

$$L_{dn} = 10 \log_{10} \left[ \frac{1}{86400} \left( \int_{0000}^{0700} 10^{[L_A(t)+10]/10} dt + \int_{0700}^{2200} 10^{L_A(t)/10} dt + \int_{2200}^{2400} 10^{[L_A(t)+10]/10} dt \right) \right] \quad (3)$$