Pipeline	Filtered	Precision	Recall	$AUC_{05}^F$	$AUC_{010}^F$	MegaDept $AUC_{0:20}^F$	$AUC_{Z}^{F}$	$AUC_{05}^{E}$	$AUC_{010}^{E}$	$AUC_{020}^E$	$\mathrm{AUC}_{\mathbb{Z}}^{E}$	Filtered	Precision	Recall	$AUC_{95}^{F}$	$AUC_{010}^F$	ScanNet AUC <sup>F</sup> <sub>020</sub>	$AUC_{Z}^{F}$	$AUC_{05}^{E}$	$AUC_{010}^{E}$	$AUC_{020}^E$	$\mathrm{AUC}_{\angle}^{E}$
Key.Net+ARNA +MAGSAC+	0.00 55.99	55.63 92.11	100.00 74.01	0.00 30.77	0.09	0.70 57.49	0.26	43.37 45.24	60.54 62.10	73.97	59.29 61.11	0.00 71.16	34.81 60.23	99.14 49.42	0.00 6.70	0.16 15.38	1.04	0.40	10.97 11.57	22.16 23.73	35.11 37.47	22.75 24.25
+MAGSAC <sub>↓</sub> +ACNe	61.72 44.12	92.86 88.21	64.87 89.85	32.40 9.20	45.51	58.53 41.99	45.48	43.87	61.95 59.09	75.98 75.01	60.60 58.07	75.27 57.62	60.14 58.28	42.19 71.55	7.38	15.49	26.19 19.60	16.35 9.79	11.89	23.89	37.01 37.67	24.26
$+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	58.35 63.53	94.96 95.62	72.39 63.92	30.34 30.67	46.86 46.13	62.64 61.35	46.61 46.05	43.48 41.48	62.01 60.64	76.90 76.15	60.80 59.43	74.71 78.06	64.38 64.28	46.67 40.36	6.39 6.65	16.04 16.13	29.61 29.18	17.35 17.32	11.14 11.90	24.06 24.60	38.68 39.68	24.63 25.40
+AdaLAM $+MAGSAC_{\uparrow}$ $+MAGSAC_{\bot}$	94.22 94.89 95.25	89.43 73.94 74.19	8.63 7.64 7.16	10.68 12.86 13.08	18.04 21.72 22.28	27.41 31.44 32.30	18.71 22.00 22.55	17.57 17.16 15.69	29.07 29.09 28.33	41.84 41.38 41.17	29.49 29.21 28.40	96.95 97.79 97.95	43.29 26.70 26.60	4.29 3.12 2.89	0.65 1.17 1.05	1.89 2.61 2.76	4.23 5.21 5.42	2.26 3.00 3.08	1.33 1.34 1.39	3.40 3.17 3.17	7.23 6.13 6.55	3.99 3.54 3.70
+CC +MAGSAC <sub>↑</sub> +MAGSAC	42.68 58.99	88.12 95.09	88.40 69.84	10.59 32.13	20.03 46.53	33.64 60.90	21.42 46.52	40.01 42.19	58.00 59.90	72.81 74.56	56.94 58.89	44.57 76.55	58.13 64.24	74.48 42.08	1.46 4.81	4.70 11.02	11.14 20.18	5.77 12.00	8.32 7.89	17.80 18.14	29.84 30.37	18.66 18.80
+MAGSAC↓ +CLNet +MAGSAC→	64.04 46.21 60.92	95.70 87.24 94.63	61.73 84.90 66.91	32.61 1.61 20.65	3.86 33.72	61.28 12.39 48.68	46.98 5.95 34.35	40.63 35.98 36.07	59.10 55.57 55.49	74.28 72.01 72.06	54.52 54.54	79.60 70.52 79.84	64.21 61.97 65.01	36.63 52.50 37.52	4.66 0.66 2.40	2.18 6.95	19.95 6.92 15.09	3.25 8.15	8.38 6.88 6.76	17.78 17.07 16.21	29.69 30.16 28.47	18.62 18.04 17.15
+MAGSAC↓ +ConvMatch	65.79 57.19	95.35 87.09	59.11 74.85	20.99 11.44	34.93 21.84	50.67 35.50	35.53 22.93	36.39 36.05	56.12 54.80	72.42 69.59	54.97 53.48	82.42 65.08	64.99 62.47	32.76 65.72	2.30 1.84	6.82	14.99 16.43	8.03 8.22	7.37 8.57	16.75 21.11	28.84 35.54	17.65 21.74
+MAGSAC↑ +MAGSAC↓ +DeMatch	68.42 72.39 51.43	92.80 93.42 87.94	59.43 52.37 80.27	22.19 22.32 9.58	35.70 35.41 18.90	49.85 50.10	35.91 35.94	36.73 36.71	55.73 54.79 53.04	71.08 69.78	54.51 53.76	77.98 80.89	66.55 66.38	43.33 37.51 62.02	4.74 5.31	12.09 12.66	23.98 24.38	13.60 14.12	10.65 10.41	22.73 22.56 18.64	36.98 36.95	23.46 23.30
$^{+{\rm MAGSAC}_{\uparrow}}_{+{\rm MAGSAC}_{\downarrow}}$	64.19 68.70	94.79 95.38	63.54 55.92	22.62 22.86	35.44 35.65	50.12 50.13	36.06 36.21	35.99 36.86	55.57 56.31	72.08 72.54	54.55 55.24	78.63 81.46	64.81 64.73	40.89 35.32	4.44 4.50	10.49 11.19	21.74 21.71	12.22 12.46	8.81 8.30	20.05 19.51	33.98 33.85	20.95 20.55
+FC-GNN +MAGSAC +MAGSAC	50.06 53.11 54.47	94.27 96.65 96.87	84.19 80.83 78.59	14.28 45.09 45.85	24.85 59.64 60.52	40.47 72.86 73.28	26.53 59.19 59.88	48.09 46.63 48.11	64.96 64.44 64.87	77.72 77.53 77.25	63.59 62.86 63.41	72.92 76.26 77.57	67.12 68.99 69.07	49.46 44.51 42.13	3.77 8.15 8.69	9.02 17.35 17.89	17.74 29.14 29.77	10.18 18.22 18.78	12.85 12.53 12.58	25.96 25.05 25.70	39.83 39.35 39.78	26.21 25.64 26.02
+GMS +MAGSAC↑ +MAGSAC↓	52.55 65.30 69.51	81.19 86.33 86.89	68.66 54.27 48.11	8.47 32.57 32.93	16.29 45.47 45.49	28.75 57.52 57.22	17.84 45.19 45.21	36.40 38.22 39.46	52.88 53.39 55.18	65.99 66.01 67.38	51.76 52.54 54.01	79.39 85.67 87.43	56.51 55.02 54.96	33.54 24.39 21.49	1.13 2.84 2.76	3.83 7.65 7.52	8.77 14.66 13.96	4.58 8.38 8.08	5.47 5.16 4.96	12.11 12.63 12.26	21.95 22.12 21.27	13.17 13.30 12.83
+MS <sup>2</sup> DG-Net +MAGSAC↑	66.90 77.72	78.67 90.52	52.70 41.80	0.00 22.90	0.22 36.57	0.92 52.03	0.38 37.17	29.97 29.34	46.80 46.54	62.41 62.59	46.39 46.16	64.15 82.01	51.72 63.27	55.98 34.44	0.00 3.04	0.12 8.65	0.74 17.48	0.29 9.72	6.52 6.43	15.58 15.42	26.94 27.26	16.35 16.37
+MAGSAC↓ +NCC +MAGSAC↑	80.41 0.00 52.59	91.07 55.27 92.74	36.98 100.11 80.67	23.22 0.00 32.08	37.67 0.09 44.31	52.91 0.69 56.35	37.93 0.26 44.25	28.55 47.13 45.39	46.67 64.21 63.07	76.85 76.80	46.05 62.73 61.75	0.00 69.30	63.12 34.55 60.73	30.26 100.04 53.46	3.68 0.07 7.32	9.17 0.18 16.75	17.46 1.08 28.39	10.10 0.44 17.49	6.78 10.87 12.24	15.73 23.08 25.28	26.86 36.95 39.38	16.46 23.63 25.64
+MAGSAC <sub>↓</sub> +NCMNet	56.46 45.95	93.35 87.48	74.45 85.85	34.22 1.83	47.51 4.67	59.51 12.84	47.08 6.45	43.93 36.39	62.26 56.43	76.45	60.88 55.20	72.88 70.14	60.66 61.42	47.04 51.98	7.61 1.06	16.70 3.39	27.90 8.56	17.40 4.34	11.96 7.73	24.48 16.98	38.65 29.58	25.03 18.10
+MAGSAC↑ +MAGSAC↓ +OANet	60.68 65.58 68.37	94.71 95.44 89.69	67.68 59.78 56.00	21.46 20.87 6.29	34.22 34.37 14.97	50.30 50.32 27.20	35.33 35.18 16.15	35.60 36.90 32.74	55.19 56.08 50.87	71.88 72.26 67.78	54.22 55.08	79.42 81.95	64.34 64.40 59.55	37.46 32.94 35.42	2.99 3.67	8.12 8.46 5.88	16.38 16.59	9.16 9.57 6.93	7.03 7.43 4.82	17.23 16.92	29.58 29.18 24.84	17.95 17.84 14.17
$+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	75.10 78.16	94.55 95.09	46.49 41.09	16.02 15.55	28.48 27.57	44.08 43.41	29.53 28.84	33.16 31.15	51.57 50.61	67.78 67.86 67.10	50.46 50.87 49.62	86.22 87.66	61.68 61.54	26.29 23.55	2.90 3.11	8.01 8.12	16.84 17.15	9.25 9.46	6.34 5.38	15.07 14.15	26.25 25.88	15.89 15.14
+MOP <sub>0.5.K</sub> +MiHo +MAGSAC <sub>↑</sub> +MAGSAC <sub>1</sub>	34.40 56.66 62.12	80.55 93.79 94.52	95.13 73.39 64.76	1.18 37.54 37.59	3.02 52.48 52.48	9.31 65.60 66.05	4.50 51.87 52.04	46.17 46.13 45.50	62.93 63.79 62.66	76.58 76.84 76.29	61.89 62.25 61.48	43.48 72.88 76.71	50.24 63.42 63.33	82.69 49.04 42.10	0.38 6.92 8.02	0.95 15.60 17.21	3.81 27.67 29.02	1.71 16.73 18.08	11.55 12.32 12.92	23.85 24.68 25.24	37.95 38.66 39.30	24.45 25.22 25.82
+MOP <sub>0.5.K</sub> +MiHo+NCC +MAGSAC <sub>↑</sub> +MAGSAC <sub>↓</sub>	34.40 51.27	81.17 94.73	97.17 83.79	1.13 38.71	3.02 52.63	9.17 65.93	4.44 52.42	<b>49.25</b> 46.24	66.34 64.33	78.91 77.57	64.83 62.71	43.48 69.76	50.39 64.39	83.80 56.04	0.22 8.44	0.80 18.36	3.70 30.08	1.57 18.96	13.86 13.98	27.23 28.21	41.98 <b>42.79</b>	27.69 28.33
+MOP <sub>1.0K</sub> +MiHo +MAGSAC↑	54.22 33.67 56.53	95.13 80.06 93.78	78.96 95.73 73.70	39.95 0.52 37.47	54.15 2.41 51.62	8.10 64.23	3.67 51.11	47.18 46.74 46.03	65.70 64.05 63.01	78.40 77.10 76.05	63.76 62.63 61.70	72.62 42.29 72.73	64.53 49.97 63.52	50.79 84.19 49.73	0.21 7.73	0.68 16.96	30.22 3.59 28.83	1.49 17.84	13.40 12.56 12.60	26.56 25.17 24.87	39.35 39.24	27.02 25.69 25.57
+MAGSAC <sub>↓</sub> +MOP <sub>1.0K</sub> +MiHo+NCC +MAGSAC <sub>↑</sub>	62.05 33.67 51.14	94.56 80.77 94.84	65.03 97.86 84.29	39.21 0.73 40.26	53.64 2.69 54.05	8.17 67.02	52.98 3.86 53.78	45.01 49.22 47.46	62.29 66.13 65.62	75.42 78.71	60.91 64.69 63.88	76.51 42.29 69.47	63.38 50.23 64.65	42.78 86.06 56.98	7.54 0.20 9.34	16.63 0.65 19.21	28.26 3.31 30.57	17.48 1.39	12.82 13.40 13.60	25.66 27.79 26.77	39.93 42.34 41.30	26.14 27.85 27.22
+MAGSAC↓ +MOP <sub>1.5K</sub> +MiHo	54.10 33.33	95.37 79.84	79.53 95.97	40.26 41.50 0.83	<b>55.53</b> 2.65	68.26 8.06	55.10 3.85	48.28 46.86	65.69 63.85	78.55 78.52 76.90	63.88 64.16 62.53	72.39 41.50	64.63	51.42 84.74	8.68	19.05	30.37 4.06	19.37	13.76 13.76	26.41 24.14	40.52 38.57	26.89 24.89
+MAGSAC <sub>↑</sub> +MAGSAC <sub>↓</sub>	56.49 62.01	93.87 94.59	73.91 65.19	37.12 38.28	51.37 52.60	64.66 65.75	51.05 52.21	46.18 45.99	62.98 62.61	75.93 76.03	61.70 61.55	72.61 76.38	63.53 63.70	49.82 43.10	7.85 7.89	16.61 16.70	28.40 28.55	17.62 17.72	11.73 12.22	24.34 25.14	38.46 39.37	24.84 25.58
$+MOP_{1.5K}+MiHo+NCC$ $+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	33.33 51.07 54.05	94.85 95.35	98.19 84.49 79.72	0.94 38.69 39.05	2.98 53.32 53.75	8.26 66.17 67.08	4.06 52.73 53.29	48.71 49.11 48.11	66.23 66.68 65.27	79.24 79.14 78.15	64.73 <b>64.97</b> 63.84	41.50 69.37 72.27	49.66 64.43 64.54	86.41 56.94 51.57	0.20 8.23 8.86	0.72 17.91 <b>18.74</b>	4.24 29.50 <b>30.39</b>	1.72 18.55 19.83	13.92 13.23 13.79	27.76 26.56 <b>27.93</b>	<b>42.53</b> 41.56 <b>42.57</b>	28.07 27.12 28.10
+MOP <sub>2.0K</sub> +MiHo +MAGSAC <sub>↑</sub> +MAGSAC <sub>↓</sub>	33.04 56.41 61.98	79.54 93.80	96.31 74.16 65.32	0.73 36.60 37.78	2.84 50.65 52.20	8.32 64.58 66.18	3.96 50.61 52.05	46.81 46.58 43.77	64.04 64.07 61.47	77.04 76.97	62.63 62.54	41.01 72.52 76.34	49.50 63.73 63.62	85.48 50.25 43.21	0.17 7.09 7.21	0.65 15.76	3.51 27.63 27.62	1.45 16.83	12.23 11.82 12.19	25.00 24.47 25.29	39.51 38.55	25.58 24.95 25.59
+MOP <sub>2.0K</sub> +MiHo+NCC +MAGSAC <sub>↑</sub> +MAGSAC <sub>↓</sub>	33.04 51.01	80.26 94.83	98.53 84.80	0.72 40.67	2.92 54.64	8.22 67.58	3.96 54.29	49.41 49.51	66.57 66.84	79.25 79.20	65.08 65.18	41.01 69.24	49.73 64.55	<b>87.18</b> 57.14	0.09 8.73	0.43 18.15	3.33 29.83	1.29	14.26 13.74	27.55 27.29	42.34 41.80	28.05 27.61
$+MOP_{0.5K}$ $+MAGSAC_{\uparrow}$	53.94 39.06 57.24	95.33 84.26 93.18	91.79 71.67	3.90 37.71	55.12 8.06 51.40	17.36 63.94	9.77 51.01	48.44 43.86 45.92	65.93 61.60 63.08	78.84 74.73 76.07	64.40 60.06 61.69	72.15 55.88 75.25	64.67 55.43 62.63	51.75 70.52 44.77	8.30 0.94 6.38	2.80 14.53	8.08 25.93	3.94 15.61	13.95 11.59 11.60	27.41 23.76 23.82	37.41 37.28	27.73 24.25 24.23
+MAGSAC↓ +MOP <sub>0.5K</sub> +NCC +MAGSAC₁	62.62 39.06	93.83 84.78	63.23 93.61	38.39	52.10 7.35	64.99 15.92	51.83 8.98	46.13 46.26	62.95 63.78	75.84 76.33	62.12	78.70 55.88	62.46 55.34	38.52 71.35	6.95 1.06	14.87 2.59	26.06 7.42	15.96 3.69	11.33 13.18	23.26 26.40	37.01 40.26	23.87 26.62
$+MAGSAC_{\downarrow}$ $+MAGSAC_{\downarrow}$ $+MOP_{1.0K}$	52.01 54.88 38.46	93.92 94.38 84.00	81.55 76.93	39.69 41.15	52.92 54.68 7.59	64.98 66.53	52.53 54.12 9.18	46.00 44.36	63.70 62.47 61.53	76.57 75.30 74.83	62.09 60.71	72.07 74.55 55.19	63.34 63.46 55.67	51.30 46.82 72.04	8.15 8.50 1.20	17.77 18.18	28.65 29.14 7.97	18.19 18.61	13.23 13.00	26.51 25.66 24.30	40.01 39.18 37.83	26.59 25.95
$+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	57.09 62.51	93.25 93.94	72.11 63.57	37.48 38.05	52.11 52.43	65.28 65.57	51.63 52.01	44.89 45.04	62.35 62.63	75.66 75.84	60.96 61.17	75.01 78.50	63.10 63.01	45.55 39.28	7.58 6.93	16.06 15.09	26.85 26.63	16.83 16.22	11.55 11.54	23.77 23.37	37.78 36.28	24.37 23.73
$+MOP_{1.0K}+NCC$ $+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	38.46 51.83 54.67	84.56 94.23 94.56	94.44 82.18 77.57	2.71 39.67 40.71	6.91 53.90 54.98	15.75 66.57 67.61	8.46 53.38 54.44	47.05 46.16 47.79	64.47 64.31 65.37	77.18 77.16 77.76	62.90 62.54 63.64	55.19 71.87 74.42	55.70 63.86 63.93	73.07 52.30 47.55	0.87 8.51 8.51	2.81 17.97 18.19	7.57 29.29 29.18	3.75 18.59 18.63	12.97 13.55 14.11	26.00 26.76 26.94	40.34 41.19 40.97	26.44 27.17 27.34
+MOP <sub>1.5K</sub> +MAGSAC↑ +MAGSAC	38.24 57.01	83.88 93.27	93.02 72.39 63.91	3.08 36.96	7.45 51.39 52.66	16.09 64.95 65.68	8.87 51.10 52.23	44.94 44.95 44.62	62.55 62.53 62.36	76.09 75.77	61.19 61.09	54.86 74.91	55.57 63.04	72.76 45.78	7.37 7.60	3.00 16.18 16.53	8.31 27.35 27.21	4.14 16.97	11.35 12.09 11.23	24.05 23.77	37.46 37.64 38.33	24.28 24.50 24.63
+MOP <sub>1.5K</sub> +NCC +MAGSAC↑	38.24 51.68	93.94 84.46 94.19	94.94 82.65	38.35 3.02 40.01	7.04 53.40	15.44 66.29	8.50 53.23	47.39 47.94	65.17 65.35	75.82 77.45 77.87	60.93 63.34 63.72	78.41 54.86 71.66	63.02 55.50 63.86	39.50 73.49 52.69	7.60 0.69 7.95	2.52 17.32	7.52 29.03	3.57 18.10	13.52 14.01	26.44 26.66	38.33 41.27 40.67	24.63 27.08 27.11
+MAGSAC↓ +MOP <sub>2.9K</sub> +MAGSAC₄	54.57 38.02 56.94	94.57 83.91	77.95 93.37 72.67	41.68 3.87 37.62	55.50 8.25 51.55	68.14 17.39	9.84 51.34	46.51 45.40 45.79	62.99	77.28 75.70	62.74 61.36 61.90	74.30 54.66 74.78	64.07 55.71 63.15	47.83 72.97	8.50 0.52 7.40	17.89 2.63 15.54	29.29 8.04 27.11	3.73 16.68	13.13 11.46 12.18	26.39 24.27 23.95	40.47 37.55 37.36	26.66 24.43 24.49
+MAGSAC <sub>↓</sub> +MOP <sub>2.0K</sub> +NCC	56.94 62.37 38.02	93.43 94.12 84.45	72.67 64.11 95.23	37.62 38.76	51.55 52.96 8.08	64.85 66.20	51.34 52.64 9.55	45.79 45.76 48.80	63.51 63.08	76.39 76.08	61.90 61.64	74.78 78.41	63.15 63.34 55.67	45.77 39.45 73.77	7.40 7.17	15.54 15.39 2.40	27.11 26.74	16.68 16.43	12.18 12.62 <b>14.07</b>	23.95 24.61 26.84	37.36 37.53 41.20	24.49 24.92 27.37
+MAGSAC↑ +MAGSAC↓	51.67 54.51	94.27 94.65	82.76 78.12	38.19 40.14	52.34 54.13	65.38 67.03	51.97 53.77	46.74 47.52	64.62 65.16	77.56 77.85	62.97 63.51	71.54 74.19	64.18 64.31	53.01 48.12	8.63 8.69	17.99 18.43	29.47 30.17	18.70 19.10	13.57 13.14	26.82 25.94	40.63 39.74	27.01 26.27