

PCAL Calibration Factors for LHOX

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Description	Variable(Units)	D20150520	D20150804
Mass of ETM	$M(Kg)$	$39.6470 \pm 0.01\%$	$39.6470 \pm 0.01\%$
Cosine of Incident Angle	$Cos\theta$	$0.9884 \pm 0.07\%$	$0.9884 \pm 0.07\%$
WS/GS(T15000035)	(V/V)	$0.9262 \pm 0.03\%$	$0.9262 \pm 0.03\%$
GS/NIST(T1500035)	(V/W)	$-1.6935 \pm 0.44\%$	$-1.6935 \pm 0.44\%$
WS/TX (inner beam)	(V/V)	$-0.1587 \pm 4.2 \times 10^{-03} \%$	$-0.1586 \pm 4.2 \times 10^{-03} \%$
WS/TX (outer beam)	(V/V)	$-0.1585 \pm 4.5 \times 10^{-03} \%$	$-0.1580 \pm 2.7 \times 10^{-03} \%$
WS/TX (inner beam)	(V/V)	$-0.1566 \pm 4.1 \times 10^{-03} \%$	$-0.1561 \pm 3.9 \times 10^{-03} \%$
WS/TX (outer beam)	(V/V)	$-0.1565 \pm 4.5 \times 10^{-03} \%$	$-0.1549 \pm 3.8 \times 10^{-03} \%$
RX/TX (inner beam)	(V/V)	$0.6298 \pm 5.7 \times 10^{-04} \%$	$0.6287 \pm 5.8 \times 10^{-04} \%$
RX/TX (outer beam)	(V/V)	$0.6293 \pm 4.7 \times 10^{-04} \%$	$0.6235 \pm 8.4 \times 10^{-04} \%$
Optical efficiency (inner)	e_i	$0.9867 \pm 0.39\%$	$0.9846 \pm 0.45\%$
Optical efficiency (outer)	e_o	$0.9876 \pm 0.36\%$	$0.9805 \pm 0.57\%$
Optical efficiency	e	$0.9871 \pm 0.38\%$	$0.9826 \pm 0.51\%$
TX/WS (combined)	(V/V)	$-3.1527 \pm 3.1 \times 10^{-04} \%$	$-3.1589 \pm 2.5 \times 10^{-04} \%$
RX/WS (combined)	(V/V)	$-4.0213 \pm 6.1 \times 10^{-03} \%$	$-4.0257 \pm 5.5 \times 10^{-03} \%$
Calibration factor (TxPD)	(V/W)	$4.9772 \pm 0.57998\%$	$4.9983 \pm 0.67369\%$
Calibration factor (RxPD)	(V/W)	$6.2667 \pm 0.58001\%$	$6.2591 \pm 0.67371\%$
Displacement factor (TxPD)/ f^2	(m/V)	$8.464 \times 10^{-13} \pm 0.58613\%$	$8.428 \times 10^{-13} \pm 0.67899\%$
Displacement factor (RxPD)/ f^2	(m/V)	$6.722 \times 10^{-13} \pm 0.58616\%$	$6.73 \times 10^{-13} \pm 0.67901\%$