

1. Title of the paper

Numerical analysis of electromagnetic emission from lighting implement

2. Author's names

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3. Abstract

In this paper, the simulation technique which can be used at the design stage is described in order to efficiently develop low electromagnetic emission type lighting implement employing 3-D FEM. Especially, the modeling of the fluorescent lamp, which is thought to be the largest emission noise source from lighting implement, is examined by applying the theory that the electron density distribution in fluorescent lamp is subjected to Bessel function. The validity of the analysis is verified by the measurement. It is found that the accuracy of the analysis is within 6dB in the frequency range from 30 to 150MHz.

(99words)

4. Scope(Topic area)

C. Applications of Computational Electromagnetics : C2 EMC/EM Hazards