Lemma. There is a functor $\mathsf{FixFunMinRes} : \mathbf{DP} \to \mathbf{Pos}_{\mathcal{U}}$ which maps:

1. An object (poset) in $\mathbf{DP}$ to the same object (poset) in $\mathbf{Pos}_{\mathcal{U}}$.
2. A morphism $\mathbf{g} \in \mathrm{Hom}_{\mathbf{DP}}(\mathbf{F}; \mathbf{R})$ to the morphism $H_{\mathbf{g}} \in \mathrm{Hom}_{\mathbf{Pos}_{\mathcal{U}}}(\mathbf{F}; \mathbf{R})$, where:

$$H_{\mathbf{g}}{}^{\star} : \mathbf{F} \to_{\mathbf{Pos}} \mathcal{U}\mathbf{R}$$

$$f \mapsto \{r \in \mathbf{R} \mid \mathbf{g}(f^{*}, r)\}.$$