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2.8 Retroreflector Array for an Eccentric Orbit

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An eccentric orbit presents problems for laser tracking because of the large variations in range, velocity aberration, and incidence angle on the array. This paper presents a design that should be able to accommodate the variation in these quantities and provide millimeter range accuracy. It uses a hemisphere with a large number of half inch coated cube corners with no (intentional) dihedral angle offset.