$$
\begin{aligned}
C_{\text{quqd}}^{(8)}{}^{\text{i1\_i2\_i3\_i4}}{}_- \to\ & \frac{1}{16\,\pi^2}\ \left(\frac{1}{18}\ s_\gamma\ c_\gamma\ \frac{1}{m_{\Phi}^2}\ \left(9\ s_\gamma{}^2\ \overline{y_d}^{\,pr}\ y_d{}^{\text{i1i4}}\ y_d{}^{\text{i3r}}\ y_u{}^{\text{pi2}}\ -\right.\right.\\
& 36\ g_3{}^2\ y_d{}^{\text{i3i4}}\ y_u{}^{\text{i1i2}} - y_u{}^{\text{i3i2}}\ \left(y_d{}^{\text{i1i4}}\ \left(5\ g_1{}^2 + 27\ g_2{}^2 + 24\ g_3{}^2\right) - 9\ c_\gamma{}^2\ y_d{}^{\text{pi4}}\ \overline{y_u}^{\,pr}\ y_u{}^{\text{i1r}}\right)\right) +\\
& \frac{1}{9}\ s_\gamma\ c_\gamma\ \left(-36\ g_3{}^2\ y_d{}^{\text{i3i4}}\ y_u{}^{\text{i1i2}} - y_d{}^{\text{i1i4}}\ y_u{}^{\text{i3i2}}\ \left(5\ g_1{}^2 + 27\ g_2{}^2 + 24\ g_3{}^2\right)\right)\bigg)\ \text{LF}_{1,2}\left[m_{\Phi}\right] +\\
& \frac{2}{9}\ m_1\ \tilde\mu\ g_1{}^2\ y_d{}^{\text{i1i4}}\ y_u{}^{\text{i3i2}}\ \text{LF}_{1,1,1,1,0}\left[m_1,\ m_{\tilde d}{}^{\text{i4}},\ m_{\tilde q}{}^{\text{i3}},\ \tilde\mu\right] +\\
& \frac{8}{9}\ m_1\ \tilde\mu\ g_1{}^2\ y_d{}^{\text{i1i4}}\ y_u{}^{\text{i3i2}}\ \text{LF}_{1,1,1,1,0}\left[m_1,\ m_{\tilde d}{}^{\text{i4}},\ m_{\tilde u}{}^{\text{i2}},\ \tilde\mu\right] -\\
& \frac{1}{9}\ m_1\ \tilde\mu\ g_1{}^2\ y_d{}^{\text{i1i4}}\ y_u{}^{\text{i3i2}}\ \text{LF}_{1,1,1,1,0}\left[m_1,\ m_{\tilde q}{}^{\text{i1}},\ m_{\tilde q}{}^{\text{i3}},\ \tilde\mu\right] -\\
& \frac{4}{9}\ m_1\ \tilde\mu\ g_1{}^2\ y_d{}^{\text{i1i4}}\ y_u{}^{\text{i3i2}}\ \text{LF}_{1,1,1,1,0}\left[m_1,\ m_{\tilde q}{}^{\text{i1}},\ m_{\tilde u}{}^{\text{i2}},\ \tilde\mu\right] +\\
& 3\ m_2\ \tilde\mu\ g_2{}^2\ y_d{}^{\text{i1i4}}\ y_u{}^{\text{i3i2}}\ \text{LF}_{1,1,1,1,0}\left[m_2,\ m_{\tilde q}{}^{\text{i1}},\ m_{\tilde q}{}^{\text{i3}},\ \tilde\mu\right] +\\
& \frac{2}{3}\ m_3\ \tilde\mu\ g_3{}^2\ y_d{}^{\text{i1i4}}\ y_u{}^{\text{i3i2}}\ \text{LF}_{1,1,1,1,0}\left[m_3,\ m_{\tilde d}{}^{\text{i4}},\ m_{\tilde q}{}^{\text{i3}},\ \tilde\mu\right] +\\
& \frac{2}{3}\ m_3\ \tilde\mu\ g_3{}^2\ \left(3\ y_d{}^{\text{i3i4}}\ y_u{}^{\text{i1i2}} + y_d{}^{\text{i1i4}}\ y_u{}^{\text{i3i2}}\right)\ \text{LF}_{1,1,1,1,0}\left[m_3,\ m_{\tilde d}{}^{\text{i4}},\ m_{\tilde u}{}^{\text{i2}},\ \tilde\mu\right] +\\
& \frac{2}{3}\ m_3\ \tilde\mu\ g_3{}^2\ \left(3\ y_d{}^{\text{i3i4}}\ y_u{}^{\text{i1i2}} + y_d{}^{\text{i1i4}}\ y_u{}^{\text{i3i2}}\right)\ \text{LF}_{1,1,1,1,0}\left[m_3,\ m_{\tilde q}{}^{\text{i1}},\ m_{\tilde q}{}^{\text{i3}},\ \tilde\mu\right] +\\
& \frac{2}{3}\ m_3\ \tilde\mu\ g_3{}^2\ y_d{}^{\text{i1i4}}\ y_u{}^{\text{i3i2}}\ \text{LF}_{1,1,1,1,0}\left[m_3,\ m_{\tilde q}{}^{\text{i1}},\ m_{\tilde u}{}^{\text{i2}},\ \tilde\mu\right]\bigg)
\end{aligned}
$$