**CLIENT:** **Spirit Acoustics, Inc.**
**103 Sparta Road**
**Stanhope, NJ 07874**
Attn: Jerry Morgan

| Test Report No: 530217 | Date: January 30, 2006 |
|---|---|

**The following sample was submitted by the Client as: 1" thick Fiberglass Panel used as a Light Fixture Enclosure**

**DATE OF RECEIPT:** January 20, 2006

**TESTING PERIOD:** January 30, 2006

**AUTHORIZATION:** Order Confirmation Number 530217, dated January 23, 2006

**TEST REQUESTED:** The submitted sample was tested for Surface Burning Characteristics in accordance with the procedures outlined in ASTM E84-05.

**TEST RESULTS:** Continued on the following pages

**PREPARED BY:**

**Arthur D. Fiorino, Technician**
**Fire Technology**

**SIGNED FOR AND ON BEHALF OF**
**SGS U.S. TESTING COMPANY INC.**

**John Lomash, Manager**
**Hardlines Operations**

**CLIENT:** **Spirit Acoustics, Inc.**

**RESULTS:**

**INTRODUCTION:**

This report presents test results of Flame Spread and Smoke Developed Values per ASTM E-84-05. The report also includes Material Identification, Method of Preparation, Mounting and Conditioning of the specimens.

The tests were performed in accordance with the specifications set forth in ASTM E-84-05, Standard Test Method for Surface Burning Characteristics of Building Materials, both as to equipment and test procedure. This test procedure is similar to UL-723, ANSI No. 2.5, NFPA No. 255 and UBC 42-1.

The test results cover two parameters: Flame Spread and Smoke Developed Values during a 10-minute fire exposure. Inorganic cement board and red oak flooring are used as comparative standards and their responses are assigned arbitrary values of 0 and 100, respectively.

**PREPARATION AND CONDITIONING:**

Six pieces of sample supplied by the client was placed into the fire chamber end to end to form a 21 inch wide X 24 foot long specimen for testing. Inorganic cement boards were placed over the sample prior to testing as a means of protecting the interior of the tunnel lid.

The sample was conditioned at 73° ±5° Fahrenheit and 50 ±5% relative humidity.

**TEST PROCEDURE:**

The tunnel was thoroughly pre-heated by burning natural gas. When the brick temperature, sensed by a floor thermocouple, had reached the prescribed 105° Fahrenheit ± 5° Fahrenheit level, the sample was inserted in the tunnel and test conducted in accordance with the standard ASTM E-84-05 procedures.

The operation of the tunnel was checked by performing a 10-minute test with inorganic board on the day of the test.

**CLIENT:** **Spirit Acoustics, Inc.**

**RESULTS:**

**TEST RESULTS:**

The test results, calculated in accordance with ASTM E-84-05 for Flame Spread and Smoke Developed Values are as follows:

| | |
|---|---|
| Test Specimen | : 1" thick Fiberglass Panel used as a Light Fixture Enclosure |
| Flame Spread Index* | : 15 |
| Smoke Developed Value* | : 5 |

*Rounded off to the nearest 5 units. Graphs of the Flame Spread, Smoke Developed and Time-Temperature are shown on the attached charts at the end of this report.

**OBSERVATIONS:**

Ignition was noted at 10 seconds followed by:

- Charring
- Melting (scrim)
- Flaking
- Flashing
- Flaking Embers
- Slight Afterglow

**RATING:**

The National Fire Protection Association Life Safety Code 101, Section 6-5.3, "Interior Wall and Ceiling Finish Classification", has a means of classifying materials with respect to Flame Spread and Smoke Developed when tested in accordance with NFPA 255, "Method of Test of Surface Burning Characteristics of Building Materials", (ASTM E-84).

The classifications are as follows:

| | | |
|---|---|---|
| Class A Interior Wall & Ceiling Finish: | Flame Spread - | 0-25 |
| | Smoke Developed - | 0-450 |
| Class B Interior Wall & Ceiling Finish: | Flame Spread - | 26-75 |
| | Smoke Developed - | 0-450 |
| Class C Interior Wall & Ceiling Finish: | Flame Spread - | 76-200 |
| | Smoke Developed - | 0-450 |

Since the sample received a Flame Spread of 15 and a Smoke Developed Value of 5, it would meet the parameters for a Class A Interior Wall & Ceiling Finish Category.

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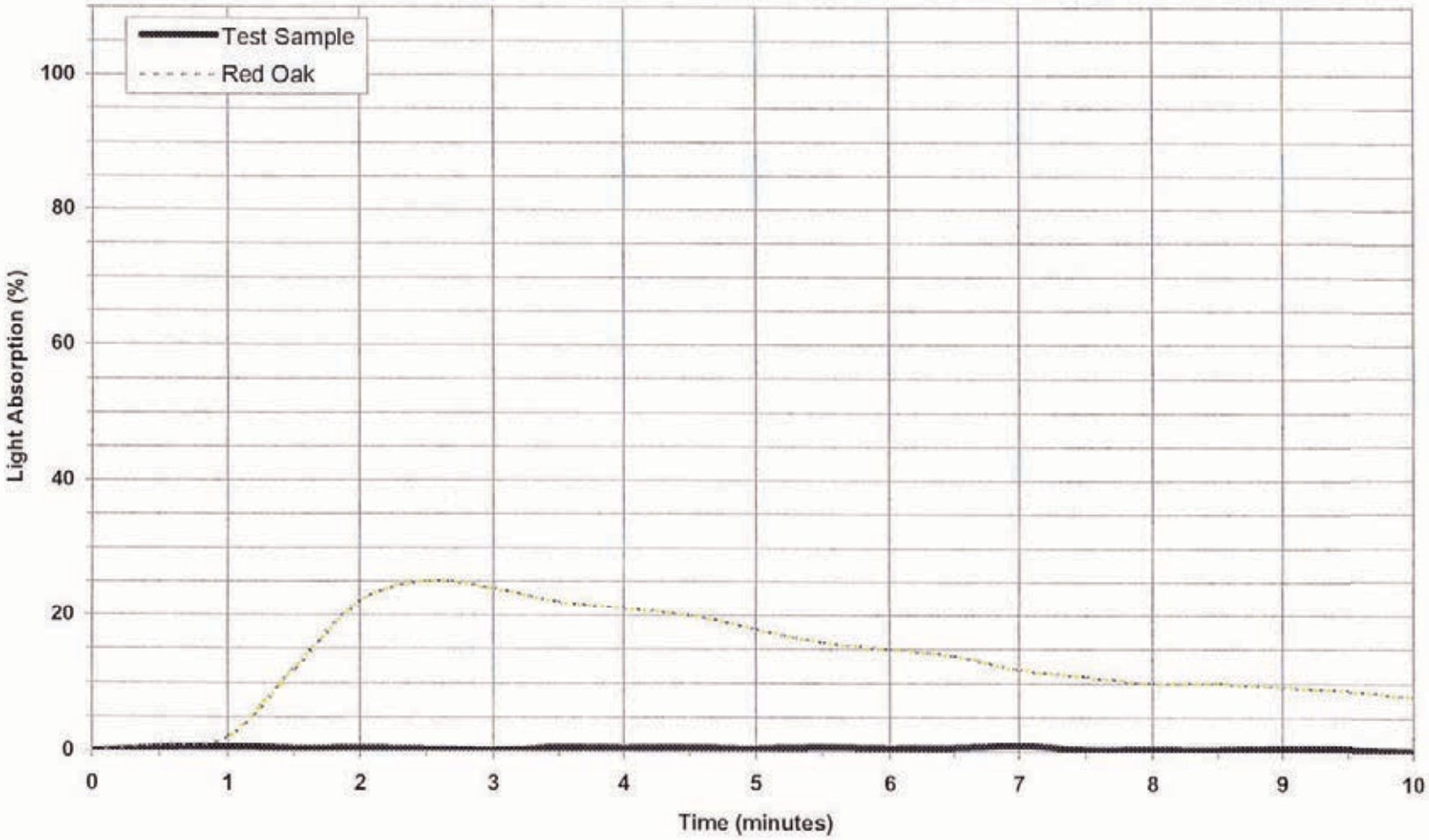
**End of Report**

Client: Spirit Acoustic, Inc.
Report No: 530217
Sample ID: Fiberglass Panel used as Light Fixture Enclosure

## Smoke Developed Chart



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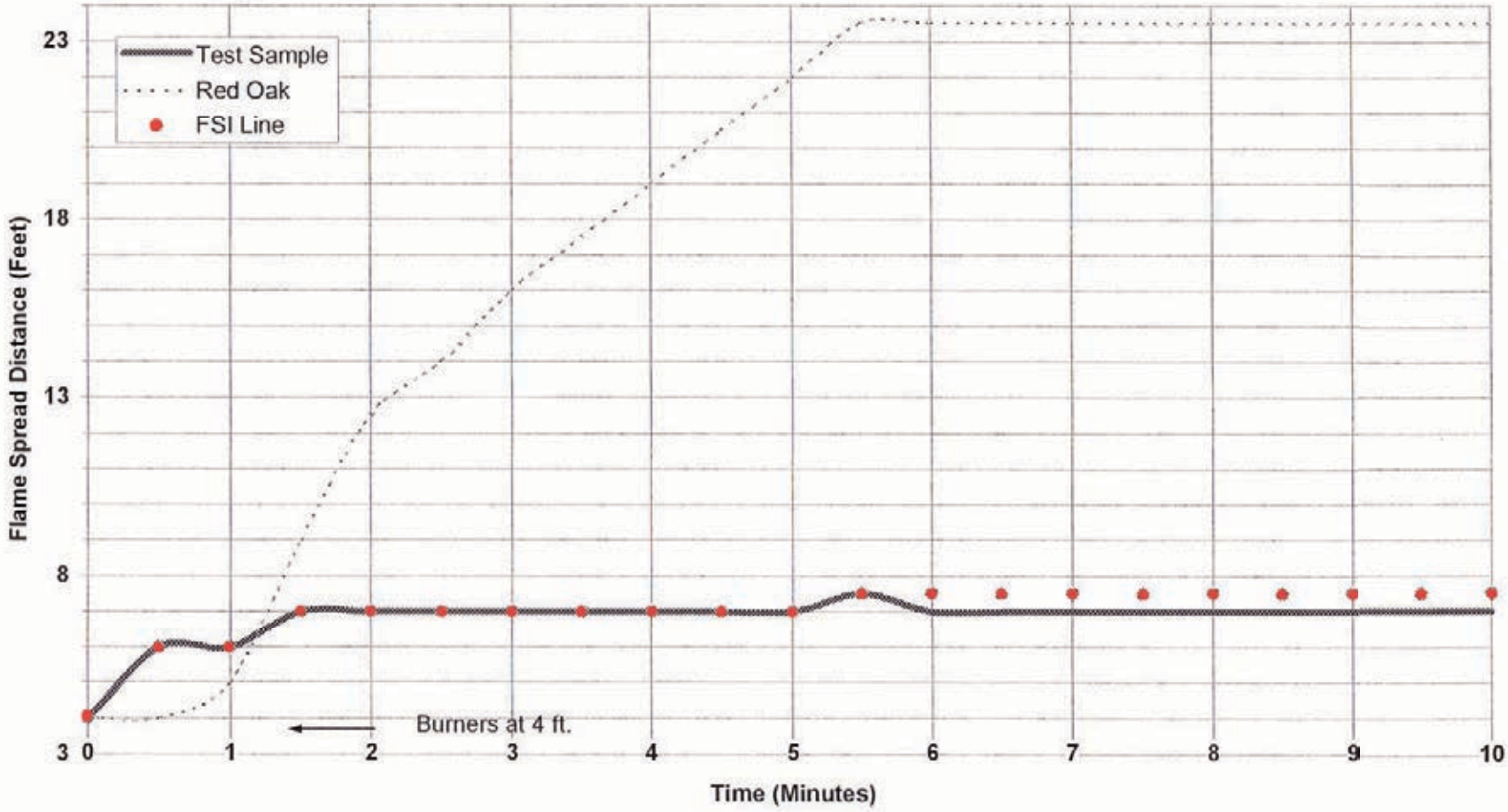
## Flame Spread Chart



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## Temperature - Time Curve