

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: P333426-940

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333426-940
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-S850D1560U940-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8490.3 lumens
Efficiency: N/A
Efficacy: 124.7 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

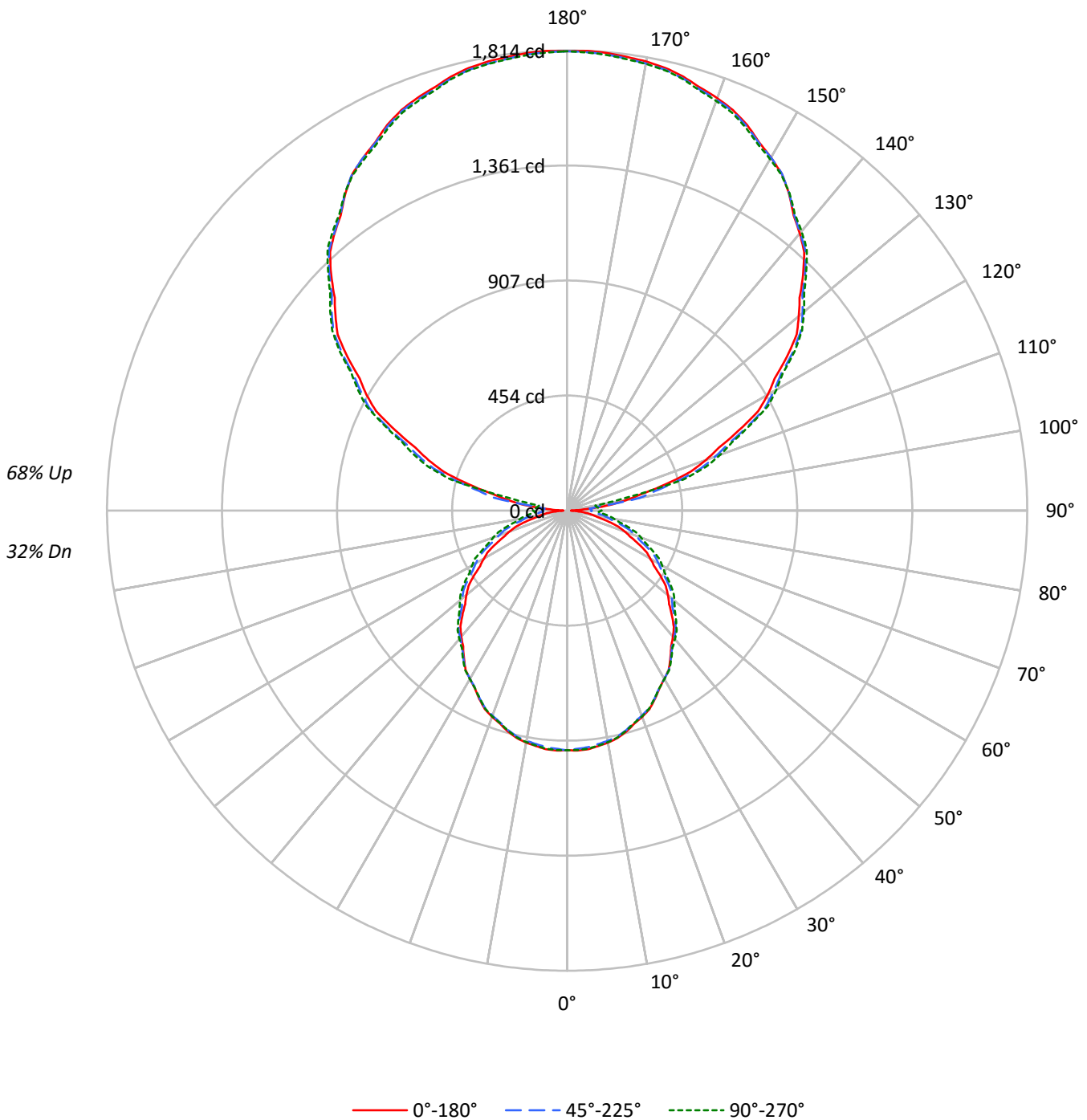
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333426-940

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

Luminous Intensity Polar Plot





TEST NUMBER: P333426-940

CATALOG NUMBER: S125DIW-S850D1560U940-4F0-1E-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	103	103	103	103	93	93	93	93	74	74	74	56	56	56	40	40	40	32
1	93	89	85	81	84	80	77	74	64	61	59	48	47	46	35	34	33	26
2	85	77	71	66	76	70	65	60	55	52	49	42	40	38	30	29	27	22
3	77	68	60	55	69	61	55	50	49	44	41	37	34	32	26	25	23	18
4	70	60	52	46	63	54	47	42	43	38	34	33	30	27	24	21	20	15
5	65	53	45	39	58	48	41	36	38	33	29	29	26	23	21	19	17	13
6	59	47	39	34	53	43	36	31	34	29	25	27	23	20	19	17	15	12
7	55	43	35	29	49	39	32	27	31	26	22	24	20	18	17	15	13	10
8	51	39	31	26	45	35	28	24	28	23	20	22	18	16	16	14	12	9
9	47	35	28	23	42	32	25	21	26	21	17	20	17	14	15	12	11	8
10	44	32	25	20	39	29	23	19	24	19	16	19	15	13	14	11	10	7

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: P333426-940

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.3	1.1
10°-20°	253.6	3.0
20°-30°	377.1	4.4
30°-40°	446.7	5.3
40°-50°	461.8	5.4
50°-60°	425.4	5.0
60°-70°	343.9	4.1
70°-80°	230.3	2.7
80°-90°	123.2	1.5
90°-100°	132.8	1.6
100°-110°	455.0	5.4
110°-120°	768.7	9.1
120°-130°	962.8	11.3
130°-140°	1023.5	12.1
140°-150°	954.7	11.2
150°-160°	770.9	9.1
160°-170°	498.6	5.9
170°-180°	172.0	2.0
0°-30°	720.0	8.5
0°-40°	1166.7	13.7
0°-60°	2053.9	24.2
0°-90°	2751.3	32.4
90°-120°	1356.4	16.0
90°-150°	4297.5	50.6
90°-180°	5739.0	67.6
0°-180°	8490.3	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	97	124	136	13
95°	88	106	89	115	123	107
105°	403	424	451	469	475	427
115°	746	760	785	796	794	740
125°	1058	1066	1084	1093	1094	944
135°	1316	1323	1327	1336	1333	1014
145°	1524	1526	1526	1532	1528	953
155°	1678	1670	1673	1676	1666	773
165°	1771	1763	1764	1771	1761	500
175°	1811	1803	1804	1814	1803	172
180°	1811	1811	1811	1811	1811	



TEST NUMBER: P333426-940

CATALOG NUMBER: S125DIW-S850D1560U940-4F0-1E-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	36.2	43.2	50.4	57.4	64.6	72.1	79.5	86.9	94.3	99.3
90°	16.1	25.1	34.1	43.1	52.1	61.1	70.2	79.3	88.4	97.4	103.6
92.5°	34.0	38.4	42.9	47.3	51.7	58.4	67.4	76.4	85.4	94.4	100.5
95°	88.5	93.0	97.5	101.9	106.4	106.5	102.1	97.7	93.5	89.1	95.1
97.5°	170.7	177.1	183.5	189.9	196.4	191.7	176.0	160.4	144.7	129.0	124.9
100°	234.3	239.6	244.8	250.0	255.2	261.7	269.5	277.3	285.1	292.8	252.7
102.5°	299.1	304.3	309.3	314.5	319.6	325.7	332.9	340.0	347.1	354.3	350.1
105°	403.0	407.5	412.0	416.4	420.9	426.2	432.4	438.6	444.8	450.9	455.0
107.5°	510.9	513.6	516.5	519.2	522.1	526.7	533.2	539.8	546.3	552.9	557.0
110°	581.0	583.4	585.9	588.4	590.8	595.3	601.6	608.1	614.4	620.7	623.8



TEST NUMBER: P333426-940

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	647.6	650.2	653.0	655.7	658.4	662.6	668.6	674.6	680.6	686.5	689.1
115°	746.5	749.5	752.4	755.4	758.2	762.6	768.2	773.8	779.5	785.2	787.6
117.5°	849.0	849.9	850.7	851.6	852.5	856.0	862.3	868.4	874.7	880.8	882.8
120°	913.4	913.7	914.0	914.4	914.6	917.7	923.3	928.9	934.5	940.1	943.1
122.5°	969.6	971.0	972.4	973.8	975.3	978.5	983.5	988.5	993.5	998.4	1001.1
125°	1057.5	1059.4	1061.2	1063.1	1065.0	1068.0	1072.1	1076.2	1080.3	1084.4	1086.5
127.5°	1140.6	1141.8	1143.1	1144.4	1145.7	1147.9	1151.1	1154.3	1157.5	1160.7	1163.1
130°	1192.1	1193.4	1194.6	1196.0	1197.2	1199.4	1202.7	1205.9	1209.0	1212.2	1214.2
132.5°	1242.9	1244.6	1246.3	1247.9	1249.6	1251.2	1252.9	1254.4	1256.0	1257.6	1260.3
135°	1316.0	1317.6	1319.2	1320.7	1322.3	1323.6	1324.4	1325.3	1326.1	1327.0	1329.0
137.5°	1383.2	1384.6	1386.0	1387.3	1388.8	1389.6	1389.6	1389.8	1390.0	1390.2	1392.8
140°	1426.5	1427.1	1427.7	1428.3	1428.9	1429.1	1429.1	1429.0	1428.9	1428.8	1431.6
142.5°	1466.2	1466.4	1466.6	1466.8	1467.0	1467.3	1467.8	1468.2	1468.7	1469.2	1471.2
145°	1524.5	1524.9	1525.3	1525.6	1526.1	1526.3	1526.3	1526.3	1526.3	1526.3	1527.6
147.5°	1574.6	1574.4	1574.3	1574.2	1574.0	1574.2	1574.6	1574.9	1575.3	1575.7	1576.4
150°	1606.8	1606.1	1605.6	1605.0	1604.4	1604.4	1605.0	1605.6	1606.1	1606.8	1607.4
152.5°	1637.9	1636.6	1635.3	1634.0	1632.6	1632.3	1632.9	1633.5	1634.1	1634.7	1635.3
155°	1677.9	1676.1	1674.4	1672.6	1670.8	1670.2	1670.8	1671.3	1672.0	1672.6	1673.5
157.5°	1708.8	1707.7	1706.6	1705.6	1704.5	1704.0	1704.1	1704.1	1704.1	1704.2	1705.2
160°	1730.3	1728.5	1726.7	1724.9	1723.1	1722.3	1722.7	1723.0	1723.2	1723.6	1724.7
162.5°	1747.5	1745.7	1743.9	1742.0	1740.3	1739.5	1739.8	1740.2	1740.4	1740.7	1742.4
165°	1770.6	1768.8	1766.9	1765.1	1763.4	1762.6	1762.9	1763.3	1763.5	1763.8	1765.6
167.5°	1787.7	1785.9	1784.0	1782.2	1780.3	1779.6	1779.9	1780.1	1780.5	1780.7	1782.9
170°	1797.4	1795.3	1793.2	1791.1	1789.0	1788.1	1788.4	1788.8	1789.0	1789.3	1791.7
172.5°	1803.8	1801.8	1799.7	1797.6	1795.5	1794.7	1795.3	1795.8	1796.4	1796.9	1799.0
175°	1810.8	1809.0	1807.2	1805.4	1803.7	1803.0	1803.2	1803.5	1803.8	1804.1	1806.5
177.5°	1814.0	1812.6	1811.2	1809.7	1808.3	1807.7	1807.9	1808.2	1808.4	1808.7	1810.4
180°	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8



TEST NUMBER: P333426-940

CATALOG NUMBER: S125DIW-S850D1560U940-4F0-1E-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°	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	128.9	131.3	133.6	135.9
92.5°	106.6	112.6	118.7	122.6	124.5	126.4	128.2	130.1
95°	101.1	107.2	113.2	116.9	118.3	119.8	121.2	122.6
97.5°	120.8	116.7	112.6	111.3	112.7	114.1	115.5	116.9
100°	212.6	172.5	132.3	112.3	112.4	112.4	112.4	112.4
102.5°	345.8	341.5	337.2	325.7	306.6	287.6	268.5	249.4
105°	459.1	463.3	467.4	470.0	471.2	472.3	473.5	474.7
107.5°	561.1	565.3	569.4	571.6	572.0	572.4	572.7	573.1
110°	626.8	629.8	632.8	635.2	636.9	638.6	640.4	642.1



TEST NUMBER: P333426-940

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	691.7	694.4	697.0	698.7	699.8	700.8	701.9	702.8
115°	790.1	792.6	795.2	796.2	795.6	795.0	794.5	794.0
117.5°	884.8	886.7	888.6	889.9	890.6	891.2	891.8	892.4
120°	945.9	948.9	951.7	953.1	952.8	952.6	952.3	952.1
122.5°	1003.9	1006.7	1009.3	1010.5	1010.0	1009.5	1009.0	1008.5
125°	1088.6	1090.7	1092.8	1094.0	1094.0	1094.2	1094.3	1094.5
127.5°	1165.5	1167.9	1170.3	1171.0	1169.9	1168.9	1168.0	1166.9
130°	1216.1	1218.2	1220.1	1220.9	1220.4	1219.9	1219.5	1219.1
132.5°	1262.9	1265.7	1268.4	1269.4	1268.7	1268.1	1267.5	1266.9
135°	1331.1	1333.2	1335.2	1335.9	1335.2	1334.4	1333.6	1332.8
137.5°	1395.3	1397.8	1400.3	1401.2	1400.5	1399.8	1399.1	1398.4
140°	1434.5	1437.3	1440.2	1441.2	1440.2	1439.2	1438.2	1437.3
142.5°	1473.3	1475.3	1477.4	1477.9	1476.9	1476.0	1475.0	1474.1
145°	1528.9	1530.3	1531.5	1531.7	1530.8	1529.8	1528.8	1527.9
147.5°	1577.0	1577.7	1578.4	1577.9	1576.1	1574.3	1572.5	1570.7
150°	1607.9	1608.6	1609.2	1608.4	1606.2	1604.0	1601.9	1599.6
152.5°	1635.9	1636.5	1637.1	1636.3	1634.2	1632.1	1630.0	1627.9
155°	1674.4	1675.3	1676.1	1675.3	1673.0	1670.6	1668.2	1665.8
157.5°	1706.1	1707.1	1708.1	1707.4	1705.0	1702.5	1700.1	1697.8
160°	1725.9	1727.2	1728.3	1727.8	1725.4	1723.0	1720.6	1718.2
162.5°	1744.1	1745.8	1747.4	1747.0	1744.4	1741.7	1739.1	1736.4
165°	1767.4	1769.2	1771.0	1770.7	1768.4	1765.9	1763.5	1761.1
167.5°	1785.0	1787.2	1789.3	1789.0	1786.4	1783.7	1781.0	1778.3
170°	1794.1	1796.5	1798.8	1798.8	1796.1	1793.4	1790.6	1788.0
172.5°	1801.2	1803.3	1805.4	1805.2	1802.5	1799.8	1797.2	1794.5
175°	1808.8	1811.2	1813.7	1813.5	1810.8	1808.1	1805.4	1802.8
177.5°	1812.0	1813.7	1815.3	1815.3	1813.3	1811.4	1809.5	1807.6
180°	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8	1810.8

(END OF REPORT)