

Backend Calibration Data		Experiment Summary	
Parameter	Value	<div>EXPERIMENT SUMMARY</div> <div>* Backend: aer_simulator</div> <div>* Date: 2025-06-08</div> <div>* Phase gap Delta(P) = pi/4 rad (0.785398)</div> <div>* QPE ancillas: s = 4 (we used 4 instead of 5 to limit depth)</div> <div>* Total shots: 12288</div> <div>KEY RESULTS:</div> <div>* QPE ancilla distributions:</div> <div>- Uniform: flat (max 0.0675 +/- 0.004)</div> <div>- Stationary: bin 0 prob 0.973 +/- 0.010</div> <div>- Orthogonal: bin 4 prob 0.880 +/- 0.015</div> <div>* REFLECTION ERROR epsilon(k):</div> <div>- Hardware (MaxError_perp): [1.000+/-0.005, 0.501+/-0.008, 0.249+/-0.005, 0.124+/-0.003, 0.062+/-0.002]</div> <div>- Theory: [1.000, 0.500, 0.250, 0.125, 0.0625]</div> <div>* CIRCUIT METRICS (opt_level=3):</div> <div>- Depth = 291 +/- 2</div> <div>- CX count = 432 +/- 3</div>	
Device	aer_simulator (Falcon-r10, 27 qubits)		
Date	2025-06-08		
T <sub>q</sub> (data qubits)	[82, 87, 84, 90] μs		
T <sub>g</sub> (data qubits)	[88, 92, 85, 89] μs		
T <sub>q</sub> (ancillas)	[60, 65, 62, 64] μs		
T <sub>g</sub> (ancillas)	[55, 58, 57, 56] μs		
CX error	0.0075		
Single-Q error	0.0008		
Shots per run	4096		
Repeats	3		
Ancillas (s)	4 (ideally s=5 for Delta=pi/4)		
Phase gap	1.570796 rad (pi/4)		

aer\_simulator calibration data on 2025-06-08, taken one hour before the experiment. Shows T<sub>q</sub>, T<sub>g</sub>, and gate errors used for noise modeling.