Subject: Re: Favorite flavors
Posted by Earl Geddes on Sun, 23 Jan 2005 03:09:14 GMT
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WayneThese two comments are not true."But the listening area just becomes too small. The reverberent field is usually non-uniform too, since the highly directional nature of a narrow HF horn is very different than the non-directional LF energies produced by the speaker"Even with a 60° coverage the listening area ten feet back is about ten feet wide. And the reverberant field is NEVER uniform all the way down in frequency - thats impossible. But its also not what one wants. I want the power response to rise at lower frequencies in my rooms because I design them to have a lot of low frequency absorption. The increased power response at LF is exactly compensated for by the increased absorption. Further, the ear is not sensitive to early reflections at frequencies below about 500 Hz due to the way it processes LF signals. So one does not need high directionality all the way down in frequency. But it is critical that the coverage change be smooth and that is very doable with careful design.The word dispersion, if looked up in a physics text, means a wave speed that changes with frequency. SO using it for polar pattern description is coloqial and misused. Hence I don't use it. This is particularly true since the HOM are truely dispersive - in the physics sense, variable wave speed - and hence the use of the term for polar pattern would truely get confusing. The use came about as a loose description for the way a speaker "disperses" the sound, which, as I say, is not a very scientific description.To me CD always meant "Constant Directivity" which I much prefer.I hate to be picky, but correct word usage in science is very important.