For the proof of ②, first of all,

Definition: If X is locally compact and μ is a Borel measure which is finite on all compact subsets of X, then μ is called a Radon measure. (See Donoghue. Distributions and Fourier Transforms. p24).

$\Rightarrow$ By p42 ~ p51, $\exists$ a unique Radon measure μ s.t

$$\Lambda(\varphi) = \int_G \varphi \, d\mu. \qquad \varphi \in C_c^0(G).$$

Now let's go back to p17.

1 c) At each point $x \in D$, let us write $V_m(x)$ for the infimum of those ξ for which the set $[y;\ V(y) > \xi]$ is of measure zero in a nbd of x. Then the condition to be fulfilled is:

$$V(x) = V_m(x) \qquad \text{for each } x \in D.$$

Suppose $\xi > V_m(x)$. $\Rightarrow$ $\{y : V(y) > \xi\}$ has measure zero in some nbd of x. $\Rightarrow$ Almost all y satisfy $V(y) \le \xi$, in the nbd of x.

$V_m(x)$ is the limit of $\sup_U V(y)$ as we run through a sequence of nbds U having x as their only common point, the sup being taken in measure.