from linear algebra import tr

$$\begin{split} &\mathcal{J}_{3}=\mathbb{1}_{3,3}\\ &\kappa_{angle}(D_{m})=3\Big(\sqrt{2}v\Big)^{\frac{2}{3}}\left(\frac{7}{4}\|D_{m}\|_{F}^{2}-\frac{1}{4}tr\big(\mathcal{J}_{3}D_{m}{}^{T}D_{m}\big)\right)^{-1} \end{split}$$

where

$$D_m \in \mathbb{R}^{3 \times 3}$$
 $v \in \mathbb{R}$