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List-mode data is increasingly being used in SPECT and PET imaging, among other imaging modalities. However, there are still many imaging designs that effectively bin list-mode data before image reconstruction or other estimation tasks are performed. Intuitively, the binning operation should result in a loss of information. In this work we show that this is true for Fisher information and provide a computational method for quantifying the information loss. In the end we find that the information loss depends on three factors. The first factor is related to the smoothness of the mean data function for the list-mode data. The second factor is the actual object being imaged. Finally, the third factor is the binning scheme in relation to the other two factors. (Received January 21, 2020)