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The X-Ray transform can model a CAT scanner and replacing euclidean space by a finite field allows detailed analysis of this transform. Admissible complexes are minimal sets of lines on which the restricted X-Ray transform is injective. Such complexes have been counted by brute force means in the past. Here we use a geometric-graph-theoretic characterization of admissible complexes to count them. One hopes that extensions to higher dimensions and larger fields are possible. In the projective variant this has been done by D.Feldman and E.Grinberg. (Received February 20, 2018)