

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: P333428-935

Luminaire Tested: **S125DIW-S850D1560U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333428-935
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-S850D1560U935-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8314.0 lumens
Efficiency: N/A
Efficacy: 122.1 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: Semi-Indirect

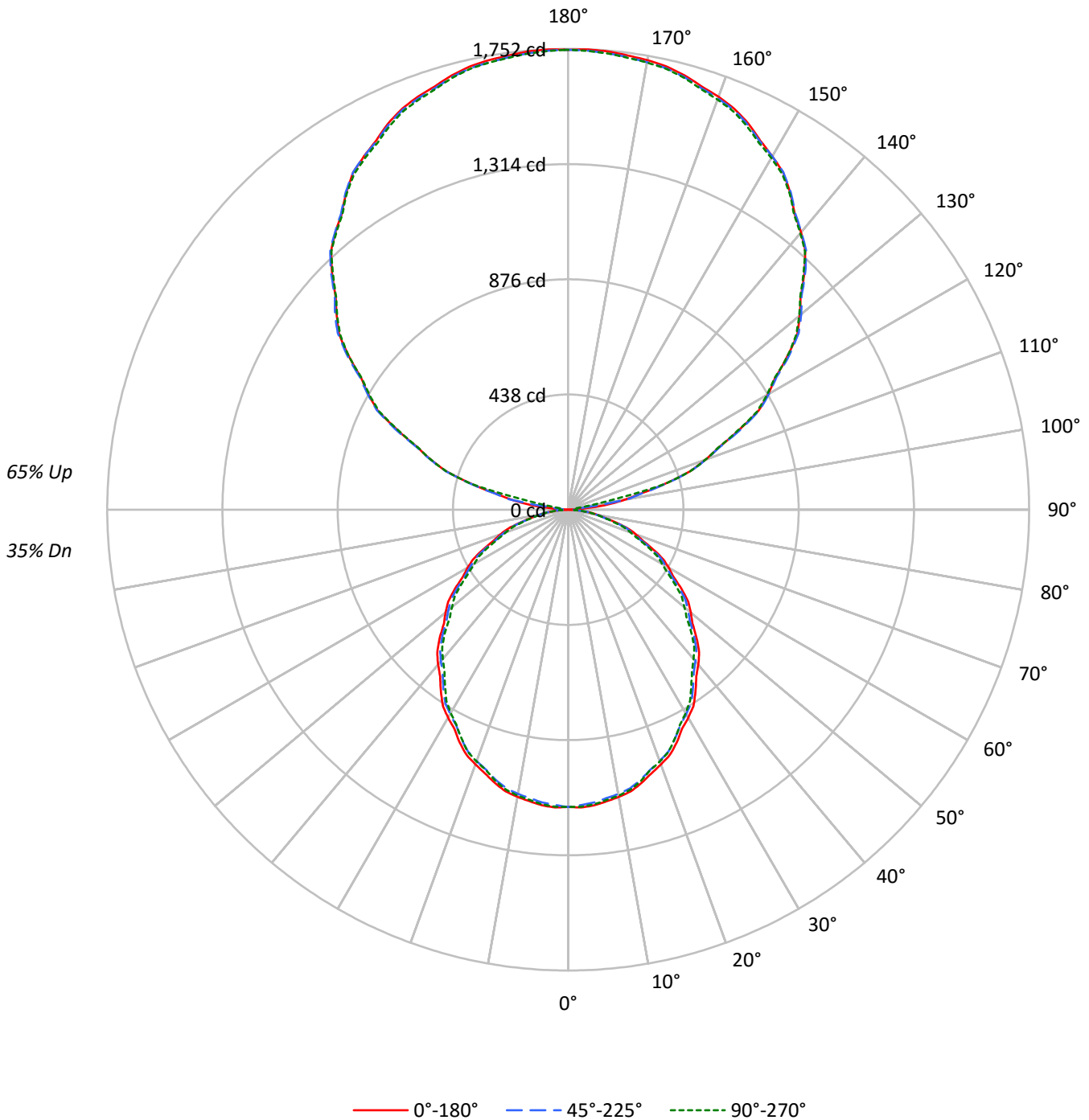
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	35
1	94	90	86	83	85	82	78	76	66	64	62	51	50	48	38	37	36	30
2	86	79	73	68	77	71	66	62	58	54	51	45	42	40	33	32	30	25
3	78	69	62	56	71	63	57	52	51	46	43	40	37	34	29	27	26	21
4	72	61	53	47	64	56	49	44	45	40	36	35	32	29	26	24	22	18
5	66	54	46	41	59	49	43	37	40	35	31	32	28	25	24	21	19	16
6	60	49	41	35	54	44	37	32	36	31	27	28	25	22	21	19	17	14
7	56	44	36	31	50	40	33	28	33	28	24	26	22	19	19	17	15	12
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	18	15	13	11
9	48	36	29	24	43	33	27	22	27	22	19	22	18	15	16	14	12	10
10	45	33	26	21	41	30	24	20	25	20	17	20	16	14	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7299	7299	7299
5°	7316	7247	7293
10°	7271	7195	7237
15°	7192	7109	7138
20°	7080	6988	7000
25°	6959	6844	6837
30°	6809	6689	6655
35°	6649	6522	6430
40°	6483	6340	6250
45°	6305	6175	6052
50°	6109	5974	5795
55°	5920	5749	5588
60°	5694	5521	5324
65°	5425	5248	5069
70°	5166	4930	4762
75°	4706	4551	4397
80°	4192	4125	4024
85°	3646	3712	3512



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.6	1.3
10°-20°	301.0	3.6
20°-30°	444.5	5.3
30°-40°	518.7	6.2
40°-50°	520.9	6.3
50°-60°	457.3	5.5
60°-70°	340.7	4.1
70°-80°	194.8	2.3
80°-90°	60.3	0.7
90°-100°	63.5	0.8
100°-110°	391.6	4.7
110°-120°	710.2	8.5
120°-130°	911.5	11.0
130°-140°	980.4	11.8
140°-150°	920.2	11.1
150°-160°	744.4	9.0
160°-170°	481.4	5.8
170°-180°	166.0	2.0
0°-30°	852.1	10.2
0°-40°	1370.8	16.5
0°-60°	2348.9	28.3
0°-90°	2944.8	35.4
90°-120°	1165.3	14.0
90°-150°	3977.4	47.8
90°-180°	5369.0	64.6
0°-180°	8314.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1128	1126	1118	1125	1125	107
15°	1076	1073	1063	1067	1068	303
25°	976	972	960	962	960	449
35°	843	839	827	823	816	527
45°	690	686	676	666	663	532
55°	526	523	511	503	496	469
65°	355	353	343	336	332	352
75°	189	187	182	180	176	201
85°	49	50	50	49	47	55
90°	1	12	21	27	31	6
95°	74	67	21	27	27	94
105°	381	386	386	386	385	404
115°	716	722	723	718	710	709
125°	1017	1026	1026	1021	1017	908
135°	1269	1276	1274	1271	1264	978
145°	1471	1474	1474	1474	1467	920
155°	1620	1613	1615	1618	1608	746
165°	1710	1702	1703	1710	1700	483
175°	1748	1741	1742	1751	1741	166
180°	1748	1748	1748	1748	1748	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2
2.5°	1133.2	1132.6	1132.2	1131.7	1131.2	1130.1	1128.6	1127.0	1125.4	1123.9	1125.4
5°	1128.5	1128.1	1127.7	1127.3	1126.9	1125.7	1123.7	1121.7	1119.7	1117.8	1119.6
7.5°	1118.1	1117.8	1117.3	1116.9	1116.5	1115.3	1113.0	1110.9	1108.7	1106.5	1108.2
10°	1108.8	1108.5	1108.0	1107.6	1107.2	1106.0	1103.7	1101.6	1099.4	1097.2	1098.8
12.5°	1097.3	1096.7	1096.0	1095.2	1094.5	1093.1	1091.1	1089.1	1087.0	1085.0	1086.3
15°	1075.7	1075.1	1074.5	1073.9	1073.3	1071.9	1069.8	1067.6	1065.4	1063.2	1064.2
17.5°	1050.9	1050.0	1049.1	1048.3	1047.4	1045.8	1043.5	1041.3	1039.0	1036.7	1037.9
20°	1030.1	1029.8	1029.3	1028.9	1028.6	1027.0	1024.4	1021.8	1019.3	1016.7	1018.1
22.5°	1009.4	1008.7	1008.0	1007.2	1006.5	1005.0	1002.5	1000.1	997.6	995.2	996.2
25°	976.5	975.5	974.5	973.4	972.5	970.7	968.1	965.5	962.9	960.4	960.8
27.5°	938.0	937.5	936.9	936.3	935.6	934.0	931.3	928.7	926.0	923.3	923.4
30°	913.0	912.4	911.8	911.2	910.6	908.8	905.9	902.8	899.8	896.9	896.5
32.5°	885.8	884.8	884.0	883.0	882.2	880.4	877.7	875.0	872.4	869.7	869.0
35°	843.3	842.4	841.6	840.9	840.1	838.3	835.5	832.7	829.9	827.2	826.1
37.5°	799.1	798.1	797.0	796.1	795.0	793.2	790.7	788.0	785.4	782.8	781.3
40°	769.0	768.0	767.1	766.0	765.0	763.2	760.3	757.6	754.8	752.0	750.3
42.5°	736.8	736.0	735.1	734.3	733.5	731.7	728.9	726.1	723.3	720.6	718.9
45°	690.3	689.5	688.7	687.9	687.2	685.5	683.2	680.8	678.4	676.1	673.6
47.5°	640.2	640.3	640.3	640.3	640.4	639.0	636.1	633.3	630.4	627.6	625.1
50°	608.0	607.4	606.8	606.2	605.7	604.2	601.8	599.4	597.0	594.6	592.0
52.5°	575.1	574.7	574.3	573.9	573.4	571.9	569.4	566.8	564.3	561.7	559.5
55°	525.8	525.2	524.6	524.0	523.4	521.7	518.9	516.2	513.3	510.6	508.8
57.5°	473.7	473.5	473.1	472.8	472.5	471.1	468.8	466.5	464.1	461.8	459.4
60°	440.8	440.1	439.3	438.4	437.6	436.2	433.9	431.8	429.6	427.4	425.4
62.5°	406.5	405.9	405.3	404.6	404.0	402.7	400.9	399.0	397.1	395.2	393.1
65°	355.0	354.6	354.2	353.8	353.4	352.1	349.9	347.8	345.5	343.4	341.6
67.5°	305.1	304.3	303.4	302.6	301.8	300.5	298.9	297.3	295.7	294.0	292.5
70°	273.6	272.6	271.6	270.6	269.7	268.3	266.5	264.7	262.9	261.1	259.9
72.5°	239.3	238.6	237.9	237.3	236.6	235.7	234.5	233.3	232.2	231.1	229.7
75°	188.6	188.3	187.9	187.5	187.1	186.4	185.4	184.4	183.4	182.4	181.8
77.5°	142.0	141.8	141.7	141.5	141.4	141.0	140.4	139.9	139.3	138.8	138.4
80°	112.7	112.7	112.7	112.7	112.7	112.4	112.1	111.7	111.2	110.9	110.7
82.5°	86.9	86.6	86.3	85.9	85.7	85.4	85.3	85.3	85.2	85.2	84.8
85°	49.2	49.4	49.6	49.8	49.9	50.1	50.1	50.1	50.1	50.1	49.9
87.5°	19.5	20.1	20.5	20.9	21.4	21.8	22.0	22.3	22.5	22.7	23.1
90°	1.3	3.6	5.9	8.2	10.5	12.7	14.7	16.7	18.7	20.8	22.2
92.5°	20.0	18.3	16.7	15.2	13.5	13.6	15.4	17.1	18.9	20.8	22.2
95°	73.9	73.0	72.2	71.3	70.4	64.5	53.6	42.6	31.7	20.8	22.2
97.5°	154.2	155.8	157.3	158.9	160.5	150.4	128.7	107.1	85.4	63.8	55.6
100°	216.5	217.3	218.2	219.0	219.9	220.9	222.1	223.3	224.4	225.5	182.6
102.5°	279.7	280.8	281.9	283.0	284.0	285.0	285.7	286.4	287.1	287.7	279.7
105°	381.1	382.2	383.4	384.5	385.6	386.2	386.2	386.2	386.2	386.2	386.2
107.5°	486.3	486.3	486.3	486.3	486.3	486.6	487.2	487.8	488.4	488.9	489.0
110°	554.7	554.7	554.7	554.7	554.7	555.0	555.6	556.2	556.7	557.3	556.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	619.1	619.7	620.4	621.1	621.8	622.3	622.7	623.0	623.4	623.7	622.6
115°	715.5	716.9	718.3	719.8	721.2	722.0	722.4	722.6	723.0	723.2	722.0
117.5°	815.3	815.2	815.1	815.1	815.0	815.5	816.7	817.7	818.8	819.9	818.4
120°	877.4	877.2	876.9	876.6	876.3	876.6	877.4	878.3	879.2	880.0	879.5
122.5°	932.5	933.5	934.6	935.7	936.8	937.5	938.0	938.3	938.7	939.2	938.6
125°	1017.4	1019.4	1021.5	1023.5	1025.5	1026.5	1026.5	1026.5	1026.5	1026.5	1025.4
127.5°	1098.5	1100.0	1101.5	1102.9	1104.3	1105.0	1104.8	1104.7	1104.5	1104.3	1103.6
130°	1148.3	1149.8	1151.2	1152.7	1154.1	1154.9	1155.3	1155.5	1155.8	1156.2	1155.3
132.5°	1198.1	1199.8	1201.4	1203.2	1204.8	1205.3	1204.7	1204.0	1203.4	1202.8	1202.6
135°	1268.9	1270.6	1272.4	1274.1	1275.8	1276.3	1275.8	1275.2	1274.6	1274.1	1273.5
137.5°	1333.9	1335.4	1337.0	1338.4	1340.0	1340.4	1339.9	1339.4	1338.9	1338.3	1338.5
140°	1376.5	1377.1	1377.6	1378.2	1378.8	1378.9	1378.6	1378.4	1378.0	1377.8	1378.4
142.5°	1414.8	1415.1	1415.5	1415.8	1416.2	1416.6	1417.0	1417.4	1417.8	1418.2	1418.3
145°	1471.1	1471.6	1472.2	1472.8	1473.4	1473.7	1473.7	1473.7	1473.7	1473.7	1473.9
147.5°	1520.4	1520.2	1520.1	1520.0	1519.8	1520.0	1520.4	1520.7	1521.0	1521.4	1521.7
150°	1551.4	1550.8	1550.3	1549.7	1549.1	1549.1	1549.7	1550.3	1550.8	1551.4	1552.0
152.5°	1581.5	1580.3	1579.0	1577.7	1576.4	1576.1	1576.7	1577.3	1577.9	1578.4	1579.0
155°	1620.1	1618.4	1616.7	1615.0	1613.3	1612.7	1613.3	1613.8	1614.4	1615.0	1615.8
157.5°	1649.9	1648.9	1647.9	1646.8	1645.8	1645.3	1645.4	1645.5	1645.5	1645.5	1646.5
160°	1670.7	1669.0	1667.2	1665.5	1663.8	1663.0	1663.4	1663.6	1663.9	1664.2	1665.3
162.5°	1687.3	1685.6	1683.9	1682.0	1680.3	1679.6	1679.9	1680.2	1680.5	1680.8	1682.4
165°	1709.6	1707.9	1706.1	1704.3	1702.6	1701.9	1702.2	1702.5	1702.8	1703.1	1704.8
167.5°	1726.1	1724.4	1722.6	1720.8	1719.0	1718.3	1718.6	1718.8	1719.2	1719.4	1721.5
170°	1735.5	1733.5	1731.5	1729.4	1727.4	1726.6	1726.8	1727.2	1727.4	1727.7	1730.0
172.5°	1741.7	1739.7	1737.7	1735.7	1733.6	1732.9	1733.5	1734.0	1734.5	1735.0	1737.1
175°	1748.4	1746.7	1745.0	1743.3	1741.5	1740.9	1741.1	1741.4	1741.7	1742.0	1744.3
177.5°	1751.5	1750.2	1748.8	1747.4	1746.0	1745.4	1745.7	1745.9	1746.1	1746.4	1748.0
180°	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2
2.5°	1127.0	1128.6	1130.1	1130.9	1130.8	1130.6	1130.4	1130.2
5°	1121.4	1123.1	1124.9	1125.7	1125.5	1125.3	1125.1	1124.9
7.5°	1110.0	1111.7	1113.4	1114.2	1114.0	1113.9	1113.6	1113.4
10°	1100.4	1102.0	1103.5	1104.2	1104.1	1103.8	1103.6	1103.5
12.5°	1087.5	1088.8	1090.1	1090.7	1090.7	1090.6	1090.6	1090.5
15°	1065.2	1066.2	1067.2	1067.6	1067.6	1067.6	1067.6	1067.6
17.5°	1039.2	1040.4	1041.6	1041.8	1040.8	1039.8	1038.8	1037.8
20°	1019.5	1020.9	1022.3	1022.4	1021.5	1020.5	1019.5	1018.5
22.5°	997.0	998.0	998.9	999.0	998.3	997.6	997.0	996.3
25°	961.1	961.6	962.0	961.8	961.3	960.7	960.1	959.5
27.5°	923.5	923.6	923.7	923.4	922.8	922.2	921.6	921.0
30°	896.1	895.7	895.3	894.8	894.2	893.6	893.0	892.4
32.5°	868.2	867.5	866.9	865.9	864.9	863.8	862.7	861.7
35°	825.2	824.1	823.2	821.9	820.3	818.7	817.1	815.5
37.5°	779.8	778.3	776.9	775.7	774.8	773.9	773.0	772.1
40°	748.5	746.7	744.9	743.6	743.0	742.5	741.9	741.3
42.5°	717.3	715.7	714.0	712.7	711.9	710.9	710.0	709.1
45°	671.2	668.8	666.5	665.0	664.4	663.8	663.2	662.6
47.5°	622.7	620.3	617.9	616.0	614.6	613.2	611.7	610.4
50°	589.4	586.9	584.3	582.3	580.9	579.5	578.2	576.8
52.5°	557.2	554.9	552.7	550.8	549.2	547.7	546.1	544.6
55°	507.0	505.2	503.4	501.9	500.4	499.0	497.7	496.3
57.5°	457.2	454.9	452.5	451.0	450.2	449.5	448.8	448.0
60°	423.4	421.5	419.5	417.8	416.4	415.0	413.6	412.2
62.5°	391.0	388.8	386.7	385.0	384.0	382.9	381.9	380.7
65°	339.8	338.0	336.2	334.9	334.2	333.4	332.5	331.7
67.5°	291.0	289.5	288.0	287.0	286.5	286.0	285.5	285.1
70°	258.7	257.5	256.3	255.4	254.5	253.7	253.0	252.2
72.5°	228.3	227.0	225.7	224.5	223.8	223.0	222.2	221.4
75°	181.2	180.6	180.0	179.3	178.6	177.7	176.9	176.2
77.5°	138.1	137.7	137.3	136.9	136.3	135.8	135.3	134.7
80°	110.5	110.3	110.1	109.8	109.4	109.0	108.6	108.2
82.5°	84.4	84.0	83.7	83.5	83.4	83.3	83.3	83.2
85°	49.7	49.5	49.2	49.0	48.6	48.2	47.8	47.4
87.5°	23.3	23.6	23.9	23.9	23.8	23.7	23.5	23.4
90°	23.6	25.1	26.5	27.6	28.5	29.4	30.2	31.1
92.5°	23.6	25.1	26.5	27.4	27.8	28.2	28.7	29.0
95°	23.6	25.1	26.5	27.2	27.2	27.2	27.2	27.2
97.5°	47.5	39.4	31.3	27.2	27.2	27.2	27.2	27.2
100°	139.7	96.8	53.9	31.9	30.7	29.5	28.4	27.2
102.5°	271.5	263.4	255.3	241.4	221.8	202.2	182.6	163.1
105°	386.2	386.2	386.2	386.1	385.8	385.6	385.2	385.0
107.5°	489.0	489.0	489.1	488.7	487.8	487.0	486.1	485.3
110°	555.6	554.7	553.9	553.6	553.9	554.1	554.5	554.7



TEST NUMBER: P333428-935

CATALOG NUMBER: S125DIW-S850D1560U935-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	621.5	620.4	619.3	618.5	618.2	617.8	617.3	616.9
115°	720.9	719.8	718.6	717.2	715.5	713.7	712.0	710.2
117.5°	816.9	815.5	813.9	812.8	812.1	811.3	810.5	809.8
120°	878.9	878.3	877.8	876.8	875.3	873.8	872.5	871.0
122.5°	938.0	937.5	936.9	935.7	934.1	932.4	930.7	929.0
125°	1024.2	1023.0	1021.9	1020.9	1020.0	1019.2	1018.3	1017.4
127.5°	1103.0	1102.4	1101.7	1100.4	1098.2	1096.1	1094.0	1091.8
130°	1154.4	1153.6	1152.7	1151.5	1150.1	1148.7	1147.2	1145.7
132.5°	1202.5	1202.3	1202.1	1201.3	1199.9	1198.4	1197.0	1195.5
135°	1272.9	1272.4	1271.8	1270.6	1268.9	1267.1	1265.4	1263.7
137.5°	1338.6	1338.7	1338.9	1338.2	1336.6	1335.2	1333.6	1332.1
140°	1378.9	1379.5	1380.1	1379.5	1377.8	1376.1	1374.3	1372.6
142.5°	1418.4	1418.6	1418.7	1417.9	1416.1	1414.4	1412.6	1410.9
145°	1474.3	1474.5	1474.8	1474.1	1472.4	1470.7	1469.0	1467.2
147.5°	1522.1	1522.4	1522.8	1521.9	1519.8	1517.8	1515.7	1513.6
150°	1552.6	1553.2	1553.8	1552.9	1550.6	1548.3	1546.0	1543.7
152.5°	1579.6	1580.1	1580.7	1579.9	1577.9	1575.8	1573.7	1571.7
155°	1616.7	1617.6	1618.4	1617.6	1615.4	1613.1	1610.8	1608.4
157.5°	1647.4	1648.3	1649.2	1648.6	1646.2	1643.9	1641.6	1639.3
160°	1666.5	1667.7	1668.8	1668.3	1665.9	1663.6	1661.3	1659.1
162.5°	1684.0	1685.7	1687.2	1686.8	1684.3	1681.7	1679.2	1676.6
165°	1706.5	1708.3	1710.0	1709.7	1707.4	1705.1	1702.8	1700.5
167.5°	1723.5	1725.6	1727.7	1727.4	1724.8	1722.3	1719.7	1717.1
170°	1732.3	1734.7	1736.9	1736.8	1734.2	1731.6	1729.0	1726.4
172.5°	1739.1	1741.2	1743.3	1743.0	1740.4	1737.8	1735.3	1732.7
175°	1746.5	1748.9	1751.2	1751.0	1748.4	1745.8	1743.3	1740.7
177.5°	1749.6	1751.2	1752.8	1752.7	1750.8	1749.0	1747.1	1745.3
180°	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4	1748.4

(END OF REPORT)