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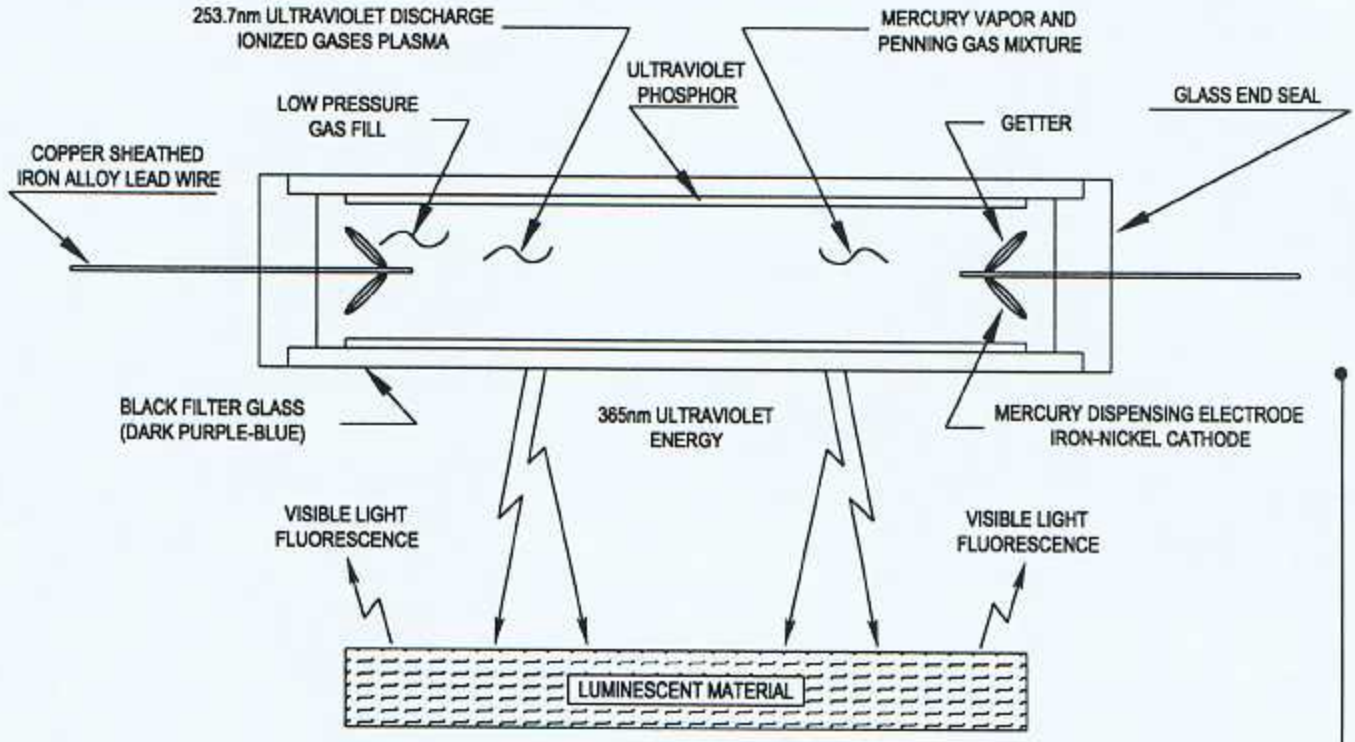
TECH BRIEF

WHAT ARE ULTRAVIOLET CCFLS?

Ultraviolet lamps producing energy in the 365nm region are often called black lights. Ultraviolet energy in the 365nm region of the electromagnetic spectrum is a shorter wavelength than the blue/violet light which is in about the 400-450nm range. The response of the human eye in the visible light, or photopic region, is typically descriped as being from 400-700nm. With the eye not having a well-defined cut off point at the top and bottom of its bandwidth, some perception may be possible down to about 380nm and up to about 780nm. Ultraviolet 365nm (black light) is outside of this region; therefore, technically it is not described as visible light but light energy. With this energy being outside the response of the human eye, the invisible 365nm ultraviolet energy is used to produce visible light fluorescence of luminous materials.

The 365nm phosphor has a spurious visible emission primarily in the blue region. Therefore, a filter glass is used for the lamp's cylindrical envelope to diminish the spurious light product. The glass appears as black. In actuality it is a dark purple/blue.

The diagram below depicts the typical construction of an ultraviolet ccfl.



Tech Brief No.: TB-1004 rev. A
Authored By: John H. Kahl
Revision Date: March 30, 1999
Classification: CCFL / UV
Cad File No.: 165-1004-001-1a

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