



TECHNICAL SPECIFICATIONS ASR660

DESCRIPTION

A biamplified 3-way full range system (passive mid/high crossover) in a rectangular enclosure. Includes 2x 12-in woofers (separated vertically to create a dipolar array), a horn-loaded 10-in MF cone and a 1.4-in exit/44mm voice coil HF compression driver on a 60 x 45 constant directivity horn.

APPLICATION

The ASR660 is engineered for use in permanent installations. Dipolar array technology provides effective vertical pattern control to 200 Hz while maintaining a 22.5-in enclosure height. Excellent for use directly above a microphone position. Includes comprehensive 3/8"-16 mounting/suspension points. Six year warranty.

Applications include:

- Stadiums
- Arenas
- Dance Clubs
- Theaters
- Performing Arts Centers
- Houses of Worship

DESCRIPTIVE DATA

Part Number	999673
Product Group	I
System Configuration	3-way, Full Range
Powering Configuration(s)	Biamplified (passive MF/HF crossover)
LF Subsystem & Loading	2x 12-in, Vented, Dipolar Array
MF Subsystem & Loading	1x 10-in, Horn-Loaded
HF Subsystem & Loading	1x 1.4-in exit/44mm voice coil Compression Driver on Constant Directivity Horn
Recommended High-Pass Frequency (24 dB/Octave)	50 Hz
System Crossover	320 Hz
Cabinet Type (shape)	Rectangular
Enclosure Materials	Baltic Birch Plywood
Finish	Black Polyurethane
Connectors	2x 2-Terminal Barrier Strip
Suspension Hardware	(12) 3/8"-16 Threaded Mounting/Suspension Points (3 each Top and Bottom, 2 on Sides and Back)
Grill	Powder Coated Perforated Steel
Options	104001 3/8"-16 Eyebolt (FC300B)



NOMINAL DATA

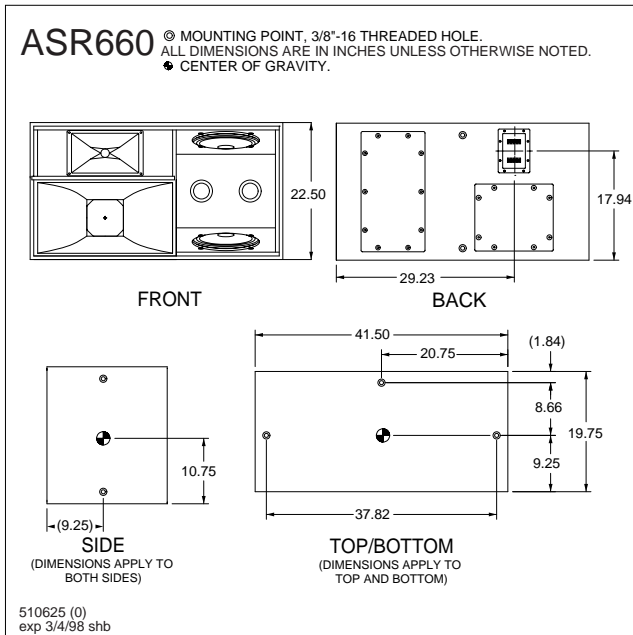
Frequency Response (1 Watt @ 1m)			
	±3 dB	58 Hz to 17 kHz	
	-10 dB	48 Hz	
Axial Sensitivity (dB SPL, 1 Watt @ 1m)			
	Passive MF/HF	105	
	LF	100	
Impedance (Ohms)			
	Passive MF/HF	8	
	LF	4	
Power Handling, AES Standard (Watts)			
	Passive MF/HF	360	
	LF	800	
Calculated Maximum Output (dB SPL @ 1m)			
	Passive MF/HF Peak	136.6	
	LF Peak	135.0	
	Passive MF/HF Long term	130.6	
	LF Long Term	129.0	
Nominal Coverage Angle/-6 dB points (degrees)			
	Horizontal	60	
	Vertical	45	
Dimensions			
		inches	millimeters
	Height	22.50	572
	Width	41.50	1054
	Depth	19.75	502
Weights			
		pounds	kilograms
	Net Weight	154	70.1
	Shipping Weight	172	78.3





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DIMENSIONAL DRAWING



ARCHITECTURAL SPECIFICATIONS

The biamplified 3-way full range loudspeaker systems shall incorporate 2x 12-in LF transducers, a 10-in MF cone and a 1.4-in exit/44mm voice coil HF compression driver.

The LF drivers shall be mounted in slanted baffles and separated to create a dipolar array. The MF driver shall be loaded into a midrange horn constructed of 3mm birch plywood backed with high density polyurethane foam. The HF driver shall be loaded on a constant directivity horn with a nominal coverage pattern of 60° (h) x 45° (v). An internal passive filter network shall provide fourth order acoustical crossover and system equalization between the MF and HF sub-systems.

System frequency response shall vary no more than ± 3 dB from 58 Hz to 17 kHz measured on axis. The mid/high section shall produce a Sound Pressure Level (SPL) of 105 dB SPL on axis at 1 meter with a power input of 1 Watt, and shall be capable of producing a peak output of 136.6 dB SPL on axis at 1 meter. The low frequency section shall produce a Sound Pressure Level (SPL) of 100 dB SPL on axis at 1 meter with a power input of 1 Watt, and shall be capable of producing a peak output of 135.0 dB SPL on axis at 1 meter. The mid/high section shall handle 360 Watts of amplifier power (AES Standard) and shall have a nominal impedance of 8 Ohms. The low frequency section shall handle 800 Watts of amplifier power (AES Standard) and shall have a nominal impedance of 4 Ohms.

The loudspeaker enclosure shall be rectangular in shape. It shall be constructed of 15mm thickness void-free cross-grain-laminated Baltic birch plywood and shall employ extensive internal bracing. It shall be finished in black polyurethane. Input connectors shall be 4-terminal barrier strip. Twelve (12) 3/8"-16 threaded mounting/suspension points (3 each top and bottom, 2 on each side and back) shall be provided. The front of the loudspeaker shall be covered with a powder coated perforated steel grill.

The biamplified 3-way full range loudspeaker shall be the EAW model ASR660.

SERVICE ITEMS

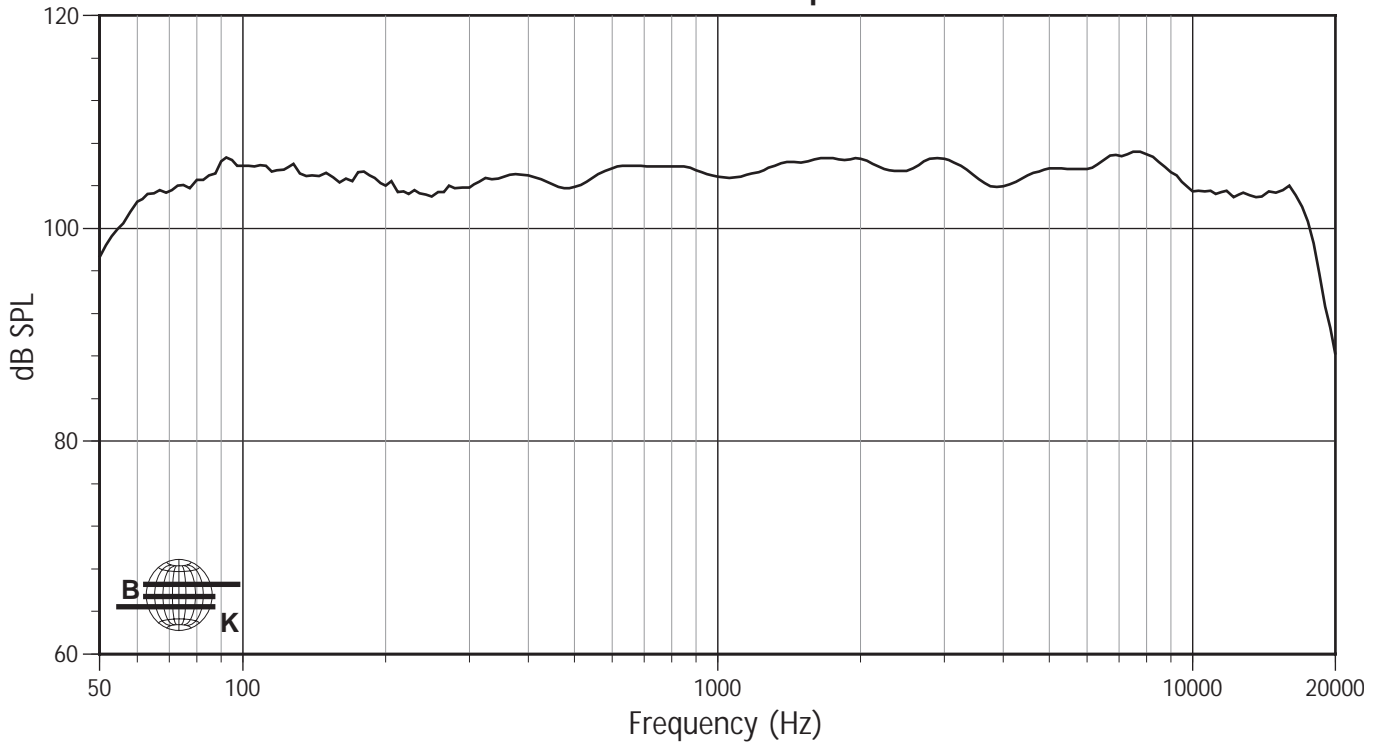
LF: Complete Cone Driver	EAW Part No. 804051
MF: Complete Cone Driver	EAW Part No. 804021
HF: Complete Compression Driver/Tweeter	EAW Part No. 803039
LF: Recone Assembly	EAW Part No. 460048
MF: Recone Assembly	EAW Part No. 460010
HF: Diaphragm Assembly	EAW Part No. 806019
Filter/Crossover Network: Complete Assembly	EAW Part No. 225340



PERFORMANCE SPECIFICATIONS ASR660

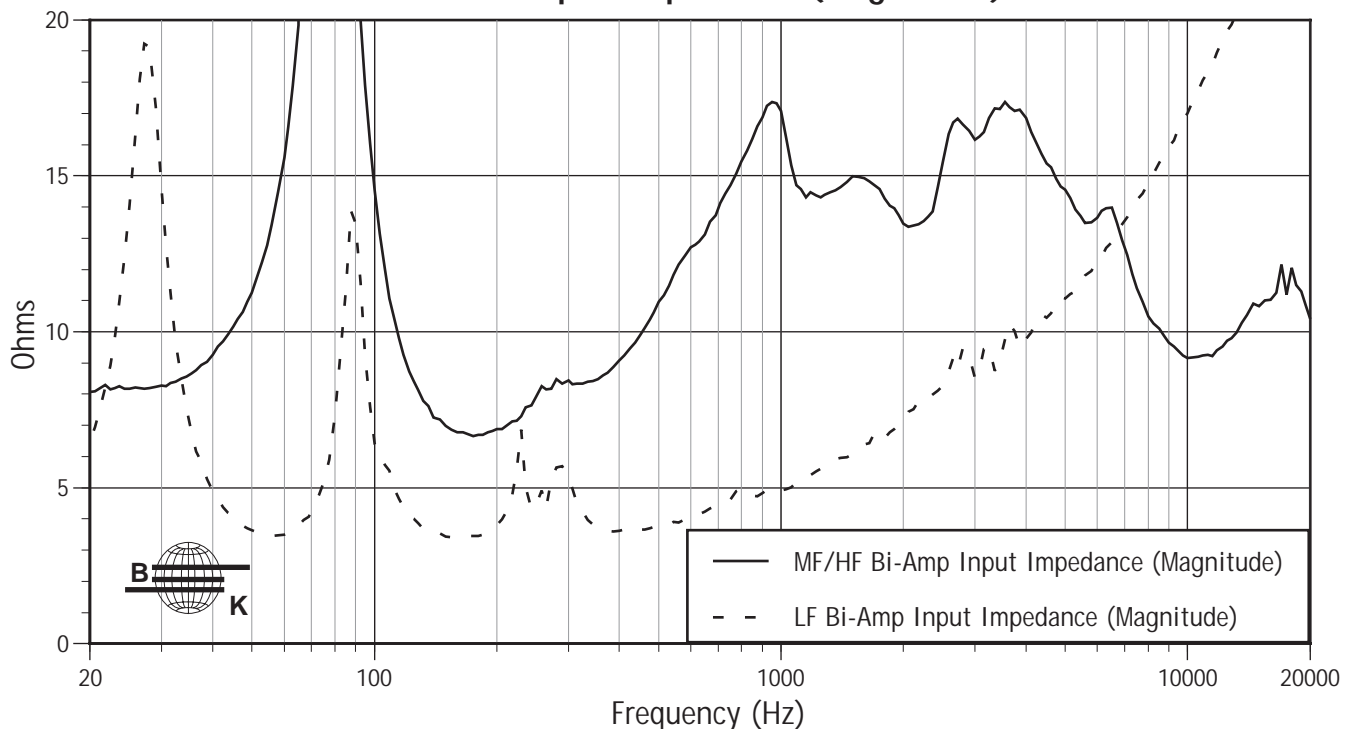
FREQUENCY RESPONSE

ASR660 Axial Response



INPUT IMPEDANCE

ASR660 Input Impedance (Magnitude)

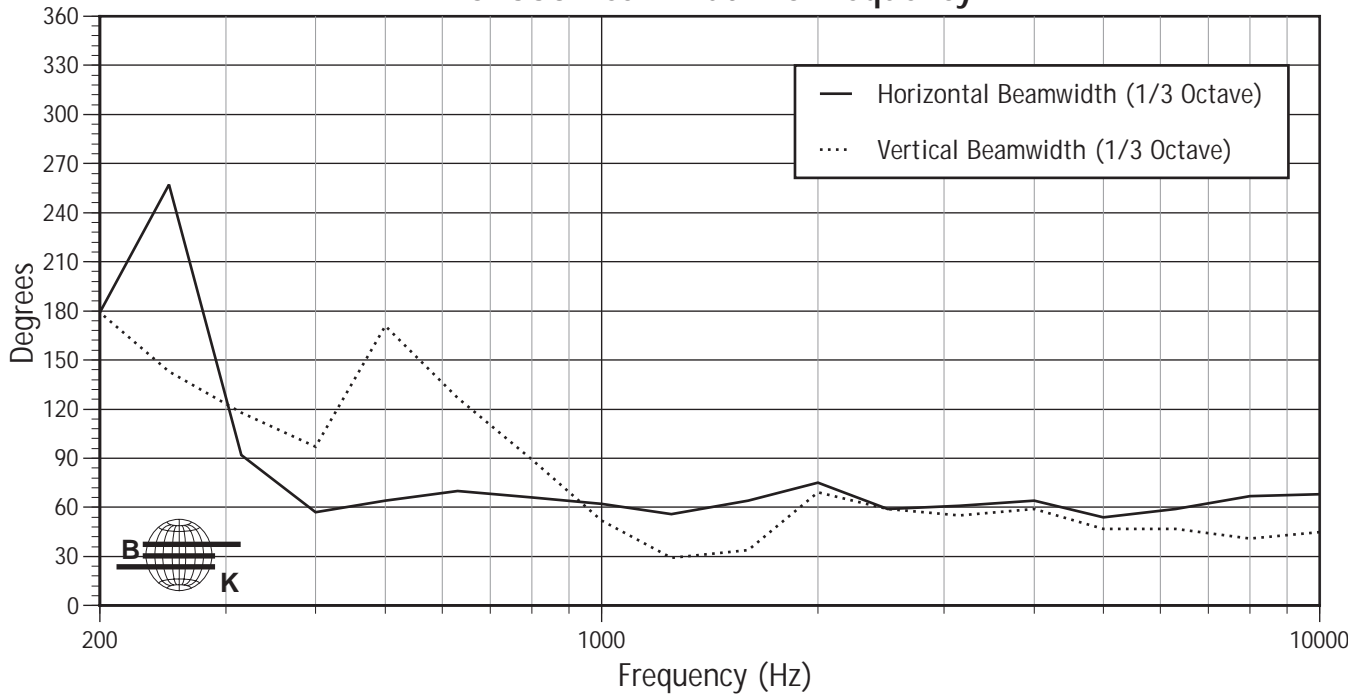




PERFORMANCE SPECIFICATIONS ASR660

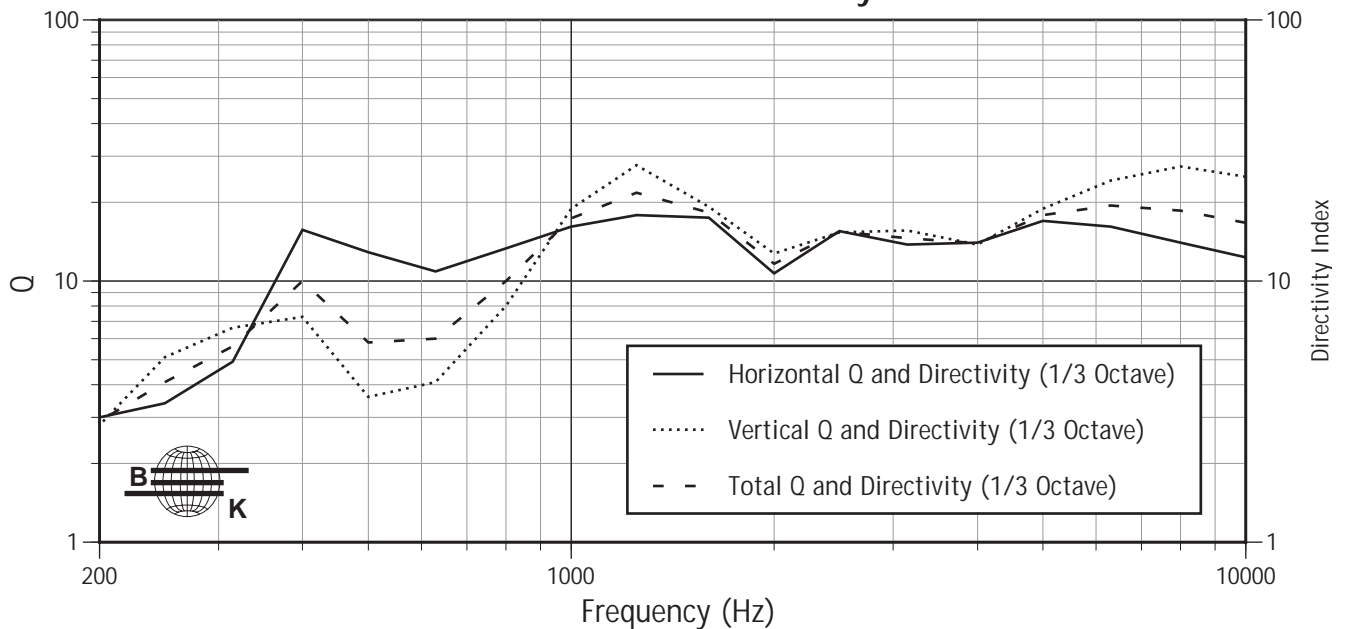
BEAMWIDTH

ASR660 Beamwidth vs Frequency



Q & DIRECTIVITY INDEX (DI)

ASR660 Q and Directivity





PERFORMANCE SPECIFICATIONS ASR660

Q & DIRECTIVITY & BEAMWIDTH BY FREQUENCY

Frequency	Hor Beamwidth	Ver Beamwidth	Hor Q & Dir	Ver Q & Dir	Tot Q & Dir
100	360	360	1.5	1.9	1.7
125	360	360	1.6	1.8	1.7
160	149	154	3	3.1	3
200	179	179	3	2.8	2.9
250	257	143	3.4	5.1	4.1
315	92	118	4.9	6.6	5.6
400	57	97	15.7	7.3	10
500	64	171	12.9	3.6	5.8
630	70	127	10.9	4.1	6
800	66	89	13.3	8	10
1000	62	52	16.1	18.9	17.4
1250	56	29	17.9	27.8	21.8
1600	64	34	17.5	19.2	18.3
2000	75	69	10.7	12.7	11.6
2500	59	59	15.5	15.3	15.4
3150	61	55	13.8	15.6	14.6
4000	64	59	14	13.8	13.9
5000	54	47	17	18.9	17.9
6300	59	47	16.1	24.2	19.4
8000	67	41	14	27.5	18.6
10000	68	45	12.3	25.1	16.7
12500	56	27	19.4	45.8	27.3
16000	54	30	18.6	37.6	25.1
20000	36	33	27.7	31	29.3

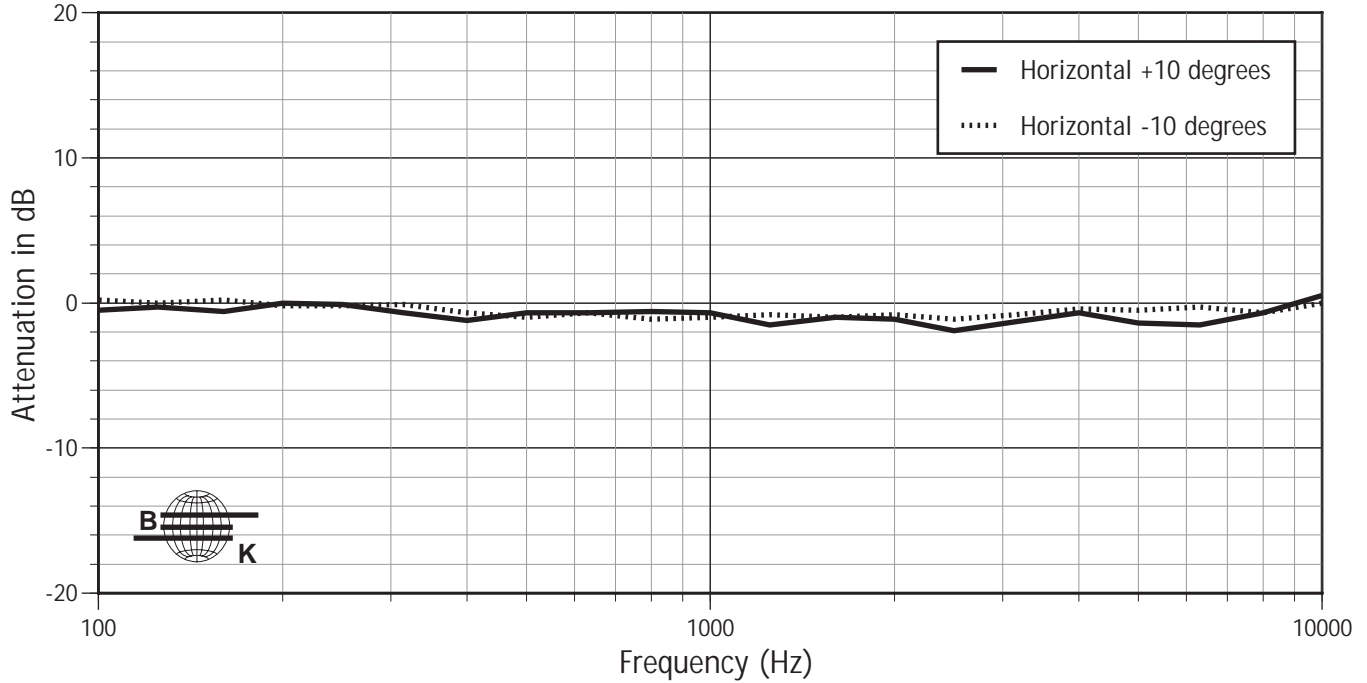


PERFORMANCE SPECIFICATIONS ASR660

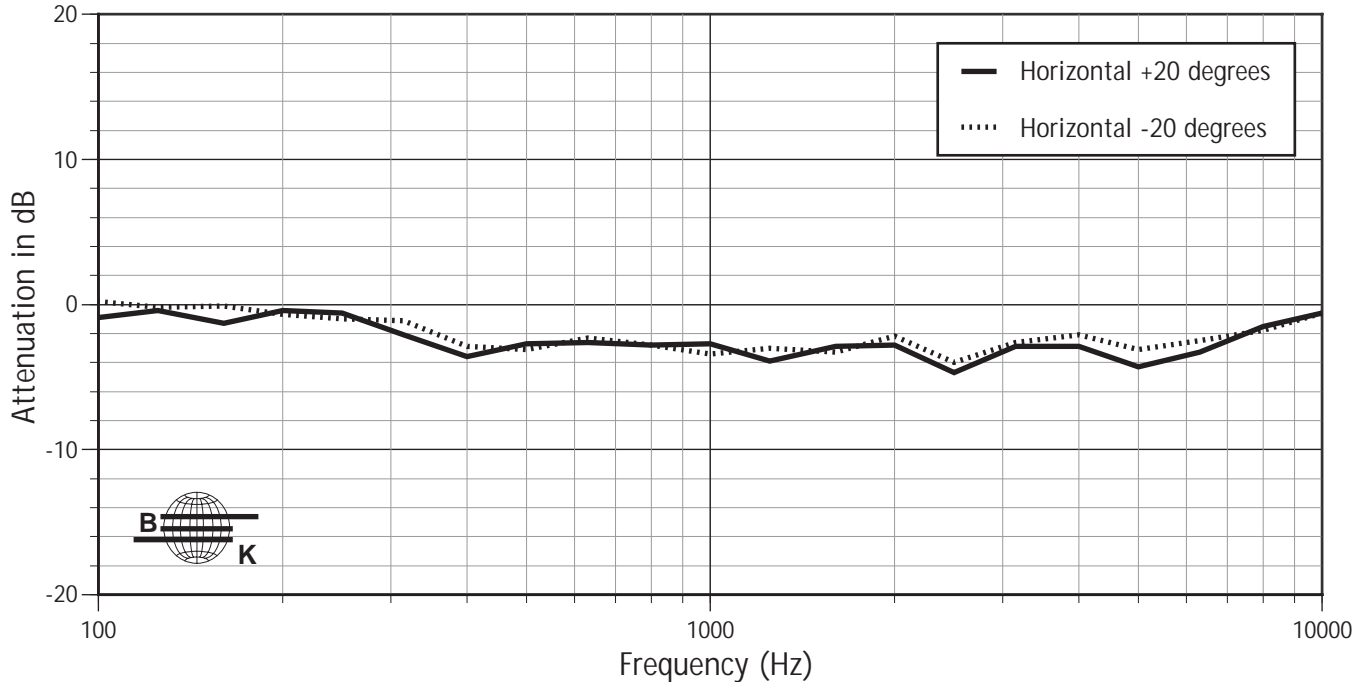
HORIZONTAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.

ASR660 Horizontal $\pm 10^\circ$



ASR660 Horizontal $\pm 20^\circ$



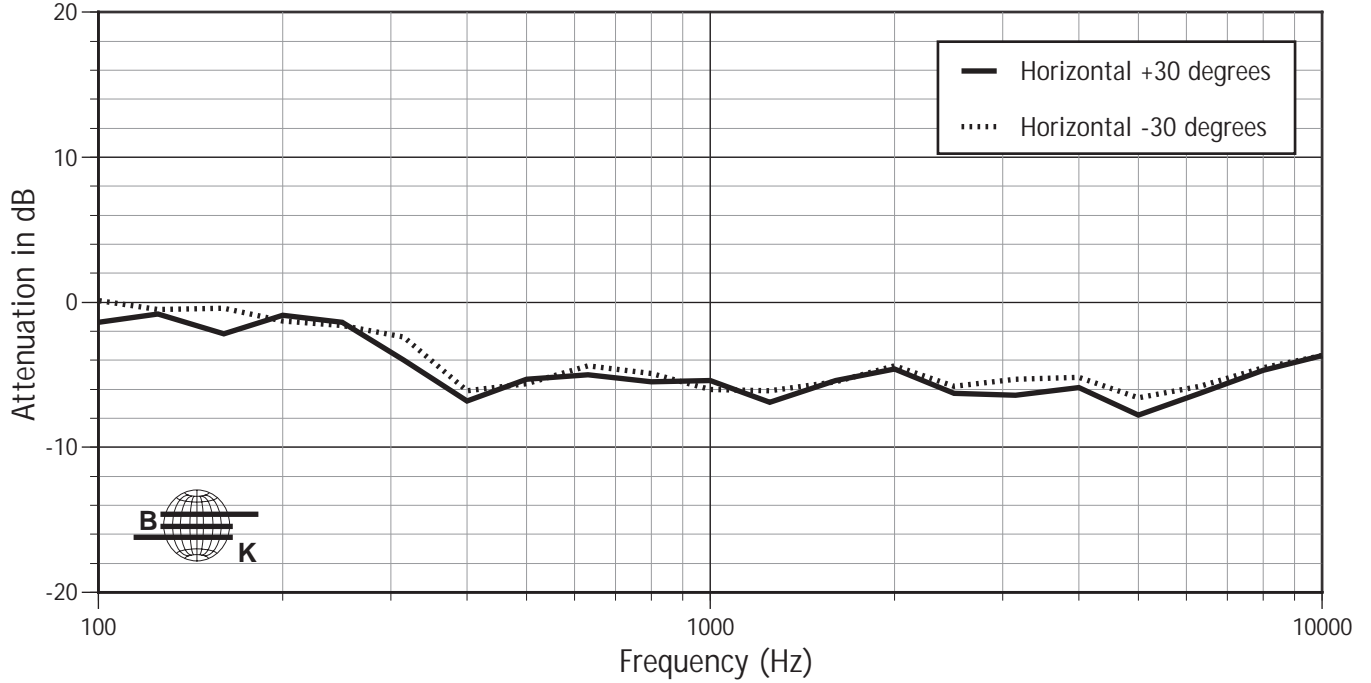


PERFORMANCE SPECIFICATIONS ASR660

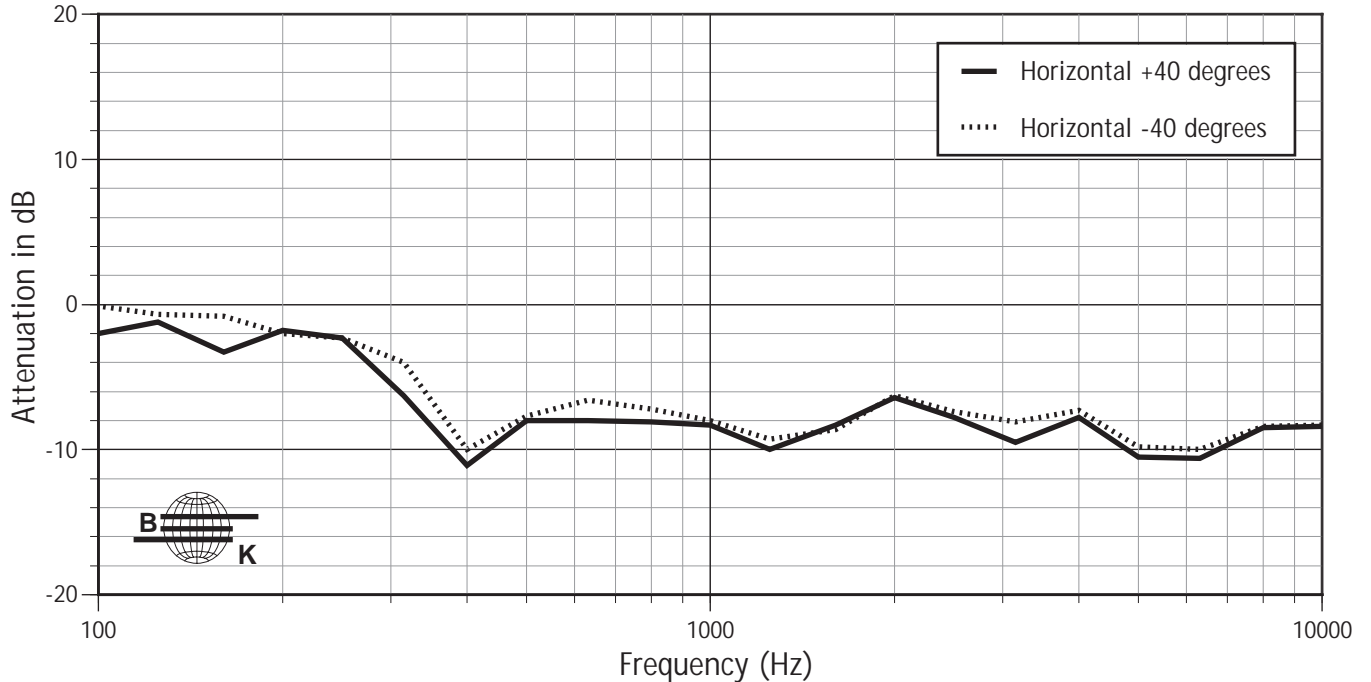
HORIZONTAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.

ASR660 Horizontal $\pm 30^\circ$



ASR660 Horizontal $\pm 40^\circ$

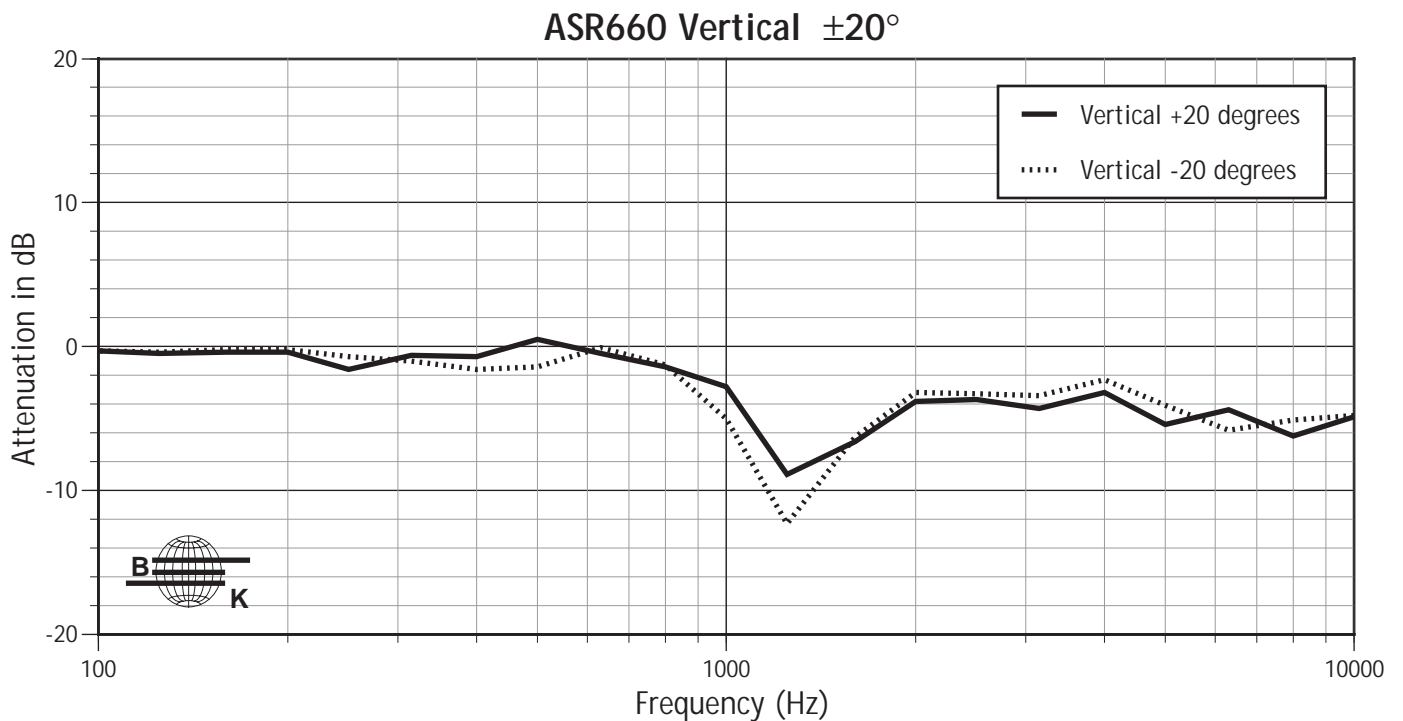
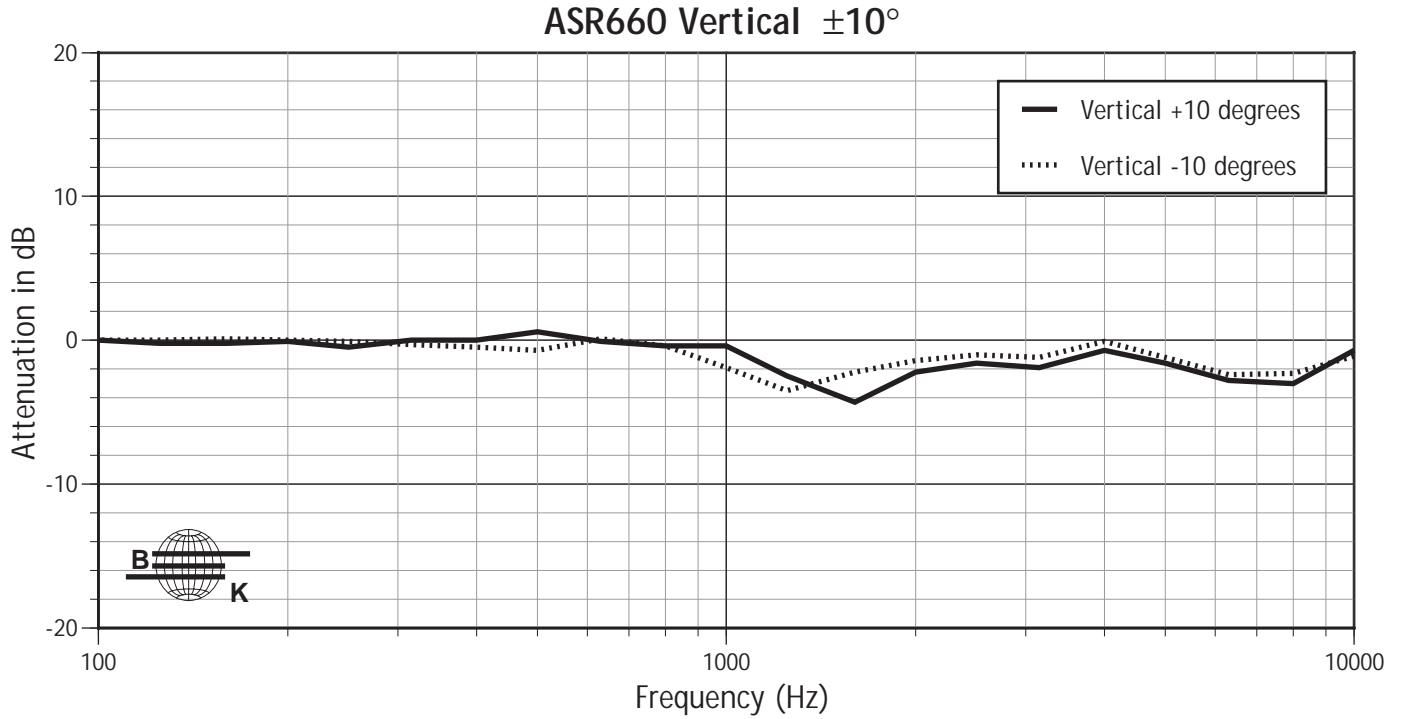




PERFORMANCE SPECIFICATIONS ASR660

VERTICAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.



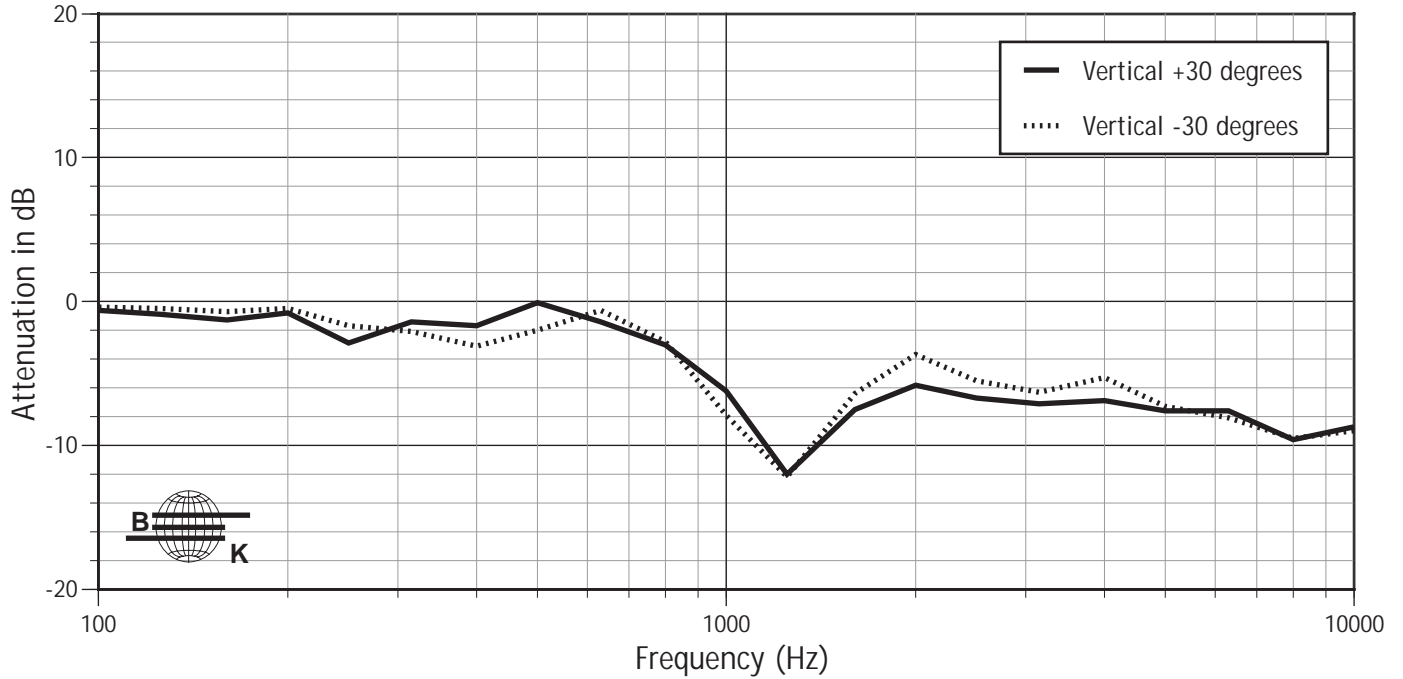


PERFORMANCE SPECIFICATIONS ASR660

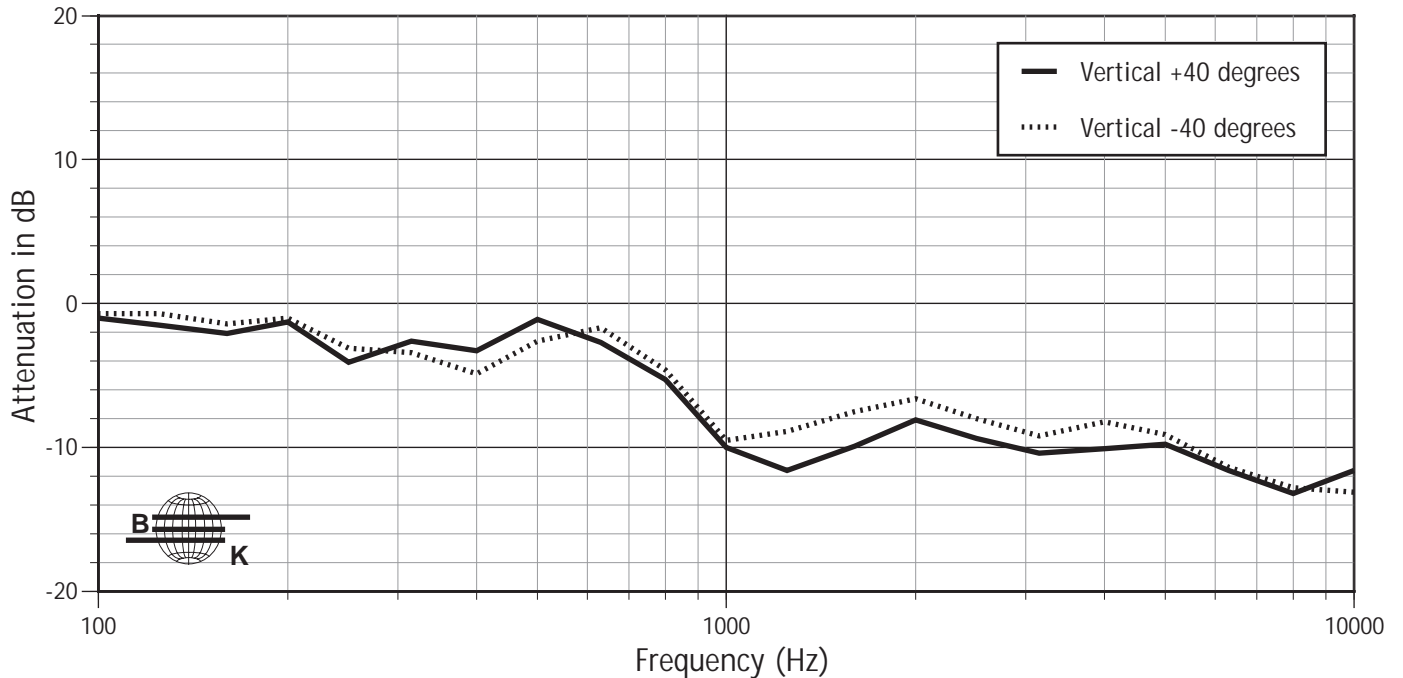
VERTICAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.

ASR660 Vertical $\pm 30^\circ$

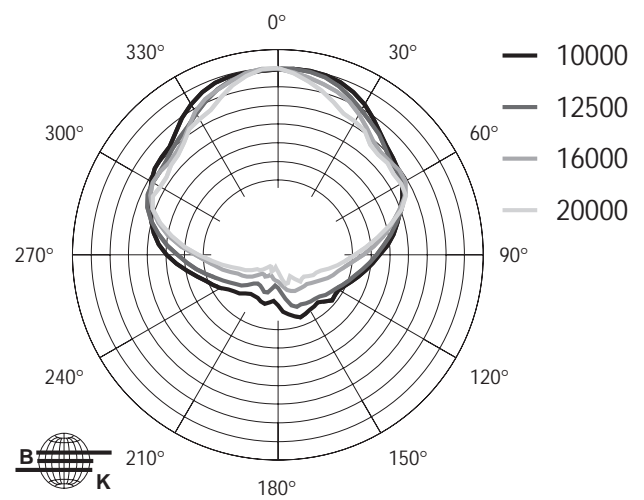
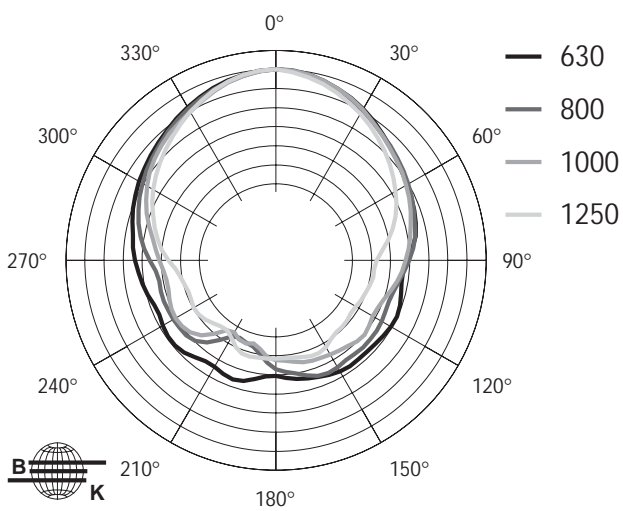
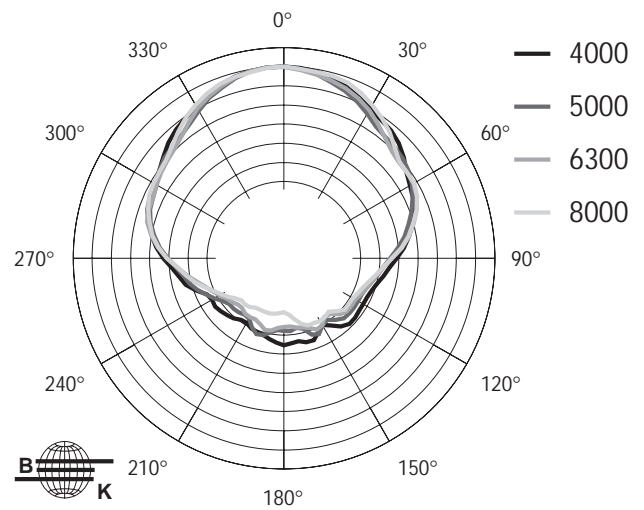
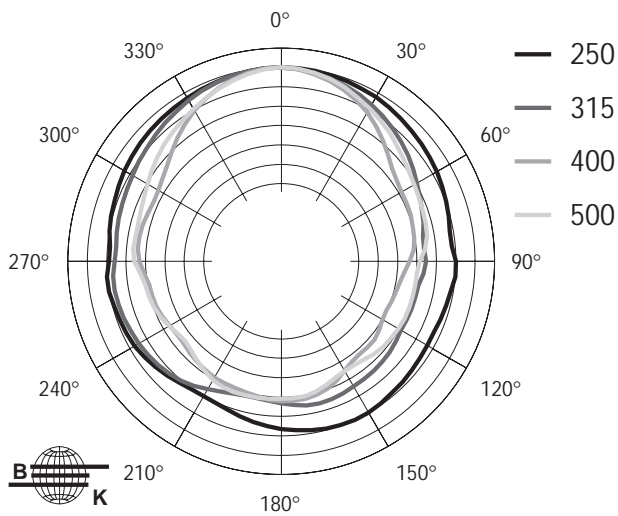
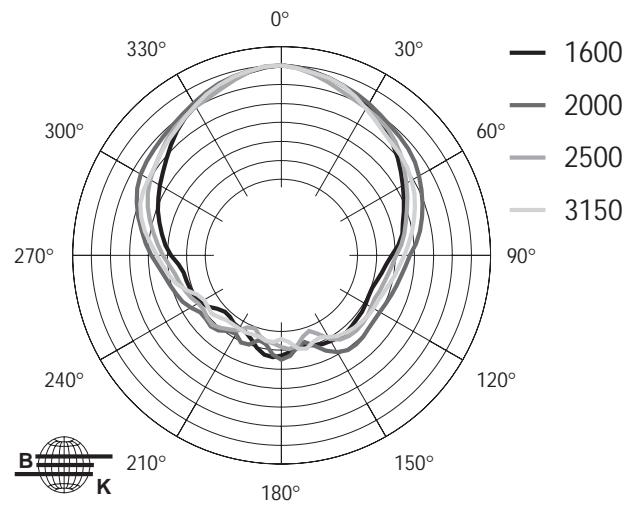
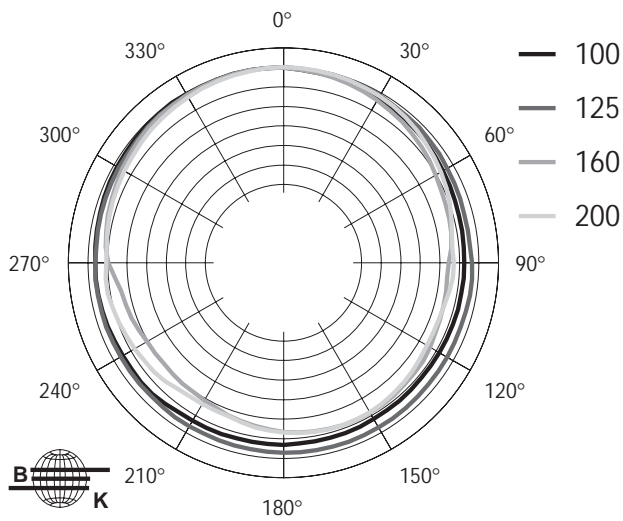


ASR660 Vertical $\pm 40^\circ$





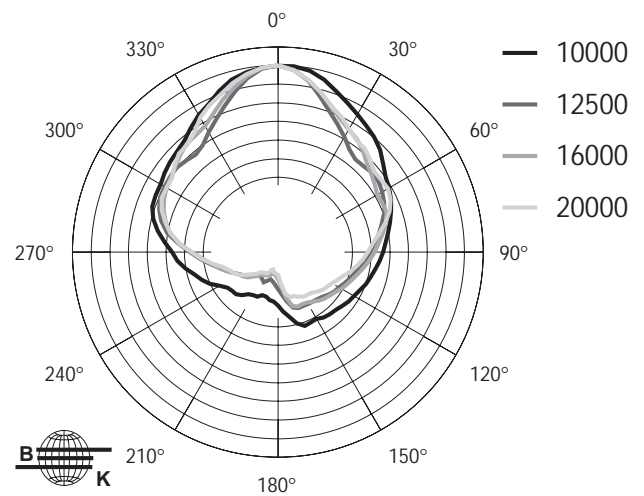
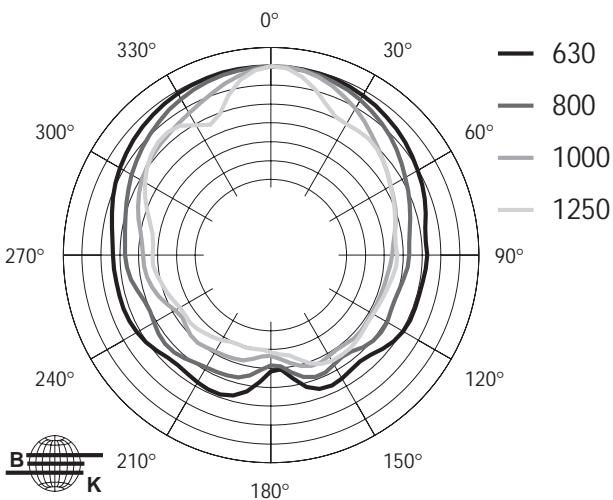
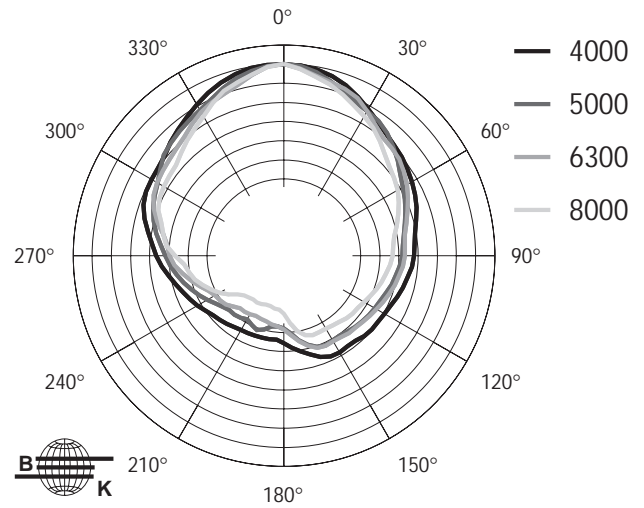
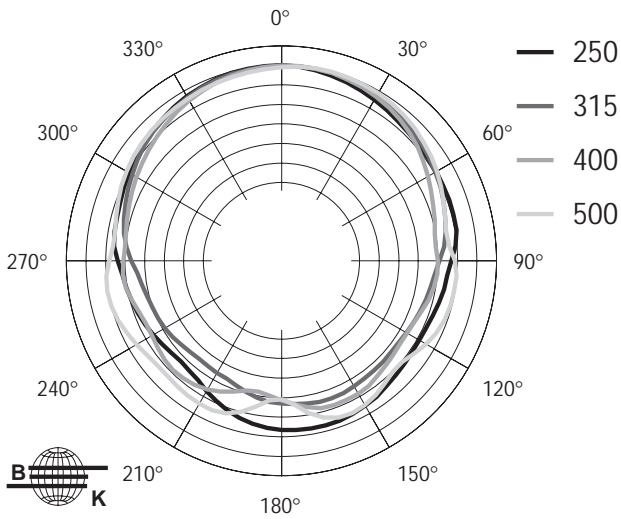
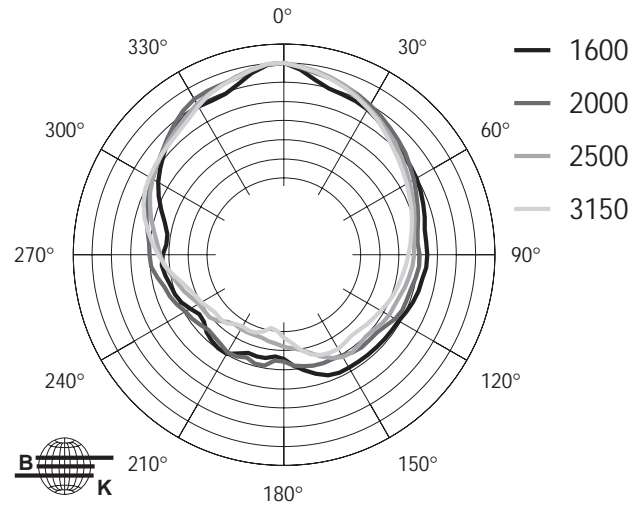
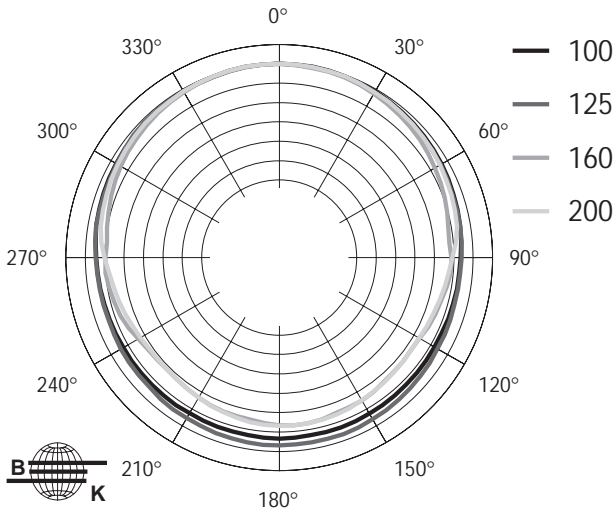
HORIZONTAL 1/3 OCTAVE POLAR DATA ASR660



6 db/div.



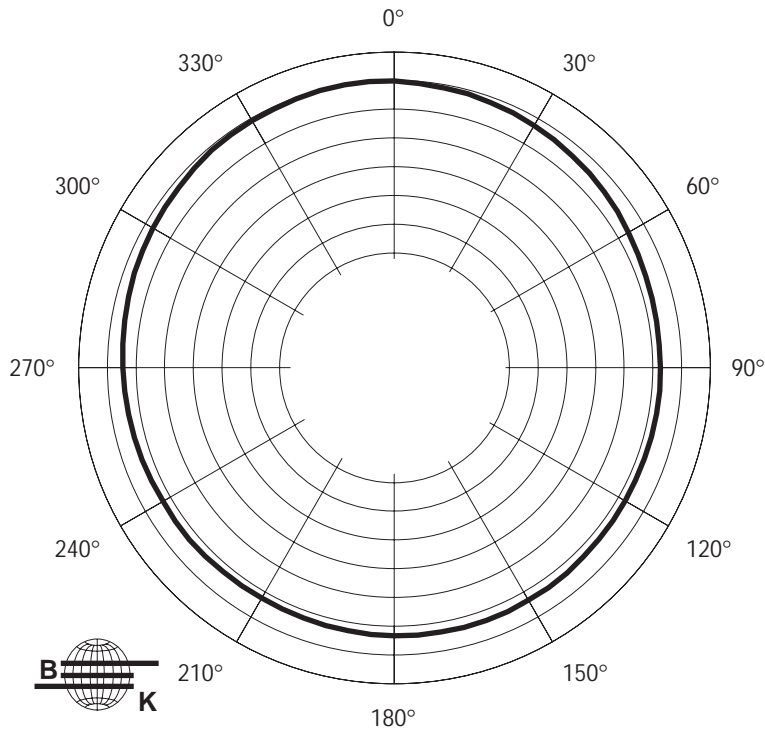
VERTICAL 1/3 OCTAVE POLAR DATA ASR660



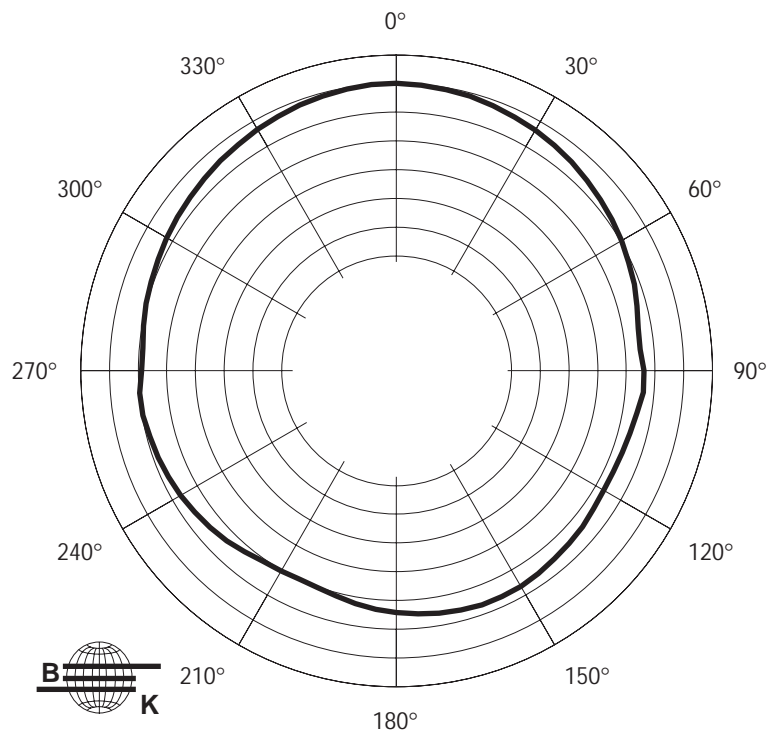


HORIZONTAL OCTAVE POLAR DATA ASR660

ASR660 125 Hz Horizontal Octave Polar Data



ASR660 250 Hz Horizontal Octave Polar Data

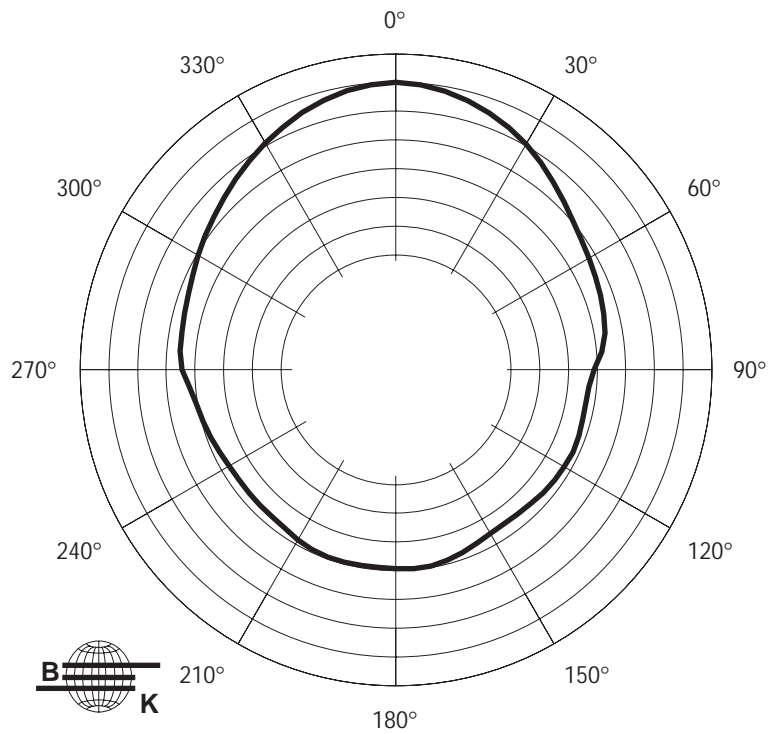


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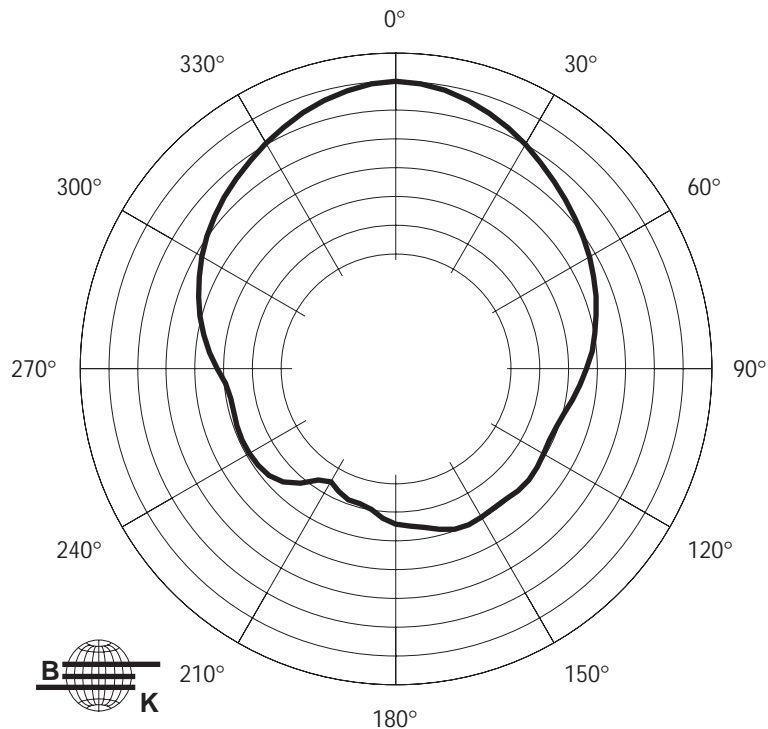


HORIZONTAL OCTAVE POLAR DATA ASR660

ASR660 500 Hz Horizontal Octave Polar Data



ASR660 1000 Hz Horizontal Octave Polar Data

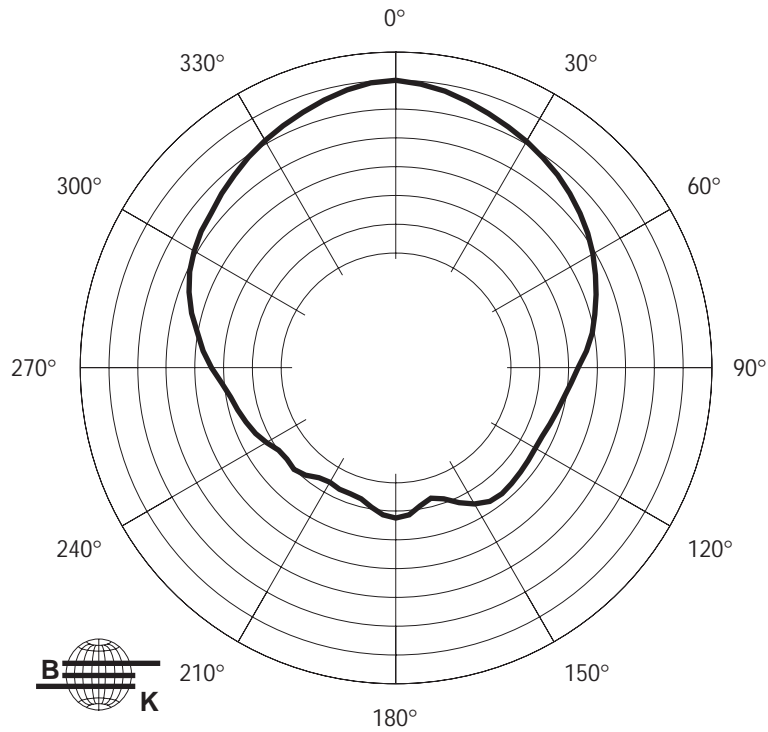


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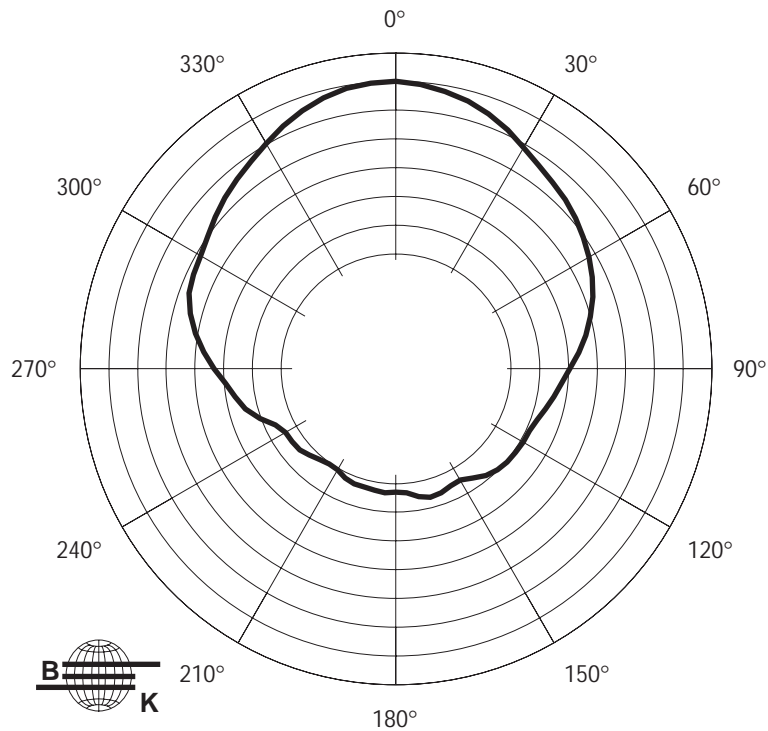


HORIZONTAL OCTAVE POLAR DATA ASR660

ASR660 2000 Hz Horizontal Octave Polar Data



ASR660 4000 Hz Horizontal Octave Polar Data

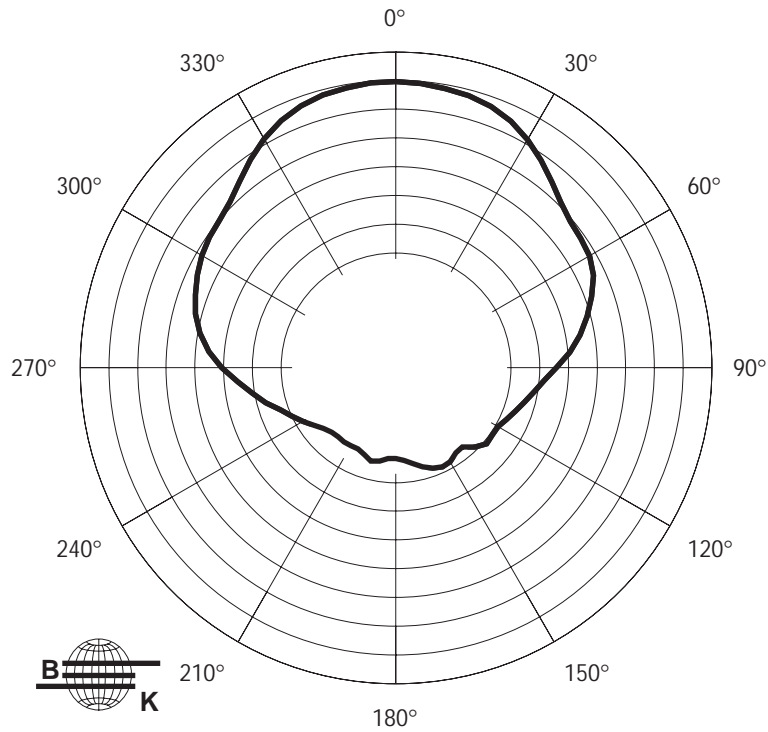


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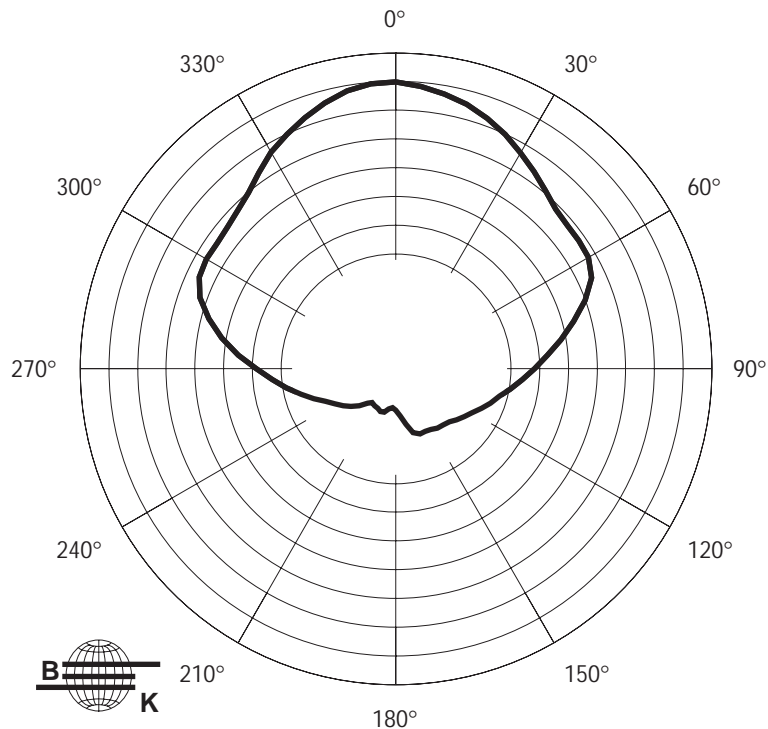


HORIZONTAL OCTAVE POLAR DATA ASR660

ASR660 8000 Hz Horizontal Octave Polar Data



ASR660 16000 Hz Horizontal Octave Polar Data

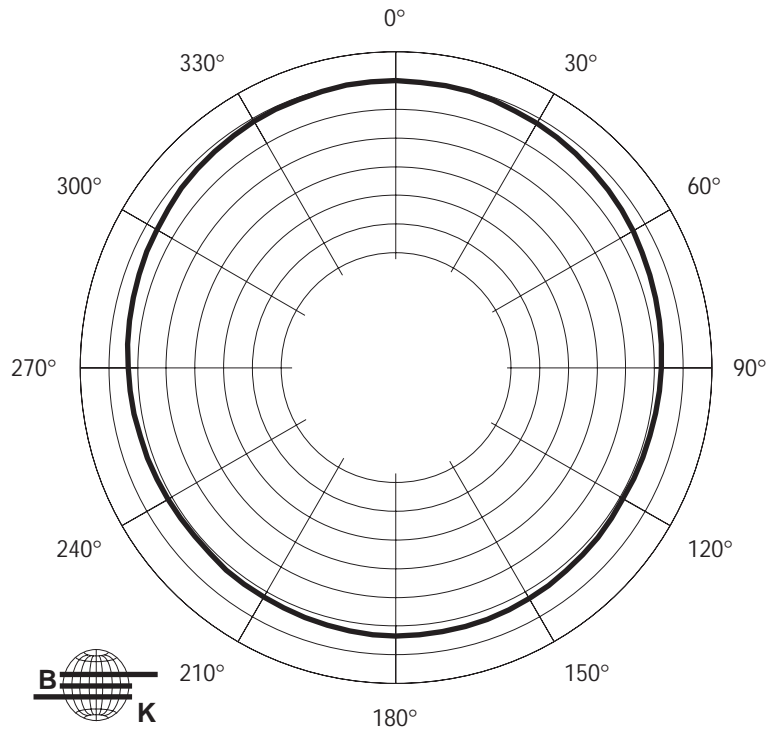


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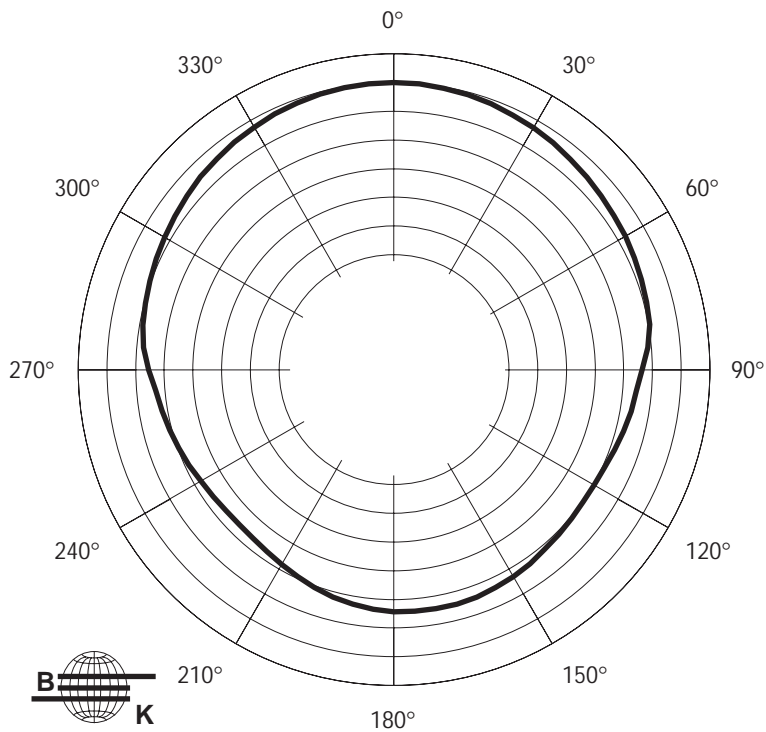


VERTICAL OCTAVE POLAR DATA ASR660

ASR660 125 Hz Vertical Octave Polar Data



ASR660 250 Hz Vertical Octave Polar Data

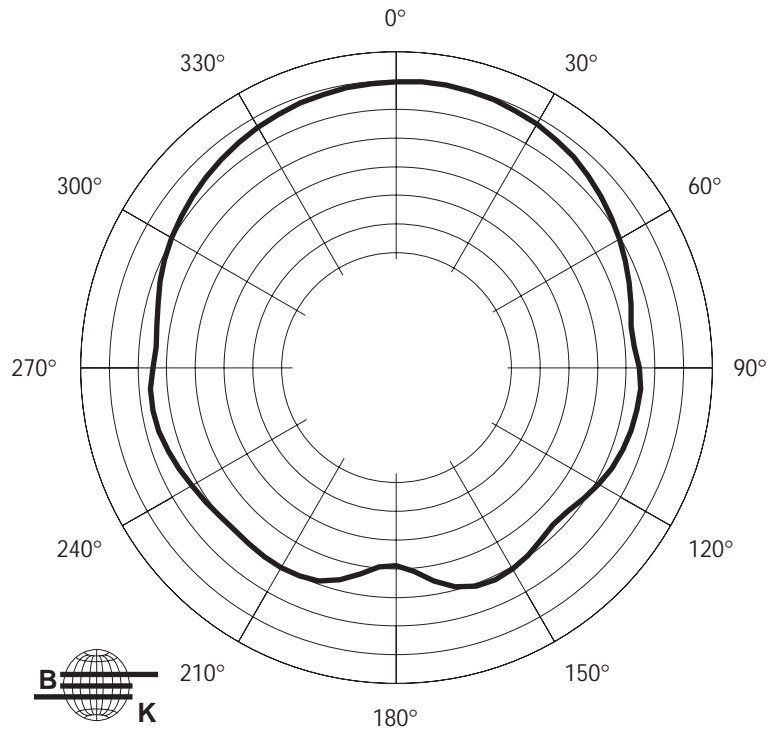


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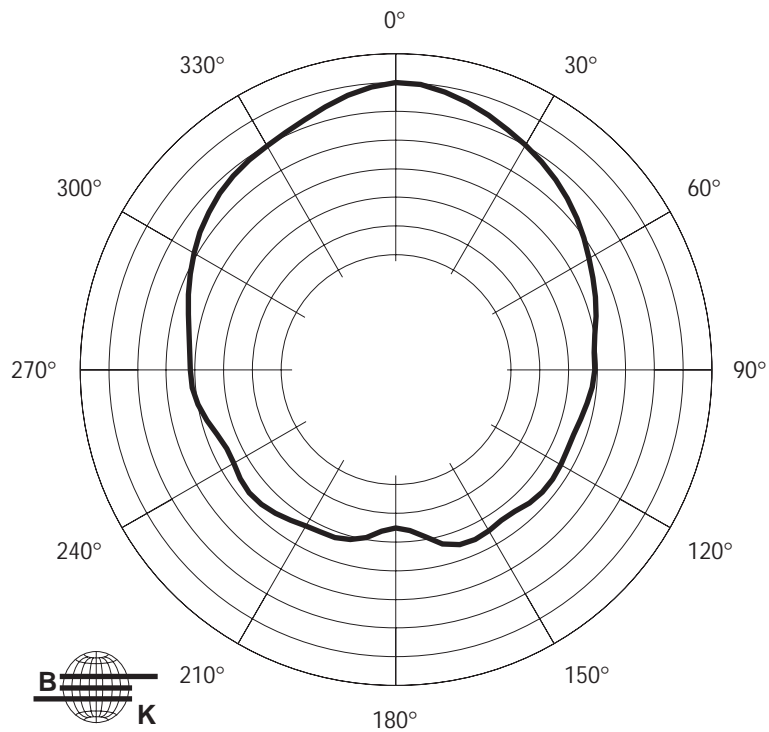


VERTICAL OCTAVE POLAR DATA ASR660

ASR660 500 Hz Vertical Octave Polar Data



ASR660 1000 Hz Vertical Octave Polar Data

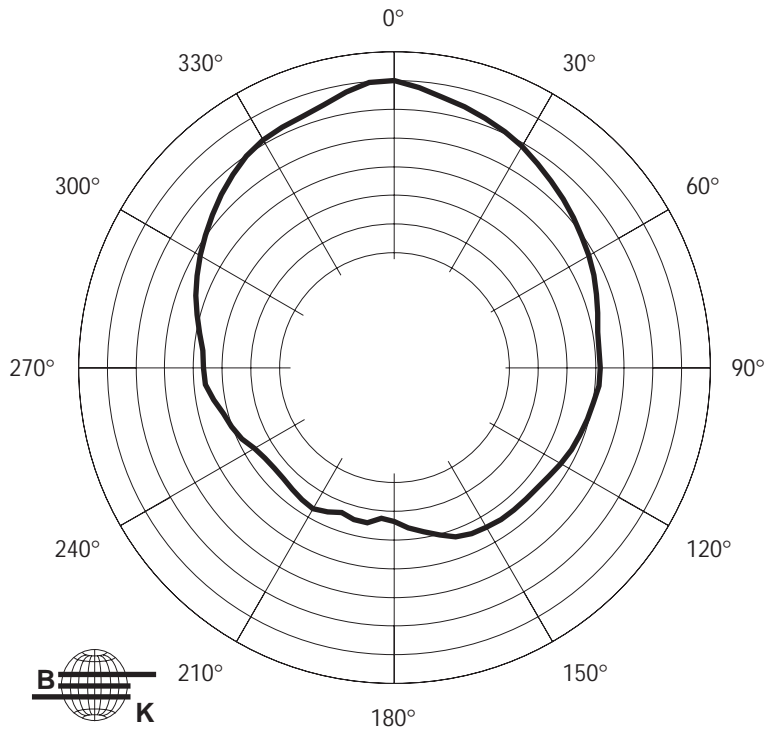


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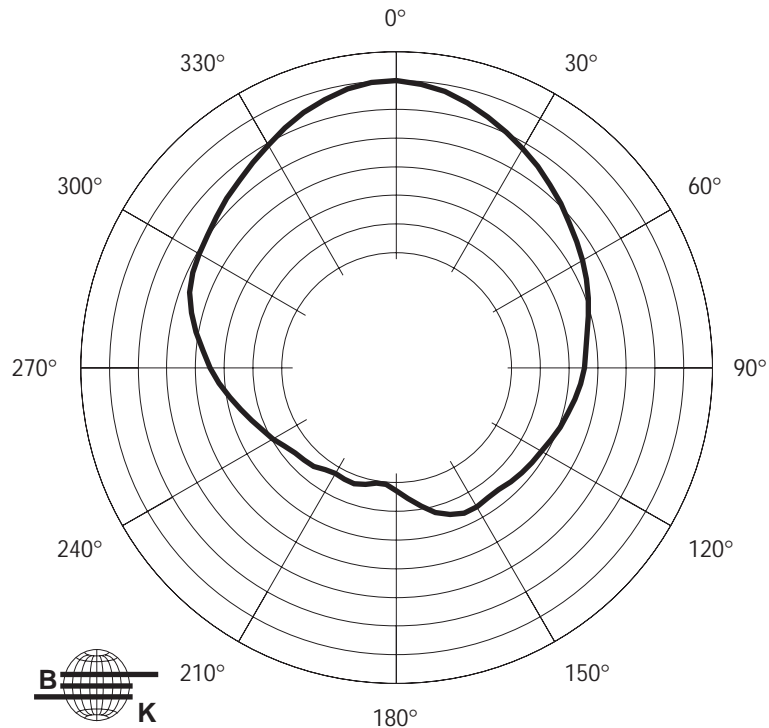


VERTICAL OCTAVE POLAR DATA ASR660

ASR660 2000 Hz Vertical Octave Polar Data



ASR660 4000 Hz Vertical Octave Polar Data

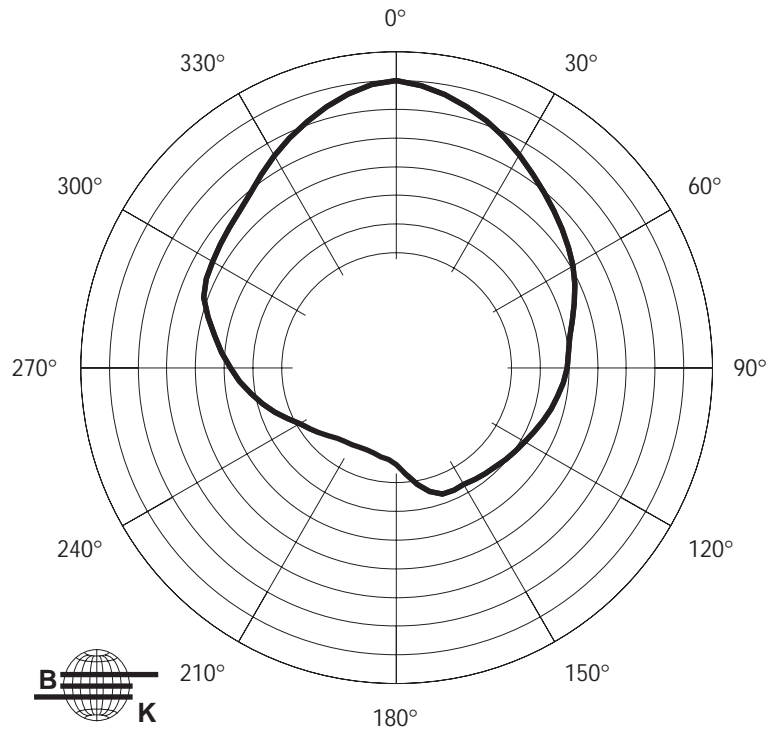


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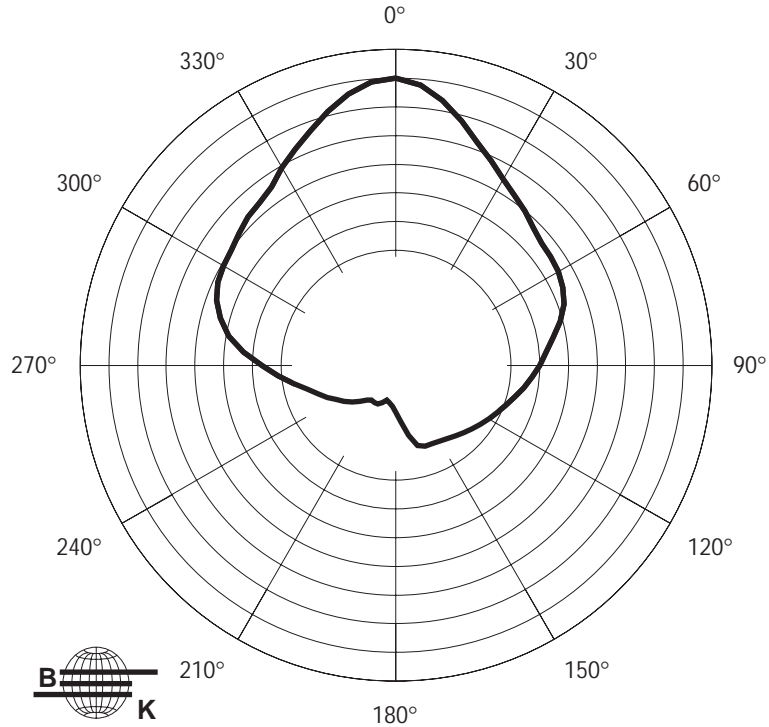


VERTICAL OCTAVE POLAR DATA ASR660

ASR660 8000 Hz Vertical Octave Polar Data



ASR660 16000 Hz Vertical Octave Polar Data



6 db/div.