Please explain why the Dies/wafer is calculated in the following way.

Dies per wafer= -

We can also write this formula as Dies per wafer= -

S is the area of each die, expressed in the applicable area unit. There are 2 dies at the top of a die and bottom of a die that I don’t count because they appear to be similar to those that weren't counted at the left of the die and top of the die.

If is the ratio of a wafers and each dies area, then you're right. These imperfect dies must be removed from the circle's circumference.

We can observe that the majority of the eliminated dies are at the left, right, up, and down of the circle, implying that a single die is eliminated for every unit length of the circumference.

Corners such as north-east, north-west etc. are deleted from the circle where the arc forms a 45° A with respect to the axes. This is because the circumference of the die is generally matched to the die's diagonal in these locations of the globe. In a die side is y then the diagonal is y and the A is the area S is divided by two to produce the diagonal, therefore diagonal=2S. As a result, the number of dies deleted in those places is around one die for every 2S length of the circle's circumference. Due to the fact that dies fill in corners of each other, it appears that the No of dies eliminated was literally larger than that. Since dies eliminated at the circumference can be approximated with an Mean (Mean means adding the no of items divided by total no of items) of 1 and greater than 2S The average number of dies removed per unit circumferential length can be calculated using 2S.

Our formula for calculating the total number of dies eliminated around a perimeter is derived from this average per unit: and this formula is deviated.