$$\Psi_{64} = C_1 \left(-i\left|002u\right\rangle - \left|00u2\right\rangle + i\left|020u\right\rangle - \left|02u0\right\rangle - i\left|0u02\right\rangle + i\left|0u20\right\rangle - i\left|200u\right\rangle + \left|20u0\right\rangle + i\left|2u00\right\rangle + \left|u002\right\rangle - \left|u020\right\rangle + \left|u200\right\rangle\right)$$

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