

Rank-68 over GF(32)

January 15, 2021

The equation

The equation of the surface is :

$$X_1^3 + X_2^3 + X_0^2 X_1 + X_0^2 X_2 = 0$$

(0, 1, 1, 0, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

The point rank of the equation over GF(32) is 2132048

General information

Number of lines	1089
Number of points	2081
Number of singular points	33
Number of Eckardt points	0
Number of double points	0
Number of single points	1024
Number of points off lines	0
Number of Hesse planes	0
Number of axes	0
Type of points on lines	33^{1089}
Type of lines on points	$65, 33^{1056}, 1^{1024}$

Singular Points

The surface has 33 singular points:

- | | |
|--|---|
| 0 : $P_3 = \mathbf{P}(0, 0, 0, 1) = \mathbf{P}(0, 0, 0, 1)$ | 9 : $P_{9513} = \mathbf{P}(\eta^3, \eta^3, \eta^3, 1) = \mathbf{P}(8, 8, 8, 1)$ |
| 1 : $P_4 = \mathbf{P}(1, 1, 1, 1) = \mathbf{P}(1, 1, 1, 1)$ | 10 : $P_{10570} = \mathbf{P}(\eta^{29}, \eta^{29}, \eta^{29}, 1) = \mathbf{P}(9, 9, 9, 1)$ |
| 2 : $P_{68} = \mathbf{P}(1, 1, 1, 0) = \mathbf{P}(1, 1, 1, 0)$ | 11 : $P_{11627} = \mathbf{P}(\eta^6, \eta^6, \eta^6, 1) = \mathbf{P}(10, 10, 10, 1)$ |
| 3 : $P_{3171} = \mathbf{P}(\eta, \eta, \eta, 1) = \mathbf{P}(2, 2, 2, 1)$ | 12 : $P_{12684} = \mathbf{P}(\eta^{27}, \eta^{27}, \eta^{27}, 1) = \mathbf{P}(11, 11, 11, 1)$ |
| 4 : $P_{4228} = \mathbf{P}(\eta^{18}, \eta^{18}, \eta^{18}, 1) = \mathbf{P}(3, 3, 3, 1)$ | 13 : $P_{13741} = \mathbf{P}(\eta^{20}, \eta^{20}, \eta^{20}, 1) = \mathbf{P}(12, 12, 12, 1)$ |
| 5 : $P_{5285} = \mathbf{P}(\eta^2, \eta^2, \eta^2, 1) = \mathbf{P}(4, 4, 4, 1)$ | 14 : $P_{14798} = \mathbf{P}(\eta^8, \eta^8, \eta^8, 1) = \mathbf{P}(13, 13, 13, 1)$ |
| 6 : $P_{6342} = \mathbf{P}(\eta^5, \eta^5, \eta^5, 1) = \mathbf{P}(5, 5, 5, 1)$ | 15 : $P_{15855} = \mathbf{P}(\eta^{12}, \eta^{12}, \eta^{12}, 1) = \mathbf{P}(14, 14, 14, 1)$ |
| 7 : $P_{7399} = \mathbf{P}(\eta^{19}, \eta^{19}, \eta^{19}, 1) = \mathbf{P}(6, 6, 6, 1)$ | 16 : $P_{16912} = \mathbf{P}(\eta^{23}, \eta^{23}, \eta^{23}, 1) = \mathbf{P}(15, 15, 15, 1)$ |
| 8 : $P_{8456} = \mathbf{P}(\eta^{11}, \eta^{11}, \eta^{11}, 1) = \mathbf{P}(7, 7, 7, 1)$ | 17 : $P_{17969} = \mathbf{P}(\eta^4, \eta^4, \eta^4, 1) = \mathbf{P}(16, 16, 16, 1)$ |

$$\begin{aligned}
18 : P_{19026} &= \mathbf{P}(\eta^{10}, \eta^{10}, \eta^{10}, 1) = \mathbf{P}(17, 17, 17, 1) & 26 : P_{27482} &= \mathbf{P}(\eta^{25}, \eta^{25}, \eta^{25}, 1) = \mathbf{P}(25, 25, 25, 1) \\
19 : P_{20083} &= \mathbf{P}(\eta^{30}, \eta^{30}, \eta^{30}, 1) = \mathbf{P}(18, 18, 18, 1) & 27 : P_{28539} &= \mathbf{P}(\eta^9, \eta^9, \eta^9, 1) = \mathbf{P}(26, 26, 26, 1) \\
20 : P_{21140} &= \mathbf{P}(\eta^{17}, \eta^{17}, \eta^{17}, 1) = \mathbf{P}(19, 19, 19, 1) & 28 : P_{29596} &= \mathbf{P}(\eta^{16}, \eta^{16}, \eta^{16}, 1) = \mathbf{P}(27, 27, 27, 1) \\
21 : P_{22197} &= \mathbf{P}(\eta^7, \eta^7, \eta^7, 1) = \mathbf{P}(20, 20, 20, 1) & 29 : P_{30653} &= \mathbf{P}(\eta^{13}, \eta^{13}, \eta^{13}, 1) = \mathbf{P}(28, 28, 28, 1) \\
22 : P_{23254} &= \mathbf{P}(\eta^{22}, \eta^{22}, \eta^{22}, 1) = \mathbf{P}(21, 21, 21, 1) & 30 : P_{31710} &= \mathbf{P}(\eta^{14}, \eta^{14}, \eta^{14}, 1) = \mathbf{P}(29, 29, 29, 1) \\
23 : P_{24311} &= \mathbf{P}(\eta^{28}, \eta^{28}, \eta^{28}, 1) = \mathbf{P}(22, 22, 22, 1) & 31 : P_{32767} &= \mathbf{P}(\eta^{24}, \eta^{24}, \eta^{24}, 1) = \mathbf{P}(30, 30, 30, 1) \\
24 : P_{25368} &= \mathbf{P}(\eta^{26}, \eta^{26}, \eta^{26}, 1) = \mathbf{P}(23, 23, 23, 1) & 32 : P_{33824} &= \mathbf{P}(\eta^{15}, \eta^{15}, \eta^{15}, 1) = \mathbf{P}(31, 31, 31, 1) \\
25 : P_{26425} &= \mathbf{P}(\eta^{21}, \eta^{21}, \eta^{21}, 1) = \mathbf{P}(24, 24, 24, 1)
\end{aligned}$$

The 1089 Lines

The lines and their Pluecker coordinates are:

$$\begin{aligned}
\ell_0 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 0 \end{bmatrix}_1 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 0 \end{bmatrix}_1 = \mathbf{Pl}(1, 0, 1, 0, 0, 0)_3 \\
\ell_1 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1056} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1056} = \mathbf{Pl}(0, 0, 0, 0, 1, 0)_{1089} \\
\ell_2 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{33} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{33} = \mathbf{Pl}(1, 0, 1, 0, 1, 0)_{1153} \\
\ell_3 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{577} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{577} = \mathbf{Pl}(2, 0, 2, 0, 1, 0)_{1217} \\
\ell_4 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{897} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{897} = \mathbf{Pl}(3, 0, 3, 0, 1, 0)_{1281} \\
\ell_5 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{289} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{289} = \mathbf{Pl}(4, 0, 4, 0, 1, 0)_{1345} \\
\ell_6 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{737} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{737} = \mathbf{Pl}(5, 0, 5, 0, 1, 0)_{1409} \\
\ell_7 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{449} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{449} = \mathbf{Pl}(6, 0, 6, 0, 1, 0)_{1473} \\
\ell_8 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{385} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{385} = \mathbf{Pl}(7, 0, 7, 0, 1, 0)_{1537} \\
\ell_9 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{705} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{705} = \mathbf{Pl}(8, 0, 8, 0, 1, 0)_{1601} \\
\ell_{10} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{129} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{129} = \mathbf{Pl}(9, 0, 9, 0, 1, 0)_{1665} \\
\ell_{11} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{801} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{801} = \mathbf{Pl}(10, 0, 10, 0, 1, 0)_{1729} \\
\ell_{12} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{513} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{513} = \mathbf{Pl}(11, 0, 11, 0, 1, 0)_{1793} \\
\ell_{13} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{225} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{225} = \mathbf{Pl}(12, 0, 12, 0, 1, 0)_{1857} \\
\ell_{14} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{481} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{481} = \mathbf{Pl}(13, 0, 13, 0, 1, 0)_{1921} \\
\ell_{15} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{193} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{193} = \mathbf{Pl}(14, 0, 14, 0, 1, 0)_{1985}
\end{aligned}$$

$$\begin{aligned}
\ell_{16} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{417} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{417} = \mathbf{Pl}(15, 0, 15, 0, 1, 0)_{2049} \\
\ell_{17} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{353} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{353} = \mathbf{Pl}(16, 0, 16, 0, 1, 0)_{2113} \\
\ell_{18} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{769} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{769} = \mathbf{Pl}(17, 0, 17, 0, 1, 0)_{2177} \\
\ell_{19} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta \end{bmatrix}_{65} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{65} = \mathbf{Pl}(18, 0, 18, 0, 1, 0)_{2241} \\
\ell_{20} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{929} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{929} = \mathbf{Pl}(19, 0, 19, 0, 1, 0)_{2305} \\
\ell_{21} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{961} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{961} = \mathbf{Pl}(20, 0, 20, 0, 1, 0)_{2369} \\
\ell_{22} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{833} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{833} = \mathbf{Pl}(21, 0, 21, 0, 1, 0)_{2433} \\
\ell_{23} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{257} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{257} = \mathbf{Pl}(22, 0, 22, 0, 1, 0)_{2497} \\
\ell_{24} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{161} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{161} = \mathbf{Pl}(23, 0, 23, 0, 1, 0)_{2561} \\
\ell_{25} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{545} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{545} = \mathbf{Pl}(24, 0, 24, 0, 1, 0)_{2625} \\
\ell_{26} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{321} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{321} = \mathbf{Pl}(25, 0, 25, 0, 1, 0)_{2689} \\
\ell_{27} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{673} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{673} = \mathbf{Pl}(26, 0, 26, 0, 1, 0)_{2753} \\
\ell_{28} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{993} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{993} = \mathbf{Pl}(27, 0, 27, 0, 1, 0)_{2817} \\
\ell_{29} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{97} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{97} = \mathbf{Pl}(28, 0, 28, 0, 1, 0)_{2881} \\
\ell_{30} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{609} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{609} = \mathbf{Pl}(29, 0, 29, 0, 1, 0)_{2945} \\
\ell_{31} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{641} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{641} = \mathbf{Pl}(30, 0, 30, 0, 1, 0)_{3009} \\
\ell_{32} &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{865} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{865} = \mathbf{Pl}(31, 0, 31, 0, 1, 0)_{3073} \\
\ell_{33} &= \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2113} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2113} = \mathbf{Pl}(0, 0, 0, 1, 1, 0)_{3105} \\
\ell_{34} &= \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{34880} = \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{34880} = \mathbf{Pl}(0, 1, 0, 0, 1, 0)_{1121} \\
\ell_{35} &= \begin{bmatrix} 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1082433} = \begin{bmatrix} 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1082433} = \mathbf{Pl}(0, 1, 0, 1, 0, 0)_{97} \\
\ell_{36} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{33825} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{33825} = \mathbf{Pl}(1, 1, 1, 1, 0, 0)_{128}
\end{aligned}$$

$$\begin{aligned}
\ell_{37} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{608833} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{608833} = \mathbf{Pl}(1, 1, 2, 1, 0, 0)_{159} \\
\ell_{38} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{947073} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{947073} = \mathbf{Pl}(1, 1, 3, 1, 0, 0)_{190} \\
\ell_{39} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{304417} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{304417} = \mathbf{Pl}(1, 1, 4, 1, 0, 0)_{221} \\
\ell_{40} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{777953} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{777953} = \mathbf{Pl}(1, 1, 5, 1, 0, 0)_{252} \\
\ell_{41} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{473537} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{473537} = \mathbf{Pl}(1, 1, 6, 1, 0, 0)_{283} \\
\ell_{42} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{405889} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{405889} = \mathbf{Pl}(1, 1, 7, 1, 0, 0)_{314} \\
\ell_{43} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{744129} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{744129} = \mathbf{Pl}(1, 1, 8, 1, 0, 0)_{345} \\
\ell_{44} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{135297} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{135297} = \mathbf{Pl}(1, 1, 9, 1, 0, 0)_{376} \\
\ell_{45} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{845601} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{845601} = \mathbf{Pl}(1, 1, 10, 1, 0, 0)_{407} \\
\ell_{46} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{541185} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{541185} = \mathbf{Pl}(1, 1, 11, 1, 0, 0)_{438} \\
\ell_{47} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{236769} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{236769} = \mathbf{Pl}(1, 1, 12, 1, 0, 0)_{469} \\
\ell_{48} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{507361} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{507361} = \mathbf{Pl}(1, 1, 13, 1, 0, 0)_{500} \\
\ell_{49} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{202945} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{202945} = \mathbf{Pl}(1, 1, 14, 1, 0, 0)_{531} \\
\ell_{50} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{439713} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{439713} = \mathbf{Pl}(1, 1, 15, 1, 0, 0)_{562} \\
\ell_{51} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{372065} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{372065} = \mathbf{Pl}(1, 1, 16, 1, 0, 0)_{593} \\
\ell_{52} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{811777} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{811777} = \mathbf{Pl}(1, 1, 17, 1, 0, 0)_{624} \\
\ell_{53} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & 0 \end{bmatrix}_{67649} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{67649} = \mathbf{Pl}(1, 1, 18, 1, 0, 0)_{655} \\
\ell_{54} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{980897} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{980897} = \mathbf{Pl}(1, 1, 19, 1, 0, 0)_{686} \\
\ell_{55} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{1014721} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{1014721} = \mathbf{Pl}(1, 1, 20, 1, 0, 0)_{717} \\
\ell_{56} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{879425} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{879425} = \mathbf{Pl}(1, 1, 21, 1, 0, 0)_{748} \\
\ell_{57} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{270593} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{270593} = \mathbf{Pl}(1, 1, 22, 1, 0, 0)_{779}
\end{aligned}$$

$$\begin{aligned}
\ell_{58} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{169121} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{169121} = \mathbf{Pl}(1, 1, 23, 1, 0, 0)_{810} \\
\ell_{59} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{575009} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{575009} = \mathbf{Pl}(1, 1, 24, 1, 0, 0)_{841} \\
\ell_{60} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{338241} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{338241} = \mathbf{Pl}(1, 1, 25, 1, 0, 0)_{872} \\
\ell_{61} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{710305} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{710305} = \mathbf{Pl}(1, 1, 26, 1, 0, 0)_{903} \\
\ell_{62} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{1048545} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{1048545} = \mathbf{Pl}(1, 1, 27, 1, 0, 0)_{934} \\
\ell_{63} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{101473} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{101473} = \mathbf{Pl}(1, 1, 28, 1, 0, 0)_{965} \\
\ell_{64} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{642657} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{642657} = \mathbf{Pl}(1, 1, 29, 1, 0, 0)_{996} \\
\ell_{65} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{676481} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{676481} = \mathbf{Pl}(1, 1, 30, 1, 0, 0)_{1027} \\
\ell_{66} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & 0 \end{bmatrix}_{913249} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{913249} = \mathbf{Pl}(1, 1, 31, 1, 0, 0)_{1058} \\
\ell_{67} &= \begin{bmatrix} 1 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{35937} = \begin{bmatrix} 1 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{35937} = \mathbf{Pl}(0, 1, 0, 1, 1, 0)_{3137} \\
\ell_{68} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{33857} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{33857} = \mathbf{Pl}(1, 1, 1, 1, 1, 0)_{5058} \\
\ell_{69} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{609409} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{609409} = \mathbf{Pl}(1, 1, 2, 1, 1, 0)_{5089} \\
\ell_{70} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{947969} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{947969} = \mathbf{Pl}(1, 1, 3, 1, 1, 0)_{5120} \\
\ell_{71} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{304705} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{304705} = \mathbf{Pl}(1, 1, 4, 1, 1, 0)_{5151} \\
\ell_{72} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{778689} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{778689} = \mathbf{Pl}(1, 1, 5, 1, 1, 0)_{5182} \\
\ell_{73} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{473985} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{473985} = \mathbf{Pl}(1, 1, 6, 1, 1, 0)_{5213} \\
\ell_{74} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{406273} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{406273} = \mathbf{Pl}(1, 1, 7, 1, 1, 0)_{5244} \\
\ell_{75} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{744833} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{744833} = \mathbf{Pl}(1, 1, 8, 1, 1, 0)_{5275} \\
\ell_{76} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{135425} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{135425} = \mathbf{Pl}(1, 1, 9, 1, 1, 0)_{5306} \\
\ell_{77} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{846401} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{846401} = \mathbf{Pl}(1, 1, 10, 1, 1, 0)_{5337} \\
\ell_{78} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{541697} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{541697} = \mathbf{Pl}(1, 1, 11, 1, 1, 0)_{5368}
\end{aligned}$$

$$\begin{aligned}
\ell_{79} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{236993} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{236993} = \mathbf{Pl}(1, 1, 12, 1, 1, 0)_{5399} \\
\ell_{80} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{507841} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{507841} = \mathbf{Pl}(1, 1, 13, 1, 1, 0)_{5430} \\
\ell_{81} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{203137} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{203137} = \mathbf{Pl}(1, 1, 14, 1, 1, 0)_{5461} \\
\ell_{82} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{440129} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{440129} = \mathbf{Pl}(1, 1, 15, 1, 1, 0)_{5492} \\
\ell_{83} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{372417} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{372417} = \mathbf{Pl}(1, 1, 16, 1, 1, 0)_{5523} \\
\ell_{84} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{812545} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{812545} = \mathbf{Pl}(1, 1, 17, 1, 1, 0)_{5554} \\
\ell_{85} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta \end{bmatrix}_{67713} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{67713} = \mathbf{Pl}(1, 1, 18, 1, 1, 0)_{5585} \\
\ell_{86} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{981825} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{981825} = \mathbf{Pl}(1, 1, 19, 1, 1, 0)_{5616} \\
\ell_{87} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{1015681} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{1015681} = \mathbf{Pl}(1, 1, 20, 1, 1, 0)_{5647} \\
\ell_{88} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{880257} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{880257} = \mathbf{Pl}(1, 1, 21, 1, 1, 0)_{5678} \\
\ell_{89} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{270849} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{270849} = \mathbf{Pl}(1, 1, 22, 1, 1, 0)_{5709} \\
\ell_{90} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{169281} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{169281} = \mathbf{Pl}(1, 1, 23, 1, 1, 0)_{5740} \\
\ell_{91} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{575553} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{575553} = \mathbf{Pl}(1, 1, 24, 1, 1, 0)_{5771} \\
\ell_{92} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{338561} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{338561} = \mathbf{Pl}(1, 1, 25, 1, 1, 0)_{5802} \\
\ell_{93} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{710977} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{710977} = \mathbf{Pl}(1, 1, 26, 1, 1, 0)_{5833} \\
\ell_{94} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{1049537} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{1049537} = \mathbf{Pl}(1, 1, 27, 1, 1, 0)_{5864} \\
\ell_{95} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{101569} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{101569} = \mathbf{Pl}(1, 1, 28, 1, 1, 0)_{5895} \\
\ell_{96} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{643265} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{643265} = \mathbf{Pl}(1, 1, 29, 1, 1, 0)_{5926} \\
\ell_{97} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{677121} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{677121} = \mathbf{Pl}(1, 1, 30, 1, 1, 0)_{5957} \\
\ell_{98} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{914113} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{914113} = \mathbf{Pl}(1, 1, 31, 1, 1, 0)_{5988} \\
\ell_{99} &= \begin{bmatrix} 1 & \eta^{30} & \eta^{30} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{628914} = \begin{bmatrix} 1 & 18 & 18 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{628914} = \mathbf{Pl}(0, 18, 0, 18, 1, 0)_{4225}
\end{aligned}$$

$$\begin{aligned}
\ell_{100} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{948001} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{948001} = \mathbf{Pl}(2, 18, 19, 18, 1, 0)_{21954} \\
\ell_{101} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta \end{bmatrix}_{33889} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{33889} = \mathbf{Pl}(2, 18, 18, 18, 1, 0)_{21923} \\
\ell_{102} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{608865} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{608865} = \mathbf{Pl}(2, 18, 1, 18, 1, 0)_{21396} \\
\ell_{103} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{304993} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{304993} = \mathbf{Pl}(2, 18, 2, 18, 1, 0)_{21427} \\
\ell_{104} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{778305} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{778305} = \mathbf{Pl}(2, 18, 16, 18, 1, 0)_{21861} \\
\ell_{105} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{474433} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{474433} = \mathbf{Pl}(2, 18, 3, 18, 1, 0)_{21458} \\
\ell_{106} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{406657} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{406657} = \mathbf{Pl}(2, 18, 17, 18, 1, 0)_{21892} \\
\ell_{107} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{744417} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{744417} = \mathbf{Pl}(2, 18, 4, 18, 1, 0)_{21489} \\
\ell_{108} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{135553} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{135553} = \mathbf{Pl}(2, 18, 22, 18, 1, 0)_{22047} \\
\ell_{109} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{846337} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{846337} = \mathbf{Pl}(2, 18, 5, 18, 1, 0)_{21520} \\
\ell_{110} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{541345} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{541345} = \mathbf{Pl}(2, 18, 23, 18, 1, 0)_{22078} \\
\ell_{111} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{237217} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{237217} = \mathbf{Pl}(2, 18, 6, 18, 1, 0)_{21551} \\
\ell_{112} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{508321} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{508321} = \mathbf{Pl}(2, 18, 20, 18, 1, 0)_{21985} \\
\ell_{113} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{203329} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{203329} = \mathbf{Pl}(2, 18, 7, 18, 1, 0)_{21582} \\
\ell_{114} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{440545} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{440545} = \mathbf{Pl}(2, 18, 21, 18, 1, 0)_{22016} \\
\ell_{115} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{372769} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{372769} = \mathbf{Pl}(2, 18, 8, 18, 1, 0)_{21613} \\
\ell_{116} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{812449} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{812449} = \mathbf{Pl}(2, 18, 26, 18, 1, 0)_{22171} \\
\ell_{117} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{67777} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{67777} = \mathbf{Pl}(2, 18, 9, 18, 1, 0)_{21644} \\
\ell_{118} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{981889} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{981889} = \mathbf{Pl}(2, 18, 27, 18, 1, 0)_{22202} \\
\ell_{119} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{1015521} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{1015521} = \mathbf{Pl}(2, 18, 10, 18, 1, 0)_{21675} \\
\ell_{120} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{879969} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{879969} = \mathbf{Pl}(2, 18, 24, 18, 1, 0)_{22109}
\end{aligned}$$

$$\begin{aligned}
\ell_{121} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{271105} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{271105} = \mathbf{Pl}(2, 18, 11, 18, 1, 0)_{21706} \\
\ell_{122} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{169441} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{169441} = \mathbf{Pl}(2, 18, 25, 18, 1, 0)_{22140} \\
\ell_{123} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{575233} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{575233} = \mathbf{Pl}(2, 18, 12, 18, 1, 0)_{21737} \\
\ell_{124} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{338881} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{338881} = \mathbf{Pl}(2, 18, 30, 18, 1, 0)_{22295} \\
\ell_{125} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{710785} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{710785} = \mathbf{Pl}(2, 18, 13, 18, 1, 0)_{21768} \\
\ell_{126} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{1049409} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{1049409} = \mathbf{Pl}(2, 18, 31, 18, 1, 0)_{22326} \\
\ell_{127} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{101665} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{101665} = \mathbf{Pl}(2, 18, 14, 18, 1, 0)_{21799} \\
\ell_{128} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{642753} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{642753} = \mathbf{Pl}(2, 18, 28, 18, 1, 0)_{22233} \\
\ell_{129} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{676897} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{676897} = \mathbf{Pl}(2, 18, 15, 18, 1, 0)_{21830} \\
\ell_{130} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{913857} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{913857} = \mathbf{Pl}(2, 18, 29, 18, 1, 0)_{22264} \\
\ell_{131} &= \begin{bmatrix} 1 & \eta^{13} & \eta^{13} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{977724} = \begin{bmatrix} 1 & 28 & 28 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{977724} = \mathbf{Pl}(0, 28, 0, 28, 1, 0)_{4865} \\
\ell_{132} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{609441} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{609441} = \mathbf{Pl}(3, 28, 29, 28, 1, 0)_{31875} \\
\ell_{133} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{33921} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{33921} = \mathbf{Pl}(3, 28, 28, 28, 1, 0)_{31844} \\
\ell_{134} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{947105} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{947105} = \mathbf{Pl}(3, 28, 1, 28, 1, 0)_{31007} \\
\ell_{135} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{305281} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{305281} = \mathbf{Pl}(3, 28, 31, 28, 1, 0)_{31937} \\
\ell_{136} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{778849} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{778849} = \mathbf{Pl}(3, 28, 3, 28, 1, 0)_{31069} \\
\ell_{137} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{474113} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{474113} = \mathbf{Pl}(3, 28, 2, 28, 1, 0)_{31038} \\
\ell_{138} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{406529} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{406529} = \mathbf{Pl}(3, 28, 30, 28, 1, 0)_{31906} \\
\ell_{139} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{745121} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{745121} = \mathbf{Pl}(3, 28, 27, 28, 1, 0)_{31813} \\
\ell_{140} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{135681} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{135681} = \mathbf{Pl}(3, 28, 7, 28, 1, 0)_{31193} \\
\ell_{141} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{846049} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{846049} = \mathbf{Pl}(3, 28, 6, 28, 1, 0)_{31162}
\end{aligned}$$

$$\begin{aligned}
\ell_{142} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{541857} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{541857} = \mathbf{Pl}(3, 28, 26, 28, 1, 0)_{31782} \\
\ell_{143} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{237057} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{237057} = \mathbf{Pl}(3, 28, 4, 28, 1, 0)_{31100} \\
\ell_{144} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{507905} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{507905} = \mathbf{Pl}(3, 28, 24, 28, 1, 0)_{31720} \\
\ell_{145} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{203265} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{203265} = \mathbf{Pl}(3, 28, 25, 28, 1, 0)_{31751} \\
\ell_{146} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{440449} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{440449} = \mathbf{Pl}(3, 28, 5, 28, 1, 0)_{31131} \\
\ell_{147} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{372993} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{372993} = \mathbf{Pl}(3, 28, 19, 28, 1, 0)_{31565} \\
\ell_{148} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{812193} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{812193} = \mathbf{Pl}(3, 28, 15, 28, 1, 0)_{31441} \\
\ell_{149} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{67841} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{67841} = \mathbf{Pl}(3, 28, 14, 28, 1, 0)_{31410} \\
\ell_{150} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{980961} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{980961} = \mathbf{Pl}(3, 28, 18, 28, 1, 0)_{31534} \\
\ell_{151} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{1014945} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{1014945} = \mathbf{Pl}(3, 28, 12, 28, 1, 0)_{31348} \\
\ell_{152} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{879777} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{879777} = \mathbf{Pl}(3, 28, 16, 28, 1, 0)_{31472} \\
\ell_{153} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{271361} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{271361} = \mathbf{Pl}(3, 28, 17, 28, 1, 0)_{31503} \\
\ell_{154} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{169601} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{169601} = \mathbf{Pl}(3, 28, 13, 28, 1, 0)_{31379} \\
\ell_{155} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{575713} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{575713} = \mathbf{Pl}(3, 28, 8, 28, 1, 0)_{31224} \\
\ell_{156} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{339201} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{339201} = \mathbf{Pl}(3, 28, 20, 28, 1, 0)_{31596} \\
\ell_{157} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{711137} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{711137} = \mathbf{Pl}(3, 28, 21, 28, 1, 0)_{31627} \\
\ell_{158} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{1048673} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{1048673} = \mathbf{Pl}(3, 28, 9, 28, 1, 0)_{31255} \\
\ell_{159} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{101633} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{101633} = \mathbf{Pl}(3, 28, 23, 28, 1, 0)_{31689} \\
\ell_{160} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{643169} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{643169} = \mathbf{Pl}(3, 28, 11, 28, 1, 0)_{31317} \\
\ell_{161} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{677281} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{677281} = \mathbf{Pl}(3, 28, 10, 28, 1, 0)_{31286} \\
\ell_{162} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{913505} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{913505} = \mathbf{Pl}(3, 28, 22, 28, 1, 0)_{31658}
\end{aligned}$$

$$\begin{aligned}
\ell_{163} &= \begin{bmatrix} 1 & \eta^{29} & \eta^{29} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{314985} = \begin{bmatrix} 1 & 9 & 9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{314985} = \mathbf{Pl}(0, 9, 0, 9, 1, 0)_{3649} \\
\ell_{164} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{778657} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{778657} = \mathbf{Pl}(4, 9, 8, 9, 1, 0)_{12966} \\
\ell_{165} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{33953} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{33953} = \mathbf{Pl}(4, 9, 9, 9, 1, 0)_{12997} \\
\ell_{166} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{608897} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{608897} = \mathbf{Pl}(4, 9, 18, 9, 1, 0)_{13276} \\
\ell_{167} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{948065} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{948065} = \mathbf{Pl}(4, 9, 27, 9, 1, 0)_{13555} \\
\ell_{168} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{304449} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{304449} = \mathbf{Pl}(4, 9, 1, 9, 1, 0)_{12749} \\
\ell_{169} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{474465} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{474465} = \mathbf{Pl}(4, 9, 19, 9, 1, 0)_{13307} \\
\ell_{170} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{406561} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{406561} = \mathbf{Pl}(4, 9, 26, 9, 1, 0)_{13524} \\
\ell_{171} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{744705} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{744705} = \mathbf{Pl}(4, 9, 2, 9, 1, 0)_{12780} \\
\ell_{172} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{135809} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{135809} = \mathbf{Pl}(4, 9, 11, 9, 1, 0)_{13059} \\
\ell_{173} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{845953} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{845953} = \mathbf{Pl}(4, 9, 16, 9, 1, 0)_{13214} \\
\ell_{174} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{541505} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{541505} = \mathbf{Pl}(4, 9, 25, 9, 1, 0)_{13493} \\
\ell_{175} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{237665} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{237665} = \mathbf{Pl}(4, 9, 3, 9, 1, 0)_{12811} \\
\ell_{176} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{508161} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{508161} = \mathbf{Pl}(4, 9, 10, 9, 1, 0)_{13028} \\
\ell_{177} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{203713} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{203713} = \mathbf{Pl}(4, 9, 17, 9, 1, 0)_{13245} \\
\ell_{178} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{440257} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{440257} = \mathbf{Pl}(4, 9, 24, 9, 1, 0)_{13462} \\
\ell_{179} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{372353} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{372353} = \mathbf{Pl}(4, 9, 4, 9, 1, 0)_{12842} \\
\ell_{180} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{812257} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{812257} = \mathbf{Pl}(4, 9, 13, 9, 1, 0)_{13121} \\
\ell_{181} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{67905} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{67905} = \mathbf{Pl}(4, 9, 22, 9, 1, 0)_{13400} \\
\ell_{182} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{981761} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{981761} = \mathbf{Pl}(4, 9, 31, 9, 1, 0)_{13679} \\
\ell_{183} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{1015457} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{1015457} = \mathbf{Pl}(4, 9, 5, 9, 1, 0)_{12873}
\end{aligned}$$

$$\begin{aligned}
\ell_{184} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{879649} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{879649} = \mathbf{Pl}(4, 9, 12, 9, 1, 0)_{13090} \\
\ell_{185} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{270753} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{270753} = \mathbf{Pl}(4, 9, 23, 9, 1, 0)_{13431} \\
\ell_{186} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{169761} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{169761} = \mathbf{Pl}(4, 9, 30, 9, 1, 0)_{13648} \\
\ell_{187} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{575457} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{575457} = \mathbf{Pl}(4, 9, 6, 9, 1, 0)_{12904} \\
\ell_{188} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{338657} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{338657} = \mathbf{Pl}(4, 9, 15, 9, 1, 0)_{13183} \\
\ell_{189} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{711265} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{711265} = \mathbf{Pl}(4, 9, 20, 9, 1, 0)_{13338} \\
\ell_{190} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{1049153} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{1049153} = \mathbf{Pl}(4, 9, 29, 9, 1, 0)_{13617} \\
\ell_{191} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{101857} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{101857} = \mathbf{Pl}(4, 9, 7, 9, 1, 0)_{12935} \\
\ell_{192} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{642849} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{642849} = \mathbf{Pl}(4, 9, 14, 9, 1, 0)_{13152} \\
\ell_{193} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{677313} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{677313} = \mathbf{Pl}(4, 9, 21, 9, 1, 0)_{13369} \\
\ell_{194} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{913345} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{913345} = \mathbf{Pl}(4, 9, 28, 9, 1, 0)_{13586} \\
\ell_{195} &= \begin{bmatrix} 1 & \eta^{26} & \eta^{26} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{803319} = \begin{bmatrix} 1 & 23 & 23 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{803319} = \mathbf{Pl}(0, 23, 0, 23, 1, 0)_{4545} \\
\ell_{196} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{304673} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{304673} = \mathbf{Pl}(5, 23, 22, 23, 1, 0)_{26855} \\
\ell_{197} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{33985} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{33985} = \mathbf{Pl}(5, 23, 23, 23, 1, 0)_{26886} \\
\ell_{198} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{609345} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{609345} = \mathbf{Pl}(5, 23, 11, 23, 1, 0)_{26514} \\
\ell_{199} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{947169} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{947169} = \mathbf{Pl}(5, 23, 28, 23, 1, 0)_{27041} \\
\ell_{200} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{777985} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{777985} = \mathbf{Pl}(5, 23, 1, 23, 1, 0)_{26204} \\
\ell_{201} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{474145} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{474145} = \mathbf{Pl}(5, 23, 29, 23, 1, 0)_{27072} \\
\ell_{202} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{406689} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{406689} = \mathbf{Pl}(5, 23, 10, 23, 1, 0)_{26483} \\
\ell_{203} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{744257} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{744257} = \mathbf{Pl}(5, 23, 9, 23, 1, 0)_{26452} \\
\ell_{204} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{135937} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{135937} = \mathbf{Pl}(5, 23, 30, 23, 1, 0)_{27103}
\end{aligned}$$

$$\begin{aligned}
\ell_{205} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{846177} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{846177} = \mathbf{Pl}(5, 23, 2, 23, 1, 0)_{26235} \\
\ell_{206} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{542017} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{542017} = \mathbf{Pl}(5, 23, 21, 23, 1, 0)_{26824} \\
\ell_{207} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{237633} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{237633} = \mathbf{Pl}(5, 23, 31, 23, 1, 0)_{27134} \\
\ell_{208} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{508065} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{508065} = \mathbf{Pl}(5, 23, 8, 23, 1, 0)_{26421} \\
\ell_{209} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{203905} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{203905} = \mathbf{Pl}(5, 23, 20, 23, 1, 0)_{26793} \\
\ell_{210} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{440609} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{440609} = \mathbf{Pl}(5, 23, 3, 23, 1, 0)_{26266} \\
\ell_{211} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{372129} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{372129} = \mathbf{Pl}(5, 23, 18, 23, 1, 0)_{26731} \\
\ell_{212} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{812513} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{812513} = \mathbf{Pl}(5, 23, 5, 23, 1, 0)_{26328} \\
\ell_{213} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{67969} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{67969} = \mathbf{Pl}(5, 23, 25, 23, 1, 0)_{26948} \\
\ell_{214} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{981089} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{981089} = \mathbf{Pl}(5, 23, 14, 23, 1, 0)_{26607} \\
\ell_{215} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{1015009} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{1015009} = \mathbf{Pl}(5, 23, 4, 23, 1, 0)_{26297} \\
\ell_{216} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{880353} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{880353} = \mathbf{Pl}(5, 23, 19, 23, 1, 0)_{26762} \\
\ell_{217} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{271009} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{271009} = \mathbf{Pl}(5, 23, 15, 23, 1, 0)_{26638} \\
\ell_{218} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{169665} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{169665} = \mathbf{Pl}(5, 23, 24, 23, 1, 0)_{26917} \\
\ell_{219} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{576001} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{576001} = \mathbf{Pl}(5, 23, 27, 23, 1, 0)_{27010} \\
\ell_{220} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{338465} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{338465} = \mathbf{Pl}(5, 23, 12, 23, 1, 0)_{26545} \\
\ell_{221} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{710657} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{710657} = \mathbf{Pl}(5, 23, 16, 23, 1, 0)_{26669} \\
\ell_{222} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{1048929} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{1048929} = \mathbf{Pl}(5, 23, 7, 23, 1, 0)_{26390} \\
\ell_{223} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{101953} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{101953} = \mathbf{Pl}(5, 23, 13, 23, 1, 0)_{26576} \\
\ell_{224} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{643329} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{643329} = \mathbf{Pl}(5, 23, 26, 23, 1, 0)_{26979} \\
\ell_{225} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{676929} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{676929} = \mathbf{Pl}(5, 23, 6, 23, 1, 0)_{26359}
\end{aligned}$$

$$\begin{aligned}
\ell_{226} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{914017} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{914017} = \mathbf{Pl}(5, 23, 17, 23, 1, 0)_{26700} \\
\ell_{227} &= \begin{bmatrix} 1 & \eta^{12} & \eta^{12} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{489390} = \begin{bmatrix} 1 & 14 & 14 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{489390} = \mathbf{Pl}(0, 14, 0, 14, 1, 0)_{3969} \\
\ell_{228} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{406305} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{406305} = \mathbf{Pl}(6, 14, 15, 14, 1, 0)_{17990} \\
\ell_{229} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{34017} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{34017} = \mathbf{Pl}(6, 14, 14, 14, 1, 0)_{17959} \\
\ell_{230} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{608929} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{608929} = \mathbf{Pl}(6, 14, 28, 14, 1, 0)_{18393} \\
\ell_{231} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{947137} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{947137} = \mathbf{Pl}(6, 14, 18, 14, 1, 0)_{18083} \\
\ell_{232} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{305025} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{305025} = \mathbf{Pl}(6, 14, 29, 14, 1, 0)_{18424} \\
\ell_{233} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{778881} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{778881} = \mathbf{Pl}(6, 14, 19, 14, 1, 0)_{18114} \\
\ell_{234} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{473569} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{473569} = \mathbf{Pl}(6, 14, 1, 14, 1, 0)_{17556} \\
\ell_{235} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{744993} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{744993} = \mathbf{Pl}(6, 14, 31, 14, 1, 0)_{18486} \\
\ell_{236} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{136065} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{136065} = \mathbf{Pl}(6, 14, 17, 14, 1, 0)_{18052} \\
\ell_{237} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{846497} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{846497} = \mathbf{Pl}(6, 14, 3, 14, 1, 0)_{17618} \\
\ell_{238} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{541665} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{541665} = \mathbf{Pl}(6, 14, 13, 14, 1, 0)_{17928} \\
\ell_{239} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{237345} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{237345} = \mathbf{Pl}(6, 14, 2, 14, 1, 0)_{17587} \\
\ell_{240} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{507585} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{507585} = \mathbf{Pl}(6, 14, 12, 14, 1, 0)_{17897} \\
\ell_{241} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{203585} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{203585} = \mathbf{Pl}(6, 14, 30, 14, 1, 0)_{18455} \\
\ell_{242} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{440065} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{440065} = \mathbf{Pl}(6, 14, 16, 14, 1, 0)_{18021} \\
\ell_{243} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{373057} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{373057} = \mathbf{Pl}(6, 14, 27, 14, 1, 0)_{18362} \\
\ell_{244} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{812609} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{812609} = \mathbf{Pl}(6, 14, 21, 14, 1, 0)_{18176} \\
\ell_{245} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{68033} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{68033} = \mathbf{Pl}(6, 14, 7, 14, 1, 0)_{17742} \\
\ell_{246} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{981025} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{981025} = \mathbf{Pl}(6, 14, 9, 14, 1, 0)_{17804}
\end{aligned}$$

$$\begin{aligned}
\ell_{247} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{1015169} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{1015169} = \mathbf{Pl}(6, 14, 6, 14, 1, 0)_{17711} \\
\ell_{248} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{880129} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{880129} = \mathbf{Pl}(6, 14, 8, 14, 1, 0)_{17773} \\
\ell_{249} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{271265} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{271265} = \mathbf{Pl}(6, 14, 26, 14, 1, 0)_{18331} \\
\ell_{250} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{170081} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{170081} = \mathbf{Pl}(6, 14, 20, 14, 1, 0)_{18145} \\
\ell_{251} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{575297} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{575297} = \mathbf{Pl}(6, 14, 4, 14, 1, 0)_{17649} \\
\ell_{252} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{339041} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{339041} = \mathbf{Pl}(6, 14, 10, 14, 1, 0)_{17835} \\
\ell_{253} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{710849} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{710849} = \mathbf{Pl}(6, 14, 24, 14, 1, 0)_{18269} \\
\ell_{254} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{1048801} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{1048801} = \mathbf{Pl}(6, 14, 22, 14, 1, 0)_{18207} \\
\ell_{255} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{101793} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{101793} = \mathbf{Pl}(6, 14, 25, 14, 1, 0)_{18300} \\
\ell_{256} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{642817} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{642817} = \mathbf{Pl}(6, 14, 23, 14, 1, 0)_{18238} \\
\ell_{257} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{677217} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{677217} = \mathbf{Pl}(6, 14, 5, 14, 1, 0)_{17680} \\
\ell_{258} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{913761} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{913761} = \mathbf{Pl}(6, 14, 11, 14, 1, 0)_{17866} \\
\ell_{259} &= \begin{bmatrix} 1 & \eta^{20} & \eta^{20} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{419628} = \begin{bmatrix} 1 & 12 & 12 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{419628} = \mathbf{Pl}(0, 12, 0, 12, 1, 0)_{3841} \\
\ell_{260} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{474017} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{474017} = \mathbf{Pl}(7, 12, 13, 12, 1, 0)_{16007} \\
\ell_{261} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{34049} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{34049} = \mathbf{Pl}(7, 12, 12, 12, 1, 0)_{15976} \\
\ell_{262} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{609377} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{609377} = \mathbf{Pl}(7, 12, 24, 12, 1, 0)_{16348} \\
\ell_{263} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{948033} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{948033} = \mathbf{Pl}(7, 12, 20, 12, 1, 0)_{16224} \\
\ell_{264} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{305249} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{305249} = \mathbf{Pl}(7, 12, 21, 12, 1, 0)_{16255} \\
\ell_{265} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{778273} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{778273} = \mathbf{Pl}(7, 12, 25, 12, 1, 0)_{16379} \\
\ell_{266} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{405921} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{405921} = \mathbf{Pl}(7, 12, 1, 12, 1, 0)_{15635} \\
\ell_{267} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{744545} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{744545} = \mathbf{Pl}(7, 12, 15, 12, 1, 0)_{16069}
\end{aligned}$$

$$\begin{aligned}
\ell_{268} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{136193} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{136193} = \mathbf{Pl}(7, 12, 3, 12, 1, 0)_{15697} \\
\ell_{269} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{845761} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{845761} = \mathbf{Pl}(7, 12, 23, 12, 1, 0)_{16317} \\
\ell_{270} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{542177} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{542177} = \mathbf{Pl}(7, 12, 27, 12, 1, 0)_{16441} \\
\ell_{271} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{237441} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{237441} = \mathbf{Pl}(7, 12, 26, 12, 1, 0)_{16410} \\
\ell_{272} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{507617} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{507617} = \mathbf{Pl}(7, 12, 22, 12, 1, 0)_{16286} \\
\ell_{273} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{203521} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{203521} = \mathbf{Pl}(7, 12, 2, 12, 1, 0)_{15666} \\
\ell_{274} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{439905} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{439905} = \mathbf{Pl}(7, 12, 14, 12, 1, 0)_{16038} \\
\ell_{275} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{372705} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{372705} = \mathbf{Pl}(7, 12, 30, 12, 1, 0)_{16534} \\
\ell_{276} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{811841} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{811841} = \mathbf{Pl}(7, 12, 18, 12, 1, 0)_{16162} \\
\ell_{277} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{68097} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{68097} = \mathbf{Pl}(7, 12, 6, 12, 1, 0)_{15790} \\
\ell_{278} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{981697} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{981697} = \mathbf{Pl}(7, 12, 10, 12, 1, 0)_{15914} \\
\ell_{279} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{1015233} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{1015233} = \mathbf{Pl}(7, 12, 11, 12, 1, 0)_{15945} \\
\ell_{280} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{879809} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{879809} = \mathbf{Pl}(7, 12, 7, 12, 1, 0)_{15821} \\
\ell_{281} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{271521} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{271521} = \mathbf{Pl}(7, 12, 19, 12, 1, 0)_{16193} \\
\ell_{282} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{169985} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{169985} = \mathbf{Pl}(7, 12, 31, 12, 1, 0)_{16565} \\
\ell_{283} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{575777} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{575777} = \mathbf{Pl}(7, 12, 17, 12, 1, 0)_{16131} \\
\ell_{284} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{338849} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{338849} = \mathbf{Pl}(7, 12, 29, 12, 1, 0)_{16503} \\
\ell_{285} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{710433} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{710433} = \mathbf{Pl}(7, 12, 9, 12, 1, 0)_{15883} \\
\ell_{286} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{1049281} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{1049281} = \mathbf{Pl}(7, 12, 5, 12, 1, 0)_{15759} \\
\ell_{287} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{101761} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{101761} = \mathbf{Pl}(7, 12, 4, 12, 1, 0)_{15728} \\
\ell_{288} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{643361} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{643361} = \mathbf{Pl}(7, 12, 8, 12, 1, 0)_{15852}
\end{aligned}$$

$$\begin{aligned}
\ell_{289} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{676577} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{676577} = \mathbf{Pl}(7, 12, 28, 12, 1, 0)_{16472} \\
\ell_{290} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{913601} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{913601} = \mathbf{Pl}(7, 12, 16, 12, 1, 0)_{16100} \\
\ell_{291} &= \begin{bmatrix} 1 & \eta^{28} & \eta^{28} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{768438} = \begin{bmatrix} 1 & 22 & 22 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{768438} = \mathbf{Pl}(0, 22, 0, 22, 1, 0)_{4481} \\
\ell_{292} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{135457} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{135457} = \mathbf{Pl}(8, 22, 23, 22, 1, 0)_{25928} \\
\ell_{293} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{34081} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{34081} = \mathbf{Pl}(8, 22, 22, 22, 1, 0)_{25897} \\
\ell_{294} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{608961} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{608961} = \mathbf{Pl}(8, 22, 9, 22, 1, 0)_{25494} \\
\ell_{295} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{947937} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{947937} = \mathbf{Pl}(8, 22, 31, 22, 1, 0)_{26176} \\
\ell_{296} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{304481} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{304481} = \mathbf{Pl}(8, 22, 18, 22, 1, 0)_{25773} \\
\ell_{297} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{778241} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{778241} = \mathbf{Pl}(8, 22, 4, 22, 1, 0)_{25339} \\
\ell_{298} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{474529} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{474529} = \mathbf{Pl}(8, 22, 27, 22, 1, 0)_{26052} \\
\ell_{299} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{406369} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{406369} = \mathbf{Pl}(8, 22, 13, 22, 1, 0)_{25618} \\
\ell_{300} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{744161} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{744161} = \mathbf{Pl}(8, 22, 1, 22, 1, 0)_{25246} \\
\ell_{301} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{846305} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{846305} = \mathbf{Pl}(8, 22, 8, 22, 1, 0)_{25463} \\
\ell_{302} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{541825} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{541825} = \mathbf{Pl}(8, 22, 30, 22, 1, 0)_{26145} \\
\ell_{303} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{237697} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{237697} = \mathbf{Pl}(8, 22, 19, 22, 1, 0)_{25804} \\
\ell_{304} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{508097} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{508097} = \mathbf{Pl}(8, 22, 5, 22, 1, 0)_{25370} \\
\ell_{305} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{203617} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{203617} = \mathbf{Pl}(8, 22, 26, 22, 1, 0)_{26021} \\
\ell_{306} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{439937} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{439937} = \mathbf{Pl}(8, 22, 12, 22, 1, 0)_{25587} \\
\ell_{307} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{372641} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{372641} = \mathbf{Pl}(8, 22, 2, 22, 1, 0)_{25277} \\
\ell_{308} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{812737} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{812737} = \mathbf{Pl}(8, 22, 20, 22, 1, 0)_{25835} \\
\ell_{309} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{68161} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{68161} = \mathbf{Pl}(8, 22, 11, 22, 1, 0)_{25556}
\end{aligned}$$

$$\begin{aligned}
\ell_{310} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{981505} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{981505} = \mathbf{Pl}(8, 22, 29, 22, 1, 0)_{26114} \\
\ell_{311} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{1015073} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{1015073} = \mathbf{Pl}(8, 22, 16, 22, 1, 0)_{25711} \\
\ell_{312} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{879873} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{879873} = \mathbf{Pl}(8, 22, 6, 22, 1, 0)_{25401} \\
\ell_{313} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{270913} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{270913} = \mathbf{Pl}(8, 22, 25, 22, 1, 0)_{25990} \\
\ell_{314} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{169537} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{169537} = \mathbf{Pl}(8, 22, 15, 22, 1, 0)_{25680} \\
\ell_{315} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{575905} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{575905} = \mathbf{Pl}(8, 22, 3, 22, 1, 0)_{25308} \\
\ell_{316} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{339073} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{339073} = \mathbf{Pl}(8, 22, 21, 22, 1, 0)_{25866} \\
\ell_{317} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{711105} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{711105} = \mathbf{Pl}(8, 22, 10, 22, 1, 0)_{25525} \\
\ell_{318} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{1048641} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{1048641} = \mathbf{Pl}(8, 22, 28, 22, 1, 0)_{26083} \\
\ell_{319} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{102241} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{102241} = \mathbf{Pl}(8, 22, 17, 22, 1, 0)_{25742} \\
\ell_{320} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{643041} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{643041} = \mathbf{Pl}(8, 22, 7, 22, 1, 0)_{25432} \\
\ell_{321} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{677025} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{677025} = \mathbf{Pl}(8, 22, 24, 22, 1, 0)_{25959} \\
\ell_{322} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{913441} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{913441} = \mathbf{Pl}(8, 22, 14, 22, 1, 0)_{25649} \\
\ell_{323} &= \begin{bmatrix} 1 & \eta^2 & \eta^2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{140580} = \begin{bmatrix} 1 & 4 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{140580} = \mathbf{Pl}(0, 4, 0, 4, 1, 0)_{3329} \\
\ell_{324} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{744865} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{744865} = \mathbf{Pl}(9, 4, 5, 4, 1, 0)_{8073} \\
\ell_{325} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{34113} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{34113} = \mathbf{Pl}(9, 4, 4, 4, 1, 0)_{8042} \\
\ell_{326} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{609537} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{609537} = \mathbf{Pl}(9, 4, 8, 4, 1, 0)_{8166} \\
\ell_{327} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{947297} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{947297} = \mathbf{Pl}(9, 4, 12, 4, 1, 0)_{8290} \\
\ell_{328} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{304769} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{304769} = \mathbf{Pl}(9, 4, 16, 4, 1, 0)_{8414} \\
\ell_{329} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{778913} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{778913} = \mathbf{Pl}(9, 4, 20, 4, 1, 0)_{8538} \\
\ell_{330} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{474081} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{474081} = \mathbf{Pl}(9, 4, 24, 4, 1, 0)_{8662}
\end{aligned}$$

$$\begin{aligned}
\ell_{331} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{405985} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{405985} = \mathbf{Pl}(9, 4, 28, 4, 1, 0)_{8786} \\
\ell_{332} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{135329} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{135329} = \mathbf{Pl}(9, 4, 1, 4, 1, 0)_{7949} \\
\ell_{333} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{846081} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{846081} = \mathbf{Pl}(9, 4, 13, 4, 1, 0)_{8321} \\
\ell_{334} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{541313} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{541313} = \mathbf{Pl}(9, 4, 9, 4, 1, 0)_{8197} \\
\ell_{335} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{237601} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{237601} = \mathbf{Pl}(9, 4, 21, 4, 1, 0)_{8569} \\
\ell_{336} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{508129} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{508129} = \mathbf{Pl}(9, 4, 17, 4, 1, 0)_{8445} \\
\ell_{337} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{203553} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{203553} = \mathbf{Pl}(9, 4, 29, 4, 1, 0)_{8817} \\
\ell_{338} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{440033} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{440033} = \mathbf{Pl}(9, 4, 25, 4, 1, 0)_{8693} \\
\ell_{339} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{372865} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{372865} = \mathbf{Pl}(9, 4, 10, 4, 1, 0)_{8228} \\
\ell_{340} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{811969} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{811969} = \mathbf{Pl}(9, 4, 14, 4, 1, 0)_{8352} \\
\ell_{341} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{68225} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{68225} = \mathbf{Pl}(9, 4, 2, 4, 1, 0)_{7980} \\
\ell_{342} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{981345} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{981345} = \mathbf{Pl}(9, 4, 6, 4, 1, 0)_{8104} \\
\ell_{343} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{1015393} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{1015393} = \mathbf{Pl}(9, 4, 26, 4, 1, 0)_{8724} \\
\ell_{344} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{880065} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{880065} = \mathbf{Pl}(9, 4, 30, 4, 1, 0)_{8848} \\
\ell_{345} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta \end{bmatrix}_{270657} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{270657} = \mathbf{Pl}(9, 4, 18, 4, 1, 0)_{8476} \\
\ell_{346} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{169377} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{169377} = \mathbf{Pl}(9, 4, 22, 4, 1, 0)_{8600} \\
\ell_{347} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{575425} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{575425} = \mathbf{Pl}(9, 4, 15, 4, 1, 0)_{8383} \\
\ell_{348} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{338753} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{338753} = \mathbf{Pl}(9, 4, 11, 4, 1, 0)_{8259} \\
\ell_{349} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{710689} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{710689} = \mathbf{Pl}(9, 4, 7, 4, 1, 0)_{8135} \\
\ell_{350} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{1049441} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{1049441} = \mathbf{Pl}(9, 4, 3, 4, 1, 0)_{8011} \\
\ell_{351} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{102337} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{102337} = \mathbf{Pl}(9, 4, 31, 4, 1, 0)_{8879}
\end{aligned}$$

$$\begin{aligned}
\ell_{352} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{643649} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{643649} = \mathbf{Pl}(9, 4, 27, 4, 1, 0)_{8755} \\
\ell_{353} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{676641} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{676641} = \mathbf{Pl}(9, 4, 23, 4, 1, 0)_{8631} \\
\ell_{354} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{914177} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{914177} = \mathbf{Pl}(9, 4, 19, 4, 1, 0)_{8507} \\
\ell_{355} &= \begin{bmatrix} 1 & \eta^{25} & \eta^{25} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{873081} = \begin{bmatrix} 1 & 25 & 25 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{873081} = \mathbf{Pl}(0, 25, 0, 25, 1, 0)_{4673} \\
\ell_{356} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{541729} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{541729} = \mathbf{Pl}(10, 25, 24, 25, 1, 0)_{28844} \\
\ell_{357} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{34145} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{34145} = \mathbf{Pl}(10, 25, 25, 25, 1, 0)_{28875} \\
\ell_{358} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{608993} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{608993} = \mathbf{Pl}(10, 25, 23, 25, 1, 0)_{28813} \\
\ell_{359} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{947265} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{947265} = \mathbf{Pl}(10, 25, 14, 25, 1, 0)_{28534} \\
\ell_{360} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{304929} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{304929} = \mathbf{Pl}(10, 25, 11, 25, 1, 0)_{28441} \\
\ell_{361} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{778017} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{778017} = \mathbf{Pl}(10, 25, 18, 25, 1, 0)_{28658} \\
\ell_{362} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{473633} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{473633} = \mathbf{Pl}(10, 25, 28, 25, 1, 0)_{28968} \\
\ell_{363} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{406625} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{406625} = \mathbf{Pl}(10, 25, 5, 25, 1, 0)_{28255} \\
\ell_{364} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{744385} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{744385} = \mathbf{Pl}(10, 25, 22, 25, 1, 0)_{28782} \\
\ell_{365} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{135713} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{135713} = \mathbf{Pl}(10, 25, 15, 25, 1, 0)_{28565} \\
\ell_{366} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{845633} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{845633} = \mathbf{Pl}(10, 25, 1, 25, 1, 0)_{28131} \\
\ell_{367} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{237377} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{237377} = \mathbf{Pl}(10, 25, 29, 25, 1, 0)_{28999} \\
\ell_{368} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{507649} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{507649} = \mathbf{Pl}(10, 25, 4, 25, 1, 0)_{28224} \\
\ell_{369} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{203745} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{203745} = \mathbf{Pl}(10, 25, 10, 25, 1, 0)_{28410} \\
\ell_{370} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{440641} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{440641} = \mathbf{Pl}(10, 25, 19, 25, 1, 0)_{28689} \\
\ell_{371} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{372193} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{372193} = \mathbf{Pl}(10, 25, 9, 25, 1, 0)_{28379} \\
\ell_{372} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{812129} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{812129} = \mathbf{Pl}(10, 25, 16, 25, 1, 0)_{28596}
\end{aligned}$$

$$\begin{aligned}
\ell_{373} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{68289} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{68289} = \mathbf{Pl}(10, 25, 30, 25, 1, 0)_{29030} \\
\ell_{374} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{981281} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{981281} = \mathbf{Pl}(10, 25, 7, 25, 1, 0)_{28317} \\
\ell_{375} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{1015297} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{1015297} = \mathbf{Pl}(10, 25, 2, 25, 1, 0)_{28162} \\
\ell_{376} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{880417} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{880417} = \mathbf{Pl}(10, 25, 27, 25, 1, 0)_{28937} \\
\ell_{377} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{271425} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{271425} = \mathbf{Pl}(10, 25, 21, 25, 1, 0)_{28751} \\
\ell_{378} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{169345} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{169345} = \mathbf{Pl}(10, 25, 12, 25, 1, 0)_{28472} \\
\ell_{379} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{575873} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{575873} = \mathbf{Pl}(10, 25, 31, 25, 1, 0)_{29061} \\
\ell_{380} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{338689} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{338689} = \mathbf{Pl}(10, 25, 6, 25, 1, 0)_{28286} \\
\ell_{381} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{711009} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{711009} = \mathbf{Pl}(10, 25, 8, 25, 1, 0)_{28348} \\
\ell_{382} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{1049313} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{1049313} = \mathbf{Pl}(10, 25, 17, 25, 1, 0)_{28627} \\
\ell_{383} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{102433} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{102433} = \mathbf{Pl}(10, 25, 20, 25, 1, 0)_{28720} \\
\ell_{384} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{643137} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{643137} = \mathbf{Pl}(10, 25, 13, 25, 1, 0)_{28503} \\
\ell_{385} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{677377} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{677377} = \mathbf{Pl}(10, 25, 3, 25, 1, 0)_{28193} \\
\ell_{386} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{913921} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{913921} = \mathbf{Pl}(10, 25, 26, 25, 1, 0)_{28906} \\
\ell_{387} &= \begin{bmatrix} 1 & \eta^4 & \eta^4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{559152} = \begin{bmatrix} 1 & 16 & 16 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{559152} = \mathbf{Pl}(0, 16, 0, 16, 1, 0)_{4097} \\
\ell_{388} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{846369} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{846369} = \mathbf{Pl}(11, 16, 17, 16, 1, 0)_{19979} \\
\ell_{389} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{34177} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{34177} = \mathbf{Pl}(11, 16, 16, 16, 1, 0)_{19948} \\
\ell_{390} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{609569} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{609569} = \mathbf{Pl}(11, 16, 5, 16, 1, 0)_{19607} \\
\ell_{391} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{947905} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{947905} = \mathbf{Pl}(11, 16, 21, 16, 1, 0)_{20103} \\
\ell_{392} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{305217} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{305217} = \mathbf{Pl}(11, 16, 10, 16, 1, 0)_{19762} \\
\ell_{393} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{778625} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{778625} = \mathbf{Pl}(11, 16, 26, 16, 1, 0)_{20258}
\end{aligned}$$

$$\begin{aligned}
\ell_{394} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{473953} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{473953} = \mathbf{Pl}(11, 16, 15, 16, 1, 0)_{19917} \\
\ell_{395} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{406753} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{406753} = \mathbf{Pl}(11, 16, 31, 16, 1, 0)_{20413} \\
\ell_{396} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{745089} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{745089} = \mathbf{Pl}(11, 16, 20, 16, 1, 0)_{20072} \\
\ell_{397} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{135585} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{135585} = \mathbf{Pl}(11, 16, 4, 16, 1, 0)_{19576} \\
\ell_{398} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{541217} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{541217} = \mathbf{Pl}(11, 16, 1, 16, 1, 0)_{19483} \\
\ell_{399} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{237409} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{237409} = \mathbf{Pl}(11, 16, 30, 16, 1, 0)_{20382} \\
\ell_{400} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{507553} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{507553} = \mathbf{Pl}(11, 16, 14, 16, 1, 0)_{19886} \\
\ell_{401} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{203937} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{203937} = \mathbf{Pl}(11, 16, 27, 16, 1, 0)_{20289} \\
\ell_{402} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{440225} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{440225} = \mathbf{Pl}(11, 16, 11, 16, 1, 0)_{19793} \\
\ell_{403} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{372545} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{372545} = \mathbf{Pl}(11, 16, 13, 16, 1, 0)_{19855} \\
\ell_{404} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{812385} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{812385} = \mathbf{Pl}(11, 16, 29, 16, 1, 0)_{20351} \\
\ell_{405} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{68353} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{68353} = \mathbf{Pl}(11, 16, 8, 16, 1, 0)_{19700} \\
\ell_{406} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{981441} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{981441} = \mathbf{Pl}(11, 16, 24, 16, 1, 0)_{20196} \\
\ell_{407} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{1015105} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{1015105} = \mathbf{Pl}(11, 16, 7, 16, 1, 0)_{19669} \\
\ell_{408} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{879585} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{879585} = \mathbf{Pl}(11, 16, 23, 16, 1, 0)_{20165} \\
\ell_{409} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{271169} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{271169} = \mathbf{Pl}(11, 16, 2, 16, 1, 0)_{19514} \\
\ell_{410} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta \end{bmatrix}_{169185} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{169185} = \mathbf{Pl}(11, 16, 18, 16, 1, 0)_{20010} \\
\ell_{411} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{575329} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{575329} = \mathbf{Pl}(11, 16, 25, 16, 1, 0)_{20227} \\
\ell_{412} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{338369} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{338369} = \mathbf{Pl}(11, 16, 9, 16, 1, 0)_{19731} \\
\ell_{413} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{710401} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{710401} = \mathbf{Pl}(11, 16, 28, 16, 1, 0)_{20320} \\
\ell_{414} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{1048769} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{1048769} = \mathbf{Pl}(11, 16, 12, 16, 1, 0)_{19824}
\end{aligned}$$

$$\begin{aligned}
\ell_{415} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{102401} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{102401} = \mathbf{Pl}(11, 16, 19, 16, 1, 0)_{20041} \\
\ell_{416} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{643553} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{643553} = \mathbf{Pl}(11, 16, 3, 16, 1, 0)_{19545} \\
\ell_{417} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{676737} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{676737} = \mathbf{Pl}(11, 16, 22, 16, 1, 0)_{20134} \\
\ell_{418} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{913697} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{913697} = \mathbf{Pl}(11, 16, 6, 16, 1, 0)_{19638} \\
\ell_{419} &= \begin{bmatrix} 1 & \eta^{11} & \eta^{11} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{245223} = \begin{bmatrix} 1 & 7 & 7 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{245223} = \mathbf{Pl}(0, 7, 0, 7, 1, 0)_{3521} \\
\ell_{420} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{507809} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{507809} = \mathbf{Pl}(12, 7, 6, 7, 1, 0)_{10990} \\
\ell_{421} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{34209} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{34209} = \mathbf{Pl}(12, 7, 7, 7, 1, 0)_{11021} \\
\ell_{422} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{609025} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{609025} = \mathbf{Pl}(12, 7, 14, 7, 1, 0)_{11238} \\
\ell_{423} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{947201} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{947201} = \mathbf{Pl}(12, 7, 9, 7, 1, 0)_{11083} \\
\ell_{424} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{304513} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{304513} = \mathbf{Pl}(12, 7, 28, 7, 1, 0)_{11672} \\
\ell_{425} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{778945} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{778945} = \mathbf{Pl}(12, 7, 27, 7, 1, 0)_{11641} \\
\ell_{426} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{473601} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{473601} = \mathbf{Pl}(12, 7, 18, 7, 1, 0)_{11362} \\
\ell_{427} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{406721} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{406721} = \mathbf{Pl}(12, 7, 21, 7, 1, 0)_{11455} \\
\ell_{428} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{744737} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{744737} = \mathbf{Pl}(12, 7, 29, 7, 1, 0)_{11703} \\
\ell_{429} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{135969} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{135969} = \mathbf{Pl}(12, 7, 26, 7, 1, 0)_{11610} \\
\ell_{430} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{846529} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{846529} = \mathbf{Pl}(12, 7, 19, 7, 1, 0)_{11393} \\
\ell_{431} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{542145} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{542145} = \mathbf{Pl}(12, 7, 20, 7, 1, 0)_{11424} \\
\ell_{432} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{236801} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{236801} = \mathbf{Pl}(12, 7, 1, 7, 1, 0)_{10835} \\
\ell_{433} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{203361} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{203361} = \mathbf{Pl}(12, 7, 15, 7, 1, 0)_{11269} \\
\ell_{434} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{440417} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{440417} = \mathbf{Pl}(12, 7, 8, 7, 1, 0)_{11052} \\
\ell_{435} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{372929} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{372929} = \mathbf{Pl}(12, 7, 31, 7, 1, 0)_{11765}
\end{aligned}$$

$$\begin{aligned}
\ell_{436} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{812321} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{812321} = \mathbf{Pl}(12, 7, 24, 7, 1, 0)_{11548} \\
\ell_{437} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{68417} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{68417} = \mathbf{Pl}(12, 7, 17, 7, 1, 0)_{11331} \\
\ell_{438} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{981153} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{981153} = \mathbf{Pl}(12, 7, 22, 7, 1, 0)_{11486} \\
\ell_{439} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{1015617} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{1015617} = \mathbf{Pl}(12, 7, 3, 7, 1, 0)_{10897} \\
\ell_{440} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{879713} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{879713} = \mathbf{Pl}(12, 7, 4, 7, 1, 0)_{10928} \\
\ell_{441} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{271073} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{271073} = \mathbf{Pl}(12, 7, 13, 7, 1, 0)_{11207} \\
\ell_{442} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{169921} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{169921} = \mathbf{Pl}(12, 7, 10, 7, 1, 0)_{11114} \\
\ell_{443} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{575585} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{575585} = \mathbf{Pl}(12, 7, 2, 7, 1, 0)_{10866} \\
\ell_{444} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{338977} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{338977} = \mathbf{Pl}(12, 7, 5, 7, 1, 0)_{10959} \\
\ell_{445} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{710529} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{710529} = \mathbf{Pl}(12, 7, 12, 7, 1, 0)_{11176} \\
\ell_{446} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{1049057} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{1049057} = \mathbf{Pl}(12, 7, 11, 7, 1, 0)_{11145} \\
\ell_{447} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{102113} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{102113} = \mathbf{Pl}(12, 7, 30, 7, 1, 0)_{11734} \\
\ell_{448} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{642977} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{642977} = \mathbf{Pl}(12, 7, 25, 7, 1, 0)_{11579} \\
\ell_{449} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{676833} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{676833} = \mathbf{Pl}(12, 7, 16, 7, 1, 0)_{11300} \\
\ell_{450} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{913409} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{913409} = \mathbf{Pl}(12, 7, 23, 7, 1, 0)_{11517} \\
\ell_{451} &= \begin{bmatrix} 1 & \eta^{23} & \eta^{23} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{524271} = \begin{bmatrix} 1 & 15 & 15 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{524271} = \mathbf{Pl}(0, 15, 0, 15, 1, 0)_{4033} \\
\ell_{452} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{236961} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{236961} = \mathbf{Pl}(13, 15, 14, 15, 1, 0)_{18927} \\
\ell_{453} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{34241} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{34241} = \mathbf{Pl}(13, 15, 15, 15, 1, 0)_{18958} \\
\ell_{454} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{609473} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{609473} = \mathbf{Pl}(13, 15, 30, 15, 1, 0)_{19423} \\
\ell_{455} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{947841} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{947841} = \mathbf{Pl}(13, 15, 17, 15, 1, 0)_{19020} \\
\ell_{456} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{304737} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{304737} = \mathbf{Pl}(13, 15, 25, 15, 1, 0)_{19268}
\end{aligned}$$

$$\begin{aligned}
\ell_{457} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{778209} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{778209} = \mathbf{Pl}(13, 15, 22, 15, 1, 0)_{19175} \\
\ell_{458} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{473921} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{473921} = \mathbf{Pl}(13, 15, 7, 15, 1, 0)_{18710} \\
\ell_{459} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{406593} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{406593} = \mathbf{Pl}(13, 15, 8, 15, 1, 0)_{18741} \\
\ell_{460} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{744289} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{744289} = \mathbf{Pl}(13, 15, 23, 15, 1, 0)_{19206} \\
\ell_{461} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{135841} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{135841} = \mathbf{Pl}(13, 15, 24, 15, 1, 0)_{19237} \\
\ell_{462} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{845729} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{845729} = \mathbf{Pl}(13, 15, 9, 15, 1, 0)_{18772} \\
\ell_{463} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{541633} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{541633} = \mathbf{Pl}(13, 15, 6, 15, 1, 0)_{18679} \\
\ell_{464} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{507393} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{507393} = \mathbf{Pl}(13, 15, 1, 15, 1, 0)_{18524} \\
\ell_{465} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{203297} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{203297} = \mathbf{Pl}(13, 15, 16, 15, 1, 0)_{18989} \\
\ell_{466} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{440577} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{440577} = \mathbf{Pl}(13, 15, 31, 15, 1, 0)_{19454} \\
\ell_{467} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{372577} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{372577} = \mathbf{Pl}(13, 15, 11, 15, 1, 0)_{18834} \\
\ell_{468} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{812065} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{812065} = \mathbf{Pl}(13, 15, 4, 15, 1, 0)_{18617} \\
\ell_{469} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{68481} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{68481} = \mathbf{Pl}(13, 15, 21, 15, 1, 0)_{19144} \\
\ell_{470} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{981569} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{981569} = \mathbf{Pl}(13, 15, 26, 15, 1, 0)_{19299} \\
\ell_{471} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{1014785} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{1014785} = \mathbf{Pl}(13, 15, 18, 15, 1, 0)_{19051} \\
\ell_{472} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{880033} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{880033} = \mathbf{Pl}(13, 15, 29, 15, 1, 0)_{19392} \\
\ell_{473} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{270817} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{270817} = \mathbf{Pl}(13, 15, 12, 15, 1, 0)_{18865} \\
\ell_{474} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{170017} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{170017} = \mathbf{Pl}(13, 15, 3, 15, 1, 0)_{18586} \\
\ell_{475} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{575105} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{575105} = \mathbf{Pl}(13, 15, 28, 15, 1, 0)_{19361} \\
\ell_{476} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{339169} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{339169} = \mathbf{Pl}(13, 15, 19, 15, 1, 0)_{19082} \\
\ell_{477} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{710881} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{710881} = \mathbf{Pl}(13, 15, 2, 15, 1, 0)_{18555}
\end{aligned}$$

$$\begin{aligned}
\ell_{478} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{1049025} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{1049025} = \mathbf{Pl}(13, 15, 13, 15, 1, 0)_{18896} \\
\ell_{479} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{102209} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{102209} = \mathbf{Pl}(13, 15, 5, 15, 1, 0)_{18648} \\
\ell_{480} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{643457} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{643457} = \mathbf{Pl}(13, 15, 10, 15, 1, 0)_{18803} \\
\ell_{481} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{677473} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{677473} = \mathbf{Pl}(13, 15, 27, 15, 1, 0)_{19330} \\
\ell_{482} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{914209} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{914209} = \mathbf{Pl}(13, 15, 20, 15, 1, 0)_{19113} \\
\ell_{483} &= \begin{bmatrix} 1 & \eta^{19} & \eta^{19} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{210342} = \begin{bmatrix} 1 & 6 & 6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{210342} = \mathbf{Pl}(0, 6, 0, 6, 1, 0)_{3457} \\
\ell_{484} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{440097} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{440097} = \mathbf{Pl}(14, 6, 7, 6, 1, 0)_{10062} \\
\ell_{485} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{34273} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{34273} = \mathbf{Pl}(14, 6, 6, 6, 1, 0)_{10031} \\
\ell_{486} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{609057} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{609057} = \mathbf{Pl}(14, 6, 12, 6, 1, 0)_{10217} \\
\ell_{487} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{947873} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{947873} = \mathbf{Pl}(14, 6, 10, 6, 1, 0)_{10155} \\
\ell_{488} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{304961} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{304961} = \mathbf{Pl}(14, 6, 24, 6, 1, 0)_{10589} \\
\ell_{489} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{778593} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{778593} = \mathbf{Pl}(14, 6, 30, 6, 1, 0)_{10775} \\
\ell_{490} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{474497} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{474497} = \mathbf{Pl}(14, 6, 20, 6, 1, 0)_{10465} \\
\ell_{491} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{405953} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{405953} = \mathbf{Pl}(14, 6, 18, 6, 1, 0)_{10403} \\
\ell_{492} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{744961} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{744961} = \mathbf{Pl}(14, 6, 21, 6, 1, 0)_{10496} \\
\ell_{493} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{136225} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{136225} = \mathbf{Pl}(14, 6, 19, 6, 1, 0)_{10434} \\
\ell_{494} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{845921} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{845921} = \mathbf{Pl}(14, 6, 25, 6, 1, 0)_{10620} \\
\ell_{495} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{542049} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{542049} = \mathbf{Pl}(14, 6, 31, 6, 1, 0)_{10806} \\
\ell_{496} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{237249} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{237249} = \mathbf{Pl}(14, 6, 13, 6, 1, 0)_{10248} \\
\ell_{497} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{507873} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{507873} = \mathbf{Pl}(14, 6, 11, 6, 1, 0)_{10186} \\
\ell_{498} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{202977} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{202977} = \mathbf{Pl}(14, 6, 1, 6, 1, 0)_{9876}
\end{aligned}$$

$$\begin{aligned}
\ell_{499} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{372481} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{372481} = \mathbf{Pl}(14, 6, 15, 6, 1, 0)_{10310} \\
\ell_{500} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{811905} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{811905} = \mathbf{Pl}(14, 6, 9, 6, 1, 0)_{10124} \\
\ell_{501} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{68545} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{68545} = \mathbf{Pl}(14, 6, 3, 6, 1, 0)_{9938} \\
\ell_{502} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{981633} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{981633} = \mathbf{Pl}(14, 6, 5, 6, 1, 0)_{10000} \\
\ell_{503} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{1014881} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{1014881} = \mathbf{Pl}(14, 6, 23, 6, 1, 0)_{10558} \\
\ell_{504} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{880193} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{880193} = \mathbf{Pl}(14, 6, 17, 6, 1, 0)_{10372} \\
\ell_{505} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{271585} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{271585} = \mathbf{Pl}(14, 6, 27, 6, 1, 0)_{10682} \\
\ell_{506} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{169729} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{169729} = \mathbf{Pl}(14, 6, 29, 6, 1, 0)_{10744} \\
\ell_{507} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{575681} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{575681} = \mathbf{Pl}(14, 6, 26, 6, 1, 0)_{10651} \\
\ell_{508} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{338337} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{338337} = \mathbf{Pl}(14, 6, 28, 6, 1, 0)_{10713} \\
\ell_{509} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{710561} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{710561} = \mathbf{Pl}(14, 6, 22, 6, 1, 0)_{10527} \\
\ell_{510} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{1048897} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{1048897} = \mathbf{Pl}(14, 6, 16, 6, 1, 0)_{10341} \\
\ell_{511} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{102049} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{102049} = \mathbf{Pl}(14, 6, 2, 6, 1, 0)_{9907} \\
\ell_{512} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{642945} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{642945} = \mathbf{Pl}(14, 6, 4, 6, 1, 0)_{9969} \\
\ell_{513} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{676673} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{676673} = \mathbf{Pl}(14, 6, 14, 6, 1, 0)_{10279} \\
\ell_{514} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{913953} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{913953} = \mathbf{Pl}(14, 6, 8, 6, 1, 0)_{10093} \\
\ell_{515} &= \begin{bmatrix} 1 & \eta^8 & \eta^8 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{454509} = \begin{bmatrix} 1 & 13 & 13 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{454509} = \mathbf{Pl}(0, 13, 0, 13, 1, 0)_{3905} \\
\ell_{516} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{203169} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{203169} = \mathbf{Pl}(15, 13, 12, 13, 1, 0)_{16945} \\
\ell_{517} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{34305} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{34305} = \mathbf{Pl}(15, 13, 13, 13, 1, 0)_{16976} \\
\ell_{518} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{609505} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{609505} = \mathbf{Pl}(15, 13, 26, 13, 1, 0)_{17379} \\
\ell_{519} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{947233} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{947233} = \mathbf{Pl}(15, 13, 23, 13, 1, 0)_{17286}
\end{aligned}$$

$$\begin{aligned}
\ell_{520} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{305185} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{305185} = \mathbf{Pl}(15, 13, 17, 13, 1, 0)_{17100} \\
\ell_{521} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{778049} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{778049} = \mathbf{Pl}(15, 13, 28, 13, 1, 0)_{17441} \\
\ell_{522} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{474049} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{474049} = \mathbf{Pl}(15, 13, 11, 13, 1, 0)_{16914} \\
\ell_{523} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{406337} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{406337} = \mathbf{Pl}(15, 13, 6, 13, 1, 0)_{16759} \\
\ell_{524} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{744513} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{744513} = \mathbf{Pl}(15, 13, 7, 13, 1, 0)_{16790} \\
\ell_{525} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{136097} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{136097} = \mathbf{Pl}(15, 13, 10, 13, 1, 0)_{16883} \\
\ell_{526} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{846209} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{846209} = \mathbf{Pl}(15, 13, 29, 13, 1, 0)_{17472} \\
\ell_{527} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{541537} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{541537} = \mathbf{Pl}(15, 13, 16, 13, 1, 0)_{17069} \\
\ell_{528} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{237025} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{237025} = \mathbf{Pl}(15, 13, 22, 13, 1, 0)_{17255} \\
\ell_{529} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{508353} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{508353} = \mathbf{Pl}(15, 13, 27, 13, 1, 0)_{17410} \\
\ell_{530} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{439745} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{439745} = \mathbf{Pl}(15, 13, 1, 13, 1, 0)_{16604} \\
\ell_{531} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{372257} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{372257} = \mathbf{Pl}(15, 13, 14, 13, 1, 0)_{17007} \\
\ell_{532} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{812673} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{812673} = \mathbf{Pl}(15, 13, 3, 13, 1, 0)_{16666} \\
\ell_{533} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{68609} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{68609} = \mathbf{Pl}(15, 13, 20, 13, 1, 0)_{17193} \\
\ell_{534} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{981217} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{981217} = \mathbf{Pl}(15, 13, 25, 13, 1, 0)_{17348} \\
\ell_{535} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{1015585} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{1015585} = \mathbf{Pl}(15, 13, 31, 13, 1, 0)_{17534} \\
\ell_{536} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta \end{bmatrix}_{879489} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{879489} = \mathbf{Pl}(15, 13, 18, 13, 1, 0)_{17131} \\
\ell_{537} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{271329} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{271329} = \mathbf{Pl}(15, 13, 5, 13, 1, 0)_{16728} \\
\ell_{538} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{169825} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{169825} = \mathbf{Pl}(15, 13, 8, 13, 1, 0)_{16821} \\
\ell_{539} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{575137} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{575137} = \mathbf{Pl}(15, 13, 9, 13, 1, 0)_{16852} \\
\ell_{540} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{338529} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{338529} = \mathbf{Pl}(15, 13, 4, 13, 1, 0)_{16697}
\end{aligned}$$

$$\begin{aligned}
\ell_{541} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{711233} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{711233} = \mathbf{Pl}(15, 13, 19, 13, 1, 0)_{17162} \\
\ell_{542} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{1049185} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{1049185} = \mathbf{Pl}(15, 13, 30, 13, 1, 0)_{17503} \\
\ell_{543} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{102017} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{102017} = \mathbf{Pl}(15, 13, 24, 13, 1, 0)_{17317} \\
\ell_{544} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{643489} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{643489} = \mathbf{Pl}(15, 13, 21, 13, 1, 0)_{17224} \\
\ell_{545} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{677057} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{677057} = \mathbf{Pl}(15, 13, 2, 13, 1, 0)_{16635} \\
\ell_{546} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{913665} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{913665} = \mathbf{Pl}(15, 13, 15, 13, 1, 0)_{17038} \\
\ell_{547} &= \begin{bmatrix} 1 & \eta^{27} & \eta^{27} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{384747} = \begin{bmatrix} 1 & 11 & 11 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{384747} = \mathbf{Pl}(0, 11, 0, 11, 1, 0)_{3777} \\
\ell_{548} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{812577} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{812577} = \mathbf{Pl}(16, 11, 10, 11, 1, 0)_{14962} \\
\ell_{549} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{34337} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{34337} = \mathbf{Pl}(16, 11, 11, 11, 1, 0)_{14993} \\
\ell_{550} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{609089} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{609089} = \mathbf{Pl}(16, 11, 22, 11, 1, 0)_{15334} \\
\ell_{551} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{947681} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{947681} = \mathbf{Pl}(16, 11, 29, 11, 1, 0)_{15551} \\
\ell_{552} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{304545} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{304545} = \mathbf{Pl}(16, 11, 9, 11, 1, 0)_{14931} \\
\ell_{553} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{778529} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{778529} = \mathbf{Pl}(16, 11, 2, 11, 1, 0)_{14714} \\
\ell_{554} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{474401} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{474401} = \mathbf{Pl}(16, 11, 31, 11, 1, 0)_{15613} \\
\ell_{555} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{406849} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{406849} = \mathbf{Pl}(16, 11, 20, 11, 1, 0)_{15272} \\
\ell_{556} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{744193} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{744193} = \mathbf{Pl}(16, 11, 18, 11, 1, 0)_{15210} \\
\ell_{557} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{135617} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{135617} = \mathbf{Pl}(16, 11, 25, 11, 1, 0)_{15427} \\
\ell_{558} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{845889} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{845889} = \mathbf{Pl}(16, 11, 4, 11, 1, 0)_{14776} \\
\ell_{559} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{541601} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{541601} = \mathbf{Pl}(16, 11, 15, 11, 1, 0)_{15117} \\
\ell_{560} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{237761} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{237761} = \mathbf{Pl}(16, 11, 27, 11, 1, 0)_{15489} \\
\ell_{561} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{507713} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{507713} = \mathbf{Pl}(16, 11, 16, 11, 1, 0)_{15148}
\end{aligned}$$

$$\begin{aligned}
\ell_{562} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{203425} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{203425} = \mathbf{Pl}(16, 11, 13, 11, 1, 0)_{15055} \\
\ell_{563} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{440161} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{440161} = \mathbf{Pl}(16, 11, 6, 11, 1, 0)_{14838} \\
\ell_{564} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{372097} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{372097} = \mathbf{Pl}(16, 11, 1, 11, 1, 0)_{14683} \\
\ell_{565} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{67809} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{67809} = \mathbf{Pl}(16, 11, 23, 11, 1, 0)_{15365} \\
\ell_{566} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{980993} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{980993} = \mathbf{Pl}(16, 11, 28, 11, 1, 0)_{15520} \\
\ell_{567} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{1015425} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{1015425} = \mathbf{Pl}(16, 11, 8, 11, 1, 0)_{14900} \\
\ell_{568} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{880321} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{880321} = \mathbf{Pl}(16, 11, 3, 11, 1, 0)_{14745} \\
\ell_{569} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{271233} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{271233} = \mathbf{Pl}(16, 11, 30, 11, 1, 0)_{15582} \\
\ell_{570} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{169953} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{169953} = \mathbf{Pl}(16, 11, 21, 11, 1, 0)_{15303} \\
\ell_{571} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{575937} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{575937} = \mathbf{Pl}(16, 11, 19, 11, 1, 0)_{15241} \\
\ell_{572} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{338785} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{338785} = \mathbf{Pl}(16, 11, 24, 11, 1, 0)_{15396} \\
\ell_{573} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{711041} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{711041} = \mathbf{Pl}(16, 11, 5, 11, 1, 0)_{14807} \\
\ell_{574} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{1048737} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{1048737} = \mathbf{Pl}(16, 11, 14, 11, 1, 0)_{15086} \\
\ell_{575} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{102145} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{102145} = \mathbf{Pl}(16, 11, 26, 11, 1, 0)_{15458} \\
\ell_{576} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{643425} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{643425} = \mathbf{Pl}(16, 11, 17, 11, 1, 0)_{15179} \\
\ell_{577} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{676705} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{676705} = \mathbf{Pl}(16, 11, 12, 11, 1, 0)_{15024} \\
\ell_{578} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{913633} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{913633} = \mathbf{Pl}(16, 11, 7, 11, 1, 0)_{14869} \\
\ell_{579} &= \begin{bmatrix} 1 & \eta^{21} & \eta^{21} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{838200} = \begin{bmatrix} 1 & 24 & 24 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{838200} = \mathbf{Pl}(0, 24, 0, 24, 1, 0)_{4609} \\
\ell_{580} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{372385} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{372385} = \mathbf{Pl}(17, 24, 25, 24, 1, 0)_{27921} \\
\ell_{581} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{34369} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{34369} = \mathbf{Pl}(17, 24, 24, 24, 1, 0)_{27890} \\
\ell_{582} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{609665} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{609665} = \mathbf{Pl}(17, 24, 21, 24, 1, 0)_{27797}
\end{aligned}$$

$$\begin{aligned}
\ell_{583} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{947553} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{947553} = \mathbf{Pl}(17, 24, 13, 24, 1, 0)_{27549} \\
\ell_{584} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{304833} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{304833} = \mathbf{Pl}(17, 24, 15, 24, 1, 0)_{27611} \\
\ell_{585} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{778113} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{778113} = \mathbf{Pl}(17, 24, 23, 24, 1, 0)_{27859} \\
\ell_{586} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{474209} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{474209} = \mathbf{Pl}(17, 24, 26, 24, 1, 0)_{27952} \\
\ell_{587} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{406465} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{406465} = \mathbf{Pl}(17, 24, 2, 24, 1, 0)_{27208} \\
\ell_{588} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{744769} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{744769} = \mathbf{Pl}(17, 24, 30, 24, 1, 0)_{28076} \\
\ell_{589} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{135745} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{135745} = \mathbf{Pl}(17, 24, 6, 24, 1, 0)_{27332} \\
\ell_{590} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{846113} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{846113} = \mathbf{Pl}(17, 24, 11, 24, 1, 0)_{27487} \\
\ell_{591} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{542113} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{542113} = \mathbf{Pl}(17, 24, 19, 24, 1, 0)_{27735} \\
\ell_{592} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{237537} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{237537} = \mathbf{Pl}(17, 24, 17, 24, 1, 0)_{27673} \\
\ell_{593} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{507489} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{507489} = \mathbf{Pl}(17, 24, 9, 24, 1, 0)_{27425} \\
\ell_{594} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{203233} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{203233} = \mathbf{Pl}(17, 24, 4, 24, 1, 0)_{27270} \\
\ell_{595} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{439809} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{439809} = \mathbf{Pl}(17, 24, 28, 24, 1, 0)_{28014} \\
\ell_{596} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{811809} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{811809} = \mathbf{Pl}(17, 24, 1, 24, 1, 0)_{27177} \\
\ell_{597} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{67873} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{67873} = \mathbf{Pl}(17, 24, 12, 24, 1, 0)_{27518} \\
\ell_{598} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{981857} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{981857} = \mathbf{Pl}(17, 24, 20, 24, 1, 0)_{27766} \\
\ell_{599} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{1014977} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{1014977} = \mathbf{Pl}(17, 24, 22, 24, 1, 0)_{27828} \\
\ell_{600} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{879617} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{879617} = \mathbf{Pl}(17, 24, 14, 24, 1, 0)_{27580} \\
\ell_{601} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{271489} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{271489} = \mathbf{Pl}(17, 24, 3, 24, 1, 0)_{27239} \\
\ell_{602} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{170113} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{170113} = \mathbf{Pl}(17, 24, 27, 24, 1, 0)_{27983} \\
\ell_{603} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{575393} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{575393} = \mathbf{Pl}(17, 24, 7, 24, 1, 0)_{27363}
\end{aligned}$$

$$\begin{aligned}
\ell_{604} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{339105} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{339105} = \mathbf{Pl}(17, 24, 31, 24, 1, 0)_{28107} \\
\ell_{605} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{710369} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{710369} = \mathbf{Pl}(17, 24, 18, 24, 1, 0)_{27704} \\
\ell_{606} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{1049345} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{1049345} = \mathbf{Pl}(17, 24, 10, 24, 1, 0)_{27456} \\
\ell_{607} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{102177} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{102177} = \mathbf{Pl}(17, 24, 8, 24, 1, 0)_{27394} \\
\ell_{608} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{643009} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{643009} = \mathbf{Pl}(17, 24, 16, 24, 1, 0)_{27642} \\
\ell_{609} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{677089} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{677089} = \mathbf{Pl}(17, 24, 29, 24, 1, 0)_{28045} \\
\ell_{610} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{913985} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{913985} = \mathbf{Pl}(17, 24, 5, 24, 1, 0)_{27301} \\
\ell_{611} &= \begin{bmatrix} 1 & \eta & \eta & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{70818} = \begin{bmatrix} 1 & 2 & 2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{70818} = \mathbf{Pl}(0, 2, 0, 2, 1, 0)_{3201} \\
\ell_{612} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{981793} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{981793} = \mathbf{Pl}(18, 2, 3, 2, 1, 0)_{6098} \\
\ell_{613} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{34401} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{34401} = \mathbf{Pl}(18, 2, 2, 2, 1, 0)_{6067} \\
\ell_{614} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{609121} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{609121} = \mathbf{Pl}(18, 2, 4, 2, 1, 0)_{6129} \\
\ell_{615} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{947521} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{947521} = \mathbf{Pl}(18, 2, 6, 2, 1, 0)_{6191} \\
\ell_{616} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{305121} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{305121} = \mathbf{Pl}(18, 2, 8, 2, 1, 0)_{6253} \\
\ell_{617} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{778753} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{778753} = \mathbf{Pl}(18, 2, 10, 2, 1, 0)_{6315} \\
\ell_{618} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{473761} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{473761} = \mathbf{Pl}(18, 2, 12, 2, 1, 0)_{6377} \\
\ell_{619} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{406081} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{406081} = \mathbf{Pl}(18, 2, 14, 2, 1, 0)_{6439} \\
\ell_{620} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{744481} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{744481} = \mathbf{Pl}(18, 2, 16, 2, 1, 0)_{6501} \\
\ell_{621} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta \end{bmatrix}_{135361} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{135361} = \mathbf{Pl}(18, 2, 18, 2, 1, 0)_{6563} \\
\ell_{622} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{846561} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{846561} = \mathbf{Pl}(18, 2, 20, 2, 1, 0)_{6625} \\
\ell_{623} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{541441} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{541441} = \mathbf{Pl}(18, 2, 22, 2, 1, 0)_{6687} \\
\ell_{624} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{237313} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{237313} = \mathbf{Pl}(18, 2, 24, 2, 1, 0)_{6749}
\end{aligned}$$

$$\begin{aligned}
\ell_{625} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{508033} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{508033} = \mathbf{Pl}(18, 2, 26, 2, 1, 0)_{6811} \\
\ell_{626} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{203041} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{203041} = \mathbf{Pl}(18, 2, 28, 2, 1, 0)_{6873} \\
\ell_{627} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{440353} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{440353} = \mathbf{Pl}(18, 2, 30, 2, 1, 0)_{6935} \\
\ell_{628} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{372801} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{372801} = \mathbf{Pl}(18, 2, 5, 2, 1, 0)_{6160} \\
\ell_{629} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{812161} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{812161} = \mathbf{Pl}(18, 2, 7, 2, 1, 0)_{6222} \\
\ell_{630} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & 1 \end{bmatrix}_{67681} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{67681} = \mathbf{Pl}(18, 2, 1, 2, 1, 0)_{6036} \\
\ell_{631} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{1015201} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{1015201} = \mathbf{Pl}(18, 2, 13, 2, 1, 0)_{6408} \\
\ell_{632} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{879841} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{879841} = \mathbf{Pl}(18, 2, 15, 2, 1, 0)_{6470} \\
\ell_{633} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{270721} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{270721} = \mathbf{Pl}(18, 2, 9, 2, 1, 0)_{6284} \\
\ell_{634} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{169633} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{169633} = \mathbf{Pl}(18, 2, 11, 2, 1, 0)_{6346} \\
\ell_{635} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{575841} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{575841} = \mathbf{Pl}(18, 2, 21, 2, 1, 0)_{6656} \\
\ell_{636} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{338401} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{338401} = \mathbf{Pl}(18, 2, 23, 2, 1, 0)_{6718} \\
\ell_{637} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{711073} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{711073} = \mathbf{Pl}(18, 2, 17, 2, 1, 0)_{6532} \\
\ell_{638} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{1049473} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{1049473} = \mathbf{Pl}(18, 2, 19, 2, 1, 0)_{6594} \\
\ell_{639} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{102081} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{102081} = \mathbf{Pl}(18, 2, 29, 2, 1, 0)_{6904} \\
\ell_{640} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{643521} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{643521} = \mathbf{Pl}(18, 2, 31, 2, 1, 0)_{6966} \\
\ell_{641} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{676801} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{676801} = \mathbf{Pl}(18, 2, 25, 2, 1, 0)_{6780} \\
\ell_{642} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{914241} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{914241} = \mathbf{Pl}(18, 2, 27, 2, 1, 0)_{6842} \\
\ell_{643} &= \begin{bmatrix} 1 & \eta^{14} & \eta^{14} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1012605} = \begin{bmatrix} 1 & 29 & 29 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1012605} = \mathbf{Pl}(0, 29, 0, 29, 1, 0)_{4929} \\
\ell_{644} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{67745} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{67745} = \mathbf{Pl}(19, 29, 28, 29, 1, 0)_{32821} \\
\ell_{645} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{34433} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{34433} = \mathbf{Pl}(19, 29, 29, 29, 1, 0)_{32852}
\end{aligned}$$

$$\begin{aligned}
\ell_{646} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{609697} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{609697} = \mathbf{Pl}(19, 29, 31, 29, 1, 0)_{32914} \\
\ell_{647} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{947649} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{947649} = \mathbf{Pl}(19, 29, 2, 29, 1, 0)_{32015} \\
\ell_{648} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{305409} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{305409} = \mathbf{Pl}(19, 29, 27, 29, 1, 0)_{32790} \\
\ell_{649} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{778401} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{778401} = \mathbf{Pl}(19, 29, 6, 29, 1, 0)_{32139} \\
\ell_{650} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{473825} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{473825} = \mathbf{Pl}(19, 29, 4, 29, 1, 0)_{32077} \\
\ell_{651} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{406209} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{406209} = \mathbf{Pl}(19, 29, 25, 29, 1, 0)_{32728} \\
\ell_{652} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{745057} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{745057} = \mathbf{Pl}(19, 29, 19, 29, 1, 0)_{32542} \\
\ell_{653} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{135489} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{135489} = \mathbf{Pl}(19, 29, 14, 29, 1, 0)_{32387} \\
\ell_{654} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{845825} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{845825} = \mathbf{Pl}(19, 29, 12, 29, 1, 0)_{32325} \\
\ell_{655} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{541953} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{541953} = \mathbf{Pl}(19, 29, 17, 29, 1, 0)_{32480} \\
\ell_{656} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{237473} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{237473} = \mathbf{Pl}(19, 29, 8, 29, 1, 0)_{32201} \\
\ell_{657} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{508193} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{508193} = \mathbf{Pl}(19, 29, 21, 29, 1, 0)_{32604} \\
\ell_{658} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{203105} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{203105} = \mathbf{Pl}(19, 29, 23, 29, 1, 0)_{32666} \\
\ell_{659} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{440513} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{440513} = \mathbf{Pl}(19, 29, 10, 29, 1, 0)_{32263} \\
\ell_{660} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{372961} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{372961} = \mathbf{Pl}(19, 29, 3, 29, 1, 0)_{32046} \\
\ell_{661} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{812417} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{812417} = \mathbf{Pl}(19, 29, 30, 29, 1, 0)_{32883} \\
\ell_{662} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{980929} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{980929} = \mathbf{Pl}(19, 29, 1, 29, 1, 0)_{31984} \\
\ell_{663} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{1015265} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{1015265} = \mathbf{Pl}(19, 29, 24, 29, 1, 0)_{32697} \\
\ell_{664} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{880161} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{880161} = \mathbf{Pl}(19, 29, 5, 29, 1, 0)_{32108} \\
\ell_{665} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{270977} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{270977} = \mathbf{Pl}(19, 29, 7, 29, 1, 0)_{32170} \\
\ell_{666} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{169793} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{169793} = \mathbf{Pl}(19, 29, 26, 29, 1, 0)_{32759}
\end{aligned}$$

$$\begin{aligned}
\ell_{667} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{575361} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{575361} = \mathbf{Pl}(19, 29, 16, 29, 1, 0)_{32449} \\
\ell_{668} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{338721} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{338721} = \mathbf{Pl}(19, 29, 13, 29, 1, 0)_{32356} \\
\ell_{669} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{710721} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{710721} = \mathbf{Pl}(19, 29, 15, 29, 1, 0)_{32418} \\
\ell_{670} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{1048609} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{1048609} = \mathbf{Pl}(19, 29, 18, 29, 1, 0)_{32511} \\
\ell_{671} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{101985} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{101985} = \mathbf{Pl}(19, 29, 11, 29, 1, 0)_{32294} \\
\ell_{672} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{642913} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{642913} = \mathbf{Pl}(19, 29, 22, 29, 1, 0)_{32635} \\
\ell_{673} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{677441} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{677441} = \mathbf{Pl}(19, 29, 20, 29, 1, 0)_{32573} \\
\ell_{674} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{913377} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{913377} = \mathbf{Pl}(19, 29, 9, 29, 1, 0)_{32232} \\
\ell_{675} &= \begin{bmatrix} 1 & \eta^{24} & \eta^{24} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1047486} = \begin{bmatrix} 1 & 30 & 30 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1047486} = \mathbf{Pl}(0, 30, 0, 30, 1, 0)_{4993} \\
\ell_{676} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{880289} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{880289} = \mathbf{Pl}(20, 30, 31, 30, 1, 0)_{33876} \\
\ell_{677} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{34465} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{34465} = \mathbf{Pl}(20, 30, 30, 30, 1, 0)_{33845} \\
\ell_{678} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{609153} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{609153} = \mathbf{Pl}(20, 30, 25, 30, 1, 0)_{33690} \\
\ell_{679} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{947457} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{947457} = \mathbf{Pl}(20, 30, 7, 30, 1, 0)_{33132} \\
\ell_{680} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{304577} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{304577} = \mathbf{Pl}(20, 30, 23, 30, 1, 0)_{33628} \\
\ell_{681} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{778081} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{778081} = \mathbf{Pl}(20, 30, 9, 30, 1, 0)_{33194} \\
\ell_{682} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{473729} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{473729} = \mathbf{Pl}(20, 30, 14, 30, 1, 0)_{33349} \\
\ell_{683} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{406241} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{406241} = \mathbf{Pl}(20, 30, 16, 30, 1, 0)_{33411} \\
\ell_{684} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{744641} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{744641} = \mathbf{Pl}(20, 30, 11, 30, 1, 0)_{33256} \\
\ell_{685} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{136129} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{136129} = \mathbf{Pl}(20, 30, 21, 30, 1, 0)_{33566} \\
\ell_{686} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{845665} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{845665} = \mathbf{Pl}(20, 30, 18, 30, 1, 0)_{33473} \\
\ell_{687} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{541409} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{541409} = \mathbf{Pl}(20, 30, 12, 30, 1, 0)_{33287}
\end{aligned}$$

$$\begin{aligned}
\ell_{688} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{236865} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{236865} = \mathbf{Pl}(20, 30, 28, 30, 1, 0)_{33783} \\
\ell_{689} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{507937} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{507937} = \mathbf{Pl}(20, 30, 2, 30, 1, 0)_{32977} \\
\ell_{690} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{203681} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{203681} = \mathbf{Pl}(20, 30, 5, 30, 1, 0)_{33070} \\
\ell_{691} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{440705} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{440705} = \mathbf{Pl}(20, 30, 27, 30, 1, 0)_{33752} \\
\ell_{692} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{372321} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{372321} = \mathbf{Pl}(20, 30, 22, 30, 1, 0)_{33597} \\
\ell_{693} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{812481} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{812481} = \mathbf{Pl}(20, 30, 8, 30, 1, 0)_{33163} \\
\ell_{694} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{68065} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{68065} = \mathbf{Pl}(20, 30, 15, 30, 1, 0)_{33380} \\
\ell_{695} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{981665} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{981665} = \mathbf{Pl}(20, 30, 17, 30, 1, 0)_{33442} \\
\ell_{696} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{1014753} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{1014753} = \mathbf{Pl}(20, 30, 1, 30, 1, 0)_{32946} \\
\ell_{697} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{271137} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{271137} = \mathbf{Pl}(20, 30, 24, 30, 1, 0)_{33659} \\
\ell_{698} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{169569} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{169569} = \mathbf{Pl}(20, 30, 6, 30, 1, 0)_{33101} \\
\ell_{699} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{575617} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{575617} = \mathbf{Pl}(20, 30, 29, 30, 1, 0)_{33814} \\
\ell_{700} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{339137} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{339137} = \mathbf{Pl}(20, 30, 3, 30, 1, 0)_{33008} \\
\ell_{701} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{710593} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{710593} = \mathbf{Pl}(20, 30, 4, 30, 1, 0)_{33039} \\
\ell_{702} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{1049217} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{1049217} = \mathbf{Pl}(20, 30, 26, 30, 1, 0)_{33721} \\
\ell_{703} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{102273} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{102273} = \mathbf{Pl}(20, 30, 10, 30, 1, 0)_{33225} \\
\ell_{704} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{643617} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{643617} = \mathbf{Pl}(20, 30, 20, 30, 1, 0)_{33535} \\
\ell_{705} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{677409} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{677409} = \mathbf{Pl}(20, 30, 19, 30, 1, 0)_{33504} \\
\ell_{706} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{913729} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{913729} = \mathbf{Pl}(20, 30, 13, 30, 1, 0)_{33318} \\
\ell_{707} &= \begin{bmatrix} 1 & \eta^9 & \eta^9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{907962} = \begin{bmatrix} 1 & 26 & 26 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{907962} = \mathbf{Pl}(0, 26, 0, 26, 1, 0)_{4737} \\
\ell_{708} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{1015713} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{1015713} = \mathbf{Pl}(21, 26, 27, 26, 1, 0)_{29909}
\end{aligned}$$

$$\begin{aligned}
\ell_{709} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{34497} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{34497} = \mathbf{Pl}(21, 26, 26, 26, 1, 0)_{29878} \\
\ell_{710} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{609601} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{609601} = \mathbf{Pl}(21, 26, 17, 26, 1, 0)_{29599} \\
\ell_{711} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{947585} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{947585} = \mathbf{Pl}(21, 26, 11, 26, 1, 0)_{29413} \\
\ell_{712} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{304801} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{304801} = \mathbf{Pl}(21, 26, 7, 26, 1, 0)_{29289} \\
\ell_{713} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{778561} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{778561} = \mathbf{Pl}(21, 26, 29, 26, 1, 0)_{29971} \\
\ell_{714} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{473793} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{473793} = \mathbf{Pl}(21, 26, 22, 26, 1, 0)_{29754} \\
\ell_{715} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{406113} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{406113} = \mathbf{Pl}(21, 26, 12, 26, 1, 0)_{29444} \\
\ell_{716} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{744321} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{744321} = \mathbf{Pl}(21, 26, 14, 26, 1, 0)_{29506} \\
\ell_{717} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{136257} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{136257} = \mathbf{Pl}(21, 26, 20, 26, 1, 0)_{29692} \\
\ell_{718} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{846465} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{846465} = \mathbf{Pl}(21, 26, 31, 26, 1, 0)_{30033} \\
\ell_{719} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{541921} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{541921} = \mathbf{Pl}(21, 26, 5, 26, 1, 0)_{29227} \\
\ell_{720} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{236897} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{236897} = \mathbf{Pl}(21, 26, 9, 26, 1, 0)_{29351} \\
\ell_{721} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{508289} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{508289} = \mathbf{Pl}(21, 26, 19, 26, 1, 0)_{29661} \\
\ell_{722} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{203489} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{203489} = \mathbf{Pl}(21, 26, 24, 26, 1, 0)_{29816} \\
\ell_{723} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{440289} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{440289} = \mathbf{Pl}(21, 26, 2, 26, 1, 0)_{29134} \\
\ell_{724} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{372161} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{372161} = \mathbf{Pl}(21, 26, 28, 26, 1, 0)_{29940} \\
\ell_{725} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{812225} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{812225} = \mathbf{Pl}(21, 26, 6, 26, 1, 0)_{29258} \\
\ell_{726} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{68129} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{68129} = \mathbf{Pl}(21, 26, 13, 26, 1, 0)_{29475} \\
\ell_{727} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{981057} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{981057} = \mathbf{Pl}(21, 26, 23, 26, 1, 0)_{29785} \\
\ell_{728} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{879457} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{879457} = \mathbf{Pl}(21, 26, 1, 26, 1, 0)_{29103} \\
\ell_{729} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{271393} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{271393} = \mathbf{Pl}(21, 26, 10, 26, 1, 0)_{29382}
\end{aligned}$$

$$\begin{aligned}
\ell_{730} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{169473} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{169473} = \mathbf{Pl}(21, 26, 16, 26, 1, 0)_{29568} \\
\ell_{731} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{575073} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{575073} = \mathbf{Pl}(21, 26, 18, 26, 1, 0)_{29630} \\
\ell_{732} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{338945} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{338945} = \mathbf{Pl}(21, 26, 8, 26, 1, 0)_{29320} \\
\ell_{733} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{711201} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{711201} = \mathbf{Pl}(21, 26, 3, 26, 1, 0)_{29165} \\
\ell_{734} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{1048865} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{1048865} = \mathbf{Pl}(21, 26, 25, 26, 1, 0)_{29847} \\
\ell_{735} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{102305} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{102305} = \mathbf{Pl}(21, 26, 21, 26, 1, 0)_{29723} \\
\ell_{736} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{643073} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{643073} = \mathbf{Pl}(21, 26, 15, 26, 1, 0)_{29537} \\
\ell_{737} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{676769} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{676769} = \mathbf{Pl}(21, 26, 4, 26, 1, 0)_{29196} \\
\ell_{738} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{913889} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{913889} = \mathbf{Pl}(21, 26, 30, 26, 1, 0)_{30002} \\
\ell_{739} &= \begin{bmatrix} 1 & \eta^3 & \eta^3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{280104} = \begin{bmatrix} 1 & 8 & 8 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{280104} = \mathbf{Pl}(0, 8, 0, 8, 1, 0)_{3585} \\
\ell_{740} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{169249} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{169249} = \mathbf{Pl}(22, 8, 9, 8, 1, 0)_{12054} \\
\ell_{741} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{34529} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{34529} = \mathbf{Pl}(22, 8, 8, 8, 1, 0)_{12023} \\
\ell_{742} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{609185} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{609185} = \mathbf{Pl}(22, 8, 16, 8, 1, 0)_{12271} \\
\ell_{743} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{947617} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{947617} = \mathbf{Pl}(22, 8, 24, 8, 1, 0)_{12519} \\
\ell_{744} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{305153} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{305153} = \mathbf{Pl}(22, 8, 5, 8, 1, 0)_{11930} \\
\ell_{745} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{778433} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{778433} = \mathbf{Pl}(22, 8, 13, 8, 1, 0)_{12178} \\
\ell_{746} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{474369} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{474369} = \mathbf{Pl}(22, 8, 21, 8, 1, 0)_{12426} \\
\ell_{747} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{406497} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{406497} = \mathbf{Pl}(22, 8, 29, 8, 1, 0)_{12674} \\
\ell_{748} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{744929} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{744929} = \mathbf{Pl}(22, 8, 10, 8, 1, 0)_{12085} \\
\ell_{749} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{135873} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{135873} = \mathbf{Pl}(22, 8, 2, 8, 1, 0)_{11837} \\
\ell_{750} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{846273} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{846273} = \mathbf{Pl}(22, 8, 26, 8, 1, 0)_{12581}
\end{aligned}$$

$$\begin{aligned}
\ell_{751} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta \end{bmatrix}_{541249} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{541249} = \mathbf{Pl}(22, 8, 18, 8, 1, 0)_{12333} \\
\ell_{752} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{237185} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{237185} = \mathbf{Pl}(22, 8, 15, 8, 1, 0)_{12240} \\
\ell_{753} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{507745} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{507745} = \mathbf{Pl}(22, 8, 7, 8, 1, 0)_{11992} \\
\ell_{754} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{203809} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{203809} = \mathbf{Pl}(22, 8, 31, 8, 1, 0)_{12736} \\
\ell_{755} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{439873} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{439873} = \mathbf{Pl}(22, 8, 23, 8, 1, 0)_{12488} \\
\ell_{756} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{373025} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{373025} = \mathbf{Pl}(22, 8, 20, 8, 1, 0)_{12395} \\
\ell_{757} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{811873} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{811873} = \mathbf{Pl}(22, 8, 28, 8, 1, 0)_{12643} \\
\ell_{758} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{67937} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{67937} = \mathbf{Pl}(22, 8, 4, 8, 1, 0)_{11899} \\
\ell_{759} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{981121} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{981121} = \mathbf{Pl}(22, 8, 12, 8, 1, 0)_{12147} \\
\ell_{760} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{1015489} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{1015489} = \mathbf{Pl}(22, 8, 17, 8, 1, 0)_{12302} \\
\ell_{761} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{879745} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{879745} = \mathbf{Pl}(22, 8, 25, 8, 1, 0)_{12550} \\
\ell_{762} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{270625} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{270625} = \mathbf{Pl}(22, 8, 1, 8, 1, 0)_{11806} \\
\ell_{763} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{575649} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{575649} = \mathbf{Pl}(22, 8, 30, 8, 1, 0)_{12705} \\
\ell_{764} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{338497} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{338497} = \mathbf{Pl}(22, 8, 22, 8, 1, 0)_{12457} \\
\ell_{765} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{710497} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{710497} = \mathbf{Pl}(22, 8, 14, 8, 1, 0)_{12209} \\
\ell_{766} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{1048993} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{1048993} = \mathbf{Pl}(22, 8, 6, 8, 1, 0)_{11961} \\
\ell_{767} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{102465} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{102465} = \mathbf{Pl}(22, 8, 27, 8, 1, 0)_{12612} \\
\ell_{768} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{643585} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{643585} = \mathbf{Pl}(22, 8, 19, 8, 1, 0)_{12364} \\
\ell_{769} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{676993} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{676993} = \mathbf{Pl}(22, 8, 11, 8, 1, 0)_{12116} \\
\ell_{770} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{914145} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{914145} = \mathbf{Pl}(22, 8, 3, 8, 1, 0)_{11868} \\
\ell_{771} &= \begin{bmatrix} 1 & \eta^5 & \eta^5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{175461} = \begin{bmatrix} 1 & 5 & 5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{175461} = \mathbf{Pl}(0, 5, 0, 5, 1, 0)_{3393}
\end{aligned}$$

$$\begin{aligned}
\ell_{772} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{270881} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{270881} = \mathbf{Pl}(23, 5, 4, 5, 1, 0)_{9017} \\
\ell_{773} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{34561} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{34561} = \mathbf{Pl}(23, 5, 5, 5, 1, 0)_{9048} \\
\ell_{774} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{609633} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{609633} = \mathbf{Pl}(23, 5, 10, 5, 1, 0)_{9203} \\
\ell_{775} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{947489} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{947489} = \mathbf{Pl}(23, 5, 15, 5, 1, 0)_{9358} \\
\ell_{776} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{305377} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{305377} = \mathbf{Pl}(23, 5, 20, 5, 1, 0)_{9513} \\
\ell_{777} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{778721} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{778721} = \mathbf{Pl}(23, 5, 17, 5, 1, 0)_{9420} \\
\ell_{778} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{474177} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{474177} = \mathbf{Pl}(23, 5, 30, 5, 1, 0)_{9823} \\
\ell_{779} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{406881} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{406881} = \mathbf{Pl}(23, 5, 27, 5, 1, 0)_{9730} \\
\ell_{780} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{744609} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{744609} = \mathbf{Pl}(23, 5, 13, 5, 1, 0)_{9296} \\
\ell_{781} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{136001} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{136001} = \mathbf{Pl}(23, 5, 8, 5, 1, 0)_{9141} \\
\ell_{782} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{845985} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{845985} = \mathbf{Pl}(23, 5, 7, 5, 1, 0)_{9110} \\
\ell_{783} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{541761} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{541761} = \mathbf{Pl}(23, 5, 2, 5, 1, 0)_{8955} \\
\ell_{784} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{237089} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{237089} = \mathbf{Pl}(23, 5, 25, 5, 1, 0)_{9668} \\
\ell_{785} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{507457} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{507457} = \mathbf{Pl}(23, 5, 28, 5, 1, 0)_{9761} \\
\ell_{786} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{203873} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{203873} = \mathbf{Pl}(23, 5, 19, 5, 1, 0)_{9482} \\
\ell_{787} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{439969} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{439969} = \mathbf{Pl}(23, 5, 22, 5, 1, 0)_{9575} \\
\ell_{788} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{372737} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{372737} = \mathbf{Pl}(23, 5, 26, 5, 1, 0)_{9699} \\
\ell_{789} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{812641} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{812641} = \mathbf{Pl}(23, 5, 31, 5, 1, 0)_{9854} \\
\ell_{790} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{68001} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{68001} = \mathbf{Pl}(23, 5, 16, 5, 1, 0)_{9389} \\
\ell_{791} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{981729} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{981729} = \mathbf{Pl}(23, 5, 21, 5, 1, 0)_{9544} \\
\ell_{792} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{1014913} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{1014913} = \mathbf{Pl}(23, 5, 14, 5, 1, 0)_{9327}
\end{aligned}$$

$$\begin{aligned}
\ell_{793} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{879937} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{879937} = \mathbf{Pl}(23, 5, 11, 5, 1, 0)_{9234} \\
\ell_{794} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{169153} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{169153} = \mathbf{Pl}(23, 5, 1, 5, 1, 0)_{8924} \\
\ell_{795} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{575169} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{575169} = \mathbf{Pl}(23, 5, 23, 5, 1, 0)_{9606} \\
\ell_{796} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta \end{bmatrix}_{338305} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{338305} = \mathbf{Pl}(23, 5, 18, 5, 1, 0)_{9451} \\
\ell_{797} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{710913} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{710913} = \mathbf{Pl}(23, 5, 29, 5, 1, 0)_{9792} \\
\ell_{798} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{1049089} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{1049089} = \mathbf{Pl}(23, 5, 24, 5, 1, 0)_{9637} \\
\ell_{799} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{102369} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{102369} = \mathbf{Pl}(23, 5, 3, 5, 1, 0)_{8986} \\
\ell_{800} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{643105} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{643105} = \mathbf{Pl}(23, 5, 6, 5, 1, 0)_{9079} \\
\ell_{801} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{676609} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{676609} = \mathbf{Pl}(23, 5, 9, 5, 1, 0)_{9172} \\
\ell_{802} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{913473} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{913473} = \mathbf{Pl}(23, 5, 12, 5, 1, 0)_{9265} \\
\ell_{803} &= \begin{bmatrix} 1 & \eta^{10} & \eta^{10} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{594033} = \begin{bmatrix} 1 & 17 & 17 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{594033} = \mathbf{Pl}(0, 17, 0, 17, 1, 0)_{4161} \\
\ell_{804} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{338593} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{338593} = \mathbf{Pl}(24, 17, 16, 17, 1, 0)_{20922} \\
\ell_{805} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{34593} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{34593} = \mathbf{Pl}(24, 17, 17, 17, 1, 0)_{20953} \\
\ell_{806} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{609217} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{609217} = \mathbf{Pl}(24, 17, 7, 17, 1, 0)_{20643} \\
\ell_{807} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{947329} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{947329} = \mathbf{Pl}(24, 17, 22, 17, 1, 0)_{21108} \\
\ell_{808} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{304609} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{304609} = \mathbf{Pl}(24, 17, 14, 17, 1, 0)_{20860} \\
\ell_{809} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{778817} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{778817} = \mathbf{Pl}(24, 17, 31, 17, 1, 0)_{21387} \\
\ell_{810} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{473665} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{473665} = \mathbf{Pl}(24, 17, 9, 17, 1, 0)_{20705} \\
\ell_{811} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{406433} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{406433} = \mathbf{Pl}(24, 17, 24, 17, 1, 0)_{21170} \\
\ell_{812} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{744225} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{744225} = \mathbf{Pl}(24, 17, 28, 17, 1, 0)_{21294} \\
\ell_{813} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{135777} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{135777} = \mathbf{Pl}(24, 17, 13, 17, 1, 0)_{20829}
\end{aligned}$$

$$\begin{aligned}
\ell_{814} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{846593} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{846593} = \mathbf{Pl}(24, 17, 27, 17, 1, 0)_{21263} \\
\ell_{815} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{541985} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{541985} = \mathbf{Pl}(24, 17, 10, 17, 1, 0)_{20736} \\
\ell_{816} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{236833} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{236833} = \mathbf{Pl}(24, 17, 18, 17, 1, 0)_{20984} \\
\ell_{817} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{508257} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{508257} = \mathbf{Pl}(24, 17, 3, 17, 1, 0)_{20519} \\
\ell_{818} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{203777} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{203777} = \mathbf{Pl}(24, 17, 21, 17, 1, 0)_{21077} \\
\ell_{819} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{440001} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{440001} = \mathbf{Pl}(24, 17, 4, 17, 1, 0)_{20550} \\
\ell_{820} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{372673} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{372673} = \mathbf{Pl}(24, 17, 29, 17, 1, 0)_{21325} \\
\ell_{821} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{812001} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{812001} = \mathbf{Pl}(24, 17, 12, 17, 1, 0)_{20798} \\
\ell_{822} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{68321} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{68321} = \mathbf{Pl}(24, 17, 26, 17, 1, 0)_{21232} \\
\ell_{823} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{981409} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{981409} = \mathbf{Pl}(24, 17, 11, 17, 1, 0)_{20767} \\
\ell_{824} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{1015649} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{1015649} = \mathbf{Pl}(24, 17, 19, 17, 1, 0)_{21015} \\
\ell_{825} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{880001} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{880001} = \mathbf{Pl}(24, 17, 2, 17, 1, 0)_{20488} \\
\ell_{826} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{271553} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{271553} = \mathbf{Pl}(24, 17, 20, 17, 1, 0)_{21046} \\
\ell_{827} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{169857} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{169857} = \mathbf{Pl}(24, 17, 5, 17, 1, 0)_{20581} \\
\ell_{828} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{575041} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{575041} = \mathbf{Pl}(24, 17, 1, 17, 1, 0)_{20457} \\
\ell_{829} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{710753} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{710753} = \mathbf{Pl}(24, 17, 6, 17, 1, 0)_{20612} \\
\ell_{830} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{1048705} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{1048705} = \mathbf{Pl}(24, 17, 23, 17, 1, 0)_{21139} \\
\ell_{831} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{101889} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{101889} = \mathbf{Pl}(24, 17, 15, 17, 1, 0)_{20891} \\
\ell_{832} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{643297} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{643297} = \mathbf{Pl}(24, 17, 30, 17, 1, 0)_{21356} \\
\ell_{833} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{677185} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{677185} = \mathbf{Pl}(24, 17, 8, 17, 1, 0)_{20674} \\
\ell_{834} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{913569} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{913569} = \mathbf{Pl}(24, 17, 25, 17, 1, 0)_{21201}
\end{aligned}$$

$$\begin{aligned}
\ell_{835} &= \begin{bmatrix} 1 & \eta^6 & \eta^6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{349866} = \begin{bmatrix} 1 & 10 & 10 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{349866} = \mathbf{Pl}(0, 10, 0, 10, 1, 0)_{3713} \\
\ell_{836} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{575521} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{575521} = \mathbf{Pl}(25, 10, 11, 10, 1, 0)_{14041} \\
\ell_{837} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{34625} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{34625} = \mathbf{Pl}(25, 10, 10, 10, 1, 0)_{14010} \\
\ell_{838} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{609793} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{609793} = \mathbf{Pl}(25, 10, 20, 10, 1, 0)_{14320} \\
\ell_{839} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{947713} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{947713} = \mathbf{Pl}(25, 10, 30, 10, 1, 0)_{14630} \\
\ell_{840} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{304897} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{304897} = \mathbf{Pl}(25, 10, 13, 10, 1, 0)_{14103} \\
\ell_{841} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{778337} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{778337} = \mathbf{Pl}(25, 10, 7, 10, 1, 0)_{13917} \\
\ell_{842} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{473857} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{473857} = \mathbf{Pl}(25, 10, 25, 10, 1, 0)_{14475} \\
\ell_{843} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{406817} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{406817} = \mathbf{Pl}(25, 10, 19, 10, 1, 0)_{14289} \\
\ell_{844} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{744801} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{744801} = \mathbf{Pl}(25, 10, 26, 10, 1, 0)_{14506} \\
\ell_{845} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{135649} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{135649} = \mathbf{Pl}(25, 10, 16, 10, 1, 0)_{14196} \\
\ell_{846} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{845793} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{845793} = \mathbf{Pl}(25, 10, 14, 10, 1, 0)_{14134} \\
\ell_{847} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{541473} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{541473} = \mathbf{Pl}(25, 10, 4, 10, 1, 0)_{13824} \\
\ell_{848} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{236929} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{236929} = \mathbf{Pl}(25, 10, 23, 10, 1, 0)_{14413} \\
\ell_{849} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{507969} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{507969} = \mathbf{Pl}(25, 10, 29, 10, 1, 0)_{14599} \\
\ell_{850} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{203841} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{203841} = \mathbf{Pl}(25, 10, 3, 10, 1, 0)_{13793} \\
\ell_{851} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{439841} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{439841} = \mathbf{Pl}(25, 10, 9, 10, 1, 0)_{13979} \\
\ell_{852} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{372833} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{372833} = \mathbf{Pl}(25, 10, 17, 10, 1, 0)_{14227} \\
\ell_{853} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{812769} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{812769} = \mathbf{Pl}(25, 10, 27, 10, 1, 0)_{14537} \\
\ell_{854} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{68385} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{68385} = \mathbf{Pl}(25, 10, 5, 10, 1, 0)_{13855} \\
\ell_{855} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{981313} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{981313} = \mathbf{Pl}(25, 10, 15, 10, 1, 0)_{14165}
\end{aligned}$$

$$\begin{aligned}
\ell_{856} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{1014817} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{1014817} = \mathbf{Pl}(25, 10, 28, 10, 1, 0)_{14568} \\
\ell_{857} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{879681} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{879681} = \mathbf{Pl}(25, 10, 22, 10, 1, 0)_{14382} \\
\ell_{858} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{271297} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{271297} = \mathbf{Pl}(25, 10, 8, 10, 1, 0)_{13948} \\
\ell_{859} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{169697} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{169697} = \mathbf{Pl}(25, 10, 2, 10, 1, 0)_{13762} \\
\ell_{860} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{338273} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{338273} = \mathbf{Pl}(25, 10, 1, 10, 1, 0)_{13731} \\
\ell_{861} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{711169} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{711169} = \mathbf{Pl}(25, 10, 31, 10, 1, 0)_{14661} \\
\ell_{862} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{1049377} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{1049377} = \mathbf{Pl}(25, 10, 21, 10, 1, 0)_{14351} \\
\ell_{863} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{101921} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{101921} = \mathbf{Pl}(25, 10, 6, 10, 1, 0)_{13886} \\
\ell_{864} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{642881} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{642881} = \mathbf{Pl}(25, 10, 12, 10, 1, 0)_{14072} \\
\ell_{865} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta \end{bmatrix}_{676545} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{676545} = \mathbf{Pl}(25, 10, 18, 10, 1, 0)_{14258} \\
\ell_{866} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{913793} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{913793} = \mathbf{Pl}(25, 10, 24, 10, 1, 0)_{14444} \\
\ell_{867} &= \begin{bmatrix} 1 & \eta^{22} & \eta^{22} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{733557} = \begin{bmatrix} 1 & 21 & 21 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{733557} = \mathbf{Pl}(0, 21, 0, 21, 1, 0)_{4417} \\
\ell_{868} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{1049505} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{1049505} = \mathbf{Pl}(26, 21, 20, 21, 1, 0)_{24892} \\
\ell_{869} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{34657} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{34657} = \mathbf{Pl}(26, 21, 21, 21, 1, 0)_{24923} \\
\ell_{870} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{609249} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{609249} = \mathbf{Pl}(26, 21, 15, 21, 1, 0)_{24737} \\
\ell_{871} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{947745} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{947745} = \mathbf{Pl}(26, 21, 26, 21, 1, 0)_{25078} \\
\ell_{872} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{305057} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{305057} = \mathbf{Pl}(26, 21, 30, 21, 1, 0)_{25202} \\
\ell_{873} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{778465} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{778465} = \mathbf{Pl}(26, 21, 11, 21, 1, 0)_{24613} \\
\ell_{874} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{474305} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{474305} = \mathbf{Pl}(26, 21, 17, 21, 1, 0)_{24799} \\
\ell_{875} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{406177} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{406177} = \mathbf{Pl}(26, 21, 4, 21, 1, 0)_{24396} \\
\ell_{876} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{744449} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{744449} = \mathbf{Pl}(26, 21, 25, 21, 1, 0)_{25047}
\end{aligned}$$

$$\begin{aligned}
\ell_{877} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{135521} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{135521} = \mathbf{Pl}(26, 21, 12, 21, 1, 0)_{24644} \\
\ell_{878} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{845857} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{845857} = \mathbf{Pl}(26, 21, 22, 21, 1, 0)_{24954} \\
\ell_{879} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{542081} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{542081} = \mathbf{Pl}(26, 21, 3, 21, 1, 0)_{24365} \\
\ell_{880} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{237153} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{237153} = \mathbf{Pl}(26, 21, 7, 21, 1, 0)_{24489} \\
\ell_{881} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{507425} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{507425} = \mathbf{Pl}(26, 21, 18, 21, 1, 0)_{24830} \\
\ell_{882} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{203649} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{203649} = \mathbf{Pl}(26, 21, 8, 21, 1, 0)_{24520} \\
\ell_{883} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{440321} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{440321} = \mathbf{Pl}(26, 21, 29, 21, 1, 0)_{25171} \\
\ell_{884} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{372225} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{372225} = \mathbf{Pl}(26, 21, 23, 21, 1, 0)_{24985} \\
\ell_{885} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{812353} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{812353} = \mathbf{Pl}(26, 21, 2, 21, 1, 0)_{24334} \\
\ell_{886} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{68193} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{68193} = \mathbf{Pl}(26, 21, 24, 21, 1, 0)_{25016} \\
\ell_{887} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{981377} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{981377} = \mathbf{Pl}(26, 21, 13, 21, 1, 0)_{24675} \\
\ell_{888} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{1014849} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{1014849} = \mathbf{Pl}(26, 21, 9, 21, 1, 0)_{24551} \\
\ell_{889} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{879521} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{879521} = \mathbf{Pl}(26, 21, 28, 21, 1, 0)_{25140} \\
\ell_{890} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{271041} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{271041} = \mathbf{Pl}(26, 21, 6, 21, 1, 0)_{24458} \\
\ell_{891} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{170049} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{170049} = \mathbf{Pl}(26, 21, 19, 21, 1, 0)_{24861} \\
\ell_{892} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{575201} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{575201} = \mathbf{Pl}(26, 21, 14, 21, 1, 0)_{24706} \\
\ell_{893} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{339233} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{339233} = \mathbf{Pl}(26, 21, 27, 21, 1, 0)_{25109} \\
\ell_{894} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{710337} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{710337} = \mathbf{Pl}(26, 21, 1, 21, 1, 0)_{24303} \\
\ell_{895} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{101825} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{101825} = \mathbf{Pl}(26, 21, 16, 21, 1, 0)_{24768} \\
\ell_{896} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{643393} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{643393} = \mathbf{Pl}(26, 21, 5, 21, 1, 0)_{24427} \\
\ell_{897} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{677345} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{677345} = \mathbf{Pl}(26, 21, 31, 21, 1, 0)_{25233}
\end{aligned}$$

$$\begin{aligned}
\ell_{898} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{914049} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{914049} = \mathbf{Pl}(26, 21, 10, 21, 1, 0)_{24582} \\
\ell_{899} &= \begin{bmatrix} 1 & \eta^{15} & \eta^{15} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1082367} = \begin{bmatrix} 1 & 31 & 31 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1082367} = \mathbf{Pl}(0, 31, 0, 31, 1, 0)_{5057} \\
\ell_{900} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{710945} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{710945} = \mathbf{Pl}(27, 31, 30, 31, 1, 0)_{34813} \\
\ell_{901} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{34689} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{34689} = \mathbf{Pl}(27, 31, 31, 31, 1, 0)_{34844} \\
\ell_{902} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{609825} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{609825} = \mathbf{Pl}(27, 31, 27, 31, 1, 0)_{34720} \\
\ell_{903} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{947361} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{947361} = \mathbf{Pl}(27, 31, 4, 31, 1, 0)_{34007} \\
\ell_{904} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{305345} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{305345} = \mathbf{Pl}(27, 31, 19, 31, 1, 0)_{34472} \\
\ell_{905} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{778177} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{778177} = \mathbf{Pl}(27, 31, 12, 31, 1, 0)_{34255} \\
\ell_{906} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{474241} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{474241} = \mathbf{Pl}(27, 31, 8, 31, 1, 0)_{34131} \\
\ell_{907} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{406049} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{406049} = \mathbf{Pl}(27, 31, 23, 31, 1, 0)_{34596} \\
\ell_{908} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{745025} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{745025} = \mathbf{Pl}(27, 31, 3, 31, 1, 0)_{33976} \\
\ell_{909} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{135393} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{135393} = \mathbf{Pl}(27, 31, 28, 31, 1, 0)_{34751} \\
\ell_{910} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{846145} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{846145} = \mathbf{Pl}(27, 31, 24, 31, 1, 0)_{34627} \\
\ell_{911} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{541569} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{541569} = \mathbf{Pl}(27, 31, 7, 31, 1, 0)_{34100} \\
\ell_{912} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{237121} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{237121} = \mathbf{Pl}(27, 31, 16, 31, 1, 0)_{34379} \\
\ell_{913} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{507777} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{507777} = \mathbf{Pl}(27, 31, 15, 31, 1, 0)_{34348} \\
\ell_{914} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{203457} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{203457} = \mathbf{Pl}(27, 31, 11, 31, 1, 0)_{34224} \\
\ell_{915} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{440673} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{440673} = \mathbf{Pl}(27, 31, 20, 31, 1, 0)_{34503} \\
\ell_{916} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{372513} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{372513} = \mathbf{Pl}(27, 31, 6, 31, 1, 0)_{34069} \\
\ell_{917} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{812097} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{812097} = \mathbf{Pl}(27, 31, 25, 31, 1, 0)_{34658} \\
\ell_{918} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{68257} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{68257} = \mathbf{Pl}(27, 31, 29, 31, 1, 0)_{34782}
\end{aligned}$$

$$\begin{aligned}
\ell_{919} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{981473} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{981473} = \mathbf{Pl}(27, 31, 2, 31, 1, 0)_{33945} \\
\ell_{920} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{1015553} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{1015553} = \mathbf{Pl}(27, 31, 21, 31, 1, 0)_{34534} \\
\ell_{921} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{880225} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{880225} = \mathbf{Pl}(27, 31, 10, 31, 1, 0)_{34193} \\
\ell_{922} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{270785} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{270785} = \mathbf{Pl}(27, 31, 14, 31, 1, 0)_{34317} \\
\ell_{923} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{169889} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{169889} = \mathbf{Pl}(27, 31, 17, 31, 1, 0)_{34410} \\
\ell_{924} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{575745} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{575745} = \mathbf{Pl}(27, 31, 5, 31, 1, 0)_{34038} \\
\ell_{925} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{338913} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{338913} = \mathbf{Pl}(27, 31, 26, 31, 1, 0)_{34689} \\
\ell_{926} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{1048577} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{1048577} = \mathbf{Pl}(27, 31, 1, 31, 1, 0)_{33914} \\
\ell_{927} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{101729} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{101729} = \mathbf{Pl}(27, 31, 22, 31, 1, 0)_{34565} \\
\ell_{928} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{642785} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{642785} = \mathbf{Pl}(27, 31, 9, 31, 1, 0)_{34162} \\
\ell_{929} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{676961} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{676961} = \mathbf{Pl}(27, 31, 13, 31, 1, 0)_{34286} \\
\ell_{930} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{913313} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{913313} = \mathbf{Pl}(27, 31, 18, 31, 1, 0)_{34441} \\
\ell_{931} &= \begin{bmatrix} 1 & \eta^{18} & \eta^{18} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{105699} = \begin{bmatrix} 1 & 3 & 3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{105699} = \mathbf{Pl}(0, 3, 0, 3, 1, 0)_{3265} \\
\ell_{932} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{643233} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{643233} = \mathbf{Pl}(28, 3, 2, 3, 1, 0)_{7038} \\
\ell_{933} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{34721} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{34721} = \mathbf{Pl}(28, 3, 3, 3, 1, 0)_{7069} \\
\ell_{934} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{609281} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{609281} = \mathbf{Pl}(28, 3, 6, 3, 1, 0)_{7162} \\
\ell_{935} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{947809} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{947809} = \mathbf{Pl}(28, 3, 5, 3, 1, 0)_{7131} \\
\ell_{936} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{304641} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{304641} = \mathbf{Pl}(28, 3, 12, 3, 1, 0)_{7348} \\
\ell_{937} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{778369} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{778369} = \mathbf{Pl}(28, 3, 15, 3, 1, 0)_{7441} \\
\ell_{938} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{474337} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{474337} = \mathbf{Pl}(28, 3, 10, 3, 1, 0)_{7286} \\
\ell_{939} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{406017} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{406017} = \mathbf{Pl}(28, 3, 9, 3, 1, 0)_{7255}
\end{aligned}$$

$$\begin{aligned}
\ell_{940} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{744673} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{744673} = \mathbf{Pl}(28, 3, 24, 3, 1, 0)_{7720} \\
\ell_{941} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{136289} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{136289} = \mathbf{Pl}(28, 3, 27, 3, 1, 0)_{7813} \\
\ell_{942} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{846241} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{846241} = \mathbf{Pl}(28, 3, 30, 3, 1, 0)_{7906} \\
\ell_{943} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{541793} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{541793} = \mathbf{Pl}(28, 3, 29, 3, 1, 0)_{7875} \\
\ell_{944} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{237729} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{237729} = \mathbf{Pl}(28, 3, 20, 3, 1, 0)_{7596} \\
\ell_{945} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{507521} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{507521} = \mathbf{Pl}(28, 3, 23, 3, 1, 0)_{7689} \\
\ell_{946} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{203009} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{203009} = \mathbf{Pl}(28, 3, 18, 3, 1, 0)_{7534} \\
\ell_{947} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{440481} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{440481} = \mathbf{Pl}(28, 3, 17, 3, 1, 0)_{7503} \\
\ell_{948} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{372897} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{372897} = \mathbf{Pl}(28, 3, 21, 3, 1, 0)_{7627} \\
\ell_{949} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{812033} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{812033} = \mathbf{Pl}(28, 3, 22, 3, 1, 0)_{7658} \\
\ell_{950} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{68577} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{68577} = \mathbf{Pl}(28, 3, 19, 3, 1, 0)_{7565} \\
\ell_{951} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{981249} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{981249} = \mathbf{Pl}(28, 3, 16, 3, 1, 0)_{7472} \\
\ell_{952} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{1015041} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{1015041} = \mathbf{Pl}(28, 3, 25, 3, 1, 0)_{7751} \\
\ell_{953} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{880097} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{880097} = \mathbf{Pl}(28, 3, 26, 3, 1, 0)_{7782} \\
\ell_{954} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{271457} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{271457} = \mathbf{Pl}(28, 3, 31, 3, 1, 0)_{7937} \\
\ell_{955} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{169217} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{169217} = \mathbf{Pl}(28, 3, 28, 3, 1, 0)_{7844} \\
\ell_{956} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{575489} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{575489} = \mathbf{Pl}(28, 3, 13, 3, 1, 0)_{7379} \\
\ell_{957} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{338433} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{338433} = \mathbf{Pl}(28, 3, 14, 3, 1, 0)_{7410} \\
\ell_{958} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{710817} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{710817} = \mathbf{Pl}(28, 3, 11, 3, 1, 0)_{7317} \\
\ell_{959} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{1049249} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{1049249} = \mathbf{Pl}(28, 3, 8, 3, 1, 0)_{7224} \\
\ell_{960} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{101505} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{101505} = \mathbf{Pl}(28, 3, 1, 3, 1, 0)_{7007}
\end{aligned}$$

$$\begin{aligned}
\ell_{961} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{676865} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{676865} = \mathbf{Pl}(28, 3, 7, 3, 1, 0)_{7193} \\
\ell_{962} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{913537} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{913537} = \mathbf{Pl}(28, 3, 4, 3, 1, 0)_{7100} \\
\ell_{963} &= \begin{bmatrix} 1 & \eta^{17} & \eta^{17} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{663795} = \begin{bmatrix} 1 & 19 & 19 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{663795} = \mathbf{Pl}(0, 19, 0, 19, 1, 0)_{4289} \\
\ell_{964} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{101537} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{101537} = \mathbf{Pl}(29, 19, 18, 19, 1, 0)_{22911} \\
\ell_{965} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{34753} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{34753} = \mathbf{Pl}(29, 19, 19, 19, 1, 0)_{22942} \\
\ell_{966} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{609729} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{609729} = \mathbf{Pl}(29, 19, 3, 19, 1, 0)_{22446} \\
\ell_{967} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{947425} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{947425} = \mathbf{Pl}(29, 19, 16, 19, 1, 0)_{22849} \\
\ell_{968} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{304865} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{304865} = \mathbf{Pl}(29, 19, 6, 19, 1, 0)_{22539} \\
\ell_{969} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{778785} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{778785} = \mathbf{Pl}(29, 19, 21, 19, 1, 0)_{23004} \\
\ell_{970} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{474273} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{474273} = \mathbf{Pl}(29, 19, 5, 19, 1, 0)_{22508} \\
\ell_{971} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{406145} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{406145} = \mathbf{Pl}(29, 19, 22, 19, 1, 0)_{23035} \\
\ell_{972} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{744353} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{744353} = \mathbf{Pl}(29, 19, 12, 19, 1, 0)_{22725} \\
\ell_{973} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{136161} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{136161} = \mathbf{Pl}(29, 19, 31, 19, 1, 0)_{23314} \\
\ell_{974} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{846017} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{846017} = \mathbf{Pl}(29, 19, 15, 19, 1, 0)_{22818} \\
\ell_{975} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{541281} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{541281} = \mathbf{Pl}(29, 19, 28, 19, 1, 0)_{23221} \\
\ell_{976} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{237569} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{237569} = \mathbf{Pl}(29, 19, 10, 19, 1, 0)_{22663} \\
\ell_{977} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{507681} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{507681} = \mathbf{Pl}(29, 19, 25, 19, 1, 0)_{23128} \\
\ell_{978} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{203073} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{203073} = \mathbf{Pl}(29, 19, 9, 19, 1, 0)_{22632} \\
\ell_{979} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{440385} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{440385} = \mathbf{Pl}(29, 19, 26, 19, 1, 0)_{23159} \\
\ell_{980} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{372609} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{372609} = \mathbf{Pl}(29, 19, 24, 19, 1, 0)_{23097} \\
\ell_{981} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{812289} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{812289} = \mathbf{Pl}(29, 19, 11, 19, 1, 0)_{22694}
\end{aligned}$$

$$\begin{aligned}
\ell_{982} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{68641} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{68641} = \mathbf{Pl}(29, 19, 27, 19, 1, 0)_{23190} \\
\ell_{983} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{981601} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{981601} = \mathbf{Pl}(29, 19, 8, 19, 1, 0)_{22601} \\
\ell_{984} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{1015361} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{1015361} = \mathbf{Pl}(29, 19, 30, 19, 1, 0)_{23283} \\
\ell_{985} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{879905} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{879905} = \mathbf{Pl}(29, 19, 13, 19, 1, 0)_{22756} \\
\ell_{986} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{271201} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{271201} = \mathbf{Pl}(29, 19, 29, 19, 1, 0)_{23252} \\
\ell_{987} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{169313} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{169313} = \mathbf{Pl}(29, 19, 14, 19, 1, 0)_{22787} \\
\ell_{988} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{575969} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{575969} = \mathbf{Pl}(29, 19, 20, 19, 1, 0)_{22973} \\
\ell_{989} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{338625} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{338625} = \mathbf{Pl}(29, 19, 7, 19, 1, 0)_{22570} \\
\ell_{990} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{710465} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{710465} = \mathbf{Pl}(29, 19, 23, 19, 1, 0)_{23066} \\
\ell_{991} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{1048833} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{1048833} = \mathbf{Pl}(29, 19, 4, 19, 1, 0)_{22477} \\
\ell_{992} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{642689} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{642689} = \mathbf{Pl}(29, 19, 1, 19, 1, 0)_{22384} \\
\ell_{993} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{677249} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{677249} = \mathbf{Pl}(29, 19, 17, 19, 1, 0)_{22880} \\
\ell_{994} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{913825} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{913825} = \mathbf{Pl}(29, 19, 2, 19, 1, 0)_{22415} \\
\ell_{995} &= \begin{bmatrix} 1 & \eta^7 & \eta^7 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{698676} = \begin{bmatrix} 1 & 20 & 20 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{698676} = \mathbf{Pl}(0, 20, 0, 20, 1, 0)_{4353} \\
\ell_{996} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{914081} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{914081} = \mathbf{Pl}(30, 20, 21, 20, 1, 0)_{23966} \\
\ell_{997} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{34785} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{34785} = \mathbf{Pl}(30, 20, 20, 20, 1, 0)_{23935} \\
\ell_{998} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{609313} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{609313} = \mathbf{Pl}(30, 20, 13, 20, 1, 0)_{23718} \\
\ell_{999} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{947393} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{947393} = \mathbf{Pl}(30, 20, 25, 20, 1, 0)_{24090} \\
\ell_{1000} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{305089} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{305089} = \mathbf{Pl}(30, 20, 26, 20, 1, 0)_{24121} \\
\ell_{1001} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{778145} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{778145} = \mathbf{Pl}(30, 20, 14, 20, 1, 0)_{23749} \\
\ell_{1002} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{473697} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{473697} = \mathbf{Pl}(30, 20, 23, 20, 1, 0)_{24028}
\end{aligned}$$

$$\begin{aligned}
\ell_{1003} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{406785} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{406785} = \mathbf{Pl}(30, 20, 3, 20, 1, 0)_{23408} \\
\ell_{1004} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{744897} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{744897} = \mathbf{Pl}(30, 20, 17, 20, 1, 0)_{23842} \\
\ell_{1005} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{136033} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{136033} = \mathbf{Pl}(30, 20, 5, 20, 1, 0)_{23470} \\
\ell_{1006} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{845697} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{845697} = \mathbf{Pl}(30, 20, 28, 20, 1, 0)_{24183} \\
\ell_{1007} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{541889} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{541889} = \mathbf{Pl}(30, 20, 8, 20, 1, 0)_{23563} \\
\ell_{1008} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{237281} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{237281} = \mathbf{Pl}(30, 20, 11, 20, 1, 0)_{23656} \\
\ell_{1009} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{508225} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{508225} = \mathbf{Pl}(30, 20, 31, 20, 1, 0)_{24276} \\
\ell_{1010} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{203393} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{203393} = \mathbf{Pl}(30, 20, 6, 20, 1, 0)_{23501} \\
\ell_{1011} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta \end{bmatrix}_{439777} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{439777} = \mathbf{Pl}(30, 20, 18, 20, 1, 0)_{23873} \\
\ell_{1012} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{372449} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{372449} = \mathbf{Pl}(30, 20, 7, 20, 1, 0)_{23532} \\
\ell_{1013} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{812705} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{812705} = \mathbf{Pl}(30, 20, 19, 20, 1, 0)_{23904} \\
\ell_{1014} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{68449} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{68449} = \mathbf{Pl}(30, 20, 10, 20, 1, 0)_{23625} \\
\ell_{1015} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{981537} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{981537} = \mathbf{Pl}(30, 20, 30, 20, 1, 0)_{24245} \\
\ell_{1016} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{1015329} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{1015329} = \mathbf{Pl}(30, 20, 29, 20, 1, 0)_{24214} \\
\ell_{1017} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{879553} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{879553} = \mathbf{Pl}(30, 20, 9, 20, 1, 0)_{23594} \\
\ell_{1018} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{270945} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{270945} = \mathbf{Pl}(30, 20, 16, 20, 1, 0)_{23811} \\
\ell_{1019} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{169409} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{169409} = \mathbf{Pl}(30, 20, 4, 20, 1, 0)_{23439} \\
\ell_{1020} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{575265} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{575265} = \mathbf{Pl}(30, 20, 22, 20, 1, 0)_{23997} \\
\ell_{1021} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{338817} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{338817} = \mathbf{Pl}(30, 20, 2, 20, 1, 0)_{23377} \\
\ell_{1022} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{711297} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{711297} = \mathbf{Pl}(30, 20, 27, 20, 1, 0)_{24152} \\
\ell_{1023} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{1048961} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{1048961} = \mathbf{Pl}(30, 20, 15, 20, 1, 0)_{23780}
\end{aligned}$$

$$\begin{aligned}
\ell_{1024} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{101697} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{101697} = \mathbf{Pl}(30, 20, 12, 20, 1, 0)_{23687} \\
\ell_{1025} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{643201} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{643201} = \mathbf{Pl}(30, 20, 24, 20, 1, 0)_{24059} \\
\ell_{1026} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{676513} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{676513} = \mathbf{Pl}(30, 20, 1, 20, 1, 0)_{23346} \\
\ell_{1027} &= \begin{bmatrix} 1 & \eta^{16} & \eta^{16} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{942843} = \begin{bmatrix} 1 & 27 & 27 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{942843} = \mathbf{Pl}(0, 27, 0, 27, 1, 0)_{4801} \\
\ell_{1028} &= \begin{bmatrix} 1 & 0 & 0 & \eta^7 \\ 0 & 1 & 1 & \eta^{22} \end{bmatrix}_{677153} = \begin{bmatrix} 1 & 0 & 0 & 20 \\ 0 & 1 & 1 & 21 \end{bmatrix}_{677153} = \mathbf{Pl}(31, 27, 26, 27, 1, 0)_{30849} \\
\ell_{1029} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \eta^{15} \end{bmatrix}_{34817} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 31 \end{bmatrix}_{34817} = \mathbf{Pl}(31, 27, 27, 27, 1, 0)_{30880} \\
\ell_{1030} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{30} \\ 0 & 1 & 1 & \eta^{14} \end{bmatrix}_{609761} = \begin{bmatrix} 1 & 0 & 0 & 18 \\ 0 & 1 & 1 & 29 \end{bmatrix}_{609761} = \mathbf{Pl}(31, 27, 19, 27, 1, 0)_{30632} \\
\ell_{1031} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{13} \\ 0 & 1 & 1 & \eta^{28} \end{bmatrix}_{947777} = \begin{bmatrix} 1 & 0 & 0 & 28 \\ 0 & 1 & 1 & 22 \end{bmatrix}_{947777} = \mathbf{Pl}(31, 27, 8, 27, 1, 0)_{30291} \\
\ell_{1032} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{29} \\ 0 & 1 & 1 & \eta^{13} \end{bmatrix}_{305313} = \begin{bmatrix} 1 & 0 & 0 & 9 \\ 0 & 1 & 1 & 28 \end{bmatrix}_{305313} = \mathbf{Pl}(31, 27, 3, 27, 1, 0)_{30136} \\
\ell_{1033} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{26} \\ 0 & 1 & 1 & \eta^{10} \end{bmatrix}_{778497} = \begin{bmatrix} 1 & 0 & 0 & 23 \\ 0 & 1 & 1 & 17 \end{bmatrix}_{778497} = \mathbf{Pl}(31, 27, 24, 27, 1, 0)_{30787} \\
\ell_{1034} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{12} \\ 0 & 1 & 1 & \eta^{27} \end{bmatrix}_{473889} = \begin{bmatrix} 1 & 0 & 0 & 14 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{473889} = \mathbf{Pl}(31, 27, 16, 27, 1, 0)_{30539} \\
\ell_{1035} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{20} \\ 0 & 1 & 1 & \eta^4 \end{bmatrix}_{406401} = \begin{bmatrix} 1 & 0 & 0 & 12 \\ 0 & 1 & 1 & 16 \end{bmatrix}_{406401} = \mathbf{Pl}(31, 27, 11, 27, 1, 0)_{30384} \\
\ell_{1036} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{28} \\ 0 & 1 & 1 & \eta^{12} \end{bmatrix}_{744577} = \begin{bmatrix} 1 & 0 & 0 & 22 \\ 0 & 1 & 1 & 14 \end{bmatrix}_{744577} = \mathbf{Pl}(31, 27, 6, 27, 1, 0)_{30229} \\
\ell_{1037} &= \begin{bmatrix} 1 & 0 & 0 & \eta^2 \\ 0 & 1 & 1 & \eta^{17} \end{bmatrix}_{135905} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 19 \end{bmatrix}_{135905} = \mathbf{Pl}(31, 27, 29, 27, 1, 0)_{30942} \\
\ell_{1038} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{25} \\ 0 & 1 & 1 & \eta^9 \end{bmatrix}_{846433} = \begin{bmatrix} 1 & 0 & 0 & 25 \\ 0 & 1 & 1 & 26 \end{bmatrix}_{846433} = \mathbf{Pl}(31, 27, 21, 27, 1, 0)_{30694} \\
\ell_{1039} &= \begin{bmatrix} 1 & 0 & 0 & \eta^4 \\ 0 & 1 & 1 & \eta^{19} \end{bmatrix}_{541377} = \begin{bmatrix} 1 & 0 & 0 & 16 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{541377} = \mathbf{Pl}(31, 27, 14, 27, 1, 0)_{30477} \\
\ell_{1040} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{11} \\ 0 & 1 & 1 & \eta^{26} \end{bmatrix}_{237505} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 23 \end{bmatrix}_{237505} = \mathbf{Pl}(31, 27, 5, 27, 1, 0)_{30198} \\
\ell_{1041} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{23} \\ 0 & 1 & 1 & \eta^7 \end{bmatrix}_{508001} = \begin{bmatrix} 1 & 0 & 0 & 15 \\ 0 & 1 & 1 & 20 \end{bmatrix}_{508001} = \mathbf{Pl}(31, 27, 30, 27, 1, 0)_{30973} \\
\ell_{1042} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{19} \\ 0 & 1 & 1 & \eta^3 \end{bmatrix}_{203201} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 8 \end{bmatrix}_{203201} = \mathbf{Pl}(31, 27, 22, 27, 1, 0)_{30725} \\
\ell_{1043} &= \begin{bmatrix} 1 & 0 & 0 & \eta^8 \\ 0 & 1 & 1 & \eta^{23} \end{bmatrix}_{440193} = \begin{bmatrix} 1 & 0 & 0 & 13 \\ 0 & 1 & 1 & 15 \end{bmatrix}_{440193} = \mathbf{Pl}(31, 27, 13, 27, 1, 0)_{30446} \\
\ell_{1044} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{27} \\ 0 & 1 & 1 & \eta^{11} \end{bmatrix}_{372289} = \begin{bmatrix} 1 & 0 & 0 & 11 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{372289} = \mathbf{Pl}(31, 27, 12, 27, 1, 0)_{30415}
\end{aligned}$$

$$\begin{aligned}
\ell_{1045} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{21} \\ 0 & 1 & 1 & \eta^5 \end{bmatrix}_{811937} = \begin{bmatrix} 1 & 0 & 0 & 24 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{811937} = \mathbf{Pl}(31, 27, 23, 27, 1, 0)_{30756} \\
\ell_{1046} &= \begin{bmatrix} 1 & 0 & 0 & \eta \\ 0 & 1 & 1 & \eta^{16} \end{bmatrix}_{68513} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 27 \end{bmatrix}_{68513} = \mathbf{Pl}(31, 27, 31, 27, 1, 0)_{31004} \\
\ell_{1047} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{14} \\ 0 & 1 & 1 & \eta^{29} \end{bmatrix}_{981185} = \begin{bmatrix} 1 & 0 & 0 & 29 \\ 0 & 1 & 1 & 9 \end{bmatrix}_{981185} = \mathbf{Pl}(31, 27, 4, 27, 1, 0)_{30167} \\
\ell_{1048} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{24} \\ 0 & 1 & 1 & \eta^8 \end{bmatrix}_{1015137} = \begin{bmatrix} 1 & 0 & 0 & 30 \\ 0 & 1 & 1 & 13 \end{bmatrix}_{1015137} = \mathbf{Pl}(31, 27, 15, 27, 1, 0)_{30508} \\
\ell_{1049} &= \begin{bmatrix} 1 & 0 & 0 & \eta^9 \\ 0 & 1 & 1 & \eta^{24} \end{bmatrix}_{880385} = \begin{bmatrix} 1 & 0 & 0 & 26 \\ 0 & 1 & 1 & 30 \end{bmatrix}_{880385} = \mathbf{Pl}(31, 27, 20, 27, 1, 0)_{30663} \\
\ell_{1050} &= \begin{bmatrix} 1 & 0 & 0 & \eta^3 \\ 0 & 1 & 1 & \eta^{18} \end{bmatrix}_{270689} = \begin{bmatrix} 1 & 0 & 0 & 8 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{270689} = \mathbf{Pl}(31, 27, 28, 27, 1, 0)_{30911} \\
\ell_{1051} &= \begin{bmatrix} 1 & 0 & 0 & \eta^5 \\ 0 & 1 & 1 & \eta^{20} \end{bmatrix}_{169505} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 12 \end{bmatrix}_{169505} = \mathbf{Pl}(31, 27, 7, 27, 1, 0)_{30260} \\
\ell_{1052} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{10} \\ 0 & 1 & 1 & \eta^{25} \end{bmatrix}_{575809} = \begin{bmatrix} 1 & 0 & 0 & 17 \\ 0 & 1 & 1 & 25 \end{bmatrix}_{575809} = \mathbf{Pl}(31, 27, 10, 27, 1, 0)_{30353} \\
\ell_{1053} &= \begin{bmatrix} 1 & 0 & 0 & \eta^6 \\ 0 & 1 & 1 & \eta^{21} \end{bmatrix}_{339009} = \begin{bmatrix} 1 & 0 & 0 & 10 \\ 0 & 1 & 1 & 24 \end{bmatrix}_{339009} = \mathbf{Pl}(31, 27, 17, 27, 1, 0)_{30570} \\
\ell_{1054} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{22} \\ 0 & 1 & 1 & \eta^6 \end{bmatrix}_{710625} = \begin{bmatrix} 1 & 0 & 0 & 21 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{710625} = \mathbf{Pl}(31, 27, 25, 27, 1, 0)_{30818} \\
\ell_{1055} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{15} \\ 0 & 1 & 1 & \eta^{30} \end{bmatrix}_{1049121} = \begin{bmatrix} 1 & 0 & 0 & 31 \\ 0 & 1 & 1 & 18 \end{bmatrix}_{1049121} = \mathbf{Pl}(31, 27, 2, 27, 1, 0)_{30105} \\
\ell_{1056} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{18} \\ 0 & 1 & 1 & \eta^2 \end{bmatrix}_{101601} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{101601} = \mathbf{Pl}(31, 27, 9, 27, 1, 0)_{30322} \\
\ell_{1057} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{17} \\ 0 & 1 & 1 & \eta \end{bmatrix}_{642721} = \begin{bmatrix} 1 & 0 & 0 & 19 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{642721} = \mathbf{Pl}(31, 27, 18, 27, 1, 0)_{30601} \\
\ell_{1058} &= \begin{bmatrix} 1 & 0 & 0 & \eta^{16} \\ 0 & 1 & 1 & 1 \end{bmatrix}_{913281} = \begin{bmatrix} 1 & 0 & 0 & 27 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{913281} = \mathbf{Pl}(31, 27, 1, 27, 1, 0)_{30074} \\
\ell_{1059} &= \begin{bmatrix} 1 & \eta^{11} & \eta^{10} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{583463} = \begin{bmatrix} 1 & 7 & 17 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{583463} = \mathbf{Pl}(0, 17, 0, 7, 1, 0)_{3531} \\
\ell_{1060} &= \begin{bmatrix} 1 & \eta^{28} & \eta^{10} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{599318} = \begin{bmatrix} 1 & 22 & 17 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{599318} = \mathbf{Pl}(0, 17, 0, 22, 1, 0)_{4476} \\
\ell_{1061} &= \begin{bmatrix} 1 & \eta^{22} & \eta^{20} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{429141} = \begin{bmatrix} 1 & 21 & 12 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{429141} = \mathbf{Pl}(0, 12, 0, 21, 1, 0)_{4408} \\
\ell_{1062} &= \begin{bmatrix} 1 & \eta^{25} & \eta^{20} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{433369} = \begin{bmatrix} 1 & 25 & 12 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{433369} = \mathbf{Pl}(0, 12, 0, 25, 1, 0)_{4660} \\
\ell_{1063} &= \begin{bmatrix} 1 & \eta^{26} & \eta^7 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{701847} = \begin{bmatrix} 1 & 23 & 20 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{701847} = \mathbf{Pl}(0, 20, 0, 23, 1, 0)_{4542} \\
\ell_{1064} &= \begin{bmatrix} 1 & \eta^{18} & \eta^7 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{680707} = \begin{bmatrix} 1 & 3 & 20 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{680707} = \mathbf{Pl}(0, 20, 0, 3, 1, 0)_{3282} \\
\ell_{1065} &= \begin{bmatrix} 1 & \eta^{25} & \eta^{22} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{737785} = \begin{bmatrix} 1 & 25 & 21 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{737785} = \mathbf{Pl}(0, 21, 0, 25, 1, 0)_{4669}
\end{aligned}$$

$$\begin{aligned}
\ell_{1066} &= \begin{bmatrix} 1 & \eta^{20} & \eta^{22} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{724044} = \begin{bmatrix} 1 & 12 & 21 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{724044} = \mathbf{Pl}(0, 21, 0, 12, 1, 0)_{3850} \\
\ell_{1067} &= \begin{bmatrix} 1 & \eta^{19} & \eta^{13} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{954470} = \begin{bmatrix} 1 & 6 & 28 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{954470} = \mathbf{Pl}(0, 28, 0, 6, 1, 0)_{3479} \\
\ell_{1068} &= \begin{bmatrix} 1 & \eta^9 & \eta^{13} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{975610} = \begin{bmatrix} 1 & 26 & 28 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{975610} = \mathbf{Pl}(0, 28, 0, 26, 1, 0)_{4739} \\
\ell_{1069} &= \begin{bmatrix} 1 & \eta^7 & \eta^{18} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{123668} = \begin{bmatrix} 1 & 20 & 3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{123668} = \mathbf{Pl}(0, 3, 0, 20, 1, 0)_{4336} \\
\ell_{1070} &= \begin{bmatrix} 1 & \eta^{26} & \eta^{18} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{126839} = \begin{bmatrix} 1 & 23 & 3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{126839} = \mathbf{Pl}(0, 3, 0, 23, 1, 0)_{4525} \\
\ell_{1071} &= \begin{bmatrix} 1 & \eta^7 & \eta^{26} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{800148} = \begin{bmatrix} 1 & 20 & 23 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{800148} = \mathbf{Pl}(0, 23, 0, 20, 1, 0)_{4356} \\
\ell_{1072} &= \begin{bmatrix} 1 & \eta^{18} & \eta^{26} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{782179} = \begin{bmatrix} 1 & 3 & 23 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{782179} = \mathbf{Pl}(0, 23, 0, 3, 1, 0)_{3285} \\
\ell_{1073} &= \begin{bmatrix} 1 & \eta^{13} & \eta^9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{910076} = \begin{bmatrix} 1 & 28 & 26 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{910076} = \mathbf{Pl}(0, 26, 0, 28, 1, 0)_{4863} \\
\ell_{1074} &= \begin{bmatrix} 1 & \eta^{19} & \eta^9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{886822} = \begin{bmatrix} 1 & 6 & 26 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{886822} = \mathbf{Pl}(0, 26, 0, 6, 1, 0)_{3477} \\
\ell_{1075} &= \begin{bmatrix} 1 & \eta^{10} & \eta^{11} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{255793} = \begin{bmatrix} 1 & 17 & 7 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{255793} = \mathbf{Pl}(0, 7, 0, 17, 1, 0)_{4151} \\
\ell_{1076} &= \begin{bmatrix} 1 & \eta^{28} & \eta^{11} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{261078} = \begin{bmatrix} 1 & 22 & 7 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{261078} = \mathbf{Pl}(0, 7, 0, 22, 1, 0)_{4466} \\
\ell_{1077} &= \begin{bmatrix} 1 & \eta^{21} & \eta^{14} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1007320} = \begin{bmatrix} 1 & 24 & 29 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1007320} = \mathbf{Pl}(0, 29, 0, 24, 1, 0)_{4614} \\
\ell_{1078} &= \begin{bmatrix} 1 & \eta^5 & \eta^{14} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{987237} = \begin{bmatrix} 1 & 5 & 29 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{987237} = \mathbf{Pl}(0, 29, 0, 5, 1, 0)_{3417} \\
\ell_{1079} &= \begin{bmatrix} 1 & \eta^{22} & \eta^{25} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{868853} = \begin{bmatrix} 1 & 21 & 25 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{868853} = \mathbf{Pl}(0, 25, 0, 21, 1, 0)_{4421} \\
\ell_{1080} &= \begin{bmatrix} 1 & \eta^{20} & \eta^{25} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{859340} = \begin{bmatrix} 1 & 12 & 25 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{859340} = \mathbf{Pl}(0, 25, 0, 12, 1, 0)_{3854} \\
\ell_{1081} &= \begin{bmatrix} 1 & \eta^9 & \eta^{19} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{231482} = \begin{bmatrix} 1 & 26 & 6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{231482} = \mathbf{Pl}(0, 6, 0, 26, 1, 0)_{4717} \\
\ell_{1082} &= \begin{bmatrix} 1 & \eta^{13} & \eta^{19} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{233596} = \begin{bmatrix} 1 & 28 & 6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{233596} = \mathbf{Pl}(0, 6, 0, 28, 1, 0)_{4843} \\
\ell_{1083} &= \begin{bmatrix} 1 & \eta^{14} & \eta^5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{200829} = \begin{bmatrix} 1 & 29 & 5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{200829} = \mathbf{Pl}(0, 5, 0, 29, 1, 0)_{4905} \\
\ell_{1084} &= \begin{bmatrix} 1 & \eta^{21} & \eta^5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{195544} = \begin{bmatrix} 1 & 24 & 5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{195544} = \mathbf{Pl}(0, 5, 0, 24, 1, 0)_{4590} \\
\ell_{1085} &= \begin{bmatrix} 1 & \eta^{10} & \eta^{28} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{763153} = \begin{bmatrix} 1 & 17 & 22 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{763153} = \mathbf{Pl}(0, 22, 0, 17, 1, 0)_{4166} \\
\ell_{1086} &= \begin{bmatrix} 1 & \eta^{11} & \eta^{28} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{752583} = \begin{bmatrix} 1 & 7 & 22 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{752583} = \mathbf{Pl}(0, 22, 0, 7, 1, 0)_{3536}
\end{aligned}$$

$$\ell_{1087} = \begin{bmatrix} 1 & \eta^{14} & \eta^{21} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{843485} = \begin{bmatrix} 1 & 29 & 24 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{843485} = \mathbf{Pl}(0, 24, 0, 29, 1, 0)_{4924}$$

$$\ell_{1088} = \begin{bmatrix} 1 & \eta^5 & \eta^{21} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{818117} = \begin{bmatrix} 1 & 5 & 24 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{818117} = \mathbf{Pl}(0, 24, 0, 5, 1, 0)_{3412}$$

Rank of lines: (1, 1056, 33, 577, 897, 289, 737, 449, 385, 705, 129, 801, 513, 225, 481, 193, 417, 353, 769, 65, 929, 961, 833, 257, 161, 545, 321, 673, 993, 97, 609, 641, 865, 2113, 34880, 1082433, 33825, 608833, 947073, 304417, 777953, 473537, 405889, 744129, 135297, 845601, 541185, 236769, 507361, 202945, ...752583, 843485, 818117)

Rank of points on Klein quadric: (3, 1089, 1153, 1217, 1281, 1345, 1409, 1473, 1537, 1601, 1665, 1729, 1793, 1857, 1921, 1985, 2049, 2113, 2177, 2241, 2305, 2369, 2433, 2497, 2561, 2625, 2689, 2753, 2817, 2881, 2945, 3009, 3073, 3105, 1121, 97, 128, 159, 190, 221, 252, 283, 314, 345, 376, 407, 438, 469, 500, 531, ...3536, 4924, 3412)

Eckardt Points

The surface has 0 Eckardt points:

Double Points

The surface has 0 Double points:

The double points on the surface are:

Single Points

The surface has 1024 single points:

Too many to print.

Points on surface but on no line

The surface has 0 points not on any line:

The points on the surface but not on lines are:

Line Intersection Graph

Too many lines to print.

Neighbor sets in the line intersection graph:

Too many lines to print.

The surface has 2081 points:

Too many to print.