Table S2. Speed fluctuations of the flagellar motor.

Strain (Number of motors)		Average ± SD
wild-type (n = 20)	ω_{av} (Hz)	49.0 ± 8.2
	σ_{ω}	7.6 ± 2.9
	$\sigma_{\omega}/\omega_{av}$	0.16 ± 0.04
$FliFG_{d\text{-}f}$ (n = 20)	ω_{av} (Hz)	39.9 ± 8.6
	σ_{ω}	12.3 ± 3.7
	$\sigma_{\omega}/\omega_{av}$	0.31 ± 0.12
$FliFG_{d\text{-}f}$ FliG(D124Y) (n = 20)	ω_{av} (Hz)	40.1 ± 7.1
	σ_{ω}	9.4 ± 3.0
	$\sigma_{\omega}/\omega_{av}$	0.23 ± 0.07
$FliFG_{d\text{-}f}$ FliM(F188L) (n = 20)	ω_{av} (Hz)	40.2 ± 6.4
	σ_{ω}	6.9 ± 2.1
	$\sigma_{\omega}/\omega_{av}$	0.17 ± 0.05

The values of the average speeds (ω_{av}) and their standard deviations (σ_{ω}) were obtained by tracking the position of 1.0 μm bead for 300 seconds. Note: their average motor speeds are slower than those presented in Table S1. Such speed reductions presumably result from a decrease in the energy level of bacterial cells because of much longer-term light illumination.