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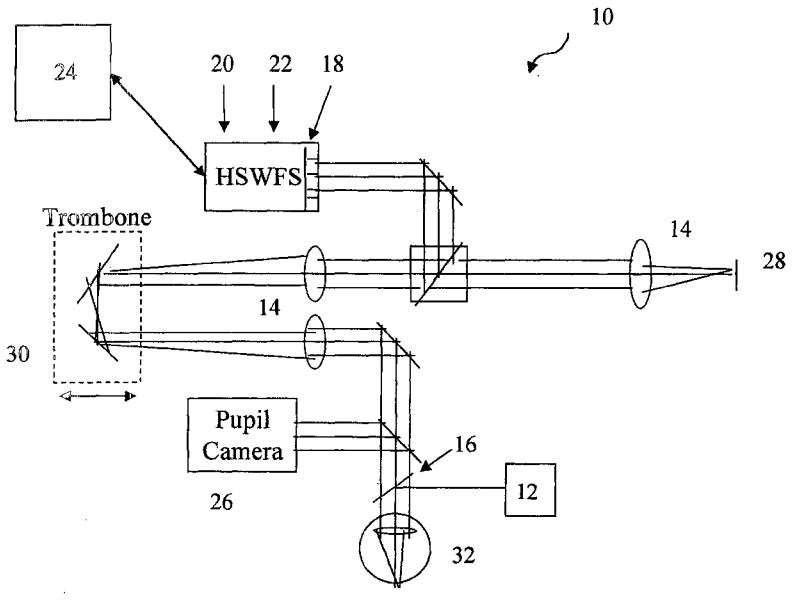
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(54) Title: ABERROMETER ILLUMINATION APPARATUS AND METHOD



(57) Abstract: A wavefront-sensing device for measuring ocular aberrations includes, among other things, a retinal illumination component and a wavefront imaging component (e.g., a microlens array for a Shack-Hartmann wavefront sensor). The retinal illumination component includes a laser source and a fixed collimating lens. In one embodiment, an improved device has a beam path between the retinal illumination component and the patient's eye containing no refracting, diffracting, or phase altering components for focusing the illumination beam on the retina. In another embodiment, the retinal illumination component provides a beam having a diameter on the retina that is smaller than the diffraction limit of the wavefront imaging component over a refractive focus range of the patient's eye of between about -12D to +6D.

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