Subject: Re: Found some older parts...
Posted by Wayne Parham on Wed, 25 Sep 2024 13:51:52 GMT
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Cool old horns!

I have some of the old Eminence H290 horns too. They were a radial horn, and they sounded really good, in my opinion. They offered good spectral balance and fairly good horizontal dispersion.

That's why I used that particular horn in a lot of speakers. It wasn't a constant-directivity horn, but it did provide fairly uniform coverage along the horizontal plane. And it was much smoother than a horn of the time designed for constant directivity.

That's what the Eminence H295 horn is - a constant directivity horn. The coverage is more uniform, but there's a price for that. It's pretty harsh sounding. That's the drawback of that horn and all the other CD horns of that era - they were harsh and "spitty" sounding. Cymbals sounded like they had been run through a phase shifter - 'cause they had been. The acoustic version of a phase shifter, which is the diffraction slots and edges within the throat and body of the horn.

The horns we sometimes call "waveguides" are an answer to that. They offer the smoothness of a radial horn with the coverage uniformity of a constant-directivity horn. In fact, a well designed "waveguide/horn" can do better in both regards. That's what the Pi Speaker's H290C waveguide/horn is:

H290C Horn/Waveguide