Subject: Horn lens and SPL
Posted by Paul C. on Mon, 26 Sep 2005 03:53:50 GMT
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If this has been asked and answered before, forgive me.How do various horn lens affect the perceived SPL of a particular horn driver? Some spread the sound out, others are made to concentrate the sound directly to the front. It would seem that those that spread the sound more would yield a speaker that would have a consistent sound within a reasonable listening position in front of the speaker, that is, not change tone as the listener moved around.On the other hand, a horn lens design that concentrated the sound in one direction would have a higher SPL directly in front of the speaker system, but the tone would change more (treble dropping out) as the listener moved to the side.So, how does this all work out? If a horn driver were rated at, say, SPL = 105 db, what would be its perceived SPL directly in front with a constant directivity horn lens? with other various horn lens types?