$$S = \frac{1}{8}$$

| | $0$ | $\tilde{0}$ | $\Sigma_m$ | $\tilde{\Sigma}_m$ | $\Sigma_r$ | $\tilde{\Sigma}_r$ | $\Sigma_{mr}$ | $\tilde{\Sigma}_{mr}$ | $\Psi_m$ | $\tilde{\Psi}_m$ | $\Psi_{mr}$ | $\tilde{\Psi}_{mr}$ | $\Psi_r$ | $\tilde{\Psi}_r$ | $\Sigma_\epsilon$ | $\tilde{\Sigma}_\epsilon$ | $\Phi_m$ | $\tilde{\Phi}_m$ | $\Phi_{mr}$ | $\tilde{\Phi}_{mr}$ | $\Phi_r$ | $\tilde{\Phi}_r$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $0$ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| $\tilde{0}$ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | −2 | −2 | −2 | −2 | −2 | −2 | −2 | −2 |
| $\Sigma_m$ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | −2 | −2 | −2 | −2 | 2 | 2 | 2 | 2 | −2 | −2 | −2 | −2 | 2 | 2 |
| $\tilde{\Sigma}_m$ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | −2 | −2 | 2 | 2 | −2 | −2 | 2 | 2 | −2 | −2 | 2 | 2 | −2 | −2 |
| $\Sigma_r$ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | −2 | −2 | −2 | −2 | 2 | 2 | 2 | 2 | −2 | −2 | −2 | −2 |
| $\tilde{\Sigma}_r$ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | −2 | −2 | −2 | −2 | 2 | 2 | −2 | −2 | 2 | 2 | 2 | 2 | −2 | −2 |
| $\Sigma_{mr}$ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | −2 | −2 | 2 | 2 | −2 | −2 | −2 | −2 | 2 | 2 | −2 | −2 | 2 | 2 |
| $\tilde{\Sigma}_{mr}$ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | −2 | −2 | −2 | −2 | −2 | −2 | −2 | −2 | 2 | 2 | 2 | 2 |
| $\Psi_m$ | 2 | 2 | −2 | −2 | 2 | −2 | −2 | 2 | 4 | −4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $\tilde{\Psi}_m$ | 2 | 2 | −2 | −2 | 2 | −2 | −2 | 2 | −4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $\Psi_{mr}$ | 2 | 2 | −2 | 2 | −2 | −2 | 2 | −2 | 0 | 0 | 4 | −4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $\tilde{\Psi}_{mr}$ | 2 | 2 | −2 | 2 | −2 | −2 | 2 | −2 | 0 | 0 | −4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $\Psi_r$ | 2 | 2 | 2 | −2 | −2 | 2 | −2 | −2 | 0 | 0 | 0 | 0 | 4 | −4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $\tilde{\Psi}_r$ | 2 | 2 | 2 | −2 | −2 | 2 | −2 | −2 | 0 | 0 | 0 | 0 | −4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $\Sigma_\epsilon$ | 2 | −2 | 2 | 2 | 2 | −2 | −2 | −2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | −4 | 0 | 0 | 0 | 0 | 0 | 0 |
| $\tilde{\Sigma}_\epsilon$ | 2 | −2 | 2 | 2 | 2 | −2 | −2 | −2 | 0 | 0 | 0 | 0 | 0 | 0 | −4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| $\Phi_m$ | 2 | −2 | −2 | −2 | 2 | 2 | 2 | −2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | −4 | 0 | 0 | 0 | 0 |
| $\tilde{\Phi}_m$ | 2 | −2 | −2 | −2 | 2 | 2 | 2 | −2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | −4 | 4 | 0 | 0 | 0 | 0 |
| $\Phi_{mr}$ | 2 | −2 | −2 | 2 | −2 | 2 | −2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | −4 | 0 | 0 |
| $\tilde{\Phi}_{mr}$ | 2 | −2 | −2 | 2 | −2 | 2 | −2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | −4 | 4 | 0 | 0 |
| $\Phi_r$ | 2 | −2 | 2 | −2 | −2 | −2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | −4 | 4 |
| $\tilde{\Phi}_r$ | 2 | −2 | 2 | −2 | −2 | −2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | −4 |