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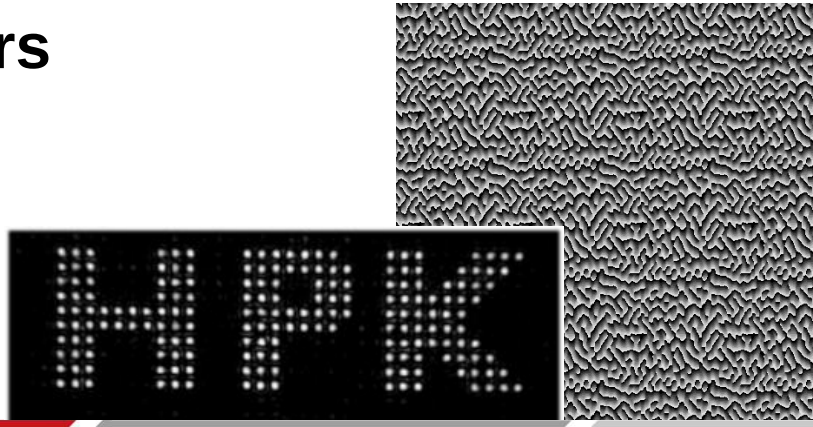
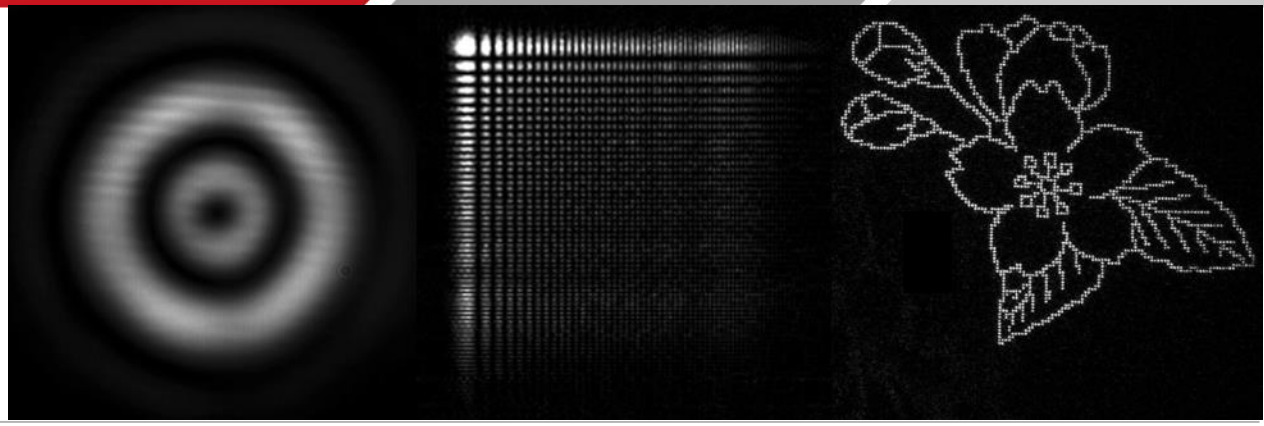
# LCOS - Spatial Light Modulators

*Optical Setup Examples*




Thomas Niedereichholz



# Optical Setup examples

Example optical system setups using the LCOS-SLM are shown in the figure 14 and 15. Example 1 is an optical system using a half-mirror. Example 2 shows an oblique-incidence optical system. One merit of the setup in Example 2, compared to the setup in Example 1, is that the amount of light loss due to the half-mirror is reduced.

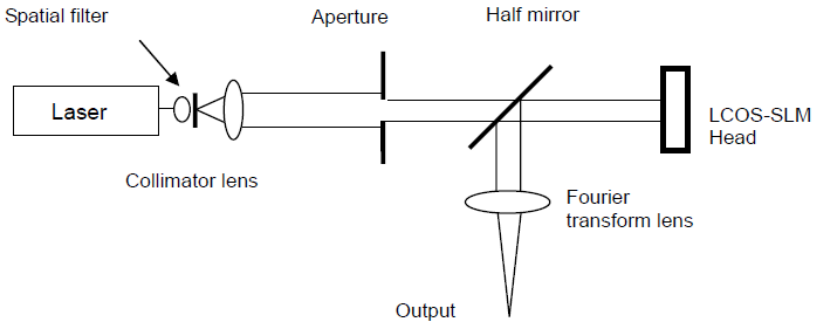



**Fig.14 Example1**

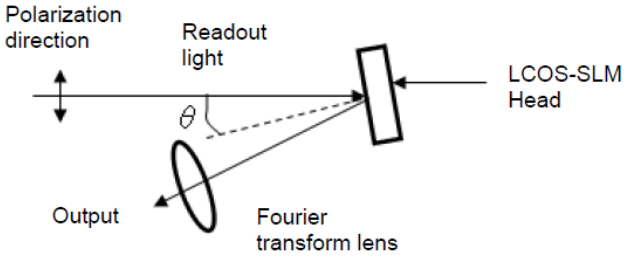
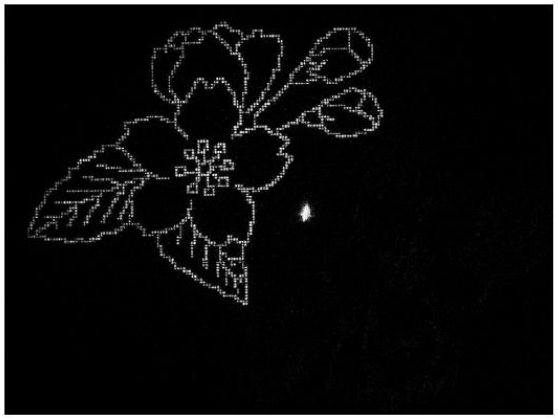



**Fig.15 Example2**

*Advice:* In the oblique-incidence optical system in Example 2, use an incident angle θ of 5° or less.
*Advice:* In the oblique-incidence optical system in Example 2, the incident light should be horizontally polarized*.

* Horizontally polarized means a polarization direction parallel to the plane including the incident light and the reflected light.

# Optical Setup examples






A CCD camera is just put on a Fourier plane where the reconstructed image of a CGH is sited. This is a way for direct observation of reconstructed images of CGH. No more special arrangements are not applied. The CCD camera used is an industrial one and is not a special one.

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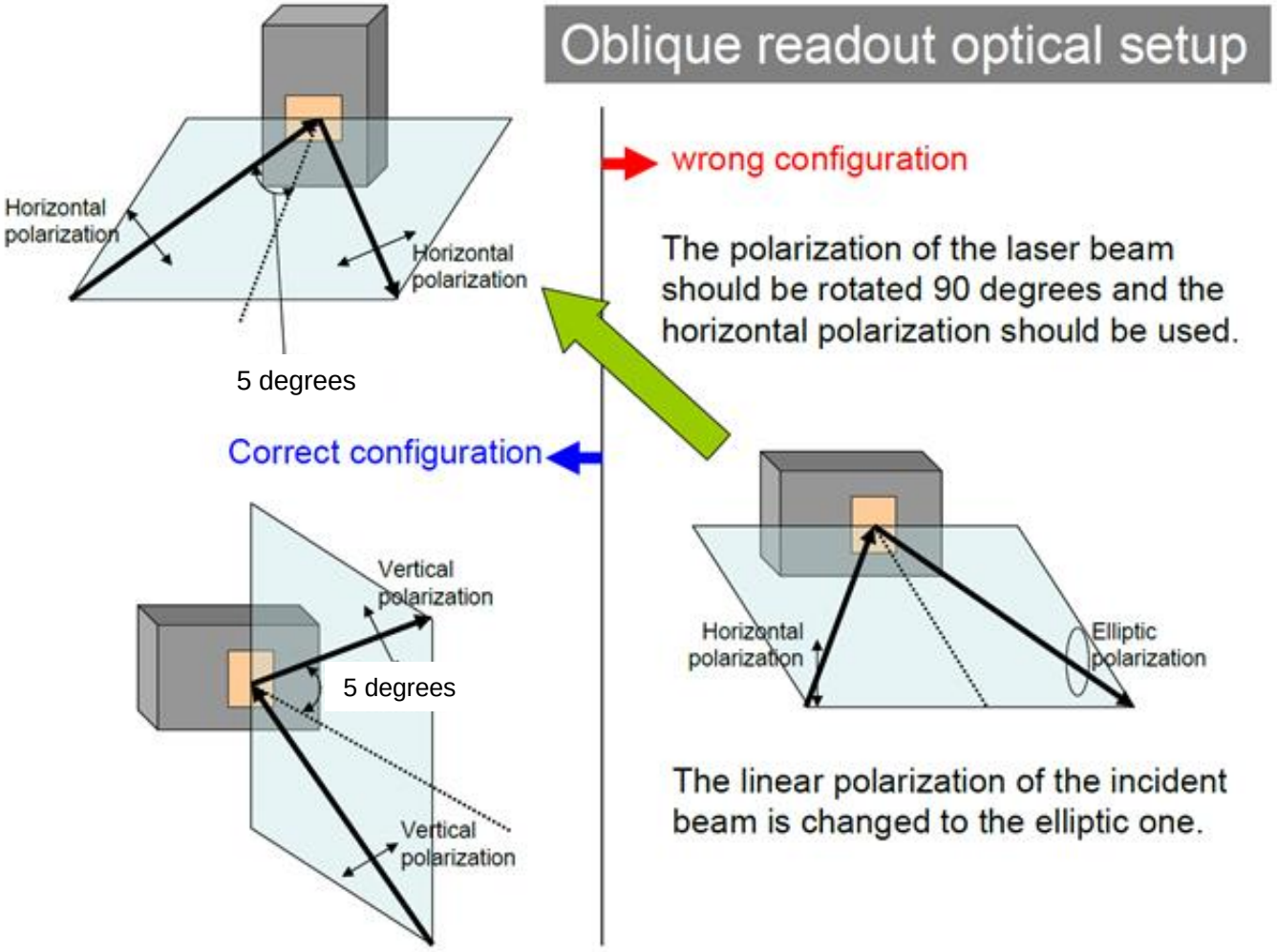

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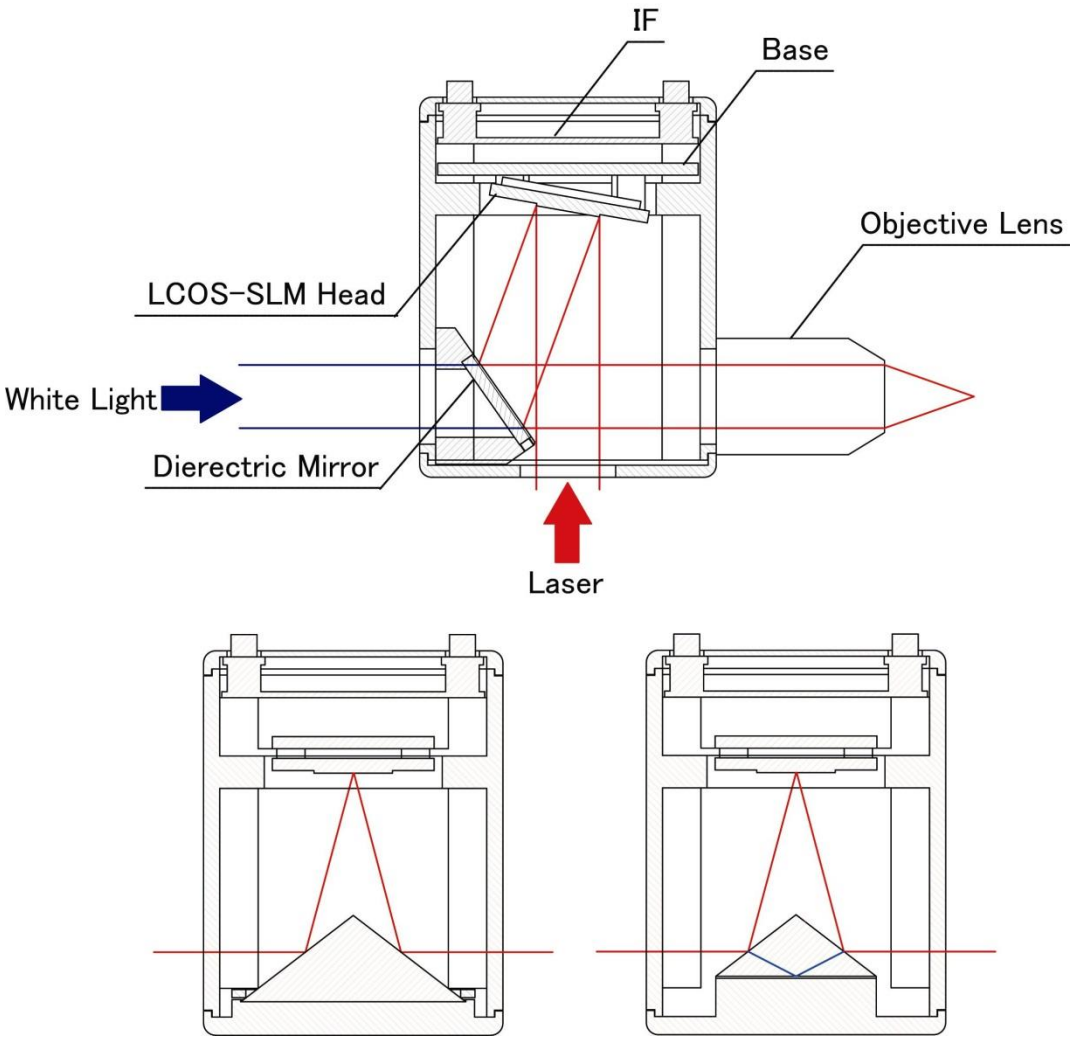
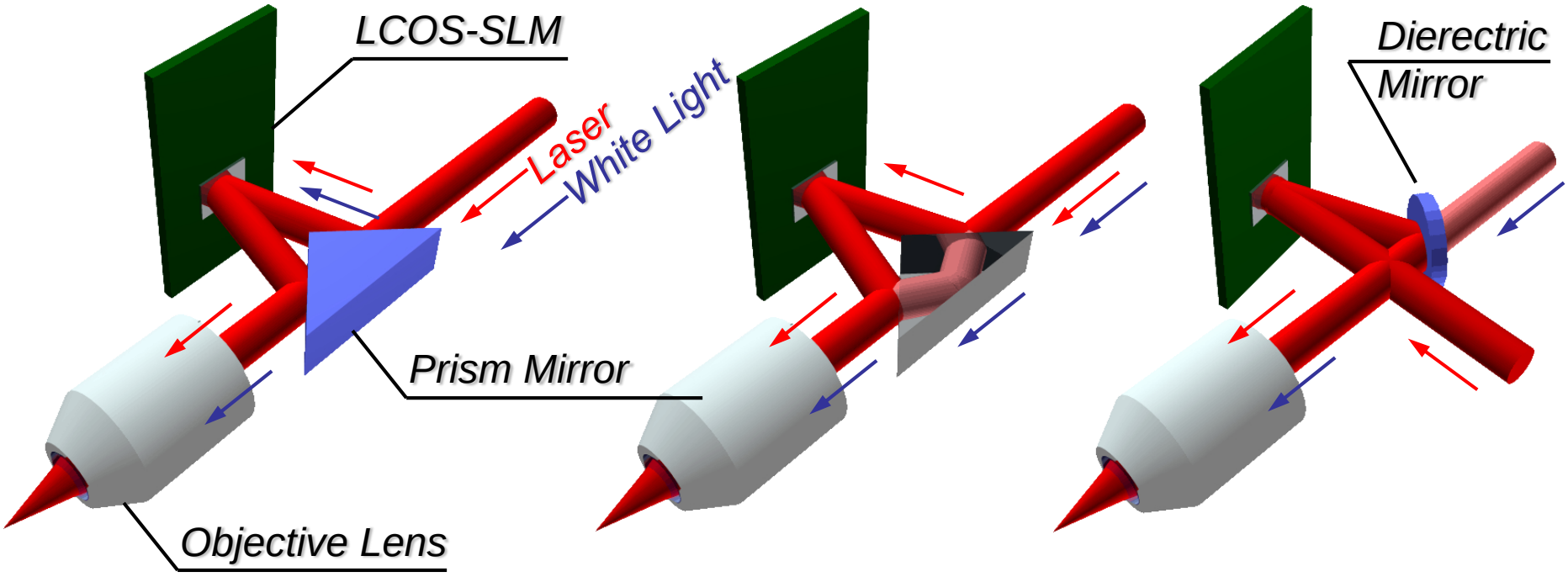


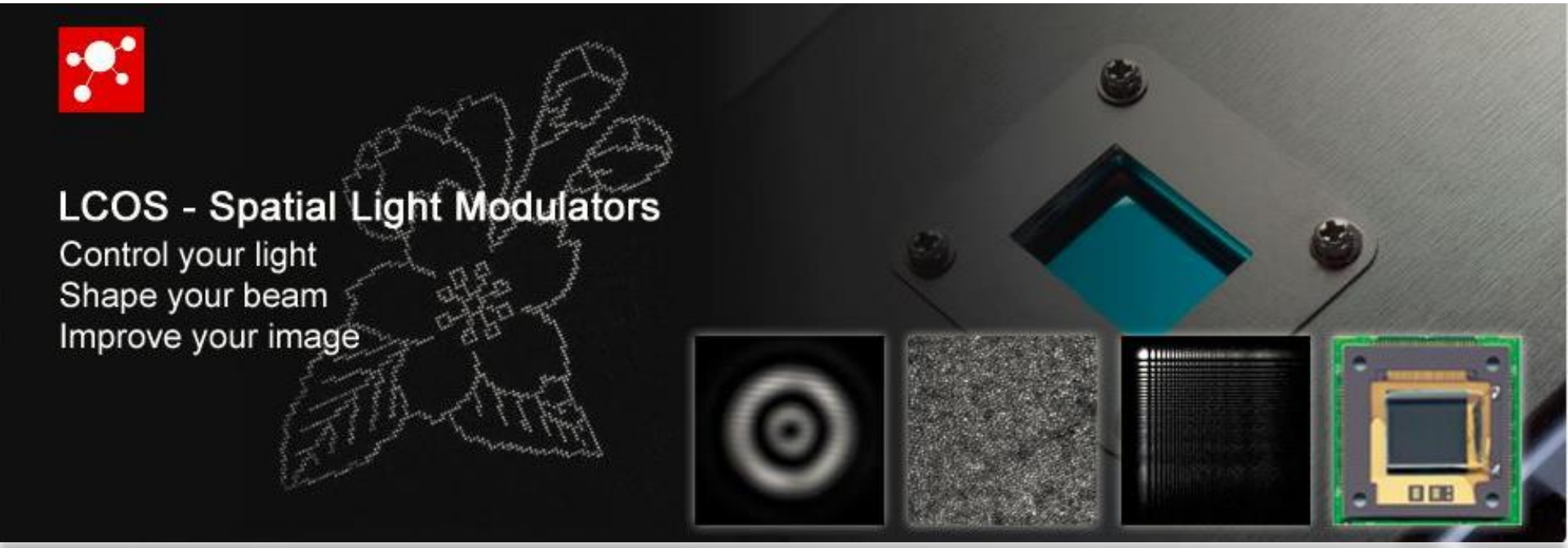
# Optical Setup examples




(1) 0 degree Type1

(2) 0 degree Type2

(3) 90 degree




LCOS Community Website

***www.hamamatsu.com/LCOS***