

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: P333420-940

Luminaire Tested: **S125DIW-S850D1340U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333420-940  
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-S850D1340U940-4F0-1E-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: 7711.8 lumens  
Efficiency: N/A  
Efficacy: 125.6 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

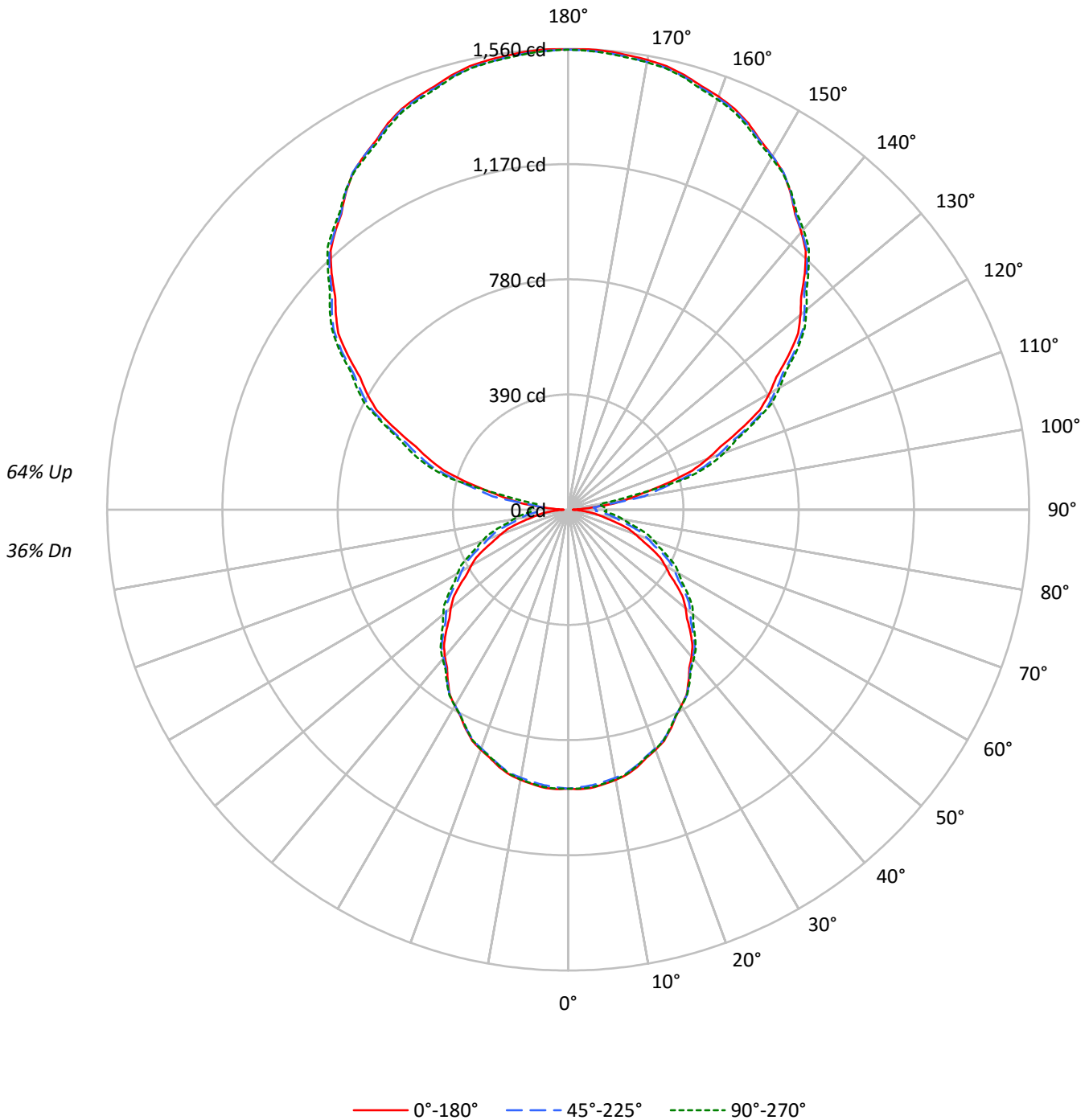
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333420-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333420-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-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°	6101	6101	6101
5°	6113	5988	6007
10°	6069	5881	5872
15°	5998	5753	5701
20°	5900	5595	5529
25°	5784	5425	5318
30°	5644	5239	5126
35°	5513	5068	4951
40°	5379	4888	4773
45°	5228	4733	4617
50°	5084	4566	4479
55°	4912	4408	4315
60°	4722	4227	4149
65°	4525	4039	3961
70°	4301	3780	3769
75°	3945	3533	3533
80°	3483	3233	3276
85°	3046	3031	3195



TEST NUMBER: P333420-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.3	1.2
10°-20°	253.6	3.3
20°-30°	377.1	4.9
30°-40°	446.7	5.8
40°-50°	461.8	6.0
50°-60°	425.4	5.5
60°-70°	343.9	4.5
70°-80°	230.3	3.0
80°-90°	122.7	1.6
90°-100°	123.6	1.6
100°-110°	398.2	5.2
110°-120°	665.7	8.6
120°-130°	830.7	10.8
130°-140°	881.5	11.4
140°-150°	821.4	10.7
150°-160°	663.1	8.6
160°-170°	428.8	5.6
170°-180°	147.9	1.9
0°-30°	720.0	9.3
0°-40°	1166.7	15.1
0°-60°	2053.9	26.6
0°-90°	2750.8	35.7
90°-120°	1187.6	15.4
90°-150°	3721.2	48.3
90°-180°	4961.0	64.3
0°-180°	7711.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	945	945	945	945	945	
5°	945	942	936	943	943	90
15°	902	903	896	902	898	254
25°	820	822	817	820	816	377
35°	709	715	713	716	716	444
45°	584	594	599	605	607	451
55°	449	464	479	489	493	401
65°	309	331	353	366	370	307
75°	170	195	224	242	247	181
85°	51	82	114	134	142	54
90°	16	55	94	121	131	13
95°	78	97	86	111	119	93
105°	348	368	395	413	419	369
115°	643	656	680	692	691	637
125°	910	918	936	945	947	812
135°	1132	1138	1142	1151	1150	872
145°	1311	1313	1313	1318	1315	820
155°	1443	1437	1439	1441	1433	665
165°	1523	1516	1517	1523	1515	430
175°	1558	1551	1552	1560	1550	148
180°	1558	1558	1558	1558	1558	



TEST NUMBER: P333420-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6
2.5°	946.8	946.6	946.2	945.8	945.5	944.8	943.6	942.4	941.3	940.1	941.3
5°	944.6	944.2	943.8	943.3	943.0	942.0	940.6	939.1	937.7	936.3	937.9
7.5°	936.3	936.1	935.9	935.8	935.6	934.8	933.4	931.8	930.3	928.9	930.3
10°	928.9	928.9	928.9	928.9	928.9	928.1	926.4	924.8	923.1	921.5	922.9
12.5°	918.5	918.6	918.8	919.0	919.2	918.6	917.3	916.0	914.6	913.3	914.4
15°	902.1	902.2	902.4	902.6	902.9	902.2	900.8	899.4	897.9	896.4	897.7
17.5°	880.6	880.9	881.4	881.7	882.2	881.6	880.2	878.8	877.4	875.9	876.8
20°	865.0	865.4	865.8	866.2	866.7	866.1	864.7	863.3	861.7	860.3	860.9
22.5°	847.2	847.9	848.6	849.4	850.2	849.7	848.1	846.5	844.9	843.3	844.1
25°	819.6	820.2	820.8	821.4	822.1	821.7	820.6	819.3	818.1	816.8	817.6
27.5°	788.8	789.8	790.7	791.6	792.5	792.2	790.9	789.4	788.0	786.7	787.2
30°	765.9	767.1	768.4	769.5	770.8	770.8	769.5	768.4	767.1	765.9	766.3
32.5°	745.1	746.2	747.3	748.3	749.4	749.5	748.6	747.7	746.8	745.9	746.3
35°	709.4	710.9	712.3	713.7	715.2	715.6	715.0	714.3	713.7	713.1	713.7
37.5°	673.6	674.9	676.3	677.6	678.9	679.5	679.2	679.0	678.9	678.7	679.5
40°	649.2	650.9	652.5	654.2	655.8	656.5	656.3	656.1	655.9	655.7	656.5
42.5°	622.5	624.6	626.8	628.9	631.1	632.4	632.8	633.3	633.7	634.2	635.2
45°	584.3	586.7	588.9	591.1	593.4	595.0	596.1	597.1	598.2	599.1	600.7
47.5°	545.3	547.4	549.5	551.6	553.7	555.6	557.4	559.2	560.9	562.7	564.8
50°	518.6	520.8	523.2	525.4	527.6	529.9	532.2	534.5	536.7	539.0	541.3
52.5°	490.4	493.2	496.0	498.7	501.5	504.3	507.0	509.8	512.6	515.3	517.7
55°	449.2	452.5	455.8	459.1	462.4	465.7	469.0	472.3	475.5	478.8	481.1
57.5°	406.9	410.9	414.8	418.7	422.8	426.6	430.4	434.2	437.9	441.8	444.3
60°	378.8	382.9	387.0	391.1	395.2	399.4	403.5	407.6	411.7	415.8	418.9
62.5°	351.3	355.4	359.6	363.7	367.8	372.1	376.6	381.0	385.4	389.9	393.3
65°	309.3	314.1	318.8	323.5	328.2	333.1	338.0	343.0	347.9	352.8	356.0
67.5°	269.7	274.3	278.8	283.4	287.9	292.7	297.7	302.8	307.8	312.8	316.6
70°	240.8	245.5	250.2	255.0	259.8	264.7	270.1	275.4	280.8	286.1	290.1
72.5°	212.7	217.5	222.4	227.3	232.2	237.6	243.4	249.3	255.1	261.0	265.2
75°	170.4	175.8	181.1	186.5	191.8	197.8	204.4	211.0	217.5	224.1	228.2
77.5°	129.8	136.0	142.2	148.4	154.5	160.8	167.1	173.4	179.8	186.2	190.6
80°	104.7	110.8	117.0	123.1	129.4	135.9	142.9	149.9	156.9	163.9	168.4
82.5°	81.7	88.2	94.7	101.2	107.7	114.5	121.7	128.9	136.0	143.2	147.6
85°	50.9	57.7	64.6	71.3	78.1	85.1	92.3	99.5	106.7	113.9	118.4
87.5°	29.2	36.1	43.2	50.1	57.1	64.3	71.6	79.0	86.3	93.7	98.7
90°	16.0	24.6	33.3	41.9	50.6	59.2	68.0	76.9	85.6	94.4	100.4
92.5°	31.1	35.8	40.4	45.1	49.8	56.4	65.2	73.9	82.7	91.5	97.3
95°	77.8	82.4	87.0	91.6	96.2	97.1	94.3	91.6	88.8	86.1	91.8
97.5°	148.3	154.5	160.7	166.9	173.1	170.0	157.4	144.9	132.3	119.8	116.9
100°	203.0	208.1	213.2	218.3	223.4	229.7	237.3	245.0	252.5	260.2	226.2
102.5°	258.6	263.6	268.5	273.5	278.5	284.5	291.5	298.5	305.6	312.6	309.5
105°	347.8	352.0	356.4	360.7	365.1	370.3	376.5	382.6	388.8	395.0	399.1
107.5°	440.4	443.2	446.0	448.8	451.6	456.2	462.6	469.1	475.5	482.0	486.1
110°	500.6	503.1	505.6	508.0	510.5	514.9	521.1	527.4	533.7	540.0	543.1



TEST NUMBER: P333420-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	557.9	560.4	563.1	565.7	568.3	572.5	578.5	584.3	590.2	596.1	598.9
115°	642.8	645.6	648.3	651.0	653.7	657.9	663.5	669.1	674.8	680.4	683.1
117.5°	730.8	731.7	732.6	733.5	734.4	737.9	744.0	749.9	756.0	762.1	764.2
120°	786.2	786.6	786.9	787.3	787.7	790.6	796.1	801.6	807.2	812.6	815.6
122.5°	834.5	835.7	837.0	838.3	839.5	842.6	847.6	852.5	857.4	862.3	865.1
125°	910.0	911.6	913.2	914.8	916.4	919.3	923.4	927.5	931.6	935.7	938.0
127.5°	981.3	982.5	983.6	984.6	985.7	987.8	991.0	994.3	997.5	1000.7	1003.2
130°	1025.7	1026.8	1027.9	1028.9	1030.0	1032.2	1035.3	1038.4	1041.5	1044.6	1046.8
132.5°	1069.3	1070.8	1072.2	1073.6	1075.0	1076.7	1078.3	1080.0	1081.6	1083.3	1086.0
135°	1132.1	1133.5	1134.8	1136.1	1137.5	1138.6	1139.5	1140.5	1141.4	1142.3	1144.5
137.5°	1189.9	1191.1	1192.2	1193.5	1194.6	1195.3	1195.5	1195.8	1196.1	1196.2	1198.8
140°	1227.1	1227.5	1228.1	1228.6	1229.1	1229.3	1229.3	1229.2	1229.1	1229.1	1231.9
142.5°	1261.2	1261.3	1261.5	1261.7	1261.8	1262.0	1262.5	1262.8	1263.3	1263.6	1265.7
145°	1311.3	1311.6	1312.0	1312.2	1312.6	1312.7	1312.7	1312.7	1312.7	1312.7	1314.0
147.5°	1354.2	1354.2	1354.1	1354.0	1353.9	1354.0	1354.2	1354.6	1354.9	1355.2	1355.8
150°	1382.0	1381.4	1381.0	1380.5	1379.9	1379.9	1380.5	1381.0	1381.4	1382.0	1382.5
152.5°	1408.7	1407.7	1406.5	1405.4	1404.3	1403.9	1404.4	1405.0	1405.5	1406.0	1406.5
155°	1443.1	1441.6	1440.1	1438.6	1437.0	1436.5	1437.0	1437.5	1438.1	1438.6	1439.3
157.5°	1469.7	1468.8	1467.8	1467.0	1466.1	1465.6	1465.6	1465.7	1465.8	1465.8	1466.6
160°	1488.2	1486.7	1485.1	1483.5	1482.0	1481.4	1481.7	1481.9	1482.2	1482.5	1483.5
162.5°	1503.0	1501.5	1499.9	1498.3	1496.8	1496.2	1496.5	1496.7	1496.9	1497.2	1498.6
165°	1522.9	1521.3	1519.7	1518.2	1516.7	1516.0	1516.3	1516.5	1516.8	1517.1	1518.6
167.5°	1537.6	1536.1	1534.5	1532.9	1531.2	1530.6	1530.8	1531.1	1531.3	1531.6	1533.5
170°	1546.0	1544.2	1542.3	1540.5	1538.7	1537.9	1538.2	1538.5	1538.7	1539.0	1541.1
172.5°	1551.5	1549.7	1547.9	1546.0	1544.3	1543.6	1544.1	1544.5	1545.0	1545.4	1547.3
175°	1557.5	1555.9	1554.4	1552.8	1551.3	1550.7	1551.0	1551.2	1551.5	1551.7	1553.7
177.5°	1560.2	1559.0	1557.8	1556.6	1555.3	1554.8	1555.1	1555.2	1555.4	1555.6	1557.1
180°	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5



TEST NUMBER: P333420-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6
2.5°	942.4	943.6	944.8	945.3	945.1	944.9	944.8	944.6
5°	939.6	941.2	942.9	943.6	943.3	943.2	943.0	942.8
7.5°	931.7	933.2	934.6	935.2	935.0	934.9	934.6	934.4
10°	924.3	925.8	927.2	927.8	927.6	927.5	927.2	927.0
12.5°	915.5	916.7	917.7	918.0	917.5	916.9	916.4	915.9
15°	898.9	900.2	901.4	901.6	900.8	899.9	899.1	898.3
17.5°	877.8	878.8	879.7	879.9	879.4	879.0	878.4	878.0
20°	861.6	862.2	862.8	863.1	863.1	863.1	863.1	863.1
22.5°	844.9	845.6	846.4	846.6	846.1	845.6	845.1	844.6
25°	818.5	819.3	820.1	820.0	818.9	818.0	816.9	815.9
27.5°	787.7	788.4	788.9	789.1	788.6	788.3	787.9	787.6
30°	766.7	767.1	767.5	767.7	767.4	767.2	767.0	766.8
32.5°	746.7	747.1	747.5	747.6	747.4	747.3	747.0	746.8
35°	714.3	715.0	715.6	715.9	715.9	715.9	715.9	715.9
37.5°	680.3	681.1	681.9	682.3	682.2	682.2	682.1	682.0
40°	657.3	658.2	659.0	659.6	660.0	660.4	660.8	661.2
42.5°	636.1	637.1	638.1	638.6	638.7	638.8	638.9	639.0
45°	602.1	603.5	604.9	605.7	606.0	606.2	606.4	606.6
47.5°	566.9	569.0	571.1	572.4	572.8	573.3	573.7	574.2
50°	543.5	545.8	548.0	549.5	550.1	550.7	551.3	552.0
52.5°	520.1	522.5	525.0	526.5	526.9	527.4	527.8	528.2
55°	483.3	485.6	487.9	489.4	490.2	491.1	491.9	492.7
57.5°	446.9	449.5	452.1	453.7	454.3	455.0	455.6	456.2
60°	422.0	425.1	428.2	430.0	430.6	431.2	431.9	432.5
62.5°	396.7	400.1	403.6	405.6	406.4	407.2	408.0	408.8
65°	359.0	362.1	365.2	367.1	368.0	368.8	369.6	370.4
67.5°	320.3	324.0	327.8	330.2	331.3	332.3	333.4	334.5
70°	294.0	297.9	301.8	304.3	305.6	306.8	308.1	309.3
72.5°	269.5	273.7	277.9	280.5	281.4	282.3	283.2	284.1
75°	232.4	236.5	240.6	243.2	244.2	245.2	246.2	247.3
77.5°	195.2	199.7	204.3	207.0	207.8	208.6	209.4	210.3
80°	173.0	177.5	182.0	184.7	185.6	186.4	187.2	188.0
82.5°	151.9	156.2	160.6	163.5	165.1	166.5	168.0	169.5
85°	123.0	127.5	132.1	135.1	136.8	138.4	140.1	141.7
87.5°	103.7	108.7	113.7	117.0	118.6	120.1	121.7	123.3
90°	106.5	112.4	118.5	122.6	124.8	127.0	129.2	131.4
92.5°	103.2	109.0	114.9	118.7	120.5	122.3	124.0	125.9
95°	97.7	103.5	109.3	113.0	114.4	115.8	117.3	118.7
97.5°	114.0	111.0	108.2	107.4	108.8	110.1	111.6	113.0
100°	192.3	158.5	124.6	107.7	107.9	108.1	108.3	108.5
102.5°	306.5	303.4	300.3	290.7	274.5	258.2	242.0	225.8
105°	403.2	407.3	411.4	414.1	415.3	416.4	417.7	418.8
107.5°	490.3	494.4	498.5	500.8	501.3	501.9	502.3	502.8
110°	546.3	549.4	552.5	555.0	556.7	558.4	560.1	561.8





TEST NUMBER: P333420-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	601.6	604.4	607.2	609.1	610.2	611.3	612.3	613.5
115°	685.7	688.4	691.1	692.2	692.0	691.6	691.3	691.1
117.5°	766.3	768.6	770.7	772.1	772.8	773.6	774.4	775.1
120°	818.6	821.6	824.6	826.1	826.0	826.0	825.9	825.9
122.5°	868.0	870.8	873.6	874.9	874.7	874.4	874.1	873.9
125°	940.2	942.5	944.8	946.0	946.3	946.6	946.8	947.1
127.5°	1005.7	1008.2	1010.7	1011.6	1010.8	1010.1	1009.4	1008.7
130°	1048.9	1051.0	1053.1	1054.0	1053.8	1053.6	1053.3	1053.0
132.5°	1088.7	1091.5	1094.2	1095.3	1094.9	1094.5	1094.0	1093.7
135°	1146.7	1148.8	1150.9	1151.8	1151.3	1150.8	1150.3	1149.8
137.5°	1201.3	1203.8	1206.4	1207.4	1206.8	1206.4	1205.9	1205.3
140°	1234.7	1237.4	1240.2	1241.3	1240.5	1239.8	1239.1	1238.4
142.5°	1267.7	1269.8	1271.8	1272.5	1271.8	1271.0	1270.3	1269.6
145°	1315.3	1316.6	1317.9	1318.1	1317.4	1316.7	1316.0	1315.3
147.5°	1356.5	1357.1	1357.7	1357.4	1355.8	1354.3	1352.9	1351.4
150°	1383.0	1383.5	1384.0	1383.4	1381.5	1379.7	1377.9	1376.0
152.5°	1407.0	1407.6	1408.0	1407.4	1405.6	1403.8	1401.9	1400.2
155°	1440.1	1440.8	1441.6	1441.0	1439.0	1436.9	1434.9	1432.8
157.5°	1467.5	1468.3	1469.1	1468.5	1466.4	1464.4	1462.3	1460.3
160°	1484.5	1485.5	1486.6	1486.0	1484.0	1481.9	1479.9	1477.8
162.5°	1500.0	1501.6	1503.0	1502.5	1500.3	1498.0	1495.8	1493.5
165°	1520.1	1521.7	1523.2	1523.0	1520.9	1518.9	1516.8	1514.7
167.5°	1535.3	1537.1	1539.0	1538.7	1536.4	1534.2	1531.9	1529.6
170°	1543.1	1545.2	1547.2	1547.1	1544.8	1542.5	1540.2	1537.8
172.5°	1549.2	1551.0	1552.8	1552.6	1550.3	1548.0	1545.7	1543.4
175°	1555.8	1557.8	1559.9	1559.8	1557.5	1555.1	1552.8	1550.5
177.5°	1558.5	1560.0	1561.4	1561.3	1559.6	1558.0	1556.3	1554.7
180°	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5	1557.5

(END OF REPORT)