

$L_2(32) \pmod{31}$

	blocks	defect	matrix
$G :$	1	1	17×2
	2	0	$31_1 = \chi_2, \varphi_2$
	3	0	$31_2 = \chi_3, \varphi_3$
	4	0	$31_3 = \chi_4, \varphi_4$
	5	0	$31_4 = \chi_5, \varphi_5$
	6	0	$31_5 = \chi_6, \varphi_6$
	7	0	$31_6 = \chi_7, \varphi_7$
	8	0	$31_7 = \chi_8, \varphi_8$
	9	0	$31_8 = \chi_9, \varphi_9$

	blocks	defect	matrix
	10	0	$31_9 = \chi_{10}, \varphi_{10}$
	11	0	$31_{10} = \chi_{11}, \varphi_{11}$
	12	0	$31_{11} = \chi_{12}, \varphi_{12}$
	13	0	$31_{12} = \chi_{13}, \varphi_{13}$
	14	0	$31_{13} = \chi_{14}, \varphi_{14}$
	15	0	$31_{14} = \chi_{15}, \varphi_{15}$
	16	0	$31_{15} = \chi_{16}, \varphi_{16}$
	17	0	$31_{16} = \chi_{17}, \varphi_{17}$

Block 1:	φ_1	φ_{18}
$1_1 = \chi_1$	1	.
$32_1 = \chi_{18}$.	1
$33_1 = \chi_{19}$	1	1
$33_2 = \chi_{20}$	1	1
$33_3 = \chi_{21}$	1	1
$33_4 = \chi_{22}$	1	1
$33_5 = \chi_{23}$	1	1
$33_6 = \chi_{24}$	1	1
$33_7 = \chi_{25}$	1	1
$33_8 = \chi_{26}$	1	1
$33_9 = \chi_{27}$	1	1
$33_{10} = \chi_{28}$	1	1
$33_{11} = \chi_{29}$	1	1
$33_{12} = \chi_{30}$	1	1
$33_{13} = \chi_{31}$	1	1
$33_{14} = \chi_{32}$	1	1
$33_{15} = \chi_{33}$	1	1

$$\begin{aligned} \varphi_1 &= 1_1 \\ \varphi_{18} &= 32_1 \end{aligned}$$