$$\int \frac{i(N-2)}{16\pi} \operatorname{Tr} \partial_\mu g_0 \partial_\mu g_0^{-1} \ln\left(\frac{\Lambda^2}{\mu^2}\right) d^2x, \tag{18}$$

where Λ is a momentum space cut-off and μ is a renormalization mass. From this we read off the one loop beta function

$$\beta(\lambda, n) = -\frac{\lambda^2(N-2)}{4\pi}\left[1-\left(\frac{\lambda^2 n}{4\pi}\right)^2\right] \tag{19}$$

which, as claimed, vanishes for $\lambda^2 = \left|\frac{4\pi}{n}\right|$.