$$\varphi \colon \left({}^3\times_u, d(e^u \alpha_3) \right) \to \left(T^{*2} \setminus \{(0,0)\}, dx_1 \wedge dy_1 + dx_2 \wedge dy_2 \right); (z_1, z_2, u) \mapsto e^{u/2}(r_1 \cos\theta_1, r_2 \cos\theta_2, r_1 \sin\theta_1, r_2 \sin\theta_2)$$