

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: P333446-940

Luminaire Tested: **S125DIW-S1090D1050U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333446-940
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-S1090D1050U940-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7697.9 lumens
Efficiency: N/A
Efficacy: 125.8 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

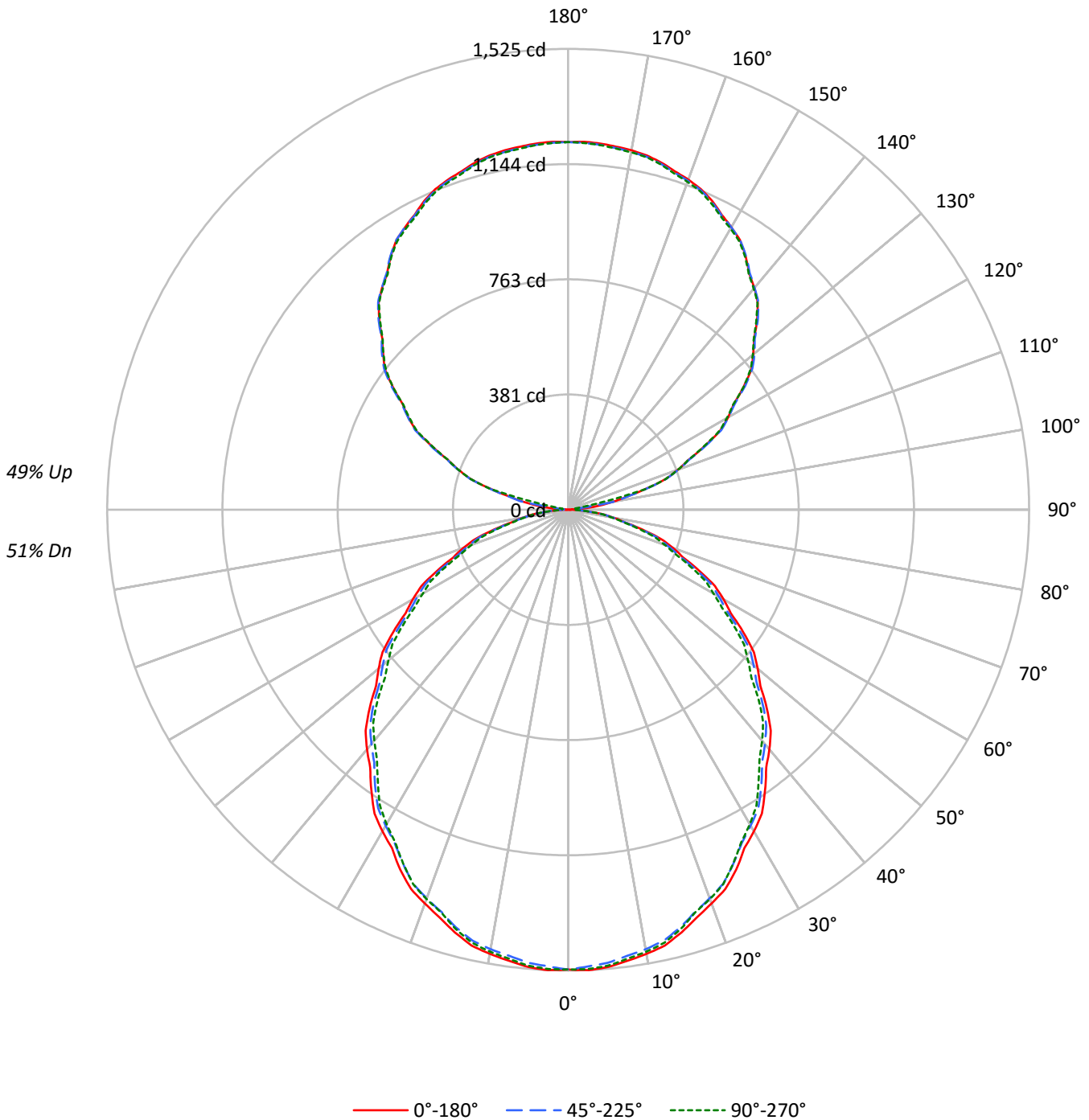
Input Watts (W): 61.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	94	90	86	90	87	83	80	74	71	69	62	60	58	51	50	48	43
2	89	82	76	70	82	76	70	66	65	61	57	54	51	49	45	43	41	36
3	81	72	64	59	75	67	60	55	57	52	48	48	44	41	39	37	35	31
4	74	64	56	50	69	59	52	47	51	45	41	43	39	35	35	32	30	26
5	68	57	48	42	63	53	45	40	45	40	35	38	34	31	32	29	26	23
6	63	51	43	37	58	47	40	35	41	35	31	35	30	27	29	25	23	20
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20	18
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	21	18	16
9	50	38	30	25	46	36	29	24	31	25	22	26	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	21	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9827	9827	9827
5°	9849	9756	9818
10°	9789	9686	9742
15°	9682	9570	9610
20°	9531	9407	9423
25°	9368	9213	9204
30°	9165	9004	8959
35°	8949	8779	8656
40°	8728	8535	8413
45°	8488	8312	8147
50°	8225	8043	7801
55°	7970	7739	7523
60°	7665	7432	7167
65°	7303	7065	6825
70°	6956	6637	6411
75°	6338	6128	5916
80°	5642	5553	5415
85°	4905	4994	4728



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.5	1.9
10°-20°	405.3	5.3
20°-30°	598.4	7.8
30°-40°	698.2	9.1
40°-50°	701.3	9.1
50°-60°	615.6	8.0
60°-70°	458.7	6.0
70°-80°	262.3	3.4
80°-90°	78.8	1.0
90°-100°	44.2	0.6
100°-110°	272.5	3.5
110°-120°	494.2	6.4
120°-130°	634.2	8.2
130°-140°	682.1	8.9
140°-150°	640.3	8.3
150°-160°	517.9	6.7
160°-170°	335.0	4.4
170°-180°	115.5	1.5
0°-30°	1147.1	14.9
0°-40°	1845.3	24.0
0°-60°	3162.2	41.1
0°-90°	3961.9	51.5
90°-120°	810.9	10.5
90°-150°	2767.5	36.0
90°-180°	3736.0	48.5
0°-180°	7697.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1519	1516	1505	1515	1514	144
15°	1448	1444	1431	1437	1437	408
25°	1315	1308	1293	1295	1292	605
35°	1135	1130	1114	1107	1098	710
45°	929	924	910	896	892	716
55°	708	703	687	677	668	632
65°	478	475	462	452	447	474
75°	254	251	246	242	237	271
85°	66	67	67	66	64	74
90°	1	8	14	19	22	6
95°	51	47	14	19	19	66
105°	265	269	269	269	268	281
115°	498	502	503	500	494	493
125°	708	714	714	711	708	632
135°	883	888	886	884	879	680
145°	1024	1025	1025	1026	1021	640
155°	1127	1122	1124	1126	1119	519
165°	1190	1184	1185	1190	1183	336
175°	1217	1212	1212	1218	1211	116
180°	1217	1217	1217	1217	1217	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6
2.5°	1525.4	1524.8	1524.1	1523.5	1522.9	1521.4	1519.3	1517.2	1515.0	1512.9	1515.0
5°	1519.2	1518.7	1518.1	1517.6	1517.1	1515.5	1512.8	1510.1	1507.4	1504.8	1507.2
7.5°	1505.2	1504.7	1504.1	1503.6	1503.1	1501.3	1498.3	1495.4	1492.5	1489.5	1491.9
10°	1492.7	1492.2	1491.7	1491.1	1490.6	1488.8	1485.9	1482.9	1480.0	1477.0	1479.2
12.5°	1477.3	1476.3	1475.3	1474.4	1473.5	1471.6	1468.8	1466.2	1463.4	1460.6	1462.4
15°	1448.1	1447.3	1446.5	1445.7	1444.9	1443.1	1440.1	1437.2	1434.2	1431.3	1432.6
17.5°	1414.7	1413.5	1412.3	1411.1	1410.0	1407.8	1404.8	1401.8	1398.7	1395.6	1397.3
20°	1386.8	1386.3	1385.7	1385.2	1384.6	1382.6	1379.1	1375.6	1372.2	1368.7	1370.6
22.5°	1358.8	1357.9	1356.9	1355.9	1355.0	1352.8	1349.6	1346.3	1343.1	1339.8	1341.0
25°	1314.6	1313.2	1311.9	1310.5	1309.2	1306.8	1303.3	1299.8	1296.4	1292.9	1293.4
27.5°	1262.8	1261.9	1261.1	1260.3	1259.5	1257.4	1253.7	1250.2	1246.6	1243.0	1243.1
30°	1229.0	1228.2	1227.4	1226.6	1225.8	1223.4	1219.4	1215.4	1211.4	1207.4	1206.8
32.5°	1192.5	1191.2	1190.0	1188.7	1187.6	1185.2	1181.5	1177.9	1174.4	1170.8	1169.8
35°	1135.1	1134.1	1133.0	1131.9	1130.9	1128.5	1124.7	1121.0	1117.2	1113.5	1112.1
37.5°	1075.7	1074.3	1073.0	1071.7	1070.3	1067.9	1064.3	1060.9	1057.3	1053.8	1051.8
40°	1035.3	1033.9	1032.6	1031.3	1029.9	1027.3	1023.6	1019.8	1016.1	1012.4	1010.0
42.5°	991.9	990.8	989.7	988.6	987.4	985.0	981.2	977.5	973.7	970.0	967.8
45°	929.3	928.3	927.2	926.1	925.1	922.9	919.7	916.5	913.3	910.1	906.9
47.5°	861.9	861.9	862.0	862.1	862.1	860.2	856.4	852.5	848.6	844.8	841.5
50°	818.6	817.8	817.0	816.2	815.4	813.3	810.1	806.9	803.7	800.5	797.0
52.5°	774.3	773.6	773.1	772.5	772.0	769.9	766.5	763.0	759.6	756.2	753.1
55°	707.8	707.0	706.2	705.4	704.6	702.3	698.6	694.8	691.1	687.3	684.9
57.5°	637.8	637.3	636.9	636.5	636.1	634.3	631.1	627.9	624.8	621.6	618.5
60°	593.4	592.4	591.3	590.2	589.2	587.2	584.2	581.3	578.4	575.4	572.7
62.5°	547.2	546.4	545.5	544.7	543.9	542.2	539.6	537.1	534.6	532.1	529.1
65°	477.9	477.3	476.8	476.3	475.7	474.0	471.1	468.1	465.2	462.3	459.9
67.5°	410.7	409.6	408.5	407.3	406.3	404.6	402.3	400.2	398.0	395.8	393.8
70°	368.4	367.0	365.7	364.4	363.0	361.1	358.7	356.3	353.9	351.5	349.9
72.5°	322.2	321.2	320.3	319.4	318.5	317.3	315.8	314.1	312.6	311.0	309.2
75°	254.0	253.4	252.9	252.4	251.8	250.9	249.6	248.3	246.9	245.6	244.8
77.5°	191.2	190.9	190.7	190.6	190.3	189.8	189.0	188.3	187.6	186.8	186.4
80°	151.7	151.7	151.7	151.7	151.7	151.4	150.9	150.3	149.8	149.3	149.0
82.5°	117.0	116.5	116.2	115.7	115.3	115.0	114.9	114.9	114.7	114.6	114.1
85°	66.2	66.4	66.7	67.0	67.2	67.4	67.4	67.4	67.4	67.4	67.1
87.5°	26.2	26.5	26.8	27.1	27.5	27.6	27.7	27.8	27.8	27.9	28.1
90°	0.9	2.5	4.1	5.7	7.3	8.8	10.3	11.6	13.0	14.4	15.4
92.5°	13.9	12.8	11.7	10.5	9.4	9.5	10.7	11.9	13.2	14.4	15.4
95°	51.4	50.8	50.2	49.6	49.0	44.9	37.3	29.7	22.0	14.4	15.4
97.5°	107.4	108.4	109.5	110.6	111.6	104.7	89.6	74.5	59.5	44.4	38.7
100°	150.6	151.2	151.8	152.4	153.0	153.7	154.5	155.3	156.1	156.9	127.1
102.5°	194.7	195.4	196.2	196.9	197.7	198.3	198.8	199.2	199.7	200.2	194.6
105°	265.1	265.9	266.7	267.5	268.3	268.8	268.8	268.8	268.8	268.8	268.8
107.5°	338.4	338.4	338.4	338.4	338.4	338.6	338.9	339.4	339.7	340.2	340.2
110°	386.0	386.0	386.0	386.0	386.0	386.2	386.6	387.0	387.4	387.8	387.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	430.7	431.2	431.7	432.1	432.7	433.0	433.3	433.5	433.7	434.0	433.2
115°	497.8	498.8	499.8	500.8	501.9	502.4	502.7	502.8	503.0	503.2	502.4
117.5°	567.3	567.2	567.2	567.1	567.1	567.5	568.2	569.0	569.7	570.5	569.4
120°	610.6	610.4	610.1	609.9	609.8	609.9	610.6	611.2	611.7	612.3	612.0
122.5°	648.8	649.5	650.3	651.0	651.8	652.4	652.6	652.9	653.2	653.4	653.1
125°	707.9	709.4	710.8	712.1	713.5	714.3	714.3	714.3	714.3	714.3	713.5
127.5°	764.4	765.4	766.4	767.4	768.4	768.8	768.7	768.7	768.5	768.4	767.9
130°	799.1	800.0	801.0	802.0	803.1	803.6	803.9	804.1	804.2	804.4	803.9
132.5°	833.7	834.8	836.0	837.1	838.3	838.7	838.2	837.8	837.3	837.0	836.8
135°	882.9	884.1	885.3	886.5	887.7	888.1	887.7	887.3	886.9	886.5	886.1
137.5°	928.2	929.3	930.2	931.3	932.4	932.7	932.4	932.0	931.6	931.2	931.3
140°	957.8	958.1	958.6	958.9	959.4	959.5	959.3	959.0	958.9	958.7	959.0
142.5°	984.4	984.7	985.0	985.2	985.4	985.7	986.0	986.2	986.5	986.8	986.9
145°	1023.6	1024.0	1024.4	1024.8	1025.2	1025.4	1025.4	1025.4	1025.4	1025.4	1025.6
147.5°	1057.8	1057.8	1057.7	1057.7	1057.6	1057.7	1057.8	1058.1	1058.4	1058.5	1058.8
150°	1079.5	1079.1	1078.7	1078.3	1077.9	1077.9	1078.3	1078.7	1079.1	1079.5	1080.0
152.5°	1100.5	1099.6	1098.7	1097.8	1096.9	1096.7	1097.1	1097.5	1097.9	1098.2	1098.7
155°	1127.3	1126.1	1124.9	1123.7	1122.5	1122.1	1122.5	1122.9	1123.3	1123.7	1124.3
157.5°	1148.1	1147.4	1146.7	1145.9	1145.1	1144.9	1144.9	1144.9	1145.0	1145.0	1145.7
160°	1162.5	1161.3	1160.1	1158.9	1157.7	1157.2	1157.4	1157.6	1157.8	1158.0	1158.8
162.5°	1174.0	1172.9	1171.6	1170.5	1169.2	1168.7	1168.9	1169.1	1169.3	1169.5	1170.6
165°	1189.5	1188.4	1187.1	1186.0	1184.7	1184.2	1184.5	1184.6	1184.8	1185.0	1186.2
167.5°	1201.0	1199.9	1198.6	1197.4	1196.1	1195.6	1195.8	1196.0	1196.2	1196.4	1197.8
170°	1207.6	1206.2	1204.8	1203.4	1201.9	1201.4	1201.6	1201.8	1201.9	1202.2	1203.8
172.5°	1211.9	1210.5	1209.1	1207.7	1206.3	1205.8	1206.1	1206.5	1206.8	1207.2	1208.6
175°	1216.6	1215.4	1214.2	1213.0	1211.7	1211.3	1211.5	1211.7	1211.9	1212.1	1213.7
177.5°	1218.8	1217.8	1216.8	1215.8	1215.0	1214.5	1214.7	1214.9	1215.0	1215.1	1216.3
180°	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6
2.5°	1517.2	1519.3	1521.4	1522.4	1522.2	1522.0	1521.8	1521.6
5°	1509.6	1512.0	1514.4	1515.5	1515.2	1514.9	1514.7	1514.4
7.5°	1494.2	1496.6	1499.0	1500.0	1499.8	1499.5	1499.2	1499.0
10°	1481.3	1483.5	1485.6	1486.6	1486.3	1486.0	1485.8	1485.5
12.5°	1464.1	1465.8	1467.5	1468.4	1468.3	1468.2	1468.2	1468.1
15°	1434.0	1435.3	1436.6	1437.3	1437.3	1437.3	1437.3	1437.3
17.5°	1399.0	1400.6	1402.3	1402.5	1401.1	1399.8	1398.5	1397.1
20°	1372.4	1374.3	1376.2	1376.4	1375.1	1373.8	1372.4	1371.1
22.5°	1342.3	1343.5	1344.7	1344.9	1344.0	1343.1	1342.2	1341.2
25°	1294.0	1294.5	1295.0	1294.9	1294.1	1293.2	1292.4	1291.6
27.5°	1243.2	1243.3	1243.5	1243.1	1242.3	1241.5	1240.7	1239.9
30°	1206.3	1205.8	1205.2	1204.6	1203.8	1203.0	1202.2	1201.4
32.5°	1168.9	1167.9	1167.0	1165.7	1164.3	1162.9	1161.4	1159.9
35°	1110.8	1109.5	1108.1	1106.4	1104.3	1102.2	1100.0	1097.9
37.5°	1049.8	1047.8	1045.9	1044.3	1043.0	1041.8	1040.5	1039.4
40°	1007.5	1005.1	1002.7	1001.1	1000.3	999.5	998.7	997.9
42.5°	965.6	963.4	961.3	959.5	958.3	957.1	955.8	954.6
45°	903.7	900.4	897.2	895.2	894.4	893.6	892.8	892.0
47.5°	838.3	835.0	831.8	829.2	827.3	825.5	823.6	821.7
50°	793.5	790.1	786.6	783.9	782.0	780.2	778.3	776.4
52.5°	750.1	747.1	744.0	741.5	739.3	737.3	735.2	733.1
55°	682.5	680.1	677.7	675.6	673.7	671.8	669.9	668.1
57.5°	615.5	612.3	609.2	607.2	606.2	605.1	604.1	603.1
60°	570.1	567.4	564.7	562.4	560.5	558.7	556.8	554.9
62.5°	526.3	523.4	520.5	518.4	516.9	515.5	514.0	512.6
65°	457.4	455.0	452.6	450.8	449.8	448.7	447.6	446.6
67.5°	391.7	389.7	387.6	386.3	385.7	385.0	384.4	383.8
70°	348.3	346.7	345.1	343.8	342.7	341.6	340.5	339.5
72.5°	307.5	305.6	303.8	302.4	301.3	300.2	299.2	298.1
75°	244.0	243.2	242.4	241.4	240.3	239.2	238.2	237.1
77.5°	185.8	185.4	184.9	184.3	183.5	182.8	182.0	181.3
80°	148.7	148.5	148.2	147.8	147.2	146.7	146.2	145.6
82.5°	113.6	113.2	112.7	112.4	112.3	112.2	112.1	111.9
85°	66.9	66.6	66.3	65.9	65.4	64.8	64.3	63.8
87.5°	28.4	28.5	28.7	28.7	28.4	28.1	27.7	27.5
90°	16.4	17.5	18.5	19.3	19.9	20.4	21.0	21.7
92.5°	16.4	17.5	18.5	19.1	19.4	19.6	19.9	20.2
95°	16.4	17.5	18.5	18.9	18.9	18.9	18.9	18.9
97.5°	33.1	27.4	21.8	18.9	18.9	18.9	18.9	18.9
100°	97.2	67.3	37.5	22.1	21.3	20.5	19.7	18.9
102.5°	188.9	183.2	177.6	168.0	154.4	140.7	127.1	113.4
105°	268.8	268.8	268.8	268.7	268.5	268.2	268.0	267.9
107.5°	340.3	340.3	340.4	340.1	339.5	338.9	338.2	337.7
110°	386.6	386.0	385.4	385.2	385.4	385.6	385.8	386.0



TEST NUMBER: P333446-940

CATALOG NUMBER: S125DIW-S1090D1050U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	432.5	431.7	431.0	430.4	430.2	429.8	429.5	429.3
115°	501.6	500.8	500.0	499.0	497.8	496.6	495.4	494.2
117.5°	568.5	567.4	566.3	565.5	565.1	564.5	564.0	563.5
120°	611.5	611.2	610.7	610.0	609.0	608.1	607.1	606.0
122.5°	652.6	652.3	651.8	651.1	650.0	648.8	647.6	646.5
125°	712.7	711.9	711.1	710.3	709.8	709.2	708.6	707.9
127.5°	767.5	767.0	766.6	765.6	764.2	762.7	761.2	759.7
130°	803.3	802.6	802.0	801.2	800.2	799.2	798.3	797.3
132.5°	836.7	836.5	836.4	835.9	834.9	833.8	832.9	831.9
135°	885.7	885.3	884.9	884.1	882.9	881.7	880.5	879.3
137.5°	931.4	931.5	931.6	931.1	930.1	929.0	928.0	926.9
140°	959.5	959.8	960.3	959.8	958.7	957.4	956.3	955.0
142.5°	986.9	987.0	987.1	986.6	985.3	984.2	982.9	981.8
145°	1025.8	1026.0	1026.2	1025.7	1024.5	1023.3	1022.1	1020.9
147.5°	1059.1	1059.4	1059.5	1059.0	1057.5	1056.1	1054.6	1053.2
150°	1080.3	1080.8	1081.1	1080.5	1078.9	1077.3	1075.7	1074.1
152.5°	1099.0	1099.5	1099.8	1099.4	1097.9	1096.4	1095.0	1093.6
155°	1124.9	1125.5	1126.1	1125.6	1124.0	1122.4	1120.8	1119.2
157.5°	1146.3	1146.9	1147.5	1147.1	1145.5	1143.9	1142.3	1140.7
160°	1159.6	1160.4	1161.2	1160.7	1159.2	1157.6	1156.0	1154.4
162.5°	1171.8	1172.9	1174.0	1173.7	1171.9	1170.2	1168.4	1166.6
165°	1187.4	1188.7	1189.8	1189.6	1188.0	1186.4	1184.8	1183.2
167.5°	1199.3	1200.7	1202.2	1202.0	1200.2	1198.4	1196.6	1194.8
170°	1205.4	1207.0	1208.6	1208.4	1206.7	1204.9	1203.1	1201.2
172.5°	1210.1	1211.6	1213.0	1212.8	1211.0	1209.2	1207.4	1205.6
175°	1215.3	1216.9	1218.5	1218.4	1216.6	1214.8	1213.0	1211.2
177.5°	1217.4	1218.5	1219.7	1219.6	1218.3	1217.0	1215.8	1214.4
180°	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6

(END OF REPORT)