

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

Luminaire Tested: **S125DIW-S850D1340U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333420  
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-S850D1340U835-4F0-1E-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: 8648.3 lumens  
Efficiency: N/A  
Efficacy: 140.9 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

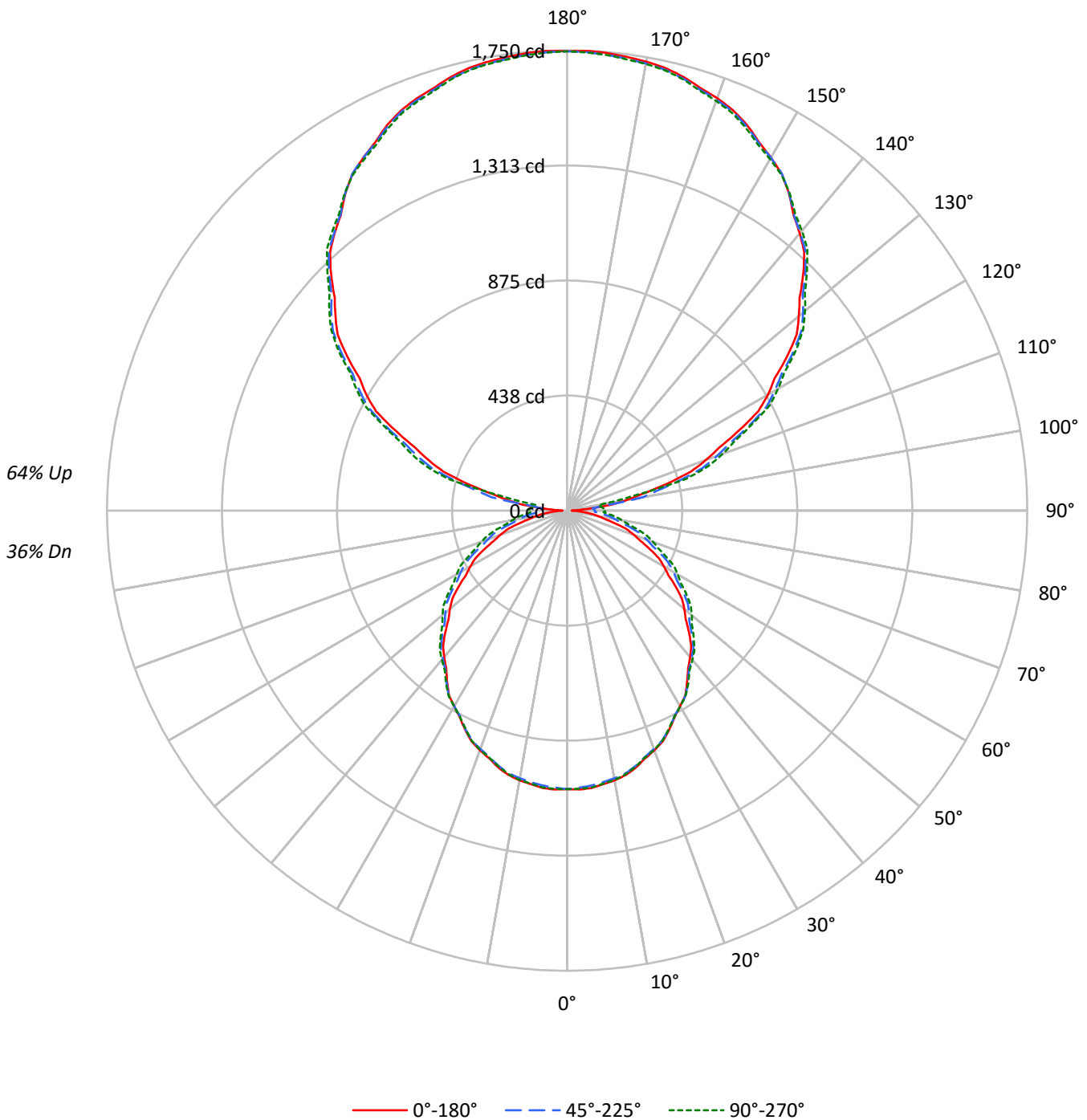
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333420

CATALOG NUMBER: S125DIW-S850D1340U835-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333420

CATALOG NUMBER: S125DIW-S850D1340U835-4F0-1E-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°	6841	6841	6841
5°	6855	6715	6737
10°	6806	6595	6585
15°	6726	6452	6393
20°	6616	6274	6201
25°	6486	6084	5964
30°	6329	5876	5749
35°	6182	5684	5552
40°	6032	5481	5353
45°	5863	5308	5178
50°	5702	5120	5022
55°	5508	4943	4839
60°	5296	4741	4653
65°	5075	4530	4443
70°	4822	4240	4228
75°	4425	3962	3962
80°	3905	3625	3673
85°	3417	3398	3583



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.2	1.2
10°-20°	284.4	3.3
20°-30°	422.9	4.9
30°-40°	500.9	5.8
40°-50°	517.9	6.0
50°-60°	477.1	5.5
60°-70°	385.7	4.5
70°-80°	258.3	3.0
80°-90°	137.6	1.6
90°-100°	138.6	1.6
100°-110°	446.6	5.2
110°-120°	746.6	8.6
120°-130°	931.6	10.8
130°-140°	988.5	11.4
140°-150°	921.1	10.7
150°-160°	743.6	8.6
160°-170°	480.9	5.6
170°-180°	165.9	1.9
0°-30°	807.4	9.3
0°-40°	1308.3	15.1
0°-60°	2303.3	26.6
0°-90°	3084.8	35.7
90°-120°	1331.8	15.4
90°-150°	4173.1	48.3
90°-180°	5563.0	64.3
0°-180°	8648.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1059	1059	1059	1059	1059	
5°	1059	1057	1050	1058	1057	100
15°	1012	1012	1005	1011	1007	285
25°	919	922	916	920	915	423
35°	796	802	800	803	803	498
45°	655	666	672	679	680	506
55°	504	520	537	548	552	450
65°	347	371	396	411	415	344
75°	191	218	251	271	277	203
85°	57	92	128	150	159	61
90°	18	62	106	135	147	14
95°	87	108	96	125	133	105
105°	390	412	443	463	470	413
115°	721	735	763	776	775	714
125°	1020	1029	1049	1060	1062	911
135°	1270	1276	1281	1291	1289	978
145°	1471	1472	1472	1478	1475	919
155°	1618	1611	1613	1616	1607	745
165°	1708	1700	1701	1708	1699	482
175°	1747	1739	1740	1749	1739	166
180°	1747	1747	1747	1747	1747	



TEST NUMBER: P333420

CATALOG NUMBER: S125DIW-S850D1340U835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1061.8	1061.5	1061.1	1060.7	1060.3	1059.5	1058.2	1056.9	1055.6	1054.3	1055.6
5°	1059.3	1058.9	1058.4	1057.9	1057.5	1056.4	1054.8	1053.2	1051.6	1050.0	1051.8
7.5°	1050.0	1049.8	1049.6	1049.4	1049.2	1048.3	1046.7	1045.0	1043.3	1041.7	1043.3
10°	1041.7	1041.7	1041.7	1041.7	1041.7	1040.8	1038.9	1037.1	1035.2	1033.4	1035.0
12.5°	1030.0	1030.2	1030.4	1030.6	1030.8	1030.1	1028.7	1027.2	1025.7	1024.2	1025.5
15°	1011.6	1011.8	1012.0	1012.2	1012.5	1011.8	1010.2	1008.6	1006.9	1005.3	1006.7
17.5°	987.5	987.9	988.4	988.8	989.3	988.7	987.1	985.5	983.9	982.3	983.3
20°	970.0	970.5	970.9	971.4	971.9	971.3	969.7	968.1	966.4	964.8	965.5
22.5°	950.1	950.9	951.7	952.6	953.4	952.9	951.1	949.3	947.5	945.7	946.6
25°	919.1	919.8	920.5	921.2	921.9	921.5	920.2	918.8	917.4	916.0	916.9
27.5°	884.6	885.7	886.7	887.7	888.7	888.4	886.9	885.3	883.7	882.2	882.8
30°	858.9	860.3	861.7	863.0	864.4	864.4	863.0	861.7	860.3	858.9	859.4
32.5°	835.6	836.8	838.0	839.2	840.4	840.5	839.5	838.5	837.5	836.5	836.9
35°	795.5	797.2	798.8	800.4	802.0	802.5	801.8	801.1	800.4	799.7	800.4
37.5°	755.4	756.9	758.4	759.9	761.4	762.0	761.7	761.5	761.3	761.1	762.0
40°	728.0	729.9	731.7	733.6	735.4	736.2	736.0	735.8	735.5	735.3	736.2
42.5°	698.1	700.5	702.9	705.3	707.7	709.2	709.7	710.2	710.7	711.2	712.3
45°	655.3	657.9	660.4	662.9	665.5	667.3	668.5	669.6	670.8	671.9	673.6
47.5°	611.5	613.9	616.2	618.6	620.9	623.1	625.1	627.1	629.0	631.0	633.4
50°	581.6	584.1	586.7	589.2	591.7	594.3	596.8	599.4	601.9	604.4	607.0
52.5°	550.0	553.1	556.2	559.3	562.4	565.5	568.6	571.7	574.8	577.9	580.6
55°	503.7	507.4	511.1	514.8	518.5	522.2	525.9	529.6	533.2	536.9	539.5
57.5°	456.3	460.8	465.2	469.6	474.1	478.4	482.7	486.9	491.1	495.4	498.3
60°	424.8	429.4	434.0	438.6	443.2	447.9	452.5	457.1	461.7	466.3	469.8
62.5°	394.0	398.6	403.3	407.9	412.5	417.3	422.3	427.3	432.2	437.2	441.1
65°	346.9	352.2	357.5	362.8	368.1	373.5	379.1	384.6	390.2	395.7	399.2
67.5°	302.4	307.6	312.7	317.8	322.9	328.3	333.9	339.6	345.2	350.8	355.0
70°	270.0	275.3	280.6	286.0	291.3	296.9	302.9	308.9	314.9	320.9	325.3
72.5°	238.5	243.9	249.4	254.9	260.4	266.4	273.0	279.6	286.1	292.7	297.4
75°	191.1	197.1	203.1	209.1	215.1	221.8	229.2	236.6	243.9	251.3	255.9
77.5°	145.6	152.5	159.5	166.4	173.3	180.3	187.4	194.5	201.6	208.8	213.8
80°	117.4	124.3	131.2	138.1	145.1	152.4	160.3	168.1	176.0	183.8	188.9
82.5°	91.6	98.9	106.2	113.5	120.8	128.4	136.5	144.5	152.5	160.6	165.5
85°	57.1	64.7	72.4	80.0	87.6	95.4	103.5	111.6	119.7	127.7	132.8
87.5°	32.7	40.5	48.4	56.2	64.0	72.1	80.3	88.6	96.8	105.1	110.7
90°	17.9	27.6	37.3	47.0	56.7	66.4	76.3	86.2	96.0	105.9	112.6
92.5°	34.9	40.1	45.3	50.6	55.8	63.3	73.1	82.9	92.7	102.6	109.1
95°	87.3	92.4	97.6	102.7	107.9	108.9	105.8	102.7	99.6	96.5	103.0
97.5°	166.3	173.3	180.2	187.2	194.1	190.6	176.5	162.5	148.4	134.3	131.1
100°	227.6	233.4	239.1	244.8	250.5	257.6	266.1	274.7	283.2	291.8	253.7
102.5°	290.0	295.6	301.1	306.7	312.3	319.0	326.9	334.8	342.7	350.6	347.1
105°	390.0	394.8	399.7	404.5	409.4	415.3	422.2	429.1	436.0	443.0	447.6
107.5°	493.9	497.0	500.2	503.3	506.4	511.6	518.8	526.1	533.3	540.5	545.1
110°	561.4	564.2	567.0	569.7	572.5	577.4	584.4	591.5	598.5	605.6	609.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	625.6	628.5	631.5	634.4	637.3	642.0	648.7	655.3	661.9	668.5	671.6
115°	720.9	724.0	727.0	730.1	733.1	737.8	744.1	750.4	756.7	763.0	766.0
117.5°	819.6	820.6	821.6	822.6	823.6	827.5	834.3	841.0	847.8	854.6	857.0
120°	881.7	882.1	882.5	882.9	883.4	886.6	892.8	899.0	905.2	911.3	914.7
122.5°	935.8	937.2	938.6	940.1	941.5	944.9	950.5	956.0	961.5	967.0	970.2
125°	1020.5	1022.3	1024.1	1025.9	1027.7	1030.9	1035.5	1040.1	1044.7	1049.3	1051.9
127.5°	1100.5	1101.8	1103.0	1104.2	1105.4	1107.8	1111.4	1115.0	1118.6	1122.2	1125.0
130°	1150.3	1151.5	1152.7	1153.9	1155.1	1157.5	1161.0	1164.5	1168.0	1171.5	1173.9
132.5°	1199.1	1200.8	1202.4	1204.0	1205.6	1207.4	1209.2	1211.1	1213.0	1214.8	1217.9
135°	1269.6	1271.1	1272.6	1274.1	1275.6	1276.9	1277.9	1279.0	1280.0	1281.0	1283.5
137.5°	1334.4	1335.7	1337.0	1338.4	1339.7	1340.5	1340.7	1341.0	1341.3	1341.5	1344.4
140°	1376.1	1376.6	1377.2	1377.8	1378.4	1378.6	1378.6	1378.5	1378.4	1378.4	1381.5
142.5°	1414.4	1414.5	1414.7	1414.9	1415.0	1415.3	1415.8	1416.2	1416.7	1417.1	1419.4
145°	1470.6	1470.9	1471.3	1471.6	1472.0	1472.1	1472.1	1472.1	1472.1	1472.1	1473.6
147.5°	1518.7	1518.6	1518.5	1518.4	1518.3	1518.4	1518.7	1519.1	1519.4	1519.8	1520.5
150°	1549.8	1549.2	1548.7	1548.1	1547.5	1547.5	1548.1	1548.7	1549.2	1549.8	1550.4
152.5°	1579.8	1578.6	1577.3	1576.1	1574.8	1574.4	1575.0	1575.6	1576.2	1576.7	1577.3
155°	1618.4	1616.7	1615.0	1613.3	1611.5	1611.0	1611.5	1612.1	1612.7	1613.3	1614.1
157.5°	1648.2	1647.2	1646.1	1645.1	1644.1	1643.6	1643.6	1643.7	1643.8	1643.8	1644.7
160°	1668.9	1667.2	1665.5	1663.7	1662.0	1661.3	1661.6	1661.9	1662.2	1662.5	1663.6
162.5°	1685.5	1683.8	1682.0	1680.3	1678.6	1677.9	1678.2	1678.5	1678.7	1679.0	1680.6
165°	1707.8	1706.0	1704.3	1702.6	1700.9	1700.1	1700.4	1700.7	1701.0	1701.3	1703.0
167.5°	1724.3	1722.6	1720.8	1719.0	1717.2	1716.5	1716.7	1717.0	1717.3	1717.6	1719.7
170°	1733.7	1731.7	1729.6	1727.6	1725.6	1724.7	1725.0	1725.3	1725.6	1725.9	1728.2
172.5°	1739.9	1737.9	1735.9	1733.8	1731.8	1731.1	1731.6	1732.1	1732.6	1733.1	1735.2
175°	1746.6	1744.9	1743.2	1741.4	1739.7	1739.0	1739.3	1739.6	1739.9	1740.1	1742.4
177.5°	1749.7	1748.3	1747.0	1745.6	1744.2	1743.6	1743.9	1744.1	1744.3	1744.5	1746.2
180°	1746.6	1746.6	1746.6	1746.6	1746.6	1746.6	1746.6	1746.6	1746.6	1746.6	1746.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1056.9	1058.2	1059.5	1060.1	1059.9	1059.7	1059.5	1059.3
5°	1053.7	1055.5	1057.4	1058.2	1057.9	1057.7	1057.5	1057.3
7.5°	1044.9	1046.5	1048.1	1048.8	1048.6	1048.4	1048.1	1047.9
10°	1036.6	1038.2	1039.8	1040.5	1040.3	1040.1	1039.8	1039.6
12.5°	1026.7	1028.0	1029.2	1029.5	1028.9	1028.3	1027.7	1027.1
15°	1008.1	1009.5	1010.9	1011.1	1010.2	1009.2	1008.3	1007.4
17.5°	984.4	985.5	986.5	986.8	986.2	985.7	985.1	984.6
20°	966.2	966.9	967.6	967.9	967.9	967.9	967.9	967.9
22.5°	947.5	948.3	949.2	949.4	948.8	948.3	947.7	947.2
25°	917.9	918.8	919.7	919.6	918.4	917.3	916.1	915.0
27.5°	883.4	884.1	884.7	884.9	884.4	884.0	883.6	883.2
30°	859.8	860.3	860.7	860.9	860.6	860.4	860.2	859.9
32.5°	837.4	837.8	838.3	838.4	838.2	838.0	837.7	837.5
35°	801.1	801.8	802.5	802.8	802.8	802.8	802.8	802.8
37.5°	762.9	763.8	764.7	765.2	765.1	765.0	764.9	764.8
40°	737.1	738.1	739.0	739.7	740.1	740.6	741.1	741.5
42.5°	713.4	714.5	715.6	716.2	716.3	716.4	716.5	716.6
45°	675.2	676.8	678.4	679.3	679.6	679.8	680.0	680.3
47.5°	635.7	638.1	640.4	641.9	642.4	642.9	643.4	643.9
50°	609.5	612.1	614.6	616.2	616.9	617.6	618.3	619.0
52.5°	583.3	586.0	588.7	590.4	590.9	591.4	591.9	592.4
55°	542.0	544.6	547.1	548.8	549.7	550.7	551.6	552.5
57.5°	501.2	504.1	507.0	508.8	509.5	510.2	510.9	511.6
60°	473.2	476.7	480.2	482.2	482.9	483.6	484.3	485.0
62.5°	444.9	448.7	452.6	454.9	455.8	456.7	457.5	458.4
65°	402.6	406.1	409.5	411.7	412.7	413.6	414.5	415.4
67.5°	359.2	363.4	367.6	370.3	371.5	372.7	373.9	375.1
70°	329.7	334.1	338.5	341.3	342.7	344.1	345.5	346.9
72.5°	302.2	306.9	311.7	314.6	315.6	316.6	317.6	318.6
75°	260.6	265.2	269.8	272.7	273.8	275.0	276.1	277.3
77.5°	218.9	224.0	229.1	232.1	233.0	233.9	234.8	235.8
80°	194.0	199.1	204.1	207.1	208.1	209.0	209.9	210.8
82.5°	170.3	175.2	180.1	183.4	185.1	186.7	188.4	190.1
85°	137.9	143.0	148.1	151.5	153.4	155.2	157.1	158.9
87.5°	116.3	121.9	127.5	131.2	133.0	134.7	136.5	138.3
90°	119.4	126.1	132.9	137.5	140.0	142.4	144.9	147.4
92.5°	115.7	122.2	128.8	133.1	135.1	137.1	139.1	141.2
95°	109.6	116.1	122.6	126.7	128.3	129.9	131.5	133.1
97.5°	127.8	124.5	121.3	120.4	122.0	123.5	125.1	126.7
100°	215.7	177.7	139.7	120.8	121.0	121.2	121.5	121.7
102.5°	343.7	340.2	336.8	326.0	307.8	289.6	271.4	253.2
105°	452.2	456.8	461.4	464.4	465.7	467.0	468.4	469.7
107.5°	549.8	554.4	559.0	561.6	562.2	562.8	563.3	563.9
110°	612.6	616.1	619.6	622.4	624.3	626.2	628.1	630.0





TEST NUMBER: P333420

CATALOG NUMBER: S125DIW-S850D1340U835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	674.7	677.8	680.9	683.1	684.3	685.5	686.7	688.0
115°	769.0	772.0	775.0	776.3	776.0	775.6	775.3	775.0
117.5°	859.4	861.9	864.3	865.9	866.7	867.6	868.4	869.2
120°	918.0	921.4	924.7	926.4	926.3	926.3	926.2	926.2
122.5°	973.4	976.5	979.7	981.1	980.9	980.6	980.3	980.0
125°	1054.4	1057.0	1059.5	1060.9	1061.2	1061.5	1061.8	1062.1
127.5°	1127.8	1130.6	1133.4	1134.4	1133.6	1132.8	1132.0	1131.2
130°	1176.3	1178.6	1181.0	1182.0	1181.8	1181.5	1181.2	1180.9
132.5°	1220.9	1224.0	1227.1	1228.3	1227.9	1227.4	1226.9	1226.5
135°	1285.9	1288.3	1290.7	1291.7	1291.1	1290.5	1290.0	1289.4
137.5°	1347.2	1350.0	1352.9	1354.0	1353.4	1352.9	1352.3	1351.7
140°	1384.6	1387.7	1390.8	1392.0	1391.2	1390.4	1389.6	1388.8
142.5°	1421.7	1424.0	1426.3	1427.0	1426.2	1425.4	1424.6	1423.8
145°	1475.0	1476.5	1477.9	1478.2	1477.4	1476.6	1475.8	1475.0
147.5°	1521.2	1521.9	1522.6	1522.2	1520.5	1518.8	1517.2	1515.5
150°	1551.0	1551.5	1552.1	1551.4	1549.3	1547.2	1545.2	1543.1
152.5°	1577.9	1578.5	1579.0	1578.3	1576.3	1574.3	1572.2	1570.2
155°	1615.0	1615.8	1616.7	1616.0	1613.7	1611.4	1609.1	1606.8
157.5°	1645.7	1646.6	1647.5	1646.8	1644.5	1642.2	1639.9	1637.6
160°	1664.8	1665.9	1667.1	1666.5	1664.2	1661.9	1659.6	1657.3
162.5°	1682.2	1683.9	1685.5	1685.0	1682.5	1679.9	1677.4	1674.9
165°	1704.7	1706.5	1708.2	1707.9	1705.6	1703.3	1701.0	1698.7
167.5°	1721.8	1723.8	1725.9	1725.6	1723.0	1720.5	1717.9	1715.3
170°	1730.5	1732.8	1735.1	1735.0	1732.4	1729.8	1727.2	1724.6
172.5°	1737.3	1739.4	1741.4	1741.2	1738.6	1736.0	1733.4	1730.8
175°	1744.7	1747.0	1749.3	1749.2	1746.6	1744.0	1741.4	1738.8
177.5°	1747.8	1749.4	1751.0	1750.9	1749.0	1747.2	1745.3	1743.5
180°	1746.6	1746.6	1746.6	1746.6	1746.6	1746.6	1746.6	1746.6

(END OF REPORT)