Sports Field Lighting Layouts: Plan Geometry

Original illustrative calculation: a 105m x 68m field. Pole rows are assumed 8m outside each long boundary, so the transverse distance from the field centreline to a row is 42m.

Each row has an end position at x=0m and x=105m. Intermediate positions are equally spaced. The figures below compare horizontal plan distances only.

Total poles	Positions per side	Along-field half-gap	Largest nearest-pole plan distance
4	2	52.5m	67.2m
6	3	26.25m	49.5m
8	4	17.5m	45.5m

Calculation: half-gap = 105 / [2 x (positions per side - 1)]. Largest nearest-support distance = square root of (half-gap squared + 42 squared). Results rounded to 0.1m.

These are support-location comparisons, not light-beam travel distances, measured illuminance, uniformity or a lighting-compliance assessment. Actual support locations, mounting heights, optics and photometry require a project layout.

Jieyao Lighting editorial analysis. The geometry is reproducible from the stated assumptions; it does not describe a completed project.