

Abstract

Measurement of a change in luminous flux of ionized noble gases
with five different electrical power supplies

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This experiment dealt with the issue of producing more light with less electricity for ionized noble gases. The hypothesis is that the larger the voltage applied to a neon tube, the larger the luminous flux. To determine if the hypothesis is correct, five neon tubes were manufactured and filled with one of four noble gases. The light output was measured with a photo voltaic cell using different alternating current transformers. Each transformer supplied a different current and voltage combination. The conclusion is that voltage has only a secondary effect on the light output. Current, on the other hand, has the primary effect on the light output.