The position estimator is configured to extract a block with a movement detected by the movement detector and to estimate a coordinate position from the center of the door in the block as the passenger's position. The controller is configured to reflect the passenger's position estimated by the position estimator in operation control of the elevator car. The distortion correction processor is configured to execute processing of reducing the captured images having distortion corrected as compared with the captured images to have distortion corrected.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a diagram showing a schematic configuration example of an elevator system according to an embodiment.

FIG. 2 is a diagram for explaining a distortion correction process performed by the elevator system according to the embodiment.

FIG. 3 is a diagram showing a state where an image captured by the elevator system according to the embodiment is divided by the block.

FIG. 4 is a diagram showing an example of a movement detection area set by the elevator system according to the embodiment.

FIG. 5 is a diagram showing an image (an original image) captured by the elevator system according to the embodiment.

FIG. 6 is a diagram showing a case where the movement detection area is set in the original image shown in FIG. 5.

FIG. 7 is a diagram showing a case where a passenger is standing near a door pocket and also a case where the movement detection area is set in a captured image having no distortion.

FIG. 8 is a diagram showing a case where the

passenger is standing in the same position as FIG. 7 and also a case where the movement detection area is set in a captured image having distortion.

FIG. 9 is a flowchart showing an example of the

WHAT IS CLAIMED IS:

1. An elevator system comprising:

a camera configured to capture a hall including around a door of an elevator car;

a distortion correction processor configured to correct distortion of multiple images captured by the camera on the basis of a coordinate conversion table stored in a memory in advance;

a movement detector configured to detect a passenger's movement by comparing brightness of the multiple images corrected by the distortion correction processor block by block;

a position estimator configured to extract a block with a movement detected by the movement detector and to estimate a coordinate position from the center of the door in the block as the passenger's position; and

a controller configured to reflect the passenger's position estimated by the position estimator in operation control of the elevator car;

wherein the distortion correction processor is configured to execute processing of reducing the captured images having distortion corrected as compared with the captured images to have distortion corrected.

2. The elevator system of Claim 1, wherein when the passenger's position estimated by the position estimator is included in an area where a part of the passenger's body is likely to be caught in the door, the controller is configured to alert the passenger and to open the door at a lower speed than normal.

3. The elevator system of Claim 1, further comprising a boarding-intention estimator configured to estimate the presence or absence of the passenger's intention of boarding on the basis of time-series changes in the passenger's position estimated by the