The group G is isomorphic to the group labelled by [8, 4] in the Small Groups library.
Ordinary character table of $G \cong Q8$:

	1a	2a	4a	4b	4c
χ_1	1	1	1	1	1
χ_2	1	1	1	-1	-1
χ_3	1	1	-1	1	-1
χ_4	1	1	-1	-1	1
χ_5	2	-2	0	0	0

Trivial source character table of $G \cong Q8$ at $p = 2$:

Normalisers N_i	N_1	N_2	N_3	N_4	N_5	N_6
p-subgroups of G up to conjugacy in G	P_1	P_2	P_3	P_4	P_5	P_6
Representatives $n_j \in N_i$	1a	1a	1a	1a	1a	1a
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 2 \cdot \chi_5$	8	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5$	4	4	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5$	2	2	2	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5$	2	2	0	2	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5$	2	2	0	0	2	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5$	1	1	1	1	1	1

$P_1 = Group([()]) \cong 1$
$P_2 = Group([(1,4)(2,6)(3,7)(5,8)]) \cong C2$
$P_3 = Group([(1,4)(2,6)(3,7)(5,8), (1,3,4,7)(2,5,6,8)]) \cong C4$
$P_4 = Group([(1,4)(2,6)(3,7)(5,8), (1,2,4,6)(3,8,7,5)]) \cong C4$
$P_5 = Group([(1,4)(2,6)(3,7)(5,8), (1,8,4,5)(2,3,6,7)]) \cong C4$
$P_6 = Group([(1,4)(2,6)(3,7)(5,8), (1,3,4,7)(2,5,6,8), (1,2,4,6)(3,8,7,5)]) \cong Q8$

$N_1 = Group([(1,2,4,6)(3,8,7,5), (1,3,4,7)(2,5,6,8), (1,4)(2,6)(3,7)(5,8)]) \cong Q8$
$N_2 = Group([(1,2,4,6)(3,8,7,5), (1,3,4,7)(2,5,6,8), (1,4)(2,6)(3,7)(5,8)]) \cong Q8$
$N_3 = Group([(1,3,4,7)(2,5,6,8), (1,4)(2,6)(3,7)(5,8), (1,2,4,6)(3,8,7,5)]) \cong Q8$
$N_4 = Group([(1,2,4,6)(3,8,7,5), (1,4)(2,6)(3,7)(5,8), (1,3,4,7)(2,5,6,8)]) \cong Q8$
$N_5 = Group([(1,8,4,5)(2,3,6,7), (1,4)(2,6)(3,7)(5,8), (1,2,4,6)(3,8,7,5)]) \cong Q8$
$N_6 = Group([(1,2,4,6)(3,8,7,5), (1,3,4,7)(2,5,6,8), (1,4)(2,6)(3,7)(5,8)]) \cong Q8$