.0	1225.0	1226.1
25°	1201.9	1200.7	1199.5	1198.2	1197.0	1194.8	1191.6	1188.5	1185.3	1182.1	1182.6
27.5°	1154.5	1153.8	1153.1	1152.3	1151.6	1149.7	1146.3	1143.0	1139.8	1136.5	1136.6
30°	1123.7	1123.0	1122.3	1121.5	1120.8	1118.6	1114.9	1111.3	1107.6	1103.9	1103.4
32.5°	1090.3	1089.2	1088.0	1086.9	1085.8	1083.6	1080.3	1077.0	1073.7	1070.5	1069.6
35°	1037.9	1036.9	1035.9	1034.9	1034.0	1031.8	1028.3	1024.9	1021.5	1018.1	1016.8
37.5°	983.5	982.3	981.0	979.8	978.6	976.4	973.1	970.0	966.7	963.5	961.6
40°	946.6	945.3	944.1	942.9	941.7	939.3	935.9	932.5	929.0	925.6	923.4
42.5°	906.9	905.9	904.9	903.8	902.8	900.6	897.2	893.7	890.3	886.9	884.8
45°	849.7	848.7	847.7	846.8	845.8	843.8	840.9	838.0	835.0	832.1	829.2
47.5°	788.1	788.1	788.1	788.2	788.2	786.5	783.0	779.4	775.9	772.4	769.4
50°	748.4	747.7	747.0	746.2	745.5	743.6	740.7	737.8	734.8	731.9	728.7
52.5°	707.9	707.4	706.9	706.3	705.8	703.9	700.8	697.7	694.6	691.4	688.6
55°	647.2	646.5	645.7	645.0	644.2	642.1	638.7	635.3	631.9	628.4	626.2
57.5°	583.1	582.7	582.4	582.0	581.6	579.9	577.0	574.1	571.3	568.3	565.5
60°	542.6	541.6	540.6	539.6	538.7	536.9	534.2	531.5	528.8	526.1	523.7
62.5°	500.3	499.5	498.8	498.0	497.3	495.7	493.3	491.1	488.8	486.5	483.8
65°	436.9	436.4	435.9	435.5	435.0	433.4	430.7	428.0	425.3	422.7	420.4
67.5°	375.5	374.5	373.5	372.4	371.5	369.9	367.9	365.9	363.9	361.9	360.0
70°	336.8	335.6	334.4	333.1	331.9	330.2	328.0	325.8	323.6	321.4	319.9
72.5°	294.6	293.7	292.9	292.0	291.2	290.1	288.7	287.2	285.8	284.4	282.7
75°	232.2	231.7	231.2	230.7	230.2	229.4	228.2	227.0	225.8	224.5	223.8
77.5°	174.8	174.6	174.4	174.2	174.0	173.6	172.8	172.2	171.5	170.8	170.4
80°	138.7	138.7	138.7	138.7	138.7	138.4	137.9	137.5	137.0	136.5	136.2
82.5°	107.0	106.6	106.2	105.8	105.4	105.2	105.1	105.0	104.8	104.8	104.4
85°	60.5	60.7	61.0	61.2	61.5	61.6	61.6	61.6	61.6	61.6	61.4
87.5°	24.0	24.4	24.7	25.1	25.5	25.8	25.8	26.0	26.2	26.3	26.5
90°	1.1	2.9	4.8	6.7	8.6	10.4	12.0	13.6	15.2	16.9	18.1
92.5°	16.2	14.9	13.6	12.3	11.0	11.1	12.6	13.9	15.4	16.9	18.1
95°	60.2	59.4	58.8	58.0	57.3	52.5	43.6	34.7	25.8	16.9	18.1
97.5°	125.6	126.9	128.2	129.4	130.7	122.5	104.8	87.2	69.5	51.9	45.3
100°	176.3	177.0	177.7	178.4	179.1	179.9	180.8	181.8	182.7	183.7	148.7
102.5°	227.8	228.7	229.6	230.5	231.4	232.1	232.7	233.3	233.7	234.3	227.7
105°	310.4	311.3	312.3	313.2	314.1	314.5	314.5	314.5	314.5	314.5	314.5
107.5°	396.1	396.1	396.1	396.1	396.1	396.3	396.8	397.2	397.7	398.2	398.2
110°	451.8	451.8	451.8	451.8	451.8	452.0	452.5	453.0	453.5	453.9	453.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	504.2	504.8	505.3	505.8	506.4	506.9	507.1	507.4	507.7	507.9	507.0
115°	582.7	583.8	585.1	586.2	587.4	588.1	588.3	588.6	588.8	589.1	588.1
117.5°	664.0	663.9	663.9	663.8	663.8	664.2	665.1	666.0	666.9	667.8	666.6
120°	714.6	714.4	714.2	714.0	713.7	714.0	714.6	715.3	716.1	716.7	716.3
122.5°	759.4	760.3	761.2	762.1	763.0	763.6	763.9	764.3	764.6	764.9	764.4
125°	828.7	830.3	831.9	833.6	835.2	836.0	836.0	836.0	836.0	836.0	835.1
127.5°	894.7	895.9	897.1	898.2	899.4	899.9	899.8	899.7	899.5	899.4	898.9
130°	935.2	936.5	937.6	938.8	940.0	940.7	940.9	941.1	941.3	941.6	940.9
132.5°	975.8	977.1	978.5	979.9	981.2	981.7	981.1	980.6	980.2	979.6	979.5
135°	1033.5	1034.9	1036.2	1037.6	1039.1	1039.5	1039.1	1038.6	1038.1	1037.6	1037.2
137.5°	1086.5	1087.6	1088.8	1090.1	1091.3	1091.7	1091.3	1090.9	1090.5	1090.1	1090.1
140°	1121.0	1121.5	1122.0	1122.4	1122.9	1123.1	1122.8	1122.6	1122.3	1122.1	1122.6
142.5°	1152.3	1152.6	1152.8	1153.2	1153.4	1153.7	1154.1	1154.4	1154.7	1155.0	1155.1
145°	1198.1	1198.6	1199.1	1199.5	1200.0	1200.2	1200.2	1200.2	1200.2	1200.2	1200.4
147.5°	1238.2	1238.1	1238.0	1238.0	1237.9	1238.0	1238.2	1238.5	1238.8	1239.1	1239.3
150°	1263.6	1263.1	1262.7	1262.2	1261.7	1261.7	1262.2	1262.7	1263.1	1263.6	1264.0
152.5°	1288.0	1287.0	1286.0	1285.0	1283.9	1283.6	1284.1	1284.6	1285.1	1285.5	1286.0
155°	1319.5	1318.1	1316.7	1315.3	1313.9	1313.4	1313.9	1314.3	1314.8	1315.3	1316.0
157.5°	1343.8	1343.0	1342.1	1341.2	1340.4	1340.0	1340.0	1340.1	1340.2	1340.2	1340.9
160°	1360.7	1359.3	1357.9	1356.4	1355.0	1354.5	1354.7	1354.9	1355.2	1355.4	1356.3
162.5°	1374.2	1372.8	1371.3	1369.9	1368.6	1368.0	1368.2	1368.5	1368.6	1368.9	1370.2
165°	1392.4	1390.9	1389.5	1388.1	1386.7	1386.1	1386.3	1386.6	1386.8	1387.1	1388.5
167.5°	1405.8	1404.4	1403.0	1401.5	1400.0	1399.5	1399.6	1399.9	1400.1	1400.4	1402.1
170°	1413.5	1411.9	1410.1	1408.5	1406.9	1406.1	1406.4	1406.6	1406.9	1407.1	1409.0
172.5°	1418.5	1416.9	1415.3	1413.6	1411.9	1411.4	1411.8	1412.2	1412.6	1413.0	1414.7
175°	1424.0	1422.6	1421.2	1419.8	1418.4	1417.8	1418.1	1418.3	1418.5	1418.7	1420.6
177.5°	1426.5	1425.4	1424.3	1423.2	1422.0	1421.6	1421.8	1422.0	1422.1	1422.3	1423.7
180°	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2	1391.2
2.5°	1387.2	1389.1	1391.1	1392.0	1391.8	1391.6	1391.4	1391.2
5°	1380.2	1382.4	1384.6	1385.6	1385.4	1385.1	1384.9	1384.6
7.5°	1366.2	1368.4	1370.5	1371.5	1371.3	1371.0	1370.8	1370.5
10°	1354.4	1356.3	1358.3	1359.2	1358.9	1358.7	1358.5	1358.2
12.5°	1338.6	1340.2	1341.7	1342.6	1342.5	1342.4	1342.4	1342.3
15°	1311.1	1312.3	1313.5	1314.2	1314.2	1314.2	1314.2	1314.2
17.5°	1279.1	1280.6	1282.1	1282.3	1281.1	1279.9	1278.6	1277.4
20°	1254.8	1256.5	1258.3	1258.5	1257.3	1256.1	1254.8	1253.6
22.5°	1227.3	1228.4	1229.5	1229.6	1228.8	1228.0	1227.2	1226.3
25°	1183.1	1183.6	1184.1	1183.9	1183.2	1182.4	1181.7	1181.0
27.5°	1136.7	1136.8	1136.9	1136.6	1135.9	1135.1	1134.4	1133.7
30°	1102.9	1102.4	1102.0	1101.4	1100.7	1099.9	1099.2	1098.5
32.5°	1068.7	1067.8	1067.0	1065.8	1064.5	1063.2	1061.8	1060.5
35°	1015.6	1014.4	1013.2	1011.6	1009.7	1007.7	1005.8	1003.8
37.5°	959.9	958.1	956.3	954.8	953.7	952.5	951.4	950.3
40°	921.2	919.0	916.8	915.3	914.6	913.9	913.1	912.4
42.5°	882.9	880.8	878.9	877.3	876.2	875.1	873.9	872.8
45°	826.2	823.3	820.4	818.5	817.7	817.0	816.3	815.5
47.5°	766.5	763.4	760.5	758.1	756.4	754.7	753.0	751.3
50°	725.5	722.4	719.2	716.7	715.0	713.3	711.6	709.9
52.5°	685.8	683.1	680.3	677.9	676.0	674.1	672.2	670.3
55°	624.0	621.8	619.6	617.7	616.0	614.2	612.5	610.8
57.5°	562.7	559.9	557.0	555.1	554.2	553.3	552.4	551.4
60°	521.2	518.8	516.3	514.2	512.5	510.8	509.1	507.4
62.5°	481.2	478.6	475.9	473.9	472.6	471.3	469.9	468.6
65°	418.2	416.0	413.8	412.2	411.2	410.3	409.3	408.3
67.5°	358.2	356.3	354.4	353.2	352.6	352.0	351.5	350.9
70°	318.5	317.0	315.5	314.3	313.3	312.3	311.4	310.4
72.5°	281.1	279.4	277.8	276.5	275.5	274.5	273.5	272.6
75°	223.1	222.3	221.6	220.7	219.7	218.7	217.8	216.8
77.5°	169.9	169.5	169.1	168.5	167.8	167.1	166.4	165.8
80°	136.0	135.7	135.5	135.1	134.6	134.1	133.6	133.1
82.5°	103.9	103.5	103.1	102.7	102.6	102.6	102.5	102.3
85°	61.1	60.9	60.7	60.3	59.8	59.3	58.8	58.3
87.5°	26.7	27.0	27.2	27.2	27.0	26.7	26.4	26.2
90°	19.2	20.4	21.6	22.5	23.2	23.9	24.6	25.4
92.5°	19.2	20.4	21.6	22.3	22.7	23.0	23.3	23.6
95°	19.2	20.4	21.6	22.2	22.2	22.2	22.2	22.2
97.5°	38.7	32.1	25.4	22.2	22.2	22.2	22.2	22.2
100°	113.7	78.8	43.9	25.9	24.9	24.1	23.1	22.2
102.5°	221.1	214.5	207.9	196.6	180.7	164.7	148.7	132.8
105°	314.5	314.5	314.5	314.5	314.2	314.0	313.7	313.5
107.5°	398.3	398.4	398.4	398.0	397.3	396.6	395.9	395.3
110°	452.5	451.8	451.1	450.9	451.1	451.3	451.6	451.8





TEST NUMBER: P333452-930

CATALOG NUMBER: S125DIW-S1090D1340U930-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	506.1	505.3	504.4	503.8	503.4	503.1	502.8	502.5
115°	587.2	586.2	585.3	584.1	582.7	581.3	579.8	578.5
117.5°	665.4	664.1	662.9	661.9	661.4	660.8	660.1	659.6
120°	715.8	715.3	714.9	714.0	712.9	711.7	710.5	709.4
122.5°	763.9	763.4	763.0	762.1	760.8	759.4	758.0	756.7
125°	834.1	833.2	832.3	831.4	830.8	830.1	829.3	828.7
127.5°	898.4	897.8	897.3	896.2	894.5	892.8	891.0	889.2
130°	940.2	939.5	938.8	937.8	936.7	935.5	934.3	933.2
132.5°	979.3	979.2	979.0	978.4	977.2	976.1	974.9	973.7
135°	1036.7	1036.2	1035.8	1034.9	1033.5	1032.0	1030.6	1029.2
137.5°	1090.2	1090.3	1090.4	1089.8	1088.6	1087.4	1086.1	1084.9
140°	1123.1	1123.5	1124.0	1123.5	1122.1	1120.7	1119.3	1117.9
142.5°	1155.2	1155.4	1155.4	1154.8	1153.3	1151.9	1150.6	1149.2
145°	1200.7	1200.9	1201.2	1200.6	1199.1	1197.8	1196.4	1195.0
147.5°	1239.7	1239.9	1240.2	1239.5	1237.8	1236.1	1234.4	1232.7
150°	1264.5	1264.9	1265.4	1264.7	1262.8	1260.9	1259.1	1257.2
152.5°	1286.5	1286.9	1287.4	1286.8	1285.1	1283.4	1281.7	1280.0
155°	1316.7	1317.4	1318.1	1317.5	1315.6	1313.8	1311.9	1310.0
157.5°	1341.7	1342.5	1343.2	1342.6	1340.8	1338.9	1337.0	1335.1
160°	1357.3	1358.2	1359.2	1358.7	1356.8	1354.9	1353.1	1351.2
162.5°	1371.5	1372.9	1374.2	1373.8	1371.7	1369.6	1367.6	1365.5
165°	1389.8	1391.3	1392.7	1392.4	1390.6	1388.7	1386.8	1384.9
167.5°	1403.8	1405.4	1407.1	1406.9	1404.8	1402.7	1400.6	1398.5
170°	1410.9	1412.8	1414.6	1414.5	1412.4	1410.3	1408.2	1406.1
172.5°	1416.4	1418.1	1419.8	1419.6	1417.5	1415.4	1413.2	1411.1
175°	1422.5	1424.3	1426.2	1426.1	1424.0	1421.9	1419.8	1417.6
177.5°	1425.0	1426.3	1427.6	1427.5	1426.0	1424.5	1422.9	1421.5
180°	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0

(END OF REPORT)