

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: P333427-940

Luminaire Tested: **S125DIW-S850D1560U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333427-940
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-S850D1560U940-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7751.8 lumens
Efficiency: N/A
Efficacy: 113.8 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

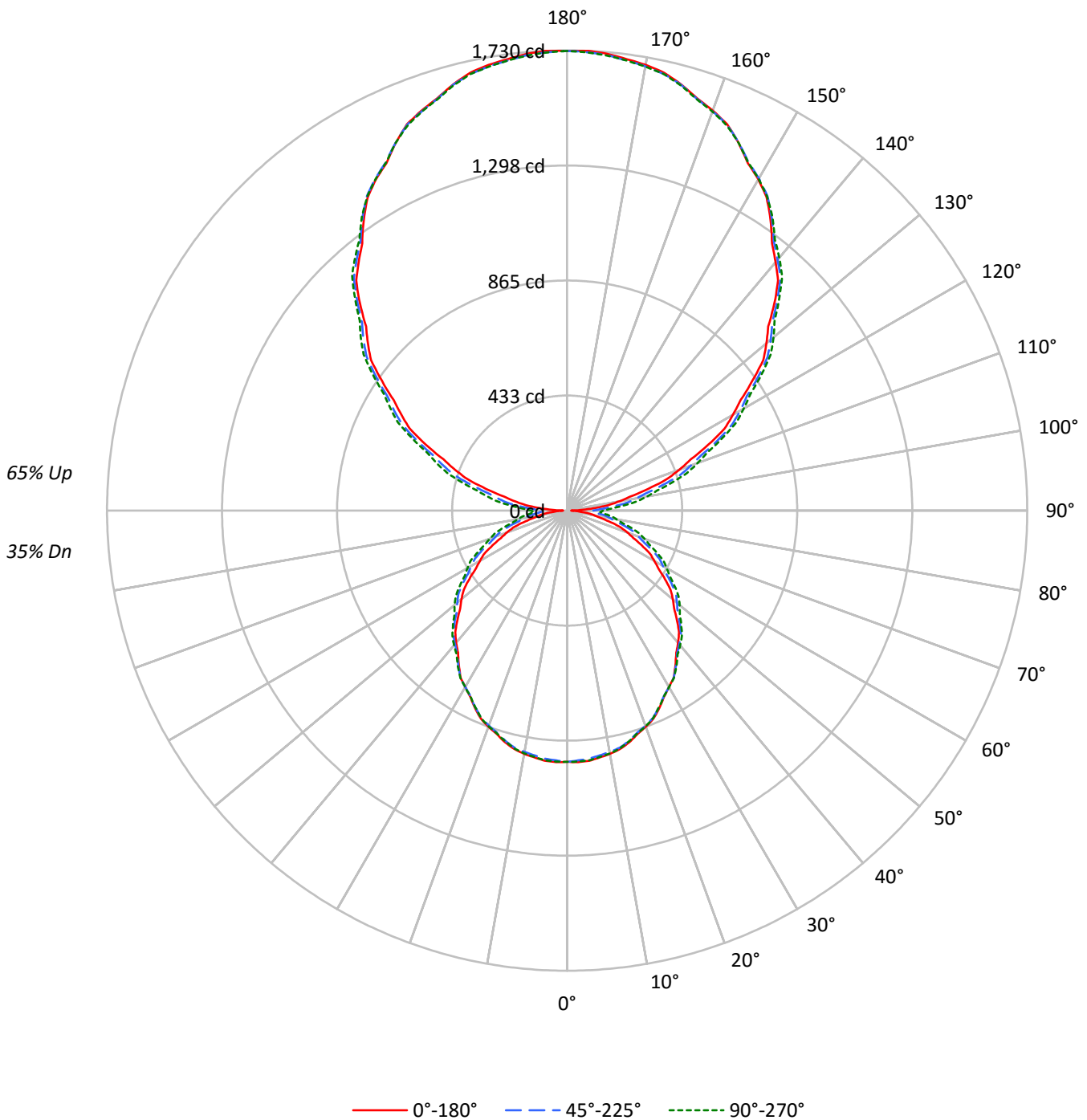
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333427-940

CATALOG NUMBER: S125DIW-S850D1560U940-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P333427-940

CATALOG NUMBER: S125DIW-S850D1560U940-4F0-1E-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	94	94	94	94	75	75	75	58	58	58	43	43	43	35
1	94	90	86	82	85	81	78	75	65	63	61	50	49	47	37	36	35	29
2	85	78	72	66	77	70	65	61	57	53	50	44	41	39	32	31	29	24
3	78	68	61	55	70	62	56	50	50	45	41	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	20	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	35	29	24	29	24	20	23	19	16	17	14	13	10
9	47	35	28	23	43	32	26	21	26	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: P333427-940

CATALOG NUMBER: S125DIW-S850D1560U940-4F0-1E-UDD-D1

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	4.4
70°-80°	230.3	3.0
80°-90°	123.2	1.6
90°-100°	182.8	2.4
100°-110°	391.2	5.0
110°-120°	612.0	7.9
120°-130°	780.7	10.1
130°-140°	861.9	11.1
140°-150°	838.4	10.8
150°-160°	702.8	9.1
160°-170°	467.2	6.0
170°-180°	163.5	2.1
0°-30°	720.0	9.3
0°-40°	1166.7	15.1
0°-60°	2053.9	26.5
0°-90°	2751.3	35.5
90°-120°	1186.0	15.3
90°-150°	3667.0	47.3
90°-180°	5000.0	64.5
0°-180°	7751.8	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	57	98	124	136	15
95°	99	127	171	200	210	103
105°	315	337	372	398	410	336
115°	585	598	624	638	643	579
125°	850	858	877	888	892	760
135°	1102	1109	1117	1128	1128	849
145°	1334	1338	1342	1347	1346	833
155°	1525	1525	1526	1531	1525	702
165°	1658	1656	1657	1661	1654	468
175°	1724	1719	1719	1726	1717	164
180°	1728	1728	1728	1728	1728	



TEST NUMBER: P333427-940

CATALOG NUMBER: S125DIW-S850D1560U940-4F0-1E-UDD-D1

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	36.2	43.2	50.4	57.4	64.6	72.1	79.5	86.9	94.3	99.3
90°	16.1	25.1	34.2	43.1	52.1	61.1	70.2	79.3	88.4	97.5	103.7
92.5°	45.9	53.7	61.4	69.2	77.0	85.7	95.4	105.1	114.9	124.7	131.2
95°	99.4	105.4	111.4	117.3	123.2	131.2	141.2	151.1	161.1	171.1	177.8
97.5°	156.1	161.2	166.3	171.3	176.4	184.3	195.2	206.1	217.0	227.8	234.2
100°	198.5	202.8	207.1	211.4	215.8	223.1	233.6	244.1	254.6	265.0	272.1
102.5°	244.0	249.1	254.4	259.6	264.7	271.5	279.9	288.3	296.7	305.1	312.2
105°	315.0	319.8	324.5	329.3	334.1	340.5	348.5	356.4	364.4	372.4	378.3
107.5°	393.4	397.8	402.1	406.4	410.6	416.4	423.7	431.1	438.4	445.7	450.6
110°	447.5	451.6	455.5	459.5	463.4	468.8	475.5	482.1	488.7	495.4	500.2



TEST NUMBER: P333427-940

CATALOG NUMBER: S125DIW-S850D1560U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	503.5	506.3	509.1	511.8	514.5	519.3	526.0	532.8	539.5	546.3	550.4
115°	585.1	587.8	590.5	593.1	595.8	600.0	606.0	611.9	617.9	623.8	627.2
117.5°	667.1	668.6	670.0	671.5	673.1	676.5	682.2	687.8	693.4	699.0	702.8
120°	718.7	720.9	723.0	725.1	727.2	730.8	735.8	740.8	745.8	750.9	754.4
122.5°	773.9	774.8	775.6	776.4	777.2	780.3	785.7	791.0	796.4	801.7	804.9
125°	849.6	851.2	852.7	854.3	856.0	859.0	863.4	867.8	872.2	876.6	879.3
127.5°	929.3	930.1	931.0	931.8	932.6	934.9	938.6	942.4	946.1	949.9	952.6
130°	977.8	979.1	980.3	981.7	982.9	985.3	988.8	992.3	995.8	999.3	1001.8
132.5°	1025.5	1027.9	1030.3	1032.7	1035.1	1037.3	1039.5	1041.6	1043.7	1045.8	1048.4
135°	1102.0	1103.5	1105.1	1106.7	1108.3	1109.9	1111.7	1113.4	1115.2	1116.9	1119.5
137.5°	1173.8	1175.4	1177.0	1178.6	1180.1	1181.6	1182.9	1184.3	1185.6	1187.0	1189.8
140°	1219.3	1220.8	1222.4	1223.9	1225.3	1226.6	1227.7	1228.9	1229.9	1231.0	1233.9
142.5°	1265.6	1266.7	1267.8	1268.9	1270.0	1271.1	1272.3	1273.5	1274.6	1275.9	1278.1
145°	1333.6	1334.6	1335.6	1336.7	1337.7	1338.5	1339.4	1340.3	1341.2	1342.1	1343.2
147.5°	1395.7	1396.3	1397.0	1397.7	1398.3	1399.0	1399.7	1400.4	1401.1	1401.9	1402.9
150°	1437.6	1437.3	1437.1	1436.7	1436.5	1436.9	1438.1	1439.3	1440.5	1441.7	1441.7
152.5°	1472.0	1472.5	1472.9	1473.3	1473.7	1474.2	1474.7	1475.2	1475.6	1476.1	1476.9
155°	1525.1	1525.1	1525.1	1525.1	1525.1	1525.2	1525.5	1525.8	1526.1	1526.4	1527.6
157.5°	1572.4	1571.7	1571.1	1570.4	1569.8	1569.6	1569.9	1570.2	1570.5	1570.7	1572.0
160°	1600.4	1599.5	1598.6	1597.7	1596.8	1596.5	1596.8	1597.1	1597.4	1597.7	1598.8
162.5°	1625.1	1624.4	1623.8	1623.2	1622.5	1622.2	1622.2	1622.3	1622.4	1622.4	1623.9
165°	1658.2	1657.6	1657.0	1656.4	1655.8	1655.6	1656.0	1656.3	1656.5	1656.9	1658.0
167.5°	1686.1	1685.0	1683.8	1682.6	1681.4	1680.8	1680.8	1680.8	1680.8	1680.8	1682.6
170°	1701.2	1700.0	1698.8	1697.6	1696.5	1695.9	1695.9	1695.9	1695.9	1695.9	1697.6
172.5°	1712.0	1710.8	1709.6	1708.4	1707.2	1706.6	1706.6	1706.6	1706.6	1706.6	1708.4
175°	1724.1	1722.9	1721.7	1720.5	1719.3	1718.7	1718.7	1718.7	1718.7	1718.7	1720.5
177.5°	1730.3	1729.3	1728.4	1727.4	1726.4	1725.8	1725.6	1725.4	1725.1	1724.9	1726.4
180°	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1



TEST NUMBER: P333427-940

CATALOG NUMBER: S125DIW-S850D1560U940-4F0-1E-UDD-D1

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°	104.4	109.4	114.4	117.8	119.4	121.0	122.6	124.2
90°	109.9	116.1	122.3	126.6	129.0	131.3	133.7	136.0
92.5°	137.7	144.3	150.8	155.1	157.2	159.3	161.4	163.5
95°	184.4	191.0	197.6	202.0	204.0	206.1	208.0	210.1
97.5°	240.4	246.7	253.1	257.1	258.8	260.6	262.3	264.1
100°	279.0	286.1	293.1	297.5	299.3	301.1	303.0	304.8
102.5°	319.2	326.4	333.4	338.0	340.1	342.1	344.2	346.3
105°	384.1	390.1	396.0	400.1	402.4	404.7	407.2	409.5
107.5°	455.6	460.6	465.6	468.6	469.8	471.1	472.3	473.5
110°	505.0	509.8	514.6	517.6	518.7	519.9	521.0	522.2



TEST NUMBER: P333427-940

CATALOG NUMBER: S125DIW-S850D1560U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	554.6	558.7	562.8	565.4	566.3	567.2	568.1	569.0
115°	630.6	634.0	637.4	639.6	640.5	641.5	642.4	643.4
117.5°	706.5	710.2	713.9	715.9	716.1	716.3	716.5	716.8
120°	757.9	761.3	764.9	766.7	766.7	766.7	766.8	766.8
122.5°	807.9	811.0	814.1	815.8	816.1	816.4	816.6	816.9
125°	882.0	884.7	887.4	889.1	889.8	890.6	891.3	892.1
127.5°	955.3	958.1	960.8	962.5	963.0	963.7	964.3	964.8
130°	1004.4	1007.0	1009.6	1011.1	1011.5	1011.9	1012.4	1012.8
132.5°	1051.0	1053.6	1056.1	1057.4	1057.4	1057.5	1057.5	1057.5
135°	1122.2	1124.9	1127.6	1128.9	1128.7	1128.5	1128.4	1128.2
137.5°	1192.6	1195.3	1198.2	1199.2	1198.5	1197.8	1197.2	1196.5
140°	1236.8	1239.7	1242.5	1243.6	1242.9	1242.2	1241.5	1240.9
142.5°	1280.4	1282.7	1285.0	1285.8	1285.1	1284.4	1283.8	1283.1
145°	1344.3	1345.2	1346.3	1346.8	1346.7	1346.6	1346.6	1346.5
147.5°	1404.0	1405.0	1406.0	1405.8	1404.1	1402.4	1400.8	1399.1
150°	1441.7	1441.7	1441.7	1441.5	1441.1	1440.7	1440.3	1439.9
152.5°	1477.6	1478.3	1479.0	1478.8	1477.7	1476.8	1475.7	1474.7
155°	1528.7	1530.0	1531.2	1531.1	1529.6	1528.0	1526.5	1525.1
157.5°	1573.2	1574.4	1575.6	1575.2	1573.2	1571.2	1569.2	1567.3
160°	1600.1	1601.2	1602.5	1602.3	1600.8	1599.3	1597.9	1596.3
162.5°	1625.3	1626.7	1628.2	1628.0	1626.3	1624.5	1622.8	1621.0
165°	1659.2	1660.5	1661.6	1661.3	1659.6	1657.8	1656.0	1654.1
167.5°	1684.4	1686.1	1687.9	1687.9	1686.0	1684.3	1682.4	1680.5
170°	1699.4	1701.2	1703.0	1702.9	1700.8	1698.7	1696.6	1694.5
172.5°	1710.2	1712.0	1713.8	1713.8	1711.9	1710.0	1708.2	1706.4
175°	1722.3	1724.1	1725.9	1725.7	1723.7	1721.5	1719.5	1717.3
177.5°	1727.8	1729.2	1730.6	1730.5	1728.8	1727.2	1725.5	1723.9
180°	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1	1728.1

(END OF REPORT)