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# United States Patent [19]

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**Kantor et al.**

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[54] **IN-CEILING LOUDSPEAKER** 5,088,574 2/1992 Kertesz, III ..... 181/150

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## [57] **ABSTRACT**

[21] Appl. No.: **09/183,747**

An in-ceiling loudspeaker is provided which comprises a woofer and at least three tweeters located below the woofer with respect to the ceiling with the woofer and tweeters arranged to radiate direct acoustic signals downwardly and widely spread from the loudspeaker, the three tweeters mounted at acute angles with respect to the horizontal plane which is parallel to the ceiling, the acute angle preferably being approximately 65°. The three tweeters are regularly spaced equally at 120° from each other between the axis of the tweeter and the plane of the ceiling.

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[51] **Int. Cl.**<sup>6</sup> ..... **H05K 5/00**

[52] **U.S. Cl.** ..... **181/150; 181/154**

[58] **Field of Search** ..... 181/144, 147, 181/150, 154, 199; 381/182, 386

## [56] **References Cited**

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**17 Claims, 2 Drawing Sheets**

