

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: P333420-927

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333420-927  
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-S850D1340U927-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1340 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6851.0 lumens  
Efficiency: N/A  
Efficacy: 111.6 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

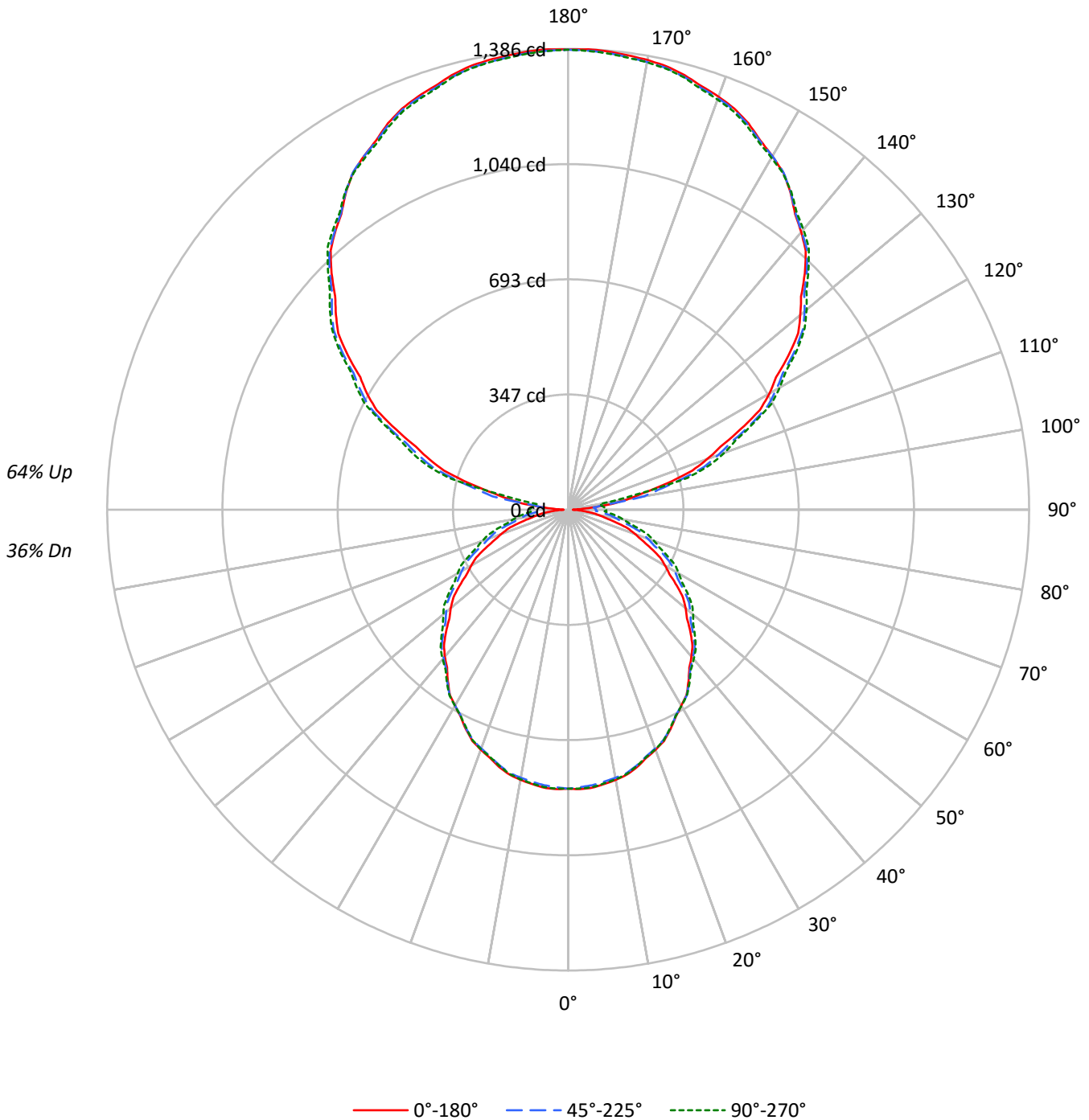
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333420-927

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

### Luminous Intensity Polar Plot





TEST NUMBER: P333420-927

CATALOG NUMBER: S125DIW-S850D1340U927-4F0-1E-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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	36
1	94	90	86	82	85	81	78	75	65	63	61	51	49	48	37	36	35	29
2	85	78	72	66	77	71	65	61	57	53	50	44	41	39	32	31	29	24
3	78	68	61	55	70	62	56	50	50	45	42	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	21	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	36	29	24	29	24	20	23	19	16	17	15	13	10
9	47	35	28	23	43	32	26	21	27	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°	5420	5420	5420
5°	5431	5320	5337
10°	5392	5225	5217
15°	5329	5111	5064
20°	5241	4970	4912
25°	5139	4820	4724
30°	5014	4654	4554
35°	4897	4502	4398
40°	4778	4342	4241
45°	4644	4205	4102
50°	4517	4056	3979
55°	4363	3916	3833
60°	4195	3756	3686
65°	4020	3589	3520
70°	3820	3359	3349
75°	3505	3139	3139
80°	3093	2872	2910
85°	2705	2693	2839



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.4	1.2
10°-20°	225.3	3.3
20°-30°	335.0	4.9
30°-40°	396.8	5.8
40°-50°	410.3	6.0
50°-60°	377.9	5.5
60°-70°	305.5	4.5
70°-80°	204.6	3.0
80°-90°	109.0	1.6
90°-100°	109.8	1.6
100°-110°	353.8	5.2
110°-120°	591.4	8.6
120°-130°	738.0	10.8
130°-140°	783.1	11.4
140°-150°	729.7	10.7
150°-160°	589.1	8.6
160°-170°	381.0	5.6
170°-180°	131.4	1.9
0°-30°	639.6	9.3
0°-40°	1036.4	15.1
0°-60°	1824.7	26.6
0°-90°	2443.8	35.7
90°-120°	1055.1	15.4
90°-150°	3305.8	48.3
90°-180°	4407.0	64.3
0°-180°	6851.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	839	839	839	839	839	
5°	839	837	832	838	838	80
15°	801	802	796	801	798	226
25°	728	730	726	729	725	335
35°	630	636	634	636	636	394
45°	519	528	532	538	539	400
55°	399	412	425	434	438	357
65°	275	294	314	325	329	273
75°	151	173	199	215	220	161
85°	45	72	101	119	126	48
90°	14	49	84	107	117	11
95°	69	86	76	99	105	83
105°	309	327	351	367	372	327
115°	571	583	604	614	614	566
125°	808	815	831	840	841	722
135°	1006	1011	1015	1023	1021	775
145°	1165	1166	1166	1171	1168	728
155°	1282	1276	1278	1280	1273	590
165°	1353	1347	1348	1353	1346	382
175°	1384	1378	1378	1386	1377	132
180°	1384	1384	1384	1384	1384	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	841.1	840.9	840.6	840.3	840.0	839.3	838.3	837.3	836.2	835.2	836.2
5°	839.2	838.8	838.4	838.0	837.7	836.9	835.6	834.3	833.1	831.8	833.2
7.5°	831.8	831.6	831.5	831.3	831.2	830.4	829.2	827.8	826.5	825.2	826.5
10°	825.2	825.2	825.2	825.2	825.2	824.5	823.0	821.6	820.1	818.6	819.9
12.5°	815.9	816.1	816.3	816.4	816.6	816.0	814.9	813.7	812.5	811.4	812.4
15°	801.4	801.5	801.7	801.8	802.1	801.5	800.3	799.0	797.6	796.4	797.5
17.5°	782.3	782.6	783.0	783.3	783.7	783.2	782.0	780.7	779.4	778.2	779.0
20°	768.4	768.8	769.1	769.5	769.9	769.4	768.2	766.9	765.6	764.3	764.9
22.5°	752.7	753.3	753.9	754.6	755.3	754.9	753.4	752.0	750.6	749.2	749.9
25°	728.1	728.6	729.2	729.8	730.3	730.0	729.0	727.9	726.7	725.6	726.4
27.5°	700.8	701.6	702.4	703.2	704.0	703.8	702.6	701.3	700.1	698.9	699.3
30°	680.4	681.5	682.6	683.7	684.8	684.8	683.7	682.6	681.5	680.4	680.8
32.5°	661.9	662.9	663.8	664.8	665.7	665.8	665.0	664.2	663.5	662.7	663.0
35°	630.2	631.5	632.8	634.1	635.3	635.7	635.2	634.6	634.1	633.5	634.1
37.5°	598.4	599.6	600.8	602.0	603.2	603.6	603.4	603.2	603.1	602.9	603.6
40°	576.7	578.2	579.6	581.1	582.6	583.2	583.0	582.9	582.7	582.5	583.2
42.5°	553.0	554.9	556.8	558.7	560.6	561.8	562.2	562.6	563.0	563.4	564.3
45°	519.1	521.2	523.2	525.1	527.2	528.6	529.6	530.4	531.4	532.3	533.6
47.5°	484.4	486.3	488.1	490.0	491.9	493.6	495.2	496.8	498.3	499.9	501.8
50°	460.7	462.7	464.8	466.8	468.7	470.8	472.8	474.8	476.8	478.8	480.9
52.5°	435.7	438.2	440.6	443.1	445.5	448.0	450.4	452.9	455.3	457.8	459.9
55°	399.0	402.0	404.9	407.8	410.7	413.7	416.6	419.5	422.4	425.3	427.4
57.5°	361.5	365.0	368.5	372.0	375.6	379.0	382.4	385.7	389.0	392.4	394.7
60°	336.5	340.2	343.8	347.5	351.1	354.8	358.5	362.1	365.8	369.4	372.2
62.5°	312.1	315.8	319.5	323.1	326.8	330.6	334.5	338.5	342.4	346.3	349.4
65°	274.8	279.0	283.2	287.4	291.6	295.9	300.3	304.7	309.1	313.5	316.2
67.5°	239.6	243.7	247.7	251.8	255.8	260.1	264.5	269.0	273.5	277.9	281.2
70°	213.9	218.1	222.3	226.6	230.8	235.2	240.0	244.7	249.5	254.2	257.7
72.5°	188.9	193.2	197.6	201.9	206.3	211.0	216.3	221.5	226.6	231.9	235.6
75°	151.4	156.1	160.9	165.6	170.4	175.7	181.6	187.4	193.2	199.1	202.7
77.5°	115.3	120.8	126.4	131.8	137.3	142.8	148.5	154.1	159.7	165.4	169.4
80°	93.0	98.5	103.9	109.4	114.9	120.7	127.0	133.2	139.4	145.6	149.6
82.5°	72.6	78.3	84.1	89.9	95.7	101.7	108.1	114.5	120.8	127.2	131.1
85°	45.2	51.3	57.4	63.4	69.4	75.6	82.0	88.4	94.8	101.2	105.2
87.5°	25.9	32.1	38.3	44.5	50.7	57.1	63.6	70.2	76.7	83.3	87.7
90°	14.2	21.9	29.5	37.2	44.9	52.6	60.4	68.3	76.0	83.9	89.2
92.5°	27.6	31.8	35.9	40.1	44.2	50.1	57.9	65.7	73.4	81.3	86.4
95°	69.2	73.2	77.3	81.4	85.5	86.3	83.8	81.4	78.9	76.4	81.6
97.5°	131.7	137.3	142.8	148.3	153.8	151.0	139.8	128.7	117.6	106.4	103.9
100°	180.3	184.9	189.4	193.9	198.4	204.1	210.8	217.6	224.3	231.2	201.0
102.5°	229.7	234.2	238.5	243.0	247.4	252.7	259.0	265.2	271.5	277.7	275.0
105°	309.0	312.8	316.6	320.4	324.3	329.0	334.5	339.9	345.4	350.9	354.6
107.5°	391.3	393.7	396.2	398.7	401.2	405.3	411.0	416.8	422.5	428.2	431.8
110°	444.7	446.9	449.2	451.3	453.5	457.4	463.0	468.6	474.1	479.7	482.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	495.6	497.9	500.3	502.6	504.9	508.6	513.9	519.1	524.3	529.6	532.0
115°	571.1	573.5	575.9	578.4	580.7	584.5	589.5	594.5	599.4	604.4	606.8
117.5°	649.3	650.1	650.9	651.6	652.4	655.5	660.9	666.2	671.6	677.0	678.9
120°	698.5	698.8	699.1	699.4	699.8	702.3	707.3	712.2	717.1	721.9	724.6
122.5°	741.3	742.4	743.5	744.7	745.8	748.5	753.0	757.3	761.7	766.0	768.6
125°	808.4	809.8	811.3	812.7	814.1	816.7	820.3	823.9	827.6	831.2	833.3
127.5°	871.8	872.8	873.8	874.7	875.7	877.6	880.4	883.3	886.1	889.0	891.2
130°	911.2	912.2	913.1	914.1	915.0	917.0	919.7	922.5	925.3	928.0	929.9
132.5°	949.9	951.3	952.5	953.8	955.1	956.5	957.9	959.4	960.9	962.3	964.8
135°	1005.8	1006.9	1008.1	1009.3	1010.5	1011.5	1012.3	1013.2	1014.0	1014.8	1016.8
137.5°	1057.1	1058.1	1059.1	1060.3	1061.3	1061.9	1062.1	1062.3	1062.6	1062.7	1065.0
140°	1090.1	1090.5	1091.0	1091.5	1091.9	1092.1	1092.1	1092.0	1091.9	1091.9	1094.4
142.5°	1120.5	1120.5	1120.7	1120.9	1120.9	1121.2	1121.6	1121.9	1122.3	1122.6	1124.4
145°	1165.0	1165.2	1165.5	1165.8	1166.1	1166.2	1166.2	1166.2	1166.2	1166.2	1167.4
147.5°	1203.1	1203.0	1202.9	1202.8	1202.8	1202.8	1203.1	1203.4	1203.6	1204.0	1204.5
150°	1227.7	1227.2	1226.9	1226.4	1225.9	1225.9	1226.4	1226.9	1227.2	1227.7	1228.2
152.5°	1251.5	1250.5	1249.5	1248.6	1247.5	1247.2	1247.7	1248.2	1248.6	1249.0	1249.5
155°	1282.1	1280.7	1279.4	1278.0	1276.6	1276.2	1276.6	1277.1	1277.6	1278.0	1278.7
157.5°	1305.7	1304.9	1304.0	1303.2	1302.4	1302.0	1302.0	1302.1	1302.2	1302.2	1302.9
160°	1322.1	1320.7	1319.4	1318.0	1316.6	1316.1	1316.3	1316.5	1316.8	1317.0	1317.9
162.5°	1335.2	1333.9	1332.5	1331.1	1329.8	1329.2	1329.4	1329.7	1329.8	1330.1	1331.3
165°	1352.9	1351.5	1350.1	1348.8	1347.4	1346.8	1347.0	1347.3	1347.5	1347.7	1349.1
167.5°	1366.0	1364.6	1363.2	1361.8	1360.3	1359.8	1359.9	1360.2	1360.4	1360.7	1362.3
170°	1373.4	1371.8	1370.2	1368.6	1367.0	1366.3	1366.5	1366.8	1367.0	1367.2	1369.0
172.5°	1378.3	1376.7	1375.1	1373.5	1371.9	1371.3	1371.7	1372.1	1372.5	1372.9	1374.6
175°	1383.6	1382.3	1380.9	1379.5	1378.2	1377.6	1377.8	1378.1	1378.3	1378.5	1380.3
177.5°	1386.1	1385.0	1383.9	1382.8	1381.7	1381.2	1381.5	1381.6	1381.8	1382.0	1383.3
180°	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	837.3	838.3	839.3	839.8	839.6	839.5	839.3	839.2
5°	834.7	836.1	837.7	838.3	838.0	837.9	837.7	837.6
7.5°	827.8	829.0	830.3	830.8	830.7	830.5	830.3	830.1
10°	821.2	822.4	823.7	824.3	824.1	823.9	823.7	823.6
12.5°	813.3	814.4	815.3	815.6	815.1	814.6	814.1	813.7
15°	798.6	799.7	800.8	801.0	800.3	799.5	798.8	798.0
17.5°	779.8	780.7	781.5	781.7	781.3	780.9	780.4	780.0
20°	765.4	766.0	766.5	766.8	766.8	766.8	766.8	766.8
22.5°	750.6	751.2	751.9	752.1	751.6	751.2	750.8	750.4
25°	727.1	727.9	728.6	728.5	727.5	726.7	725.7	724.8
27.5°	699.8	700.4	700.8	701.0	700.6	700.3	700.0	699.7
30°	681.1	681.5	681.8	682.0	681.8	681.6	681.4	681.2
32.5°	663.4	663.7	664.1	664.2	664.0	663.8	663.6	663.5
35°	634.6	635.2	635.7	636.0	636.0	636.0	636.0	636.0
37.5°	604.4	605.1	605.8	606.2	606.1	606.0	605.9	605.9
40°	583.9	584.7	585.4	586.0	586.3	586.7	587.1	587.4
42.5°	565.1	566.0	566.9	567.4	567.4	567.5	567.6	567.7
45°	534.9	536.1	537.4	538.1	538.4	538.5	538.7	538.9
47.5°	503.6	505.5	507.3	508.5	508.9	509.3	509.7	510.1
50°	482.8	484.9	486.9	488.1	488.7	489.3	489.8	490.4
52.5°	462.1	464.2	466.4	467.7	468.1	468.5	468.9	469.3
55°	429.4	431.4	433.4	434.7	435.5	436.3	437.0	437.7
57.5°	397.0	399.3	401.6	403.1	403.6	404.2	404.7	405.3
60°	374.9	377.6	380.4	382.0	382.5	383.1	383.7	384.2
62.5°	352.4	355.5	358.5	360.4	361.1	361.8	362.4	363.1
65°	318.9	321.7	324.4	326.1	326.9	327.6	328.4	329.1
67.5°	284.6	287.9	291.2	293.3	294.3	295.2	296.2	297.1
70°	261.2	264.7	268.2	270.4	271.5	272.6	273.7	274.8
72.5°	239.4	243.1	246.9	249.2	250.0	250.8	251.6	252.4
75°	206.4	210.1	213.7	216.0	216.9	217.9	218.7	219.7
77.5°	173.4	177.4	181.5	183.9	184.6	185.3	186.0	186.8
80°	153.7	157.7	161.7	164.1	164.9	165.6	166.3	167.0
82.5°	134.9	138.8	142.7	145.3	146.6	147.9	149.2	150.6
85°	109.2	113.3	117.3	120.0	121.5	122.9	124.5	125.9
87.5°	92.1	96.6	101.0	103.9	105.4	106.7	108.1	109.6
90°	94.6	99.9	105.3	108.9	110.9	112.8	114.8	116.8
92.5°	91.7	96.8	102.0	105.4	107.0	108.6	110.2	111.9
95°	86.8	92.0	97.1	100.4	101.6	102.9	104.2	105.4
97.5°	101.2	98.6	96.1	95.4	96.6	97.8	99.1	100.4
100°	170.9	140.8	110.7	95.7	95.9	96.0	96.3	96.4
102.5°	272.3	269.5	266.8	258.3	243.8	229.4	215.0	200.6
105°	358.2	361.9	365.5	367.9	368.9	369.9	371.1	372.1
107.5°	435.5	439.2	442.8	444.9	445.4	445.8	446.2	446.7
110°	485.3	488.1	490.8	493.1	494.6	496.1	497.6	499.1





TEST NUMBER: P333420-927

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

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	534.5	536.9	539.4	541.1	542.1	543.0	544.0	545.0
115°	609.2	611.6	613.9	615.0	614.7	614.4	614.2	613.9
117.5°	680.8	682.8	684.7	686.0	686.6	687.3	687.9	688.6
120°	727.2	729.9	732.5	733.9	733.8	733.8	733.7	733.7
122.5°	771.1	773.6	776.1	777.2	777.1	776.8	776.6	776.3
125°	835.3	837.3	839.3	840.4	840.7	840.9	841.1	841.4
127.5°	893.4	895.6	897.9	898.7	898.0	897.4	896.8	896.1
130°	931.8	933.7	935.6	936.4	936.2	936.0	935.7	935.5
132.5°	967.2	969.6	972.1	973.0	972.7	972.3	971.9	971.6
135°	1018.7	1020.6	1022.5	1023.3	1022.8	1022.3	1021.9	1021.4
137.5°	1067.2	1069.4	1071.7	1072.6	1072.1	1071.7	1071.3	1070.8
140°	1096.9	1099.3	1101.8	1102.7	1102.1	1101.5	1100.8	1100.2
142.5°	1126.2	1128.1	1129.9	1130.4	1129.8	1129.2	1128.5	1127.9
145°	1168.5	1169.7	1170.8	1171.0	1170.4	1169.7	1169.1	1168.5
147.5°	1205.1	1205.6	1206.2	1205.9	1204.5	1203.2	1201.9	1200.6
150°	1228.7	1229.1	1229.5	1229.0	1227.3	1225.7	1224.1	1222.4
152.5°	1250.0	1250.5	1250.9	1250.3	1248.7	1247.1	1245.5	1243.9
155°	1279.4	1280.0	1280.7	1280.2	1278.3	1276.5	1274.7	1272.9
157.5°	1303.7	1304.4	1305.1	1304.6	1302.7	1300.9	1299.1	1297.3
160°	1318.8	1319.7	1320.6	1320.2	1318.3	1316.5	1314.7	1312.9
162.5°	1332.6	1334.0	1335.2	1334.8	1332.8	1330.8	1328.8	1326.8
165°	1350.4	1351.9	1353.2	1353.0	1351.1	1349.3	1347.5	1345.7
167.5°	1364.0	1365.6	1367.2	1367.0	1364.9	1362.9	1360.9	1358.8
170°	1370.9	1372.7	1374.5	1374.4	1372.4	1370.3	1368.3	1366.2
172.5°	1376.3	1377.9	1379.5	1379.3	1377.3	1375.2	1373.2	1371.1
175°	1382.1	1383.9	1385.8	1385.7	1383.6	1381.6	1379.5	1377.4
177.5°	1384.6	1385.8	1387.1	1387.0	1385.5	1384.1	1382.6	1381.2
180°	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6	1383.6

(END OF REPORT)