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*Eddy currents in a copper conductor.* Consider a cylindrical copper conductor carrying a time-varying current, and whether this current is more or less uniform because of eddy currents induced in the conductor and their magnetic field. When compared to the analysis with no effect of eddy currents taken into account, the magnitude of the total current density vector over the cross section of the conductor

- (A) is more uniform.
- (B) is less uniform and increases towards the conductor surface.
- (C) is less uniform and decreases towards the conductor surface.
- (D) is not different.
- (E) is zero.

*Solution:* (B)

*Answer:* (B)