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Subject: Re: SPL measurement Formula?

Posted by [Wayne Parham](#) on Wed, 30 Aug 2006 20:08:01 GMT

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Point sources fall off at a rate of 6dB per doubling of distance outdoors. This is the inverse of the square of the distance. Line sources falloff at the inverse of the distance, not the inverse squared.

This makes falloff of a line source be 3dB per doubling of distance, provided the line source is long enough compared to the distance to the listener. Once you get far away, a finite line source begins to act like a point source. These formulas only work in a free field, such as outdoors. Indoors, the reverberent field becomes charged and retains energy. That will make sound falloff different, because the walls reflect some of the sound back.

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