

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: P333427-935

Luminaire Tested: **S125DIW-S850D1560U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333427-935
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-S850D1560U935-4F0-1E-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: 7484.8 lumens
Efficiency: N/A
Efficacy: 109.9 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

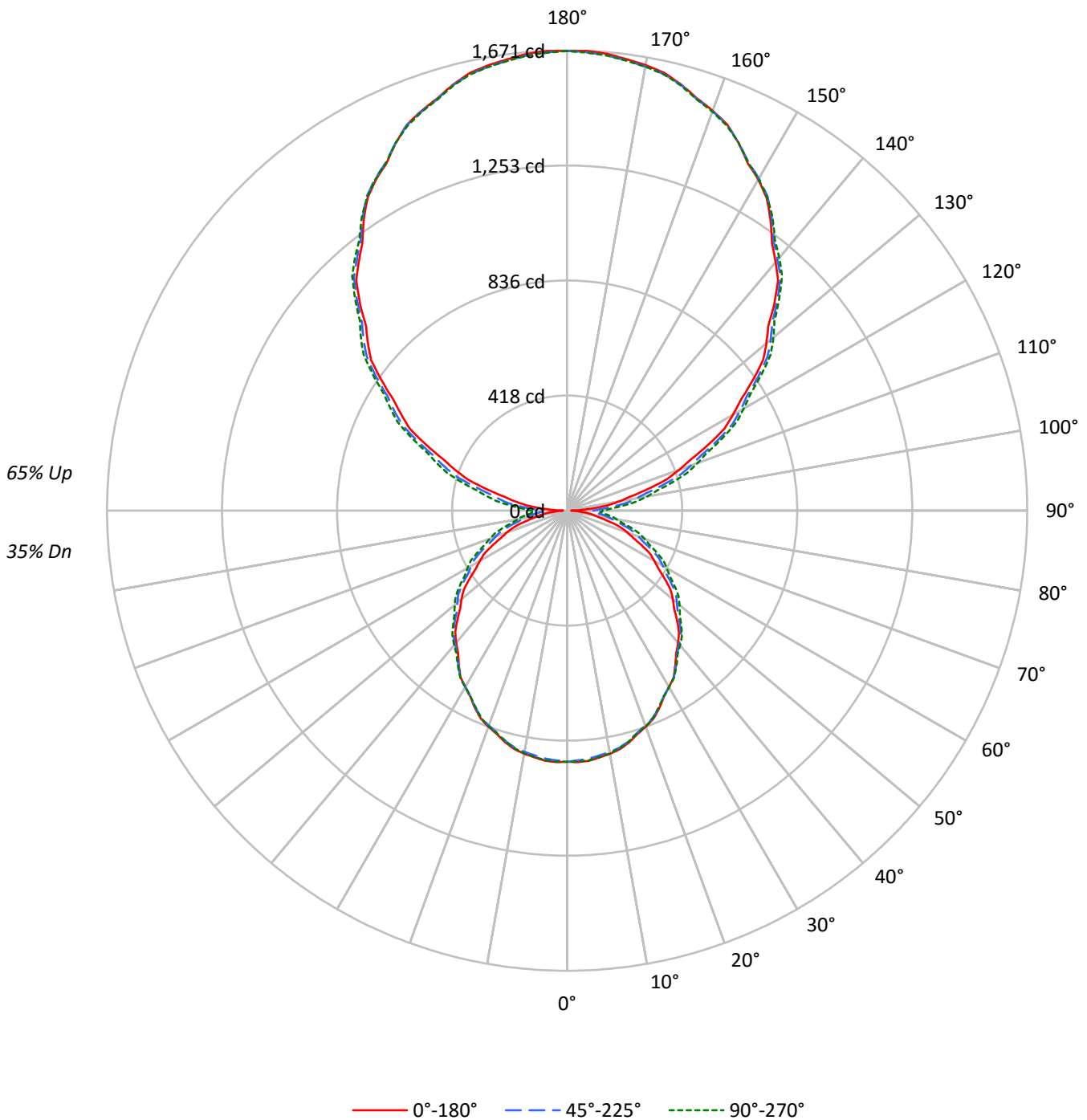
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333427-935

CATALOG NUMBER: S125DIW-S850D1560U935-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P333427-935

CATALOG NUMBER: S125DIW-S850D1560U935-4F0-1E-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°	5891	5891	5891
5°	5902	5782	5800
10°	5860	5679	5670
15°	5791	5555	5505
20°	5697	5402	5339
25°	5585	5239	5135
30°	5449	5059	4950
35°	5322	4893	4780
40°	5194	4719	4609
45°	5048	4570	4458
50°	4910	4408	4325
55°	4742	4256	4166
60°	4560	4082	4006
65°	4369	3900	3826
70°	4153	3651	3640
75°	3809	3412	3412
80°	3363	3122	3163
85°	2945	2924	3085



TEST NUMBER: P333427-935

CATALOG NUMBER: S125DIW-S850D1560U935-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	1.2
10°-20°	244.8	3.3
20°-30°	364.1	4.9
30°-40°	431.3	5.8
40°-50°	445.9	6.0
50°-60°	410.8	5.5
60°-70°	332.0	4.4
70°-80°	222.4	3.0
80°-90°	119.0	1.6
90°-100°	176.5	2.4
100°-110°	377.7	5.0
110°-120°	591.0	7.9
120°-130°	753.8	10.1
130°-140°	832.3	11.1
140°-150°	809.5	10.8
150°-160°	678.6	9.1
160°-170°	451.1	6.0
170°-180°	157.9	2.1
0°-30°	695.2	9.3
0°-40°	1126.5	15.1
0°-60°	1983.2	26.5
0°-90°	2656.6	35.5
90°-120°	1145.2	15.3
90°-150°	3540.7	47.3
90°-180°	4828.0	64.5
0°-180°	7484.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	912	910	904	911	910	86
15°	871	872	866	870	867	245
25°	791	794	789	792	788	364
35°	685	691	688	691	691	428
45°	564	574	578	584	586	435
55°	434	448	462	472	476	388
65°	299	319	341	354	358	296
75°	164	188	216	234	239	175
85°	49	79	110	129	137	52
90°	16	55	94	120	131	14
95°	96	123	165	193	203	99
105°	304	326	360	384	395	325
115°	565	577	602	616	621	559
125°	820	828	846	858	861	734
135°	1064	1071	1078	1089	1089	820
145°	1288	1292	1296	1300	1300	804
155°	1473	1473	1474	1478	1473	678
165°	1601	1599	1600	1604	1597	451
175°	1665	1660	1660	1666	1658	158
180°	1669	1669	1669	1669	1669	



TEST NUMBER: P333427-935

CATALOG NUMBER: S125DIW-S850D1560U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	914.2	914.0	913.6	913.3	912.9	912.2	911.1	910.0	908.9	907.8	908.9
5°	912.1	911.7	911.3	910.9	910.5	909.6	908.2	906.8	905.4	904.0	905.6
7.5°	904.0	903.9	903.7	903.5	903.4	902.6	901.2	899.7	898.3	896.9	898.3
10°	896.9	896.9	896.9	896.9	896.9	896.1	894.5	892.9	891.3	889.8	891.1
12.5°	886.8	887.0	887.2	887.3	887.5	886.9	885.7	884.4	883.1	881.8	883.0
15°	871.0	871.2	871.3	871.5	871.8	871.2	869.8	868.4	866.9	865.6	866.8
17.5°	850.2	850.6	851.0	851.4	851.8	851.3	849.9	848.5	847.1	845.8	846.6
20°	835.2	835.6	835.9	836.4	836.8	836.3	834.9	833.5	832.1	830.7	831.3
22.5°	818.0	818.7	819.4	820.2	820.9	820.4	818.9	817.3	815.8	814.2	815.0
25°	791.3	791.9	792.6	793.2	793.8	793.4	792.3	791.1	789.9	788.7	789.5
27.5°	761.6	762.6	763.4	764.3	765.2	764.9	763.6	762.2	760.9	759.6	760.1
30°	739.5	740.7	741.9	743.0	744.2	744.2	743.0	741.9	740.7	739.5	739.9
32.5°	719.5	720.5	721.5	722.6	723.6	723.7	722.8	721.9	721.1	720.2	720.6
35°	684.9	686.4	687.8	689.1	690.5	691.0	690.3	689.7	689.1	688.5	689.1
37.5°	650.4	651.7	653.0	654.3	655.6	656.1	655.8	655.7	655.5	655.3	656.1
40°	626.8	628.4	630.0	631.6	633.2	633.9	633.7	633.5	633.3	633.1	633.9
42.5°	601.1	603.1	605.2	607.3	609.3	610.6	611.1	611.5	611.9	612.3	613.3
45°	564.2	566.5	568.6	570.8	573.0	574.5	575.6	576.5	577.6	578.5	580.0
47.5°	526.5	528.6	530.5	532.6	534.6	536.5	538.2	539.9	541.6	543.3	545.4
50°	500.8	502.9	505.1	507.3	509.5	511.7	513.8	516.1	518.2	520.4	522.6
52.5°	473.6	476.2	478.9	481.6	484.2	486.9	489.6	492.2	494.9	497.6	499.9
55°	433.7	436.9	440.1	443.2	446.4	449.6	452.8	456.0	459.1	462.3	464.5
57.5°	392.9	396.7	400.5	404.3	408.2	411.9	415.6	419.2	422.8	426.5	429.0
60°	365.8	369.7	373.7	377.6	381.6	385.6	389.6	393.6	397.5	401.5	404.5
62.5°	339.2	343.2	347.2	351.2	355.2	359.3	363.6	367.9	372.1	376.4	379.8
65°	298.7	303.2	307.8	312.4	316.9	321.6	326.4	331.1	336.0	340.7	343.7
67.5°	260.4	264.8	269.2	273.6	278.0	282.7	287.5	292.4	297.2	302.0	305.7
70°	232.5	237.0	241.6	246.2	250.8	255.6	260.8	266.0	271.1	276.3	280.1
72.5°	205.3	210.0	214.7	219.5	224.2	229.4	235.1	240.7	246.3	252.0	256.1
75°	164.5	169.7	174.9	180.0	185.2	191.0	197.3	203.7	210.0	216.4	220.3
77.5°	125.4	131.3	137.3	143.3	149.2	155.2	161.4	167.5	173.6	179.8	184.1
80°	101.1	107.0	113.0	118.9	124.9	131.2	138.0	144.7	151.5	158.3	162.6
82.5°	78.9	85.2	91.4	97.7	104.0	110.6	117.5	124.4	131.3	138.3	142.5
85°	49.2	55.7	62.3	68.9	75.4	82.1	89.1	96.1	103.1	109.9	114.3
87.5°	28.2	35.0	41.8	48.6	55.4	62.4	69.6	76.7	83.9	91.1	95.9
90°	15.6	24.3	33.0	41.6	50.3	59.0	67.8	76.5	85.3	94.1	100.1
92.5°	44.3	51.8	59.3	66.8	74.3	82.7	92.1	101.5	110.9	120.4	126.7
95°	96.0	101.8	107.5	113.2	119.0	126.7	136.3	145.9	155.6	165.2	171.7
97.5°	150.8	155.7	160.6	165.4	170.3	178.0	188.5	199.0	209.5	220.0	226.1
100°	191.7	195.8	200.0	204.1	208.4	215.4	225.6	235.7	245.8	255.9	262.7
102.5°	235.6	240.6	245.6	250.6	255.6	262.2	270.3	278.4	286.5	294.6	301.4
105°	304.1	308.8	313.3	318.0	322.6	328.7	336.5	344.1	351.8	359.6	365.2
107.5°	379.9	384.1	388.2	392.4	396.5	402.1	409.1	416.2	423.3	430.3	435.1
110°	432.1	436.0	439.8	443.7	447.5	452.6	459.1	465.5	471.9	478.4	482.9



TEST NUMBER: P333427-935

CATALOG NUMBER: S125DIW-S850D1560U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	486.2	488.9	491.5	494.1	496.8	501.4	507.9	514.4	520.9	527.4	531.4
115°	565.0	567.6	570.2	572.7	575.2	579.4	585.1	590.8	596.6	602.4	605.6
117.5°	644.1	645.6	647.0	648.4	649.9	653.2	658.7	664.1	669.5	674.9	678.6
120°	694.0	696.0	698.1	700.1	702.1	705.6	710.4	715.3	720.1	725.0	728.4
122.5°	747.3	748.1	748.9	749.7	750.4	753.5	758.6	763.8	769.0	774.1	777.1
125°	820.4	821.9	823.4	824.9	826.5	829.4	833.6	837.9	842.1	846.4	849.0
127.5°	897.3	898.1	899.0	899.7	900.5	902.7	906.3	909.9	913.5	917.1	919.8
130°	944.1	945.4	946.6	947.9	949.1	951.4	954.8	958.1	961.5	964.8	967.3
132.5°	990.2	992.5	994.8	997.1	999.4	1001.6	1003.7	1005.7	1007.7	1009.8	1012.3
135°	1064.0	1065.5	1067.0	1068.6	1070.1	1071.7	1073.4	1075.0	1076.8	1078.4	1081.0
137.5°	1133.4	1134.9	1136.4	1138.0	1139.4	1140.9	1142.2	1143.5	1144.8	1146.1	1148.8
140°	1177.3	1178.8	1180.3	1181.7	1183.1	1184.4	1185.4	1186.5	1187.6	1188.6	1191.4
142.5°	1222.0	1223.1	1224.2	1225.2	1226.2	1227.4	1228.5	1229.6	1230.7	1231.9	1234.1
145°	1287.7	1288.7	1289.6	1290.6	1291.6	1292.4	1293.3	1294.2	1295.0	1295.9	1296.9
147.5°	1347.6	1348.2	1348.8	1349.5	1350.1	1350.8	1351.5	1352.2	1352.9	1353.6	1354.6
150°	1388.1	1387.8	1387.6	1387.2	1387.0	1387.4	1388.5	1389.7	1390.9	1392.1	1392.1
152.5°	1421.3	1421.8	1422.2	1422.5	1423.0	1423.4	1423.9	1424.4	1424.8	1425.3	1426.0
155°	1472.6	1472.6	1472.6	1472.6	1472.6	1472.7	1473.0	1473.3	1473.5	1473.9	1475.0
157.5°	1518.2	1517.6	1517.0	1516.3	1515.7	1515.5	1515.8	1516.1	1516.4	1516.7	1517.9
160°	1545.2	1544.4	1543.5	1542.7	1541.8	1541.5	1541.8	1542.1	1542.4	1542.7	1543.8
162.5°	1569.2	1568.5	1567.9	1567.3	1566.6	1566.3	1566.3	1566.4	1566.5	1566.5	1568.0
165°	1601.1	1600.5	1599.9	1599.4	1598.8	1598.6	1599.0	1599.2	1599.5	1599.8	1600.9
167.5°	1628.1	1626.9	1625.8	1624.6	1623.5	1622.9	1622.9	1622.9	1622.9	1622.9	1624.6
170°	1642.6	1641.5	1640.3	1639.2	1638.1	1637.4	1637.4	1637.4	1637.4	1637.4	1639.2
172.5°	1653.0	1651.9	1650.7	1649.6	1648.4	1647.9	1647.9	1647.9	1647.9	1647.9	1649.6
175°	1664.7	1663.5	1662.4	1661.2	1660.1	1659.5	1659.5	1659.5	1659.5	1659.5	1661.2
177.5°	1670.7	1669.7	1668.9	1667.9	1667.0	1666.4	1666.2	1665.9	1665.7	1665.5	1666.9
180°	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6



TEST NUMBER: P333427-935

CATALOG NUMBER: S125DIW-S850D1560U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	910.0	911.1	912.2	912.7	912.6	912.4	912.2	912.1
5°	907.2	908.8	910.4	911.1	910.9	910.7	910.5	910.3
7.5°	899.7	901.0	902.4	903.0	902.8	902.7	902.4	902.2
10°	892.5	893.9	895.3	895.9	895.7	895.5	895.3	895.1
12.5°	884.0	885.1	886.1	886.4	885.9	885.4	884.8	884.3
15°	868.0	869.2	870.4	870.6	869.8	868.9	868.1	867.4
17.5°	847.6	848.5	849.4	849.6	849.1	848.7	848.2	847.7
20°	831.9	832.5	833.1	833.4	833.4	833.4	833.4	833.4
22.5°	815.8	816.5	817.3	817.4	816.9	816.5	816.0	815.5
25°	790.3	791.1	791.9	791.8	790.7	789.8	788.8	787.8
27.5°	760.6	761.2	761.7	761.9	761.5	761.1	760.8	760.4
30°	740.3	740.7	741.1	741.2	741.0	740.8	740.6	740.4
32.5°	721.0	721.3	721.8	721.9	721.7	721.5	721.3	721.1
35°	689.7	690.3	691.0	691.2	691.2	691.2	691.2	691.2
37.5°	656.9	657.6	658.4	658.8	658.8	658.7	658.6	658.5
40°	634.6	635.5	636.3	636.9	637.2	637.7	638.1	638.4
42.5°	614.2	615.2	616.1	616.6	616.7	616.8	616.9	617.0
45°	581.3	582.7	584.1	584.9	585.1	585.3	585.5	585.7
47.5°	547.3	549.4	551.4	552.7	553.1	553.5	554.0	554.4
50°	524.8	527.0	529.2	530.5	531.2	531.8	532.4	533.0
52.5°	502.2	504.5	506.9	508.3	508.8	509.2	509.6	510.1
55°	466.7	468.9	471.1	472.5	473.3	474.2	474.9	475.7
57.5°	431.5	434.0	436.5	438.1	438.7	439.3	439.9	440.5
60°	407.4	410.4	413.5	415.2	415.8	416.4	417.0	417.6
62.5°	383.1	386.3	389.7	391.7	392.4	393.2	393.9	394.7
65°	346.6	349.7	352.6	354.5	355.3	356.1	356.9	357.7
67.5°	309.3	312.9	316.5	318.8	319.9	320.9	321.9	323.0
70°	283.9	287.7	291.4	293.9	295.1	296.3	297.5	298.7
72.5°	260.2	264.2	268.4	270.9	271.7	272.6	273.5	274.3
75°	224.4	228.3	232.3	234.8	235.7	236.8	237.7	238.8
77.5°	188.5	192.9	197.3	199.8	200.6	201.4	202.2	203.0
80°	167.0	171.4	175.7	178.3	179.2	179.9	180.7	181.5
82.5°	146.6	150.8	155.1	157.9	159.4	160.7	162.2	163.7
85°	118.7	123.1	127.5	130.4	132.1	133.6	135.3	136.8
87.5°	100.8	105.6	110.5	113.7	115.3	116.8	118.4	119.9
90°	106.2	112.1	118.1	122.3	124.6	126.8	129.1	131.3
92.5°	132.9	139.3	145.6	149.7	151.8	153.8	155.8	157.8
95°	178.1	184.4	190.8	195.0	197.0	199.0	200.9	202.9
97.5°	232.1	238.2	244.4	248.2	249.9	251.6	253.3	255.0
100°	269.4	276.2	283.0	287.2	289.0	290.8	292.6	294.3
102.5°	308.2	315.1	321.9	326.4	328.4	330.4	332.3	334.4
105°	370.9	376.7	382.4	386.3	388.6	390.8	393.1	395.4
107.5°	439.9	444.7	449.5	452.5	453.7	454.9	456.0	457.2
110°	487.6	492.2	496.9	499.8	500.8	502.0	503.1	504.2



TEST NUMBER: P333427-935

CATALOG NUMBER: S125DIW-S850D1560U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	535.5	539.5	543.5	546.0	546.8	547.7	548.5	549.4
115°	608.9	612.2	615.4	617.6	618.5	619.4	620.3	621.2
117.5°	682.2	685.7	689.3	691.2	691.5	691.6	691.8	692.1
120°	731.8	735.1	738.6	740.3	740.3	740.3	740.4	740.4
122.5°	780.1	783.1	786.1	787.7	788.0	788.2	788.5	788.8
125°	851.6	854.2	856.9	858.5	859.2	859.9	860.6	861.3
127.5°	922.4	925.1	927.7	929.4	929.9	930.5	931.1	931.6
130°	969.8	972.3	974.8	976.3	976.6	977.1	977.5	977.9
132.5°	1014.8	1017.3	1019.8	1021.0	1021.0	1021.1	1021.1	1021.1
135°	1083.6	1086.2	1088.7	1090.0	1089.9	1089.7	1089.5	1089.3
137.5°	1151.5	1154.2	1156.9	1157.9	1157.3	1156.6	1156.0	1155.3
140°	1194.2	1197.0	1199.7	1200.8	1200.1	1199.5	1198.8	1198.2
142.5°	1236.3	1238.5	1240.7	1241.6	1240.9	1240.2	1239.6	1238.9
145°	1298.0	1298.9	1299.9	1300.4	1300.3	1300.2	1300.2	1300.1
147.5°	1355.6	1356.6	1357.6	1357.4	1355.7	1354.1	1352.5	1350.9
150°	1392.1	1392.1	1392.1	1391.8	1391.5	1391.1	1390.7	1390.3
152.5°	1426.7	1427.4	1428.1	1427.9	1426.8	1425.9	1424.9	1423.9
155°	1476.1	1477.3	1478.4	1478.3	1476.9	1475.4	1473.9	1472.6
157.5°	1519.0	1520.2	1521.3	1521.0	1519.0	1517.1	1515.2	1513.3
160°	1545.0	1546.1	1547.3	1547.1	1545.7	1544.2	1542.8	1541.4
162.5°	1569.3	1570.7	1572.1	1571.9	1570.3	1568.6	1566.9	1565.2
165°	1602.1	1603.3	1604.4	1604.1	1602.4	1600.7	1599.0	1597.2
167.5°	1626.3	1628.1	1629.8	1629.8	1628.0	1626.3	1624.4	1622.6
170°	1640.9	1642.6	1644.3	1644.3	1642.2	1640.2	1638.1	1636.2
172.5°	1651.3	1653.0	1654.8	1654.8	1652.9	1651.1	1649.3	1647.6
175°	1663.0	1664.7	1666.5	1666.3	1664.3	1662.2	1660.3	1658.2
177.5°	1668.3	1669.7	1671.0	1670.9	1669.3	1667.7	1666.0	1664.5
180°	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6

(END OF REPORT)