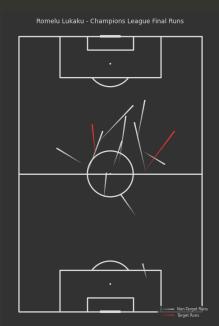
2023 Champions League Final Player Run Analysis – Romelu Lukaku

Purely by watching the 2023 Champions League final one could see that Inter Milan were set up to absorb pressure from Manchester City and counter through direct attacks when opportunities arose.

This strategy has merit given the relative strength and resources of both sides, and was only undone by a solitary goal from Rodri.

When considering only the runs made by each player, it was hard to ignore the directness of runs made by Romelu Lukaku in particular. Not widely regarded as a player who often makes runs in behind opposition defenses, he found himself in such situations on multiple occasions against City.

We would like to quantify this aspect of play through a singular metric, rather than plotting runs made by each player and judging directness qualitatively.



Looking at a plot of Lukaku's runs, we see that they are far more direct than we would first expect. We have also coloured runs where Lukaku is the main target of a pass red, while runs where he is not the target of a pass are coloured white.

Unsurprisingly, Lukaku makes most of his runs in the centre of the pitch, just passed the halfway line into the space behind the opposition defence.

In order to quantify this run directness, we will calculate the angle between the run direction and the invisible line between the run start location and the goal, i.e. the difference in angle from the most direct run possible. We then take the average of this for each of the players and transform this by dividing by pi and subtracting the value from 1.

This leaves us an index between 1 and 0, where 1 indicates a player consistently makes the most direct runs possible, while 0 indicates the player consistently runs away from goal. The results of this computation are given on the right.

Confirming our initial belief that Lukaku was making incredibly direct runs, he ranks second only to Andre Onana, who was likely making supporting runs for his defence through the middle of the pitch.

We can also see the stylistic difference between Inter Milan and Manchester City as 7 Inter players rank higher than City's second most direct runner, Phil Foden.

We have successfully developed a metric describing the run directness of players during a match, which could be extended to full seasons if desired. This metric could be useful for player scouting via matching a player's style to a team, and could also be useful in scouting opposition playstyles prior to matches.

Player	Run Directness
André Onana	0.856
Romelu Lukaku	0.824
Robin Gosens	0.713
Erling Haaland	0.694
Edin Džeko	0.676
Lautaro Martínez	0.675
Henrikh Mkhitaryan	0.671
Denzel Dumfries	0.642
Phil Foden	0.632
Federico Dimarco	0.616
Raoul Bellanova	0.594
Nicolò Barella	0.573
Jack Grealish	0.551
Danilo D'Ambrosio	0.551
Bernardo Silva	0.539
Kevin De Bruyne	0.538
İlkay Gündoğan	0.491
Alessandro Bastoni	0.472
Francesco Acerbi	0.468
John Stones	0.462
Hakan Çalhanoğlu	0.444
Marcelo Brozović	0.376
Matteo Darmian	0.370
Rodri	0.329
Manuel Akanji	0.321
Kyle Walker	0.312
Nathan Aké	0.307
Rúben Dias	0.289