

**LITHOGRAPHIC APPARATUS AND METHOD FOR OPTIMIZING AN
ILLUMINATION SOURCE USING PHOTOLITHOGRAPHIC SIMULATIONS**

ABSTRACT OF THE DISCLOSURE

A method for optimizing the illumination conditions of a lithographic apparatus by computer simulation, the lithographic apparatus including an illuminator and a projection system, includes defining a lithographic pattern to be printed on the substrate, selecting a simulation model, selecting a grid of source points in a pupil plane of the illuminator, calculating separate responses for individual source points, each of the responses representing a result of a single or series of simulations using the simulation model, and adjusting an illumination arrangement based on analysis of accumulated results of the separate calculations.

Figure 1