In this work we focus on determining the properties of emICCD camera PI-MAX4: 512 EM, which is connected to IsoPlane 320 spectrograph. The first chapter contains a brief description of emICCD detection and a summary of parameters of the camera, spectrograph and basics of Lightfield software. The second chapter is dedicated to describing the utilization rate of the gain function, the spectral resolution and comparing the emICCD camera with a classic CCD camera. This work should provide a summary of the basics about the emICCD camera together with the information which are fundamental to its right operation.