Pipeline	Filtered	Precision	Recall	AUC^F_{05}	AUC_{010}^F	$AUC_{0:20}^F$	$\mathrm{AUC}_{\angle}^{F}$	AUC^E_{05}	AUC^E_{010}	AUC_{020}^{E}	$\mathrm{AUC}_{\mathbb{Z}}^{E}$	Filtered	Precision	Recall	AUC_{05}^{F}	AUC^F_{010}	ScanNet AUC ^F _{6/20}	AUC_{\angle}^F	AUC_{05}^{E}	AUC_{010}^{E}	$AUC_{0:20}^{E}$	$\mathrm{AUC}_{\mathbb{Z}}^{E}$
	0.00 15.79	92.94 95.61	99.74 87.02	40.94 49.17	57.17 64.57	71.09 76.58	56.40 63.44	46.37 45.63	63.86 63.60	77.07 77.59	62.43 62.27	0.00 33.07	64.89 67.88	92.41 65.32	4.84 8.47	11.48 18.50	21.29 30.52	12.54 19.16	12.78 12.60	26.20 26.30	40.73 40.53	26.57 26.47
+MAGSAC↓ +ACNe	23.56 39.55	96.17 93.59	79.53 60.93	49.53	64.59 34.04	76.64 50.21	63.59 34.83	47.53 32.28	65.52 51.00	78.80 67.70	63.95 50.33	40.40 42.99	67.89 66.91	57.72 53.91	9.19 2.92	19.05 8.63	30.97 18.42	9.99	12.79 7.15	26.39 17.18	41.15 30.08	26.78 18.14
+MAGSAC↓	47.09 51.47	95.46 95.96	54.68 50.48	24.32 24.46	39.25 39.55	54.93 56.01	39.50 40.01	33.00 34.96	52.44 53.61	68.88 69.96	51.44 52.84	58.28 62.07	67.64 67.68	41.12 37.28	4.86 4.68	11.32 10.76	21.24 21.27	12.48 12.23	8.00 8.19	18.48 17.95	31.24 31.06	19.24 19.07
+AdaLAM +MAGSAC↑ +MAGSAC	0.00 15.79	92.94 95.61	99.74 87.02	40.94 49.17	57.17 64.57	71.09 76.58	56.40 63.44	46.37 45.63	63.86 63.60	77.07 77.59	62.43 62.27	0.00 33.07	64.89 67.88	92.41 65.32	4.84 8.47	11.48 18.50	21.29 30.52	12.54 19.16	12.78 12.60	26.20 26.30	40.73 40.53	26.57 26.47
+CC	23.56 17.27	96.17 86.12	79.53 82.93	49.53 29.11	43.20	76.64 57.39	63.59 43.23	47.53 38.42	65.52 55.37	78.80 68.71	63.95 54.16	40.40 34.63	67.89 53.58	57.72 59.78	9.19 3.83	9.71	30.97 18.55	10.70	12.79 8.49	26.39 18.23	28.85	18.52
+MAGSAC _↓	29.40 35.75	88.14 88.64	72.86 66.74	34.56 35.18	48.96 49.19	61.61 61.74	48.38 48.70	38.95 39.98	56.38 56.93	69.48 69.93	54.94 55.61	54.84 59.28	54.68 54.68	43.62 38.85	5.62 5.42	11.59 11.64	20.59 20.50	12.60 12.52	8.90 8.52	19.02 18.18	29.43 29.05	19.12 18.58
+MAGSAC _↑	14.71 26.33 32.63	93.37 95.33 95.84	85.54 75.94 69.90	20.53 26.48 27.63	34.12 40.88 41.74	50.49 56.77 57.11	35.04 41.38 42.16	35.87 36.83 38.61	54.44 55.86 57.09	69.86 71.71 72.07	53.39 54.80 55.92	47.13 60.28 63.92	67.68 64.06 64.13	49.92 39.14 35.39	1.96 2.82 3.04	4.71 7.50 8.23	11.23 15.38 16.31	5.97 8.57 9.19	6.39 6.70 6.16	15.45 15.47 14.73	26.74 26.01 25.27	16.19 16.06 15.39
+ConvMatch +MAGSAC↑	66.42 70.20	92.97 93.98	33.65 30.58	14.03 15.81	25.57 27.24	40.87 43.14	26.82 28.73	23.99 25.14	41.33 42.59	58.98 60.31	41.43 42.68	65.94 75.08	67.58 64.26	33.40 25.88	1.30 2.12	5.09 6.84	13.32 14.43	6.57 7.80	5.31 5.61	13.02 13.60	24.53 24.50	14.29 14.57
	72.56 64.54	94.39 93.35	28.31 35.59	16.92 11.90	29.22 23.61	44.25 38.97	30.13 24.82	24.73 23.41	42.88 41.14	60.47 59.07	42.69 41.21	77.14 67.90	64.36 66.19	23.71 30.66	2.66 1.07	7.08 3.25	14.49 9.02	8.08 4.45	5.20 3.62	12.70 10.00	23.78 19.32	13.89 10.98
+MAGSAC _↓	68.46 70.94	94.63 95.04	32.34 29.96	14.62 15.03	26.23 26.64	40.49 40.10	27.11 27.26	23.73 23.03	41.95 40.93	60.44 58.79	42.04 40.92	76.04 78.03	63.79 63.86	24.27 22.26	1.76 1.92	4.65 4.98	10.48 10.62	5.63 5.84	3.13 3.79	9.25 9.91	19.70 19.28	10.69 10.99
$+MAGSAC_{\uparrow}$	13.95 15.88 17.51	96.81 97.16 97.29	90.52 89.02 87.42	50.53 52.94 53.12	65.54 67.46 67.71	77.46 78.86 79.10	64.51 66.42 66.64	48.95 50.15 49.01	66.80 67.26 66.53	79.35 79.52 79.32	65.03 65.64 64.95	32.14 40.13 42.72	69.95 70.16 70.20	65.87 59.98 57.23	7.23 8.21 8.60	15.99 18.05 18.22	26.74 29.46 29.63	16.65 18.58 18.82	12.24 12.87 12.80	25.16 25.62 25.66	38.74 39.66 39.30	25.38 26.05 25.92
	20.28 31.13 36.96	90.42 91.45 91.91	79.96 70.87 65.28	37.25 45.01 44.31	52.99 58.84 58.97	66.68 70.17 70.63	52.31 58.01 57.97	42.44 42.47 42.27	58.21 58.99 58.69	70.48 71.53 71.39	57.04 57.67 57.45	53.21 63.30 66.96	64.58 61.66 61.74	47.08 37.05 33.31	2.72 4.05 4.03	7.93 9.85 10.24	16.01 18.36 18.73	8.89 10.76 11.00	7.03 6.95 7.41	14.82 14.95 15.58	25.08 25.40 25.91	15.64 15.77 16.30
+MS ² DG-Net +MAGSAC↑	70.93 74.78	93.79 95.52	29.20 26.15	22.27	36.25 37.60	53.20 53.04	37.24 38.04	23.05	38.06 38.41	54.36 56.07	38.49 38.86	59.22 69.35	67.53 68.00	35.79 28.03	2.26 3.22	5.53 7.04	13.03	6.94 8.25	4.46 4.35	10.71	19.77	11.65 11.15
+MAGSAC↓ +NCC	76.85	95.99 78.13	24.17	24.16	38.29	53.76	38.74	22.49	38.85 47.54	56.71	39.35	71.37	67.95 60.81	26.04 88.96	2.46	6.65 5.85	14.13	7.74	4.58	10.49	18.91	11.33
	36.53 42.34	89.49 89.97	62.34 57.03	28.61 29.55	39.62 40.46	52.27 52.59	40.17 40.87	33.01 34.43	48.43 49.29	63.06 63.44	48.17 49.06	40.07 45.67	66.88 66.79	59.09 52.98	6.90 6.89	15.18 15.51	25.56 26.07	15.88 16.16	11.30 11.09	22.89 23.07	36.85 36.47	23.68 23.54
+MAGSAC↑	13.27 25.16 31.60	93.43 95.36	87.04 77.16	22.55 27.54	36.29 42.24	52.45 57.59 58.86	37.10 42.46	36.29 36.33	55.67 54.95	70.99 71.06	54.32 54.11	44.35 58.17	67.62 64.38 64.43	52.84 41.39	2.04 3.30	5.44 8.08	12.04 15.82	6.50 9.06	7.04 6.65	15.88	27.77 26.02	16.90 15.81
+MAGSAC ₄ +MAGSAC ₄	89.75 90.64	94.33 94.67	71.02 10.37 9.65	4.01 4.69	9.55 10.71	20.89 21.60	43.26 11.48 12.34	9.65 10.90	56.77 21.59 23.42	72.35 37.77 39.12	55.67 23.01 24.48	62.13 87.99 92.61	66.18 53.41	37.28 10.56 7.23	3.29 0.66 0.70	7.71 1.80 1.82	5.90 5.72	8.76 2.79 2.74	6.81 1.14 1.35	4.07 4.05	27.08 10.80 10.44	16.64 5.34 5.28
+MAGSAC _↓ +MOP _{0.5.K} +MiHo	91.12	94.92	9.05 9.18 99.16	5.38 41.18	11.71	23.26 71.80	13.45	10.22 47.15	21.80 64.50	38.44 77.64	23.49	92.91 11.51	53.36	6.90	0.70 0.58 5.47	1.49	5.62 22.88	2.57	1.63	4.05 4.55 25.91	11.27	5.28 5.82 26.23
+MAGSAC _↑	15.97 23.70	95.57 96.11	86.80 79.37	49.20 49.46	64.37 64.40	76.52 76.50	63.36 63.45	46.59 47.43	64.01 65.49	77.60 78.82	62.74 63.91	37.60 44.80	67.67 67.76	63.07 55.71	8.59 8.88	18.30 18.77	30.14 30.47	19.01 19.37	12.77 12.78 12.76	26.29 26.30	40.21 40.71	26.43 26.59
+MOP _{0.5K} +MiHo+NCC +MAGSAC _↑ +MAGSAC _↓	0.70 21.49	88.01 96.19	94.38 82.20	19.13 44.23	33.82 58.33	50.22 71.32	34.39 57.96	47.25 47.98	65.20 65.59	78.72 78.87	63.73 64.15	11.51 39.76	62.26 67.26	85.56 61.56	2.71 8.93	7.19 19.02	16.57 30.44	8.82 19.46	13.43 12.80	27.30 26.06	41.13 39.77	27.29 26.21
+MOP _{1.0K} +MiHo	25.56 0.64 15.94	96.54 92.99 95.65	78.29 99.29 86.91	44.67 41.02 49.29	59.50 57.51 64.42	72.90	56.73	48.01 46.99 46.27	65.75 64.55 63.76	78.73 77.62 77.44	64.16 63.05 62.49	44.81 11.42 37.55	67.41 64.76 67.70	56.43 86.89 63.16	5.23	18.91 12.71 18.39	30.38 22.69 30.31	19.25 13.54 19.06	12.99 12.96 12.69	26.24 26.11 26.31	40.23 39.99 40.63	26.49 26.35 26.54
	23.66	96.19 88.12	79.50	49.29 49.60	64.42	76.44 76.41	63.47	47.39 47.92	65.43 65.66	78.80	62.49 63.87	44.73 11.42	67.79	55.87 85.76	9.15	18.88	30.28	19.44	12.46	25.94 27.66	40.26	26.22 27.62
+MAGSAC _↑	21.44 25.52	96.30 96.68	82.41 78.51	44.61 45.15	58.44 59.58	71.13 72.75	58.06 59.16	47.79 48.13	65.53 66.22	78.87 78.80	64.06 64.38	39.86 44.87	67.23 67.37	61.01 55.87	8.53 8.91	18.66 19.84	30.04 31.36	19.08 20.03	12.53 12.96	25.91 26.52	39.79 40.52	26.08 26.67
$+MOP_{1.5K}+MiHo$ $+MAGSAC_{\uparrow}$ $+MAGSAC_{\perp}$	0.61 15.91 23.66	92.96 95.63 96.17	99.29 86.92 79.47	41.08 49.13 49.54	57.50 64.36 64.48	71.55 76.47 76.53	56.71 63.32 63.51	47.15 46.06 47.27	64.64 63.58 65.28	77.80 77.45	63.20 62.36 63.78	11.15 37.50 44.61	64.71 67.59 67.63	87.10 62.98 55.68	5.20 8.40 8.98	12.73 18.41 18.68	22.68 30.29 30.05	13.54 19.03 19.24	12.94 12.27 12.60	26.16 26.01 25.75	40.00 40.36 40.07	26.37 26.21 26.14
+MOP _{1.5K} +MiHo+NCC	0.61 21.41	88.07 96.28	94.59 82.41	19.14 44.68	33.86 58.90	50.26 71.67	34.42 58.41	47.10 48.03	65.00 66.16	78.48 79.40	63.53 64.53	11.15 39.76	62.23 67.16	85.75 61.07	2.54 8.80	6.87 18.81	15.98 30.19	8.46 19.27	13.75 12.29	27.89 25.76	42.04 39.70	27.89 25.92
+MOP _{2.0K} +MiHo	25.51 0.62	96.64 92.97	78.49 99.29	41.13	59.80 57.44	72.95 71.59	59.35 56.72	47.19 46.87	65.42 64.46	78.20 77.53	63.60	44.73 11.16	67.19 64.72	55.75 87.07	5.30	19.38 12.75	30.69 22.75	13.60	13.24	26.54 25.67	40.74 39.61	26.84
+MAGSAC _↓	15.89 23.66	95.64 96.18	86.95 79.49	49.21 49.57	64.34 64.41	76.49 76.42	63.35 63.47	46.28 47.70	63.80 65.51	77.61 78.83	62.56 64.01	37.51 44.58	67.62 67.65	62.98 55.69	8.54 8.88 2.57	18.58 18.78	30.64 30.46 15.95	19.25 19.37	12.17 12.42 13.41	25.96 25.74	40.42 40.15	26.18 26.10
$+MOP_{2.0K}+MiHo+NCC$ $+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	0.62 21.46 25.51	88.05 96.24 96.60	94.50 82.26 78.37	19.29 44.62 44.82	33.83 58.78 59.14	50.16 71.65 72.40	34.43 58.35 58.78	47.22 47.90 47.73	65.07 65.97 65.75	79.25 78.32	63.59 64.37 63.93	11.16 39.75 44.76	62.24 67.17 67.18	61.07 55.79	8.54 9.08	6.98 18.42 19.57	29.64 30.79	8.50 18.87 19.81	13.41 12.31 13.37	27.43 25.63 26.82	42.00 39.27 40.51	27.61 25.74 26.90
	1.30 16.33 24.06	93.00 95.57	98.87 86.61 79.18	41.48 48.29	57.73 63.74 64.18	71.62 75.97 76.18	56.94 62.67 63.09	46.61 46.60 47.29	64.08 64.16 64.91	77.63 77.91	62.77 62.89 63.53	18.41 41.35 48.22	64.26 66.73 66.68	81.42 59.98 52.76	5.45 8.08 8.49	12.76 18.18 18.24	22.86 29.91 29.46	13.69 18.72 18.73	12.29 12.02 12.71	25.29 26.02 25.78	39.13 40.30 39.80	25.57 26.12 26.00
$+MOP_{0.5K}+NCC$ $+MAGSAC_{\uparrow}$	1.30 22.12	96.11 87.81 96.03	93.70 81.54	18.33 42.49	32.66 57.10	49.00 70.23	33.33 56.61	47.92 47.71	64.83 65.82	78.33 79.07	63.69 64.20	18.41 43.35	61.64 66.26	79.73 58.46	2.38 7.95	6.85 17.21	15.08 28.10	8.10 17.75	13.30 12.80	26.52 25.98	40.00 39.75	26.60 26.17
$+MOP_{1.0K}$	26.28 1.23 16.26	96.39 92.99 95.58	77.57 98.92 86.70	44.15 41.47 48.28	58.23 57.56 63.65	71.00 71.51 76.07	57.79 56.85 62.67	47.34 46.47 46.66	65.34 63.71 63.98	78.93 77.13 77.74	63.87 62.44 62.79	48.00 17.88 41.22	66.25 64.28 66.72	53.62 81.88 60.06	8.35 5.27 8.33	17.63 12.66 17.95	28.46 23.07 29.62	18.15 13.67	12.38 12.18 11.75	25.74 25.42 25.60	39.37 39.22 39.71	25.83 25.61 25.69
+MAGSAC↓ +MOP _{1.0,K} +NCC	24.01 1.23	96.14 87.78	79.25 93.73	48.28 48.67 18.57	64.00	76.15 48.58	62.94	47.22 47.64	65.44 65.02	78.75 78.35	63.80	48.07 17.88	66.76 61.66	52.92 80.22	8.47 2.28	17.95 18.20 6.58	29.75 14.24	18.81 7.70	12.98	25.88 25.90	39.79 39.46	26.22 26.11
$+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	22.10 26.30	96.00 96.37	81.51 77.52	42.75 44.46	57.06 58.56	70.37 71.29	56.73 58.10	48.89 46.41	66.84 64.31	79.78 78.16	65.17 62.96	43.14 47.90	66.40 66.32	58.71 53.70	8.01 7.98	17.41 17.22	28.31 28.54	17.91 17.92	11.97 11.50	24.71 25.15	38.92 39.37	25.20 25.34
	1.26 16.28 24.04	93.00 95.59 96.14	98.91 86.67 79.23	41.60 48.65 49.08	57.65 64.04 64.32	71.50 76.27 76.14	56.92 62.99 63.18	47.15 46.07 47.16	64.05 63.62 64.78	77.27 77.46 78.18	62.82 62.38 63.38	17.69 41.05 47.96	64.31 66.70 66.77	82.16 60.31 53.18	5.35 8.11 8.30	12.90 17.85 18.02	23.28 29.46 29.74	13.84 18.47 18.69	12.25 12.00 12.37	25.77 25.02 25.25	39.55 38.89 39.15	25.86 25.30 25.59
$+MOP_{1.5K}+NCC$ $+MAGSAC_{\uparrow}$ $+MAGSAC_{\bot}$	1.26 22.15 26.34	87.79 95.99 96.34	93.73 81.48 77.47	18.50 42.42 43.73	32.51 57.16 57.60	48.49 70.65 70.50	33.17 56.74 57.27	47.40 47.55 45.66	65.18 65.86 64.55	78.58 79.13 78.62	63.72 64.18 62.94	17.69 43.03 47.82	61.72 66.46 66.48	80.53 59.09 54.12	2.56 7.93 7.98	6.92 17.83 17.59	15.16 29.30 28.94	8.22 18.35 18.17	13.84 12.31 12.39	26.82 25.92 26.10	40.15 39.89 39.91	26.94 26.04 26.13
$+MOP_{2.0K} + MAGSAC_{\uparrow}$	1.24 16.25	92.99 95.59	98.92 86.71	41.59 48.64	57.84 63.98	71.66 76.26	57.27 57.03 62.96	47.62 45.64	64.44 63.56	77.40 77.39	62.94 63.15 62.19	17.71 41.14	64.28 66.69	82.06 60.19	5.06 7.88	12.59 17.52	23.06 29.23	13.57 18.21	11.96 12.03	25.53 24.93	39.68 39.12	25.72 25.36
+MOP _{2.0K} +NCC	24.01 1.24	96.14 87.79	79.26 93.72	49.08 18.51	64.35 32.55	76.31 48.55	63.25 33.20	47.58 46.52	65.18 64.72	78.44 78.31	63.73 63.18	47.98 17.71	66.81 61.70	53.10 80.44	8.27 2.43	17.83 6.62	29.48 14.85	18.53 7.96	12.18 13.81	25.43 26.63	39.31 40.03	25.64 26.82
$+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	22.12 26.34	95.99 96.38	81.47 77.47	42.66 43.94	57.13 57.62	70.47 70.35	56.75 57.30	46.80 46.63	65.61 65.07	79.08 78.95	63.83 63.55	43.08 47.79	66.38 66.37	58.77 53.80	7.90 7.96	17.71 17.62	29.26 29.12	18.29 18.23	12.04 12.31	25.46 25.95	39.56 39.64	25.69 25.97