



Project: 06CA27374
File: MC15305
Date: 6/27/2006
Model: FLR17P10W120V &
US66P300M220V10

Electromagnetic Compatibility Test Report

For

Calorique Ltd.

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File Number: 06CA27374
Project Number: MC15305
Model Number: FLR17P10W120V & US66P300M220V10

Issued: 6/27/2006

Test Report Details

Tests Performed By: **Underwriters Laboratories Inc.
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Melville, NY 11747**

Tests Performed For: **Calorique Ltd.
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Test Report Date: **6/27/2006**

Product Type: **In-Floor Warming System**

Model Number: **FLR17P10W120V & US66P300M220V10**

Sample Serial Number: **Prototype**

Sample Tag Number: **0793625**

Sample Receive Date: **5/25/2006**

EUT Category: **Appliance**

Testing Start Date: **6/16/2006**

Date Testing Complete: **6/16/2006**

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Report Revision History

Revision Date	Description	Revised By	Revision Reviewed By
6/27/2006	Original	--	--

1.0 GENERAL - Product Description

Calorique's floor warming system provides even, comfortable warmth that permeates a room. With floor warming, not only are surfaces warmed and people made comfortable, but the floor is warmed to just the right amount for it to be the most pleasant to walk upon.

1.1 Device Configuration During Test

1.1.1 Equipment Used During Test:

Use*	Product Type	Manufacturer	Model	Comments
EUT	Floor Warmers	Calorique	FLR17P10W120V	None
EUT	Floor Warmer	Calorique	US66P300M220V10	None

* Use = EUT - Equipment Under Test, ACC - Accessory (Not Subjected to Test), or SIM - Simulator (Not Subjected to Test)

1.1.2 Input/Output Ports:

Port #	Name	Type*	Cable Max. >3m	Cable Shielded	Comments
0	Enclosure	N/E	-	-	None
1	Mains	AC	No	No	None

*AC = AC Power Port

DC = DC Power Port

N/E = Non-Electrical

I/O = Signal Input or Output Port (Not Involved in Process Control)

PMC = Process Measurement and Control Port

1.1.3 EUT Internal Operating Frequencies:

None

1.1.4 Power Interface:

Mode #	Voltage (V)	Current (A)	Power (W)	Frequency (DC/AC-Hz)	Phases (#)	Comments
1	120	-	-	AC-60Hz	1	FLR17P10W120V
2	230	-	-	AC-50Hz	1	US66P300M220V10

1.2 EUT Operation Modes:

Mode #	Description
1	EUT performing warming function, as intended.

1.3 EUT Configuration Modes:

Mode #	Description
1	EUT connected to respective AC power source and spread out on insulating surface.

"The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report"

1.4 Block Diagram:

The diagram below illustrates the configuration of the equipment above.



1.5 Deviations from standard test methods

Not Applicable

1.6 Device Modifications Necessary for Compliance

Not Applicable.

1.7 Test Summary

Test Name Test Requirement/Specification	Comply	Does Not Comply	See Remark
Electromagnetic Fields EN50366: 2003	Y	-	1

Remarks:

- 1) No Modifications required for compliance.
- 2) Modifications required to comply as described in Section 1.6

2.0 Conclusion:

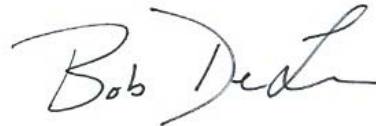
The tests listed in the Summary of Testing section of this report have been performed and the results recorded by Underwriters Laboratories Inc. in accordance with the procedures stated in each test requirement and specification. The test list was determined by the Applicant as being applicable to the Equipment Under Test. As a result, the subject product has been verified to comply or not comply as noted in the Summary of Testing with each test specification. The test results relate only to the items tested.

The equipment under test has met the technical requirements as defined under section 5.0

Test Start Date: 6/16/2006
Test Completion Date: 6/16/2006



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3.0 Calibration of Equipment Used for Measurement

All test equipment and test accessories are calibrated on a regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less.

All test equipment calibrations are traceable to the National Institute of Standards and Technology (NIST); therefore, all test data recorded in this report is traceable to NIST.

4.0 TEST REGULATIONS

The emissions tests were performed according to following regulations:

----- International -----	
EN 50366:2003	Household and similar electrical appliances — Electromagnetic fields — Methods for evaluation and measurement

5.0 Electromagnetic Fields

5.1.1 EMF Test Procedure

Measurements were made in the general laboratory. Tests for maximum EMF were made with the measuring probe directly above the EUT. The probe was moved back and forth, horizontally, across the EUT until maximum EMF was recorded.

5.1.2 EMF Setup

1 fully configured sample was scanned over the following frequency range:

B-fields:			Mode*	
			Power	Operation
Frequency Range	10Hz to 400kHz	Detector RMS, Filter 10Hz	<u>1</u>	<u>1</u>
Test Distance (cm)**	0			
Coupling Factor**	NA			

*See Power Interface and EUT Operating Modes for details

** Determined from Appendix A of EN50366.

5.2 EMF Results

Laboratory Environmental Conditions at time of test.			
Temperature:	23.5 °C	Humidity:	50.0 %RH
		Pressure:	1016 mbar

	Percent	Percent
	FLR17P10W120V	US66P300M220V10
Maximum Measured Background Noise:	0.447	1.48
Maximum Measured EMF Value:	1.693	3.3

$$W = (\text{Measured Percentage}) \times (1/100)$$

	Weighted Result (W)	Weighted Result (W)	Limit
	FLR17P10W120V	US66P300M220V10	
Maximum Weighted EMF Result:	0.01693	0.033	1

The results of this test **complied** with the requirements.

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Test Equipment Information					
Inst. ID No.	Manufacturer	Model	Function/Range	Last Cal. Date	Next Cal. Date
34950	Narda	ELT-400	B-Field	5/25/2005	5/31/2007
5B454-ICO	Stanley	PowerLock II	Inches	1/18/2004	10/31/2007



EMF Test Setup

Appendix A

Accreditations and Authorizations



NVLAP Lab code: 100255-0

NVLAP: Recognized under the National Voluntary Laboratory Accreditation Program (NVLAP) for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC EN17025 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. The specific scope includes IEC/CISPR 22:1997, Amendment 1:1995, Amendment 2:1997, EN 55022:1998, AS/NZS 1044, CNS 13438:1997, ANSI C63.4, FCC Method - 47 CFR Part 15, FCC Method -47 CFR Part 68, AS/NZS 3548, IEC 61000-3-2, EN 61000-3-2, CISPR 14-1, EN 55014-1, AS/NZS 1044, CNS 13783-1, CISPR 22, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, and IEC 61000-4-11 testing.



FCC: Details of the measurement facilities used for these tests have been filed with the Federal Communications Commission's Laboratory in Columbia, Maryland and accepted in a letter dated September 24, 1997 (Ref. No. 91040).



Industry Canada Industrie Canada

Industry of Canada: Accredited by Industry Canada for performance of radiated measurements. Our test site complies with RSP 100, Issue 7, Section 3.3. File #: IC 2181



VCCI: Accepted as an Associate Member to the VCCI. The measurement facilities detailed in this test report have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. Registration Nos.: (Radiated Emissions) R-797, (Conducted Emissions) C-832, C-833, C-834 and (Conducted Emissions - Telecommunications Ports) T-160.



ICASA: ICASA (Independent Communications Authority of South Africa) has appointed UL as a Designated Test Laboratory to test Telecommunications equipment for type approval in compliance with CISPR 22 to assist in fulfilling its mandate under section 54(1) of the Telecommunications Act, 1996 (Act 103 of 1996).



NIST/CAB: Validated by the European Commission as a U.S. Conformity Assessment Body (CAB) of the U.S.-EU Mutual Recognition Agreement (MRA) for the Electromagnetic Compatibility - Council Directive 89/336/EEC, Article 10 (2). Also validated for the Telecommunication Equipment-Council Directive 99/5/EC, Annex III and IV, Identification Number: 0983.

NIST/CAB: Provisioned to act as a U.S. Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the Asia Pacific Economic Cooperation (APEC) MRA between the American Institute in Taiwan (AIT) and the United States. Our laboratory is considered qualified to test equipment subject to the applicable EMC regulations of the Chinese Taipei Bureau of Standards, Metrology and Inspection (BSMI) which require testing to CNS 13438 (CISPR 22).

NIST/CAB: Recognized by the Infocomm Development Authority of Singapore (IDA) under the Asia Pacific Economic Cooperation Mutual Recognition Agreement (APEC MRA). Our laboratory is provisionally designated to act as a Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the APEC MRA. Our scope of designation includes IDA TS EMC (CISPR 22), IEC 61000-4-2, -4-3, -4-4, -4-5, and -4-6. U.S. Identifier Number: US0113