

# Laboratory Test Report

CM-3000

Date: 23-Mar-01

## ANSI S3.19/S12.6 Testing – CM-3000

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1.0 Test Articles – Ten Model **CM-3000**

2.0 Applicable Specifications – ANSI S12.6 (ANSI S3.19 Real Ear Method)

3.0 Test Results – The results of the hearing protector acoustical tests and the Noise Reduction Rating (NRR) calculations are shown in Table 3.1. In accordance with 40CFR PART 211 – Product Noise Labeling, “Spectral uncertainty. Possible variation in exposure to the noise spectra in the workplace. (To avoid the under protection that would result from these variations relative to the assumed “Pink Noise” used to determine the NRR, an extra three decibel reduction is included when computing the NRR.)” The NRR rating in accordance with 40CFR211 is shown in Table 3.1.

Table 3.1: CM-3000 Ear Muff NRR Calculator Worksheet

1/3 octave centerband frequency	Measured 1/3-octave Data			Exterior to Earmuff		A-weighted Sound Levels in Earmuff
	Sound levels exterior to Earmuff	Average Earmuff Attenuation	Standard Deviation of Attenuation	C-weighted Sound Levels	A-weighted Sound Levels	
63	85	9.3	7.5	84.2	58.8	57.0
125	85	11.2	6.6	84.8	68.9	64.3
250	85	12.8	4.8	85.0	76.4	68.4
500	85	24.8	5.1	85.0	81.8	62.1
1000	85	36.5	4.2	85.0	85.0	52.7
2000	85	38.7	4.5	84.8	86.2	52.0
4000	85	34.4	4.5	84.2	86.0	56.1
8000	85	33.9	4.2	82.0	83.9	54.2
<b>Overall C Weighted Level =</b>				93.5		
<b>Overall A Weighted Level =</b>				71.1		
<b>Ear Plug NRR Value =</b>				22		
<b>OSHA Adjusted NRR =</b>				19		

Table 3.2: CM-3000 Ear Muff NRR Calculator Worksheet

Frequency	63	125	250	500	1000	2000	4000	8000
Mean Attenuation	9.3	11.2	12.8	24.8	36.5	38.7	34.4	33.9
Standard Deviation	7.5	6.6	4.8	5.1	4.2	4.5	4.5	4.2

### 4.0 Test Result Limitations

This test report certifies that **ONLY** the CM-3000 ear muff tested have the reported OSHA adjusted NRR ratings as shown in Table 3.1, and the mean attenuation levels listed in Table 3.2. EDI does not perform quality control on the ear muff manufacturers' materials or processes used to manufacture the ear muff, and therefore, **DOES NOT** certify that **ALL** CM-3000 ear muff will have the same OSHA adjusted NRR or mean attenuation levels.