Confusion Matrix Comparison: 9-Way vs Factorized

9-Way Baseline

True \ Predicted	NOOP	UP	RIGHT	LEFT	DOWN	UPRIGHT	UPLEFT	DOWNRIGHT	DOWNLEFT
NOOP	0.86	0.00	0.01	0.02	0.10	0.01	0.00	0.00	0.00
UP	0.00	0.25	0.00	0.00	0.34	0.41	0.00	0.00	0.00
RIGHT	0.00	0.00	0.92	0.02	0.02	0.01	0.02	0.02	0.00
LEFT	0.00	0.00	0.01	0.92	0.02	0.01	0.02	0.00	0.02
DOWN	0.00	0.01	0.01	0.01	0.94	0.01	0.00	0.01	0.00
UPRIGHT	0.00	0.02	0.01	0.01	0.02	0.92	0.00	0.00	0.02
UPLEFT	0.00	0.00	0.38	0.31	0.01	0.00	0.29	0.00	0.00
DOWNRIGHT	0.00	0.00	0.37	0.00	0.41	0.00	0.00	0.22	0.00
DOWNLEFT	0.00	0.00	0.00	0.33	0.00	0.36	0.00	0.00	0.30

Factorized (Reconstructed)

True \ Predicted	NOOP	UP	RIGHT	LEFT	DOWN	UPRIGHT	UPLEFT	DOWNRIGHT	DOWNLEFT
NOOP	0.85	0.00	0.01	0.02	0.11	0.01	0.00	0.00	0.00
UP	0.00	0.41	0.00	0.00	0.24	0.34	0.00	0.00	0.00
RIGHT	0.00	0.00	0.87	0.02	0.03	0.01	0.04	0.03	0.00
LEFT	0.00	0.00	0.01	0.90	0.02	0.01	0.04	0.00	0.02
DOWN	0.00	0.02	0.01	0.01	0.93	0.01	0.00	0.01	0.00
UPRIGHT	0.00	0.03	0.01	0.01	0.01	0.90	0.03	0.00	0.01
UPLEFT	0.00	0.00	0.25	0.24	0.00	0.01	0.48	0.00	0.00
DOWNRIGHT	0.00	0.00	0.33	0.00	0.39	0.00	0.00	0.27	0.00
DOWNLEFT	0.00	0.00	0.00	0.33	0.00	0.27	0.24	0.00	0.17