Let P be the asked size in pt, and $A_u = C_u P$, where u is the designed unit, PT, BP, or DD, and

$$C_{PT} = 1, \qquad C_{BP} = \frac{7200}{7227}, \qquad C_{DD} = \frac{1157}{1238}$$

That is, A_u is the asked size in the desired unit. Let D be the design size (assumed to be in the unit of BP) as reported by the font (divided by 10; in all the following we ignore the factor 2^{16}).

For simplicity, consider only the case of exact match to the design size. That is, we would like to have $A_u = D$. Let $A'_u = \alpha_u P$ and $D' = \beta D$ be the scaled values used in comparisons. For the comparison to work correctly, we need,

$$A_u = D \iff A'_u = D',$$

and thus $\alpha_u = \beta C_u$. The fix in PR 400 is the case of $\beta = 1$. The fix for review is $\beta = 7227/7200$, and the value of α_u is thus correct for PT, BP, but not for DD.