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Subject: Re: Eight Pi

Posted by [Wayne Parham](#) on Sun, 06 Feb 2011 17:11:03 GMT

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Yes, the speaker is least efficient in its reflex region, below about 200Hz. Above that, it's horn loaded.

If the speaker is pulled out away from walls, its sensitivity is 95dB/M/2.83v. When in corners, it's 98dB/M/2.83v. In practice, even when it's back against the wall but not in corners, sensitivity is closer to 98dB in most rooms.

This speaker is a bit of an enigma, in that it is designed to be used in corners but not to need them. That's an oxymoron, actually. You either have it one way or the other. But the thing is, horn loading works down to 200Hz, so by the time the horn stops working, you're in the room's modal range. That makes directivity ambiguous, and therefore, so is on-axis response. The corner doesn't really provide any directivity below 200Hz anyway. It just helps the midhorn maintain directivity at the lower end of its operating range.

If the speaker had been flat down to 100Hz instead of 200Hz, I probably wouldn't have put in that bypass coil for bass-boost. The octave above 100Hz is a killer. It's a transition region between modal and reverberent regions. It's sort of partially both. So academically, I debated whether to add the bass-boost. A guy could use local subs and run them up a little higher instead. But in the end, I decided the speaker sounded a little too lean without the bottom-end compensation.