1. An illumination device (1) for illuminating a target region (31) of a target (3) to be combated,
comprising
- a light source (10), which is provided by a laser light source, for emitting light along a beam path (4),
- a first modulator (7), which is introduced into the beam path (4) and is configured to manipulate a direction of the beam path (4) in a first plane (100),
- a phase plate (9), which is introduced into the beam path (4) and has a variety of different optical thicknesses (91, 92, 93),
- a control device (8), which is connected to the light source (10) in the first modulator (7) and is configured to activate the first modulator (7) using different frequencies, so that the beam path (4) can be deflected over a control period of time up to a first angle (40), and
- an optical system (2) provided to focus the beam path (4) onto the target region (31) of the target to be combated.

2. The illumination device (1) according to Claim 1,
characterized in that the light source (10) emits light pulses.

3. The illumination device (1) according to Claim 2,
characterized in that the light source (10) emits at least one complete light pulse during the control period of time.

4. The illumination device (1) according to one of the preceding claims, characterized in that the first modulator (7) is an acousto-optical modulator, in particular a Bragg cell.

5. The illumination device (1) according to one of the
preceding claims, characterized in that a difference of the variety of the optical thicknesses (91, 92, 93) of the beam plate (9) does not fall below a value of 1 µm, in particular a value of 5 µm, and/or does not exceed a value of 50 µm, in particular a value of 10 µm.

6. The illumination device (1) according to one of the preceding claims, characterized by a second modulator (75), which is implemented identically to the first modulator (7) in particular, wherein the second modulator (75) is configured to manipulate a

direction of the beam path (4) in a second plane (200), wherein the first plane (100) and the second plane (200) extend perpendicularly to one another in particular.

7. The illumination device (1) according to one of the preceding claims, characterized by an optical sensor (5), in particular a camera, which is configured to detect light radiation emitted by the light source (10) and reflected from the target (3).

8. A method for illuminating a target region (31) of a target (3) to be combated, using an illumination device (1) according to one of the preceding claims, comprising the following steps, which are executed in the specified sequence:
- emission of a light pulse by the light source (10),
- activation of the first modulator (7) and/or the second modulator (75) to deflect the light pulse in a randomly determined direction onto the phase plate (9).

9. The method according to claim 8, characterized in that the steps are executed in continuous repetition.

10. The method according to claim 9, comprising the additional steps:
- reception of each emitted light pulse,
- determination of a chronological mean value of the intensity of the received light pulse.