

# SEE YOURSELF RUN FOR OPTIMAL PERFORMANCE



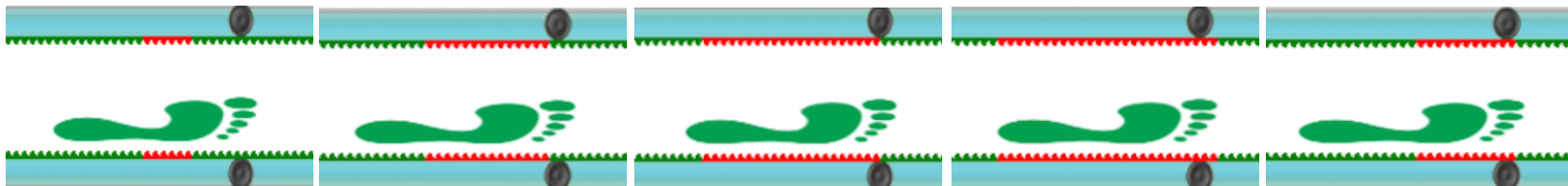
Lengths		Step length [in]	Left	3' 09.8" ± 1.0" (CV 2.2%)	Right	3' 11.0" ± 0.9" (CV 1.9%)	Diff.	-2.6%
		Stride length [in]	7' 08.8" ± 1.5" (CV 1.7%)					
Time parameters		Flight time	Left	0.093 ± 0.007 (CV 7.5%) [24.9%]	Right	0.097 ± 0.007 (CV 7.2%) [25.5%]	Diff.	-4.3%
		Contact time	Left	0.279 ± 0.007 (CV 2.5%) [75.1%]	Right	0.283 ± 0.006 (CV 2.1%) [74.5%]	Diff.	-1.4%
		Contact phase	Left	0.031 ± 0.008 (CV 25.8%) [11.2%]	Right	0.029 ± 0.009 (CV 31.0%) [10.1%]	Diff.	6.5%
		Foot flat	Left	0.120 ± 0.018 (CV 15.0%) [42.9%]	Right	0.122 ± 0.017 (CV 13.9%) [42.9%]	Diff.	-1.7%
		Propulsive phase	Left	0.128 ± 0.011 (CV 8.6%) [45.8%]	Right	0.133 ± 0.011 (CV 8.3%) [46.9%]	Diff.	-3.9%
		Pace [steps/min]	159.67 ± 3.42 (CV 2.1%)					
Height		Left	0.4 ± 0.1 (CV 25.0%)	Right	0.5 ± 0.1 (CV 20.0%)	Diff.	-25.0%	
Stride angle		Left	2.084 ± 0.302 (CV 14.5%)	Right	2.228 ± 0.301 (CV 13.5%)	Diff.	-6.9%	
Speed parameters		Speed [ft/s]	Left	10.27 ± 0.21 (CV 2.0%)	Right	10.30 ± 0.20 (CV 1.9%)	Diff.	-0.3%
		Average speed [ft/s]	10.29 ± 0.21 (CV 2.0%)					

A Run Report data printout with objective data for analysis

**S Symmetry** is immediately understood by looking at the differentials (difference in performance of the left and right sides) of each parameter. Since running is a balance sport, it is important that both sides function equally, and with proper training we should see asymmetries decrease within each parameter over time.

**E Efficiency** of running is directly linked to the amount of time spent in each phase of the run cycle (contact, foot flat, and propulsion). Efficient runners will spend the least amount of time in contact phase, allowing for more propulsion – over time, we should see contact decrease and propulsion increase.

**E Effectiveness** is linked to takeoff – we should see height and stride angle trending lower over time as stride length increases. Also, by looking at the light generation on the bars in millisecond by millisecond freeze frames (below) we can ensure the runner strikes and moves forward, and is not wasting time on any backward motion.



We see here that the runner landed mid-foot, then filled in the lights behind them until they reached foot-flat before lifting their heel to propel off their toes – this is highly inefficient. Forefront running is only efficient if you do it properly, if you are spending precious milliseconds falling backward you may as well start at heel-strike.