

$L_2(81).4_1 \pmod{5}$

	blocks	defect	matrix
$G :$	1	1	5×4
	2	1	5×4
	3	1	5×4
	4	1	5×4
	5	0	$320_1 = \chi_{4+}, \varphi_{4+}$
	6	0	$320_2 = \chi_{8+}, \varphi_{8+}$
	7	0	$320_3 = \chi_{12+}, \varphi_{12+}$
	8	0	$320_4 = \chi_{16+}, \varphi_{16+}$
	9	0	$320_5 = \chi_{20+}, \varphi_{20+}$
	10	1	5×4
	11	1	4×2
$2.G :$	12	0	$40_1 = \chi_{44,0}, \varphi_{28,0}$
	13	0	$40_2 = \chi_{44,1}, \varphi_{28,1}$

	blocks	defect	matrix
	14	0	$40_3 = \chi_{44,2}, \varphi_{28,2}$
	$15 = \overline{13}$	0	$40_4 = \chi_{44,3}, \varphi_{28,3}$
	16	0	$40_5 = \chi_{45,0}, \varphi_{29,0}$
	17	0	$40_6 = \chi_{45,1}, \varphi_{29,1}$
	$18 = \overline{17}$	0	$40_7 = \chi_{45,2}, \varphi_{29,2}$
	$19 = \overline{16}$	0	$40_8 = \chi_{45,3}, \varphi_{29,3}$
	20	0	$320_6 = \chi_{46+}, \varphi_{30+}$
	21	0	$320_7 = \chi_{50+}, \varphi_{34+}$
	22	0	$320_8 = \chi_{54+}, \varphi_{38+}$
	23	0	$320_9 = \chi_{58+}, \varphi_{42+}$
	24	0	$320_{10} = \chi_{62+}, \varphi_{46+}$
	25	1	5×1

Block 1:	$\varphi_{1,0}$	$\varphi_{1,2}$	$\varphi_{24,1}$	$\varphi_{24,3}$	
$1_1 = \chi_{1,0}$	1	.	.	.	$\varphi_{1,0} = 1_1$
$1_3 = \chi_{1,2}$	.	1	.	.	$\varphi_{1,2} = 1_3$
$81_2 = \chi_{24,1}$	.	.	1	.	$\varphi_{24,1} = 81_2$
$81_4 = \chi_{24,3}$	.	.	.	1	$\varphi_{24,3} = 81_4$
$164_2 = \chi_{26,1+}$	1	1	1	1	

Block 2:	$\varphi_{1,1}$	$\varphi_{1,3}$	$\varphi_{24,0}$	$\varphi_{24,2}$	
$1_2 = \chi_{1,1}$	1	.	.	.	$\varphi_{1,1} = 1_2$
$1_4 = \chi_{1,3}$	.	1	.	.	$\varphi_{1,3} = 1_4$
$81_1 = \chi_{24,0}$	.	.	1	.	$\varphi_{24,0} = 81_1$
$81_3 = \chi_{24,2}$	.	.	.	1	$\varphi_{24,2} = 81_3$
$164_1 = \chi_{26,0+}$	1	1	1	1	

Block 3:	$\varphi_{2,0}$	$\varphi_{2,2}$	$\varphi_{3,1}$	$\varphi_{3,3}$	
$41_1 = \chi_{2,0}$	1	.	.	.	$\varphi_{2,0} = 41_1$
$41_3 = \chi_{2,2}$	.	1	.	.	$\varphi_{2,2} = 41_3$
$41_6 = \chi_{3,1}$	.	.	1	.	$\varphi_{3,1} = 41_6$
$41_8 = \chi_{3,3}$	.	.	.	1	$\varphi_{3,3} = 41_8$
$164_6 = \chi_{30,1+}$	1	1	1	1	

Block 4:	$\varphi_{2,1}$	$\varphi_{2,3}$	$\varphi_{3,0}$	$\varphi_{3,2}$	
$41_2 = \chi_{2,1}$	1	.	.	.	$\varphi_{2,1} = 41_2$
$41_4 = \chi_{2,3}$	.	1	.	.	$\varphi_{2,3} = 41_4$
$41_5 = \chi_{3,0}$	.	.	1	.	$\varphi_{3,0} = 41_5$
$41_7 = \chi_{3,2}$	.	.	.	1	$\varphi_{3,2} = 41_7$
$164_5 = \chi_{30,0+}$	1	1	1	1	

Block 10:	$\varphi_{25,0}$	$\varphi_{25,1}$	$\varphi_{25,2}$	$\varphi_{25,3}$	
$82_1 = \chi_{25,0}$	1	.	.	.	$\varphi_{25,0} = 82_1$
$82_2 = \chi_{25,1}$	.	1	.	.	$\varphi_{25,1} = 82_2$
$82_3 = \chi_{25,2}$	.	.	1	.	$\varphi_{25,2} = 82_3$
$82_4 = \chi_{25,3}$	.	.	.	1	$\varphi_{25,3} = 82_4$
$328_1 = \chi_{32+}$	1	1	1	1	

Block 11:	$\varphi_{26,0+}$	$\varphi_{26,1+}$	
$164_3 = \chi_{28,0+}$	1	.	$\varphi_{26,0+} = 164_1$
$164_4 = \chi_{28,1+}$	.	1	$\varphi_{26,1+} = 164_2$
$328_2 = \chi_{36+}$	1	1	
$328_3 = \chi_{40+}$	1	1	

Block 25:	φ_{50+}	
$328_4 = \chi_{66+}$	1	$\varphi_{50+} = 328_1$
$328_5 = \chi_{70+}$	1	
$328_6 = \chi_{74+}$	1	
$328_7 = \chi_{78+}$	1	
$328_8 = \chi_{82+}$	1	