

$L_2(81).4_2 \pmod{5}$

	blocks	defect	matrix
$G :$	1	1	5×4
	2	1	5×4
	3	1	4×2
	4	0	$320_1 = \chi_{4+}, \varphi_{4+}$
	5	0	$320_2 = \chi_{8+}, \varphi_{8+}$

	blocks	defect	matrix
	6	0	$320_3 = \chi_{12+}, \varphi_{12+}$
	7	0	$320_4 = \chi_{16+}, \varphi_{16+}$
	8	0	$320_5 = \chi_{20+}, \varphi_{20+}$
	9	1	5×4
	10	1	4×2

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:	$\varphi_{2,0+}$	$\varphi_{2,1+}$	
$82_1 = \chi_{2,0+}$	1	.	$\varphi_{2,0+} = 82_1$
$82_2 = \chi_{2,1+}$	.	1	$\varphi_{2,1+} = 82_2$
$164_5 = \chi_{30,0+}$	1	1	
$164_6 = \chi_{30,1+}$	1	1	

Block 9:	$\varphi_{25,0}$	$\varphi_{25,1}$	$\varphi_{25,2}$	$\varphi_{25,3}$	
$82_3 = \chi_{25,0}$	1	.	.	.	$\varphi_{25,0} = 82_3$
$82_4 = \chi_{25,1}$	.	1	.	.	$\varphi_{25,1} = 82_4$
$82_5 = \chi_{25,2}$	.	.	1	.	$\varphi_{25,2} = 82_5$
$82_6 = \chi_{25,3}$	.	.	.	1	$\varphi_{25,3} = 82_6$
$328_1 = \chi_{32+}$	1	1	1	1	

Block 10:	$\varphi_{26,0+}$	$\varphi_{26,1+}$
$164_3 = \chi_{28,0+}$	1	.
$164_4 = \chi_{28,1+}$	.	1
$328_2 = \chi_{36+}$	1	1
$328_3 = \chi_{40+}$	1	1

$$\begin{aligned} \varphi_{26,0+} &= 164_1 \\ \varphi_{26,1+} &= 164_2 \end{aligned}$$