$$\mathrm{d}\sigma^{\uparrow} = \sum_{a,b,c=q,\bar{q},g} f_{a/p^{\uparrow}}(x_a, \boldsymbol{k}_{\perp a}) \otimes f_{b/p}(x_b, \boldsymbol{k}_{\perp b}) \otimes \mathrm{d}\hat{\sigma}^{ab\to cd}(\boldsymbol{k}_{\perp a}, \boldsymbol{k}_{\perp b}) \otimes D_{\pi/c}(z, \boldsymbol{p}_{\perp \pi})$$