

$U_4(3) \pmod{2}$

	blocks	defect	matrix
$4.G :$	1	9	59×9
	2	2	4×1
	$3 = \bar{2}$	2	4×1
	4	2	4×1
$12_1.G :$	5	9	51×7

	blocks	defect	matrix
	$6 = 5 * 5$	2	4×1
	7		
	$8 = 7 * 5$		
$12_2.G :$	9	9	43×5
	$10 = 9 * 5$		

Block 1:	φ_1	φ_2	φ_3	φ_4	φ_5	φ_6	φ_7	φ_8	φ_9
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.
$21_1 = \chi_2$	1	1	.	.	.	.	.	.	.
$35_1 = \chi_3$	1	.	1	.	.	.	.	.	.
$35_2 = \chi_4$	1	.	.	1	.	.	.	.	.
$90_1 = \chi_5$	2	1	1	1	.	.	.	.	.
$140_1 = \chi_6$	.	1	.	.	.	.	.	.	1
$189_1 = \chi_7$	1	.	1	1	.	.	.	.	1
$210_1 = \chi_8$	2	1	1	1	.	.	.	.	1
$280_1 = \chi_9$	2	1	1	1	1	.	.	.	1
$280_2 = \chi_{10}$	2	1	1	1	.	1	.	.	1
$280_3 = \chi_{11}$	2	1	1	1	.	.	1	.	1
$280_4 = \chi_{12}$	2	1	1	1	.	.	.	1	1
$315_1 = \chi_{13}$	1	1	1	.	1	1	.	.	1
$315_2 = \chi_{14}$	1	1	.	1	.	.	1	1	1
$420_1 = \chi_{15}$	.	1	.	.	1	1	1	1	1
$560_1 = \chi_{16}$	.	2	.	.	1	1	1	1	2
$729_1 = \chi_{19}$	1	1	1	1	1	1	1	1	3
$20_1 = \chi_{21}$	.	1	.	.	.	.	.	.	.
$56_1 = \chi_{22}$	2	1	1	.	.	.	.	.	.
$56_2 = \chi_{23}$	2	1	.	1	.	.	.	.	.
$70_1 = \chi_{24}$	2	.	1	1	.	.	.	.	.
$70_2 = \chi_{25}$	.	.	.	.	1	.	.	.	.
$70_3 = \chi_{26}$	.	.	.	.	.	1	.	.	.
$70_4 = \chi_{27}$	.	.	.	.	.	.	1	.	.
$70_5 = \chi_{28}$	.	.	.	.	.	.	.	1	.
$120_1 = \chi_{29}$	.	.	.	.	.	.	.	.	1
$210_2 = \chi_{30}$	2	1	1	1	.	.	.	.	1
$210_3 = \chi_{31}$	2	1	1	1	.	.	.	.	1
$504_1 = \chi_{32}$	2	1	2	1	1	1	.	.	2
$504_2 = \chi_{33}$	2	1	1	2	.	.	1	1	2
$540_1 = \chi_{34}$	.	1	.	.	1	1	1	1	2
$560_2 = \chi_{35}$	.	2	.	.	1	1	1	1	2
$630_1 = \chi_{36}$	2	2	1	1	1	1	1	1	2
$20_2 = \chi_{40}$	.	1	.	.	.	.	.	.	.
$20_3 = \chi_{40}^{*3}$	.	1	.	.	.	.	.	.	.
$120_2 = \chi_{41}$	.	.	.	.	.	.	.	.	1
$120_3 = \chi_{41}^{*3}$	.	.	.	.	.	.	.	.	1
$140_2 = \chi_{42}$	.	1	.	.	.	.	.	.	1
$140_3 = \chi_{42}^{*3}$	.	1	.	.	.	.	.	.	1
$224_1 = \chi_{43}$	.	.	1	.	.	1	.	.	1

(Block 1:)	φ_1	φ_2	φ_3	φ_4	φ_5	φ_6	φ_7	φ_8	φ_9
$224_2 = \chi_{43}^{*7}$	.	.	1	.	.	1	.	.	1
$224_3 = \chi_{44}$	.	.	1	.	1	.	.	.	1
$224_4 = \chi_{44}^{*7}$	.	.	1	.	1	.	.	.	1
$224_5 = \chi_{45}$	.	.	.	1	.	.	.	1	1
$224_6 = \chi_{45}^{*7}$	.	.	.	1	.	.	.	1	1
$224_7 = \chi_{46}$	.	.	.	1	.	.	1	.	1
$224_8 = \chi_{46}^{*7}$	.	.	.	1	.	.	1	.	1
$280_5 = \chi_{47}$	4	1	2	2	.	.	.	.	1
$280_6 = \chi_{47}^{*3}$	4	1	2	2	.	.	.	.	1
$280_7 = \chi_{48}$	.	1	.	.	1	1	.	.	1
$280_8 = \chi_{48}^{*3}$	.	1	.	.	1	1	.	.	1
$280_9 = \chi_{49}$	.	1	.	.	.	.	1	1	1
$280_{10} = \chi_{49}^{*3}$	.	1	.	.	.	.	1	1	1
$420_2 = \chi_{50}$	.	1	.	.	1	1	1	1	1
$420_3 = \chi_{50}^{*3}$	.	1	.	.	1	1	1	1	1
$540_2 = \chi_{51}$	.	1	.	.	1	1	1	1	2
$540_3 = \chi_{51}^{*3}$	.	1	.	.	1	1	1	1	2
$840_1 = \chi_{54}$	4	3	2	2	1	1	1	1	3
$840_2 = \chi_{54}^{*3}$	4	3	2	2	1	1	1	1	3

$$\begin{aligned} \varphi_1 &= 1_1 \\ \varphi_2 &= 20_1 \\ \varphi_3 &= 34_1 \\ \varphi_4 &= 34_2 \\ \varphi_5 &= 70_1 \\ \varphi_6 &= 70_2 \\ \varphi_7 &= 70_3 \\ \varphi_8 &= 70_4 \\ \varphi_9 &= 120_1 \end{aligned}$$

Block 2:	φ_{10}
$640_1 = \chi_{17}$	1
$640_3 = \chi_{37}$	1
$640_5 = \chi_{52}$	1
$640_6 = \chi_{52}^{*15}$	1

$$\varphi_{10} = 640_1$$

Block 3:	φ_{11}
$640_2 = \chi_{18}$	1
$640_4 = \chi_{38}$	1
$640_7 = \chi_{53}$	1
$640_8 = \chi_{53}^{*15}$	1

$$\varphi_{11} = 640_2$$

Block 4:	φ_{12}
$896_1 = \chi_{20}$	1
$896_2 = \chi_{39}$	1
$896_3 = \chi_{55}$	1
$896_4 = \chi_{55}^{*3}$	1

$$\varphi_{12} = 896_1$$

Block 5:	φ_{13}	φ_{14}	φ_{15}	φ_{16}	φ_{17}	φ_{18}	φ_{19}
$15_1 = \chi_{56}$	.	1	.	.	.	.	.
$21_2 = \chi_{57}$	1	1	.	.	.	.	.
$105_1 = \chi_{58}$	.	1	.	1	.	.	.
$105_3 = \chi_{59}$	.	1	.	1	.	.	.
$105_5 = \chi_{60}$	1	1	1	.	.	.	.
$210_4 = \chi_{61}$	1	2	1	1	.	.	.
$315_3 = \chi_{62}$	2	1	1	.	.	.	1
$336_1 = \chi_{63}$	2	2	.	1	.	.	1
$360_1 = \chi_{64}$	1	.	.	.	1	.	1
$360_3 = \chi_{65}$	1	.	.	.	.	1	1
$420_4 = \chi_{67}$	.	2	.	1	1	1	.
$630_2 = \chi_{68}$	1	2	.	1	1	1	1
$729_2 = \chi_{69}$	1	3	1	1	1	1	1
$756_1 = \chi_{70}$	2	4	.	2	1	1	1
$945_1 = \chi_{71}$	3	3	1	1	1	1	2
$6_1 = \chi_{72}$	1	.	.	.	.	.	.
$84_1 = \chi_{73}$	.	.	1	.	.	.	.
$120_4 = \chi_{74}$	1	2	1	.	.	.	.
$126_1 = \chi_{75}$	1	2	.	1	.	.	.
$210_6 = \chi_{76}$	1	.	.	.	.	.	1
$270_1 = \chi_{77}$	.	2	.	1	.	1	.
$270_3 = \chi_{78}$	.	2	.	1	1	.	.
$336_3 = \chi_{79}$	2	2	.	1	.	.	1
$420_6 = \chi_{81}$	2	2	1	1	.	.	1
$630_4 = \chi_{82}$	1	2	.	1	1	1	1
$630_6 = \chi_{83}$	1	2	.	1	1	1	1
$630_8 = \chi_{84}$	1	2	.	1	1	1	1
$840_3 = \chi_{85}$	2	4	1	2	1	1	1
$840_5 = \chi_{86}$	3	2	1	.	1	1	2
$84_3 = \chi_{87}$	.	.	1	.	.	.	.
$84_5 = \chi_{87}^*$	.	.	1	.	.	.	.
$120_6 = \chi_{88}$	.	2	.	1	.	.	.
$120_8 = \chi_{88}^*$	.	2	.	1	.	.	.
$216_1 = \chi_{89}$	2	.	.	.	.	.	1
$216_3 = \chi_{89}^*$	2	.	.	.	.	.	1
$420_8 = \chi_{91}$	2	2	1	1	.	.	1
$420_{10} = \chi_{91}^*$	2	2	1	1	.	.	1
$420_{12} = \chi_{92}$	.	2	.	1	1	1	.
$420_{14} = \chi_{92}^*$	.	2	.	1	1	1	.
$480_1 = \chi_{93}$	2	2	1	.	.	1	1

(Block 5:)	φ_{13}	φ_{14}	φ_{15}	φ_{16}	φ_{17}	φ_{18}	φ_{19}	
$480_3 = \chi_{93}^{*43}$	2	2	1	.	.	1	1	
$480_5 = \chi_{94}$	2	2	1	.	1	.	1	$\varphi_{13} = 6_1$
$480_7 = \chi_{94}^{*43}$	2	2	1	.	1	.	1	$\varphi_{14} = 15_1$
$504_3 = \chi_{95}$	.	.	.	.	1	1	1	$\varphi_{15} = 84_1$
$504_5 = \chi_{95}^{*7}$	.	.	.	.	1	1	1	$\varphi_{16} = 90_1$
$756_3 = \chi_{96}$	2	4	.	2	1	1	1	$\varphi_{17} = 150_1$
$756_5 = \chi_{96}^{*7}$	2	4	.	2	1	1	1	$\varphi_{18} = 150_3$
$840_7 = \chi_{97}$	2	2	.	1	1	1	2	$\varphi_{19} = 204_1$
$840_9 = \chi_{97}^{*7}$	2	2	.	1	1	1	2	
$840_{11} = \chi_{98}$	2	4	1	2	1	1	1	
$840_{13} = \chi_{98}^{*7}$	2	4	1	2	1	1	1	

Block 7:	φ_{20}
$384_1 = \chi_{66}$	1
$384_3 = \chi_{80}$	1
$384_5 = \chi_{90}$	1
$384_7 = \chi_{90}^{*7}$	1

$$\varphi_{20} = 384_1$$

Block 9:	φ_{21}	φ_{22}	φ_{23}	φ_{24}	φ_{25}
$36_1 = \chi_{99}$	1	.	.	.	.
$45_1 = \chi_{100}$	.	1	.	.	.
$45_3 = \chi_{101}$	.	.	1	.	.
$126_1 = \chi_{102}$	1	1	1	.	.
$189_2 = \chi_{103}$	.	.	.	1	.
$315_3 = \chi_{104}$	1	1	1	1	.
$315_5 = \chi_{105}$	1	1	1	1	.
$315_7 = \chi_{106}$	1	1	1	1	.
$630_2 = \chi_{107}$	1	2	2	.	1
$720_1 = \chi_{108}$	2	3	3	2	.
$729_2 = \chi_{109}$	1	1	1	1	1
$756_1 = \chi_{110}$	3	3	3	2	.
$945_1 = \chi_{111}$	2	3	3	1	1
$90_2 = \chi_{112}$	.	1	1	.	.
$126_3 = \chi_{113}$	1	1	1	.	.
$126_5 = \chi_{114}$	1	1	1	.	.
$126_7 = \chi_{115}$	1	1	1	.	.
$126_9 = \chi_{116}$	1	1	1	.	.
$270_1 = \chi_{117}$	1	.	1	1	.
$270_3 = \chi_{118}$	1	1	.	1	.
$504_3 = \chi_{119}$	.	1	1	.	1
$540_4 = \chi_{120}$	1	1	1	.	1
$630_4 = \chi_{121}$	2	2	2	2	.
$720_3 = \chi_{122}$	2	3	3	2	.
$1260_1 = \chi_{123}$	3	4	4	2	1
$36_3 = \chi_{124}$	1	.	.	.	.
$36_5 = \chi_{124}^{*7}$	1	.	.	.	.
$216_1 = \chi_{125}$	1	2	2	.	.
$216_3 = \chi_{125}^{*7}$	1	2	2	.	.
$360_1 = \chi_{126}$	1	2	1	1	.
$360_3 = \chi_{126}^{*43}$	1	2	1	1	.
$360_5 = \chi_{127}$	1	1	2	1	.
$360_7 = \chi_{127}^{*43}$	1	1	2	1	.
$504_5 = \chi_{128}$	.	1	1	.	1
$504_7 = \chi_{128}^{*7}$	.	1	1	.	1
$504_9 = \chi_{129}$	1	1	1	2	.
$504_{11} = \chi_{129}^{*7}$	1	1	1	2	.
$540_6 = \chi_{130}$	1	1	1	.	1
$540_8 = \chi_{130}^{*7}$	1	1	1	.	1
$756_3 = \chi_{131}$	3	3	3	2	.

(Block 9:)	φ_{21}	φ_{22}	φ_{23}	φ_{24}	φ_{25}	
$756_5 = \chi_{131}^{*7}$	3	3	3	2	.	$\varphi_{21} = 36_1$
$1260_3 = \chi_{132}$	3	4	4	2	1	$\varphi_{22} = 45_1$
$1260_5 = \chi_{132}^{*7}$	3	4	4	2	1	$\varphi_{23} = 45_3$
						$\varphi_{24} = 189_1$
						$\varphi_{25} = 414_1$