

# $L_2(27).3 \pmod{2}$

|         | blocks        | defect | matrix       |
|---------|---------------|--------|--------------|
| $2.G :$ | 1             | 3      | $7 \times 3$ |
|         | 2             | 3      | $7 \times 3$ |
|         | $3 = \bar{2}$ | 3      | $7 \times 3$ |
|         | 4             | 2      | $4 \times 1$ |
|         | 5             | 1      | $2 \times 1$ |
|         | 6             | 1      | $2 \times 1$ |

| Block 1:             | $\varphi_{1,0}$ | $\varphi_{2,0}$ | $\varphi_{3,0}$ |                                                                           |
|----------------------|-----------------|-----------------|-----------------|---------------------------------------------------------------------------|
| $1_1 = \chi_{1,0}$   | 1               | .               | .               | $\varphi_{1,0} = 1_1$<br>$\varphi_{2,0} = 13_1$<br>$\varphi_{3,0} = 13_4$ |
| $13_1 = \chi_{2,0}$  | .               | 1               | .               |                                                                           |
| $13_4 = \chi_{3,0}$  | .               | .               | 1               |                                                                           |
| $27_1 = \chi_{10,0}$ | 1               | 1               | 1               |                                                                           |
| $14_1 = \chi_{17,0}$ | 1               | .               | 1               |                                                                           |
| $14_4 = \chi_{18,0}$ | 1               | 1               | .               |                                                                           |
| $26_1 = \chi_{19,0}$ | .               | 1               | 1               |                                                                           |

| Block 2:             | $\varphi_{1,1}$ | $\varphi_{2,1}$ | $\varphi_{3,1}$ |                                                                           |
|----------------------|-----------------|-----------------|-----------------|---------------------------------------------------------------------------|
| $1_2 = \chi_{1,1}$   | 1               | .               | .               | $\varphi_{1,1} = 1_2$<br>$\varphi_{2,1} = 13_2$<br>$\varphi_{3,1} = 13_5$ |
| $13_2 = \chi_{2,1}$  | .               | 1               | .               |                                                                           |
| $13_5 = \chi_{3,1}$  | .               | .               | 1               |                                                                           |
| $27_2 = \chi_{10,1}$ | 1               | 1               | 1               |                                                                           |
| $14_2 = \chi_{17,1}$ | 1               | .               | 1               |                                                                           |
| $14_5 = \chi_{18,1}$ | 1               | 1               | .               |                                                                           |
| $26_2 = \chi_{19,1}$ | .               | 1               | 1               |                                                                           |

| Block 3:             | $\varphi_{1,2}$ | $\varphi_{2,2}$ | $\varphi_{3,2}$ |                                                                           |
|----------------------|-----------------|-----------------|-----------------|---------------------------------------------------------------------------|
| $1_3 = \chi_{1,2}$   | 1               | .               | .               | $\varphi_{1,2} = 1_3$<br>$\varphi_{2,2} = 13_3$<br>$\varphi_{3,2} = 13_6$ |
| $13_3 = \chi_{2,2}$  | .               | 1               | .               |                                                                           |
| $13_6 = \chi_{3,2}$  | .               | .               | 1               |                                                                           |
| $27_3 = \chi_{10,2}$ | 1               | 1               | 1               |                                                                           |
| $14_3 = \chi_{17,2}$ | 1               | .               | 1               |                                                                           |
| $14_6 = \chi_{18,2}$ | 1               | 1               | .               |                                                                           |
| $26_3 = \chi_{19,2}$ | .               | 1               | 1               |                                                                           |

| <b>Block 4:</b>     | $\varphi_{4+}$ |
|---------------------|----------------|
| $78_1 = \chi_{4+}$  | 1              |
| $78_2 = \chi_{7+}$  | 1              |
| $78_3 = \chi_{20+}$ | 1              |
| $78_4 = \chi_{23+}$ | 1              |

$$\varphi_{4+} = 78_1$$

| <b>Block 5:</b>     | $\varphi_{7+}$ |
|---------------------|----------------|
| $84_1 = \chi_{11+}$ | 1              |
| $84_3 = \chi_{26+}$ | 1              |

$$\varphi_{7+} = 84_1$$

| <b>Block 6:</b>     | $\varphi_{10+}$ |
|---------------------|-----------------|
| $84_2 = \chi_{14+}$ | 1               |
| $84_4 = \chi_{29+}$ | 1               |

$$\varphi_{10+} = 84_2$$