

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: P333451-940

Luminaire Tested: **S125DIW-S1090D1340U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333451-940  
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-S1090D1340U940-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7953.9 lumens  
Efficiency: N/A  
Efficacy: 114.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

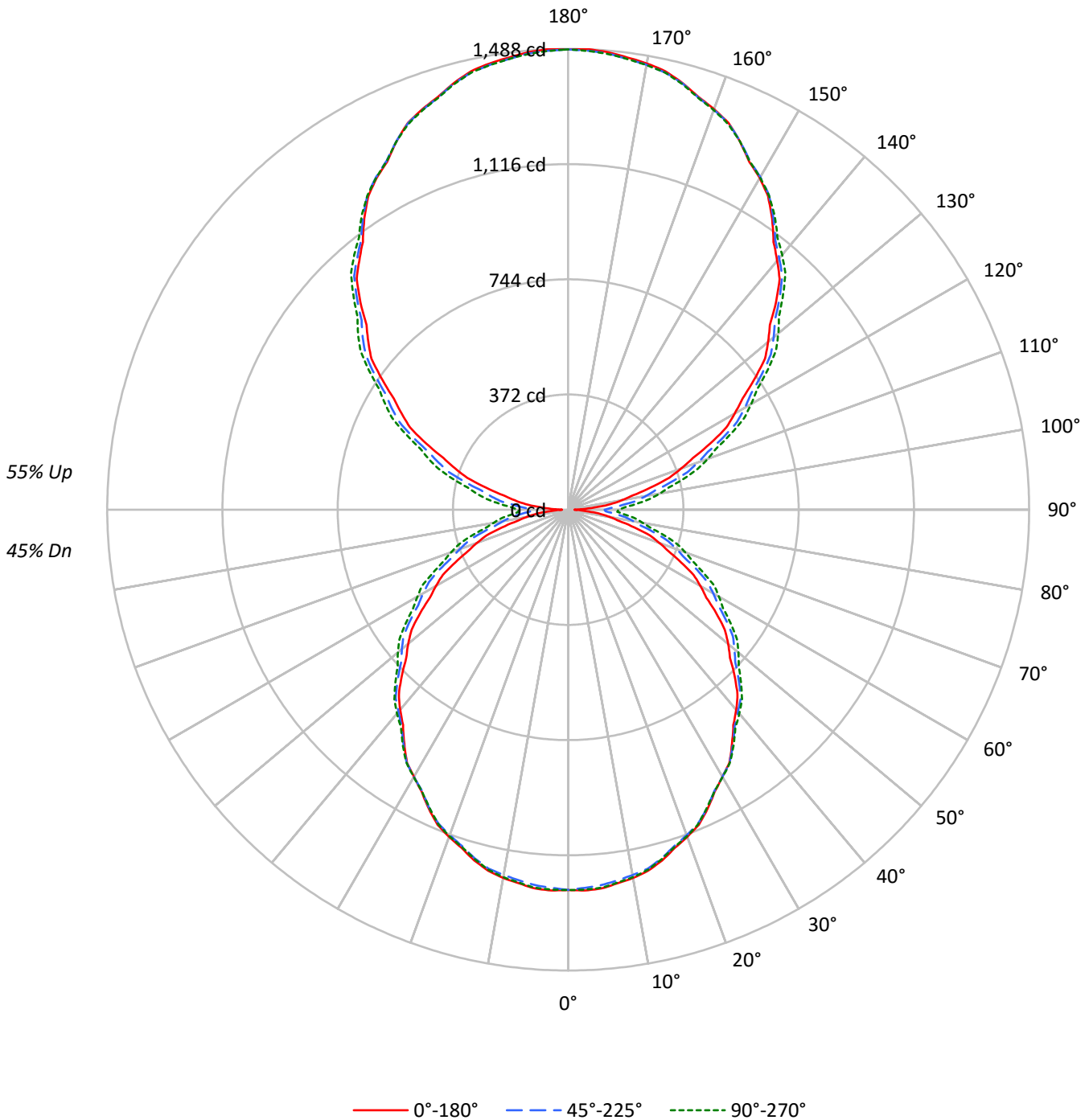
Input Watts (W): 69.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	65	65	65	51	51	51	45
1	96	91	87	84	88	84	80	77	70	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35	30
3	79	70	62	56	72	64	57	52	53	48	44	43	40	37	34	32	29	25
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	28	25	21
5	66	55	46	40	60	50	43	38	42	36	32	34	30	27	27	24	22	18
6	61	49	41	35	56	45	38	32	38	32	28	31	27	23	25	22	19	16
7	56	44	36	30	51	41	33	28	34	29	25	28	24	21	22	19	17	14
8	52	40	32	27	48	37	30	25	31	26	22	26	21	18	21	17	15	13
9	49	36	29	24	44	34	27	22	28	23	19	24	19	16	19	16	14	11
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	12	10

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

	0°	45°	90°
0°	7930	7930	7930
5°	7946	7783	7808
10°	7889	7644	7633
15°	7796	7478	7410
20°	7670	7273	7188
25°	7518	7053	6912
30°	7336	6810	6664
35°	7165	6588	6435
40°	6992	6353	6205
45°	6796	6152	6001
50°	6609	5935	5821
55°	6384	5729	5609
60°	6137	5495	5392
65°	5882	5250	5150
70°	5590	4914	4900
75°	5128	4592	4592
80°	4524	4201	4257
85°	3962	3938	4152



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.1	1.5
10°-20°	329.6	4.1
20°-30°	490.2	6.2
30°-40°	580.6	7.3
40°-50°	600.3	7.5
50°-60°	553.0	7.0
60°-70°	447.0	5.6
70°-80°	299.4	3.8
80°-90°	158.5	2.0
90°-100°	186.7	2.3
100°-110°	358.2	4.5
110°-120°	541.0	6.8
120°-130°	679.8	8.5
130°-140°	745.0	9.4
140°-150°	721.8	9.1
150°-160°	604.5	7.6
160°-170°	401.8	5.1
170°-180°	140.6	1.8
0°-30°	935.9	11.8
0°-40°	1516.5	19.1
0°-60°	2669.7	33.6
0°-90°	3574.6	44.9
90°-120°	1085.9	13.7
90°-150°	3232.4	40.6
90°-180°	4379.0	55.1
0°-180°	7953.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1228	1225	1217	1226	1226	116
15°	1172	1173	1165	1172	1168	330
25°	1065	1068	1062	1066	1060	490
35°	922	930	927	930	930	577
45°	760	772	779	787	788	586
55°	584	603	622	635	640	522
65°	402	430	459	476	482	399
75°	222	253	291	314	321	235
85°	66	106	148	174	184	71
90°	20	68	117	150	163	17
95°	91	126	177	210	222	93
105°	275	301	343	373	386	293
115°	506	520	552	572	579	500
125°	732	739	763	780	785	655
135°	949	955	964	979	981	731
145°	1148	1151	1154	1160	1162	717
155°	1312	1312	1313	1317	1312	604
165°	1426	1424	1425	1429	1423	402
175°	1483	1479	1478	1484	1477	141
180°	1486	1486	1486	1486	1486	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1230.7	1230.3	1229.8	1229.5	1229.0	1228.1	1226.5	1225.0	1223.6	1222.1	1223.6
5°	1227.9	1227.4	1226.8	1226.3	1225.7	1224.5	1222.6	1220.8	1218.9	1217.0	1219.1
7.5°	1217.0	1216.8	1216.6	1216.4	1216.2	1215.1	1213.2	1211.2	1209.3	1207.4	1209.2
10°	1207.4	1207.4	1207.4	1207.4	1207.4	1206.3	1204.2	1202.0	1199.9	1197.7	1199.6
12.5°	1193.9	1194.1	1194.4	1194.5	1194.8	1194.0	1192.3	1190.6	1188.9	1187.1	1188.7
15°	1172.5	1172.8	1173.0	1173.3	1173.6	1172.8	1170.9	1169.0	1167.2	1165.3	1166.9
17.5°	1144.5	1145.0	1145.6	1146.1	1146.7	1146.0	1144.2	1142.3	1140.4	1138.5	1139.8
20°	1124.4	1124.9	1125.4	1126.0	1126.5	1125.8	1123.9	1122.0	1120.2	1118.3	1119.1
22.5°	1101.2	1102.2	1103.1	1104.1	1105.1	1104.5	1102.4	1100.4	1098.2	1096.2	1097.2
25°	1065.3	1066.1	1066.9	1067.7	1068.5	1068.2	1066.6	1065.0	1063.4	1061.8	1062.8
27.5°	1025.4	1026.5	1027.7	1028.9	1030.1	1029.7	1028.0	1026.1	1024.3	1022.5	1023.2
30°	995.5	997.1	998.7	1000.3	1001.9	1001.9	1000.3	998.7	997.1	995.5	996.0
32.5°	968.6	969.9	971.3	972.8	974.1	974.2	973.0	971.9	970.7	969.6	970.1
35°	922.1	924.0	925.9	927.7	929.6	930.1	929.3	928.5	927.7	926.9	927.7
37.5°	875.7	877.4	879.0	880.7	882.4	883.2	883.0	882.7	882.4	882.2	883.2
40°	843.8	846.0	848.1	850.2	852.4	853.4	853.1	852.8	852.6	852.3	853.4
42.5°	809.1	812.0	814.8	817.5	820.3	822.0	822.6	823.1	823.8	824.4	825.6
45°	759.6	762.5	765.4	768.4	771.3	773.5	774.8	776.1	777.5	778.8	780.7
47.5°	708.8	711.5	714.3	716.9	719.7	722.2	724.5	726.8	729.2	731.4	734.1
50°	674.1	677.1	680.0	683.0	685.9	688.8	691.8	694.7	697.7	700.6	703.6
52.5°	637.5	641.1	644.7	648.3	651.8	655.4	659.1	662.6	666.2	669.8	673.0
55°	583.8	588.1	592.4	596.6	600.9	605.2	609.5	613.8	618.0	622.3	625.3
57.5°	529.0	534.0	539.2	544.4	549.5	554.6	559.5	564.4	569.3	574.2	577.6
60°	492.3	497.7	503.0	508.4	513.7	519.1	524.4	529.8	535.1	540.5	544.5
62.5°	456.7	462.1	467.4	472.8	478.1	483.7	489.5	495.3	501.1	506.8	511.2
65°	402.1	408.2	414.4	420.5	426.7	432.9	439.3	445.8	452.2	458.6	462.6
67.5°	350.5	356.5	362.4	368.4	374.3	380.5	387.1	393.6	400.1	406.6	411.5
70°	313.0	319.1	325.3	331.4	337.6	344.1	351.1	358.0	365.0	371.9	377.0
72.5°	276.4	282.8	289.1	295.5	301.8	308.8	316.5	324.0	331.6	339.2	344.7
75°	221.5	228.5	235.4	242.4	249.3	257.1	265.6	274.2	282.8	291.3	296.7
77.5°	168.8	176.8	184.9	192.9	200.9	209.0	217.2	225.5	233.7	241.9	247.8
80°	136.0	144.0	152.0	160.1	168.1	176.6	185.7	194.8	203.9	213.0	218.9
82.5°	106.2	114.6	123.1	131.5	140.0	148.8	158.2	167.5	176.8	186.1	191.8
85°	66.2	75.0	83.8	92.6	101.5	110.6	119.9	129.3	138.7	148.0	153.9
87.5°	37.8	46.7	55.7	64.7	73.7	82.9	92.4	101.8	111.3	120.7	127.2
90°	20.4	31.0	41.6	52.3	62.9	73.7	84.5	95.4	106.3	117.3	124.7
92.5°	45.3	54.7	64.0	73.4	82.8	93.2	104.7	116.3	127.8	139.3	147.0
95°	90.9	98.3	105.8	113.2	120.7	130.3	142.0	153.6	165.2	176.9	184.6
97.5°	139.1	145.6	152.0	158.5	165.0	174.4	186.7	199.0	211.3	223.6	231.0
100°	175.2	180.8	186.5	192.1	197.7	206.4	218.3	230.2	242.1	254.0	262.0
102.5°	214.0	220.3	226.4	232.6	238.9	247.0	257.1	267.1	277.1	287.2	295.1
105°	274.6	280.1	285.7	291.2	296.9	304.4	314.0	323.5	333.1	342.7	349.6
107.5°	341.6	346.5	351.4	356.3	361.3	368.2	377.1	385.9	394.8	403.8	409.8
110°	387.8	392.4	396.8	401.3	405.8	412.1	420.4	428.7	436.9	445.2	451.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	436.0	439.2	442.4	445.7	448.9	454.6	462.9	471.2	479.4	487.7	492.8
115°	505.8	508.6	511.6	514.4	517.4	522.5	530.0	537.5	544.9	552.4	557.0
117.5°	575.8	577.5	579.2	580.9	582.6	586.9	594.0	601.0	608.1	615.1	619.9
120°	620.2	622.3	624.4	626.5	628.6	632.8	639.3	645.6	652.0	658.4	663.0
122.5°	667.4	668.2	669.1	669.9	670.7	674.5	681.1	687.7	694.3	700.9	705.0
125°	732.4	733.6	734.9	736.2	737.4	740.9	746.5	752.2	757.8	763.3	767.1
127.5°	800.6	801.2	801.8	802.4	803.0	805.7	810.4	815.0	819.7	824.5	828.1
130°	842.2	843.2	844.3	845.3	846.3	848.9	853.2	857.5	861.7	865.9	869.4
132.5°	882.9	884.9	887.0	889.0	891.1	893.5	896.3	899.1	901.9	904.6	908.2
135°	948.6	949.9	951.1	952.4	953.7	955.4	957.5	959.7	961.8	963.9	967.4
137.5°	1010.3	1011.6	1012.9	1014.1	1015.5	1016.8	1018.3	1019.8	1021.3	1022.7	1026.2
140°	1049.2	1050.4	1051.8	1053.0	1054.3	1055.4	1056.5	1057.6	1058.5	1059.6	1063.1
142.5°	1089.0	1089.8	1090.7	1091.5	1092.4	1093.3	1094.4	1095.5	1096.4	1097.5	1100.3
145°	1147.5	1148.3	1149.0	1149.8	1150.6	1151.3	1152.1	1152.8	1153.6	1154.4	1155.7
147.5°	1200.4	1201.0	1201.6	1202.1	1202.7	1203.3	1203.9	1204.5	1205.1	1205.8	1206.8
150°	1236.5	1236.3	1236.0	1235.7	1235.5	1235.8	1236.9	1238.0	1238.9	1240.0	1240.0
152.5°	1266.1	1266.5	1266.9	1267.2	1267.6	1267.9	1268.4	1268.7	1269.2	1269.6	1270.2
155°	1311.7	1311.7	1311.7	1311.7	1311.7	1311.8	1312.1	1312.3	1312.6	1312.9	1313.8
157.5°	1352.4	1351.8	1351.3	1350.7	1350.1	1350.0	1350.2	1350.5	1350.8	1351.0	1352.0
160°	1376.4	1375.7	1374.9	1374.1	1373.4	1373.1	1373.4	1373.7	1373.9	1374.1	1375.2
162.5°	1397.8	1397.2	1396.6	1396.1	1395.5	1395.3	1395.3	1395.3	1395.3	1395.4	1396.7
165°	1426.2	1425.7	1425.1	1424.7	1424.2	1424.1	1424.2	1424.5	1424.8	1425.0	1426.1
167.5°	1450.3	1449.2	1448.2	1447.2	1446.2	1445.6	1445.6	1445.6	1445.6	1445.6	1447.2
170°	1463.2	1462.2	1461.2	1460.2	1459.1	1458.6	1458.6	1458.6	1458.6	1458.6	1460.2
172.5°	1472.5	1471.4	1470.4	1469.4	1468.4	1467.8	1467.8	1467.8	1467.8	1467.8	1469.4
175°	1482.9	1481.8	1480.9	1479.8	1478.8	1478.3	1478.3	1478.3	1478.3	1478.3	1479.8
177.5°	1488.2	1487.4	1486.6	1485.8	1484.9	1484.4	1484.2	1484.0	1483.8	1483.5	1484.8
180°	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1225.0	1226.5	1228.1	1228.7	1228.5	1228.2	1228.1	1227.9
5°	1221.3	1223.4	1225.6	1226.5	1226.3	1226.0	1225.7	1225.5
7.5°	1211.1	1213.0	1214.9	1215.7	1215.4	1215.1	1214.9	1214.6
10°	1201.5	1203.4	1205.2	1206.0	1205.8	1205.5	1205.2	1205.0
12.5°	1190.1	1191.5	1192.9	1193.3	1192.7	1191.9	1191.2	1190.5
15°	1168.5	1170.1	1171.7	1172.0	1170.9	1169.8	1168.8	1167.7
17.5°	1141.0	1142.2	1143.4	1143.7	1143.1	1142.5	1141.8	1141.2
20°	1119.9	1120.7	1121.5	1122.0	1122.0	1122.0	1122.0	1122.0
22.5°	1098.2	1099.2	1100.2	1100.4	1099.7	1099.1	1098.5	1097.9
25°	1063.9	1065.0	1066.0	1065.9	1064.5	1063.2	1061.8	1060.5
27.5°	1024.0	1024.8	1025.5	1025.6	1025.1	1024.7	1024.1	1023.7
30°	996.6	997.1	997.6	997.8	997.6	997.3	997.0	996.8
32.5°	970.6	971.2	971.7	971.8	971.5	971.3	971.0	970.7
35°	928.5	929.3	930.1	930.5	930.5	930.5	930.5	930.5
37.5°	884.3	885.4	886.4	886.9	886.8	886.7	886.5	886.4
40°	854.4	855.5	856.6	857.4	857.9	858.4	859.0	859.5
42.5°	826.9	828.2	829.5	830.2	830.3	830.4	830.5	830.6
45°	782.6	784.4	786.3	787.4	787.6	787.9	788.2	788.5
47.5°	736.9	739.6	742.3	744.0	744.6	745.2	745.7	746.4
50°	706.5	709.4	712.4	714.3	715.1	715.9	716.7	717.5
52.5°	676.1	679.2	682.4	684.3	684.8	685.5	686.1	686.6
55°	628.2	631.2	634.1	636.1	637.2	638.3	639.4	640.4
57.5°	580.9	584.3	587.7	589.8	590.6	591.4	592.2	593.0
60°	548.5	552.5	556.5	558.9	559.7	560.5	561.3	562.1
62.5°	515.7	520.1	524.6	527.3	528.3	529.3	530.3	531.4
65°	466.6	470.6	474.7	477.2	478.3	479.4	480.5	481.5
67.5°	416.3	421.2	426.1	429.3	430.6	432.0	433.4	434.8
70°	382.1	387.2	392.3	395.7	397.3	398.9	400.5	402.1
72.5°	350.3	355.8	361.2	364.6	365.8	366.9	368.1	369.3
75°	302.0	307.4	312.7	316.0	317.4	318.7	320.0	321.4
77.5°	253.7	259.6	265.5	268.9	270.0	271.1	272.2	273.2
80°	224.8	230.7	236.6	240.0	241.1	242.2	243.3	244.3
82.5°	197.4	203.1	208.7	212.6	214.5	216.4	218.4	220.3
85°	159.8	165.7	171.6	175.6	177.7	179.9	182.0	184.1
87.5°	133.5	139.9	146.3	150.6	152.6	154.6	156.7	158.6
90°	132.1	139.6	147.0	152.0	154.6	157.3	160.0	162.6
92.5°	154.5	162.2	169.8	174.9	177.3	179.8	182.2	184.6
95°	192.3	200.0	207.7	212.7	215.1	217.5	219.9	222.3
97.5°	238.3	245.6	252.9	257.6	259.8	261.9	264.0	266.2
100°	269.9	277.8	285.7	290.8	292.9	295.0	297.1	299.3
102.5°	303.0	310.9	318.9	324.0	326.3	328.7	331.0	333.3
105°	356.4	363.4	370.2	375.0	377.6	380.3	382.9	385.6
107.5°	415.9	422.0	428.0	431.9	433.5	435.1	436.7	438.3
110°	456.9	462.8	468.7	472.3	474.0	475.6	477.2	478.8





TEST NUMBER: P333451-940

CATALOG NUMBER: S125DIW-S1090D1340U940-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	498.1	503.4	508.5	511.8	513.3	514.7	516.1	517.5
115°	561.5	566.1	570.7	573.6	575.0	576.3	577.7	579.0
117.5°	624.6	629.4	634.1	636.9	637.7	638.5	639.3	640.1
120°	667.5	672.1	676.6	679.2	679.8	680.4	680.9	681.5
122.5°	709.2	713.3	717.4	719.9	720.6	721.4	722.2	723.0
125°	770.9	774.6	778.4	780.9	781.9	783.0	784.1	785.2
127.5°	831.9	835.5	839.3	841.6	842.7	843.6	844.7	845.8
130°	872.9	876.5	879.9	882.1	882.9	883.7	884.6	885.4
132.5°	911.7	915.2	918.6	920.6	921.0	921.4	921.8	922.2
135°	970.9	974.4	977.9	979.7	980.0	980.3	980.6	981.0
137.5°	1029.7	1033.1	1036.6	1038.2	1038.0	1037.8	1037.6	1037.3
140°	1066.6	1070.0	1073.4	1075.0	1074.9	1074.6	1074.4	1074.2
142.5°	1103.1	1106.0	1108.8	1110.1	1109.9	1109.6	1109.5	1109.2
145°	1157.1	1158.4	1159.8	1160.6	1160.8	1161.2	1161.5	1161.7
147.5°	1207.8	1208.9	1209.9	1209.8	1208.5	1207.3	1206.0	1204.7
150°	1240.0	1240.0	1240.0	1239.8	1239.6	1239.4	1239.1	1238.9
152.5°	1270.8	1271.4	1272.0	1271.9	1271.0	1270.2	1269.4	1268.5
155°	1314.9	1315.9	1317.0	1316.8	1315.5	1314.3	1313.0	1311.7
157.5°	1353.1	1354.1	1355.1	1354.8	1353.1	1351.4	1349.7	1348.0
160°	1376.2	1377.2	1378.2	1378.1	1376.9	1375.6	1374.3	1373.0
162.5°	1397.9	1399.1	1400.3	1400.3	1398.7	1397.2	1395.8	1394.3
165°	1427.1	1428.2	1429.1	1428.9	1427.4	1425.8	1424.2	1422.7
167.5°	1448.8	1450.3	1451.8	1451.8	1450.2	1448.6	1447.0	1445.4
170°	1461.7	1463.2	1464.7	1464.6	1462.9	1461.1	1459.2	1457.4
172.5°	1471.0	1472.5	1474.0	1474.0	1472.4	1470.8	1469.2	1467.6
175°	1481.3	1482.9	1484.4	1484.3	1482.5	1480.7	1478.9	1477.1
177.5°	1486.0	1487.3	1488.5	1488.4	1486.9	1485.5	1484.1	1482.6
180°	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4

(END OF REPORT)