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(54) Title: RING LIGHT ILLUMINATOR AND BEAM SHAPER FOR RING LIGHT ILLUMINATOR

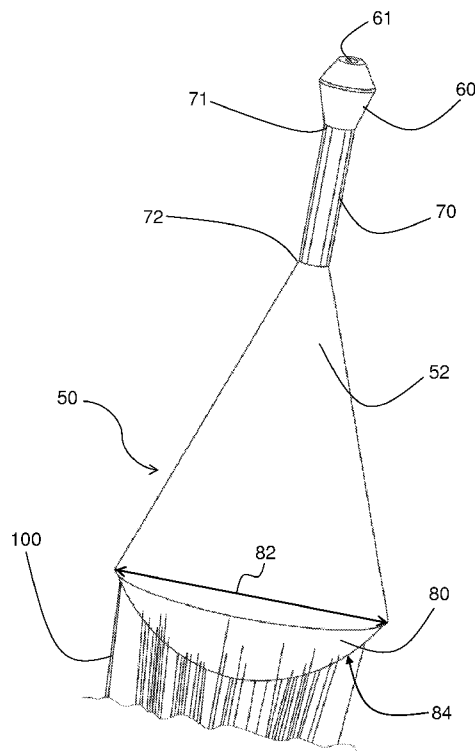


Fig. 9

(57) Abstract: A ring light illuminator with annularly arranged light sources is disclosed. To each light source there corresponds a beam shaper comprising a light collector, a homogenizing means for light from the light source, and an imaging means for imaging an output of the homogenizing means into an area to be illuminated. The homogenizing means in embodiments is a rod, into which light from the light collector is directed. The end of the rod opposite the light collector is imaged by the imaging means into the area to be illuminated.

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