$$\Psi_{140} = C_1 \left(-|02du\rangle - |02ud\rangle - |0du2\rangle - |0ud2\rangle + |20du\rangle + |20ud\rangle + |2du0\rangle + |2ud0\rangle - |d02u\rangle + |d20u\rangle - |du02\rangle + |du20\rangle - |u02d\rangle + |u20d\rangle - |ud02\rangle + |ud20\rangle\right)$$

$$C_1 = -\left(\frac{1}{4}\right)$$