

**HUMIDITY TEST REPORT
FOR THE
AVIATION LANTERNS A704-5
PART NUMBER A704R-0005**

**MANUFACTURED BY
CARMANAH TECHNOLOGIES, INC.
BUILDING 4 – 203 HARBOUR ROAD
VICTORIA, B.C., CANADA V9A 3S2**

**PREPARED BY
ENVIRONMENT ASSOCIATES, INC.
2300 WEST CAPE COD WAY
SANTA ANA, CALIFORNIA 92703**

The results of the testing reported herein relate only to the actual items tested.

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Maintains Laboratory Accreditation to ISO/IEC 17025 and ISO 9001

A P P R O V A L S H E E T

Environment Associates hereby certifies that the information presented in this report is, to the best of our knowledge, true and correct in all respects.

ENVIRONMENT ASSOCIATES, INC.
Martin J. Povall Jr., Laboratory Manager

Date

Report Written by Gerald Flippen on March 31, 2006

R E V I S I O N S H E E T

| <u>REVISION LETTER</u> | <u>DESCRIPTION OF REVISION</u> | <u>DATE</u> | <u>APPROVAL</u> |
|------------------------|--------------------------------|-------------|-----------------|
| None | Original Issue | 03/31/06 | |

A D M I N I S T R A T I V E D A T A

PURPOSE OF TEST: **To demonstrate compliance to the applicable requirements of the specifications cited below.**

ITEM SUBJECTED TO TEST: **Aviation Lanterns A704-5
Part Number A704R-0005**

TEST SPECIFICATIONS: **A704-5 Test Plan**

SUBMITTED BY: **Carmanah Technologies, Inc.
Building 4-203 Harbour Road
Victoria, B.C., Canada V9A 3S2**

TESTING AGENCY: **Environment Associates, Inc.
2300 West Cape Cod Way
Santa Ana, California 92703**

DATES TESTING CONDUCTED: **February 22 thru February 27, 2006**

AUTHORIZATION TO TEST: **Carmanah Technologies Purchase Order Number
240266**

T A B L E O F C O N T E N T S

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S U M M A R Y O F T E S T R E S U L T S

| <u>TEST</u> | <u>SAMPLE NO.</u> | <u>SERIAL NO.</u> | <u>PASS/FAIL</u> |
|--------------|-------------------|-------------------|------------------|
| 2.0 Humidity | JC08250002 | | X |
| | JC08250012 | | X |
| | JC08250035 | | X |
| | JC08250037 | | X |

Note:

“Pass” in the column above indicates completion of the test.

1.3 TOLERANCES (Continued)

Unless otherwise described in this report, the environmental test equipment was capable of controlling the test equipment within the following tolerances:

Temperature at the control sensor: ± 2.0 degrees C
Sensor response time: <20 seconds
Relative Humidity at the control sensor: $\pm 5\%$ RH of the measured value

Time: $\pm 5\%$

Laboratory Ambient Conditions

All laboratory ambient conditions was maintained as follows:

Temperature: 25 ± 10 degrees C

Pressure: 30 ± 2 inches Hg

Relative Humidity: 90% maximum

2.0 HUMIDITY

2.1 REFERENCE

A704-5 Test Plan, Revision A, Paragraph 6.1

2.2 PROCEDURE

2.2.1

The Aviation Lanterns A704-5 listed below were placed in a humidity chamber. The Lanterns were operational during the humidity test.

Sample Number

JC08250002

JC08250012

JC08250035

JC08250037

2.2.2

The chamber temperature was increased to +40°C. The test samples were subjected to a twenty four (24) hour dwell at +40°C.

2.2.3

Upon completion of the dwell, the chamber relative humidity was increased to 95%.

2.2.4

The test samples were subjected to a ninety six (96) hour dwell at +40°C and 95% relative humidity. No functional anomalies were noted.

2.2.5

Upon completion of the ninety six (96) hour exposure the chamber was returned to site ambient conditions

2.2.6

The test samples were removed from the chamber and visually examined. There was no visible evidence of physical damage noted.

2.3 RESULTS

2.3.1

The humidity test was performed at the facility of Environment Associates, Inc., Santa Ana, California during the period of February 22 through February 27, 2006.

2.3.2

All inspection and operation of the test samples were by Environment Associates personnel at the direction of Carmanah Technologies personnel.

2.3.3

The test log may be found in Appendix I. The list of equipment used during the test may be found in Appendix II.

A P P E N D I X I

T E S T D A T A

2 . 0 H U M I D I T Y

**T h e t o t a l n u m b e r o f p a g e s i n
t h i s s u b s e c t i o n i s 8**

A P P E N D I X I I

T E S T E Q U I P M E N T L I S T S

**T h e t o t a l n u m b e r o f p a g e s i n
t h i s A p p e n d i x i s 2**