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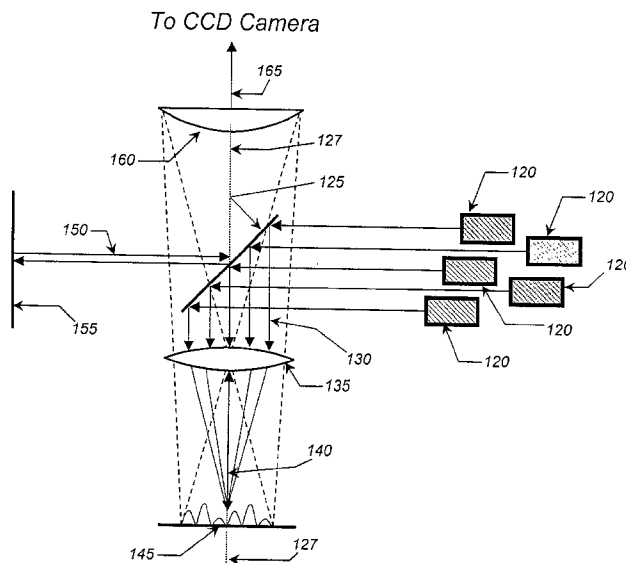
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(54) Title: RAPID DIRECT-TO-DIGITAL HOLOGRAPHIC ACQUISITION OF OBJECT OFF-AXIS ILLUMINATED BY SEVERAL ILLUMINATION SOURCES



(57) Abstract: Systems and methods are described for rapid acquisition of fused off-axis illuminated direct-to-digital holography. A method of recording a plurality of off-axis object illuminated spatially heterodyne holograms, each of the off-axis object illuminated spatially heterodyne holograms including spatially heterodyne fringes for Fourier analysis, includes digitally recording, with a first illumination source (120) of an interferometer, a first off-axis object illuminated spatially heterodyne hologram including spatially heterodyne fringes for Fourier analysis; and digitally recording, with a second illumination source (120) of the interferometer, a second off-axis object illuminated spatially heterodyne hologram including spatially heterodyne fringes for Fourier analysis.



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