$^2F_4(2)'.2 \pmod{2}$

| | blocks | defect | matrix |
|----|--------|---------|--|
| G: | 1 2 | 12 0 | $28 \times 3 \\ 4096_1 = \chi_{21+}, \varphi_{4+}$ |

| Block 1: | $\varphi_{1,0}$ | $\varphi_{2,0}$ | $\varphi_{3,0}$ |
|------------------------|-----------------|-----------------|-----------------|
| $1_1 = \chi_{1,0}$ | 1 | | |
| $1_2 = \chi_{1,1}$ | 1 | | |
| $52_1 = \chi_{2+}$ | | 2 | |
| $27_1 = \chi_{4,0}$ | 1 | 1 | |
| $27_2 = \chi_{4,1}$ | 1 | 1 | |
| $27_3 = \chi_{5,0}$ | 1 | 1 | |
| $27_4 = \chi_{5,1}$ | 1 | 1 | |
| $78_1 = \chi_{6,0}$ | | 3 | |
| $78_2 = \chi_{6,1}$ | | 3 | |
| $300_1 = \chi_{7,0}$ | 2 | 2 | 1 |
| $300_2 = \chi_{7,1}$ | 2 | 2 | 1 |
| $325_1 = \chi_{8,0}$ | 1 | 3 | 1 |
| $325_2 = \chi_{8,1}$ | 1 | 3 | 1 |
| $351_1 = \chi_{9,0}$ | 1 | 4 | 1 |
| $351_2 = \chi_{9,1}$ | 1 | 4 | 1 |
| $351_3 = \chi_{10,0}$ | 1 | 4 | 1 |
| $351_4 = \chi_{10,1}$ | 1 | 4 | 1 |
| $351_5 = \chi_{11,0}$ | 1 | 4 | 1 |
| $351_6 = \chi_{11,1}$ | 1 | 4 | 1 |
| $1248_1 = \chi_{12+}$ | 4 | 10 | 4 |
| $650_1 = \chi_{14,0}$ | 2 | 6 | 2 |
| $650_2 = \chi_{14,1}$ | 2 | 6 | 2 |
| $675_1 = \chi_{15,0}$ | 1 | 7 | 2 |
| $675_2 = \chi_{15,1}$ | 1 | 7 | 2 |
| $1404_1 = \chi_{16+}$ | 4 | 16 | 4 |
| $2600_1 = \chi_{18+}$ | 8 | 24 | 8 |
| $1728_1 = \chi_{20,0}$ | 4 | 19 | 5 |
| $1728_2 = \chi_{20,1}$ | 4 | 19 | 5 |

 $\begin{array}{rcl} \varphi_{1,0} & = & 1_1 \\ \varphi_{2,0} & = & 26_1 \\ \varphi_{3,0} & = & 246_1 \end{array}$