The nonclassical portion of f_{A_5} vanishes under the $7 \to 6$ collinear limit for any of the A_5 subalgebras of $\mathrm{Gr}(4,7)$. This is quite nice.

For D_5 things are more complicated. None of the 14 f_{D_5}s vanish in the collinear limit (from here on out I am implicitly referring not to the whole function but to the nonclassical portion). Let me start by taking my 'base' D_5 as

$$D_5^{(0,0)} = \frac{\langle 1234\rangle\langle 1267\rangle}{\langle 1237\rangle\langle 1246\rangle} \longrightarrow -\frac{\langle 1247\rangle\langle 3456\rangle}{\langle 4(12)(35)(67)\rangle} \longrightarrow \frac{\langle 1246\rangle\langle 1345\rangle\langle 4567\rangle}{\langle 1245\rangle\langle 1467\rangle\langle 3456\rangle} \begin{array}{l} \nearrow \; -\frac{\langle 4(12)(35)(67)\rangle}{\langle 1234\rangle\langle 4567\rangle} \\ \searrow \; -\frac{\langle 1567\rangle\langle 4(12)(35)(67)\rangle}{\langle 1267\rangle\langle 1345\rangle\langle 4567\rangle} \end{array} \tag{1}$$

All other D_5s appear as cyclic+flip images of $D_5^{(0,0)}$, which I'll denote by

$$D_5^{(i,j)} = \sigma_{D_5}^i \circ \tau_{D_5}^j (D_5^{(0,0)}). \tag{2}$$

From here on out I'll refer to $f_{D_5}^{D_5^{(i,j)}}$ simply by (i,j). In this notation, we have

- $(3,0) - (5,1)$ vanishes in the collinear limit but is ill-defined term-by-term.
- $(0,1) - (5,0)$ vanishes in the collinear limit but is ill-defined term-by-term.

And the each of the remaining 10 D_5s have nonzero and well-defined collinear limit individually. They can cancel off each other in 4 linearly independent ways, for example:

- $-(0,0) - (1,0) + (1,1) + (4,0) + (4,1)$
- $-(0,0) - (1,0) + (1,1) + (2,0) + (4,0)$
- $-(0,0) - (1,0) + (2,1) + (3,1) + (4,0) - (6,1)$
- $-(1,1) + (6,0)$