function on K, i.e., $\chi(x)=1$. $x \in K$. $\chi(x)=0$. $x \in K^c$.

then we have α, s.t $\alpha(x) \geq \chi(x)$, $\alpha \in L$.

$\Rightarrow$ From $-\|\phi\|\alpha \leq \phi \leq \|\phi\|\alpha$,

$$l(-\|\phi\|\alpha) \leq l(\phi) \leq l(\|\phi\|\alpha)$$

$$\Rightarrow \quad -\|\phi\|\, l(\alpha) \leq l(\phi) \leq \|\phi\|\, l(\alpha). \qquad \|\phi\| = \|\phi\|_0.$$

Whence $|l(\phi)| \leq A\|\phi\|$;
this shows that l is a continuous linear operator of order zero on L and hence on $\mathcal{D}^0(G)$ since L is dense in $\mathcal{D}^0(G)$. In particular, a positive distribution can be regarded as a positive measure.

By the argument above, a positive distribution is a continuous linear operator of order zero on $C(G)$, for given any compact set $K \subset G$, $\exists$ $K \subset U \subset \bar{U} \subset G$ s.t $\bar{U}$ compact, and $\exists$ ρ s.t ρ is C^∞ on G supp $\rho \subset U$. & $\rho = 1$ on K, which implies any positive distribution satisfies the assumption of Proposition 1.

We have to check the followings:

① If Λ is of order 0, then Λ can be extended to $C_c^0(G)$.

② Λ can be identified with a Radon measure.

For the proof of ①,
given $\phi \in C_c^0(G)$, then $\phi_\epsilon(x) = \int_G \phi(y)\, \chi_\epsilon(x-y)\, dy$ is uniformly convergent to $\phi(x)$.