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Subject: Re: Polar, not bears.

Posted by [Wayne Parham](#) on Thu, 28 Jun 2007 21:51:27 GMT

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You can design a speaker with any directional pattern you like. Prosound speakers tend to be offered with narrower patterns than home hifi speakers. For example, you can find prosound speakers with 90°, 60° and even 40° patterns. Most home hifi speakers have wider patterns than that, since most are direct radiators. They also tend to have non-uniform directivity, since direct radiators begin to focus sound into a narrower spread as frequency rises, then at the crossover points the pattern widens again. I personally don't like the way that sounds, because it makes a non-uniform reverberent field, which sounds unnatural to me. The sound reflected back to you from the environment is tonally off. So I prefer a speaker that radiates uniform energy throughout the angle of coverage, preferably constant or at least uniformly collapsing without abrupt changes through the audio band. Sound System Design Manual, see Chapter 3, "Directivity and Angular Coverage of Loudspeakers"

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