

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: P333423-830

Luminaire Tested: **S125DIW-S850D1340U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333423-830
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-S850D1340U830-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH 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: 7607.2 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

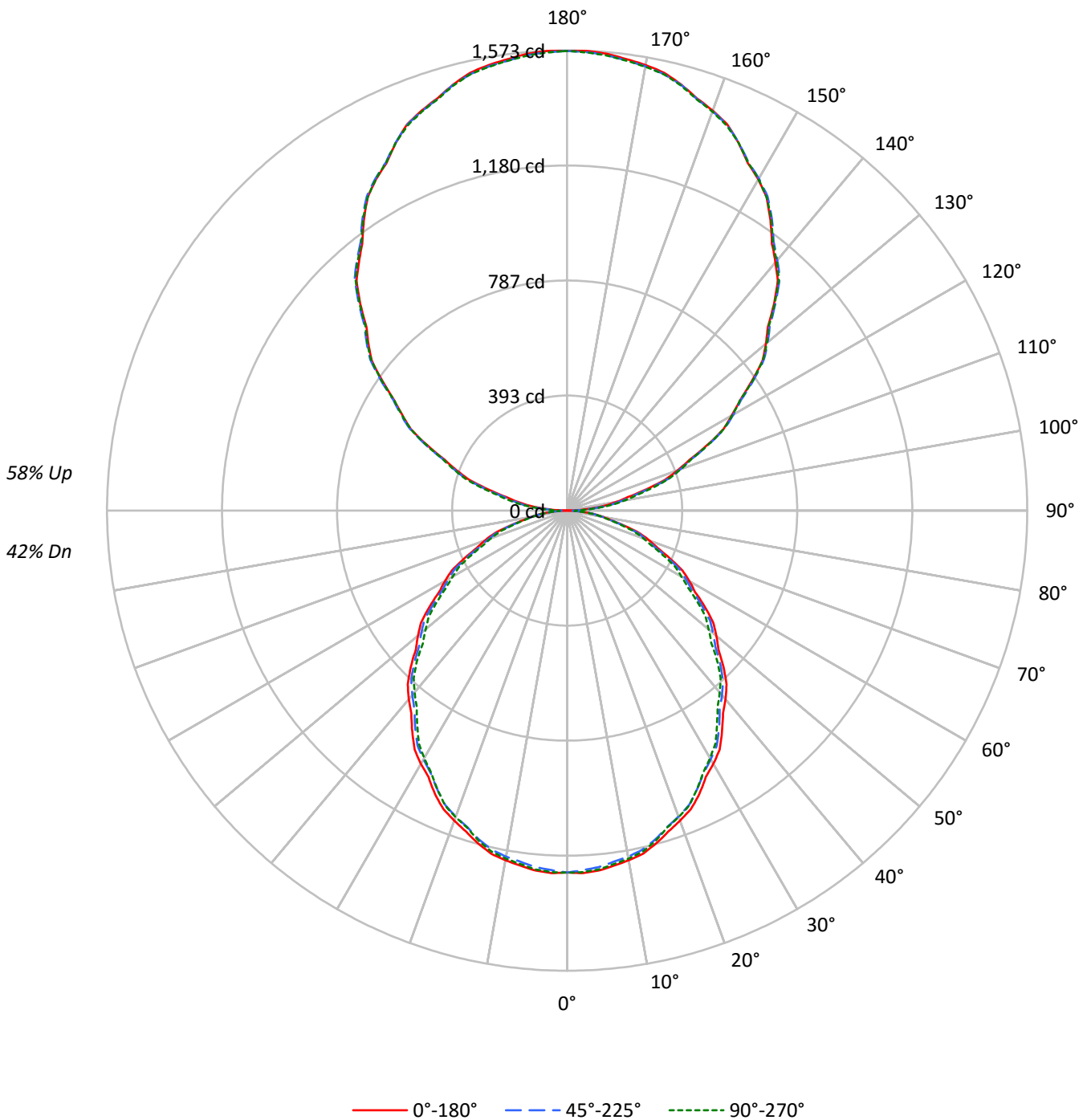
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333423-830

CATALOG NUMBER: S125DIW-S850D1340U830-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P333423-830

CATALOG NUMBER: S125DIW-S850D1340U830-4F0-1E-UDD-F1

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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42
1	96	92	88	84	88	84	81	78	69	67	65	56	54	53	43	42	41	36
2	87	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	34	31	30	25
4	73	62	54	48	66	57	50	45	47	42	38	38	35	32	30	28	25	22
5	67	55	47	41	61	51	44	39	42	37	33	34	31	27	27	24	22	19
6	62	50	42	36	56	46	39	33	38	33	29	31	27	24	25	22	19	16
7	57	45	37	31	52	41	34	29	35	29	25	28	24	21	22	20	17	15
8	53	41	33	28	48	37	31	26	31	26	22	26	22	19	21	18	15	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7991	7991	7991
5°	8009	7933	7983
10°	7960	7877	7922
15°	7874	7782	7815
20°	7750	7649	7663
25°	7617	7492	7485
30°	7454	7322	7285
35°	7278	7139	7039
40°	7098	6940	6842
45°	6902	6760	6625
50°	6688	6540	6344
55°	6481	6293	6117
60°	6234	6044	5829
65°	5938	5744	5550
70°	5655	5399	5214
75°	5153	4983	4811
80°	4590	4515	4407
85°	3987	4068	3838



TEST NUMBER: P333423-830

CATALOG NUMBER: S125DIW-S850D1340U830-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.7	1.5
10°-20°	329.6	4.3
20°-30°	486.6	6.4
30°-40°	567.8	7.5
40°-50°	570.3	7.5
50°-60°	500.6	6.6
60°-70°	373.0	4.9
70°-80°	213.3	2.8
80°-90°	65.5	0.9
90°-100°	105.2	1.4
100°-110°	310.7	4.1
110°-120°	526.3	6.9
120°-130°	692.7	9.1
130°-140°	776.1	10.2
140°-150°	760.7	10.0
150°-160°	638.9	8.4
160°-170°	424.7	5.6
170°-180°	148.6	2.0
0°-30°	932.8	12.3
0°-40°	1500.6	19.7
0°-60°	2571.4	33.8
0°-90°	3223.2	42.4
90°-120°	942.3	12.4
90°-150°	3171.8	41.7
90°-180°	4384.0	57.6
0°-180°	7607.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1235	1233	1224	1232	1231	117
15°	1178	1174	1164	1169	1169	332
25°	1069	1064	1051	1053	1050	492
35°	923	919	906	900	893	577
45°	756	751	740	729	725	582
55°	576	572	559	550	543	514
65°	389	386	376	367	363	386
75°	206	204	200	197	193	220
85°	54	55	55	54	52	60
90°	1	11	20	26	29	7
95°	80	82	94	102	105	85
105°	279	285	292	299	303	298
115°	527	532	534	533	532	521
125°	769	776	778	775	774	688
135°	1000	1007	1009	1008	1004	771
145°	1212	1216	1220	1220	1216	757
155°	1386	1387	1388	1392	1386	638
165°	1508	1505	1506	1510	1504	425
175°	1567	1563	1562	1569	1561	149
180°	1571	1571	1571	1571	1571	



TEST NUMBER: P333423-830

CATALOG NUMBER: S125DIW-S850D1340U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1240.5	1239.9	1239.4	1238.9	1238.3	1237.2	1235.5	1233.8	1232.0	1230.3	1232.0
5°	1235.4	1234.9	1234.4	1234.1	1233.6	1232.3	1230.1	1227.9	1225.8	1223.6	1225.6
7.5°	1224.0	1223.6	1223.1	1222.7	1222.3	1220.9	1218.4	1216.1	1213.7	1211.3	1213.1
10°	1213.8	1213.4	1213.0	1212.5	1212.1	1210.7	1208.2	1205.9	1203.5	1201.1	1202.9
12.5°	1201.3	1200.5	1199.8	1198.9	1198.2	1196.7	1194.5	1192.2	1190.0	1187.8	1189.2
15°	1177.6	1177.0	1176.3	1175.6	1175.0	1173.5	1171.1	1168.7	1166.3	1163.9	1165.0
17.5°	1150.4	1149.4	1148.5	1147.5	1146.6	1144.8	1142.4	1139.9	1137.4	1134.9	1136.2
20°	1127.7	1127.3	1126.8	1126.3	1126.0	1124.3	1121.4	1118.6	1115.8	1113.0	1114.6
22.5°	1104.9	1104.2	1103.4	1102.6	1101.8	1100.1	1097.5	1094.8	1092.1	1089.5	1090.5
25°	1068.9	1067.9	1066.8	1065.6	1064.6	1062.6	1059.8	1057.0	1054.1	1051.3	1051.8
27.5°	1026.8	1026.2	1025.6	1024.9	1024.3	1022.5	1019.5	1016.6	1013.7	1010.8	1010.9
30°	999.5	998.8	998.2	997.5	996.8	994.9	991.6	988.4	985.1	981.8	981.4
32.5°	969.7	968.7	967.7	966.7	965.7	963.7	960.8	957.9	955.0	952.1	951.3
35°	923.1	922.2	921.3	920.5	919.6	917.7	914.6	911.5	908.5	905.5	904.4
37.5°	874.8	873.6	872.5	871.5	870.3	868.4	865.5	862.6	859.8	857.0	855.3
40°	841.9	840.7	839.7	838.6	837.4	835.5	832.4	829.3	826.3	823.2	821.3
42.5°	806.6	805.7	804.7	803.9	803.0	801.0	798.0	794.8	791.8	788.8	787.0
45°	755.7	754.8	753.9	753.1	752.2	750.5	747.9	745.3	742.6	740.1	737.4
47.5°	700.9	701.0	701.0	701.0	701.1	699.6	696.4	693.2	690.1	687.0	684.3
50°	665.6	665.0	664.3	663.6	663.1	661.4	658.8	656.2	653.6	650.9	648.1
52.5°	629.6	629.1	628.7	628.2	627.7	626.0	623.3	620.5	617.7	614.9	612.5
55°	575.6	575.0	574.3	573.6	573.0	571.1	568.1	565.1	561.9	558.9	556.9
57.5°	518.6	518.3	517.9	517.6	517.3	515.8	513.2	510.7	508.0	505.5	502.9
60°	482.6	481.7	480.9	479.9	479.1	477.5	475.0	472.7	470.3	467.9	465.7
62.5°	445.0	444.3	443.7	442.9	442.2	440.8	438.8	436.8	434.7	432.6	430.4
65°	388.6	388.1	387.8	387.3	386.9	385.5	383.0	380.7	378.2	375.9	373.9
67.5°	334.0	333.1	332.2	331.2	330.4	328.9	327.3	325.5	323.7	321.9	320.2
70°	299.5	298.4	297.4	296.2	295.2	293.7	291.7	289.7	287.8	285.9	284.6
72.5°	261.9	261.2	260.4	259.8	259.0	258.0	256.7	255.4	254.2	253.0	251.5
75°	206.5	206.1	205.7	205.3	204.8	204.1	202.9	201.9	200.8	199.7	199.1
77.5°	155.4	155.2	155.1	155.0	154.8	154.4	153.7	153.2	152.5	151.9	151.6
80°	123.4	123.4	123.4	123.4	123.4	123.1	122.7	122.2	121.8	121.4	121.2
82.5°	95.1	94.8	94.4	94.1	93.8	93.5	93.4	93.4	93.3	93.2	92.8
85°	53.8	54.1	54.3	54.5	54.7	54.9	54.9	54.9	54.9	54.9	54.6
87.5°	21.4	21.9	22.2	22.7	23.1	23.5	23.7	23.8	24.0	24.3	24.5
90°	1.2	3.4	5.6	7.7	9.9	12.0	13.9	15.7	17.6	19.6	20.9
92.5°	29.6	31.1	32.6	34.1	35.6	37.6	40.0	42.3	44.6	46.9	48.7
95°	79.5	80.0	80.6	81.1	81.6	83.3	86.0	88.7	91.4	94.2	96.0
97.5°	132.1	132.2	132.5	132.7	132.9	134.9	138.6	142.4	146.2	149.9	151.7
100°	171.2	171.2	171.2	171.2	171.2	173.0	176.4	180.0	183.5	187.1	189.5
102.5°	213.2	214.3	215.4	216.5	217.5	219.0	220.8	222.6	224.4	226.2	228.8
105°	278.8	280.1	281.4	282.9	284.2	285.7	287.3	289.0	290.6	292.2	293.9
107.5°	351.1	352.5	353.8	355.2	356.6	357.9	359.1	360.3	361.7	362.9	363.7
110°	401.1	402.4	403.8	405.1	406.4	407.6	408.4	409.2	410.0	410.8	411.6



TEST NUMBER: P333423-830

CATALOG NUMBER: S125DIW-S850D1340U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	451.9	452.6	453.3	454.0	454.7	455.6	456.6	457.6	458.6	459.7	460.1
115°	527.0	528.0	529.1	530.2	531.3	532.2	532.6	533.2	533.8	534.3	534.0
117.5°	602.3	602.8	603.2	603.7	604.3	604.7	605.2	605.7	606.1	606.7	606.9
120°	649.2	650.5	652.0	653.3	654.7	655.4	655.7	656.0	656.3	656.6	656.6
122.5°	700.1	700.6	701.1	701.5	702.0	702.7	703.3	704.1	704.7	705.5	705.2
125°	769.0	770.6	772.3	773.9	775.5	776.5	776.7	777.0	777.3	777.6	777.0
127.5°	842.4	843.3	844.2	845.2	846.1	846.7	847.1	847.3	847.7	848.0	847.7
130°	886.4	887.8	889.1	890.5	891.8	892.8	893.3	893.9	894.4	894.9	894.7
132.5°	930.4	932.6	934.9	937.1	939.3	940.4	940.3	940.2	940.1	940.0	939.7
135°	1000.1	1001.7	1003.3	1005.0	1006.6	1007.6	1007.9	1008.1	1008.4	1008.7	1008.7
137.5°	1065.6	1067.2	1068.8	1070.4	1072.0	1073.0	1073.7	1074.2	1074.9	1075.4	1075.7
140°	1107.7	1109.1	1110.4	1111.8	1113.1	1114.2	1115.0	1115.9	1116.6	1117.5	1118.0
142.5°	1149.8	1150.9	1152.1	1153.2	1154.3	1155.4	1156.4	1157.4	1158.5	1159.5	1159.9
145°	1211.6	1212.7	1213.8	1214.8	1216.0	1216.9	1217.8	1218.5	1219.4	1220.2	1220.2
147.5°	1268.9	1269.4	1270.1	1270.6	1271.2	1271.9	1272.5	1273.2	1273.8	1274.5	1275.2
150°	1307.0	1306.7	1306.5	1306.2	1305.9	1306.3	1307.4	1308.5	1309.6	1310.7	1310.7
152.5°	1338.3	1338.7	1339.1	1339.4	1339.8	1340.2	1340.7	1341.0	1341.5	1342.0	1342.7
155°	1386.5	1386.5	1386.5	1386.5	1386.5	1386.6	1386.9	1387.1	1387.4	1387.7	1388.7
157.5°	1429.5	1428.9	1428.3	1427.7	1427.1	1426.9	1427.2	1427.5	1427.8	1428.0	1429.1
160°	1454.9	1454.2	1453.3	1452.5	1451.7	1451.4	1451.7	1452.0	1452.2	1452.5	1453.6
162.5°	1477.4	1476.9	1476.2	1475.6	1475.1	1474.8	1474.8	1474.9	1474.9	1475.0	1476.3
165°	1507.5	1506.9	1506.4	1505.9	1505.3	1505.2	1505.4	1505.7	1506.0	1506.3	1507.4
167.5°	1533.0	1531.8	1530.8	1529.7	1528.6	1528.0	1528.0	1528.0	1528.0	1528.0	1529.7
170°	1546.6	1545.6	1544.5	1543.4	1542.3	1541.7	1541.7	1541.7	1541.7	1541.7	1543.4
172.5°	1556.4	1555.3	1554.3	1553.1	1552.1	1551.5	1551.5	1551.5	1551.5	1551.5	1553.1
175°	1567.4	1566.3	1565.3	1564.1	1563.1	1562.5	1562.5	1562.5	1562.5	1562.5	1564.1
177.5°	1573.0	1572.2	1571.3	1570.5	1569.5	1569.1	1568.8	1568.6	1568.4	1568.1	1569.4
180°	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1



TEST NUMBER: P333423-830

CATALOG NUMBER: S125DIW-S850D1340U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1233.8	1235.5	1237.2	1238.0	1237.8	1237.7	1237.5	1237.3
5°	1227.6	1229.5	1231.4	1232.3	1232.1	1231.9	1231.6	1231.4
7.5°	1215.1	1217.0	1218.9	1219.7	1219.6	1219.4	1219.1	1218.9
10°	1204.6	1206.4	1208.1	1208.8	1208.6	1208.3	1208.2	1208.0
12.5°	1190.5	1191.9	1193.4	1194.0	1194.0	1193.9	1193.9	1193.8
15°	1166.1	1167.2	1168.3	1168.8	1168.8	1168.8	1168.8	1168.8
17.5°	1137.6	1139.0	1140.3	1140.5	1139.3	1138.3	1137.2	1136.1
20°	1116.1	1117.6	1119.1	1119.3	1118.2	1117.1	1116.1	1114.9
22.5°	1091.5	1092.5	1093.5	1093.6	1092.9	1092.1	1091.4	1090.7
25°	1052.2	1052.6	1053.1	1052.9	1052.3	1051.7	1051.0	1050.4
27.5°	1011.0	1011.1	1011.2	1010.9	1010.2	1009.6	1008.9	1008.2
30°	981.0	980.5	980.1	979.6	978.9	978.3	977.6	976.9
32.5°	950.5	949.7	949.0	947.9	946.8	945.6	944.4	943.3
35°	903.3	902.2	901.2	899.8	898.0	896.3	894.5	892.8
37.5°	853.7	852.1	850.5	849.1	848.2	847.2	846.2	845.2
40°	819.4	817.4	815.4	814.1	813.4	812.8	812.2	811.5
42.5°	785.2	783.4	781.7	780.2	779.3	778.3	777.2	776.3
45°	734.8	732.2	729.6	727.9	727.4	726.7	726.0	725.4
47.5°	681.6	679.0	676.4	674.3	672.8	671.3	669.7	668.2
50°	645.3	642.4	639.6	637.4	635.9	634.4	632.9	631.4
52.5°	610.0	607.5	605.0	602.9	601.2	599.6	597.9	596.2
55°	555.1	553.1	551.1	549.4	547.8	546.3	544.8	543.3
57.5°	500.5	497.9	495.4	493.7	492.9	492.1	491.3	490.4
60°	463.5	461.4	459.2	457.3	455.8	454.3	452.8	451.3
62.5°	428.0	425.7	423.3	421.5	420.4	419.1	418.0	416.8
65°	372.0	370.0	368.1	366.6	365.8	365.0	364.0	363.2
67.5°	318.6	316.9	315.3	314.1	313.7	313.1	312.5	312.1
70°	283.2	281.9	280.6	279.6	278.6	277.8	276.9	276.1
72.5°	250.0	248.5	247.0	245.8	245.0	244.1	243.3	242.3
75°	198.4	197.7	197.1	196.3	195.5	194.5	193.7	192.8
77.5°	151.2	150.7	150.3	149.9	149.2	148.6	148.1	147.4
80°	120.9	120.7	120.6	120.2	119.8	119.3	118.9	118.5
82.5°	92.4	92.0	91.6	91.4	91.3	91.2	91.1	91.0
85°	54.4	54.2	53.9	53.6	53.2	52.8	52.3	51.8
87.5°	24.8	25.1	25.4	25.4	25.3	25.1	24.9	24.7
90°	22.2	23.7	25.0	26.1	26.9	27.7	28.6	29.3
92.5°	50.5	52.3	54.1	55.3	55.9	56.6	57.1	57.7
95°	97.9	99.8	101.8	102.9	103.5	104.1	104.6	105.2
97.5°	153.4	155.2	157.0	158.2	158.4	158.8	159.1	159.5
100°	192.0	194.4	196.8	198.3	198.9	199.4	200.0	200.5
102.5°	231.5	234.1	236.9	238.6	239.3	240.1	240.8	241.6
105°	295.5	297.1	298.7	299.9	300.8	301.6	302.4	303.2
107.5°	364.5	365.3	366.2	366.6	366.5	366.4	366.4	366.3
110°	412.5	413.2	414.1	414.3	414.1	413.8	413.5	413.2



TEST NUMBER: P333423-830

CATALOG NUMBER: S125DIW-S850D1340U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	460.4	460.8	461.2	461.2	460.7	460.2	459.7	459.2
115°	533.8	533.5	533.2	532.9	532.6	532.3	532.2	531.9
117.5°	607.1	607.3	607.6	607.1	606.1	604.9	603.9	602.8
120°	656.6	656.6	656.6	656.0	654.9	653.8	652.7	651.7
122.5°	705.0	704.8	704.6	704.1	703.1	702.3	701.4	700.6
125°	776.5	776.0	775.4	775.1	774.8	774.5	774.2	773.9
127.5°	847.4	847.2	847.0	846.5	846.0	845.5	844.9	844.3
130°	894.4	894.2	893.9	893.4	893.0	892.4	891.8	891.3
132.5°	939.4	939.1	938.9	938.4	937.6	936.8	936.0	935.3
135°	1008.7	1008.7	1008.7	1008.1	1007.0	1006.0	1004.8	1003.8
137.5°	1076.1	1076.4	1076.8	1076.2	1074.9	1073.5	1072.1	1070.8
140°	1118.6	1119.1	1119.6	1119.3	1117.9	1116.5	1115.2	1113.8
142.5°	1160.2	1160.6	1160.8	1160.4	1159.0	1157.6	1156.2	1154.9
145°	1220.2	1220.2	1220.2	1219.7	1219.0	1218.1	1217.3	1216.5
147.5°	1275.7	1276.4	1277.1	1276.5	1274.6	1272.8	1270.9	1269.1
150°	1310.7	1310.7	1310.7	1310.4	1309.9	1309.3	1308.7	1308.2
152.5°	1343.2	1343.9	1344.5	1344.4	1343.4	1342.5	1341.4	1340.5
155°	1389.9	1390.9	1392.0	1391.9	1390.5	1389.2	1387.8	1386.5
157.5°	1430.2	1431.3	1432.4	1432.0	1430.2	1428.4	1426.6	1424.8
160°	1454.6	1455.8	1456.8	1456.7	1455.4	1454.0	1452.6	1451.2
162.5°	1477.6	1478.8	1480.2	1480.1	1478.5	1476.9	1475.4	1473.8
165°	1508.4	1509.6	1510.6	1510.3	1508.7	1507.1	1505.4	1503.8
167.5°	1531.3	1533.0	1534.6	1534.6	1532.9	1531.2	1529.5	1527.8
170°	1545.0	1546.6	1548.2	1548.1	1546.2	1544.4	1542.4	1540.5
172.5°	1554.8	1556.4	1558.0	1558.0	1556.3	1554.6	1552.9	1551.2
175°	1565.8	1567.4	1569.1	1568.9	1567.0	1565.1	1563.2	1561.3
177.5°	1570.7	1572.1	1573.4	1573.3	1571.7	1570.2	1568.7	1567.2
180°	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1

(END OF REPORT)