Understanding of aging pattern in quantum dot light-emitting diodes by low-frequency noise

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Figure S1. (a) Normalized current spectral density (\(S_I/I^2\)) of pristine QLED at 6 Hz, 10 Hz, 15 Hz, and 100 Hz. The variation in measured power spectral density (\(S_I\)) at various operating voltages over aging time with constant current source: (b) without aging, (c) 10 h, (d) 50 h, (e) 100 h, and (f) 200 h.
Figure S2. Power spectral density ($S_i$) of correlated noise model simulated by Python.

Figure S3. (a) Home-built low-frequency noise (LFN) measurement setup and mechanism. (b) Aging measurement setup with constant current source.
Figure S4. Current density–voltage–luminance ($J$–$V$–$L$) characteristics of pristine QLED before and after exposure to the atmosphere for two weeks.

Figure S5. Current density–voltage ($J$–$V$) characteristics of QLED before and after 50 h current stress.
Figure S6. Electroluminescence (EL) spectra of QLEDs over aging times.

Figure S7. (a) PL spectra and (b) the average peak value of PL intensity of the 5 devices with and without 50 h of current aging each.