

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: P333423-927

Luminaire Tested: **S125DIW-S850D1340U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333423-927  
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-S850D1340U927-4F0-1E-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: 6393.6 lumens  
Efficiency: N/A  
Efficacy: 104.1 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

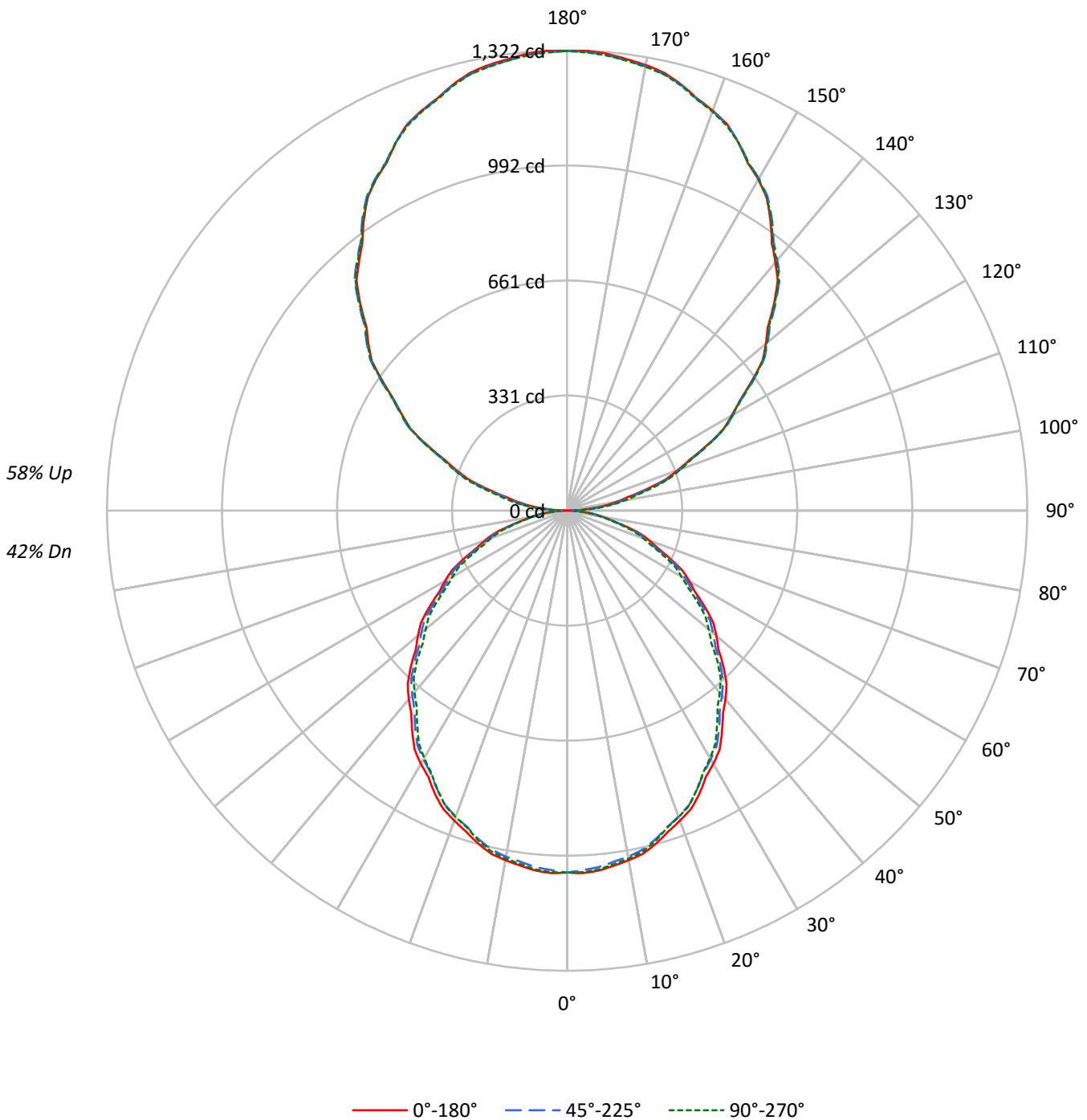
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	6716	6716	6716
5°	6731	6667	6710
10°	6690	6620	6658
15°	6618	6540	6568
20°	6514	6429	6441
25°	6402	6297	6291
30°	6264	6154	6123
35°	6117	6000	5916
40°	5966	5833	5751
45°	5802	5681	5569
50°	5621	5497	5332
55°	5447	5290	5141
60°	5239	5079	4899
65°	4991	4828	4664
70°	4755	4538	4381
75°	4332	4190	4045
80°	3857	3794	3704
85°	3349	3416	3231



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.1	1.5
10°-20°	277.0	4.3
20°-30°	409.0	6.4
30°-40°	477.2	7.5
40°-50°	479.3	7.5
50°-60°	420.7	6.6
60°-70°	313.5	4.9
70°-80°	179.3	2.8
80°-90°	55.0	0.9
90°-100°	88.4	1.4
100°-110°	261.2	4.1
110°-120°	442.4	6.9
120°-130°	582.2	9.1
130°-140°	652.3	10.2
140°-150°	639.3	10.0
150°-160°	537.0	8.4
160°-170°	357.0	5.6
170°-180°	124.9	2.0
0°-30°	784.0	12.3
0°-40°	1261.2	19.7
0°-60°	2161.2	33.8
0°-90°	2709.0	42.4
90°-120°	792.0	12.4
90°-150°	2665.8	41.7
90°-180°	3685.0	57.6
0°-180°	6393.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1040	1040	1040	1040	1040	
5°	1038	1036	1028	1035	1035	98
15°	990	987	978	982	982	279
25°	898	894	884	885	883	413
35°	776	772	761	757	750	485
45°	635	631	622	612	610	489
55°	484	481	470	462	457	432
65°	327	325	316	309	305	324
75°	174	172	168	165	162	185
85°	45	46	46	45	44	51
90°	1	9	16	21	25	6
95°	67	69	79	86	88	71
105°	234	239	246	252	255	250
115°	443	447	449	448	447	438
125°	646	652	654	652	650	579
135°	841	846	848	848	844	648
145°	1018	1022	1026	1025	1022	636
155°	1165	1165	1166	1170	1165	536
165°	1267	1265	1266	1270	1264	357
175°	1317	1314	1313	1319	1312	125
180°	1320	1320	1320	1320	1320	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9
2.5°	1042.6	1042.1	1041.7	1041.2	1040.8	1039.8	1038.4	1037.0	1035.5	1034.0	1035.5
5°	1038.3	1037.9	1037.5	1037.2	1036.8	1035.7	1033.9	1032.1	1030.2	1028.4	1030.1
7.5°	1028.7	1028.4	1028.0	1027.6	1027.3	1026.1	1024.1	1022.1	1020.1	1018.0	1019.6
10°	1020.2	1019.9	1019.5	1019.1	1018.7	1017.6	1015.5	1013.5	1011.5	1009.5	1011.0
12.5°	1009.6	1009.0	1008.4	1007.7	1007.0	1005.8	1003.9	1002.0	1000.1	998.3	999.5
15°	989.8	989.2	988.6	988.1	987.5	986.3	984.3	982.2	980.2	978.2	979.1
17.5°	966.9	966.1	965.3	964.5	963.7	962.2	960.1	958.1	955.9	953.9	955.0
20°	947.8	947.5	947.1	946.7	946.3	944.9	942.5	940.2	937.8	935.4	936.8
22.5°	928.7	928.0	927.4	926.7	926.1	924.6	922.4	920.1	917.9	915.7	916.6
25°	898.4	897.5	896.6	895.6	894.8	893.1	890.7	888.4	886.0	883.6	884.0
27.5°	863.0	862.5	862.0	861.4	860.9	859.4	856.9	854.4	852.0	849.5	849.6
30°	840.0	839.5	838.9	838.4	837.8	836.1	833.5	830.7	827.9	825.2	824.8
32.5°	815.0	814.1	813.3	812.5	811.7	810.0	807.6	805.1	802.6	800.2	799.5
35°	775.9	775.1	774.4	773.6	772.9	771.3	768.7	766.1	763.6	761.0	760.1
37.5°	735.2	734.3	733.3	732.5	731.5	729.8	727.5	725.0	722.6	720.3	718.8
40°	707.6	706.6	705.8	704.8	703.9	702.2	699.6	697.0	694.5	691.9	690.3
42.5°	677.9	677.2	676.4	675.7	674.9	673.2	670.7	668.0	665.5	663.0	661.5
45°	635.2	634.4	633.7	633.0	632.2	630.7	628.6	626.4	624.2	622.0	619.8
47.5°	589.1	589.1	589.1	589.1	589.2	588.0	585.3	582.7	580.0	577.4	575.1
50°	559.4	558.9	558.3	557.8	557.3	555.9	553.7	551.5	549.3	547.1	544.7
52.5°	529.2	528.8	528.4	528.0	527.6	526.2	523.9	521.5	519.2	516.8	514.8
55°	483.8	483.2	482.7	482.1	481.6	480.0	477.4	474.9	472.3	469.8	468.1
57.5°	435.9	435.6	435.3	435.0	434.7	433.5	431.3	429.2	427.0	424.8	422.7
60°	405.6	404.9	404.2	403.4	402.7	401.3	399.3	397.3	395.3	393.2	391.4
62.5°	374.0	373.4	372.9	372.2	371.7	370.5	368.8	367.1	365.4	363.6	361.7
65°	326.6	326.2	325.9	325.5	325.2	324.0	321.9	320.0	317.9	315.9	314.3
67.5°	280.7	280.0	279.2	278.4	277.7	276.5	275.0	273.5	272.0	270.5	269.1
70°	251.8	250.8	249.9	249.0	248.1	246.8	245.2	243.5	241.9	240.3	239.2
72.5°	220.1	219.5	218.9	218.3	217.7	216.8	215.8	214.7	213.7	212.6	211.4
75°	173.6	173.3	172.9	172.5	172.1	171.5	170.6	169.7	168.7	167.9	167.3
77.5°	130.6	130.5	130.4	130.2	130.1	129.8	129.2	128.7	128.2	127.7	127.4
80°	103.7	103.7	103.7	103.7	103.7	103.5	103.1	102.7	102.3	102.0	101.9
82.5°	79.9	79.7	79.4	79.1	78.8	78.6	78.5	78.5	78.4	78.3	78.0
85°	45.2	45.5	45.6	45.8	45.9	46.1	46.1	46.1	46.1	46.1	45.9
87.5°	18.0	18.4	18.7	19.1	19.4	19.7	19.9	20.0	20.2	20.4	20.6
90°	1.0	2.9	4.7	6.5	8.3	10.1	11.6	13.2	14.8	16.5	17.6
92.5°	24.9	26.1	27.4	28.7	29.9	31.6	33.6	35.6	37.5	39.5	41.0
95°	66.8	67.3	67.7	68.1	68.6	70.0	72.2	74.5	76.8	79.1	80.7
97.5°	111.0	111.1	111.4	111.5	111.7	113.4	116.5	119.7	122.9	126.0	127.5
100°	143.9	143.9	143.9	143.9	143.9	145.4	148.3	151.3	154.2	157.2	159.3
102.5°	179.2	180.1	181.0	182.0	182.8	184.1	185.6	187.1	188.6	190.1	192.3
105°	234.3	235.4	236.5	237.7	238.8	240.1	241.5	242.9	244.2	245.6	247.0
107.5°	295.1	296.3	297.4	298.6	299.7	300.8	301.8	302.9	304.0	305.0	305.7
110°	337.1	338.2	339.4	340.5	341.6	342.5	343.3	343.9	344.6	345.2	345.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	379.8	380.4	381.0	381.6	382.1	382.9	383.7	384.6	385.5	386.3	386.7
115°	442.9	443.8	444.7	445.6	446.6	447.3	447.7	448.1	448.6	449.1	448.9
117.5°	506.2	506.6	507.0	507.4	507.9	508.3	508.7	509.1	509.5	509.9	510.1
120°	545.7	546.8	548.0	549.1	550.2	550.9	551.1	551.4	551.6	551.8	551.8
122.5°	588.4	588.8	589.2	589.6	590.0	590.6	591.1	591.8	592.3	592.9	592.7
125°	646.3	647.7	649.1	650.5	651.8	652.6	652.8	653.1	653.3	653.6	653.1
127.5°	708.0	708.8	709.6	710.3	711.1	711.6	711.9	712.2	712.5	712.7	712.5
130°	745.0	746.2	747.3	748.5	749.6	750.4	750.8	751.3	751.7	752.2	751.9
132.5°	782.0	783.9	785.8	787.6	789.5	790.4	790.3	790.2	790.1	790.0	789.8
135°	840.6	841.9	843.3	844.7	846.1	846.8	847.1	847.3	847.6	847.8	847.8
137.5°	895.6	897.0	898.3	899.6	900.9	901.8	902.4	902.9	903.4	903.9	904.1
140°	931.0	932.2	933.3	934.5	935.6	936.4	937.2	937.9	938.5	939.2	939.7
142.5°	966.4	967.3	968.3	969.2	970.2	971.1	971.9	972.8	973.7	974.5	974.9
145°	1018.4	1019.2	1020.2	1021.0	1022.0	1022.8	1023.5	1024.1	1024.8	1025.6	1025.6
147.5°	1066.4	1066.9	1067.5	1067.9	1068.4	1069.0	1069.5	1070.1	1070.6	1071.2	1071.7
150°	1098.5	1098.3	1098.0	1097.8	1097.6	1097.9	1098.8	1099.8	1100.7	1101.6	1101.6
152.5°	1124.8	1125.1	1125.5	1125.8	1126.1	1126.4	1126.8	1127.1	1127.5	1127.9	1128.5
155°	1165.3	1165.3	1165.3	1165.3	1165.3	1165.4	1165.6	1165.9	1166.1	1166.3	1167.2
157.5°	1201.4	1200.9	1200.5	1199.9	1199.4	1199.3	1199.5	1199.8	1200.0	1200.2	1201.1
160°	1222.8	1222.2	1221.5	1220.8	1220.1	1219.9	1220.1	1220.4	1220.5	1220.8	1221.7
162.5°	1241.7	1241.3	1240.7	1240.2	1239.8	1239.5	1239.5	1239.6	1239.6	1239.7	1240.8
165°	1267.0	1266.5	1266.1	1265.7	1265.2	1265.1	1265.3	1265.5	1265.7	1266.0	1266.9
167.5°	1288.4	1287.5	1286.6	1285.6	1284.8	1284.3	1284.3	1284.3	1284.3	1284.3	1285.6
170°	1299.9	1299.0	1298.1	1297.2	1296.2	1295.8	1295.8	1295.8	1295.8	1295.8	1297.2
172.5°	1308.1	1307.2	1306.3	1305.4	1304.5	1304.0	1304.0	1304.0	1304.0	1304.0	1305.4
175°	1317.4	1316.4	1315.6	1314.6	1313.8	1313.3	1313.3	1313.3	1313.3	1313.3	1314.6
177.5°	1322.1	1321.4	1320.6	1319.9	1319.1	1318.7	1318.5	1318.3	1318.2	1318.0	1319.1
180°	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9
2.5°	1037.0	1038.4	1039.8	1040.5	1040.4	1040.2	1040.1	1039.9
5°	1031.7	1033.3	1035.0	1035.7	1035.5	1035.4	1035.1	1035.0
7.5°	1021.3	1022.9	1024.5	1025.2	1025.0	1024.8	1024.6	1024.5
10°	1012.4	1013.9	1015.3	1016.0	1015.8	1015.6	1015.4	1015.3
12.5°	1000.6	1001.8	1003.0	1003.5	1003.5	1003.5	1003.5	1003.4
15°	980.1	981.0	981.9	982.3	982.3	982.3	982.3	982.3
17.5°	956.2	957.3	958.4	958.5	957.6	956.7	955.8	954.9
20°	938.0	939.3	940.6	940.7	939.8	938.9	938.0	937.1
22.5°	917.3	918.2	919.1	919.2	918.5	917.9	917.3	916.7
25°	884.3	884.7	885.1	884.9	884.5	883.9	883.4	882.8
27.5°	849.7	849.8	849.9	849.6	849.1	848.5	848.0	847.4
30°	824.5	824.1	823.7	823.3	822.8	822.2	821.7	821.1
32.5°	798.8	798.2	797.6	796.7	795.7	794.7	793.8	792.8
35°	759.2	758.3	757.4	756.2	754.7	753.3	751.8	750.4
37.5°	717.5	716.1	714.8	713.7	712.9	712.0	711.2	710.3
40°	688.6	687.0	685.3	684.2	683.7	683.2	682.6	682.1
42.5°	660.0	658.5	657.0	655.8	655.0	654.1	653.2	652.4
45°	617.6	615.4	613.2	611.8	611.3	610.8	610.2	609.7
47.5°	572.9	570.7	568.5	566.7	565.5	564.2	562.8	561.6
50°	542.3	540.0	537.6	535.8	534.5	533.2	532.0	530.7
52.5°	512.7	510.6	508.5	506.8	505.3	503.9	502.5	501.1
55°	466.5	464.9	463.2	461.8	460.4	459.1	457.9	456.6
57.5°	420.6	418.5	416.4	414.9	414.2	413.6	412.9	412.2
60°	389.6	387.8	386.0	384.4	383.1	381.8	380.6	379.3
62.5°	359.7	357.7	355.8	354.3	353.3	352.3	351.3	350.3
65°	312.7	311.0	309.3	308.2	307.4	306.7	305.9	305.2
67.5°	267.8	266.3	265.0	264.0	263.6	263.2	262.7	262.3
70°	238.1	236.9	235.8	235.0	234.2	233.5	232.7	232.0
72.5°	210.1	208.9	207.6	206.6	205.9	205.2	204.5	203.7
75°	166.8	166.2	165.6	165.0	164.3	163.5	162.8	162.1
77.5°	127.1	126.7	126.4	126.0	125.4	124.9	124.5	123.9
80°	101.6	101.5	101.3	101.0	100.7	100.3	99.9	99.6
82.5°	77.6	77.3	77.0	76.8	76.8	76.7	76.6	76.5
85°	45.7	45.6	45.3	45.1	44.7	44.4	44.0	43.6
87.5°	20.8	21.1	21.3	21.4	21.2	21.1	20.9	20.8
90°	18.7	19.9	21.0	21.9	22.6	23.3	24.0	24.6
92.5°	42.5	44.0	45.5	46.5	47.0	47.5	48.0	48.5
95°	82.3	83.9	85.6	86.5	87.0	87.5	87.9	88.4
97.5°	129.0	130.5	132.0	132.9	133.2	133.5	133.7	134.0
100°	161.4	163.3	165.4	166.7	167.2	167.6	168.1	168.5
102.5°	194.6	196.8	199.1	200.5	201.1	201.8	202.4	203.0
105°	248.3	249.7	251.0	252.1	252.8	253.5	254.1	254.8
107.5°	306.3	307.0	307.8	308.1	308.0	307.9	307.9	307.8
110°	346.7	347.3	348.0	348.2	348.0	347.8	347.5	347.3





TEST NUMBER: P333423-927

CATALOG NUMBER: S125DIW-S850D1340U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	387.0	387.3	387.6	387.6	387.2	386.8	386.3	386.0
115°	448.6	448.4	448.1	447.9	447.7	447.4	447.3	447.0
117.5°	510.2	510.4	510.6	510.2	509.4	508.4	507.6	506.6
120°	551.8	551.8	551.8	551.4	550.4	549.5	548.6	547.7
122.5°	592.6	592.4	592.2	591.8	591.0	590.3	589.5	588.8
125°	652.6	652.2	651.7	651.4	651.2	650.9	650.7	650.5
127.5°	712.3	712.0	711.9	711.5	711.1	710.6	710.1	709.6
130°	751.7	751.5	751.3	750.9	750.5	750.0	749.6	749.1
132.5°	789.6	789.3	789.1	788.7	788.1	787.3	786.7	786.1
135°	847.8	847.8	847.8	847.3	846.4	845.5	844.5	843.7
137.5°	904.4	904.7	905.0	904.5	903.4	902.2	901.1	900.0
140°	940.2	940.6	941.0	940.7	939.5	938.4	937.3	936.1
142.5°	975.1	975.4	975.7	975.3	974.1	973.0	971.8	970.7
145°	1025.6	1025.6	1025.6	1025.2	1024.5	1023.8	1023.1	1022.5
147.5°	1072.2	1072.8	1073.3	1072.9	1071.3	1069.8	1068.2	1066.7
150°	1101.6	1101.6	1101.6	1101.4	1100.9	1100.4	1099.9	1099.5
152.5°	1128.9	1129.5	1130.0	1130.0	1129.1	1128.3	1127.4	1126.6
155°	1168.2	1169.0	1170.0	1169.8	1168.7	1167.6	1166.4	1165.3
157.5°	1202.1	1202.9	1203.9	1203.6	1202.1	1200.6	1199.0	1197.5
160°	1222.6	1223.5	1224.4	1224.3	1223.2	1222.0	1220.9	1219.7
162.5°	1241.9	1242.9	1244.0	1244.0	1242.6	1241.3	1240.0	1238.7
165°	1267.8	1268.8	1269.6	1269.4	1268.0	1266.7	1265.3	1263.9
167.5°	1287.1	1288.4	1289.8	1289.8	1288.3	1286.9	1285.5	1284.0
170°	1298.5	1299.9	1301.2	1301.2	1299.6	1298.0	1296.3	1294.7
172.5°	1306.8	1308.1	1309.5	1309.5	1308.1	1306.6	1305.2	1303.8
175°	1316.0	1317.4	1318.7	1318.6	1317.0	1315.4	1313.8	1312.2
177.5°	1320.2	1321.3	1322.4	1322.3	1321.0	1319.7	1318.4	1317.2
180°	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5

(END OF REPORT)