Quality requirements to the windows' optical surfaces for the non-cooled ultraviolet and infrared photodetectors

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A calculation of the requirements to quality of the manufacture of the window based on the tolerances analysis by the quality of manufacturing surfaces of the windows developed optical system for the UVR and IR ranges was conducted. The results of the calculation of the requirements to quality of windows' optical surfaces for the UVR, NIR (0.9-1.7 μm) and LWIR (8-14 μm) photodetectors are presented. According to its basic parameters (angular field, relative aperture, scattering spot), the developed optical systems meet to the modern UV and IR lenses produced in Russia and the world.

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