Abstract. We study $L^p - L^r$ restriction estimates for algebraic varieties $V$ in the case when restriction operators act on radial functions in the finite field setting. We show that if the varieties $V$ lie in odd dimensional vector spaces over finite fields, then the conjectured restriction estimates are possible for all radial test functions. In addition, assuming that the varieties $V$ are defined in even dimensional spaces and have few intersection points with the sphere of zero radius, we also obtain the conjectured exponents for all radial test functions.