

$L_3(4).2_3 \pmod{2}$

	blocks	defect	matrix
$4_1.G :$	1 2	9 3	37×4 8×1
$12_1.G :$	3	8	26×5
$4_2.G :$	1 2	9 3	29×4 5×1
$12_2.G :$	3	8	28×5

Block 1:	$\varphi_{1,0}$	$\varphi_{2,0}$	$\varphi_{3,0}$	φ_{4+}
$1_1 = \chi_{1,0}$	1	.	.	.
$1_2 = \chi_{1,1}$	1	.	.	.
$20_1 = \chi_{2,0}$	2	.	.	1
$20_2 = \chi_{2,1}$	2	.	.	1
$35_1 = \chi_{3,0}$	1	1	1	1
$35_2 = \chi_{3,1}$	1	1	1	1
$70_1 = \chi_{4+}$	2	2	2	2
$90_1 = \chi_{6+}$	4	2	2	3
$63_1 = \chi_{8,0}$	3	2	1	2
$63_2 = \chi_{8,1}$	3	2	1	2
$63_3 = \chi_{9,0}$	3	1	2	2
$63_4 = \chi_{9,1}$	3	1	2	2
<hr/>				
$20_3 = \chi_{11+}$	2	.	.	1
$28_1 = \chi_{13,0}$	2	1	.	1
$28_2 = \chi_{13,1}$	2	1	.	1
$28_3 = \chi_{14,0}$	2	.	1	1
$28_4 = \chi_{14,1}$	2	.	1	1
$36_1 = \chi_{15,0}$	2	1	1	1
$36_2 = \chi_{15,1}$	2	1	1	1
$70_2 = \chi_{17,0}$	2	2	2	2
$70_3 = \chi_{17,1}$	2	2	2	2
$90_2 = \chi_{18,0}$	4	2	2	3
$90_3 = \chi_{18,1}$	4	2	2	3
<hr/>				
$8_1 = \chi_{19,0}$	.	1	.	.
$8_2 = \chi_{19,1}$	.	1	.	.
$8_3 = \chi_{19,0}^{*11}$	.	1	.	.
$8_4 = \chi_{19,1}^{*11}$	.	1	.	.
$8_5 = \chi_{20,0}$	.	.	1	.
$8_6 = \chi_{20,1}$	.	.	1	.
$8_7 = \chi_{20,0}^{*11}$	.	.	1	.
$8_8 = \chi_{20,1}^{*11}$	.	.	1	.
$56_1 = \chi_{21,0}$	4	1	1	2
$56_2 = \chi_{21,1}$	4	1	1	2
$56_3 = \chi_{21,0}^{*3}$	4	1	1	2
$56_4 = \chi_{21,1}^{*3}$	4	1	1	2
$160_1 = \chi_{23+}$	6	4	4	5
$160_2 = \chi_{23*15+}$	6	4	4	5

$$\begin{aligned}
\varphi_{1,0} &= 1_1 \\
\varphi_{2,0} &= 8_1 \\
\varphi_{3,0} &= 8_2 \\
\varphi_{4+} &= 18_1
\end{aligned}$$

Block 2:	$\varphi_{6,0}$
$64_1 = \chi_{10,0}$	1
$64_2 = \chi_{10,1}$	1
$64_3 = \chi_{16,0}$	1
$64_4 = \chi_{16,1}$	1
$64_5 = \chi_{22,0}$	1
$64_6 = \chi_{22,1}$	1
$64_7 = \chi_{22,0}^{*3}$	1
$64_8 = \chi_{22,1}^{*3}$	1

$$\varphi_{6,0} = 64_1$$

Block 3:	φ_{7+}	φ_{8+}	φ_{9+}	φ_{10+}	φ_{11+}
$30_1 = \chi_{32+}$	1	1	1	.	.
$30_2 = \chi_{33+}$	1	1	1	.	.
$30_3 = \chi_{34+}$	1	1	1	.	.
$42_1 = \chi_{35+}$	2	2	1	.	.
$90_4 = \chi_{36+}$	2	2	1	1	.
$90_5 = \chi_{37+}$	2	2	1	.	1
$126_1 = \chi_{38+}$	4	3	2	.	1
$126_2 = \chi_{39+}$	3	4	2	1	.
$168_1 = \chi_{40+}$	3	3	2	1	1
$12_1 = \chi_{41+}$	1	1	.	.	.
$72_1 = \chi_{42+}$	3	3	2	.	.
$84_1 = \chi_{43+}$	1	2	1	1	.
$84_2 = \chi_{44+}$	2	1	1	.	1
$120_1 = \chi_{45+}$	3	3	2	.	1
$120_2 = \chi_{46+}$	3	3	2	1	.
$180_1 = \chi_{47+}$	4	4	2	1	1
$48_1 = \chi_{48+}$	.	.	.	1	.
$48_2 = \chi_{49+}$	.	.	.	.	1
$48_3 = \chi_{48*43+}$	.	.	.	1	.
$48_4 = \chi_{48*71+}$	.	.	.	.	1
$96_1 = \chi_{50+}$	3	2	1	.	1
$96_2 = \chi_{50*31+}$	3	2	1	.	1
$96_3 = \chi_{51+}$	2	3	1	1	.
$96_4 = \chi_{51*31+}$	2	3	1	1	.
$240_1 = \chi_{52+}$	6	6	4	1	1
$240_2 = \chi_{52*7+}$	6	6	4	1	1

$$\begin{aligned} \varphi_{7+} &= 6_1 \\ \varphi_{8+} &= 6_2 \\ \varphi_{9+} &= 18_2 \\ \varphi_{10+} &= 48_1 \\ \varphi_{11+} &= 48_2 \end{aligned}$$

Block 1:	$\varphi_{1,0}$	$\varphi_{2,0}$	$\varphi_{3,0}$	φ_{4+}
$1_1 = \chi_{1,0}$	1	.	.	.
$1_2 = \chi_{1,1}$	1	.	.	.
$20_1 = \chi_{2,0}$	2	.	.	1
$20_2 = \chi_{2,1}$	2	.	.	1
$35_1 = \chi_{3,0}$	1	1	1	1
$35_2 = \chi_{3,1}$	1	1	1	1
$70_1 = \chi_{4+}$	2	2	2	2
$90_1 = \chi_{6+}$	4	2	2	3
$63_1 = \chi_{8,0}$	3	2	1	2
$63_2 = \chi_{8,1}$	3	2	1	2
$63_3 = \chi_{9,0}$	3	1	2	2
$63_4 = \chi_{9,1}$	3	1	2	2
$20_3 = \chi_{11+}$	2	.	.	1
$28_1 = \chi_{13,0}$	2	1	.	1
$28_2 = \chi_{13,1}$	2	1	.	1
$28_3 = \chi_{14,0}$	2	.	1	1
$28_4 = \chi_{14,1}$	2	.	1	1
$36_1 = \chi_{15,0}$	2	1	1	1
$36_2 = \chi_{15,1}$	2	1	1	1
$70_2 = \chi_{17,0}$	2	2	2	2
$70_3 = \chi_{17,1}$	2	2	2	2
$90_2 = \chi_{18,0}$	4	2	2	3
$90_3 = \chi_{18,1}$	4	2	2	3
$40_1 = \chi_{25+}$	4	.	.	2
$56_1 = \chi_{26+}$	4	2	.	2
$56_2 = \chi_{27+}$	4	.	2	2
$72_1 = \chi_{28+}$	4	2	2	2
$160_1 = \chi_{30+}$	6	4	4	5
$160_2 = \chi_{31+}$	6	4	4	5

$$\begin{aligned} \varphi_{1,0} &= 1_1 \\ \varphi_{2,0} &= 8_1 \\ \varphi_{3,0} &= 8_2 \\ \varphi_{4+} &= 18_1 \end{aligned}$$

Block 2:	$\varphi_{6,0}$
$64_1 = \chi_{10,0}$	1
$64_2 = \chi_{10,1}$	1
$64_3 = \chi_{16,0}$	1
$64_4 = \chi_{16,1}$	1
$128_1 = \chi_{29+}$	2

$$\varphi_{6,0} = 64_1$$

Block 3:	φ_{7+}	φ_{8+}	φ_{9+}	φ_{10+}	φ_{11+}
$30_1 = \chi_{32+}$	1	1	1	.	.
$30_2 = \chi_{33+}$	1	1	1	.	.
$30_3 = \chi_{34+}$	1	1	1	.	.
$42_1 = \chi_{35+}$	2	2	1	.	.
$90_4 = \chi_{36+}$	2	2	1	1	.
$90_5 = \chi_{37+}$	2	2	1	.	1
$126_1 = \chi_{38+}$	4	3	2	.	1
$126_2 = \chi_{39+}$	3	4	2	1	.
$168_1 = \chi_{40+}$	3	3	2	1	1
$12_1 = \chi_{41+}$	1	1	.	.	.
$72_2 = \chi_{42+}$	3	3	2	.	.
$84_1 = \chi_{43+}$	1	2	1	1	.
$84_2 = \chi_{44+}$	2	1	1	.	1
$120_1 = \chi_{45+}$	3	3	2	.	1
$120_2 = \chi_{46+}$	3	3	2	1	.
$180_1 = \chi_{47+}$	4	4	2	1	1
$72_3 = \chi_{53+}$	3	3	2	.	.
$72_4 = \chi_{53*5+}$	3	3	2	.	.
$96_1 = \chi_{54+}$	3	2	1	.	1
$96_2 = \chi_{54*41+}$	3	2	1	.	1
$96_3 = \chi_{55+}$	2	3	1	1	.
$96_4 = \chi_{55*41+}$	2	3	1	1	.
$120_3 = \chi_{56+}$	3	3	2	.	1
$120_4 = \chi_{56*29+}$	3	3	2	1	.
$120_5 = \chi_{56*43+}$	3	3	2	.	1
$120_6 = \chi_{57+}$	3	3	2	1	.
$168_2 = \chi_{58+}$	3	3	2	1	1
$168_3 = \chi_{58*5+}$	3	3	2	1	1

$$\begin{aligned}
\varphi_{7+} &= 6_1 \\
\varphi_{8+} &= 6_2 \\
\varphi_{9+} &= 18_2 \\
\varphi_{10+} &= 48_1 \\
\varphi_{11+} &= 48_2
\end{aligned}$$