## Supplementary material for LHCb-PAPER-2016-042

## Supplementary material for CDS - Differential crosssections

Figures 1 and 2 show the $D^{0}, D^{+}, D_{s}^{+}$, and $D^{*+}$ cross-section measurements comparing the $p_{\mathrm{T}}$ dependence of the different rapidity ranges.


Figure 1: The bin-averaged differential prompt (top) $D^{0}$, and (bottom) $D^{+}$cross-sections at $\sqrt{s}=5 \mathrm{TeV}$ as described in Sec 4. The markers for $p_{\mathrm{T}}$ values below $p_{\mathrm{T}}=4 \mathrm{GeV} / c$ have been displaced horizontally within each bin for better visibility.


Figure 2: The bin-averaged differential prompt (top) $D_{s}^{+}$, and (bottom) $D^{*+}$ cross-sections at $\sqrt{s}=5 \mathrm{TeV}$ as described in Sec 4. The markers for $p_{\mathrm{T}}$ values below $p_{\mathrm{T}}=4 \mathrm{GeV} / c$ have been displaced horizontally within each bin for better visibility.

## Supplementary material for CDS - Integrated ratios

Figure 3 shows the integrated cross-section ratios between $\sqrt{s}=13 \mathrm{TeV}$ and 5 TeV .


Figure 3: Integrated cross-section ratios between $\sqrt{s}=13 \mathrm{TeV}$ and 5 TeV for $D^{0}, D^{+}, D_{s}^{+}$, and $D^{*+}$ compared to POWHEG+NNPDF3.0L predictions.

