$L_6(2) \pmod 7$

	blocks	defect	matrix
$G:$	1	2	20×9
	2	1	5×3
	3	0	$588_1 = \chi_4, \varphi_4$
	4	1	5×3
	5	0	$4557_1 = \chi_{13}, \varphi_{12}$
	6	0	$9114_1 = \chi_{16}, \varphi_{13}$
	7	0	$9114_2 = \chi_{17}, \varphi_{14}$
	8	1	7×1
	9	0	$13671_1 = \chi_{32}, \varphi_{19}$
	10	0	$13671_2 = \chi_{33}, \varphi_{20}$
	11	0	$13671_3 = \chi_{34}, \varphi_{21}$
	$12 = \overline{11}$	0	$13671_4 = \chi_{35}, \varphi_{22}$
	13	0	$13671_5 = \chi_{36}, \varphi_{23}$
	$14 = \overline{13}$	0	$13671_6 = \chi_{37}, \varphi_{24}$
	15	0	$18228_1 = \chi_{39}, \varphi_{25}$
	16	0	$18816_1 = \chi_{40}, \varphi_{26}$
	17	0	$19845_1 = \chi_{41}, \varphi_{27}$
	$18 = \overline{17}$	0	$19845_2 = \chi_{42}, \varphi_{28}$
	19	0	$19845_3 = \chi_{43}, \varphi_{29}$
	$20 = \overline{19}$	0	$19845_4 = \chi_{44}, \varphi_{30}$
	21	0	$19845_5 = \chi_{45}, \varphi_{31}$
	$22 = \overline{21}$	0	$19845_6 = \chi_{46}, \varphi_{32}$
	23	0	$27342_1 = \chi_{49}, \varphi_{34}$
	24	0	$27342_2 = \chi_{50}, \varphi_{35}$
	$25 = \overline{24}$	0	$27342_3 = \chi_{51}, \varphi_{36}$
	26	0	$36456_1 = \chi_{58}, \varphi_{38}$
	27	0	$36456_2 = \chi_{59}, \varphi_{39}$

Block 1:	φ_1	φ_2	φ_6	φ_7	φ_8	φ_{10}	φ_{11}	φ_{17}	φ_{33}
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.
$62_1 = \chi_2$	1	1	.	.	.	.	.	.	.
$744_1 = \chi_6$	.	1	1	.	.	.	.	.	.
$1240_1 = \chi_7$	.	1	.	1	.	.	.	.	.
$1395_1 = \chi_8$	.	.	.	.	1	.	.	.	.
$1395_2 = \chi_9$	.	.	.	.	1	.	.	.	.
$4185_1 = \chi_{10}$	.	.	.	.	.	1	.	.	.
$4185_2 = \chi_{11}$	.	.	.	.	.	1	.	.	.
$5952_1 = \chi_{14}$	1	.	.	.	1	.	1	.	.
$6480_1 = \chi_{15}$	1	1	1	1	.	.	1	.	.
$9920_1 = \chi_{27}$	.	.	.	1	.	1	1	.	.
$11160_1 = \chi_{28}$	.	.	.	.	.	.	.	1	.
$11160_2 = \chi_{29}$	.	.	.	.	.	.	.	1	.
$12555_1 = \chi_{30}$	.	.	.	.	1	.	.	1	.
$25110_1 = \chi_{47}$	.	.	.	.	.	1	.	.	1
$25110_2 = \chi_{48}$	.	.	.	.	.	1	.	.	1
$31744_1 = \chi_{54}$	.	.	1	.	1	1	1	.	1
$32768_1 = \chi_{55}$	.	.	1	.	.	.	.	1	1
$33480_1 = \chi_{56}$	.	.	.	.	1	.	.	1	1
$33480_2 = \chi_{57}$	.	.	.	.	1	.	.	1	1

$\varphi_1 = 1_1$
$\varphi_2 = 61_1$
$\varphi_6 = 683_1$
$\varphi_7 = 1179_1$
$\varphi_8 = 1395_1$
$\varphi_{10} = 4185_1$
$\varphi_{11} = 4556_1$
$\varphi_{17} = 11160_1$
$\varphi_{33} = 20925_1$

Block 2:	φ_3	φ_9	φ_{16}
$217_1 = \chi_3$	1	.	.
$4340_1 = \chi_{12}$	1	1	.
$9765_2 = \chi_{19}$	.	.	1
$9765_3 = \chi_{20}$	.	.	1
$13888_1 = \chi_{38}$	.	1	1

$\varphi_3 = 217_1$
$\varphi_9 = 4123_1$
$\varphi_{16} = 9765_2$

Block 4:	φ_5	φ_{18}	φ_{37}
$651_1 = \chi_5$	1	.	.
$13020_1 = \chi_{31}$	1	1	.
$29295_1 = \chi_{52}$	.	.	1
$29295_2 = \chi_{53}$	.	.	1
$41664_1 = \chi_{60}$	.	1	1

$\varphi_5 = 651_1$
$\varphi_{18} = 12369_1$
$\varphi_{37} = 29295_1$

Block 8:	φ_{15}
$9765_1 = \chi_{18}$	1
$9765_4 = \chi_{21}$	1
$9765_5 = \chi_{22}$	1
$9765_6 = \chi_{23}$	1
$9765_7 = \chi_{24}$	1
$9765_8 = \chi_{25}$	1
$9765_9 = \chi_{26}$	1

$$\varphi_{15} = 9765_1$$