

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

Luminaire Tested: **S125DIW-S850D1340U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333421  
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-S850D1340U835-4F0-1E-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: 7936.0 lumens  
Efficiency: N/A  
Efficacy: 129.3 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

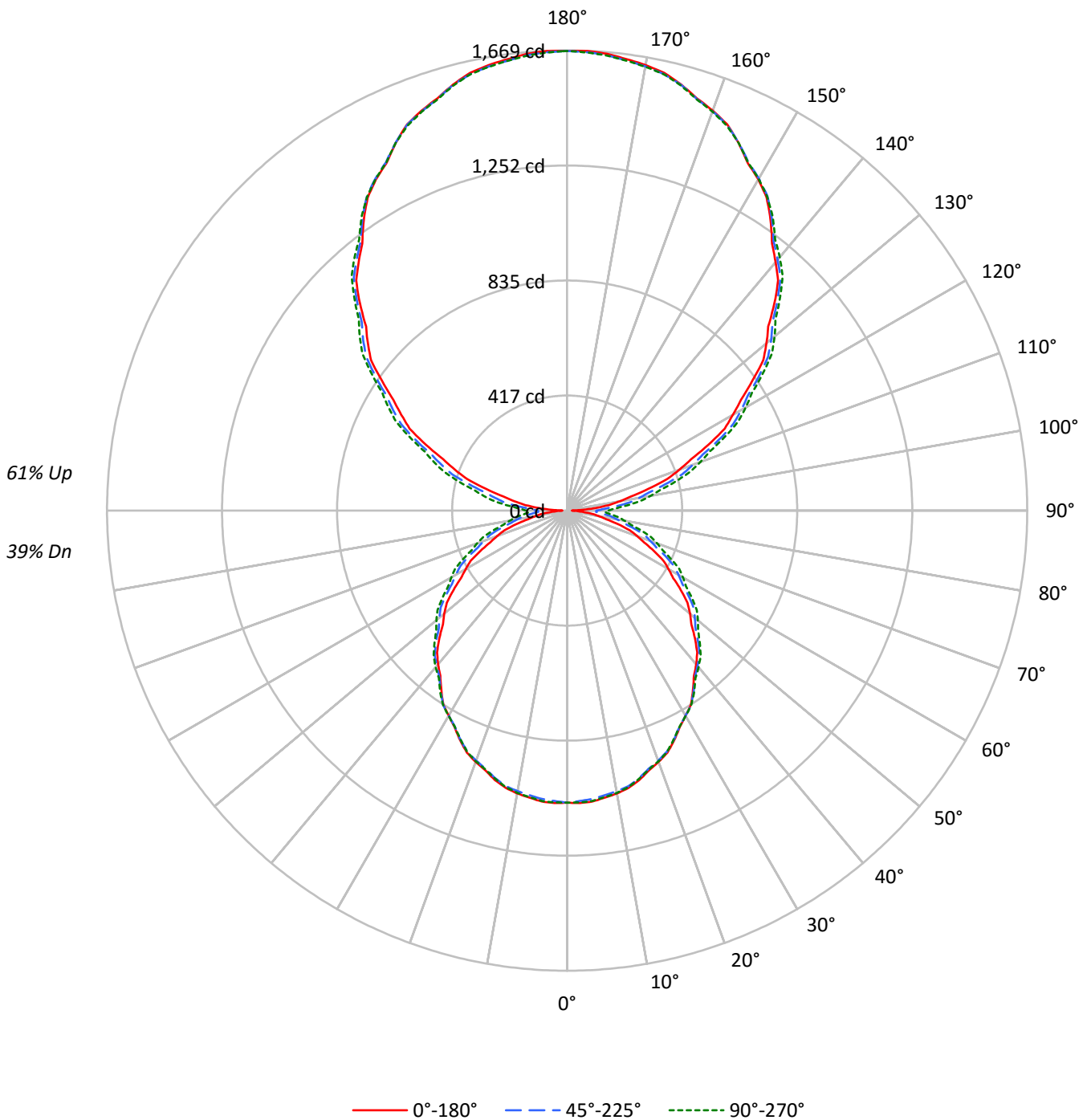
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	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	1.3
10°-20°	284.4	3.6
20°-30°	422.9	5.3
30°-40°	500.9	6.3
40°-50°	517.9	6.5
50°-60°	477.1	6.0
60°-70°	385.7	4.9
70°-80°	258.3	3.3
80°-90°	137.6	1.7
90°-100°	186.8	2.4
100°-110°	385.1	4.9
110°-120°	595.5	7.5
120°-130°	756.0	9.5
130°-140°	832.7	10.5
140°-150°	808.9	10.2
150°-160°	677.9	8.5
160°-170°	450.6	5.7
170°-180°	157.7	2.0
0°-30°	807.4	10.2
0°-40°	1308.3	16.5
0°-60°	2303.3	29.0
0°-90°	3084.8	38.9
90°-120°	1167.4	14.7
90°-150°	3565.0	44.9
90°-180°	4851.0	61.1
0°-180°	7936.0	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	148	16
95°	98	128	176	206	218	101
105°	305	329	367	395	407	326
115°	565	579	607	624	630	559
125°	820	828	849	862	867	734
135°	1063	1070	1078	1091	1092	819
145°	1286	1291	1295	1300	1300	804
155°	1471	1471	1472	1477	1471	677
165°	1599	1597	1598	1603	1596	451
175°	1663	1658	1658	1665	1656	158
180°	1667	1667	1667	1667	1667	



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**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	66.5	76.3	86.2	96.1	105.9	112.7
92.5°	46.3	54.8	63.2	71.7	80.1	89.6	100.1	110.6	121.1	131.6	138.7
95°	97.8	104.4	111.0	117.5	124.1	132.8	143.5	154.2	165.0	175.7	182.8
97.5°	152.3	158.0	163.6	169.2	174.9	183.5	195.0	206.6	218.1	229.7	236.4
100°	193.0	197.9	202.7	207.6	212.4	220.4	231.5	242.7	253.8	264.9	272.4
102.5°	236.8	242.4	248.1	253.7	259.3	266.7	275.8	284.9	294.0	303.1	310.6
105°	305.1	310.2	315.4	320.5	325.6	332.5	341.2	349.8	358.5	367.1	373.5
107.5°	380.6	385.2	389.8	394.4	399.0	405.2	413.2	421.2	429.2	437.1	442.6
110°	432.7	437.0	441.2	445.4	449.6	455.4	462.7	470.0	477.3	484.7	489.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	486.7	489.7	492.6	495.6	498.6	503.7	511.1	518.5	525.8	533.2	537.8
115°	565.3	568.1	570.8	573.6	576.4	581.1	587.6	594.2	600.8	607.4	611.2
117.5°	644.2	645.8	647.3	648.9	650.5	654.4	660.6	666.8	673.0	679.2	683.3
120°	694.0	696.1	698.3	700.4	702.5	706.4	712.0	717.6	723.2	728.8	732.7
122.5°	747.1	748.0	748.8	749.6	750.5	753.8	759.7	765.6	771.5	777.3	780.8
125°	820.1	821.6	823.1	824.6	826.1	829.3	834.2	839.1	844.0	848.9	852.0
127.5°	896.9	897.6	898.4	899.1	899.9	902.3	906.4	910.6	914.7	918.8	921.9
130°	943.6	944.8	946.0	947.2	948.4	950.9	954.7	958.5	962.3	966.1	969.1
132.5°	989.4	991.7	994.1	996.4	998.7	1001.0	1003.4	1005.8	1008.2	1010.6	1013.5
135°	1063.2	1064.7	1066.2	1067.7	1069.2	1070.9	1072.8	1074.7	1076.6	1078.5	1081.5
137.5°	1132.5	1134.0	1135.5	1136.9	1138.4	1139.9	1141.3	1142.7	1144.1	1145.6	1148.6
140°	1176.3	1177.7	1179.2	1180.6	1182.0	1183.3	1184.4	1185.5	1186.6	1187.7	1190.8
142.5°	1220.9	1221.9	1222.9	1224.0	1225.0	1226.1	1227.2	1228.4	1229.5	1230.6	1233.2
145°	1286.5	1287.4	1288.4	1289.3	1290.2	1291.1	1292.0	1292.8	1293.7	1294.6	1295.7
147.5°	1346.2	1346.8	1347.5	1348.1	1348.7	1349.4	1350.1	1350.8	1351.5	1352.2	1353.2
150°	1386.7	1386.4	1386.1	1385.8	1385.5	1385.9	1387.1	1388.3	1389.4	1390.6	1390.6
152.5°	1419.9	1420.3	1420.7	1421.1	1421.5	1421.9	1422.4	1422.8	1423.3	1423.8	1424.5
155°	1471.0	1471.0	1471.0	1471.0	1471.0	1471.1	1471.4	1471.7	1472.0	1472.3	1473.4
157.5°	1516.6	1516.0	1515.4	1514.7	1514.1	1513.9	1514.2	1514.5	1514.8	1515.1	1516.2
160°	1543.6	1542.8	1541.9	1541.0	1540.2	1539.9	1540.2	1540.5	1540.7	1541.0	1542.2
162.5°	1567.5	1566.9	1566.2	1565.6	1565.0	1564.7	1564.7	1564.8	1564.8	1564.9	1566.3
165°	1599.4	1598.8	1598.2	1597.7	1597.1	1597.0	1597.2	1597.5	1597.8	1598.1	1599.3
167.5°	1626.4	1625.2	1624.1	1622.9	1621.8	1621.2	1621.2	1621.2	1621.2	1621.2	1622.9
170°	1640.9	1639.8	1638.6	1637.5	1636.3	1635.7	1635.7	1635.7	1635.7	1635.7	1637.5
172.5°	1651.3	1650.1	1649.0	1647.8	1646.7	1646.1	1646.1	1646.1	1646.1	1646.1	1647.8
175°	1663.0	1661.8	1660.7	1659.5	1658.4	1657.8	1657.8	1657.8	1657.8	1657.8	1659.5
177.5°	1668.9	1668.0	1667.1	1666.2	1665.2	1664.7	1664.4	1664.2	1664.0	1663.7	1665.1
180°	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9



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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	134.8	136.5	138.3
90°	119.4	126.2	132.9	137.5	140.0	142.5	145.0	147.5
92.5°	145.7	152.7	159.8	164.4	166.6	168.9	171.1	173.4
95°	189.9	197.0	204.1	208.7	210.9	213.1	215.3	217.5
97.5°	243.2	249.9	256.7	261.0	262.9	264.8	266.7	268.6
100°	279.8	287.3	294.7	299.4	301.4	303.3	305.3	307.2
102.5°	318.1	325.6	333.1	337.9	340.1	342.3	344.5	346.7
105°	379.8	386.2	392.5	396.9	399.4	401.9	404.4	406.9
107.5°	448.0	453.4	458.9	462.3	463.6	465.0	466.4	467.8
110°	495.2	500.4	505.7	508.9	510.3	511.6	512.9	514.3





TEST NUMBER: P333421

CATALOG NUMBER: S125DIW-S850D1340U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	542.4	547.0	551.6	554.5	555.6	556.7	557.8	558.9
115°	615.1	619.0	622.8	625.3	626.4	627.5	628.6	629.7
117.5°	687.5	691.6	695.8	698.1	698.5	698.9	699.3	699.7
120°	736.6	740.5	744.5	746.5	746.8	747.0	747.2	747.5
122.5°	784.4	787.9	791.4	793.4	793.8	794.3	794.7	795.2
125°	855.1	858.2	861.3	863.3	864.2	865.1	865.9	866.8
127.5°	925.1	928.2	931.3	933.3	934.0	934.8	935.6	936.3
130°	972.0	975.0	977.9	979.7	980.2	980.8	981.4	982.0
132.5°	1016.4	1019.4	1022.3	1023.9	1024.0	1024.2	1024.4	1024.5
135°	1084.5	1087.5	1090.5	1092.0	1092.0	1092.0	1092.0	1092.0
137.5°	1151.7	1154.8	1157.8	1159.1	1158.6	1158.1	1157.6	1157.0
140°	1193.9	1197.0	1200.1	1201.4	1200.9	1200.4	1199.9	1199.4
142.5°	1235.7	1238.2	1240.7	1241.7	1241.2	1240.7	1240.2	1239.6
145°	1296.9	1298.0	1299.2	1299.8	1299.8	1299.9	1300.0	1300.0
147.5°	1354.3	1355.3	1356.4	1356.2	1354.6	1353.1	1351.5	1350.0
150°	1390.6	1390.6	1390.6	1390.4	1390.0	1389.7	1389.3	1389.0
152.5°	1425.1	1425.8	1426.5	1426.4	1425.4	1424.4	1423.4	1422.4
155°	1474.6	1475.7	1476.9	1476.7	1475.3	1473.9	1472.4	1471.0
157.5°	1517.4	1518.5	1519.7	1519.3	1517.4	1515.5	1513.6	1511.7
160°	1543.3	1544.5	1545.6	1545.5	1544.1	1542.6	1541.2	1539.7
162.5°	1567.7	1569.0	1570.4	1570.3	1568.6	1566.9	1565.3	1563.6
165°	1600.4	1601.6	1602.7	1602.4	1600.7	1599.0	1597.2	1595.5
167.5°	1624.7	1626.4	1628.1	1628.1	1626.3	1624.5	1622.7	1620.9
170°	1639.2	1640.9	1642.6	1642.5	1640.5	1638.5	1636.4	1634.4
172.5°	1649.6	1651.3	1653.0	1653.0	1651.2	1649.4	1647.6	1645.8
175°	1661.2	1663.0	1664.7	1664.5	1662.5	1660.5	1658.5	1656.5
177.5°	1666.5	1667.9	1669.3	1669.2	1667.5	1665.9	1664.3	1662.7
180°	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9	1666.9

(END OF REPORT)