¹³CO Bell Laboratories Survey: ¹³CO Column Density Distribution of the First Quadrant of the Galactic Plane

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We present the distribution of 13 CO column density of the first quadrant (l=8-90) of the Galactic Plane using the 13 CO Bell Laboratories Survey and UMass-Stony Brook 12 CO Survey. We estimate the column density channel by channel (with a velocity step of 1 km/sec) with LTE assumption, generating the column density cube data for the first quadrant. Spatial resolution is smoothed into 6 arcminute for whole direction. The highest column density is estimated to be 9.3×10^{16} cm $^{-2}$ per channel, which is one of the densest part of the Galactic Ring region. Good correlationship is found between 13 CO integrated intensity and column density. We discuss some characteristics of the column density distribution.