$$\Psi_{89} = C_1 \left(|002d\rangle + |00d2\rangle - |020d\rangle + |02d0\rangle - |0d02\rangle + |0d20\rangle + |200d\rangle - |20d0\rangle + |2d00\rangle + |d002\rangle - |d020\rangle + |d200\rangle\right)$$

$$C_1 = \frac{1}{2\sqrt{3}}$$