

Key comparison EURAMET.L-K3.2009.1 Angle blocks

MEASURAND : Deviation from nominal angle

A key comparison reference value of EURAMET.L-K3.2009.1, x_R , has been determined for each angle block and position. The key comparison reference value is here calculated as the weighted mean of the two participants' results but excluding outliers. Its standard uncertainty, u_R , is calculated as the standard deviation of the weighted mean.

	10"
$x_{R,SIM}$	851
$u_{R,SIM}$	81.0

	5'
$x_{R,SIM}$	-1962
$u_{R,SIM}$	96.0

	30'
$x_{R,SIM}$	-98
$u_{R,SIM}$	81.0

	5°
$x_{R,SIM}$	-75
$u_{R,SIM}$	80.0

	30°
$x_{R,SIM}$	-484
$u_{R,SIM}$	79.0

x_R and u_R are expressed in milliseconds

For each angle block, the degree of equivalence of laboratory i with respect to the key comparison reference value is given by a pair of terms, both expressed in milliseconds:

$$D_i = (x_i - x_R) \text{ and its expanded uncertainty } U_i = 2(u_i^2 - u_R^2)^{1/2}.$$

Nominal angle 10"

	D_i	U_i
	/ millisecond	
Lab i ↓		
LNE	-60	120
KIM-LIPI	120	230

Nominal angle 5'

	D_i	U_i
	/ millisecond	
Lab i ↓		
LNE	-70	50
KIM-LIPI	910	690

Nominal angle 30'

	D_i	U_i
	/ millisecond	
Lab i ↓		
LNE	-80	120
KIM-LIPI	150	230

Nominal angle 5°

	D_i	U_i
	/ millisecond	
Lab i ↓		
LNE	120	120
KIM-LIPI	-220	220

Nominal angle 30°

	D_i	U_i
	/ millisecond	
Lab i ↓		
LNE	130	120
KIM-LIPI	-220	210

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Degrees of equivalence D_i and expanded uncertainty ($k = 2$) U_i , in milliseconds for normal position

