

$L_3(9) \pmod{2}$

	blocks	defect	matrix
$G :$	1	7	28×3
	2	0	$640_1 = \chi_{10}, \varphi_3$
	$3 = \overline{2}$	0	$640_2 = \chi_{11}, \varphi_4$
	4	0	$640_3 = \chi_{12}, \varphi_5$
	$5 = \overline{4}$	0	$640_4 = \chi_{13}, \varphi_6$
	6	0	$640_5 = \chi_{14}, \varphi_7$
	$7 = \overline{6}$	0	$640_6 = \chi_{15}, \varphi_8$
	8	0	$640_7 = \chi_{16}, \varphi_9$
	$9 = \overline{8}$	0	$640_8 = \chi_{17}, \varphi_{10}$
	10	0	$640_9 = \chi_{18}, \varphi_{11}$
	$11 = \overline{10}$	0	$640_{10} = \chi_{19}, \varphi_{12}$
	12	0	$640_{11} = \chi_{20}, \varphi_{13}$
	$13 = \overline{12}$	0	$640_{12} = \chi_{21}, \varphi_{14}$
	14	0	$640_{13} = \chi_{22}, \varphi_{15}$
	$15 = \overline{14}$	0	$640_{14} = \chi_{23}, \varphi_{16}$
	16	0	$640_{15} = \chi_{24}, \varphi_{17}$
	$17 = \overline{16}$	0	$640_{16} = \chi_{25}, \varphi_{18}$

	blocks	defect	matrix
	18	0	$640_{17} = \chi_{26}, \varphi_{19}$
	$19 = \overline{18}$	0	$640_{18} = \chi_{27}, \varphi_{20}$
	20	0	$640_{19} = \chi_{28}, \varphi_{21}$
	$21 = \overline{20}$	0	$640_{20} = \chi_{29}, \varphi_{22}$
	22	0	$640_{21} = \chi_{30}, \varphi_{23}$
	$23 = \overline{22}$	0	$640_{22} = \chi_{31}, \varphi_{24}$
	24	0	$640_{23} = \chi_{32}, \varphi_{25}$
	$25 = \overline{24}$	0	$640_{24} = \chi_{33}, \varphi_{26}$
	26	0	$640_{25} = \chi_{34}, \varphi_{27}$
	$27 = \overline{26}$	0	$640_{26} = \chi_{35}, \varphi_{28}$
	28	0	$640_{27} = \chi_{36}, \varphi_{29}$
	$29 = \overline{28}$	0	$640_{28} = \chi_{37}, \varphi_{30}$
	30	0	$640_{29} = \chi_{38}, \varphi_{31}$
	$31 = \overline{30}$	0	$640_{30} = \chi_{39}, \varphi_{32}$
	32	4	16×1
	33	4	16×1

Block 1:	φ_1	φ_2	φ_{35}
$1_1 = \chi_1$	1	.	.
$90_1 = \chi_2$	.	1	.
$91_1 = \chi_3$	1	1	.
$91_2 = \chi_4$	1	1	.
$91_3 = \chi_5$	1	1	.
$91_4 = \chi_6$	1	1	.
$91_5 = \chi_7$	1	1	.
$91_6 = \chi_8$	1	1	.
$91_7 = \chi_9$	1	1	.
$728_5 = \chi_{44}$	.	.	1
$728_6 = \chi_{45}$	.	.	1
$728_7 = \chi_{46}$	.	.	1
$728_8 = \chi_{47}$	.	.	1
$729_1 = \chi_{76}$	1	.	1
$819_1 = \chi_{77}$	1	1	1
$819_2 = \chi_{78}$	1	1	1
$819_3 = \chi_{79}$	1	1	1
$819_4 = \chi_{80}$	1	1	1
$819_5 = \chi_{81}$	1	1	1
$819_6 = \chi_{82}$	1	1	1
$819_7 = \chi_{83}$	1	1	1
$910_1 = \chi_{84}$	2	2	1
$910_2 = \chi_{85}$	2	2	1
$910_3 = \chi_{86}$	2	2	1
$910_4 = \chi_{87}$	2	2	1
$910_5 = \chi_{88}$	2	2	1
$910_6 = \chi_{89}$	2	2	1
$910_7 = \chi_{90}$	2	2	1

$$\begin{aligned} \varphi_1 &= 1_1 \\ \varphi_2 &= 90_1 \\ \varphi_{35} &= 728_3 \end{aligned}$$

Block 32:	φ_{33}
$728_1 = \chi_{40}$	1
$728_3 = \chi_{42}$	1
$728_9 = \chi_{48}$	1
$728_{10} = \chi_{49}$	1
$728_{13} = \chi_{52}$	1
$728_{14} = \chi_{53}$	1
$728_{17} = \chi_{56}$	1
$728_{18} = \chi_{57}$	1
$728_{21} = \chi_{60}$	1
$728_{22} = \chi_{61}$	1
$728_{25} = \chi_{64}$	1
$728_{26} = \chi_{65}$	1
$728_{29} = \chi_{68}$	1
$728_{30} = \chi_{69}$	1
$728_{33} = \chi_{72}$	1
$728_{34} = \chi_{73}$	1

$$\varphi_{33} = 728_1$$

Block 33:	φ_{34}
$728_2 = \chi_{41}$	1
$728_4 = \chi_{43}$	1
$728_{11} = \chi_{50}$	1
$728_{12} = \chi_{51}$	1
$728_{15} = \chi_{54}$	1
$728_{16} = \chi_{55}$	1
$728_{19} = \chi_{58}$	1
$728_{20} = \chi_{59}$	1
$728_{23} = \chi_{62}$	1
$728_{24} = \chi_{63}$	1
$728_{27} = \chi_{66}$	1
$728_{28} = \chi_{67}$	1
$728_{31} = \chi_{70}$	1
$728_{32} = \chi_{71}$	1
$728_{35} = \chi_{74}$	1
$728_{36} = \chi_{75}$	1

$$\varphi_{34} = 728_2$$