

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: P333421-935

Luminaire Tested: **S125DIW-S850D1340U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333421-935  
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-S850D1340U935-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP 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: 6832.9 lumens  
Efficiency: N/A  
Efficacy: 111.3 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

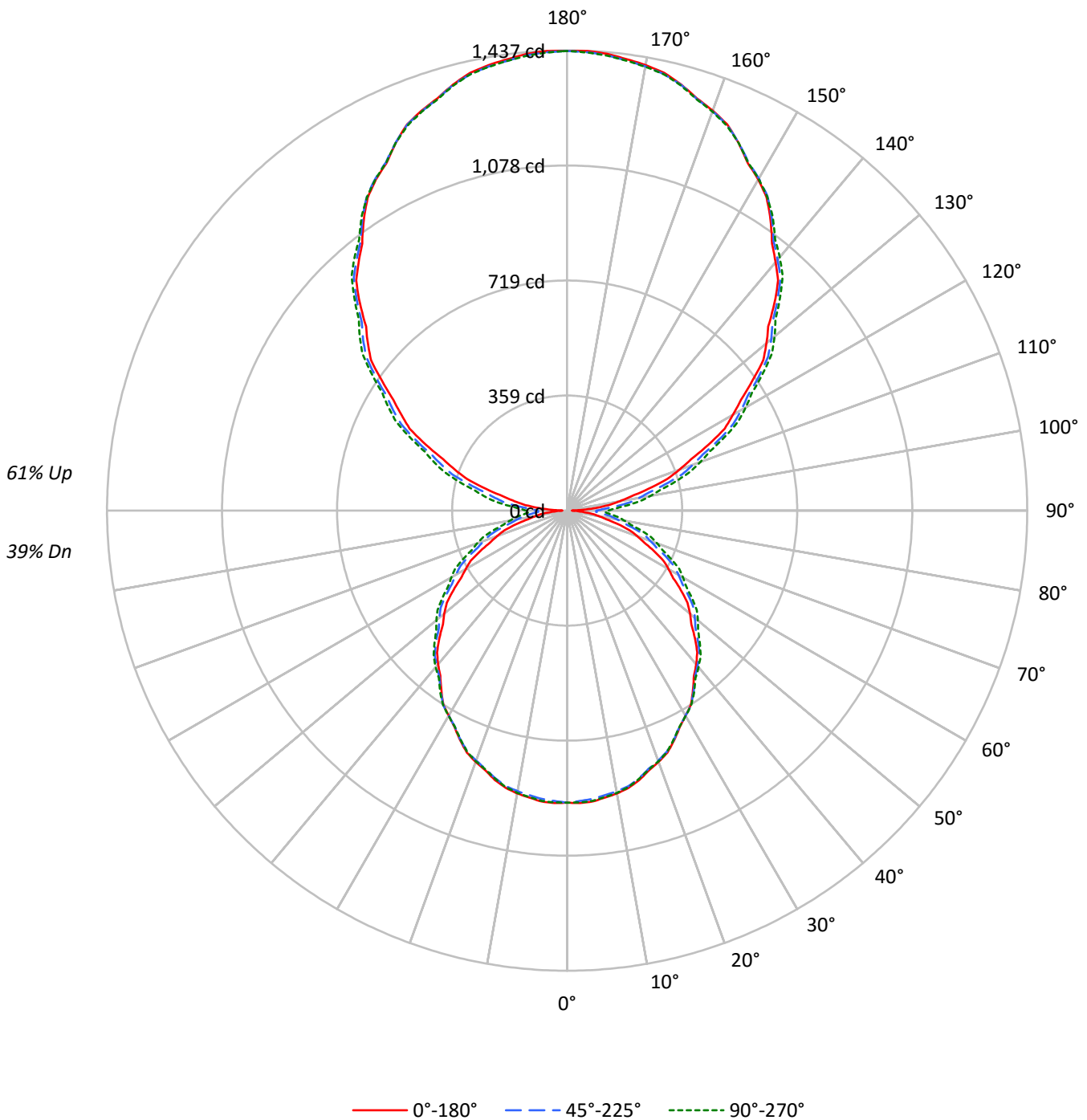
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	90	86	83	86	82	79	75	67	64	62	53	51	49	40	39	38	32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26
3	78	69	61	55	71	63	56	51	51	46	42	40	37	34	30	28	26	22
4	71	61	53	47	65	55	48	43	45	40	36	36	32	29	27	25	22	18
5	65	54	46	40	59	49	42	37	40	35	31	32	28	25	24	22	19	16
6	60	48	40	34	54	44	37	32	36	31	27	29	25	22	22	19	17	14
7	56	43	35	30	50	40	33	28	33	27	23	26	22	19	20	17	15	12
8	52	39	32	26	47	36	29	24	30	24	21	24	20	17	18	16	13	11
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	17	14	12	10
10	45	33	26	21	41	30	24	19	25	20	17	20	16	14	16	13	11	9

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.2	1.3
10°-20°	244.8	3.6
20°-30°	364.1	5.3
30°-40°	431.3	6.3
40°-50°	445.9	6.5
50°-60°	410.8	6.0
60°-70°	332.0	4.9
70°-80°	222.4	3.3
80°-90°	118.5	1.7
90°-100°	160.8	2.4
100°-110°	331.6	4.9
110°-120°	512.8	7.5
120°-130°	650.9	9.5
130°-140°	716.9	10.5
140°-150°	696.5	10.2
150°-160°	583.6	8.5
160°-170°	388.0	5.7
170°-180°	135.8	2.0
0°-30°	695.2	10.2
0°-40°	1126.5	16.5
0°-60°	1983.2	29.0
0°-90°	2656.0	38.9
90°-120°	1005.2	14.7
90°-150°	3069.5	44.9
90°-180°	4177.0	61.1
0°-180°	6832.9	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°	15	53	91	116	127	14
95°	84	111	151	178	187	87
105°	263	283	316	340	350	280
115°	487	498	523	537	542	481
125°	706	713	731	742	746	632
135°	915	921	929	940	940	705
145°	1108	1111	1115	1119	1119	692
155°	1266	1267	1268	1272	1266	583
165°	1377	1375	1376	1380	1374	388
175°	1432	1428	1427	1433	1426	136
180°	1435	1435	1435	1435	1435	



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**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	34.9	41.7	48.4	55.1	62.1	69.1	76.3	83.3	90.5	95.3
90°	15.4	23.8	32.1	40.5	48.8	57.3	65.7	74.2	82.7	91.2	97.0
92.5°	39.9	47.2	54.4	61.7	69.0	77.1	86.2	95.2	104.3	113.3	119.4
95°	84.2	89.9	95.6	101.2	106.9	114.3	123.6	132.8	142.1	151.3	157.4
97.5°	131.1	136.0	140.9	145.7	150.6	158.0	167.9	177.9	187.8	197.8	203.5
100°	166.2	170.4	174.5	178.7	182.9	189.8	199.3	209.0	218.5	228.1	234.5
102.5°	203.9	208.7	213.6	218.4	223.3	229.6	237.5	245.3	253.1	261.0	267.4
105°	262.7	267.1	271.6	276.0	280.3	286.3	293.8	301.2	308.7	316.1	321.6
107.5°	327.7	331.7	335.6	339.6	343.5	348.9	355.8	362.7	369.5	376.3	381.1
110°	372.6	376.3	379.9	383.5	387.1	392.1	398.4	404.7	411.0	417.3	421.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	419.0	421.6	424.1	426.7	429.3	433.7	440.1	446.4	452.7	459.1	463.0
115°	486.7	489.1	491.5	493.9	496.3	500.3	505.9	511.6	517.3	523.0	526.2
117.5°	554.7	556.0	557.3	558.7	560.1	563.4	568.8	574.1	579.5	584.8	588.3
120°	597.5	599.3	601.2	603.0	604.9	608.2	613.0	617.9	622.7	627.5	630.9
122.5°	643.3	644.0	644.7	645.4	646.2	649.0	654.1	659.2	664.3	669.3	672.3
125°	706.1	707.4	708.7	710.0	711.3	714.0	718.2	722.5	726.7	730.9	733.6
127.5°	772.2	772.8	773.5	774.1	774.8	776.9	780.4	784.0	787.6	791.1	793.8
130°	812.4	813.5	814.5	815.5	816.6	818.7	822.0	825.3	828.5	831.8	834.4
132.5°	851.9	853.9	855.9	857.9	859.9	861.9	863.9	866.0	868.1	870.1	872.6
135°	915.4	916.7	918.0	919.3	920.6	922.0	923.7	925.3	927.0	928.6	931.2
137.5°	975.1	976.4	977.7	978.9	980.2	981.5	982.7	983.9	985.1	986.4	988.9
140°	1012.8	1014.0	1015.3	1016.5	1017.7	1018.8	1019.8	1020.7	1021.7	1022.6	1025.3
142.5°	1051.2	1052.1	1052.9	1053.9	1054.7	1055.7	1056.6	1057.7	1058.6	1059.5	1061.8
145°	1107.7	1108.5	1109.3	1110.1	1110.9	1111.6	1112.4	1113.1	1113.9	1114.7	1115.6
147.5°	1159.1	1159.6	1160.2	1160.7	1161.2	1161.8	1162.4	1163.0	1163.6	1164.2	1165.1
150°	1193.9	1193.7	1193.4	1193.2	1192.9	1193.3	1194.3	1195.3	1196.3	1197.3	1197.3
152.5°	1222.5	1222.9	1223.2	1223.6	1223.9	1224.3	1224.7	1225.0	1225.5	1225.9	1226.5
155°	1266.5	1266.5	1266.5	1266.5	1266.5	1266.6	1266.9	1267.1	1267.4	1267.7	1268.6
157.5°	1305.8	1305.3	1304.8	1304.2	1303.6	1303.5	1303.7	1304.0	1304.2	1304.5	1305.4
160°	1329.0	1328.4	1327.6	1326.8	1326.1	1325.9	1326.1	1326.4	1326.5	1326.8	1327.8
162.5°	1349.6	1349.1	1348.5	1348.0	1347.5	1347.2	1347.2	1347.3	1347.3	1347.4	1348.6
165°	1377.1	1376.6	1376.1	1375.6	1375.1	1375.0	1375.2	1375.4	1375.7	1376.0	1377.0
167.5°	1400.3	1399.3	1398.4	1397.3	1396.4	1395.9	1395.9	1395.9	1395.9	1395.9	1397.3
170°	1412.8	1411.9	1410.8	1409.9	1408.9	1408.3	1408.3	1408.3	1408.3	1408.3	1409.9
172.5°	1421.8	1420.7	1419.8	1418.8	1417.8	1417.3	1417.3	1417.3	1417.3	1417.3	1418.8
175°	1431.8	1430.8	1429.9	1428.8	1427.9	1427.4	1427.4	1427.4	1427.4	1427.4	1428.8
177.5°	1436.9	1436.1	1435.4	1434.6	1433.7	1433.3	1433.0	1432.9	1432.7	1432.4	1433.7
180°	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2



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**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°	100.1	105.0	109.8	113.0	114.5	116.1	117.5	119.1
90°	102.8	108.7	114.4	118.4	120.5	122.7	124.8	127.0
92.5°	125.4	131.5	137.6	141.5	143.4	145.4	147.3	149.3
95°	163.5	169.6	175.7	179.7	181.6	183.5	185.4	187.3
97.5°	209.4	215.2	221.0	224.7	226.4	228.0	229.6	231.3
100°	240.9	247.4	253.7	257.8	259.5	261.1	262.9	264.5
102.5°	273.9	280.3	286.8	290.9	292.8	294.7	296.6	298.5
105°	327.0	332.5	337.9	341.7	343.9	346.0	348.2	350.3
107.5°	385.7	390.4	395.1	398.0	399.2	400.4	401.6	402.8
110°	426.4	430.8	435.4	438.2	439.4	440.5	441.6	442.8





TEST NUMBER: P333421-935

CATALOG NUMBER: S125DIW-S850D1340U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	467.0	471.0	474.9	477.4	478.4	479.3	480.3	481.2
115°	529.6	533.0	536.2	538.4	539.3	540.3	541.2	542.2
117.5°	591.9	595.5	599.1	601.1	601.4	601.8	602.1	602.4
120°	634.2	637.6	641.0	642.7	643.0	643.2	643.3	643.6
122.5°	675.4	678.4	681.4	683.1	683.5	683.9	684.2	684.7
125°	736.2	738.9	741.6	743.3	744.1	744.9	745.5	746.3
127.5°	796.5	799.2	801.8	803.6	804.2	804.9	805.6	806.2
130°	836.9	839.5	842.0	843.5	844.0	844.5	845.0	845.5
132.5°	875.1	877.7	880.2	881.6	881.7	881.8	882.0	882.1
135°	933.8	936.3	938.9	940.2	940.2	940.2	940.2	940.2
137.5°	991.6	994.3	996.9	998.0	997.6	997.1	996.7	996.2
140°	1027.9	1030.6	1033.3	1034.4	1034.0	1033.5	1033.1	1032.7
142.5°	1063.9	1066.1	1068.2	1069.1	1068.7	1068.2	1067.8	1067.3
145°	1116.6	1117.6	1118.6	1119.1	1119.1	1119.2	1119.3	1119.3
147.5°	1166.1	1166.9	1167.9	1167.7	1166.3	1165.0	1163.6	1162.4
150°	1197.3	1197.3	1197.3	1197.1	1196.8	1196.5	1196.2	1195.9
152.5°	1227.0	1227.6	1228.2	1228.1	1227.3	1226.4	1225.5	1224.7
155°	1269.6	1270.6	1271.6	1271.4	1270.2	1269.0	1267.7	1266.5
157.5°	1306.5	1307.4	1308.5	1308.1	1306.5	1304.8	1303.2	1301.6
160°	1328.8	1329.8	1330.8	1330.7	1329.5	1328.2	1327.0	1325.7
162.5°	1349.8	1350.9	1352.1	1352.0	1350.6	1349.1	1347.7	1346.3
165°	1377.9	1379.0	1379.9	1379.7	1378.2	1376.7	1375.2	1373.7
167.5°	1398.9	1400.3	1401.8	1401.8	1400.2	1398.7	1397.1	1395.6
170°	1411.4	1412.8	1414.3	1414.2	1412.5	1410.7	1408.9	1407.2
172.5°	1420.3	1421.8	1423.2	1423.2	1421.7	1420.1	1418.6	1417.0
175°	1430.3	1431.8	1433.3	1433.1	1431.4	1429.7	1428.0	1426.2
177.5°	1434.9	1436.1	1437.3	1437.2	1435.7	1434.3	1433.0	1431.6
180°	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2

(END OF REPORT)