

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: P333420-840

Luminaire Tested: **S125DIW-S850D1340U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333420-840
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-S850D1340U840-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8733.6 lumens
Efficiency: N/A
Efficacy: 142.2 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: Semi-Indirect

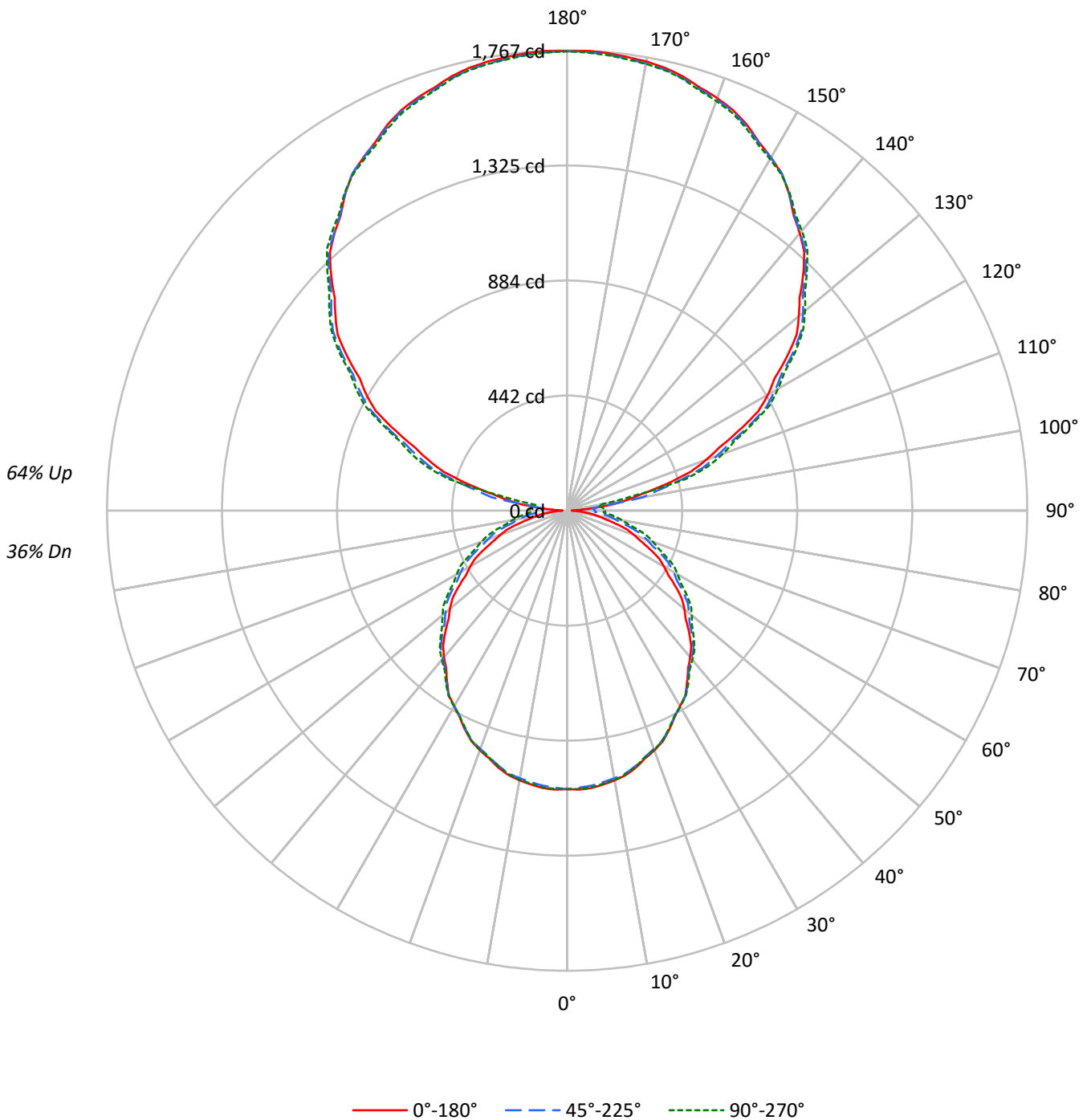
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: S125DIW-S850D1340U840-4F0-1E-UDD-D

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	36
1	94	90	86	82	85	81	78	75	65	63	61	51	49	48	37	36	35	29
2	85	78	72	66	77	71	65	61	57	53	50	44	41	39	32	31	29	24
3	78	68	61	55	70	62	56	50	50	45	42	39	36	33	28	26	25	20
4	71	60	52	46	64	55	48	43	44	39	35	34	31	28	25	23	21	17
5	65	53	45	39	58	49	42	36	39	34	30	31	27	24	23	20	18	15
6	60	48	40	34	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	30	50	39	32	27	32	27	23	25	21	18	19	16	14	11
8	51	39	31	26	46	36	29	24	29	24	20	23	19	16	17	15	13	10
9	47	35	28	23	43	32	26	21	27	21	18	21	17	15	16	13	11	9
10	44	32	25	21	40	30	23	19	24	19	16	19	16	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6909	6909	6909
5°	6923	6782	6803
10°	6874	6661	6651
15°	6793	6515	6456
20°	6682	6336	6262
25°	6551	6144	6023
30°	6392	5934	5806
35°	6242	5740	5607
40°	6092	5535	5406
45°	5921	5360	5229
50°	5758	5171	5072
55°	5562	4992	4887
60°	5348	4788	4699
65°	5124	4575	4486
70°	4871	4283	4269
75°	4469	4001	4001
80°	3945	3661	3710
85°	3453	3433	3619



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	1.2
10°-20°	287.2	3.3
20°-30°	427.1	4.9
30°-40°	505.9	5.8
40°-50°	523.0	6.0
50°-60°	481.8	5.5
60°-70°	389.5	4.5
70°-80°	260.8	3.0
80°-90°	138.9	1.6
90°-100°	140.0	1.6
100°-110°	451.0	5.2
110°-120°	754.0	8.6
120°-130°	940.8	10.8
130°-140°	998.3	11.4
140°-150°	930.2	10.7
150°-160°	750.9	8.6
160°-170°	485.7	5.6
170°-180°	167.5	1.9
0°-30°	815.4	9.3
0°-40°	1321.2	15.1
0°-60°	2326.0	26.6
0°-90°	3115.3	35.7
90°-120°	1345.0	15.4
90°-150°	4214.2	48.3
90°-180°	5618.0	64.3
0°-180°	8733.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1070	1067	1060	1068	1068	101
15°	1022	1022	1015	1021	1017	288
25°	928	931	925	929	924	427
35°	803	810	808	811	811	503
45°	662	673	678	686	687	511
55°	509	526	542	553	558	455
65°	350	374	400	415	420	347
75°	193	221	254	274	280	205
85°	58	92	129	151	160	61
90°	18	62	107	137	149	14
95°	88	110	98	126	134	106
105°	394	416	447	468	474	417
115°	728	743	770	783	783	721
125°	1031	1039	1060	1071	1073	920
135°	1282	1289	1294	1304	1302	988
145°	1485	1487	1487	1493	1490	928
155°	1634	1627	1629	1632	1623	753
165°	1725	1717	1718	1725	1716	487
175°	1764	1757	1757	1767	1756	168
180°	1764	1764	1764	1764	1764	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1072.3	1072.0	1071.6	1071.2	1070.8	1070.0	1068.6	1067.3	1066.0	1064.7	1066.0
5°	1069.8	1069.3	1068.8	1068.3	1067.9	1066.8	1065.2	1063.6	1062.0	1060.4	1062.2
7.5°	1060.4	1060.2	1060.0	1059.8	1059.6	1058.6	1057.0	1055.3	1053.6	1052.0	1053.6
10°	1052.0	1052.0	1052.0	1052.0	1052.0	1051.1	1049.1	1047.3	1045.4	1043.6	1045.2
12.5°	1040.2	1040.4	1040.6	1040.8	1041.0	1040.3	1038.8	1037.3	1035.8	1034.3	1035.6
15°	1021.6	1021.8	1022.0	1022.2	1022.5	1021.8	1020.2	1018.5	1016.8	1015.2	1016.6
17.5°	997.2	997.6	998.2	998.6	999.1	998.5	996.8	995.2	993.6	992.0	993.0
20°	979.6	980.1	980.5	981.0	981.5	980.9	979.3	977.7	975.9	974.3	975.0
22.5°	959.5	960.3	961.1	962.0	962.8	962.3	960.5	958.7	956.8	955.0	955.9
25°	928.2	928.9	929.6	930.3	931.0	930.6	929.3	927.9	926.5	925.0	925.9
27.5°	893.3	894.4	895.4	896.5	897.5	897.2	895.6	894.0	892.4	890.9	891.5
30°	867.4	868.8	870.2	871.5	872.9	872.9	871.5	870.2	868.8	867.4	867.9
32.5°	843.8	845.1	846.3	847.5	848.7	848.8	847.8	846.8	845.8	844.8	845.2
35°	803.3	805.1	806.7	808.3	809.9	810.4	809.7	809.0	808.3	807.6	808.3
37.5°	762.9	764.4	765.9	767.4	768.9	769.5	769.2	769.0	768.8	768.6	769.5
40°	735.2	737.1	738.9	740.8	742.7	743.5	743.3	743.1	742.8	742.6	743.5
42.5°	705.0	707.4	709.8	712.3	714.7	716.2	716.7	717.2	717.7	718.2	719.3
45°	661.8	664.4	666.9	669.4	672.1	673.9	675.1	676.2	677.4	678.5	680.2
47.5°	617.5	620.0	622.3	624.7	627.0	629.2	631.3	633.3	635.2	637.2	639.6
50°	587.3	589.9	592.5	595.0	597.5	600.2	602.7	605.3	607.8	610.4	613.0
52.5°	555.4	558.6	561.7	564.8	567.9	571.1	574.2	577.3	580.5	583.6	586.3
55°	508.7	512.4	516.1	519.9	523.6	527.4	531.1	534.8	538.5	542.2	544.8
57.5°	460.8	465.3	469.8	474.2	478.8	483.1	487.5	491.7	495.9	500.3	503.2
60°	429.0	433.6	438.3	442.9	447.6	452.3	457.0	461.6	466.3	470.9	474.4
62.5°	397.9	402.5	407.3	411.9	416.6	421.4	426.5	431.5	436.5	441.5	445.5
65°	350.3	355.7	361.0	366.4	371.7	377.2	382.8	388.4	394.0	399.6	403.1
67.5°	305.4	310.6	315.8	320.9	326.1	331.5	337.2	343.0	348.6	354.3	358.5
70°	272.7	278.0	283.4	288.8	294.2	299.8	305.9	311.9	318.0	324.1	328.5
72.5°	240.9	246.3	251.9	257.4	263.0	269.0	275.7	282.4	288.9	295.6	300.3
75°	193.0	199.0	205.1	211.2	217.2	224.0	231.5	238.9	246.3	253.8	258.4
77.5°	147.0	154.0	161.1	168.0	175.0	182.1	189.2	196.4	203.6	210.9	215.9
80°	118.6	125.5	132.5	139.5	146.5	153.9	161.9	169.8	177.7	185.6	190.8
82.5°	92.5	99.9	107.2	114.6	122.0	129.7	137.8	145.9	154.0	162.2	167.1
85°	57.7	65.3	73.1	80.8	88.5	96.3	104.5	112.7	120.9	129.0	134.1
87.5°	33.0	40.9	48.9	56.8	64.6	72.8	81.1	89.5	97.8	106.1	111.8
90°	18.1	27.9	37.7	47.5	57.3	67.1	77.1	87.1	96.9	106.9	113.7
92.5°	35.2	40.5	45.7	51.1	56.4	63.9	73.8	83.7	93.6	103.6	110.2
95°	88.2	93.3	98.6	103.7	109.0	110.0	106.8	103.7	100.6	97.5	104.0
97.5°	167.9	175.0	182.0	189.0	196.0	192.5	178.2	164.1	149.9	135.6	132.4
100°	229.8	235.7	241.5	247.2	253.0	260.1	268.7	277.4	286.0	294.7	256.2
102.5°	292.9	298.5	304.1	309.7	315.4	322.1	330.1	338.1	346.1	354.1	350.5
105°	393.8	398.7	403.6	408.5	413.4	419.4	426.4	433.3	440.3	447.4	452.0
107.5°	498.8	501.9	505.1	508.3	511.4	516.6	523.9	531.3	538.6	545.8	550.5
110°	566.9	569.8	572.6	575.3	578.1	583.1	590.2	597.3	604.4	611.6	615.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	631.8	634.7	637.7	640.7	643.6	648.3	655.1	661.8	668.4	675.1	678.2
115°	728.0	731.1	734.2	737.3	740.3	745.1	751.4	757.8	764.2	770.5	773.6
117.5°	827.7	828.7	829.7	830.7	831.7	835.7	842.5	849.3	856.2	863.0	865.5
120°	890.4	890.8	891.2	891.6	892.1	895.3	901.6	907.9	914.1	920.3	923.7
122.5°	945.0	946.4	947.9	949.4	950.8	954.2	959.9	965.4	971.0	976.5	979.8
125°	1030.6	1032.4	1034.2	1036.0	1037.8	1041.1	1045.7	1050.4	1055.0	1059.7	1062.3
127.5°	1111.4	1112.7	1113.9	1115.1	1116.3	1118.7	1122.4	1126.0	1129.6	1133.3	1136.1
130°	1161.6	1162.9	1164.1	1165.3	1166.5	1168.9	1172.5	1176.0	1179.5	1183.1	1185.5
132.5°	1210.9	1212.6	1214.3	1215.9	1217.5	1219.3	1221.1	1223.0	1225.0	1226.8	1229.9
135°	1282.1	1283.6	1285.2	1286.7	1288.2	1289.5	1290.5	1291.6	1292.6	1293.6	1296.2
137.5°	1347.6	1348.9	1350.2	1351.6	1352.9	1353.7	1353.9	1354.2	1354.5	1354.7	1357.7
140°	1389.7	1390.2	1390.8	1391.4	1392.0	1392.2	1392.2	1392.1	1392.0	1392.0	1395.1
142.5°	1428.4	1428.5	1428.7	1428.9	1429.0	1429.3	1429.8	1430.2	1430.7	1431.1	1433.4
145°	1485.1	1485.4	1485.8	1486.1	1486.5	1486.6	1486.6	1486.6	1486.6	1486.6	1488.1
147.5°	1533.7	1533.6	1533.5	1533.4	1533.3	1533.4	1533.7	1534.1	1534.4	1534.8	1535.5
150°	1565.1	1564.5	1564.0	1563.4	1562.8	1562.8	1563.4	1564.0	1564.5	1565.1	1565.7
152.5°	1595.4	1594.2	1592.9	1591.6	1590.3	1589.9	1590.5	1591.1	1591.7	1592.3	1592.9
155°	1634.4	1632.6	1630.9	1629.2	1627.4	1626.9	1627.4	1628.0	1628.6	1629.2	1630.0
157.5°	1664.5	1663.4	1662.3	1661.3	1660.3	1659.8	1659.8	1659.9	1660.0	1660.0	1660.9
160°	1685.4	1683.6	1681.9	1680.1	1678.4	1677.7	1678.0	1678.3	1678.6	1678.9	1680.0
162.5°	1702.1	1700.4	1698.6	1696.9	1695.2	1694.5	1694.8	1695.1	1695.3	1695.6	1697.2
165°	1724.6	1722.8	1721.1	1719.4	1717.7	1716.9	1717.2	1717.5	1717.8	1718.1	1719.8
167.5°	1741.3	1739.6	1737.8	1736.0	1734.1	1733.4	1733.6	1733.9	1734.2	1734.5	1736.7
170°	1750.8	1748.8	1746.7	1744.6	1742.6	1741.7	1742.0	1742.3	1742.6	1742.9	1745.2
172.5°	1757.1	1755.0	1753.0	1750.9	1748.9	1748.2	1748.7	1749.2	1749.7	1750.2	1752.3
175°	1763.8	1762.1	1760.4	1758.6	1756.9	1756.2	1756.5	1756.8	1757.1	1757.3	1759.6
177.5°	1767.0	1765.5	1764.2	1762.8	1761.4	1760.8	1761.1	1761.3	1761.5	1761.7	1763.4
180°	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1067.3	1068.6	1070.0	1070.6	1070.4	1070.2	1070.0	1069.8
5°	1064.1	1065.9	1067.8	1068.6	1068.3	1068.1	1067.9	1067.7
7.5°	1055.2	1056.8	1058.4	1059.1	1058.9	1058.7	1058.4	1058.2
10°	1046.8	1048.4	1050.1	1050.8	1050.6	1050.4	1050.1	1049.9
12.5°	1036.8	1038.1	1039.4	1039.7	1039.1	1038.4	1037.8	1037.2
15°	1018.0	1019.5	1020.9	1021.1	1020.2	1019.2	1018.2	1017.3
17.5°	994.1	995.2	996.2	996.5	995.9	995.4	994.8	994.3
20°	975.7	976.4	977.1	977.4	977.4	977.4	977.4	977.4
22.5°	956.8	957.7	958.6	958.8	958.2	957.7	957.0	956.5
25°	927.0	927.9	928.8	928.7	927.5	926.3	925.1	924.0
27.5°	892.1	892.8	893.4	893.6	893.1	892.7	892.3	891.9
30°	868.3	868.8	869.2	869.4	869.1	868.9	868.7	868.4
32.5°	845.7	846.1	846.6	846.7	846.5	846.3	846.0	845.8
35°	809.0	809.7	810.4	810.7	810.7	810.7	810.7	810.7
37.5°	770.4	771.3	772.2	772.7	772.6	772.5	772.4	772.3
40°	744.4	745.4	746.3	747.0	747.4	747.9	748.4	748.8
42.5°	720.4	721.5	722.7	723.3	723.4	723.5	723.6	723.7
45°	681.9	683.5	685.1	686.0	686.3	686.5	686.7	687.0
47.5°	642.0	644.4	646.7	648.2	648.7	649.2	649.7	650.3
50°	615.5	618.1	620.7	622.3	623.0	623.7	624.4	625.1
52.5°	589.1	591.8	594.5	596.2	596.7	597.2	597.7	598.2
55°	547.3	550.0	552.5	554.2	555.1	556.1	557.0	558.0
57.5°	506.1	509.1	512.0	513.8	514.5	515.2	515.9	516.6
60°	477.9	481.4	484.9	487.0	487.7	488.4	489.1	489.8
62.5°	449.3	453.1	457.1	459.4	460.3	461.2	462.0	462.9
65°	406.6	410.1	413.5	415.8	416.8	417.7	418.6	419.5
67.5°	362.7	367.0	371.2	374.0	375.2	376.4	377.6	378.8
70°	333.0	337.4	341.8	344.7	346.1	347.5	348.9	350.3
72.5°	305.2	309.9	314.8	317.7	318.7	319.7	320.7	321.7
75°	263.2	267.8	272.5	275.4	276.5	277.7	278.8	280.0
77.5°	221.1	226.2	231.4	234.4	235.3	236.2	237.1	238.1
80°	195.9	201.1	206.1	209.1	210.2	211.1	212.0	212.9
82.5°	172.0	176.9	181.9	185.2	186.9	188.5	190.3	192.0
85°	139.3	144.4	149.6	153.0	154.9	156.7	158.6	160.5
87.5°	117.4	123.1	128.8	132.5	134.3	136.0	137.8	139.7
90°	120.6	127.3	134.2	138.9	141.4	143.8	146.3	148.9
92.5°	116.8	123.4	130.1	134.4	136.4	138.5	140.5	142.6
95°	110.7	117.2	123.8	127.9	129.6	131.2	132.8	134.4
97.5°	129.1	125.7	122.5	121.6	123.2	124.7	126.3	127.9
100°	217.8	179.5	141.1	122.0	122.2	122.4	122.7	122.9
102.5°	347.1	343.6	340.1	329.2	310.8	292.5	274.1	255.7
105°	456.7	461.3	466.0	469.0	470.3	471.6	473.0	474.3
107.5°	555.2	559.9	564.5	567.1	567.7	568.4	568.9	569.5
110°	618.6	622.2	625.7	628.5	630.5	632.4	634.3	636.2



TEST NUMBER: P333420-840

CATALOG NUMBER: S125DIW-S850D1340U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	681.4	684.5	687.6	689.8	691.1	692.3	693.5	694.8
115°	776.6	779.6	782.6	784.0	783.7	783.3	782.9	782.6
117.5°	867.9	870.4	872.8	874.4	875.3	876.2	877.0	877.8
120°	927.1	930.5	933.8	935.5	935.4	935.4	935.3	935.3
122.5°	983.0	986.1	989.4	990.8	990.6	990.3	990.0	989.7
125°	1064.8	1067.4	1070.0	1071.4	1071.7	1072.0	1072.3	1072.6
127.5°	1138.9	1141.8	1144.6	1145.6	1144.8	1144.0	1143.2	1142.4
130°	1187.9	1190.2	1192.7	1193.7	1193.5	1193.2	1192.9	1192.5
132.5°	1232.9	1236.1	1239.2	1240.4	1240.0	1239.5	1239.0	1238.6
135°	1298.6	1301.0	1303.4	1304.4	1303.8	1303.2	1302.7	1302.1
137.5°	1360.5	1363.3	1366.2	1367.4	1366.8	1366.2	1365.6	1365.0
140°	1398.3	1401.4	1404.5	1405.7	1404.9	1404.1	1403.3	1402.5
142.5°	1435.7	1438.0	1440.4	1441.1	1440.3	1439.5	1438.7	1437.8
145°	1489.6	1491.1	1492.5	1492.8	1492.0	1491.2	1490.4	1489.6
147.5°	1536.2	1536.9	1537.6	1537.2	1535.5	1533.8	1532.2	1530.5
150°	1566.3	1566.8	1567.4	1566.7	1564.6	1562.5	1560.4	1558.3
152.5°	1593.5	1594.1	1594.6	1593.9	1591.9	1589.8	1587.7	1585.7
155°	1630.9	1631.7	1632.6	1631.9	1629.6	1627.3	1625.0	1622.7
157.5°	1661.9	1662.8	1663.8	1663.0	1660.7	1658.4	1656.1	1653.8
160°	1681.2	1682.3	1683.5	1682.9	1680.6	1678.3	1676.0	1673.6
162.5°	1698.8	1700.5	1702.1	1701.6	1699.1	1696.5	1693.9	1691.4
165°	1721.5	1723.3	1725.1	1724.7	1722.4	1720.1	1717.8	1715.5
167.5°	1738.8	1740.8	1742.9	1742.6	1740.0	1737.5	1734.8	1732.2
170°	1747.6	1749.9	1752.2	1752.1	1749.5	1746.9	1744.2	1741.6
172.5°	1754.4	1756.6	1758.6	1758.4	1755.8	1753.1	1750.5	1747.9
175°	1761.9	1764.2	1766.6	1766.5	1763.8	1761.2	1758.6	1756.0
177.5°	1765.0	1766.7	1768.3	1768.2	1766.3	1764.4	1762.5	1760.7
180°	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8

(END OF REPORT)