

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: P333459-930

Luminaire Tested: **S125DIW-S1090D1560U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333459-930  
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-S1090D1560U930-4F0-1E-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: 8032.6 lumens  
Efficiency: N/A  
Efficacy: 104.9 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

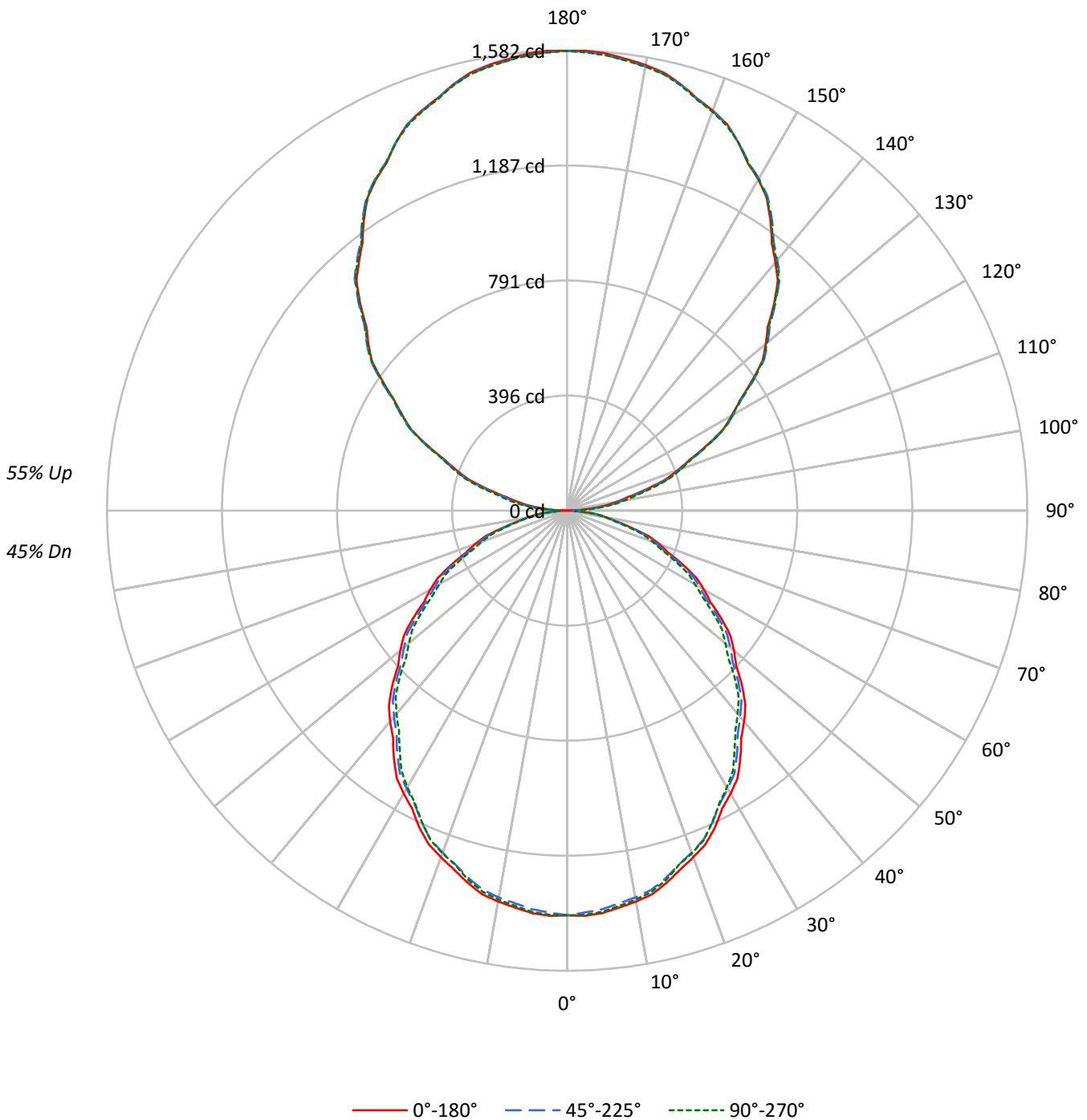
Input Watts (W): 76.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	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	7.9
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°	73.2	0.9
90°-100°	105.8	1.3
100°-110°	312.5	3.9
110°-120°	529.3	6.6
120°-130°	696.6	8.7
130°-140°	780.6	9.7
140°-150°	765.0	9.5
150°-160°	642.6	8.0
160°-170°	427.1	5.3
170°-180°	149.5	1.9
0°-30°	1048.8	13.1
0°-40°	1687.2	21.0
0°-60°	2891.2	36.0
0°-90°	3623.6	45.1
90°-120°	947.6	11.8
90°-150°	3189.8	39.7
90°-180°	4409.0	54.9
0°-180°	8032.6	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	11	20	26	30	8
95°	80	83	95	103	106	85
105°	280	287	294	301	305	299
115°	530	535	537	536	535	524
125°	773	780	782	780	778	692
135°	1006	1013	1014	1014	1010	775
145°	1218	1223	1227	1227	1223	761
155°	1394	1394	1396	1400	1394	642
165°	1516	1514	1515	1519	1512	428
175°	1576	1572	1571	1578	1570	150
180°	1580	1580	1580	1580	1580	



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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°	24.1	24.5	24.9	25.4	25.8	26.1	26.3	26.4	26.7	26.8	27.1
90°	1.2	3.4	5.6	7.8	9.9	12.0	13.9	15.8	17.8	19.6	21.0
92.5°	29.8	31.3	32.9	34.3	35.9	37.8	40.2	42.5	44.8	47.2	49.0
95°	79.9	80.5	81.0	81.5	82.1	83.7	86.5	89.2	92.0	94.7	96.6
97.5°	132.8	133.0	133.2	133.5	133.7	135.7	139.4	143.2	147.0	150.7	152.5
100°	172.1	172.1	172.1	172.1	172.1	173.9	177.5	181.0	184.6	188.1	190.6
102.5°	214.4	215.6	216.6	217.7	218.8	220.3	222.1	223.9	225.7	227.5	230.2
105°	280.4	281.7	283.1	284.5	285.8	287.3	288.9	290.6	292.2	293.9	295.5
107.5°	353.1	354.5	355.9	357.3	358.6	360.0	361.2	362.4	363.7	364.9	365.7
110°	403.3	404.7	406.0	407.4	408.8	409.9	410.7	411.5	412.3	413.1	413.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	454.4	455.2	455.9	456.6	457.3	458.2	459.2	460.2	461.3	462.4	462.7
115°	529.9	531.1	532.1	533.2	534.3	535.2	535.7	536.2	536.8	537.4	537.0
117.5°	605.7	606.2	606.7	607.2	607.6	608.1	608.6	609.1	609.6	610.2	610.3
120°	652.9	654.3	655.7	657.0	658.4	659.2	659.5	659.7	660.0	660.3	660.3
122.5°	704.1	704.6	705.1	705.6	706.0	706.6	707.4	708.1	708.7	709.5	709.2
125°	773.4	775.0	776.7	778.4	780.0	781.0	781.2	781.5	781.8	782.0	781.5
127.5°	847.2	848.2	849.1	849.9	850.9	851.6	851.9	852.2	852.6	852.9	852.6
130°	891.4	892.8	894.2	895.5	896.9	897.9	898.5	898.9	899.5	900.1	899.8
132.5°	935.7	938.0	940.2	942.5	944.7	945.7	945.7	945.5	945.4	945.3	945.0
135°	1005.8	1007.5	1009.1	1010.7	1012.4	1013.3	1013.6	1013.9	1014.2	1014.4	1014.4
137.5°	1071.7	1073.3	1074.9	1076.4	1078.1	1079.1	1079.8	1080.4	1080.9	1081.6	1081.9
140°	1114.0	1115.4	1116.7	1118.1	1119.5	1120.5	1121.4	1122.3	1123.1	1123.9	1124.4
142.5°	1156.3	1157.5	1158.6	1159.8	1160.9	1162.0	1163.0	1164.1	1165.1	1166.1	1166.4
145°	1218.5	1219.6	1220.7	1221.8	1222.9	1223.8	1224.7	1225.5	1226.3	1227.1	1227.1
147.5°	1276.1	1276.7	1277.2	1277.9	1278.5	1279.1	1279.8	1280.4	1281.1	1281.7	1282.4
150°	1314.4	1314.2	1313.9	1313.6	1313.4	1313.8	1314.8	1316.0	1317.0	1318.2	1318.2
152.5°	1345.9	1346.3	1346.7	1347.0	1347.4	1347.9	1348.3	1348.7	1349.2	1349.6	1350.3
155°	1394.4	1394.4	1394.4	1394.4	1394.4	1394.5	1394.8	1395.1	1395.3	1395.6	1396.7
157.5°	1437.6	1437.0	1436.5	1435.8	1435.3	1435.1	1435.3	1435.7	1435.9	1436.1	1437.3
160°	1463.2	1462.4	1461.6	1460.8	1460.0	1459.7	1460.0	1460.2	1460.5	1460.8	1461.8
162.5°	1485.9	1485.2	1484.7	1484.1	1483.4	1483.2	1483.2	1483.3	1483.4	1483.4	1484.7
165°	1516.1	1515.6	1515.0	1514.5	1513.9	1513.8	1514.1	1514.3	1514.6	1514.9	1516.0
167.5°	1541.6	1540.6	1539.5	1538.4	1537.3	1536.8	1536.8	1536.8	1536.8	1536.8	1538.4
170°	1555.4	1554.4	1553.2	1552.2	1551.1	1550.5	1550.5	1550.5	1550.5	1550.5	1552.2
172.5°	1565.3	1564.2	1563.1	1562.0	1560.9	1560.4	1560.4	1560.4	1560.4	1560.4	1562.0
175°	1576.4	1575.2	1574.2	1573.0	1572.0	1571.4	1571.4	1571.4	1571.4	1571.4	1573.0
177.5°	1582.0	1581.1	1580.3	1579.4	1578.5	1577.9	1577.8	1577.5	1577.3	1577.1	1578.4
180°	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1



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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°	27.4	27.6	27.9	28.0	27.7	27.5	27.2	27.1
90°	22.4	23.8	25.1	26.3	27.1	27.9	28.7	29.5
92.5°	50.8	52.6	54.5	55.6	56.3	56.8	57.4	58.0
95°	98.5	100.4	102.3	103.5	104.1	104.7	105.2	105.7
97.5°	154.3	156.1	157.9	159.1	159.4	159.7	160.0	160.4
100°	193.1	195.5	198.0	199.5	200.0	200.6	201.1	201.6
102.5°	232.8	235.5	238.1	239.9	240.7	241.4	242.2	243.0
105°	297.2	298.8	300.4	301.7	302.5	303.3	304.1	304.9
107.5°	366.6	367.4	368.2	368.6	368.5	368.5	368.4	368.4
110°	414.8	415.6	416.5	416.7	416.5	416.1	415.9	415.6





TEST NUMBER: P333459-930

CATALOG NUMBER: S125DIW-S1090D1560U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	463.1	463.5	463.8	463.8	463.3	462.8	462.4	461.9
115°	536.8	536.5	536.2	536.0	535.7	535.4	535.2	534.9
117.5°	610.6	610.8	611.0	610.6	609.4	608.4	607.3	606.2
120°	660.3	660.3	660.3	659.7	658.7	657.5	656.5	655.4
122.5°	709.1	708.8	708.6	708.1	707.2	706.3	705.4	704.6
125°	781.0	780.4	779.8	779.4	779.2	778.9	778.6	778.4
127.5°	852.3	852.1	851.7	851.3	850.8	850.3	849.7	849.1
130°	899.5	899.3	898.9	898.5	898.1	897.5	896.9	896.4
132.5°	944.8	944.5	944.2	943.7	943.0	942.2	941.4	940.6
135°	1014.4	1014.4	1014.4	1013.9	1012.8	1011.7	1010.6	1009.5
137.5°	1082.2	1082.6	1082.9	1082.4	1081.0	1079.6	1078.2	1076.8
140°	1124.9	1125.5	1126.0	1125.6	1124.3	1122.9	1121.5	1120.1
142.5°	1166.8	1167.1	1167.5	1166.9	1165.6	1164.2	1162.9	1161.5
145°	1227.1	1227.1	1227.1	1226.7	1225.9	1225.1	1224.3	1223.4
147.5°	1283.0	1283.7	1284.3	1283.8	1281.9	1280.0	1278.2	1276.4
150°	1318.2	1318.2	1318.2	1317.8	1317.3	1316.8	1316.2	1315.6
152.5°	1351.0	1351.6	1352.3	1352.1	1351.1	1350.1	1349.2	1348.2
155°	1397.7	1398.9	1400.0	1399.9	1398.5	1397.1	1395.7	1394.4
157.5°	1438.4	1439.5	1440.6	1440.2	1438.4	1436.6	1434.8	1433.0
160°	1463.0	1464.0	1465.2	1465.0	1463.6	1462.2	1460.9	1459.5
162.5°	1486.0	1487.4	1488.7	1488.5	1486.9	1485.3	1483.8	1482.1
165°	1517.0	1518.2	1519.2	1519.0	1517.4	1515.7	1514.1	1512.4
167.5°	1540.0	1541.6	1543.3	1543.3	1541.6	1539.9	1538.2	1536.5
170°	1553.8	1555.4	1557.1	1557.0	1555.0	1553.1	1551.2	1549.3
172.5°	1563.7	1565.3	1566.9	1566.9	1565.2	1563.5	1561.8	1560.2
175°	1574.8	1576.4	1578.0	1577.8	1576.0	1574.0	1572.1	1570.2
177.5°	1579.7	1581.0	1582.3	1582.3	1580.7	1579.2	1577.6	1576.1
180°	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1

(END OF REPORT)