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cooler temperatures  $60 \text{ K} \lesssim T_c \lesssim 80 \text{ K}$  so their (unmeasured) FIR angular sizes must exceed  $\theta \gtrsim 0''.25$ , yet they contain compact (but usually resolved) radio sources smaller than this limit. The unique radio and FIR properties of these galaxies can be modeled by ultraluminous nuclear starbursts so dense that they are optically thick ( $\tau \gtrsim 1$ ) to free-free absorption at  $\nu \sim 1.49 \text{ GHz}$  and dust absorption at  $\lambda \sim 25 \mu\text{m}$ . Only one galaxy (UGC 08058 = Mrk 231) is dominated by a variable radio source too compact ( $\lesssim 1 \text{ pc}$ ) to be an ultraluminous starburst, it must be powered by a "monster".

2. A catalog of IRAS fluxes for galaxies in the northern sky brighter than  $m_B = 14.5$  (publication 4, reprint enclosed).

We have obtained IRAS flux densities for all galaxies in the Center for Astrophysics (CfA) magnitude-limited sample ( $m_B \leq 14.5$ ) detected in the IRAS Faint Source Survey (FSS), a total of 1544 galaxies. The FSS is an attempt to reach lower sensitivity limits than the Point Source Catalog (PSC) in the IRAS data by generalizing the coadding method to the whole sky. The detection rate in the FSS is slightly larger than in the PSC for the long wavelength 60 and 100  $\mu\text{m}$  bands, but improves substantially (by a factor of  $\sim 3$  or more) for the short wavelength 12 and 25  $\mu\text{m}$  bands. 63% of all 2445 CfA galaxies were detected in at least one IRAS band in the FSS, and, compared to the PSC, we have added  $\sim 50\%$  more flux densities, with the additions coming essentially all in the short wavelength range.

This optically selected sample consists of galaxies which are, on average, much less infrared-active than galaxies in infrared-selected samples. It possesses accurate and complete redshift, morphological and magnitude information, along with observations at other wavelengths, and forms the basis for studies of the far-infrared properties of optically selected galaxies in a forthcoming series of papers.