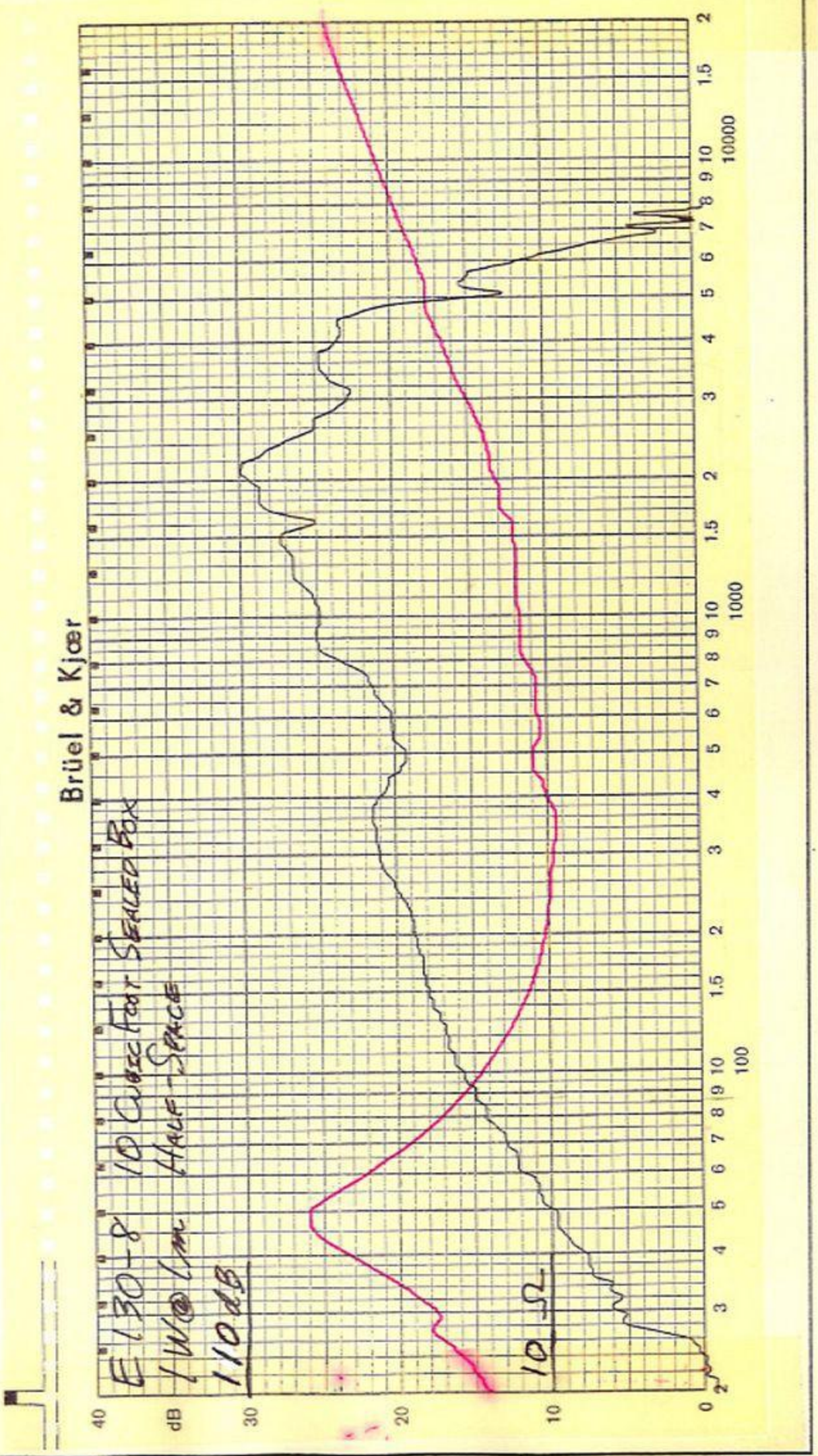
MODEL NO. E130-8

380 mm Musical Instrument Loudspeaker

Frequency Response: See attached curve, page 2	Measured under hemispherical free-field conditions
Impedance: See attached curve, page 2	
D.C. Resistance:	6.3 Ohms
Voice Coil:	52 turns, #28 aluminum ribbon wire, 7.366 mm (0.290 in.) axial length mounted on aluminum/Kapton support
Flux Density:	1.35 T
Free Air Resonance:	40 Hz
Motional Impedance:	70 Ohms
Minimum Impedance:	7.3 Ohms @ 350 Hz
Polarity:	Positive voltage to black terminal gives forward diaphragm motion.
Power Test:	34.5 volts RMS swept 100 Hz to 500 Hz @ 10 Hz rate one hour duration

DESIGN ENGINEER Mark R. Gander
Mark R. Gander


Brüel & Kjær
dB
40
30
20
10
0
2
3
4
5
6
7
8
9
10
100
1.5
1000
10000
E130-8" 10 Cubic Foot Sealed Box
1W@1m. Half-Space
110 dB
10 Ω

E130-8 MPR #6e

R_E = 6.5 Ohms Z_M = 69.17 Ohms f_s = 38.72 Hz f_c = 37.88 Hz

R_1 = 21.20 Ohms f_1 = 18.26 Hz f_2 = 78.61 Hz

Q_{TS} = .1924 Q_{MS} = 2.047 Q_{ES} = .2123

Z_{MCT} = 70.10 Ohms f_{st} = 69.30 Hz f_{ct} = 68.34 Hz

R_{1ct} = 21.34 Ohms f_{1ct} = 45.80 Hz f_{2ct} = 102.0 Hz

Q_{TCT} = .3702 Q_{MCT} = 3.993 Q_{ECT} = .4081

$$V_{AS} = 4.6 \left[\frac{(.4081)(69.30)}{(.2123)(38.72)} - 1 \right] = 11.226$$

n_o = 8.28 % SPL for 1 Watt @ 1 m = 101.33 dB

C_{AS} = 2.238X10-6 m^5/N S_D = .089 m^2 C_{MS} = 2.8254X10-4 m/N

M_{MS} = .05979 kg Bl = 21.10 N/A L = .4601 mH

Minimum Impedance (Z_{min}) 7.5 Ohms @ 284.0 Hz