

Extended Data Table 2|Parameters in Step1

i	$\bar{x}_i$	h_i	$\hat{f}(\bar{x}_i)$	$\hat{F}(\bar{x}_i)$
1	100	21.97	0.00967	0.614
2	30	32.48	0.00668	0.278
3	100	32.48	0.00521	0.745

$\bar{x}_i$ is the nominal value, representing the theoretically ideal value that this design variable should take. h_i is the bandwidth in the kernel density estimation method. $\hat{f}(\bar{x}_i)$ represents the nominal value's position on the constructed PDF. $\hat{F}(\bar{x}_i)$ represents the nominal value's position on the constructed CDF(Methods, Eq. (1)-(3)).