Testing a 20 cm Diameter Open Reflector

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An open reflector with plane mirrors has been designed and manufactured as a first step to test the cementing technology. The measurement of the offset angles during and immediately after assembly demonstrated the required accuracy of 0.2 arc seconds. Following tests mounting the reflector in different orientations showed significant distortions by gravity as well as some long-term drift. The tests have been performed mainly using the large collimator of the Solar Telescope "Einstein Tower Potsdam". The results show the necessity to upgrade the cementing technology.