



Technical Specifications KF650is

APPLICATIONS

The KF650is' combination of compact size, high output and broad, well defined coverage pattern make the system a good choice for applications that require even coverage of a wide area with a relatively short throw. With optional weatherproofing, the KF650is can also be used as part of a permanently installed outdoor system. Available in R (road) and P (permanent) configurations.

- Performing Arts Facilities
- Corporate AV
- Churches
- Lecture Halls
- Theaters
- Touring Shows
- Clubs
- Theme Parks

SPECIFICATIONS

Frequency Response

System Only	70 to 17 kHz \pm 2.5 dB
LF Limit -3 dB	65 Hz
LF Limit -10 dB	50 Hz

Optional Subwoofer

SB528/SB600 -3dB	31 Hz to 18 kHz
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Efficiency / Axial Sensitivity

LF SPL 1w @ 1m	102 dB
MF SPL 1w @ 1m	107 dB
HF SPL 1w @ 1m	107 dB

Impedance

Nominal LF/MF/HF	8 Ω /8 Ω /8 Ω
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Power Handling

AES LF	1000 Watts
AES MF	400 Watts
AES HF	200 Watts
100 Hour Sine Wave LF	400 Watts
100 Hour Sine Wave MF	150 Watts
100 Hour Sine Wave HF	80 Watts

Maximum Output

Peak LF	132 dB SPL
Peak MF	133 dB SPL
Peak HF	130 dB SPL
Long Term LF	128 dB SPL
Long Term MF	128 dB SPL
Long Term HF	126 dB SPL

Nominal Coverage Angles (-6 dB)

Horizontal	60 degrees
Vertical	40 degrees

Additional Descriptive Data

LF Subsystem	1x15-in Wave Guide Cavity
MF Subsystem	1x10-in Cone Horn Loaded
HF Subsystem	EAW CD5001 2-in Exit/Horn
CCEP™ Configuration	MX300i-653
Powering Mode	Switchable Tri-Amp or Bi-Amp
Finish	Black Catalyzed Polyurethane
"P" Connectors	AP6 M&F & Barrier Strip
"R" Connectors	AP4 M&F, AP6 M&F
Grill	Vinyl Coated Perforated Steel

Preliminary Dimensions & Weights

Height	33.25 in (845 mm)
Width	24.63 in (623 mm)
Depth	19.75 in (502 mm)
Net Weight	154 lbs (78.2 kg)
Shipping Weight	162 lbs (79.5 kg)



ARCHITECTS' & ENGINEERS' SPECIFICATIONS

- Group C Hardware Technical Specifications
- Group C Price Lists
- APP Testing Procedures
- Weather Proofing Technical Specifications
- Structural/Mechanical Technical Specifications

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

The 3-way full range loudspeaker system shall incorporate a 15-in LF cone transducer, a 10-in midrange cone transducer and a 2-in compression driver, mounted to a constant directivity HF horn. The system shall have frequency response of 70 Hz to 20 kHz \pm 2.5 dB; axial sensitivity (1W@1m) of 102 dB SPL (LF), 107 dB SPL (MF), 107 dB SPL (HF); 100 hour sine wave power handling of 400 Watts (LF), 150 Watts (MF), 80 Watts (HF); horizontal coverage of 60° between -6 dB points; vertical coverage of 40° between -6 dB points.

The system's LF driver shall be mounted directly behind the high frequency horn and shall be loaded into a vented wave guide cavity. The midrange driver shall be loaded into a constant horizontal coverage horn constructed of 3 mm cross-grain-laminated birch hardwood, reinforced with high-density polyurethane foam incorporating a center displacement plug. The HF driver shall utilize a titanium diaphragm not less than 88mm in diameter. An ARC™ device shall be mounted in the woofer cavity to control reflections of refracted HF energy.

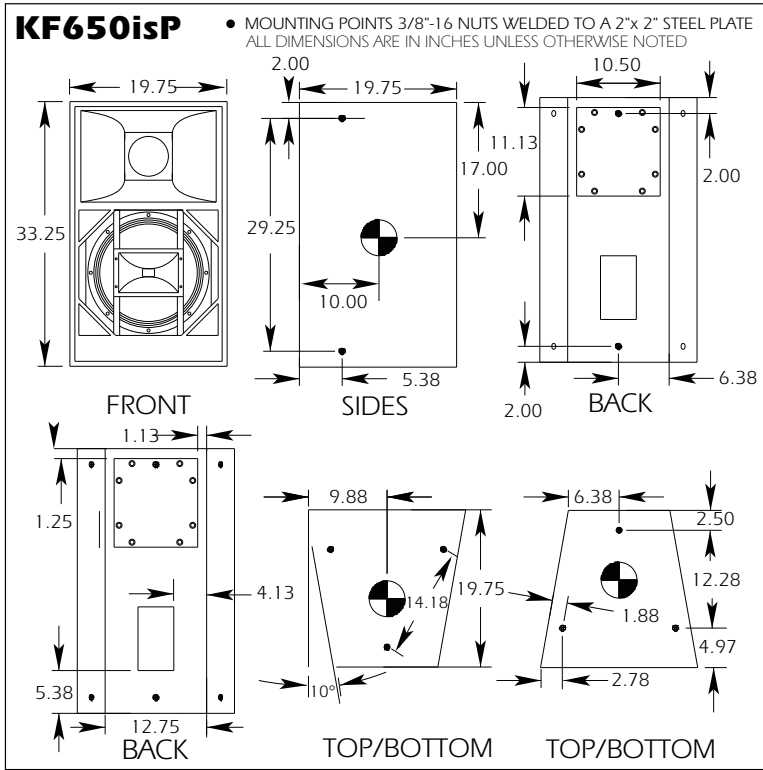
The trapezoidal enclosure shall be constructed of void-free cross-grain-laminated birch plywood with integral bracing, and shall be tapered so as to simplify construction of arrays. It shall be finished in black catalyzed polyurethane. All external hardware shall be stainless steel or shall be coated to protect against rust and corrosion. The front of the system shall be covered with perforated steel grill, coated with vinyl to dampen resonance and backed with open cell foam to protect against dust. Hanging fixture attachment points shall be installed in the top and bottom of the enclosure and mating clips shall be included. The three-way full range loudspeaker system shall be the EAW model KF650isR.



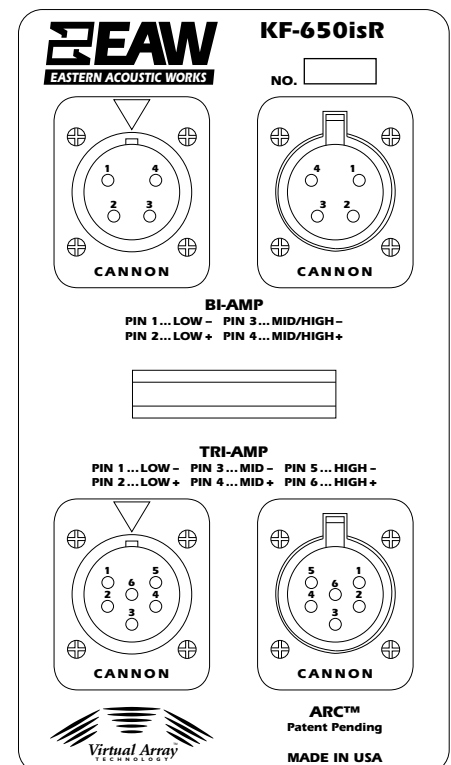
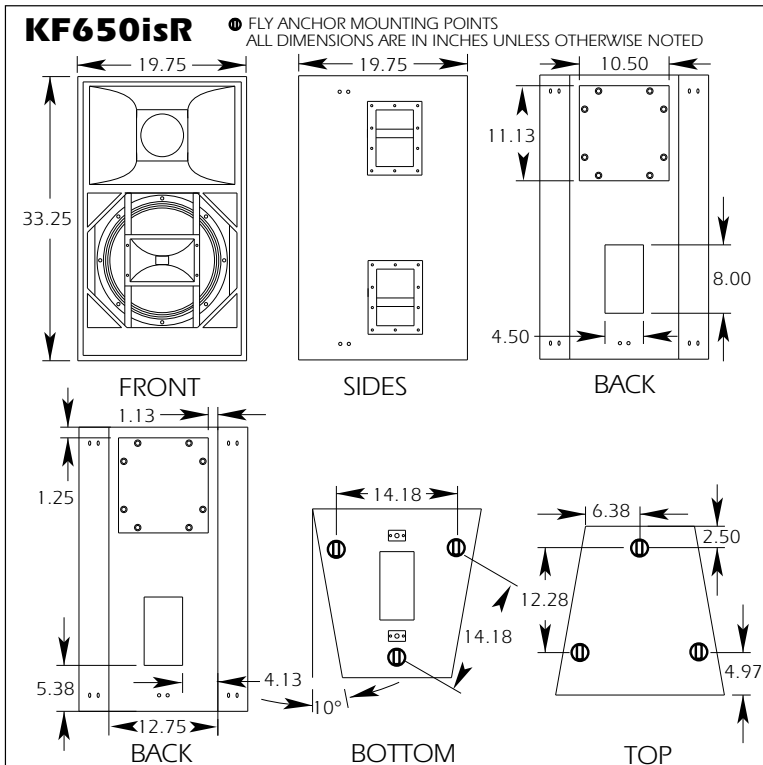
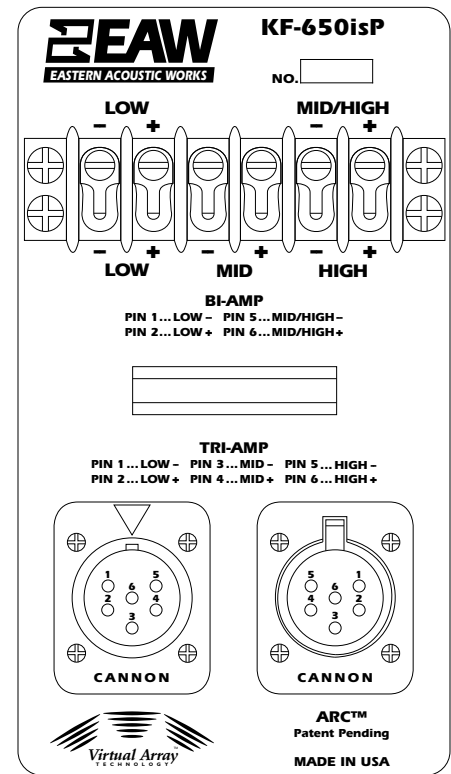


Drawings KF650is

DIMENSIONAL DRAWINGS



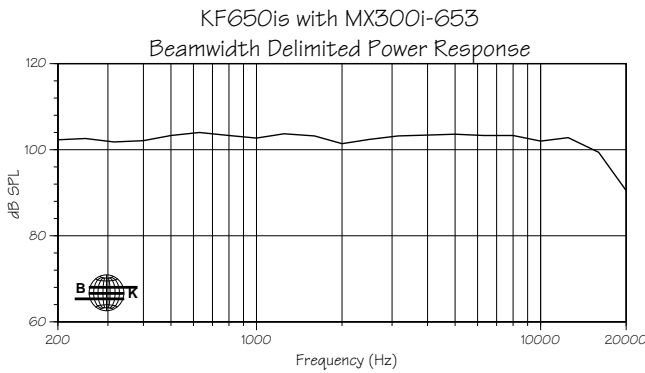
INPUT PLATES



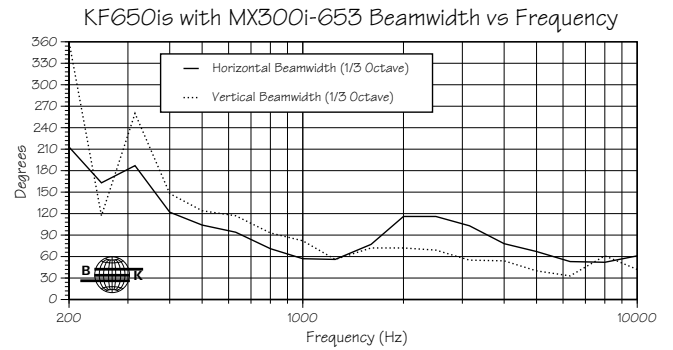


Performance Data KF650is

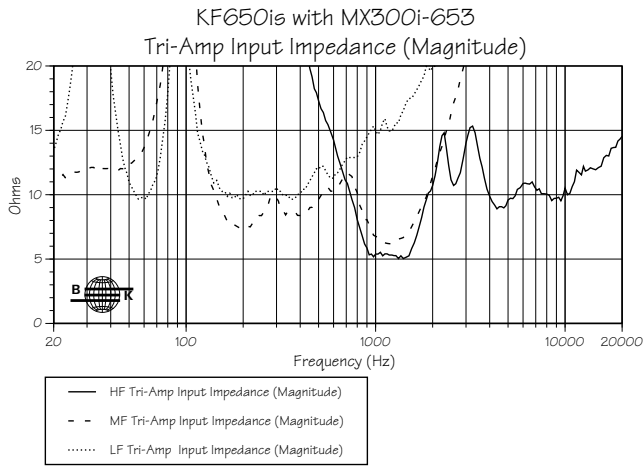
FREQUENCY RESPONSE



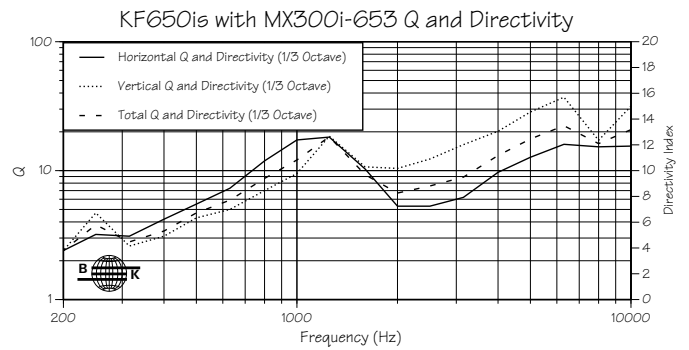
BEAMWIDTH



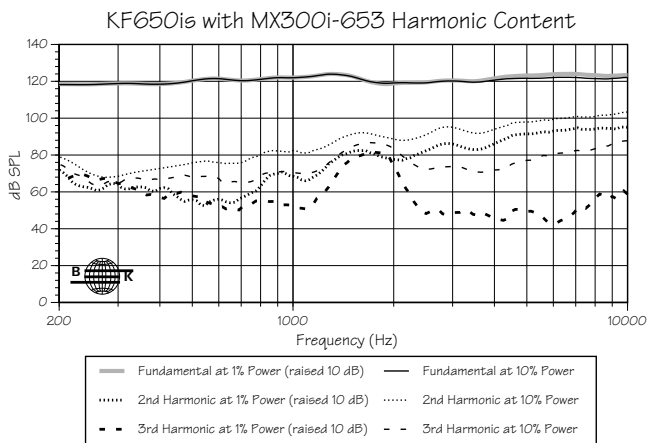
INPUT IMPEDANCE



Q & DIRECTIVITY INDEX (DI)



DISTORTION



Q & BEAMWIDTH BY FREQUENCY

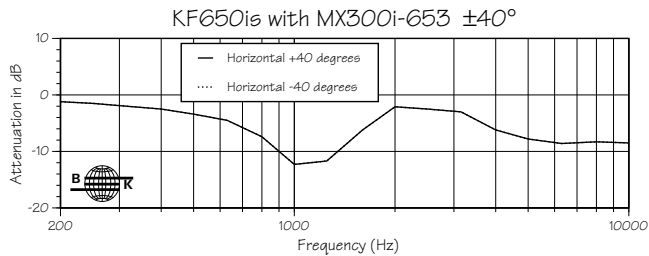
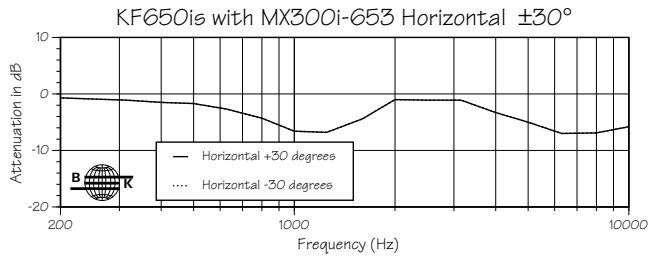
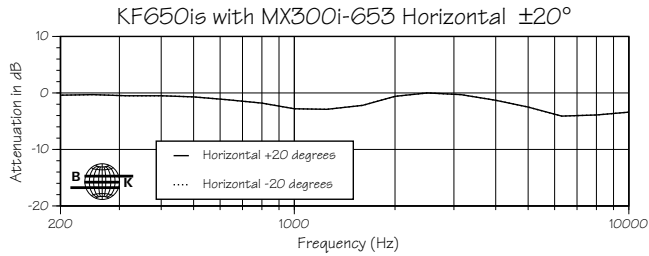
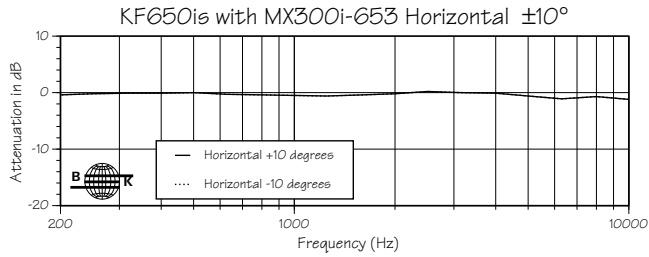
Freq	Hor Q	Ver Q	Tot Q	Hor Beamwidth	Ver Beamwidth
100	1.8	1.7	1.7	360	360
125	1.6	1.5	1.5	360	360
160	2.5	2.6	2.5	188	183
200	2.4	2.4	2.4	213	360
250	3.2	4.7	3.8	163	117
315	3.1	2.6	2.8	187	260
400	4.2	3.1	3.4	122	148
500	5.5	4.3	4.7	104	124
630	7.3	5	5.9	94	117
800	11.9	7	8.7	71	93
1000	17.3	9.5	12.1	57	82
1250	18.2	18.5	18.3	56	56
1600	10.3	10.7	9.3	77	72
2000	5.3	10.4	6.7	116	72
2500	5.3	12.3	7.6	116	69
3150	6.2	15.9	8.9	103	55
4000	9.7	20.2	13.1	78	54
5000	12.7	28.5	17.6	67	40
6300	16	37.1	22.3	53	33
8000	15.3	17.2	16.2	52	61
10000	15.5	31.6	20.8	61	42
12500	11.6	41.8	18.2	70	27
16000	11.4	26.6	15.9	80	43
20000	37.3	58.3	45.5	28	24



Performance Data KF650is

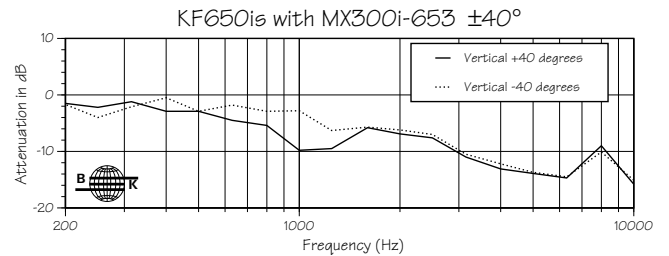
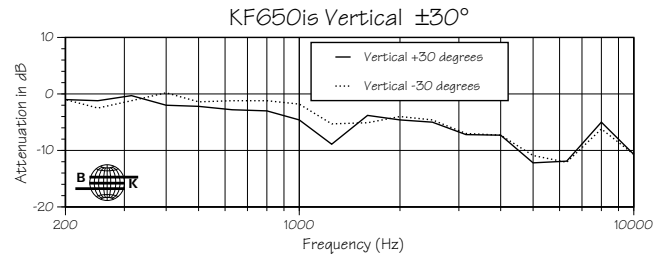
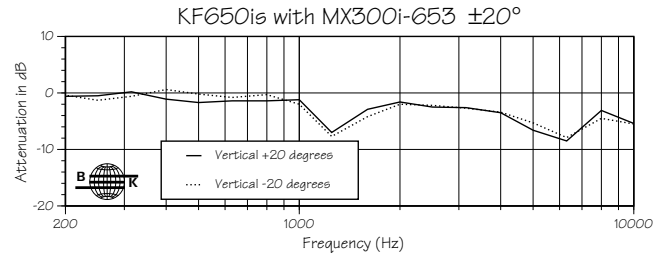
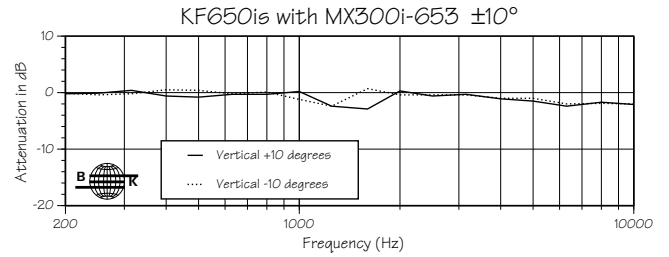
HORIZONTAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.



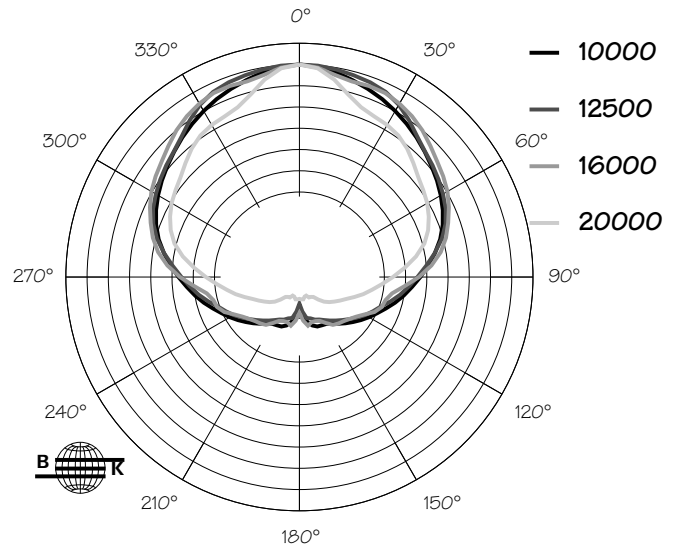
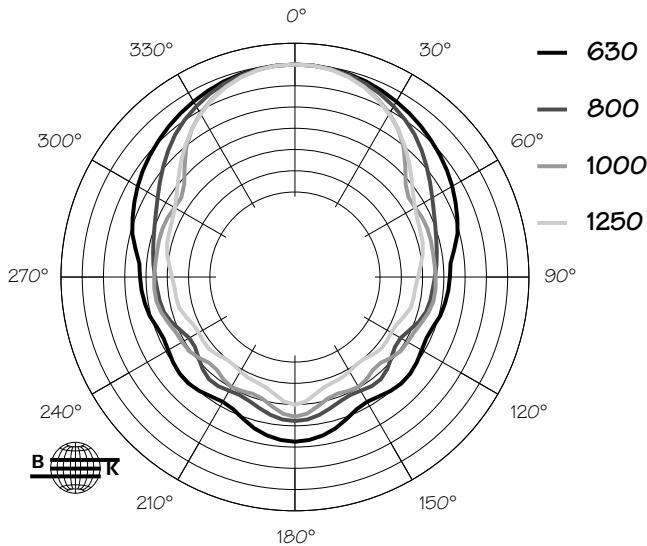
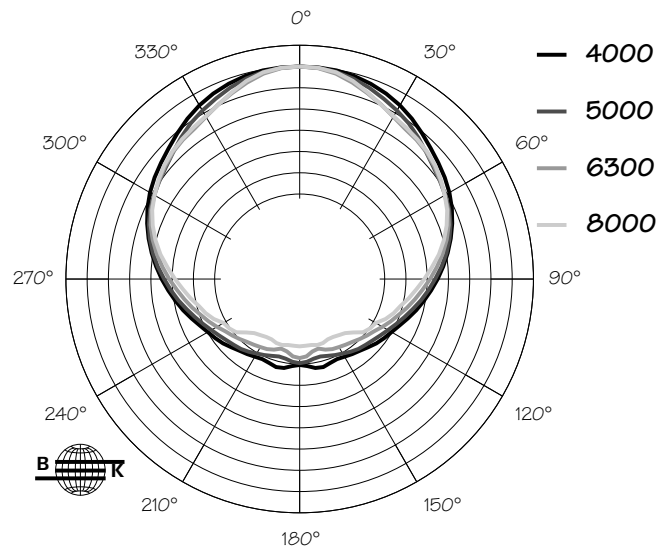
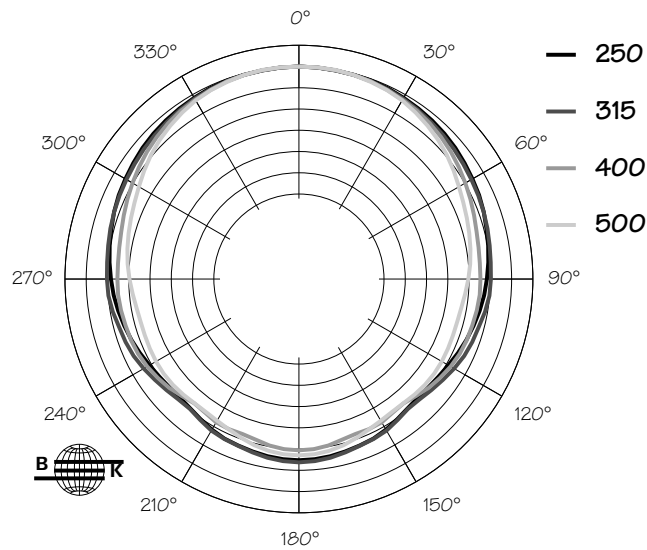
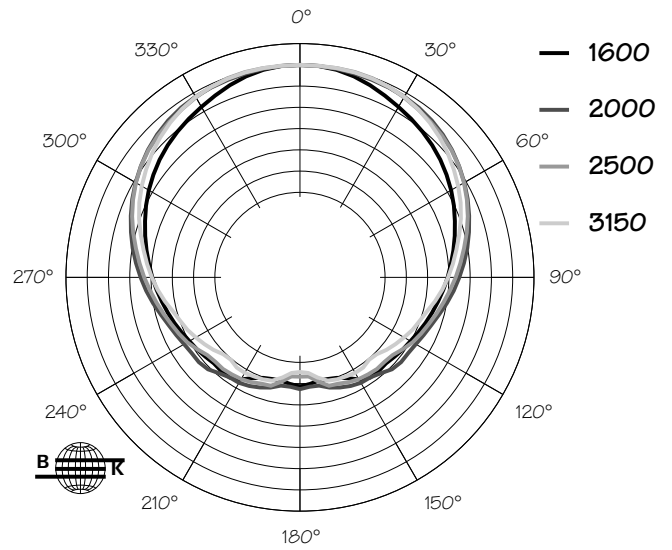
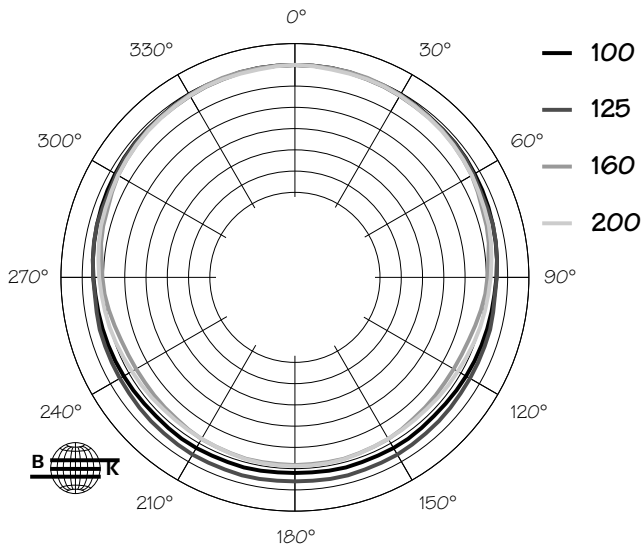
VERTICAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.





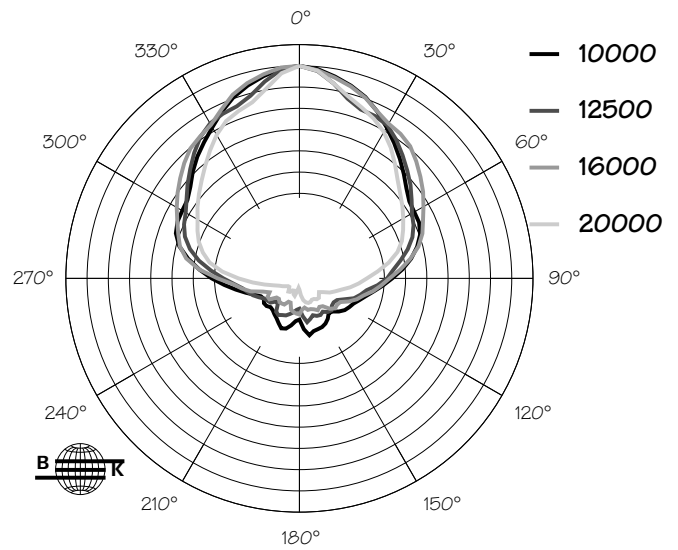
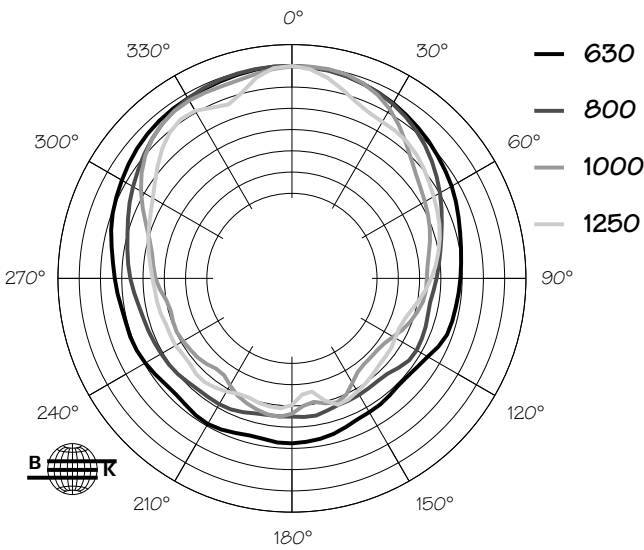
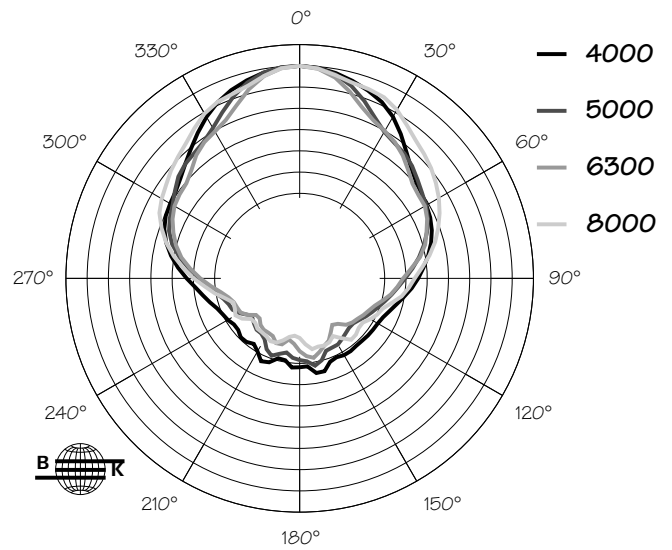
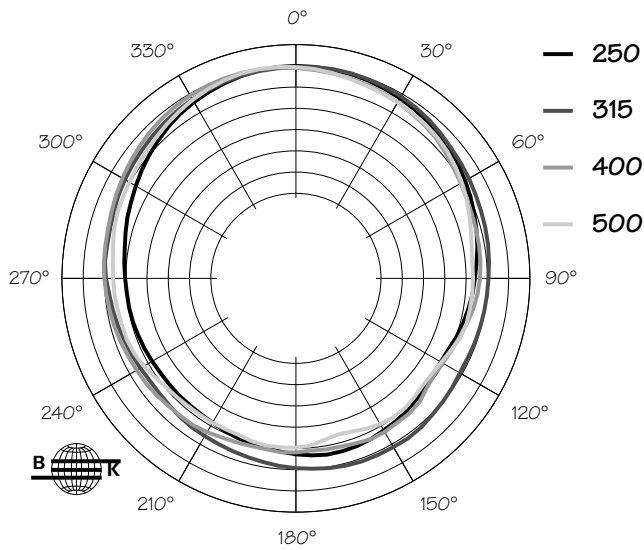
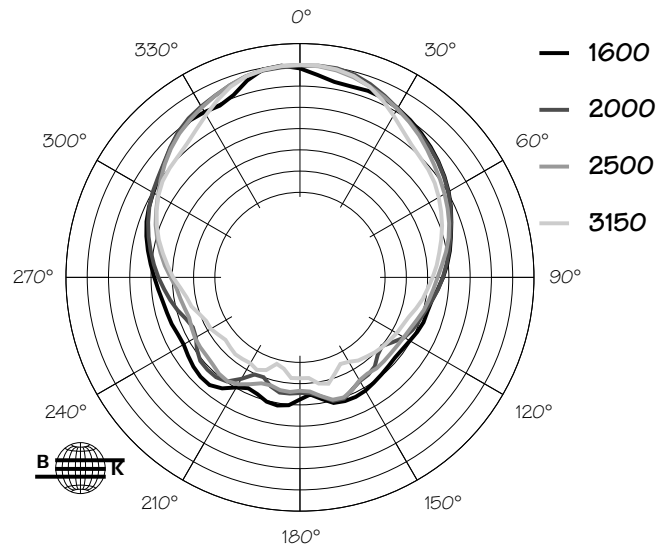
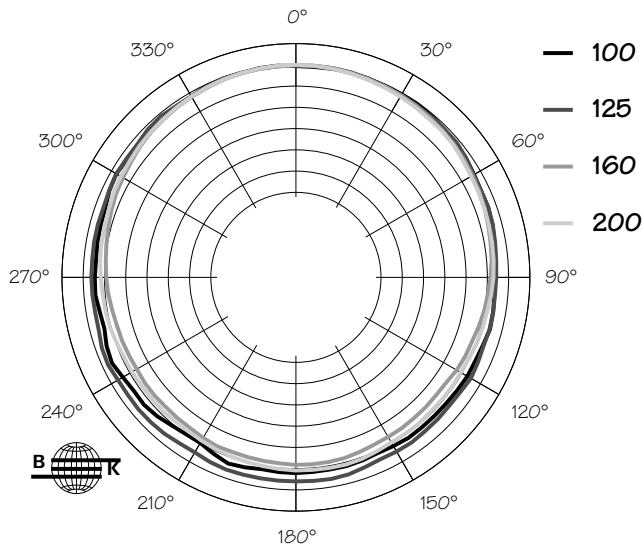
Horizontal 1/3 Octave Polar Data KF650is



6 db/div.



Vertical 1/3 Octave Polar Data KF650is

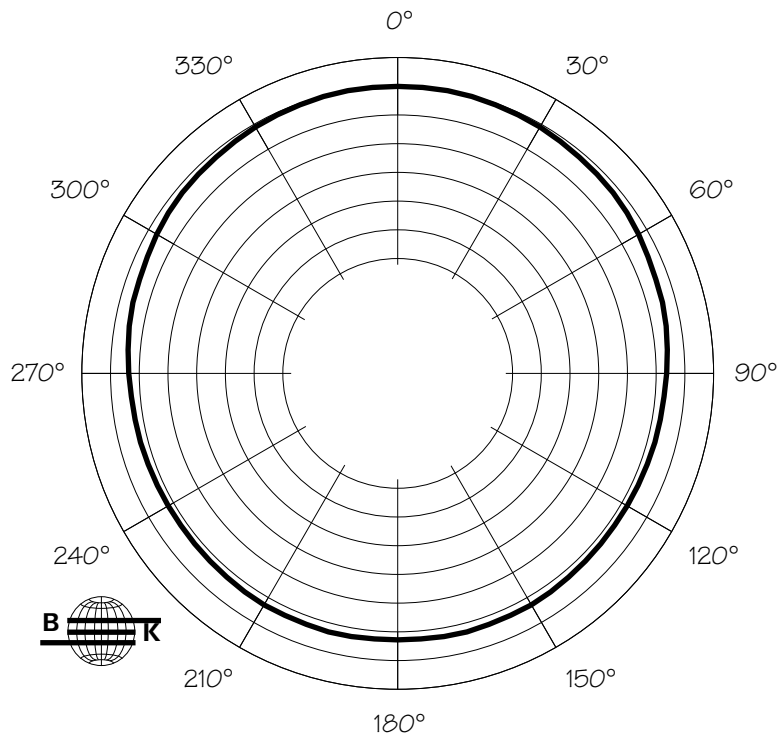


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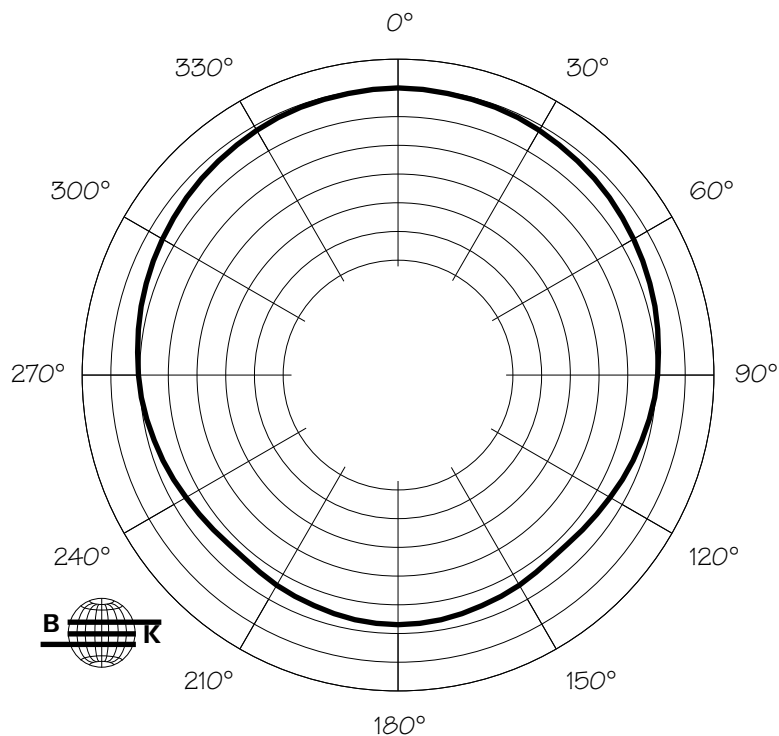


Horizontal Octave Polar Data KF650is

KF650is 125 Hz Horizontal Octave Polar Data



KF650is 250 Hz Horizontal Octave Polar Data

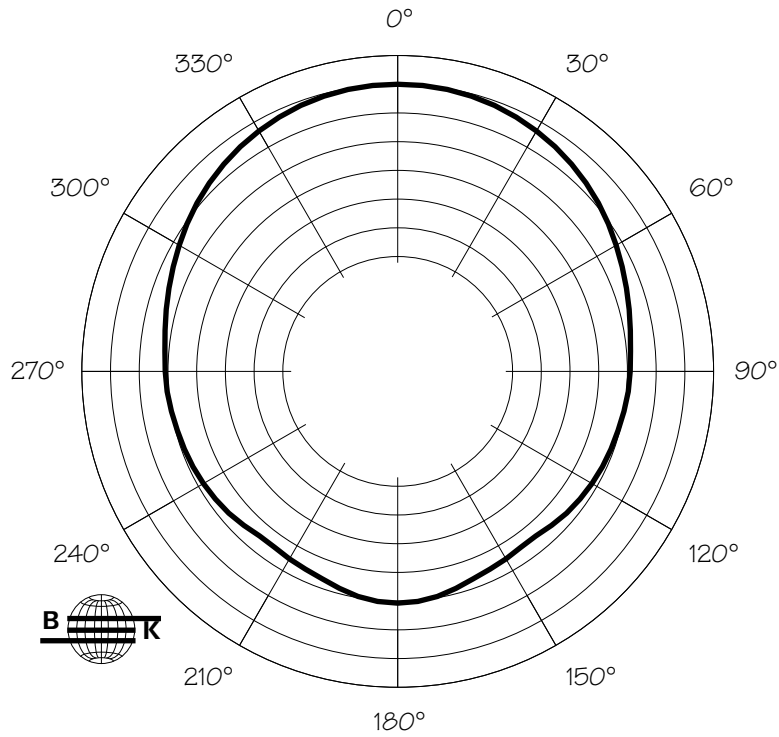


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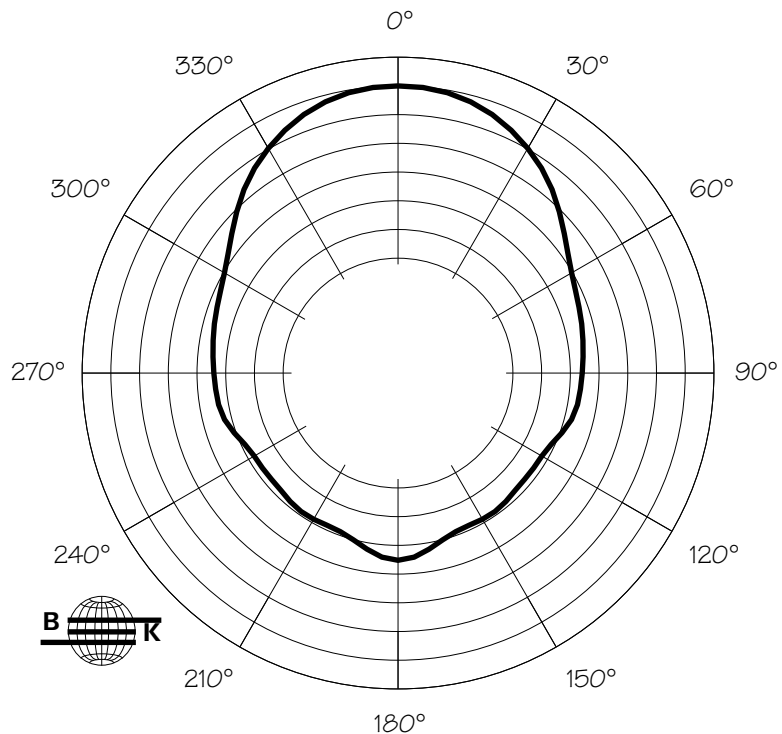


Horizontal Octave Polar Data KF650is

KF650is 500 Hz Horizontal Octave Polar Data



KF650is 1000 Hz Horizontal Octave Polar Data

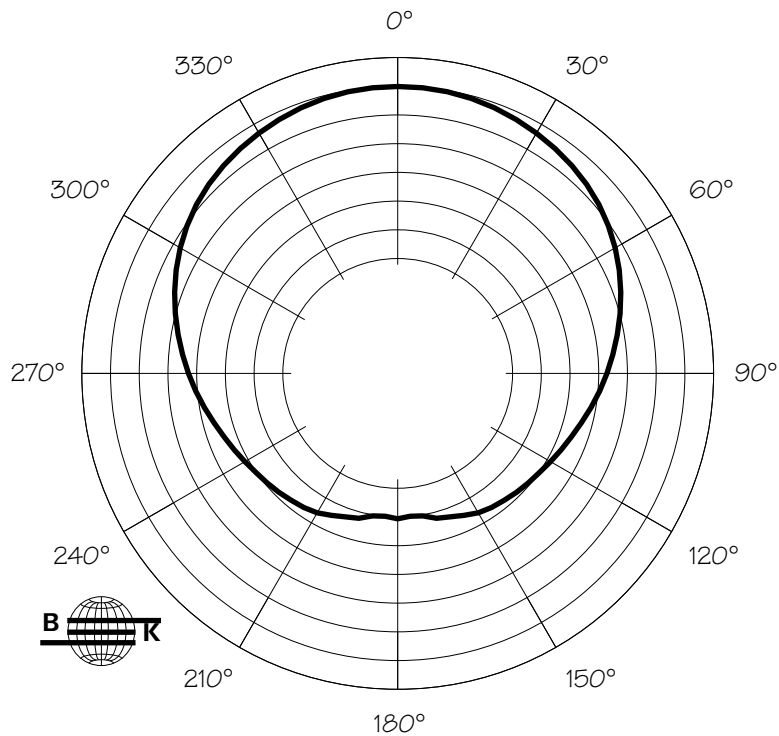


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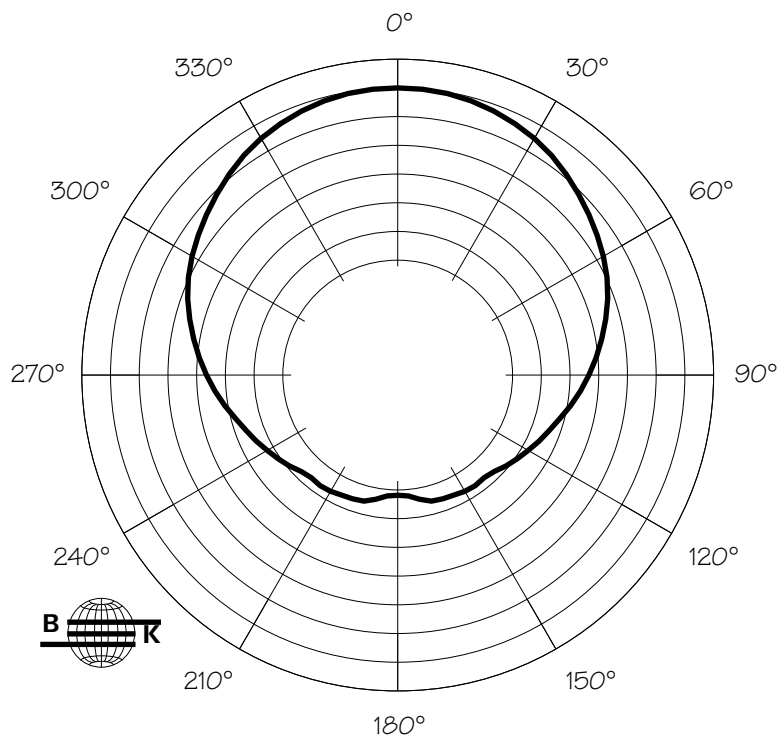


Horizontal Octave Polar Data KF650is

KF650is 2000 Hz Horizontal Octave Polar Data



KF650is 4000 Hz Horizontal Octave Polar Data

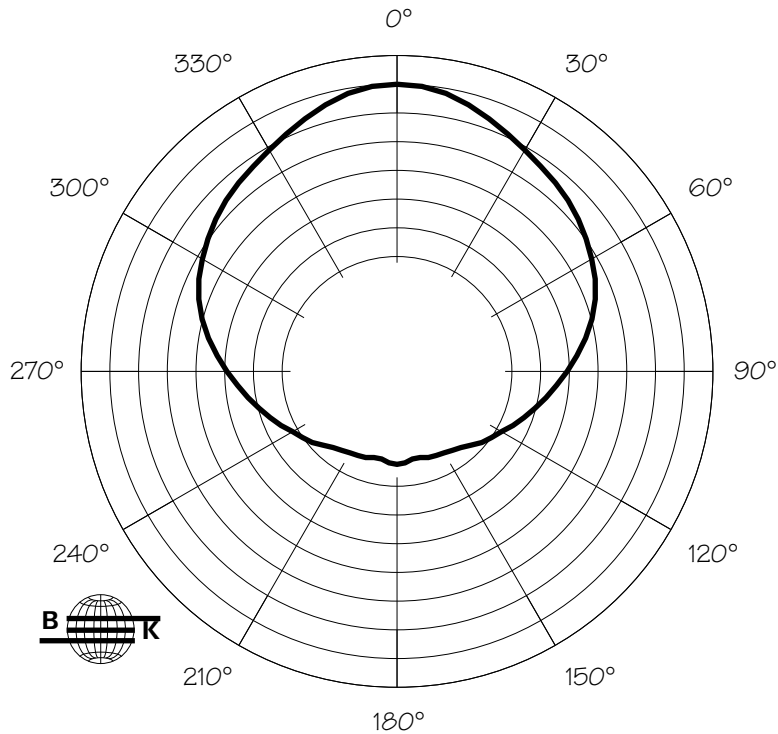


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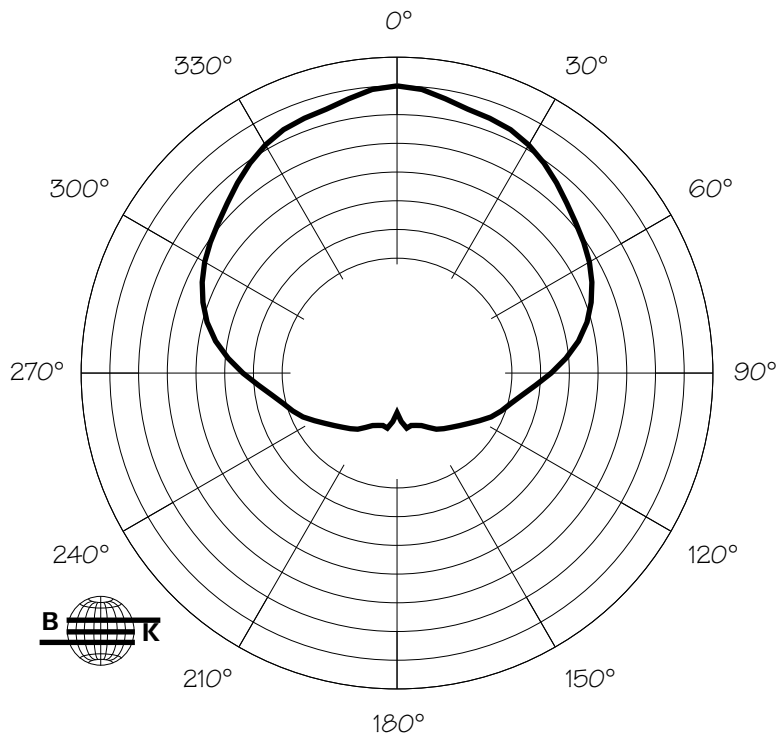


Horizontal Octave Polar Data KF650is

KF650is 8000 Hz Horizontal Octave Polar Data



KF650is 16000 Hz Horizontal Octave Polar Data

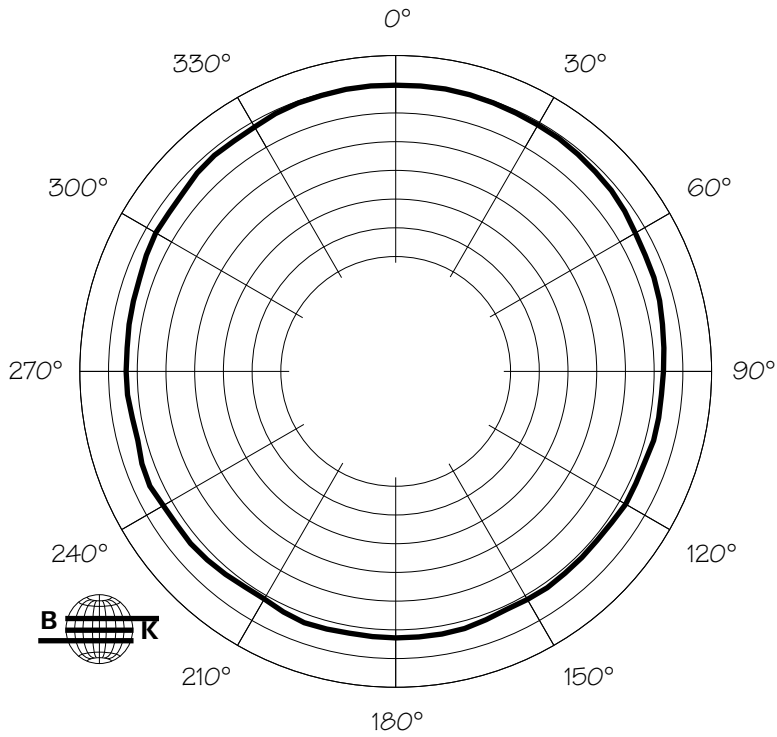


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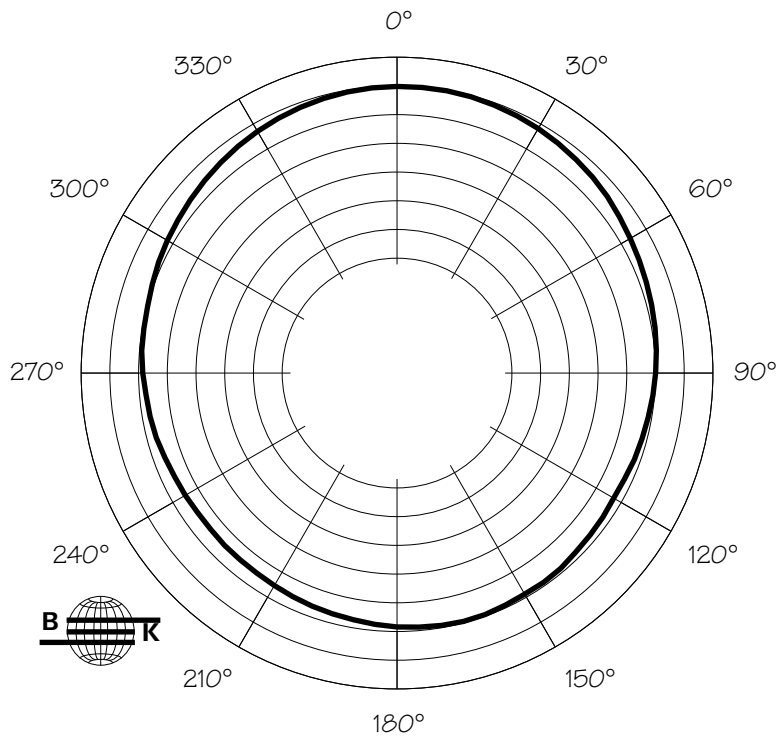


Vertical Octave Polar Data KF650is

KF650is 125 Hz Vertical Octave Polar Data



KF650is 250 Hz Vertical Octave Polar Data

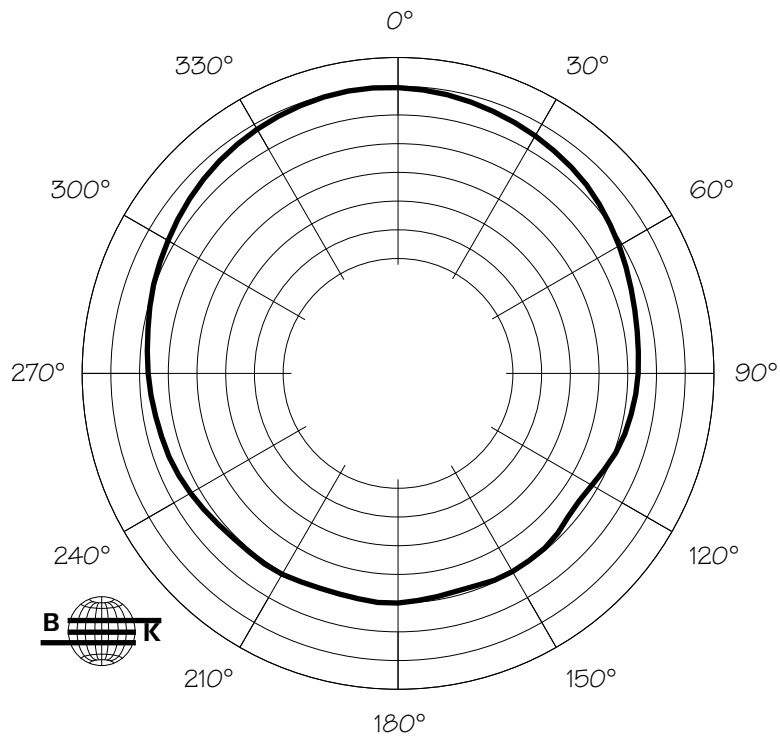


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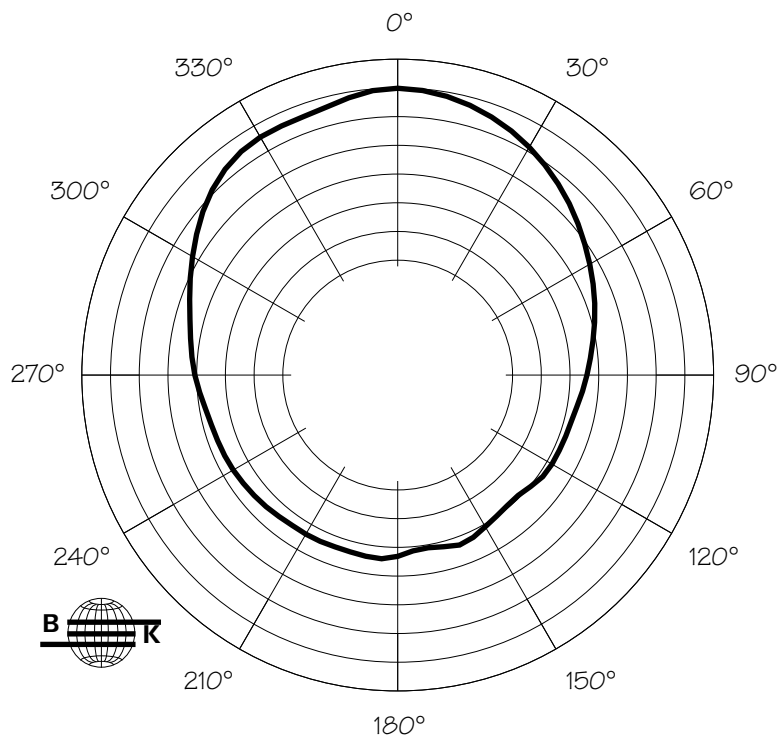


Vertical Octave Polar Data KF650is

KF650is 500 Hz Vertical Octave Polar Data



KF650is 1000 Hz Vertical Octave Polar Data

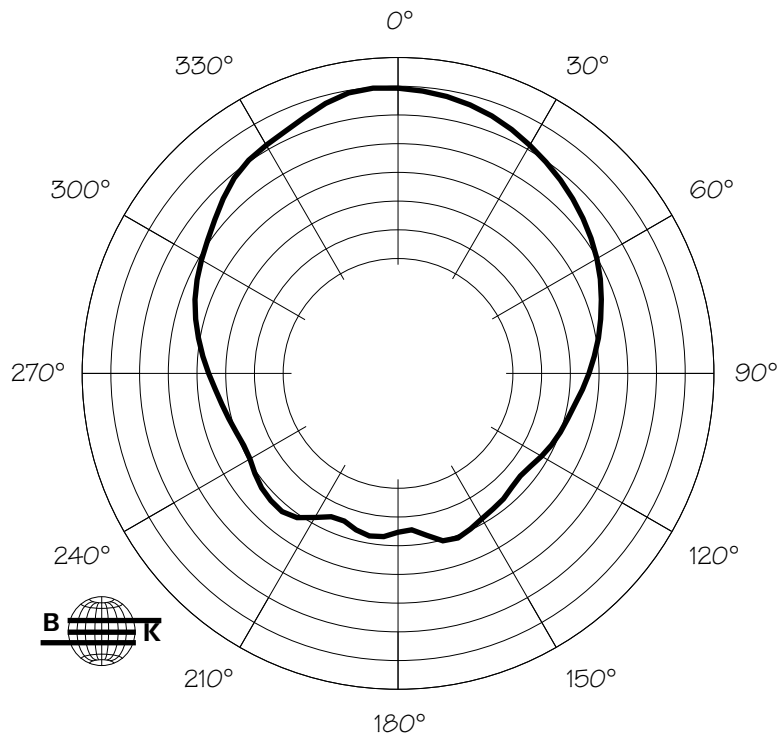


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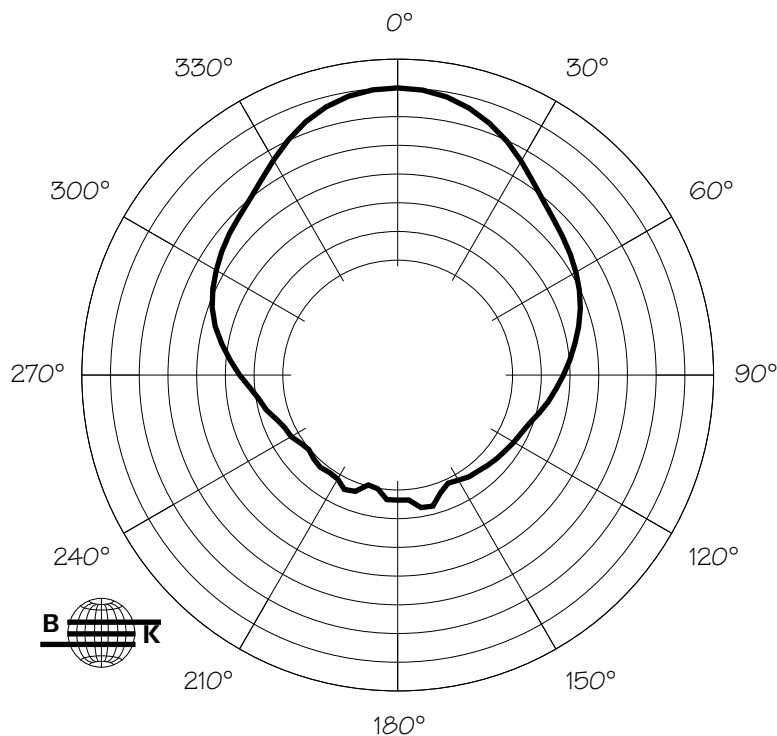


Vertical Octave Polar Data KF650is

KF650is 2000 Hz Vertical Octave Polar Data



KF650is 4000 Hz Vertical Octave Polar Data

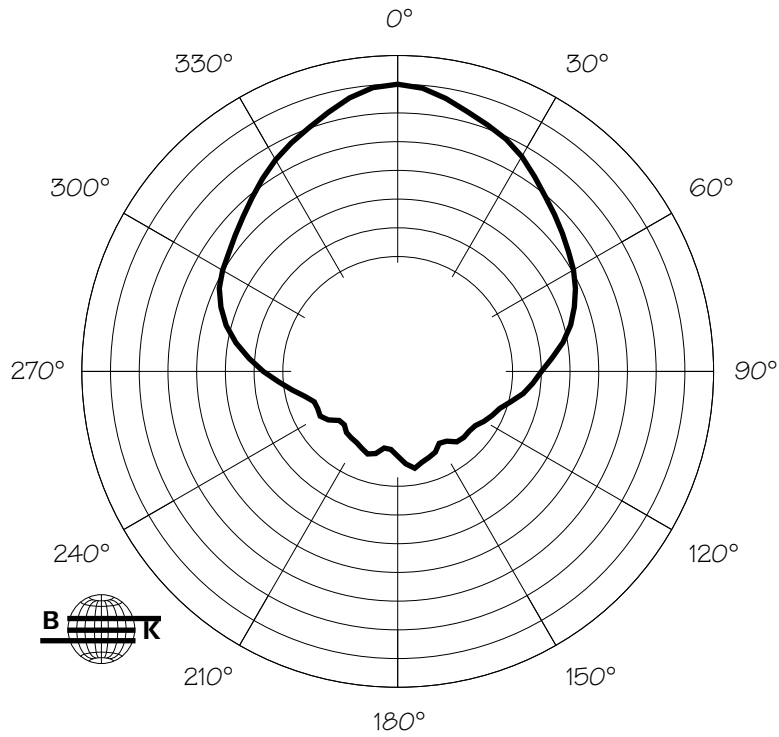


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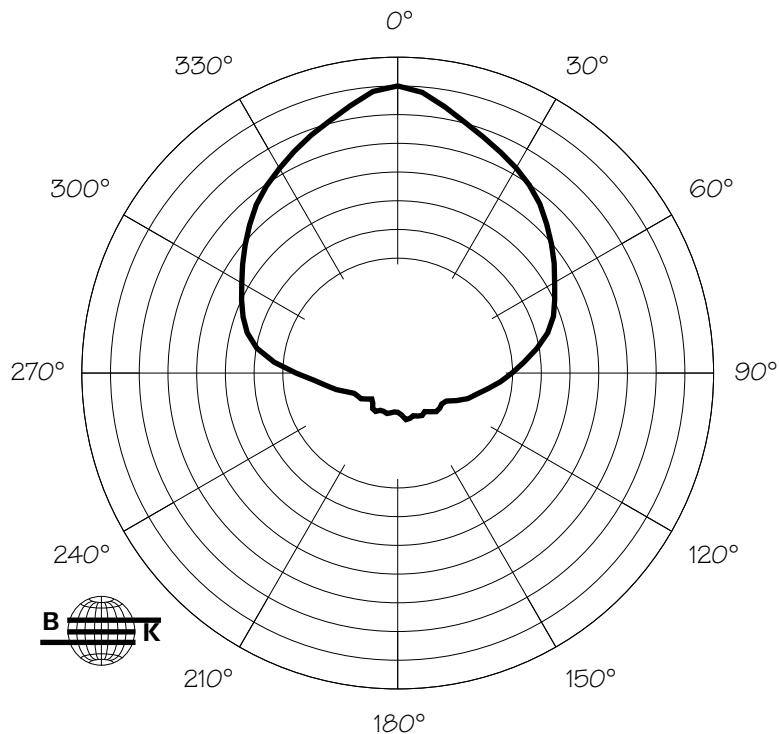


Vertical Octave Polar Data KF650is

KF650is 8000 Hz Vertical Octave Polar Data



KF650is 16000 Hz Vertical Octave Polar Data



6 db/div.