## Monolithic Combined Results (All Domains)

Search prefix:

## Training

| Mode      | Domain              | Problem                    | Goal             | Length | Nodes | Total (ms) | Init (ms) | Search (ms) | Overhead (ms) | Search  |
|-----------|---------------------|----------------------------|------------------|--------|-------|------------|-----------|-------------|---------------|---------|
| Training  | CC_2_2_4            | CC_2_2_4pl_3               | Yes              | 3      | 3     | 351        | 35        | 97          | 218           | A*(GNN) |
| Training  | $CC_{-2}_{-2}_{-4}$ | $CC_2_2_4_pl_5$            | Yes              | 7      | 35    | 968        | 35        | 708         | 224           | A*(GNN) |
| Training  | $CC_{-3}_{-3}_{-3}$ | $CC_3_3_3_pl_4$            | Yes              | 4      | 6     | 451        | 44        | 273         | 133           | A*(GNN) |
| Training  | $CC_{-3}_{-3}_{-3}$ | $CC_3_3_3_pl_5$            | Yes              | 7      | 340   | 11491      | 44        | 11183       | 263           | A*(GNN) |
| Training  | $SC\_Multi\_Rooms$  | SC_10_10pl_13              | Yes              | 14     | 33    | 656        | 23        | 425         | 207           | A*(GNN) |
| Training  | $SC\_Multi\_Rooms$  | $SC_{-10}_{-8} = pl_{-14}$ | Yes              | 16     | 20    | 418        | 21        | 193         | 203           | A*(GNN) |
| Training  | $SC\_Four\_Rooms$   | $SC_4_1\_pl_5$             | Yes              | 5      | 13    | 218        | 11        | 34          | 172           | A*(GNN) |
| Training  | $SC\_Four\_Rooms$   | $SC_4_2\_pl_7$             | Yes              | 7      | 149   | 776        | 11        | 591         | 173           | A*(GNN) |
| Training  | $SC\_Four\_Rooms$   | $SC_4_3_pl_6$              | Yes              | 6      | 15    | 227        | 11        | 45          | 170           | A*(GNN) |
| Training  | $SC\_Multi\_Rooms$  | $SC_8_10_pl_8$             | TO               | -      | -     | -          | -         | -           | -             | -       |
| Training  | $SC\_Multi\_Rooms$  | $SC_9_11_pl_5$             | Yes              | 6      | 10    | 336        | 29        | 104         | 202           | A*(GNN) |
| Training  | $SC\_Multi\_Rooms$  | $SC_9_11_pl_7$             | Yes              | 7      | 14    | 438        | 30        | 213         | 194           | A*(GNN) |
| Averages: |                     |                            | $11/12 \ (92\%)$ | 7.45   | 58    | 1484.55    | 26.73     | 1260.55     | 196.27        |         |

Test

| Mode      | Domain              | Problem                        | Goal        | Length | Nodes  | Total (ms) | Init (ms) | Search (ms) | Overhead (ms) | Search     |
|-----------|---------------------|--------------------------------|-------------|--------|--------|------------|-----------|-------------|---------------|------------|
| Test      | CC_2_2_4            | CC_2_2_4pl_4                   | Yes         | 5      | 8      | 556        | 34        | 368         | 153           | A*(GNN)    |
| Test      | $CC_{-2}_{-2}_{-4}$ | $CC_{-2}_{-2}_{-4}_{-pl}_{-6}$ | Yes         | 6      | 184    | 6385       | 34        | 6111        | 239           | A*(GNN)    |
| Test      | $CC_{-}2_{-}2_{-}4$ | $CC_{-2}_{-2}_{-4}_{-pl}_{-7}$ | Yes         | 7      | 968    | 16344      | 35        | 16247       | 61            | A*(GNN)    |
| Test      | CC_3_3_3            | CC_3_3_3pl_3                   | Yes         | 3      | 7      | 865        | 46        | 660         | 158           | A*(GNN)    |
| Test      | $CC_{-3}_{-3}_{-3}$ | $CC_3_3_3_pl_6$                | TO          | -      | -      | -          | _         | -           | -             | -          |
| Test      | CC_3_3_3            | $CC_3_3_3_pl_7$                | TO          | -      | -      | -          | _         | -           | -             | -          |
| Test      | $SC\_Multi\_Rooms$  | SC_10_10pl_10                  | Yes         | 14     | 20     | 597        | 23        | 351         | 222           | A*(GNN)    |
| Test      | $SC\_Multi\_Rooms$  | SC_10_10pl_17                  | Yes         | 18     | 87     | 3065       | 28        | 2805        | 231           | A*(GNN)    |
| Test      | $SC\_Multi\_Rooms$  | SC_10_10pl_9                   | Yes         | 9      | 9      | 345        | 27        | 92          | 225           | A*(GNN)    |
| Test      | $SC\_Multi\_Rooms$  | $SC_{-10}_{-8}$ _pl_10         | Yes         | 10     | 10     | 325        | 23        | 78          | 223           | A*(GNN)    |
| Test      | $SC\_Multi\_Rooms$  | $SC_{-}10_{-}8_{-}pl_{-}15$    | Yes         | 18     | 24     | 647        | 25        | 394         | 227           | A*(GNN)    |
| Test      | $SC\_Multi\_Rooms$  | $SC_10_8\_pl_9$                | TO          | -      | -      | -          | -         | -           | -             | -          |
| Test      | SC_Four_Rooms       | $SC_4_1\_pl_3$                 | Yes         | 3      | 3      | 274        | 10        | 43          | 220           | A*(GNN)    |
| Test      | SC_Four_Rooms       | $SC_4_2\_pl_5$                 | Yes         | 5      | 8      | 338        | 11        | 110         | 216           | A*(GNN)    |
| Test      | SC_Four_Rooms       | $SC_4_2\_pl_8$                 | Yes         | 8      | 1383   | 6687       | 12        | 6408        | 266           | A*(GNN)    |
| Test      | SC_Four_Rooms       | $SC_4_3\_pl_5$                 | Yes         | 5      | 12     | 320        | 10        | 90          | 219           | A*(GNN)    |
| Test      | SC_Four_Rooms       | $SC_4_3_pl_8$                  | Yes         | 8      | 60     | 477        | 10        | 249         | 217           | A*(GNN)    |
| Test      | SC_Four_Rooms       | $SC_4_4\_pl_5$                 | Yes         | 5      | 12     | 274        | 11        | 45          | 217           | A*(GNN)    |
| Test      | $SC\_Multi\_Rooms$  | $SC_{-8}_{-10}_{-pl}_{-12}$    | TO          | -      | -      | -          | -         | -           | -             | -          |
| Test      | $SC\_Multi\_Rooms$  | $SC_8_10pl_6$                  | Yes         | 6      | 99     | 3537       | 23        | 3283        | 230           | A*(GNN)    |
| Test      | $SC\_Multi\_Rooms$  | $SC_8_10_pl_9$                 | TO          | -      | -      | -          | -         | -           | -             | -          |
| Test      | $SC\_Multi\_Rooms$  | $SC_{-9}_{-11}_{-pl}_{-10}$    | Yes         | 11     | 66     | 3141       | 75        | 2631        | 434           | A*(GNN)    |
| Test      | $SC\_Multi\_Rooms$  | $SC_{-9}_{-11}_{-pl}_{-11}$    | Yes         | 11     | 102    | 4687       | 103       | 4302        | 281           | A*(GNN)    |
| Test      | $SC\_Multi\_Rooms$  | $SC_9_11_pl_4$                 | Yes         | 4      | 4      | 958        | 121       | 61          | 775           | A*(GNN)    |
| Test      | $SC\_Multi\_Rooms$  | $SC_9_11_pl_6$                 | Yes         | 7      | 9      | 993        | 106       | 347         | 539           | $A^*(GNN)$ |
| Test      | $SC\_Multi\_Rooms$  | $SC_{-9}_{-11}_{-pl}_{-8}$     | Yes         | 9      | 18     | 1044       | 153       | 425         | 465           | A*(GNN)    |
| Test      | $SC\_Multi\_Rooms$  | $SC_9_11_pl_9$                 | Yes         | 10     | 24     | 819        | 72        | 487         | 259           | A*(GNN)    |
| Averages: |                     |                                | 22/27~(81%) | 8.27   | 141.68 | 2394.45    | 45.09     | 2072.14     | 276.23        |            |

## Combined (Training + Test)

| Mode      | Domain              | Problem                        | Goal        | Length | Nodes  | Total (ms) | Init (ms) | Search (ms) | Overhead (ms) | Search  |
|-----------|---------------------|--------------------------------|-------------|--------|--------|------------|-----------|-------------|---------------|---------|
| Test      | CC_2_2_4            | CC_2_2_4pl_4                   | Yes         | 5      | 8      | 556        | 34        | 368         | 153           | A*(GNN) |
| Test      | $CC_{-2}_{-2}_{-4}$ | $CC_2_2_4_pl_6$                | Yes         | 6      | 184    | 6385       | 34        | 6111        | 239           | A*(GNN) |
| Test      | $CC_{-2}_{-2}_{-4}$ | $CC_{-2}_{-2}_{-4}_{-pl}_{-7}$ | Yes         | 7      | 968    | 16344      | 35        | 16247       | 61            | A*(GNN) |
| Test      | $CC_{-3}_{-3}_{-3}$ | $CC_3_3_3_pl_3$                | Yes         | 3      | 7      | 865        | 46        | 660         | 158           | A*(GNN) |
| Test      | $CC_{-3}_{-3}$      | CC_3_3_3pl_6                   | TO          | -      | -      | -          | -         | -           | -             | -       |
| Test      | $CC_{-3}_{-3}_{-3}$ | CC_3_3_3pl_7                   | TO          | -      | -      | -          | -         | _           | -             | -       |
| Test      | $SC\_Multi\_Rooms$  | SC_10_10pl_10                  | Yes         | 14     | 20     | 597        | 23        | 351         | 222           | A*(GNN) |
| Test      | $SC\_Multi\_Rooms$  | SC_10_10pl_17                  | Yes         | 18     | 87     | 3065       | 28        | 2805        | 231           | A*(GNN) |
| Test      | $SC\_Multi\_Rooms$  | SC_10_10pl_9                   | Yes         | 9      | 9      | 345        | 27        | 92          | 225           | A*(GNN) |
| Test      | $SC\_Multi\_Rooms$  | SC_10_8pl_10                   | Yes         | 10     | 10     | 325        | 23        | 78          | 223           | A*(GNN) |
| Test      | $SC\_Multi\_Rooms$  | SC_10_8pl_15                   | Yes         | 18     | 24     | 647        | 25        | 394         | 227           | A*(GNN) |
| Test      | $SC\_Multi\_Rooms$  | $SC_{10_8_pl_9}$               | TO          | -      | -      | -          | -         | _           | -             | -       |
| Test      | $SC_Four_Rooms$     | $SC_4_1\_pl_3$                 | Yes         | 3      | 3      | 274        | 10        | 43          | 220           | A*(GNN) |
| Test      | $SC_Four_Rooms$     | $SC_4_2_pl_5$                  | Yes         | 5      | 8      | 338        | 11        | 110         | 216           | A*(GNN) |
| Test      | $SC\_Four\_Rooms$   | $SC_4_2_pl_8$                  | Yes         | 8      | 1383   | 6687       | 12        | 6408        | 266           | A*(GNN) |
| Test      | $SC\_Four\_Rooms$   | $SC_4_3_pl_5$                  | Yes         | 5      | 12     | 320        | 10        | 90          | 219           | A*(GNN) |
| Test      | $SC\_Four\_Rooms$   | $SC_4_3_pl_8$                  | Yes         | 8      | 60     | 477        | 10        | 249         | 217           | A*(GNN) |
| Test      | $SC_Four_Rooms$     | $SC_4_4_pl_5$                  | Yes         | 5      | 12     | 274        | 11        | 45          | 217           | A*(GNN) |
| Test      | $SC\_Multi\_Rooms$  | $SC_{-8}_{-10}_{-pl}_{-12}$    | TO          | _      | -      | -          | -         | _           | -             | -       |
| Test      | $SC\_Multi\_Rooms$  | $SC_{-8}_{-10}_{-pl}_{-6}$     | Yes         | 6      | 99     | 3537       | 23        | 3283        | 230           | A*(GNN) |
| Test      | $SC\_Multi\_Rooms$  | $SC_{-8_{-10_{-pl}}9}$         | TO          | -      | -      | -          | -         | -           | -             | -       |
| Test      | $SC\_Multi\_Rooms$  | $SC_{-9}_{-11}_{-pl}_{-10}$    | Yes         | 11     | 66     | 3141       | 75        | 2631        | 434           | A*(GNN) |
| Test      | $SC\_Multi\_Rooms$  | SC_9_11pl_11                   | Yes         | 11     | 102    | 4687       | 103       | 4302        | 281           | A*(GNN) |
| Test      | $SC\_Multi\_Rooms$  | $SC_{-9}_{-11}_{-pl}_{-4}$     | Yes         | 4      | 4      | 958        | 121       | 61          | 775           | A*(GNN) |
| Test      | $SC\_Multi\_Rooms$  | $SC_9_11_pl_6$                 | Yes         | 7      | 9      | 993        | 106       | 347         | 539           | A*(GNN) |
| Test      | $SC\_Multi\_Rooms$  | SC_9_11pl_8                    | Yes         | 9      | 18     | 1044       | 153       | 425         | 465           | A*(GNN) |
| Test      | $SC\_Multi\_Rooms$  | $SC_{-9}_{-11}_{-pl}_{-9}$     | Yes         | 10     | 24     | 819        | 72        | 487         | 259           | A*(GNN) |
| Training  | $CC_{-2}_{-2}_{-4}$ | $CC_{-2}_{-2}_{-4}_{-pl}_{-3}$ | Yes         | 3      | 3      | 351        | 35        | 97          | 218           | A*(GNN) |
| Training  | $CC_{-2}_{-2}_{-4}$ | $CC_{-2}_{-2}_{-4}_{-pl}_{-5}$ | Yes         | 7      | 35     | 968        | 35        | 708         | 224           | A*(GNN) |
| Training  | $CC_{-3}_{-3}_{-3}$ | $CC_3_3_3pl_4$                 | Yes         | 4      | 6      | 451        | 44        | 273         | 133           | A*(GNN) |
| Training  | $CC_{-3}_{-3}_{-3}$ | CC_3_3_3pl_5                   | Yes         | 7      | 340    | 11491      | 44        | 11183       | 263           | A*(GNN) |
| Training  | $SC\_Multi\_Rooms$  | SC_10_10pl_13                  | Yes         | 14     | 33     | 656        | 23        | 425         | 207           | A*(GNN) |
| Training  | $SC\_Multi\_Rooms$  | SC_10_8pl_14                   | Yes         | 16     | 20     | 418        | 21        | 193         | 203           | A*(GNN) |
| Training  | SC_Four_Rooms       | $SC_4_1\_pl_5$                 | Yes         | 5      | 13     | 218        | 11        | 34          | 172           | A*(GNN) |
| Training  | SC_Four_Rooms       | $SC_4_2_pl_7$                  | Yes         | 7      | 149    | 776        | 11        | 591         | 173           | A*(GNN) |
| Training  | $SC\_Four\_Rooms$   | SC_4_3pl_6                     | Yes         | 6      | 15     | 227        | 11        | 45          | 170           | A*(GNN) |
| Training  | $SC\_Multi\_Rooms$  | SC_8_10pl_8                    | TO          | -      | 3 -    | -          | -         | -           | -             | - /     |
| Training  | $SC\_Multi\_Rooms$  | SC_9_11pl_5                    | Yes         | 6      | 10     | 336        | 29        | 104         | 202           | A*(GNN) |
| Training  | $SC\_Multi\_Rooms$  | SC_9_11pl_7                    | Yes         | 7      | 14     | 438        | 30        | 213         | 194           | A*(GNN) |
| Averages: |                     | _                              | 33/39 (85%) | 8      | 113.79 | 2091.15    | 38.97     | 1801.61     | 249.58        | · ,     |