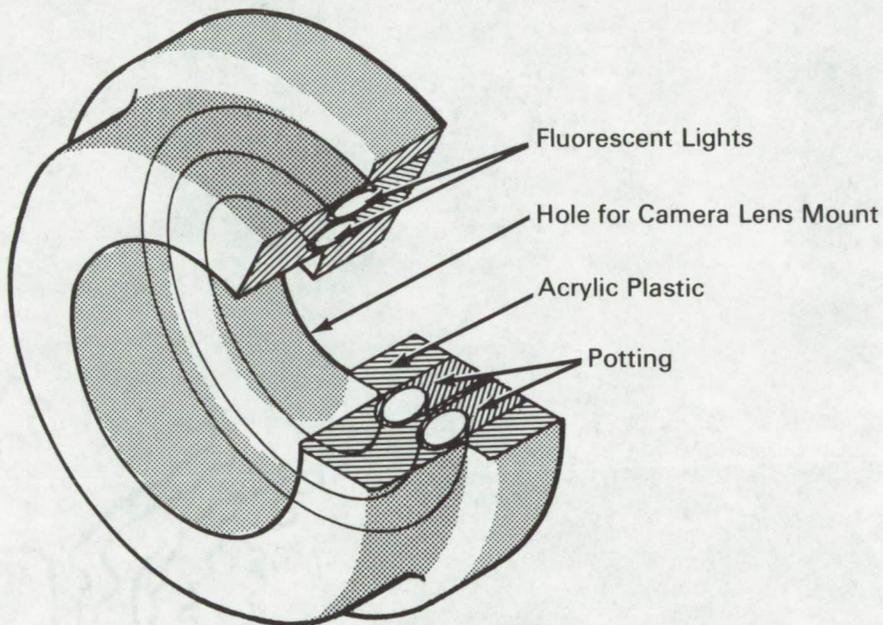


# NASA TECH BRIEF



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## Circular, Explosion-Proof Lamp Provides Uniform Illumination



### The problem:

To design an explosion-proof lamp that can be fitted around a TV camera lens to provide shadowless illumination with a relatively low radiant heat flux.

### The solution:

Circular fluorescent lamps mounted in a transparent acrylic housing sealed with clear silicone rubber.

### How it's done:

The housing and sealing materials, which were chosen for their optical and out-gassing properties,

form a toroidal assembly around the circular fluorescent lamps.

The toroidal lamp fixture is fitted around the camera lens to provide uniform illumination in the camera's field of view. Since the lamp fixture and camera move together, the areas being photographed will always be exposed to uniform, shadowless illumination.

### Notes:

1. This lamp may be used in areas requiring explosion-proof lighting, such as hospital operating rooms.

(continued overleaf)

2. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer  
Manned Spacecraft Center  
Houston, Texas, 77001  
Reference: B66-10156

**Patent status:**

No patent action is contemplated by NASA.

Source: North American Aviation, Inc.  
under contract to  
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