



## TEST REPORT

Date	21/11/2016	Test report No.	IN161783-01REV01
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### LABORATORY

CLIMATICS

ADDRESS	POLÍGONO INDUSTRIAL DE A GRANXA- 36400 PORRIÑO
PERSON IN CHARGE	JOSÉ ANTONIO POZA

### CUSTOMER

AIRFAL INTERNATIONAL

PLANT/FACTORY	AIRFAL INTERNATIONAL.
ADDRESS	RÍO ÉSERA, 4 VILLANUEVA DE GÁLLEGO (50830), ZARAGOZA (SPAIN)
CONTACT NAME	JAVIER ESCAMILLA.
POSITION	--

### TEST

COLD RESISTANCE TEST

TEST CODE	161783.001.001	SAMPLES RECEPTION DATE	21/10/2016
SAMPLE CODE	SEE TABLE	START DATE	09/11/2016
Nº OF SAMPLES	1	END DATE	10/11/2016
TESTING EQUIPMENT	CLIMATIC CHAMBER CHALLENGE 600C, ANGELANTONIE INDUSTRIES (CL060010000).		

REMARK: THIS TEST REPORT REPLACES AND SUPERSEDES PREVIOUS REPORT IN161783-01.

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## 1. SAMPLES DESCRIPTION

### 1.1. DESCRIPTION OF THE SAMPLES.

CODE CTAG	REFERENCE
161783/0001	Lamp FT-FRZ01 - FROZEN

*Table 1. Samples codes.*

### 1.2. INITIAL PHOTOS OF THE SAMPLES.



*Photo 1. Sample before the test.*



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## 2. METHOD IDENTIFICATION

### 2.1. TEST METHOD AND REFERENCE STANDARDS.

The aim of the test is to determine the resistance of the samples to climatic conditions shown in the particular specification **EN60068-2-1**.

### 2.2. TEST CONDITIONS.

The test is carried out with the following temperatures and relative humidity profiles according to client specifications:

- Number of cycles: 1 cycles.
- Cycle conditions:

PERIOD	INITIAL CONDITIONS		FINAL CONDITIONS		DURATION
	TEMPERATURE (°C)	MOISTURE (% HR)	TEMPERATURE (°C)	MOISTURE (% HR)	
1	23	---	-50	---	2 h
2	-50	---	-50	---	16 h
3	-50	---	23	---	2 h
4	23	---	23	---	2 h

Table 2. Test conditions.

- Sample energizing: Sample is energized 1 minute each 2 hours.

### 2.3. TEST DURATION.

The duration of the whole test is 22 h.

### 2.4. PRETREATMENT OF THE SAMPLES.

The samples become stabilized in the laboratory under normal conditions of temperature and relative humidity.

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## 2.5. SITUATION AND ORIENTATION OF SAMPLES TEST INSIDE THE CHAMBER.

The samples have been situated inside the chamber as are shown in the following photo.



*Photo 2. Test samples inside the chamber.*

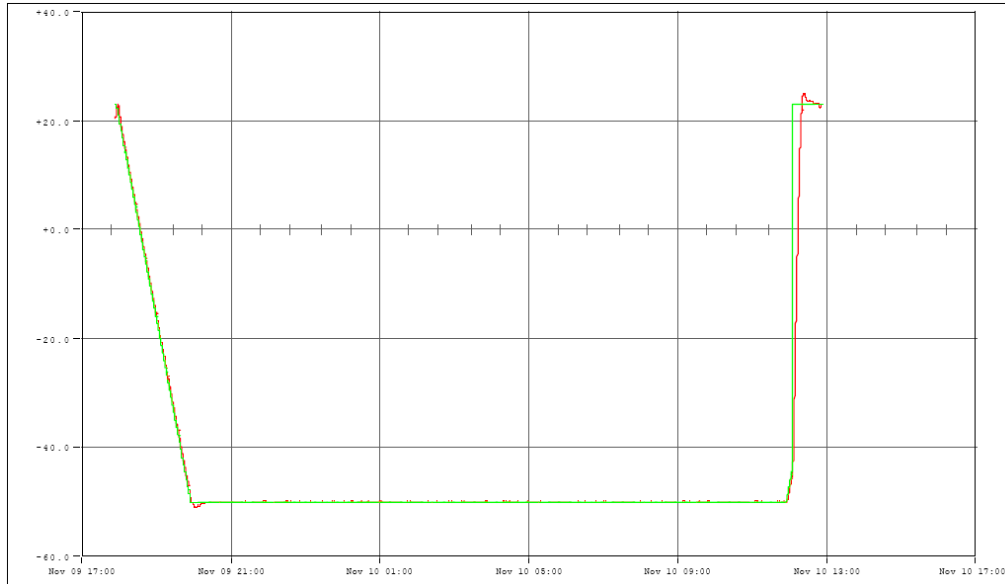


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## 3. RESULTS AND MEASUREMENT UNITS

### 3.1. CHAMBER MONITORING.



Graph 1. Test monitoring.

Legend:

- - - - Chamber's temperature.
- - - - Temperature set point.

### 3.2. INCIDENCES DURING THE TEST.

There were no incidents during the test.

### 3.3. CONDITIONS OF THE SAMPLES AFTER THE TEST.

No damages detected in visual and functional inspections carried out at the end of test.

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The next photos show the sample after the test.



*Photo 3. Samples after the test.*



*Photo 4. Samples after the test.*

**Remark:** Results refer exclusively to the test sample.



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## 4. UNCERTAINTY

**Remark:** Uncertainty applied for this test is available for the client.

## 5. DEVIATIONS FROM THE PROCEDURE

Not applied.

## 6. ENVIRONMENTAL CONDITIONS

Usual atmospheric conditions

## 7. DECLARATION OF CONFORMITY

Not applied.

## 8. CONFIDENTIALITY

*"The CTAG compromises itself and guarantees the confidentiality of the totality of the activities and information related to this report, included the spreading of commercial information or of reserved property and all information that could violate the managerial privacy and the confidentiality of the information."*

PERFORMED BY	TEST ENGINEER	RATIFIED BY	LABORATORY HEAD
NAME	ALBERTO BERNARDEZ	NAME	ALBERTO BERNARDEZ
SIGNATURE		SIGNATURE	

*To solve any doubt, for any explanation or to send us any comment you would consider convenient, do not hesitate to contact us*

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