

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: P333421-840

Luminaire Tested: **S125DIW-S850D1340U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333421-840  
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-S850D1340U840-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 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: 8014.3 lumens  
Efficiency: N/A  
Efficacy: 130.5 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

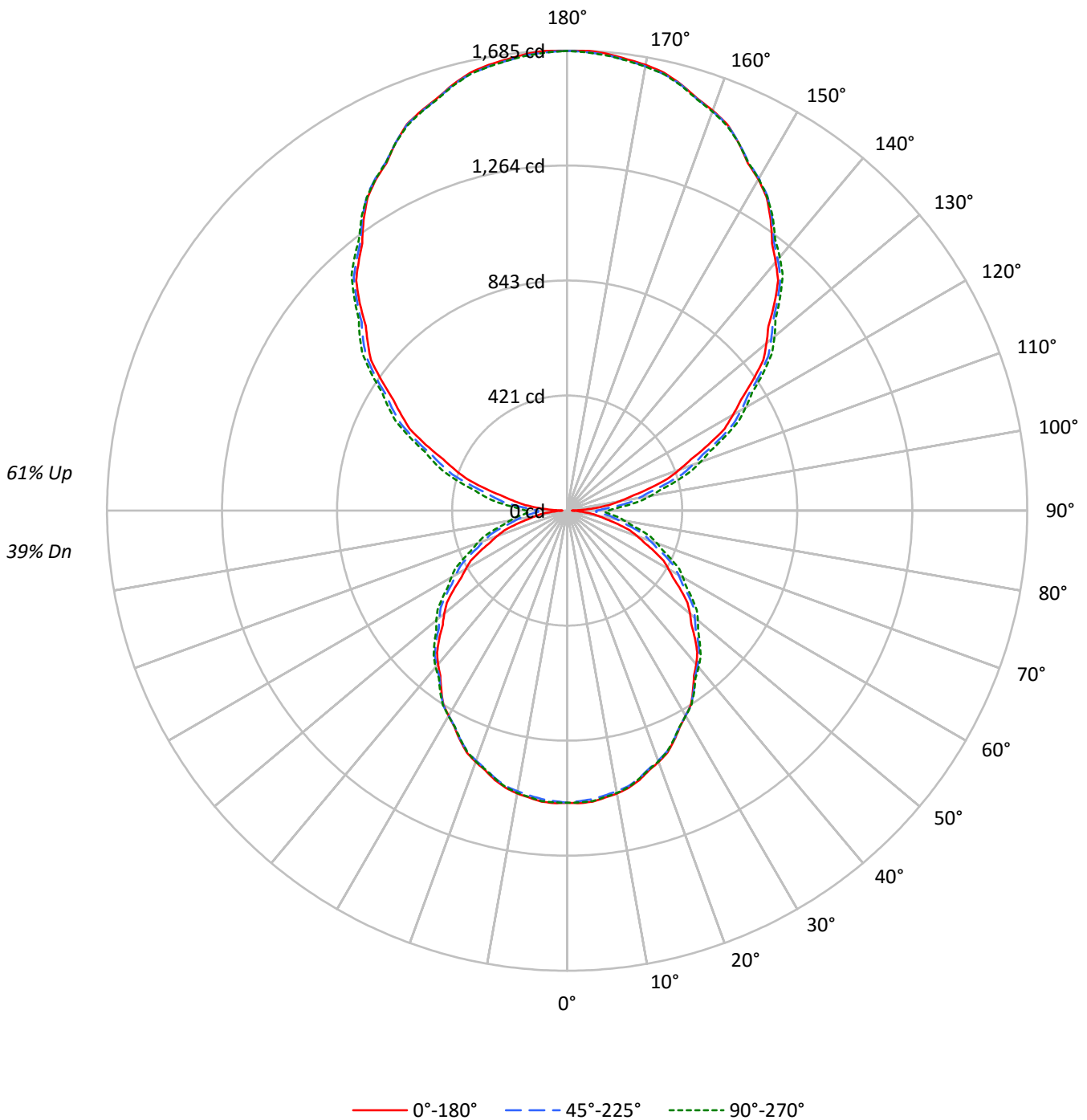
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333421-840

CATALOG NUMBER: S125DIW-S850D1340U840-4F0-1E-UDD-D1

### Luminous Intensity Polar Plot





TEST NUMBER: P333421-840

CATALOG NUMBER: S125DIW-S850D1340U840-4F0-1E-UDD-D1

**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	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	90	86	83	86	82	79	75	67	64	62	53	51	49	40	39	38	32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26
3	78	69	61	55	71	63	56	51	51	46	42	40	37	34	30	28	26	22
4	71	61	53	47	65	55	48	43	45	40	36	36	32	29	27	25	22	18
5	65	54	46	40	59	49	42	37	40	35	31	32	28	25	24	22	19	16
6	60	48	40	34	54	44	37	32	36	31	27	29	25	22	22	19	17	14
7	56	43	35	30	50	40	33	28	33	27	23	26	22	19	20	17	15	12
8	52	39	32	26	47	36	29	24	30	24	21	24	20	17	18	16	13	11
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	17	14	12	10
10	45	33	26	21	41	30	24	19	25	20	17	20	16	14	16	13	11	9

**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



TEST NUMBER: P333421-840

CATALOG NUMBER: S125DIW-S850D1340U840-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.2	1.3
10°-20°	287.2	3.6
20°-30°	427.1	5.3
30°-40°	505.9	6.3
40°-50°	523.0	6.5
50°-60°	481.8	6.0
60°-70°	389.5	4.9
70°-80°	260.8	3.3
80°-90°	138.9	1.7
90°-100°	188.6	2.4
100°-110°	388.9	4.9
110°-120°	601.4	7.5
120°-130°	763.4	9.5
130°-140°	840.9	10.5
140°-150°	816.9	10.2
150°-160°	684.6	8.5
160°-170°	455.0	5.7
170°-180°	159.2	2.0
0°-30°	815.4	10.2
0°-40°	1321.2	16.5
0°-60°	2326.0	29.0
0°-90°	3115.3	38.9
90°-120°	1178.9	14.7
90°-150°	3600.2	44.9
90°-180°	4899.0	61.1
0°-180°	8014.3	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	16
95°	99	130	177	208	220	102
105°	308	332	371	399	411	329
115°	571	584	613	630	636	564
125°	828	836	857	871	875	741
135°	1074	1081	1089	1102	1103	827
145°	1299	1303	1307	1312	1313	812
155°	1486	1486	1487	1491	1486	684
165°	1615	1613	1614	1618	1611	455
175°	1679	1674	1674	1681	1673	160
180°	1683	1683	1683	1683	1683	



TEST NUMBER: P333421-840

CATALOG NUMBER: S125DIW-S850D1340U840-4F0-1E-UDD-D1

**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	67.2	77.1	87.1	97.0	106.9	113.8
92.5°	46.8	55.3	63.8	72.4	80.9	90.5	101.1	111.7	122.3	132.9	140.1
95°	98.8	105.4	112.1	118.7	125.3	134.1	144.9	155.7	166.6	177.4	184.6
97.5°	153.8	159.6	165.2	170.9	176.6	185.3	196.9	208.6	220.3	232.0	238.7
100°	194.9	199.9	204.7	209.6	214.5	222.6	233.8	245.1	256.3	267.5	275.1
102.5°	239.1	244.8	250.5	256.2	261.9	269.3	278.5	287.7	296.9	306.1	313.7
105°	308.1	313.3	318.5	323.7	328.8	335.8	344.6	353.3	362.0	370.7	377.2
107.5°	384.4	389.0	393.6	398.3	402.9	409.2	417.3	425.4	433.4	441.4	447.0
110°	437.0	441.3	445.6	449.8	454.0	459.9	467.3	474.6	482.0	489.5	494.7



TEST NUMBER: P333421-840

CATALOG NUMBER: S125DIW-S850D1340U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	491.5	494.5	497.5	500.5	503.5	508.7	516.1	523.6	531.0	538.5	543.1
115°	570.9	573.7	576.4	579.3	582.1	586.8	593.4	600.1	606.7	613.4	617.2
117.5°	650.6	652.2	653.7	655.3	656.9	660.9	667.1	673.4	679.6	685.9	690.0
120°	700.8	703.0	705.2	707.3	709.4	713.4	719.0	724.7	730.3	736.0	739.9
122.5°	754.5	755.4	756.2	757.0	757.9	761.2	767.2	773.2	779.1	785.0	788.5
125°	828.2	829.7	831.2	832.7	834.2	837.5	842.4	847.4	852.3	857.3	860.4
127.5°	905.7	906.5	907.3	908.0	908.8	911.2	915.3	919.6	923.7	927.9	931.0
130°	952.9	954.1	955.3	956.5	957.8	960.3	964.1	968.0	971.8	975.6	978.7
132.5°	999.2	1001.5	1003.9	1006.2	1008.6	1010.9	1013.3	1015.7	1018.1	1020.6	1023.5
135°	1073.7	1075.2	1076.7	1078.2	1079.7	1081.5	1083.4	1085.3	1087.2	1089.1	1092.2
137.5°	1143.7	1145.2	1146.7	1148.1	1149.6	1151.1	1152.6	1154.0	1155.4	1156.9	1159.9
140°	1187.9	1189.3	1190.8	1192.2	1193.7	1195.0	1196.1	1197.2	1198.3	1199.4	1202.5
142.5°	1232.9	1234.0	1235.0	1236.1	1237.1	1238.2	1239.3	1240.5	1241.6	1242.7	1245.4
145°	1299.2	1300.1	1301.1	1302.0	1302.9	1303.8	1304.7	1305.6	1306.5	1307.4	1308.5
147.5°	1359.5	1360.1	1360.8	1361.4	1362.0	1362.7	1363.4	1364.1	1364.8	1365.5	1366.5
150°	1400.4	1400.1	1399.8	1399.5	1399.2	1399.6	1400.8	1402.0	1403.1	1404.3	1404.3
152.5°	1433.9	1434.3	1434.7	1435.1	1435.5	1435.9	1436.4	1436.8	1437.3	1437.8	1438.6
155°	1485.5	1485.5	1485.5	1485.5	1485.5	1485.6	1485.9	1486.2	1486.5	1486.8	1487.9
157.5°	1531.6	1531.0	1530.3	1529.6	1529.0	1528.8	1529.1	1529.4	1529.7	1530.0	1531.2
160°	1558.8	1558.0	1557.1	1556.2	1555.4	1555.1	1555.4	1555.7	1555.9	1556.2	1557.4
162.5°	1583.0	1582.4	1581.7	1581.0	1580.4	1580.1	1580.1	1580.2	1580.2	1580.3	1581.8
165°	1615.2	1614.6	1614.0	1613.5	1612.9	1612.8	1613.0	1613.3	1613.6	1613.9	1615.1
167.5°	1642.4	1641.2	1640.1	1638.9	1637.8	1637.2	1637.2	1637.2	1637.2	1637.2	1638.9
170°	1657.1	1656.0	1654.8	1653.7	1652.4	1651.8	1651.8	1651.8	1651.8	1651.8	1653.7
172.5°	1667.6	1666.4	1665.3	1664.1	1662.9	1662.3	1662.3	1662.3	1662.3	1662.3	1664.1
175°	1679.4	1678.2	1677.1	1675.9	1674.8	1674.2	1674.2	1674.2	1674.2	1674.2	1675.9
177.5°	1685.4	1684.5	1683.5	1682.6	1681.6	1681.1	1680.8	1680.6	1680.4	1680.1	1681.5
180°	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3



TEST NUMBER: P333421-840

CATALOG NUMBER: S125DIW-S850D1340U840-4F0-1E-UDD-D1

**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	136.1	137.8	139.7
90°	120.6	127.4	134.2	138.9	141.4	143.9	146.4	149.0
92.5°	147.1	154.2	161.4	166.0	168.2	170.6	172.8	175.1
95°	191.8	198.9	206.1	210.8	213.0	215.2	217.4	219.6
97.5°	245.6	252.4	259.2	263.6	265.5	267.4	269.3	271.2
100°	282.6	290.1	297.6	302.4	304.4	306.3	308.3	310.2
102.5°	321.2	328.8	336.4	341.2	343.5	345.7	347.9	350.1
105°	383.5	390.0	396.4	400.8	403.3	405.9	408.4	410.9
107.5°	452.4	457.9	463.4	466.9	468.2	469.6	471.0	472.4
110°	500.1	505.3	510.7	513.9	515.3	516.6	518.0	519.4





TEST NUMBER: P333421-840

CATALOG NUMBER: S125DIW-S850D1340U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	547.8	552.4	557.0	560.0	561.1	562.2	563.3	564.4
115°	621.2	625.1	628.9	631.5	632.6	633.7	634.8	635.9
117.5°	694.3	698.4	702.7	705.0	705.4	705.8	706.2	706.6
120°	743.9	747.8	751.8	753.9	754.2	754.4	754.6	754.9
122.5°	792.1	795.7	799.2	801.2	801.6	802.1	802.5	803.0
125°	863.5	866.7	869.8	871.8	872.7	873.6	874.4	875.4
127.5°	934.2	937.4	940.5	942.5	943.2	944.0	944.8	945.5
130°	981.6	984.6	987.5	989.4	989.9	990.5	991.1	991.7
132.5°	1026.4	1029.5	1032.4	1034.0	1034.1	1034.3	1034.5	1034.6
135°	1095.2	1098.2	1101.3	1102.8	1102.8	1102.8	1102.8	1102.8
137.5°	1163.1	1166.2	1169.2	1170.5	1170.0	1169.5	1169.0	1168.4
140°	1205.7	1208.8	1211.9	1213.3	1212.7	1212.2	1211.7	1211.2
142.5°	1247.9	1250.4	1252.9	1253.9	1253.4	1252.9	1252.4	1251.8
145°	1309.7	1310.8	1312.0	1312.6	1312.6	1312.7	1312.8	1312.8
147.5°	1367.7	1368.7	1369.8	1369.6	1368.0	1366.4	1364.8	1363.3
150°	1404.3	1404.3	1404.3	1404.1	1403.7	1403.4	1403.0	1402.7
152.5°	1439.2	1439.9	1440.6	1440.5	1439.5	1438.5	1437.4	1436.4
155°	1489.1	1490.3	1491.5	1491.3	1489.9	1488.4	1486.9	1485.5
157.5°	1532.4	1533.5	1534.7	1534.3	1532.4	1530.5	1528.5	1526.6
160°	1558.5	1559.7	1560.8	1560.7	1559.3	1557.8	1556.4	1554.9
162.5°	1583.2	1584.5	1585.9	1585.8	1584.1	1582.4	1580.7	1579.0
165°	1616.2	1617.4	1618.5	1618.2	1616.5	1614.8	1613.0	1611.2
167.5°	1640.7	1642.4	1644.2	1644.2	1642.3	1640.5	1638.7	1636.9
170°	1655.4	1657.1	1658.8	1658.7	1656.7	1654.7	1652.5	1650.5
172.5°	1665.9	1667.6	1669.3	1669.3	1667.5	1665.7	1663.9	1662.0
175°	1677.6	1679.4	1681.1	1680.9	1678.9	1676.9	1674.9	1672.8
177.5°	1682.9	1684.4	1685.8	1685.7	1683.9	1682.3	1680.7	1679.1
180°	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3

(END OF REPORT)