<table>
<thead>
<tr>
<th>Item</th>
<th>Efficiency</th>
<th>Background</th>
<th>Fit model</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$m_{f_2'(1525)}$ (MeV)</td>
<td>1.2</td>
<td>0.4</td>
<td>+5.2</td>
<td>+5.3</td>
</tr>
<tr>
<td>$\Gamma_{f_2'(1525)}$ (MeV)</td>
<td>4.7</td>
<td>0.5</td>
<td>+8.6</td>
<td>+9.8</td>
</tr>
</tbody>
</table>

**Fit fractions (%)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Efficiency</th>
<th>Background</th>
<th>Fit model</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\phi(1020)$ $\lambda = 0$</td>
<td>0.8</td>
<td>0</td>
<td>+0.06</td>
<td>±0.8</td>
</tr>
<tr>
<td>$\phi(1020)$ $</td>
<td>\lambda</td>
<td>= 1$</td>
<td>1.3</td>
<td>0</td>
</tr>
<tr>
<td>$f_0(980)$</td>
<td>1.7</td>
<td>0.4</td>
<td>+2.1</td>
<td>+2.8</td>
</tr>
<tr>
<td>$f_0(1370)$</td>
<td>0.3</td>
<td>0.02</td>
<td>+0.2</td>
<td>±0.3</td>
</tr>
<tr>
<td>$f_2'(1525)$ $\lambda = 0$</td>
<td>1.5</td>
<td>0.2</td>
<td>−0.5</td>
<td>−1.6</td>
</tr>
<tr>
<td>$f_2'(1525)$ $</td>
<td>\lambda</td>
<td>= 1$</td>
<td>1.1</td>
<td>0.4</td>
</tr>
<tr>
<td>$f_2(1640)$ $</td>
<td>\lambda</td>
<td>= 1$</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>$\phi(1680)$ $</td>
<td>\lambda</td>
<td>= 1$</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>$f_2(1750)$ $\lambda = 0$</td>
<td>0.3</td>
<td>0.1</td>
<td>+1.0</td>
<td>+1.0</td>
</tr>
<tr>
<td>$f_2(1750)$ $</td>
<td>\lambda</td>
<td>= 1$</td>
<td>1.6</td>
<td>0.3</td>
</tr>
<tr>
<td>$f_2(1950)$ $\lambda = 0$</td>
<td>0.1</td>
<td>0.04</td>
<td>+0.2</td>
<td>+0.2</td>
</tr>
<tr>
<td>$f_2(1950)$ $</td>
<td>\lambda</td>
<td>= 1$</td>
<td>2.1</td>
<td>0.6</td>
</tr>
<tr>
<td>Non-resonant</td>
<td>1.7</td>
<td>0.4</td>
<td>−1.5</td>
<td>−2.2</td>
</tr>
</tbody>
</table>

**Non-resonant**

- $\phi(1020)$ peak (%): 0.02 ± 0.2
- $S$-wave within ±12 MeV of $\phi(1020)$ peak (%): 0.02 ± 0.2

**Phases (degrees)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Efficiency</th>
<th>Background</th>
<th>Fit model</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$f_0(980)$</td>
<td>19</td>
<td>8</td>
<td>+14</td>
<td>+25</td>
</tr>
<tr>
<td>$f_0(1370)$</td>
<td>6</td>
<td>1</td>
<td>−8</td>
<td>−22</td>
</tr>
<tr>
<td>$f_2(1640)$ $</td>
<td>\lambda</td>
<td>= 1$</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>$\phi(1680)$ $</td>
<td>\lambda</td>
<td>= 1$</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>$f_2(1750)$ $\lambda = 0$</td>
<td>2</td>
<td>2</td>
<td>−42</td>
<td>−44</td>
</tr>
<tr>
<td>$f_2(1750)$ $</td>
<td>\lambda</td>
<td>= 1$</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>$f_2(1950)$ $\lambda = 0$</td>
<td>13</td>
<td>1</td>
<td>+9</td>
<td>±9</td>
</tr>
<tr>
<td>$f_2(1950)$ $</td>
<td>\lambda</td>
<td>= 1$</td>
<td>77</td>
<td>26</td>
</tr>
<tr>
<td>Non-resonant</td>
<td>18</td>
<td>7</td>
<td>−1</td>
<td>−80</td>
</tr>
</tbody>
</table>

- $f_0(980)$ $|\lambda| = 1$ | 19 | 8 | +14 | +25 |
- $f_0(1370)$ | 6 | 1 | −8 | −22 |
- $f_2(1640)$ $|\lambda| = 1$ | 7 | 11 | −6 | ±8 |
- $\phi(1680)$ $|\lambda| = 1$ | 1 | 1 | +0 | +13 |
- $f_2(1750)$ $\lambda = 0$ | 2 | 2 | −42 | −44 |
- $f_2(1750)$ $|\lambda| = 1$ | 12 | 10 | −210 | −210 |
- $f_2(1950)$ $\lambda = 0$ | 13 | 1 | +9 | ±9 |
- $f_2(1950)$ $|\lambda| = 1$ | 77 | 26 | +130 | +150 |
- Non-resonant | 18 | 7 | −1 | −80 |