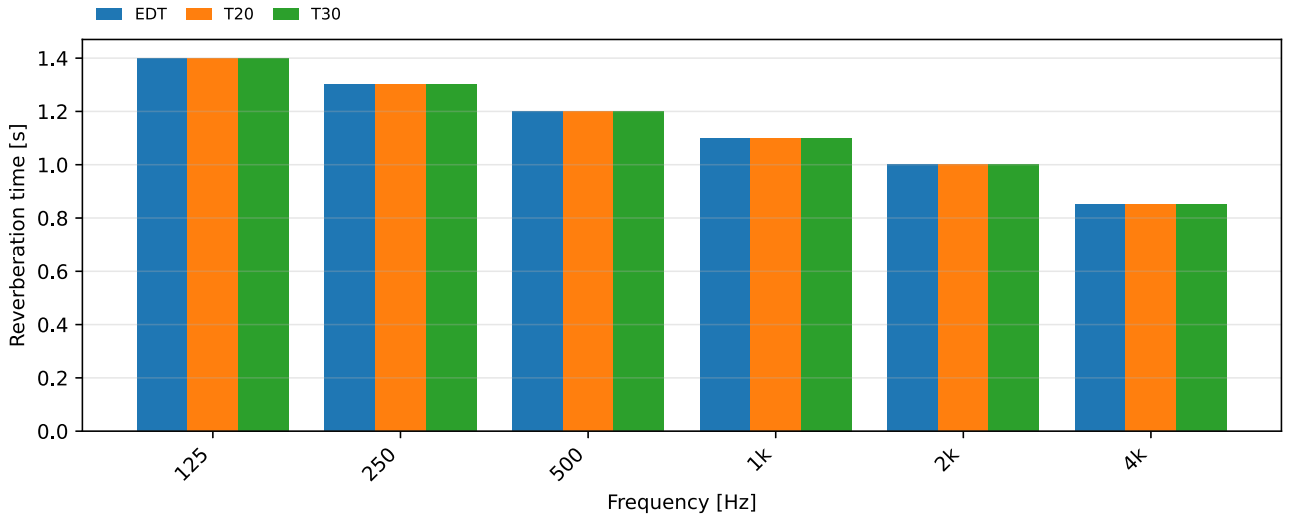
Room acoustic parameters

ISO 3382-1 measurement of room acoustic parameters by the integrated impulse-response method (ISO 3382-1:2009 / ISO 3382-2:2008).

Client:	Example client	Room:	Auditorium A (example)
Description:	Small auditorium, unoccupied, fully furnished	Room volume V [m³]:	2830
Floor area S [m²]:	340	Source positions:	2
Microphone positions:	8	Instrumentation:	Omnidirectional source + 1/2 in. microphone (example)
Temperature [°C]:	21	Relative humidity [%]:	45
Ambient pressure [kPa]:	101.1	Date of test:	2026-07-20

Octave-band parameters

f [Hz]	T_{20} [s]	T_{30} [s]	EDT [s]	C_{50} [dB]	C_{80} [dB]	D_{50}	T_S [ms]
125	1.40	1.40	1.40	–2.6	0.3	0.35	108
250	1.30	1.30	1.30	–2.0	0.9	0.39	98
500	1.20	1.20	1.20	–1.3	1.6	0.42	89
1000	1.10	1.10	1.10	–0.7	2.3	0.46	81
2000	1.00	1.00	1.00	–0.1	3.0	0.49	73
4000	0.85	0.85	0.85	1.0	4.2	0.55	62



T_{mid} (500-1000 Hz) = 1.15 s EDT_{mid} = 1.15 s

Result vs requirement: T_{mid} = 1.15 s, required ≤ 1.30 s → **PASS**

Decay curves by Schroeder backward integration with noise truncation and tail compensation (ISO 3382-1:2009, 5.3.3); T20 over -5 to -25 dB, T30 over -5 to -35 dB, EDT over 0 to -10 dB, each extrapolated to 60 dB (ISO 3382-2:2008, Clause 6; ISO 3382-1:2009, A.2.2).

C50/C80, D50 and TS follow ISO 3382-1:2009 Equations (A.10), (A.11) and (A.13). The just-noticeable differences (Table A.1) are 5 % for EDT/T, 1 dB for C80, 0.05 for D50 and 10 ms for TS.

Laboratory: Phonometry reference example
Report no.: EXAMPLE-3382
Date: 2026-07-20
Operator: phonometry Signature: _____

■ The results relate only to the tested specimen.