

# RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE  
GENEVA, ILLINOIS 60134

OF  
IIT RESEARCH INSTITUTE

708/232-0104  
FOUNDED 1918 BY  
WALLACE CLEMENT SABINE

## REPORT

FOR: Overly Manufacturing Company

Sound Transmission Loss  
Test RAL™-TL92-278

ON: Acoustical Vision Light Panel  
Model Number STC5592278

Page 1 of 3

CONDUCTED: 15 September 1992

### TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-90 and E413-87, as well as other pertinent standards. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure. A description of the measuring technique is available separately. The microphone used was a Bruel & Kjaer serial number 1330658.

### DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as an acoustical vision light panel Model number STC5592278. The overall dimensions of the specimen (less adaptor frame) were 914 mm (36 in.) wide by 2.13 m (84 in.) high and 203 mm (8 in.) deep. The specimen was placed directly in the client's adaptor frame and tested in the 1.22 m (4 ft) by 2.44 m (8 ft) test opening and was sealed on the periphery (both sides) with a dense mastic. The manufacturer's description of the specimen was as follows: A dual glazed 13 mm (0.5 in.) and 19 mm (0.75 in.) thick laminated light mounted in a composite frame assembly that incorporated zipper gaskets with a 14 gauge solid steel jamb, 16 gauge loose stops, plus loose stop mud plates. The vision light assembly was equipped with a dual purging port system to eliminate condensation between the glass. A visual inspection verified the manufacturer's description of the specimen. A manufacturer's detailed drawing file number 0667, page 5 of 13 is maintained on file. At the request of the manufacturer the details of the construction were purposely withheld from this report in order that the manufacturer may control full proprietary rights regarding the product. The weight of the specimen (glass and glazing only) as calculated was 199 kg (438 lbs). The total weight of the unit (including 4-sided frame, glass and glazing) was 224 kg (494 lbs) an average of 93.3 kg/m<sup>2</sup> (18.8 lbs/ft<sup>2</sup>). The transmission area used in the calculations was 1.95 m<sup>2</sup> (21 ft<sup>2</sup>). The source and receiving room temperatures at the time of the test were 24°C (75±2°F) and 58±2% relative humidity.

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.



ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY  
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.  
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES  
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.

# RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE  
GENEVA, ILLINOIS 60134

OF  
IIT RESEARCH INSTITUTE

708/232-0104  
FOUNDED 1918 BY  
WALLACE CLEMENT SABINE

## REPORT

Overly Manufacturing Company

RAL™-TL92-278

15 September 1992

Page 2 of 3

### TEST RESULTS

Sound transmission loss values are tabulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages. The precision of the TL test data are within the limits set by the ASTM Standard E90-90.

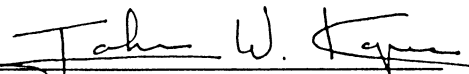
<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>	<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	41	0.37	0	800	56	0.30	1
125	40	0.47	0	1000	57	0.33	1
160	41	0.43	1	1250	58	0.30	1
200	42	0.46	3	1600	60	0.21	0
250	43	0.41	5	2000	62	0.18	0
315	46	0.39	5	2500	66	0.17	0
400	50	0.39	4	3150	68	0.12	0
500	51	0.35	4	4000	70	0.09	0
630	53	0.34	3	5000	71	0.10	0

STC = 55

### ABBREVIATION INDEX

- FREQ. - FREQUENCY, HERTZ, (cps)
- T.L. - TRANSMISSION LOSS, dB
- C.L. - UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT
- DEF. - DEFICIENCIES, dB<STC CONTOUR
- STC - SOUND TRANSMISSION CLASS

Submitted by   
Peter E. Straus  
Experimentalist

Reviewed by   
John W. Kopec  
Supervisor, Riverbank  
Acoustical Laboratories

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.



ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY  
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.  
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES  
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.

# RIVERBANK ACOUSTICAL LABORATORIES

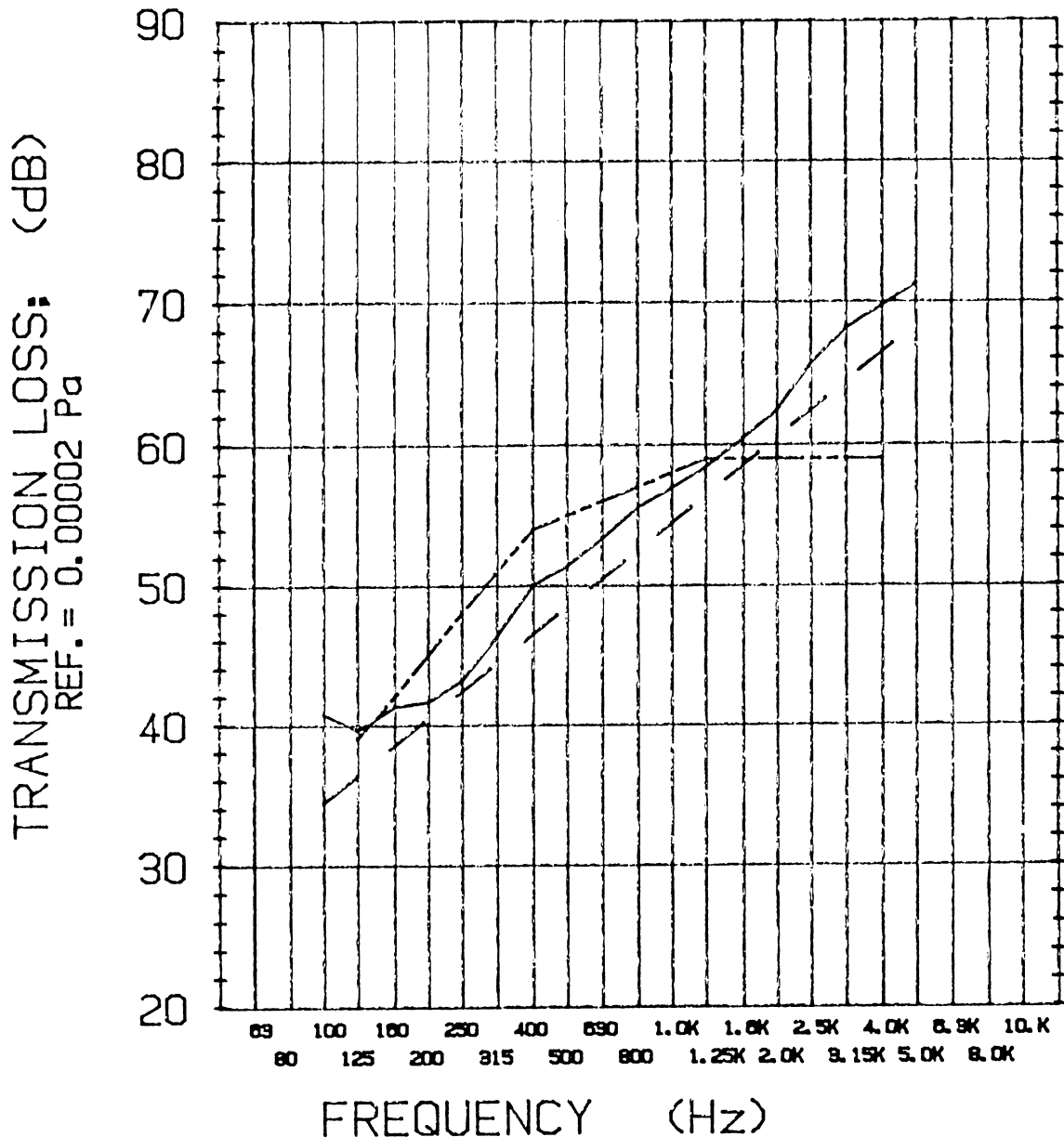
1512 BATAVIA AVENUE  
GENEVA, ILLINOIS 60134

OF  
IIT RESEARCH INSTITUTE

708/232-0104  
FOUNDED 1918 BY  
WALLACE CLEMENT SABINE

## REPORT

### TRANSMISSION LOSS REPORT RAL-TL92-278 Page 3 of 3



- TRANSMISSION LOSS
- - - - SOUND TRANSMISSION CLASS CONTOUR
- . - . MASS LAW CONTOUR

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.



ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY  
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.  
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES  
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.