# ${}^2E_6(2).2 \pmod{19}$

| | blocks | defect | matrix |
|---|---|---|---|
| $G:$ | 1 | 1 | $19 \times 18$ |
| | 2 | 0 | $1938_1 = \chi_{2,0}, \varphi_{2,0}$ |
| | 3 | 0 | $1938_2 = \chi_{2,1}, \varphi_{2,1}$ |
| | 4 | 0 | $554268_1 = \chi_{4,0}, \varphi_{4,0}$ |
| | 5 | 0 | $554268_2 = \chi_{4,1}, \varphi_{4,1}$ |
| | 6 | 0 | $815100_1 = \chi_{5,0}, \varphi_{5,0}$ |
| | 7 | 0 | $815100_2 = \chi_{5,1}, \varphi_{5,1}$ |
| | 8 | 0 | $1322685_1 = \chi_{6,0}, \varphi_{6,0}$ |
| | 9 | 0 | $1322685_2 = \chi_{6,1}, \varphi_{6,1}$ |
| | 10 | 0 | $1828332_1 = \chi_{7,0}, \varphi_{7,0}$ |
| | 11 | 0 | $1828332_2 = \chi_{7,1}, \varphi_{7,1}$ |
| | 12 | 0 | $2089164_1 = \chi_{8,0}, \varphi_{8,0}$ |
| | 13 | 0 | $2089164_2 = \chi_{8,1}, \varphi_{8,1}$ |
| | 14 | 0 | $2909907_1 = \chi_{9,0}, \varphi_{9,0}$ |
| | 15 | 0 | $2909907_2 = \chi_{9,1}, \varphi_{9,1}$ |
| | 16 | 0 | $5819814_1 = \chi_{10+}, \varphi_{10+}$ |
| | 17 | 0 | $2956096_1 = \chi_{12,0}, \varphi_{12,0}$ |
| | 18 | 0 | $2956096_2 = \chi_{12,1}, \varphi_{12,1}$ |
| | 19 | 0 | $20155200_1 = \chi_{14,0}, \varphi_{14,0}$ |
| | 20 | 0 | $20155200_2 = \chi_{14,1}, \varphi_{14,1}$ |
| | 21 | 0 | $22170720_1 = \chi_{15,0}, \varphi_{15,0}$ |
| | 22 | 0 | $22170720_2 = \chi_{15,1}, \varphi_{15,1}$ |
| | 23 | 0 | $29099070_1 = \chi_{16,0}, \varphi_{16,0}$ |
| | 24 | 0 | $29099070_2 = \chi_{16,1}, \varphi_{16,1}$ |
| | 25 | 0 | $56581525_1 = \chi_{17,0}, \varphi_{17,0}$ |
| | 26 | 0 | $56581525_2 = \chi_{17,1}, \varphi_{17,1}$ |
| | 27 | 0 | $113163050_1 = \chi_{18+}, \varphi_{18+}$ |
| | 28 | 0 | $62741952_1 = \chi_{20,0}, \varphi_{20,0}$ |
| | 29 | 0 | $62741952_2 = \chi_{20,1}, \varphi_{20,1}$ |
| | 30 | 0 | $81477396_1 = \chi_{21,0}, \varphi_{21,0}$ |
| | 31 | 0 | $81477396_2 = \chi_{21,1}, \varphi_{21,1}$ |
| | 32 | 0 | $162954792_1 = \chi_{22+}, \varphi_{22+}$ |
| | 33 | 0 | $145495350_1 = \chi_{27,0}, \varphi_{27,0}$ |
| | 34 | 0 | $145495350_2 = \chi_{27,1}, \varphi_{27,1}$ |
| | 35 | 0 | $290990700_1 = \chi_{28+}, \varphi_{28+}$ |
| | 36 | 0 | $221707200_1 = \chi_{30,0}, \varphi_{30,0}$ |
| | 37 | 0 | $221707200_2 = \chi_{30,1}, \varphi_{30,1}$ |
| | 38 | 0 | $278555200_1 = \chi_{31,0}, \varphi_{31,0}$ |
| | 39 | 0 | $278555200_2 = \chi_{31,1}, \varphi_{31,1}$ |
| | 40 | 0 | $289697408_1 = \chi_{32,0}, \varphi_{32,0}$ |

| | blocks | defect | matrix |
|---|---|---|---|
| | 41 | 0 | $289697408_2 = \chi_{32,1}, \varphi_{32,1}$ |
| | 42 | 0 | $333316620_1 = \chi_{33,0}, \varphi_{33,0}$ |
| | 43 | 0 | $333316620_2 = \chi_{33,1}, \varphi_{33,1}$ |
| | 44 | 0 | $339489150_1 = \chi_{34,0}, \varphi_{34,0}$ |
| | 45 | 0 | $339489150_2 = \chi_{34,1}, \varphi_{34,1}$ |
| | 46 | 0 | $452652200_1 = \chi_{35,0}, \varphi_{35,0}$ |
| | 47 | 0 | $452652200_2 = \chi_{35,1}, \varphi_{35,1}$ |
| | 48 | 0 | $905304400_1 = \chi_{36+}, \varphi_{36+}$ |
| | 49 | 0 | $497306304_1 = \chi_{38,0}, \varphi_{38,0}$ |
| | 50 | 0 | $497306304_2 = \chi_{38,1}, \varphi_{38,1}$ |
| | 51 | 0 | $505076715_1 = \chi_{39,0}, \varphi_{39,0}$ |
| | 52 | 0 | $505076715_2 = \chi_{39,1}, \varphi_{39,1}$ |
| | 53 | 0 | $581981400_1 = \chi_{40,0}, \varphi_{40,0}$ |
| | 54 | 0 | $581981400_2 = \chi_{40,1}, \varphi_{40,1}$ |
| | 55 | 0 | $678978300_1 = \chi_{41,0}, \varphi_{41,0}$ |
| | 56 | 0 | $678978300_2 = \chi_{41,1}, \varphi_{41,1}$ |
| | 57 | 0 | $707107401_1 = \chi_{42,0}, \varphi_{42,0}$ |
| | 58 | 0 | $707107401_2 = \chi_{42,1}, \varphi_{42,1}$ |
| | 59 | 0 | $733296564_1 = \chi_{43,0}, \varphi_{43,0}$ |
| | 60 | 0 | $733296564_2 = \chi_{43,1}, \varphi_{43,1}$ |
| | 61 | 0 | $740703600_1 = \chi_{44,0}, \varphi_{44,0}$ |
| | $62 = \overline{61}$ | 0 | $740703600_2 = \chi_{44,1}, \varphi_{44,1}$ |
| | 63 | 0 | $814773960_1 = \chi_{45,0}, \varphi_{45,0}$ |
| | 64 | 0 | $814773960_2 = \chi_{45,1}, \varphi_{45,1}$ |
| | 65 | 0 | $872972100_1 = \chi_{46,0}, \varphi_{46,0}$ |
| | 66 | 0 | $872972100_2 = \chi_{46,1}, \varphi_{46,1}$ |
| | 67 | 0 | $1745944200_1 = \chi_{47+}, \varphi_{47+}$ |
| | 68 | 0 | $1003871232_1 = \chi_{49,0}, \varphi_{49,0}$ |
| | 69 | 0 | $1003871232_2 = \chi_{49,1}, \varphi_{49,1}$ |
| | 70 | 0 | $1289932800_1 = \chi_{50,0}, \varphi_{50,0}$ |
| | 71 | 0 | $1289932800_2 = \chi_{50,1}, \varphi_{50,1}$ |
| | 72 | 0 | $1357956600_1 = \chi_{51,0}, \varphi_{51,0}$ |
| | 73 | 0 | $1357956600_2 = \chi_{51,1}, \varphi_{51,1}$ |
| | 74 | 0 | $1418926080_1 = \chi_{52,0}, \varphi_{52,0}$ |
| | 75 | 0 | $1418926080_2 = \chi_{52,1}, \varphi_{52,1}$ |
| | 76 | 0 | $2036934900_1 = \chi_{53,0}, \varphi_{53,0}$ |
| | 77 | 0 | $2036934900_2 = \chi_{53,1}, \varphi_{53,1}$ |
| | 78 | 0 | $4073869800_1 = \chi_{54+}, \varphi_{54+}$ |
| | 79 | 0 | $2270281728_1 = \chi_{57,0}, \varphi_{57,0}$ |
| | 80 | 0 | $2270281728_2 = \chi_{57,1}, \varphi_{57,1}$ |

| | blocks | defect | matrix |
|---|---|---|---|
| | 81 | 0 | $5431826400_1 = \chi_{58+}, \varphi_{58+}$ |
| | 82 | 0 | $2828429604_1 = \chi_{60,0}, \varphi_{60,0}$ |
| | 83 | 0 | $2828429604_2 = \chi_{60,1}, \varphi_{60,1}$ |
| | 84 | 0 | $5656859208_1 = \chi_{61+}, \varphi_{61+}$ |
| | 85 | 0 | $3338649600_1 = \chi_{63,0}, \varphi_{63,0}$ |
| | 86 | 0 | $3338649600_2 = \chi_{63,1}, \varphi_{63,1}$ |
| | 87 | 0 | $4655851200_1 = \chi_{64,0}, \varphi_{64,0}$ |
| | 88 | 0 | $4655851200_2 = \chi_{64,1}, \varphi_{64,1}$ |
| | 89 | 0 | $4949751807_1 = \chi_{65,0}, \varphi_{65,0}$ |
| | 90 | 0 | $4949751807_2 = \chi_{65,1}, \varphi_{65,1}$ |
| | 91 | 0 | $5431826400_2 = \chi_{66,0}, \varphi_{66,0}$ |
| | 92 | 0 | $5431826400_3 = \chi_{66,1}, \varphi_{66,1}$ |
| | 93 | 0 | $6518191680_1 = \chi_{67,0}, \varphi_{67,0}$ |
| | 94 | 0 | $6518191680_2 = \chi_{67,1}, \varphi_{67,1}$ |
| | 95 | 0 | $7488847872_1 = \chi_{68,0}, \varphi_{68,0}$ |
| | 96 | 0 | $7488847872_2 = \chi_{68,1}, \varphi_{68,1}$ |
| | 97 | 0 | $7576150725_1 = \chi_{69,0}, \varphi_{69,0}$ |
| | 98 | 0 | $7576150725_2 = \chi_{69,1}, \varphi_{69,1}$ |
| | 99 | 0 | $8557215744_1 = \chi_{70,0}, \varphi_{70,0}$ |
| | 100 | 0 | $8557215744_2 = \chi_{70,1}, \varphi_{70,1}$ |
| | 101 | 0 | $9311702400_1 = \chi_{71,0}, \varphi_{71,0}$ |
| | 102 | 0 | $9311702400_2 = \chi_{71,1}, \varphi_{71,1}$ |
| | 103 | 0 | $18623404800_1 = \chi_{72+}, \varphi_{72+}$ |
| | 104 | 0 | $9899503614_1 = \chi_{74,0}, \varphi_{74,0}$ |
| | 105 | 0 | $9899503614_2 = \chi_{74,1}, \varphi_{74,1}$ |
| | 106 | 0 | $10101534300_1 = \chi_{75,0}, \varphi_{75,0}$ |
| | 107 | 0 | $10101534300_2 = \chi_{75,1}, \varphi_{75,1}$ |
| | 108 | 0 | $10666131840_1 = \chi_{76,0}, \varphi_{76,0}$ |
| | 109 | 0 | $10666131840_2 = \chi_{76,1}, \varphi_{76,1}$ |
| | 110 | 0 | $10863652800_1 = \chi_{77,0}, \varphi_{77,0}$ |
| | 111 | 0 | $10863652800_2 = \chi_{77,1}, \varphi_{77,1}$ |
| | 112 | 0 | $11732745024_1 = \chi_{78,0}, \varphi_{78,0}$ |
| | 113 | 0 | $11732745024_2 = \chi_{78,1}, \varphi_{78,1}$ |
| | 114 | 0 | $11918979072_1 = \chi_{79,0}, \varphi_{79,0}$ |
| | 115 | 0 | $11918979072_2 = \chi_{79,1}, \varphi_{79,1}$ |
| | 116 | 0 | $23837958144_1 = \chi_{80+}, \varphi_{80+}$ |
| | 117 | 0 | $13749310575_1 = \chi_{83,0}, \varphi_{83,0}$ |
| | 118 | 0 | $13749310575_2 = \chi_{83,1}, \varphi_{83,1}$ |
| | 119 | 0 | $13749310575_3 = \chi_{84,0}, \varphi_{84,0}$ |
| | 120 | 0 | $13749310575_4 = \chi_{84,1}, \varphi_{84,1}$ |

| | blocks | defect | matrix |
|---|---|---|---|
| | 121 | 0 | $27498621150_1 = \chi_{85+}, \varphi_{85+}$ |
| | 122 | 0 | $14142148020_1 = \chi_{87,0}, \varphi_{87,0}$ |
| | 123 | 0 | $14142148020_2 = \chi_{87,1}, \varphi_{87,1}$ |
| | 124 | 0 | $14898723840_1 = \chi_{88,0}, \varphi_{88,0}$ |
| | 125 | 0 | $14898723840_2 = \chi_{88,1}, \varphi_{88,1}$ |
| | 126 | 0 | $17677685025_1 = \chi_{89,0}, \varphi_{89,0}$ |
| | 127 | 0 | $17677685025_2 = \chi_{89,1}, \varphi_{89,1}$ |
| | 128 | 0 | $35355370050_1 = \chi_{90+}, \varphi_{90+}$ |
| | 129 | 0 | $19799007228_1 = \chi_{92,0}, \varphi_{92,0}$ |
| | 130 | 0 | $19799007228_2 = \chi_{92,1}, \varphi_{92,1}$ |
| | 131 | 0 | $21727305600_1 = \chi_{93,0}, \varphi_{93,0}$ |
| | 132 | 0 | $21727305600_2 = \chi_{93,1}, \varphi_{93,1}$ |
| | 133 | 0 | $24748759035_1 = \chi_{94,0}, \varphi_{94,0}$ |
| | 134 | 0 | $24748759035_2 = \chi_{94,1}, \varphi_{94,1}$ |
| | 135 | 0 | $54997242300_1 = \chi_{95+}, \varphi_{95+}$ |
| | 136 | 0 | $27498621150_2 = \chi_{97,0}, \varphi_{97,0}$ |
| | 137 | 0 | $27498621150_3 = \chi_{97,1}, \varphi_{97,1}$ |
| | 138 | 0 | $54997242300_2 = \chi_{98+}, \varphi_{98+}$ |
| | 139 | 0 | $28969740800_1 = \chi_{100,0}, \varphi_{100,0}$ |
| | 140 | 0 | $28969740800_2 = \chi_{100,1}, \varphi_{100,1}$ |
| | 141 | 0 | $57939481600_1 = \chi_{101+}, \varphi_{101+}$ |
| | 142 | 0 | $63639666090_1 = \chi_{103+}, \varphi_{103+}$ |
| | 143 | 0 | $32324909760_1 = \chi_{105,0}, \varphi_{105,0}$ |
| | 144 | 0 | $32324909760_2 = \chi_{105,1}, \varphi_{105,1}$ |
| | 145 | 0 | $32514244608_1 = \chi_{106,0}, \varphi_{106,0}$ |
| | 146 | 0 | $32514244608_2 = \chi_{106,1}, \varphi_{106,1}$ |
| | 147 | 0 | $67496615550_1 = \chi_{107+}, \varphi_{107+}$ |
| | 148 | 0 | $67496615550_2 = \chi_{109+}, \varphi_{109+}$ |
| | 149 | 0 | $39598014456_1 = \chi_{111,0}, \varphi_{111,0}$ |
| | 150 | 0 | $39598014456_2 = \chi_{111,1}, \varphi_{111,1}$ |
| | 151 | 0 | $43341742080_1 = \chi_{112,0}, \varphi_{112,0}$ |
| | 152 | 0 | $43341742080_2 = \chi_{112,1}, \varphi_{112,1}$ |
| | 153 | 0 | $45254873664_1 = \chi_{113,0}, \varphi_{113,0}$ |
| | 154 | 0 | $45254873664_2 = \chi_{113,1}, \varphi_{113,1}$ |
| | 155 | 0 | $45456904350_1 = \chi_{114,0}, \varphi_{114,0}$ |
| | 156 | 0 | $45456904350_2 = \chi_{114,1}, \varphi_{114,1}$ |
| | 157 | 0 | $49497518070_1 = \chi_{115,0}, \varphi_{115,0}$ |
| | 158 | 0 | $49497518070_2 = \chi_{115,1}, \varphi_{115,1}$ |
| | 159 | 0 | $53033055075_1 = \chi_{116,0}, \varphi_{116,0}$ |
| | 160 | 0 | $53033055075_2 = \chi_{116,1}, \varphi_{116,1}$ |

| | blocks | defect | matrix |
|---|---|---|---|
| | 161 | 0 | $54997242300_3 = \chi_{117,0}, \varphi_{117,0}$ |
| | 162 | 0 | $54997242300_4 = \chi_{117,1}, \varphi_{117,1}$ |
| | 163 | 0 | $60609205800_1 = \chi_{120,0}, \varphi_{119,0}$ |
| | 164 | 0 | $60609205800_2 = \chi_{120,1}, \varphi_{119,1}$ |
| | 165 | 0 | $65511420975_1 = \chi_{121,0}, \varphi_{120,0}$ |
| | 166 | 0 | $65511420975_2 = \chi_{121,1}, \varphi_{120,1}$ |
| | 167 | 0 | $65511420975_3 = \chi_{122,0}, \varphi_{121,0}$ |
| | 168 | 0 | $65511420975_4 = \chi_{122,1}, \varphi_{121,1}$ |
| | 169 | 0 | $134993231100_1 = \chi_{123+}, \varphi_{122+}$ |
| | 170 | 0 | $85668781275_1 = \chi_{126,0}, \varphi_{124,0}$ |
| | 171 | 0 | $85668781275_2 = \chi_{126,1}, \varphi_{124,1}$ |
| $2.G:$ | 172 | 0 | $2432_1 = \chi_{127,0}, \varphi_{125,0}$ |
| | 173 | 0 | $2432_2 = \chi_{127,1}, \varphi_{125,1}$ |
| | 174 | 1 | $19 \times 18$ |
| | 175 | 0 | $537472_1 = \chi_{129,0}, \varphi_{127,0}$ |
| | 176 | 0 | $537472_2 = \chi_{129,1}, \varphi_{127,1}$ |
| | 177 | 0 | $5374720_1 = \chi_{131,0}, \varphi_{129,0}$ |
| | 178 | 0 | $5374720_2 = \chi_{131,1}, \varphi_{129,1}$ |
| | 179 | 0 | $17736576_1 = \chi_{132,0}, \varphi_{130,0}$ |
| | 180 | 0 | $17736576_2 = \chi_{132,1}, \varphi_{130,1}$ |
| | 181 | 0 | $21909888_1 = \chi_{133,0}, \varphi_{131,0}$ |
| | 182 | 0 | $21909888_2 = \chi_{133,1}, \varphi_{131,1}$ |
| | 183 | 0 | $61395840_1 = \chi_{134,0}, \varphi_{132,0}$ |
| | 184 | 0 | $61395840_2 = \chi_{134,1}, \varphi_{132,1}$ |
| | 185 | 0 | $90419328_1 = \chi_{135,0}, \varphi_{133,0}$ |
| | 186 | 0 | $90419328_2 = \chi_{135,1}, \varphi_{133,1}$ |
| | 187 | 0 | $106419456_1 = \chi_{136,0}, \varphi_{134,0}$ |
| | 188 | 0 | $106419456_2 = \chi_{136,1}, \varphi_{134,1}$ |
| | 189 | 0 | $289697408_3 = \chi_{137,0}, \varphi_{135,0}$ |
| | 190 | 0 | $289697408_4 = \chi_{137,1}, \varphi_{135,1}$ |
| | 191 | 0 | $443414400_1 = \chi_{138,0}, \varphi_{136,0}$ |
| | 192 | 0 | $443414400_2 = \chi_{138,1}, \varphi_{136,1}$ |
| | 193 | 0 | $526722560_1 = \chi_{139,0}, \varphi_{137,0}$ |
| | 194 | 0 | $526722560_2 = \chi_{139,1}, \varphi_{137,1}$ |
| | 195 | 0 | $1324331008_1 = \chi_{140+}, \varphi_{138+}$ |
| | 196 | 0 | $869092224_1 = \chi_{142,0}, \varphi_{140,0}$ |
| | 197 | 0 | $869092224_2 = \chi_{142,1}, \varphi_{140,1}$ |
| | 198 | 0 | $886828800_1 = \chi_{143,0}, \varphi_{141,0}$ |
| | 199 | 0 | $886828800_2 = \chi_{143,1}, \varphi_{141,1}$ |
| | 200 | 0 | $1175451264_1 = \chi_{144,0}, \varphi_{142,0}$ |

| | blocks | defect | matrix |
|---|---|---|---|
| | 201 | 0 | $1175451264_2 = \chi_{144,1}, \varphi_{142,1}$ |
| | 202 | 0 | $1521172224_1 = \chi_{146,0}, \varphi_{144,0}$ |
| | 203 | 0 | $1521172224_2 = \chi_{146,1}, \varphi_{144,1}$ |
| | 204 | 0 | $1862340480_1 = \chi_{147,0}, \varphi_{145,0}$ |
| | 205 | 0 | $1862340480_2 = \chi_{147,1}, \varphi_{145,1}$ |
| | 206 | 0 | $1975209600_1 = \chi_{148,0}, \varphi_{146,0}$ |
| | 207 | 0 | $1975209600_2 = \chi_{148,1}, \varphi_{146,1}$ |
| | 208 | 0 | $2128389120_1 = \chi_{149,0}, \varphi_{147,0}$ |
| | 209 | 0 | $2128389120_2 = \chi_{149,1}, \varphi_{147,1}$ |
| | 210 | 0 | $2606204160_1 = \chi_{150,0}, \varphi_{148,0}$ |
| | 211 | 0 | $2606204160_2 = \chi_{150,1}, \varphi_{148,1}$ |
| | 212 | 0 | $3342662400_1 = \chi_{151,0}, \varphi_{149,0}$ |
| | 213 | 0 | $3342662400_2 = \chi_{151,1}, \varphi_{149,1}$ |
| | 214 | 0 | $3352212864_1 = \chi_{152,0}, \varphi_{150,0}$ |
| | 215 | 0 | $3352212864_2 = \chi_{152,1}, \varphi_{150,1}$ |
| | 216 | 0 | $3476368896_1 = \chi_{153,0}, \varphi_{151,0}$ |
| | 217 | 0 | $3476368896_2 = \chi_{153,1}, \varphi_{151,1}$ |
| | 218 | 0 | $7584804864_1 = \chi_{154+}, \varphi_{152+}$ |
| | 219 | 0 | $10534451200_1 = \chi_{156+}, \varphi_{154+}$ |
| | 220 | 0 | $5348259840_1 = \chi_{158,0}, \varphi_{156,0}$ |
| | 221 | 0 | $5348259840_2 = \chi_{158,1}, \varphi_{156,1}$ |
| | 222 | 0 | $5877256320_1 = \chi_{159,0}, \varphi_{157,0}$ |
| | 223 | 0 | $5877256320_2 = \chi_{159,1}, \varphi_{157,1}$ |
| | 224 | 0 | $6962288256_1 = \chi_{160,0}, \varphi_{158,0}$ |
| | 225 | 0 | $6962288256_2 = \chi_{160,1}, \varphi_{158,1}$ |
| | 226 | 0 | $7662200832_1 = \chi_{161,0}, \varphi_{160,0}$ |
| | 227 | 0 | $7662200832_2 = \chi_{161,1}, \varphi_{160,1}$ |
| | 228 | 0 | $8690922240_1 = \chi_{162,0}, \varphi_{161,0}$ |
| | 229 | 0 | $8690922240_2 = \chi_{162,1}, \varphi_{161,1}$ |
| | 230 | 0 | $10906255360_1 = \chi_{163,0}, \varphi_{162,0}$ |
| | 231 | 0 | $10906255360_2 = \chi_{163,1}, \varphi_{162,1}$ |
| | 232 | 0 | $12929963904_1 = \chi_{164,0}, \varphi_{163,0}$ |
| | 233 | 0 | $12929963904_2 = \chi_{164,1}, \varphi_{163,1}$ |
| | 234 | 0 | $12929963904_3 = \chi_{165,0}, \varphi_{164,0}$ |
| | 235 | 0 | $12929963904_4 = \chi_{165,1}, \varphi_{164,1}$ |
| | 236 | 0 | $13208911872_1 = \chi_{166,0}, \varphi_{165,0}$ |
| | 237 | 0 | $13208911872_2 = \chi_{166,1}, \varphi_{165,1}$ |
| | 238 | 0 | $15135211520_1 = \chi_{167,0}, \varphi_{166,0}$ |
| | 239 | 0 | $15135211520_2 = \chi_{167,1}, \varphi_{166,1}$ |
| | 240 | 0 | $17381844480_1 = \chi_{168,0}, \varphi_{168,0}$ |

| | blocks | defect | matrix |
|---|---|---|---|
| | 241 | 0 | $17381844480_2 = \chi_{168,1}, \varphi_{168,1}$ |
| | 242 | 0 | $19155502080_1 = \chi_{169,0}, \varphi_{170,0}$ |
| | 243 | 0 | $19155502080_2 = \chi_{169,1}, \varphi_{170,1}$ |
| | 244 | 0 | $21727305600_3 = \chi_{170,0}, \varphi_{171,0}$ |
| | 245 | 0 | $21727305600_4 = \chi_{170,1}, \varphi_{171,1}$ |
| | 246 | 0 | $21727305600_5 = \chi_{171,0}, \varphi_{172,0}$ |
| | 247 | 0 | $21727305600_6 = \chi_{171,1}, \varphi_{172,1}$ |
| | 248 | 0 | $21727305600_7 = \chi_{172,0}, \varphi_{173,0}$ |
| | 249 | 0 | $21727305600_8 = \chi_{172,1}, \varphi_{173,1}$ |
| | 250 | 0 | $23465490048_1 = \chi_{174,0}, \varphi_{174,0}$ |
| | 251 | 0 | $23465490048_2 = \chi_{174,1}, \varphi_{174,1}$ |
| | 252 | 0 | $49662412800_1 = \chi_{175+}, \varphi_{175+}$ |
| | 253 | 0 | $53936390144_1 = \chi_{177+}, \varphi_{178+}$ |
| | 254 | 0 | $28969740800_3 = \chi_{180,0}, \varphi_{180,0}$ |
| | 255 | 0 | $28969740800_4 = \chi_{180,1}, \varphi_{180,1}$ |
| | 256 | 0 | $32514244608_3 = \chi_{181,0}, \varphi_{182,0}$ |
| | 257 | 0 | $32514244608_4 = \chi_{181,1}, \varphi_{182,1}$ |
| | 258 | 0 | $35916566400_1 = \chi_{184,0}, \varphi_{183,0}$ |
| | 259 | 0 | $35916566400_2 = \chi_{184,1}, \varphi_{183,1}$ |
| | 260 | 0 | $37838028800_1 = \chi_{185,0}, \varphi_{184,0}$ |
| | 261 | 0 | $37838028800_2 = \chi_{185,1}, \varphi_{184,1}$ |
| | 262 | 0 | $89392343040_1 = \chi_{188+}, \varphi_{186+}$ |
| | 263 | 0 | $44757567360_1 = \chi_{190,0}, \varphi_{188,0}$ |
| | 264 | 0 | $44757567360_2 = \chi_{190,1}, \varphi_{188,1}$ |
| | 265 | 0 | $47675916288_1 = \chi_{191,0}, \varphi_{189,0}$ |
| | 266 | 0 | $47675916288_2 = \chi_{191,1}, \varphi_{189,1}$ |
| | 267 | 0 | $49662412800_2 = \chi_{193,0}, \varphi_{190,0}$ |
| | 268 | 0 | $49662412800_3 = \chi_{193,1}, \varphi_{190,1}$ |
| | 269 | 0 | $55621902336_1 = \chi_{194,0}, \varphi_{191,0}$ |
| | 270 | 0 | $55621902336_2 = \chi_{194,1}, \varphi_{191,1}$ |
| | 271 | 0 | $57597111936_1 = \chi_{195,0}, \varphi_{192,0}$ |
| | 272 | 0 | $57597111936_2 = \chi_{195,1}, \varphi_{192,1}$ |
| | 273 | 0 | $57939481600_2 = \chi_{196,0}, \varphi_{193,0}$ |
| | 274 | 0 | $57939481600_3 = \chi_{196,1}, \varphi_{193,1}$ |
| | 275 | 0 | $61953196032_1 = \chi_{197,0}, \varphi_{194,0}$ |
| | 276 | 0 | $61953196032_2 = \chi_{197,1}, \varphi_{194,1}$ |
| | 277 | 0 | $64649819520_1 = \chi_{198,0}, \varphi_{195,0}$ |
| | 278 | 0 | $64649819520_2 = \chi_{198,1}, \varphi_{195,1}$ |
| | 279 | 0 | $65181916800_1 = \chi_{199,0}, \varphi_{196,0}$ |
| | 280 | 0 | $65181916800_2 = \chi_{199,1}, \varphi_{196,1}$ |

| | blocks | defect | matrix |
|---|---|---|---|
| | 281 | 0 | $90509747328_1 = \chi_{201,0}, \varphi_{197,0}$ |
| | 282 | 0 | $90509747328_2 = \chi_{201,1}, \varphi_{197,1}$ |
| | 283 | 0 | $103524220800_1 = \chi_{202,0}, \varphi_{198,0}$ |
| | 284 | 0 | $103524220800_2 = \chi_{202,1}, \varphi_{198,1}$ |

| **Block 1:** | $\varphi_{1,0}$ | $\varphi_{1,1}$ | $\varphi_{3,0}$ | $\varphi_{3,1}$ | $\varphi_{13,0}$ | $\varphi_{13,1}$ | $\varphi_{24,0}$ | $\varphi_{24,1}$ | $\varphi_{25,0}$ |
|---|---|---|---|---|---|---|---|---|---|
| $1_1 = \chi_{1,0}$ | 1 | . | . | . | . | . | . | . | . |
| $1_2 = \chi_{1,1}$ | . | 1 | . | . | . | . | . | . | . |
| $48620_1 = \chi_{3,0}$ | 1 | . | 1 | . | . | . | . | . | . |
| $48620_2 = \chi_{3,1}$ | . | 1 | . | 1 | . | . | . | . | . |
| $4331600_1 = \chi_{13,0}$ | . | . | . | . | 1 | . | . | . | . |
| $4331600_2 = \chi_{13,1}$ | . | . | . | . | . | 1 | . | . | . |
| $137225088_1 = \chi_{24,0}$ | . | . | 1 | . | . | . | 1 | . | . |
| $137225088_2 = \chi_{24,1}$ | . | . | . | 1 | . | . | . | 1 | . |
| $145411200_1 = \chi_{25,0}$ | . | . | . | . | . | . | . | . | 1 |
| $145411200_2 = \chi_{25,1}$ | . | . | . | . | . | . | . | . | . |
| $145411200_3 = \chi_{26,0}$ | . | . | . | . | . | . | . | . | . |
| $145411200_4 = \chi_{26,1}$ | . | . | . | . | . | . | . | . | . |
| $2217779200_1 = \chi_{56,0}$ | . | . | . | . | 1 | . | . | . | . |
| $2217779200_2 = \chi_{56,1}$ | . | . | . | . | . | 1 | . | . | . |
| $12745441280_1 = \chi_{82,0}$ | . | . | . | . | . | . | 1 | . | . |
| $12745441280_2 = \chi_{82,1}$ | . | . | . | . | . | . | . | 1 | . |
| $117230963850_1 = \chi_{118+}$ | . | . | . | . | . | . | . | . | 1 |
| $68719476736_1 = \chi_{125,0}$ | . | . | . | . | . | . | . | . | . |
| $68719476736_2 = \chi_{125,1}$ | . | . | . | . | . | . | . | . | . |

| (**Block 1:**) | $\varphi_{25,1}$ | $\varphi_{26,0}$ | $\varphi_{26,1}$ | $\varphi_{56,0}$ | $\varphi_{56,1}$ | $\varphi_{82,0}$ | $\varphi_{82,1}$ | $\varphi_{118,0}$ |
|---|---|---|---|---|---|---|---|---|
| $1_1 = \chi_{1,0}$ | . | . | . | . | . | . | . | . |
| $1_2 = \chi_{1,1}$ | . | . | . | . | . | . | . | . |
| $48620_1 = \chi_{3,0}$ | . | . | . | . | . | . | . | . |
| $48620_2 = \chi_{3,1}$ | . | . | . | . | . | . | . | . |
| $4331600_1 = \chi_{13,0}$ | . | . | . | . | . | . | . | . |
| $4331600_2 = \chi_{13,1}$ | . | . | . | . | . | . | . | . |
| $137225088_1 = \chi_{24,0}$ | . | . | . | . | . | . | . | . |
| $137225088_2 = \chi_{24,1}$ | . | . | . | . | . | . | . | . |
| $145411200_1 = \chi_{25,0}$ | . | . | . | . | . | . | . | . |
| $145411200_2 = \chi_{25,1}$ | 1 | . | . | . | . | . | . | . |
| $145411200_3 = \chi_{26,0}$ | . | 1 | . | . | . | . | . | . |
| $145411200_4 = \chi_{26,1}$ | . | . | 1 | . | . | . | . | . |
| $2217779200_1 = \chi_{56,0}$ | . | . | . | 1 | . | . | . | . |
| $2217779200_2 = \chi_{56,1}$ | . | . | . | . | 1 | . | . | . |
| $12745441280_1 = \chi_{82,0}$ | . | . | . | . | . | 1 | . | . |
| $12745441280_2 = \chi_{82,1}$ | . | . | . | . | . | . | 1 | . |
| $117230963850_1 = \chi_{118+}$ | 1 | 1 | 1 | 1 | 1 | . | . | 1 |
| $68719476736_1 = \chi_{125,0}$ | . | . | . | . | . | 1 | . | 1 |
| $68719476736_2 = \chi_{125,1}$ | . | . | . | . | . | . | 1 | . |

| (**Block 1:**) | $\varphi_{118,1}$ |
|---|---|
| $1_1 = \chi_{1,0}$ | . |
| $1_2 = \chi_{1,1}$ | . |
| $48620_1 = \chi_{3,0}$ | . |
| $48620_2 = \chi_{3,1}$ | . |
| $4331600_1 = \chi_{13,0}$ | . |
| $4331600_2 = \chi_{13,1}$ | . |
| $137225088_1 = \chi_{24,0}$ | . |
| $137225088_2 = \chi_{24,1}$ | . |
| $145411200_1 = \chi_{25,0}$ | . |
| $145411200_2 = \chi_{25,1}$ | . |
| $145411200_3 = \chi_{26,0}$ | . |
| $145411200_4 = \chi_{26,1}$ | . |
| $2217779200_1 = \chi_{56,0}$ | . |
| $2217779200_2 = \chi_{56,1}$ | . |
| $12745441280_1 = \chi_{82,0}$ | . |
| $12745441280_2 = \chi_{82,1}$ | . |
| $117230963850_1 = \chi_{118+}$ | 1 |
| $68719476736_1 = \chi_{125,0}$ | . |
| $68719476736_2 = \chi_{125,1}$ | 1 |

$$
\begin{aligned}
\varphi_{1,0} &= 1_1 \\
\varphi_{1,1} &= 1_2 \\
\varphi_{3,0} &= 48619_1 \\
\varphi_{3,1} &= 48619_2 \\
\varphi_{13,0} &= 4331600_1 \\
\varphi_{13,1} &= 4331600_2 \\
\varphi_{24,0} &= 137176469_1 \\
\varphi_{24,1} &= 137176469_2 \\
\varphi_{25,0} &= 145411200_1 \\
\varphi_{25,1} &= 145411200_2 \\
\varphi_{26,0} &= 145411200_3 \\
\varphi_{26,1} &= 145411200_4 \\
\varphi_{56,0} &= 2213447600_1 \\
\varphi_{56,1} &= 2213447600_2 \\
\varphi_{82,0} &= 12608264811_1 \\
\varphi_{82,1} &= 12608264811_2 \\
\varphi_{118,0} &= 56111211925_1 \\
\varphi_{118,1} &= 56111211925_2
\end{aligned}
$$

| **Block 174:** | $\varphi_{126,0}$ | $\varphi_{126,1}$ | $\varphi_{128,0}$ | $\varphi_{128,1}$ | $\varphi_{143,0}$ | $\varphi_{143,1}$ | $\varphi_{159,0}$ |
|---|---|---|---|---|---|---|---|
| $45696_1 = \chi_{128,0}$ | 1 | . | . | . | . | . | . |
| $45696_2 = \chi_{128,1}$ | . | 1 | . | . | . | . | . |
| $4667520_1 = \chi_{130,0}$ | 1 | . | 1 | . | . | . | . |
| $4667520_2 = \chi_{130,1}$ | . | 1 | . | 1 | . | . | . |
| $1361048832_1 = \chi_{145,0}$ | . | . | 1 | . | 1 | . | . |
| $1361048832_2 = \chi_{145,1}$ | . | . | . | 1 | . | 1 | . |
| $22583328768_1 = \chi_{173,0}$ | . | . | . | . | . | . | 1 |
| $22583328768_2 = \chi_{173,1}$ | . | . | . | . | . | . | . |
| $27880652800_1 = \chi_{179,0}$ | . | . | . | . | 1 | . | . |
| $27880652800_2 = \chi_{179,1}$ | . | . | . | . | . | 1 | . |
| $33949238400_1 = \chi_{182,0}$ | . | . | . | . | . | . | 1 |
| $33949238400_2 = \chi_{182,1}$ | . | . | . | . | . | . | . |
| $33949238400_3 = \chi_{183,0}$ | . | . | . | . | . | . | . |
| $33949238400_4 = \chi_{183,1}$ | . | . | . | . | . | . | . |
| $76218734592_1 = \chi_{186+}$ | . | . | . | . | . | . | . |
| $49401031680_1 = \chi_{192,0}$ | . | . | . | . | . | . | . |
| $49401031680_2 = \chi_{192,1}$ | . | . | . | . | . | . | . |
| $68719476736_3 = \chi_{200,0}$ | . | . | . | . | . | . | . |
| $68719476736_4 = \chi_{200,1}$ | . | . | . | . | . | . | . |

| (**Block 174:**) | $\varphi_{159,1}$ | $\varphi_{167,0}$ | $\varphi_{167,1}$ | $\varphi_{169,0}$ | $\varphi_{169,1}$ | $\varphi_{177,0}$ | $\varphi_{177,1}$ |
|---|---|---|---|---|---|---|---|
| $45696_1 = \chi_{128,0}$ | . | . | . | . | . | . | . |
| $45696_2 = \chi_{128,1}$ | . | . | . | . | . | . | . |
| $4667520_1 = \chi_{130,0}$ | . | . | . | . | . | . | . |
| $4667520_2 = \chi_{130,1}$ | . | . | . | . | . | . | . |
| $1361048832_1 = \chi_{145,0}$ | . | . | . | . | . | . | . |
| $1361048832_2 = \chi_{145,1}$ | . | . | . | . | . | . | . |
| $22583328768_1 = \chi_{173,0}$ | . | 1 | . | . | . | . | . |
| $22583328768_2 = \chi_{173,1}$ | 1 | . | 1 | . | . | . | . |
| $27880652800_1 = \chi_{179,0}$ | . | . | . | . | . | . | 1 |
| $27880652800_2 = \chi_{179,1}$ | . | . | . | . | . | 1 | . |
| $33949238400_1 = \chi_{182,0}$ | . | . | . | . | . | 1 | . |
| $33949238400_2 = \chi_{182,1}$ | 1 | . | . | . | . | . | 1 |
| $33949238400_3 = \chi_{183,0}$ | . | . | 1 | 1 | . | . | . |
| $33949238400_4 = \chi_{183,1}$ | . | 1 | . | . | 1 | . | . |
| $76218734592_1 = \chi_{186+}$ | . | . | . | . | . | . | . |
| $49401031680_1 = \chi_{192,0}$ | . | . | . | 1 | . | . | . |
| $49401031680_2 = \chi_{192,1}$ | . | . | . | . | 1 | . | . |
| $68719476736_3 = \chi_{200,0}$ | . | . | . | . | . | . | . |
| $68719476736_4 = \chi_{200,1}$ | . | . | . | . | . | . | . |

| (**Block 174:**) | $\varphi_{181,0}$ | $\varphi_{181,1}$ | $\varphi_{185,0}$ | $\varphi_{185,1}$ |
|---|---|---|---|---|
| $45696_1 = \chi_{128,0}$ | . | . | . | . |
| $45696_2 = \chi_{128,1}$ | . | . | . | . |
| $4667520_1 = \chi_{130,0}$ | . | . | . | . |
| $4667520_2 = \chi_{130,1}$ | . | . | . | . |
| $1361048832_1 = \chi_{145,0}$ | . | . | . | . |
| $1361048832_2 = \chi_{145,1}$ | . | . | . | . |
| $22583328768_1 = \chi_{173,0}$ | . | . | . | . |
| $22583328768_2 = \chi_{173,1}$ | . | . | . | . |
| $27880652800_1 = \chi_{179,0}$ | . | . | . | . |
| $27880652800_2 = \chi_{179,1}$ | . | . | . | . |
| $33949238400_1 = \chi_{182,0}$ | . | . | . | . |
| $33949238400_2 = \chi_{182,1}$ | . | . | . | . |
| $33949238400_3 = \chi_{183,0}$ | . | . | . | . |
| $33949238400_4 = \chi_{183,1}$ | . | . | . | . |
| $76218734592_1 = \chi_{186+}$ | . | . | 1 | 1 |
| $49401031680_1 = \chi_{192,0}$ | 1 | . | . | . |
| $49401031680_2 = \chi_{192,1}$ | . | 1 | . | . |
| $68719476736_3 = \chi_{200,0}$ | 1 | . | 1 | . |
| $68719476736_4 = \chi_{200,1}$ | . | 1 | . | 1 |

$\varphi_{126,0} = 45696_1$
$\varphi_{126,1} = 45696_2$
$\varphi_{128,0} = 4621824_1$
$\varphi_{128,1} = 4621824_2$
$\varphi_{143,0} = 1356427008_1$
$\varphi_{143,1} = 1356427008_2$
$\varphi_{159,0} = 7425012608_1$
$\varphi_{159,1} = 7425012608_2$
$\varphi_{167,0} = 15158316160_1$
$\varphi_{167,1} = 15158316160_2$
$\varphi_{169,0} = 18790922240_1$
$\varphi_{169,1} = 18790922240_2$
$\varphi_{177,0} = 26524225792_1$
$\varphi_{177,1} = 26524225792_2$
$\varphi_{181,0} = 30610109440_1$
$\varphi_{181,1} = 30610109440_2$
$\varphi_{185,0} = 38109367296_1$
$\varphi_{185,1} = 38109367296_2$