

Fecha: 28/12/17	Responsable de la Medición: EM/FM
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I. INFORMACIÓN DEL ÁREA

Lugar: PT-R1	DAN DEMOSTRACION AL SONIDO	
Fuente de Ruido Medida: Receptor		Corregimiento / Ciudad: Arraijan / Hacienda Hato Puente
Coordenadas del Punto de Medición: 638 883 198 38 77		Datum: WGS 84
Colindantes del Punto de Medición: parte del Hato Montaña		

II. INFORMACIÓN AMBIENTAL

Humedad Relativa: 30 %	Temperatura: 29 °C	Vel. Viento: 7.0 km/h
Lluvia: no	Observaciones: Solato	

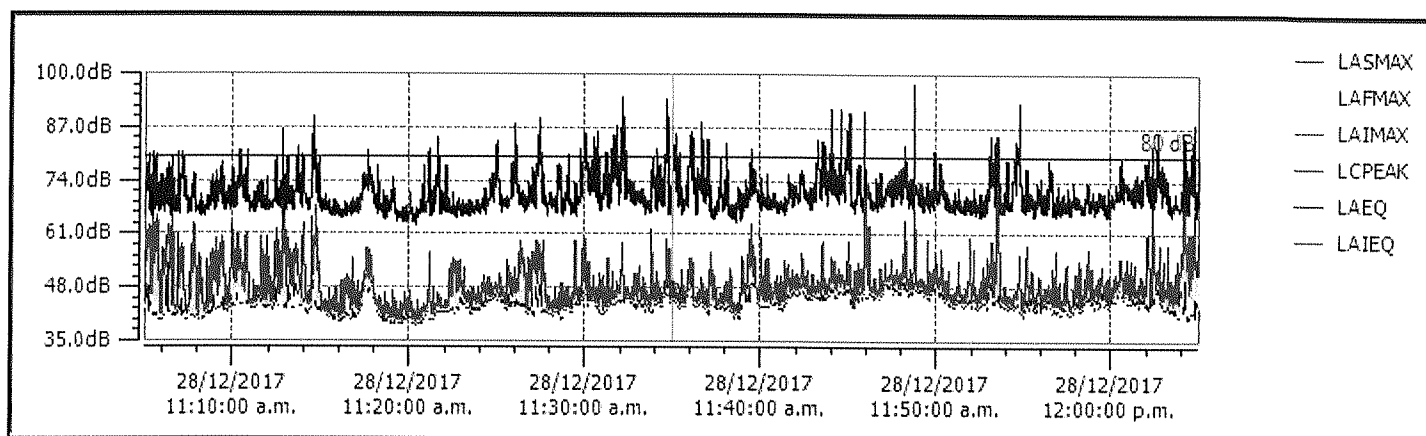
III. INFORMACIÓN DE PREPARACIÓN DEL INSTRUMENTO DE MEDICIÓN

Instrumento: <i>Sonómetro Cosella</i>	Modelo: <i>CEL-63X</i>	Serie #: <i>4638008</i>
Fecha de Calibración: <i>19 Dic/2018</i>		
Calibrador <i>Cosella 19/Dic/2018</i>	Modelo: <i>CEL-1201</i>	Serie #: <i>1021785</i>
Baterías Revisadas Sonómetro (Si/No): <i>✓</i>	Precalibración: Por:	Postcalibración: Por:
Baterías Revisadas Calibrador (Si/No): <i>✓</i>	<i>CALIBRADO A 94dB FM</i>	<i>VALIDADO A 94dB FM</i>

IV. INFORMACIÓN / RESULTADOS

[illegible]

Modelo Instrumento	CEL-633A		
Número serie	4638008	LCeq - LAeq	15.2 dB
No. Sesión	12	LAeq	52.9 dB
Fecha y hora inicial	12/28/2017 11:05:01 a.m.	LAE	112.763 dB
Duración	01:00:00 HH:MM:SS	Respuesta	Random
LAeq	47.2 dB	Fecha y hora final	12/28/2017 12:05:01 p.m.
LCpeak con hora	97.8 dB (12/28/2017 11:48:43 a.m.)	Duración pausa	00:00:00 HH:MM:SS
Lepd (Proy.)	47.2 dB	Calibración (antes) de fecha	12/28/2017 11:04:23 a.m.
Lex8h (Proy.)	47.2 dB	Calibración (antes) de SPL	94 dB
LAFmax con hora	77.1 dB (12/28/2017 11:45:53 a.m.)	Calibración (después) de fecha	12/28/2017 12:06:36 p.m.
LAlmax con hora	80.3 dB (12/28/2017 11:45:53 a.m.)	Movimiento de calibración	0.000000000 dB
LAFmin con hora	38.3 dB (12/28/2017 11:20:15 a.m.)	Sobrecarga	No
LAlmin con hora	38.7 dB (12/28/2017 11:20:15 a.m.)	Batería baja	No
LZeq	73.6 dB	Resulta	Period
LCeq	62.4 dB		
Notas			



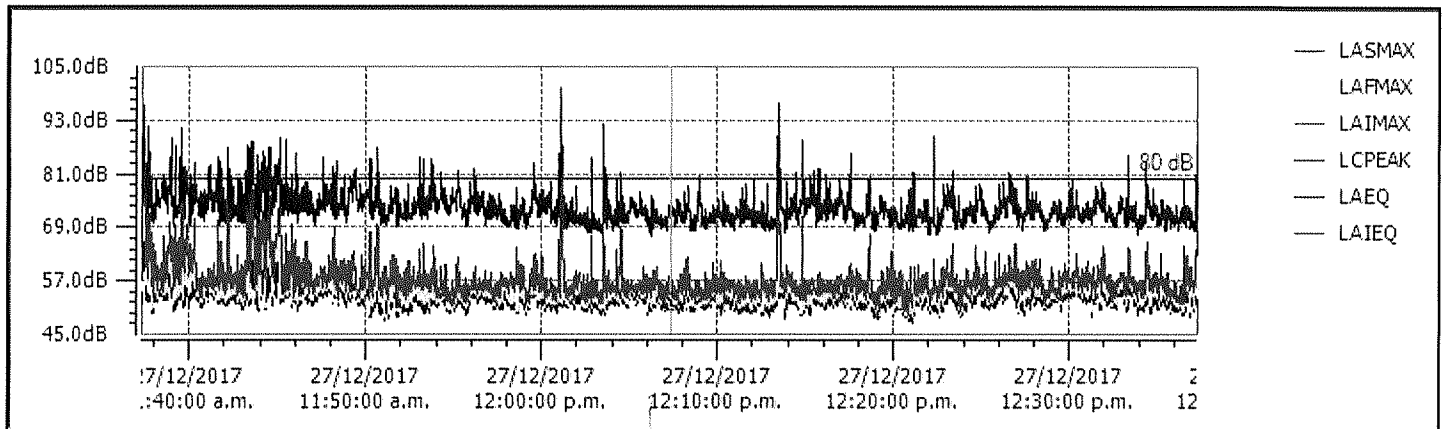
Date Time=01/10/18 22:01:00
Sampling Time=1
Record Num= 3601
Leq Value=58.2 SEL Value=93.7
MAX Value=71.5
MIN Value=50.3
Freq Weighting=A Time Weighting=Slow
0.0,22:01:00,
55.1,22:01:01,
54.6,22:01:02,
55.0,22:01:03,
55.9,22:01:04,
55.7,22:01:05,
55.6,22:01:06,
55.6,22:01:07,
56.0,22:01:08,
56.4,22:01:09,
56.5,22:01:10,
57.5,22:01:11,
57.6,22:01:12,
57.5,22:01:13,
57.3,22:01:14,
57.3,22:01:15,
57.9,22:01:16,
59.5,22:01:17,
60.0,22:01:18,
60.0,22:01:19,
60.0,22:01:20,
60.1,22:01:21,
60.2,22:01:22,
60.1,22:01:23,
59.9,22:01:24,
59.8,22:01:25,
59.7,22:01:26,
59.6,22:01:27,
59.5,22:01:28,
59.4,22:01:29,
59.3,22:01:30,
59.2,22:01:31,
59.1,22:01:32,
59.0,22:01:33,
58.9,22:01:34,
58.8,22:01:35,
58.7,22:01:36,
58.7,22:01:37,
58.6,22:01:38,
58.5,22:01:39,
58.5,22:01:40,
58.4,22:01:41,
58.5,22:01:42,
58.6,22:01:43,
58.8,22:01:44,
59.7,22:01:45,
60.2,22:01:46,

[illegible]

PT- R2 / 27 de diciembre 2017 /11:41 - 12:41



Modelo Instrumento	CEL-633A		
Número serie	4638008	LCeq - LAeq	8.1 dB
No. Sesión	10	LAeq	59.6 dB
Fecha y hora inicial	12/27/2017 11:37:21 a.m.	LAE	120.163 dB
Duración	01:00:00 HH:MM:SS	Respuesta	Random
LAeq	54.6 dB	Fecha y hora final	12/27/2017 12:37:21 p.m.
LCpeak con hora	100.1 dB (12/27/2017 12:01:07 p.m.)	Duración pausa	00:00:00 HH:MM:SS
Lepd (Proy.)	54.6 dB	Calibración (antes) de fecha	12/27/2017 11:37:01 a.m.
Lex8h (Proy.)	54.6 dB	Calibración (antes) de SPL	94 dB
LAFmax con hora	83.1 dB (12/27/2017 11:37:27 a.m.)	Calibración (después) de fecha	12/27/2017 12:38:06 p.m.
LAlmax con hora	85.2 dB (12/27/2017 11:37:27 a.m.)	Movimiento de calibración	0.000000000 dB
LAFmin con hora	47.3 dB (12/27/2017 12:21:04 p.m.)	Sobrecarga	No
LAlmin con hora	47.7 dB (12/27/2017 12:20:52 p.m.)	Batería baja	No
LZeq	68.2 dB	Resulta	Period
LCeq	62.7 dB		
Notas			




```

Date Time=01/11/18 23:19:00
Sampling Time=1
Record Num= 3600
Leq Value=55.5      SEL Value=91.1
MAX Value=74.7
MIN Value=42.6
Freq Weighting=A      Time Weighting=Slow
0.0,23:19:00,
47.2,23:19:01,
47.3,23:19:02,
48.6,23:19:03,
50.3,23:19:04,
50.6,23:19:05,
51.2,23:19:06,
52.3,23:19:07,
52.5,23:19:08,
52.3,23:19:09,
52.8,23:19:10,
52.7,23:19:11,
52.7,23:19:12,
52.6,23:19:13,
52.6,23:19:14,
52.6,23:19:15,
52.5,23:19:16,
52.5,23:19:17,
52.5,23:19:18,
52.4,23:19:19,
52.3,23:19:20,
52.2,23:19:21,
52.1,23:19:22,
51.9,23:19:23,
51.8,23:19:24,
51.7,23:19:25,
51.6,23:19:26,
51.5,23:19:27,
51.4,23:19:28,
51.3,23:19:29,
51.3,23:19:30,
51.3,23:19:31,
51.3,23:19:32,
51.3,23:19:33,
51.3,23:19:34,
51.6,23:19:35,
51.8,23:19:36,
51.8,23:19:37,
51.7,23:19:38,
51.7,23:19:39,
51.6,23:19:40,
51.5,23:19:41,
51.4,23:19:42,
51.4,23:19:43,
51.4,23:19:44,
51.3,23:19:45,
51.3,23:19:46,

```

Certificate of Conformity and Calibration

Instrument Model:-	CEL-633A	Preamplifier Type:-	CEL-495
Serial Number	4638008	Serial Number	2133
Firmware revision	V129-09		
Microphone Type:-	CEL-251	As Received:-	113.2
Serial Number	1088	As Adjusted:-	114.0
Instrument Class/Type:-	1		

Applicable standards:-

IEC 61672: 2002 / EN 60651 (Electroacoustics - Sound Level Meters)
IEC 60651 1979 (Sound Level Meters), ANSI S1.4: 1983 (Specifications For Sound Level Meters)

Note:- The test sequences performed in this report are in accordance with the current Sound level meter Standard - IEC61672. The combination of tests performed are considered to confirm the products electro-acoustic performance to all applicable standards including superceeded Sound Level Meter Standards - IEC60651 and IEC60804.

Test Conditions:-	23 °C	Test Engineer:-	John Moore
	61.3 %RH	Date of Issue:-	December 19, 2017
	1008.5 mBar	Date Due:-	December 19, 2018

Declaration of conformity:-

This test certificate confirms that the instrument specified above has been successfully tested to comply with the manufacturer's published specifications. Tests are performed using equipment traceable to NIST. This product is certified as being compliant to the requirements of the CE Directive.

Test Summary:-

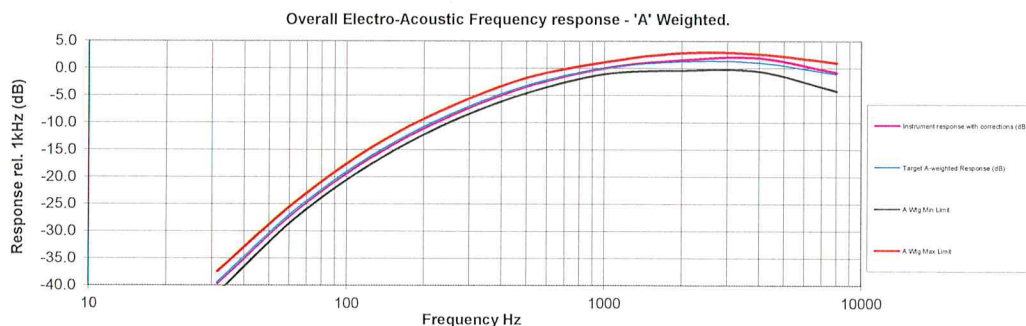
Self Generated Noise Test
Electrical Signal Test Of Frequency Weightings
Frequency & Time Weightings At 1 kHz
Level Linearity On The Reference Level Range
Toneburst Response Test
C-peak Sound Levels
Overload Indication
Acoustic Tests

All Tests Pass
All Tests Pass
All Tests Pass
All Tests Pass
All Tests Pass
All Tests Pass
All Tests Pass
All Tests Pass

Combined Electro-Acoustic Frequency Response - A Weighted

Combined Electro-Acoustic Frequency Response - A Weighted (IEC 61672-3:2006)

The following A-Weighted frequency response graph shows this instruments overall frequency response based upon the application of multi-frequency pressure field calibrations. The microphones Pressure to Free field correction coefficients are applied to pressure response. Reference level taken at 1kHz.



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Web: www.casellausa.com

Certificate of Conformity and Calibration

CASELLA CEL

Instrument Model: CEL-120/1 Acoustic Calibrator

Certificate #: 68347

Serial Number: 1021785

Calibration References:

Casella CEL hereby certifies that the above listed sound measuring instrument has been tested according to the manufacturer's specifications and meets the requirements of the relevant American National Standards Institute (ANSI) Standard for Sound Calibrators S1.40 - 1983 (R1997). This instrument was calibrated against standards which are either traceable to the National Institute of Standards and Technology (NIST) or they have been derived by approved ratio techniques.



Test Conditions:

23 °C
61.3 %RH
1008.5 mBar

Date of Issue:- December 19, 2017
Due Date:- December 19, 2018
Service Engineer:- John Moore

Declaration of conformity:-

This test certificate confirms that the instrument specified above has been successfully tested to comply with the manufacturer's published specifications. Tests are performed using equipment traceable to national standards. This product is certified as being compliant to the requirements of the CE Directive. Test accuracy ratio (TAR) ≥ 1 .

Summary:

The data represents the response of the sound level meter calibrator to the reference source corrected for atmospheric conditions at the time of calibration.

	Nominal Value	Tolerance	As Received	As Adjusted
Frequency (Hz)	1000.0	± 5.0	1000.1	1000.1
Level (dB)	114.0	± 0.3	114.0	114.0
Level (dB)	94.0	± 0.3	93.9	94.0

Standards Used in Calibration:

Serial Number

Calibration Due Date

Certificate Number

Sound Level Meter: CEL-620.A1
Multimeter: Fluke 45

5130002
4995184

1/30/2018
1/27/2018

27299-2
1447789

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CERTIFICADO DE CALIBRACION

No. 976Nombre de la empresa: **URS Holdings Inc.**Fecha de revisión: **31 de Julio del 2017**Marca de equipo: **Extech Instruments**Observaciones y/o trabajos a realizar:

1. Configuración general.
2. Calibración de Sonometro a 114 db / 94 db / 1 Khz.

Type: EXTECH INSTRUMENTS

Integrating Sound Level Meter

Model: **407780****Serial N°:** **70703045****Calibration Tech. Note:**

Extech Manual - 407750 Page-8

Calibration Instrument: EXTECH - Sound Level Calibrator, model 407744**Frecuency:** 94db / 1Khz, Calibrated-NIST Traceable**Serial Number:** **Z300298****Certification Number:** 21364**Calibration Instrument:** CEL 120/1 CASELLA / Sound Level Calibrator**Serial Number:** 1021785 **Frecuency:** 94dB-114dB ANSI S1.40-2006**Last Calibration:** **31 De Julio del 2017**

	<u>Test</u>
Results:	ok
Resolution/Acuracy:	± 1.5dB / 0.5dB
Level Calibrator:	114dB/94dB / 1Khz
Exposure Reading:	114 dB/94 dB
Band measure:	31.5 Hz - 8 kHz
Scale:	30 - 130 dB
Final Reading:	113.5 / 94.1dB


Departamento Serv. Tecnico
Felix Lopez

Certificate of Calibration

Certificate Number: 179990**Document Number: 13266****Customer Details:****Customer Name:** URS HOLDINGS INC**Instrument Details:****Manufacturer:** EXTECH INSTRUMENTS**Description:** SOUND LEVEL CALIBRATOR**Model Number:** 407766**Serial Number:** Z088929**Equip. ID Number:** N/A**Calibration Date:** November 28, 2017**Calibration Due:** November 28, 2018**Cal. Interval:** 12 MONTHS**As Received:** IN TOLERANCE**Environmental Details:****Temperature:** 21 Deg. +/- 5 C**Relative Humidity:** 40 % +/- 15 %**Procedures Used:****Calibration Procedure:** EICM407766-CP

Certification

Extech Instruments certifies that the instrument listed above meets the specifications of the manufacturer at the completion of its calibration. Standards used are traceable to the National Institute of Standards and Technology (NIST), or have been derived from accepted values, natural physical constants, or through the use of self-calibration techniques. Methods used are in accordance with ISO 10012-1 and ANSI/NCSL Z540-1-1994. This certificate is not to be reproduced other than in full, except with prior written approval of Extech Instruments Corporation.

Technicians Notes:**Technician:** STEVE SOUSA**Approved By:** 