$$\rho(r) = r^2 |R(r)|^2 \quad \rho(\theta, \phi) = \sin\theta |Y(\theta, \phi)|^2$$

$$\int \rho(r)\,\mathrm{d}r = 1 \quad \int \rho(\theta, \phi)\,\mathrm{d}\theta\,\mathrm{d}\phi = 1$$