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(54) **LIGHT SOURCE POSITION DETECTION APPARATUS, LIGHT SOURCE TRACKING APPARATUS, CONTROL METHOD AND PROGRAM**

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See application file for complete search history.

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(57) **ABSTRACT**

A light source position detection apparatus (**10**) has a condensing lens (**32**) that condenses light emitted from the sun, an image pickup device (**33**) that receives the light condensed by the condensing lens (**32**), and a CPU (**21**) that detects the position of the sun based on per-pixel light reception information received by the image pickup device (**33**), and the CPU (**21**) changes the shutter speed of the image pickup device (**33**) and adjusts the quantity of the light received by the image pickup device in response to the quantity of light emitted from the sun. The light source position detection apparatus (**10**) can detect the position of a light source with high accuracy, and can detect the position of the light source with high accuracy even when the light source is hidden behind clouds, for example.

13 Claims, 7 Drawing Sheets