$$
\begin{cases}
u^L_{i+\frac{1}{2}} = \ \omega_0^L \left(\dfrac{1}{3}u_i + \dfrac{5}{6}u_{i+1} - \dfrac{1}{6}u_{i+2} \right) + \omega_1^L \left(-\dfrac{1}{6}u_{i-1} + \dfrac{5}{6}u_i + \dfrac{1}{3}u_{i+1} \right) + \\
\qquad + \omega_2^L \left(\dfrac{1}{3}u_{i-2} - \dfrac{7}{6}u_{i-1} + \dfrac{11}{6}u_i \right) \ , \\
u^R_{i-\frac{1}{2}} = \omega_0^R \left(\dfrac{11}{6}u_i - \dfrac{7}{6}u_{i+1} + \dfrac{1}{3}u_{i+2} \right) + \ \omega_1^R \left(\dfrac{1}{3}u_{i-1} + \dfrac{5}{6}u_i - \dfrac{1}{6}u_{i+1} \right) \ + \\
\qquad + \omega_2^R \left(-\dfrac{1}{6}u_{i-2} + \dfrac{5}{6}u_{i-1} + \dfrac{1}{3}u_i \right) \ .
\end{cases}
$$