Pipeline	Filtered	Precision	Recall	$AUC_{\alpha s}^{F}$	$AUC_{010}^{F}$	$AUC_{0:20}^F$	AUC <sup>F</sup>	$AUC_{\alpha}^{E}$	$AUC_{010}^{E}$	$AUC_{nm}^{E}$	AUC <sup>E</sup>	Filtered	Precision	Recall	$AUC_{\alpha s}^{F}$	$AUC_{010}^F$	ScanNet AUC <sup>F</sup> <sub>920</sub>	$AUC_{\ell}^{F}$	$AUC_{\alpha s}^{E}$	$AUC_{\alpha_{1\alpha}}^{E}$	$AUC_{\alpha \alpha \alpha}^{E}$	AUC <sup>E</sup>
DISK+LightGlue	0.00	92.21	99.96	43.86	59.45	72.01	58.44	49.87	67.23	79.79	65.63	0.00	62.85	89.23	4.92	10.89	20.58	12.13	12.33	24.72	37.48	24.84
+MAGSAC <sub>↓</sub>	20.11	95.26	83.18	49.20	64.13	75.91	63.08	50.12	67.19	79.75	65.69	37.85	63.48	59.23	9.02	18.50	28.63	18.72	12.88	25.11	37.63	25.21
	30.99	95.98	72.72	49.21	64.01	76.01	63.08	50.66	68.03	80.32	66.34	46.35	63.60	50.67	9.42	18.50	28.81	18.91	12.52	24.66	36.81	24.67
+ACNe	46.11	92.84	54.29	21.96	36.45	53.08	37.16	34.54	54.81	71.48	53.61	48.62	64.69	45.93	3.41	7.47	15.18	8.69	6.73	15.31	26.78	16.27
$+MAGSAC_{\uparrow}$	55.54	95.15	46.33	25.45	40.12	56.16	40.58	35.33	55.24	71.70	54.09	67.59	63.09	31.64	4.19	9.83	18.92	10.98	7.07	15.91	27.88	16.96
$+MAGSAC_{\downarrow}$	61.28	95.85	40.82	26.11	40.96	56.70	41.26	36.14	56.26	72.48	54.96	71.62	63.18	27.45	3.98	9.63	19.02	10.88	7.67	16.59	27.88	17.38
+MAGSAC↓	0.00	92.21	99.86	43.86	59.45	72.01	58.44	49.87	67.23	79.79	65.63	0.00	62.85	<b>89.23</b>	4.92	10.89	20.58	12.13	12.33	24.72	37.48	24.84
	20.11	95.26	83.18	49.20	64.13	75.91	63.08	50.12	67.19	79.75	65.69	37.85	63.48	59.23	9.02	18.50	28.63	18.72	12.88	25.11	37.63	<b>25.21</b>
	30.99	95.98	72.72	49.21	64.01	76.01	63.08	50.66	68.03	80.32	66.34	46.35	63.60	50.67	9.42	18.50	28.81	18.91	12.52	24.66	36.81	24.67
$^{+\text{CC}}_{+\text{MAGSAC}_{\uparrow}}$ $^{+\text{MAGSAC}_{\downarrow}}$	15.50	85.91	84.75	32.48	46.83	60.69	46.67	41.23	58.50	71.69	57.14	23.47	52.13	66.31	4.15	9.52	17.27	10.31	9.68	19.32	29.74	19.58
	31.92	88.42	70.89	35.47	50.01	63.14	49.54	42.60	59.23	72.34	58.06	52.78	51.81	44.24	6.64	14.01	22.56	14.40	9.36	19.82	30.25	19.81
	41.12	89.09	62.01	35.12	49.60	62.93	49.21	43.42	60.59	73.67	59.22	58.84	52.00	38.29	6.93	13.63	21.96	14.17	9.48	19.24	29.22	19.31
	13.41	92.77	86.92	22.39	36.71	53.11	37.40	38.14	57.38	73.22	56.24	35.36	65.26	57.67	2.26	5.39	11.44	6.36	9.02	18.51	29.56	19.03
	29.55	95.13	73.13	26.00	41.28	58.34	41.87	39.56	58.73	74.54	57.61	58.96	60.56	39.29	3.40	8.34	16.76	9.50	8.62	17.74	29.75	18.70
	38.98	95.84	64.06	26.49	41.29	57.06	41.61	40.43	59.25	74.85	58.18	64.49	60.67	33.74	2.98	7.60	16.00	8.86	7.76	17.00	29.08	17.94
$+MAGSAC_{\uparrow}$ $+MAGSAC_{\downarrow}$	65.31 70.64 74.24	92.82 94.47 95.07	35.13 30.53 27.05	14.37 17.55 17.61	26.48 29.58 30.35	41.51 45.30 46.18	27.45 30.81 31.38	24.76 26.77 26.33	43.31 44.22 44.48	61.97 61.66 62.43	43.34 44.22 44.41	65.51 78.18 80.87	65.28 60.76 60.83	31.83 22.40 19.53	1.85 2.50 3.03	5.96 7.69 8.13	13.57 15.84 16.58	7.13 8.67 9.25	6.62 5.61 5.99	15.43 14.34 15.22	26.02 26.18 26.92	16.02 15.38 16.04
	64.86	92.64	35.37	13.43	25.30	40.83	26.52	25.10	44.35	61.85	43.77	67.61	64.61	29.68	1.43	4.33	10.37	5.37	4.16	11.06	20.69	11.97
	70.47	94.49	30.52	16.37	29.53	45.17	30.36	25.58	44.63	62.32	44.18	79.02	60.75	21.02	1.70	4.86	11.14	5.90	4.41	10.97	20.78	12.06
	74.15	95.09	26.98	15.90	29.51	44.95	30.12	25.35	44.11	62.30	43.92	81.59	60.78	18.30	1.47	4.95	11.43	5.95	5.23	12.12	22.18	13.18
$+ FC-GNN \\ + MAGSAC_{\uparrow} \\ + MAGSAC_{\downarrow}$	9.94	96.88	96.52	53.34	68.05	79.10	66.83	49.27	66.88	80.07	65.40	20.88	66.53	72.23	7.64	16.04	26.57	16.75	12.19	24.45	37.84	24.83
	11.60	97.18	95.11	54.95	69.15	80.37	68.16	<b>52.36</b>	69.70	<b>81.64</b>	<b>67.90</b>	35.79	65.25	62.78	9.70	19.81	30.73	20.08	12.73	24.90	37.75	25.13
	13.18	97.29	93.56	54.97	69.19	80.50	68.22	<b>51.72</b>	68.87	<b>80.84</b>	<b>67.14</b>	38.91	65.30	59.57	9.95	19.67	30.26	19.96	12.70	<b>25.64</b>	38.04	<b>25.46</b>
	13.73	90.27	86.48	42.41	57.86	70.17	56.81	45.40	61.90	74.21	60.50	34.48	60.01	64.70	5.16	11.59	21.69	12.81	11.49	23.30	35.54	23.44
	30.27	92.35	72.36	46.49	60.57	71.80	59.62	47.42	63.59	75.50	62.17	53.62	59.15	45.81	7.88	16.75	26.63	17.09	11.44	22.79	35.22	23.15
	39.49	93.04	63.49	46.04	60.44	72.11	59.53	49.40	65.37	76.73	63.84	60.76	59.36	38.68	8.00	16.69	26.82	17.17	11.05	22.91	35.27	23.08
$+MS^2DG\text{-Net}$	75.71	93.52	24.67	26.36	41.80	57.26	41.80	22.11	38.47	56.07	38.88	56.84	64.42	33.25	2.47	6.50	14.28	7.75	4.78	11.47	21.63	12.63
$+MAGSAC_{\uparrow}$	79.63	95.40	21.38	26.84	42.08	57.83	42.25	22.58	40.44	57.89	40.30	73.42	63.14	22.59	4.36	9.21	16.78	10.12	5.70	12.59	22.34	13.54
$+MAGSAC_{\downarrow}$	82.12	96.07	18.94	27.32	42.23	57.89	42.48	25.43	43.07	60.30	42.93	75.87	63.35	20.25	3.84	8.61	16.26	9.57	4.52	11.86	21.23	12.54
+NCC	0.00	74.89	79.57	14.95	27.36	42.86	28.39	32.78	48.01	62.45	47.75	0.00	58.00	89.85	2.18	6.08	13.41	7.22	9.99	21.62	34.20	21.94
$+$ MAGSAC $_{\uparrow}$	43.95	89.03	55.72	27.27	38.39	50.63	38.76	33.96	49.31	63.84	49.04	47.51	62.77	50.02	6.39	14.33	24.73	15.15	10.20	21.51	33.99	21.90
$+$ MAGSAC $_{\downarrow}$	50.27	89.45	49.94	27.28	38.75	50.06	38.70	33.83	49.84	64.42	49.36	53.01	62.92	44.87	6.82	14.66	24.89	15.46	10.62	21.76	34.52	22.30
+MAGSAC↑	12.23	92.70	88.11	22.43	37.05	53.82	37.77	38.55	57.78	73.14	56.49	31.06	64.68	61.91	2.51	7.05	14.90	8.16	8.00	18.14	30.22	18.79
	28.56	94.86	74.11	27.16	42.15	58.38	42.57	39.69	59.30	74.88	57.96	55.94	59.92	42.37	4.08	9.34	18.01	10.47	8.15	18.25	30.57	18.99
	38.11	95.61	64.96	27.90	42.29	57.94	42.71	38.84	57.85	74.08	56.92	61.96	60.07	36.32	4.35	10.25	18.71	11.10	8.92	19.12	31.02	19.69
	89.86	93.58	10.43	7.24	16.14	28.18	17.19	13.06	26.17	44.18	27.81	96.78	63.49	10.39	0.80	2.58	7.81	3.73	2.21	6.53	14.30	7.68
	91.15	94.43	9.21	6.84	15.03	28.17	16.68	12.95	26.72	44.64	28.10	92.58	56.21	6.78	0.83	3.02	8.26	4.04	1.95	6.30	14.17	7.48
	92.04	94.87	8.34	7.07	14.90	27.20	16.39	13.21	27.19	45.59	28.66	93.25	56.22	6.10	0.93	3.41	8.97	4.44	2.19	6.66	14.65	7.83
	0.40	92.28	99.71	44.78	60.34	72.93	59.35	49.02	66.40	79.16	64.86	20.18	60.75	78.86	4.90	10.90	20.87	12.22	11.99	24.51	37.44	24.64
	20.25	95.26	83.14	49.56	64.36	76.04	63.32	49.92	66.77	79.50	65.40	44.26	62.61	55.50	8.89	18.04	28.20	18.38	12.51	24.92	37.56	25.00
	31.16	96.03	72.69	49.09	63.80	75.70	62.86	50.51	67.94	80.34	66.26	52.52	62.74	47.13	9.20	18.55	28.85	18.87	12.14	24.46	37.01	24.54
$+MOP_{0.5K}+MiHo+NCC$	0.40	85.05	92.18	18.94	33.03	49.63	33.87	48.44	66.36	79.29	64.69	20.18	57.35	78.87	2.57	6.89	14.74	8.07	11.60	23.76	36.94	24.10
$+MAGSAC_{\uparrow}$	27.66	95.89	76.42	43.01	57.16	69.49	56.55	47.96	66.06	79.30	64.44	48.99	62.45	51.50	8.05	17.16	27.66	17.62	12.61	24.66	36.74	24.67
$+MAGSAC_{\downarrow}$	32.42	96.34	71.86	43.46	58.06	70.90	57.47	49.61	67.65	80.18	65.81	53.93	62.57	46.42	8.69	18.04	28.19	18.31	12.37	24.29	36.95	24.54
	0.37	92.30	99.80	44.83	60.34	72.94	59.37	49.40	66.62	79.31	65.11	20.00	60.88	79.04	4.99	10.82	20.80	12.20	11.93	24.48	37.29	24.57
	20.23	95.28	83.18	49.52	64.32	76.07	63.30	49.75	66.89	79.52	65.39	44.14	62.71	55.62	8.82	18.08	28.26	18.39	12.35	25.13	37.73	25.07
	31.13	96.03	72.71	49.01	63.79	75.80	62.87	50.34	68.00	80.50	66.28	52.43	62.83	47.15	9.32	18.73	29.04	19.03	12.05	24.76	37.19	24.66
$+MOP_{1,0K}+MiHo+NCC$	0.37	85.06	92.22	19.02	33.01	49.63	33.89	47.84	65.94	79.00	64.26	20.00	57.43	78.89	2.75	6.91	14.89	8.18	11.46	23.56	36.80	23.94
$+MAGSAC_{\uparrow}$	27.63	95.89	76.48	42.31	56.57	69.14	56.00	47.68	65.83	79.13	64.21	48.89	62.49	51.53	7.85	17.14	27.26	17.42	12.33	24.64	36.84	24.60
$+MAGSAC_{\downarrow}$	32.39	96.33	71.90	43.28	57.69	70.46	57.14	49.08	67.31	80.02	65.47	53.83	62.59	46.37	8.69	17.73	27.65	18.02	11.60	23.58	36.26	23.81
	0.39	92.27	99.72	44.75	60.34	72.86	59.32	49.32	66.67	79.39	65.12	19.82	60.98	79.35	4.89	10.78	20.67	12.12	11.47	24.35	37.49	24.44
	20.26	95.26	83.11	49.31	64.05	75.78	63.05	49.55	66.60	79.33	65.16	44.00	62.88	55.96	9.10	18.36	28.55	18.67	12.58	24.96	37.80	25.11
	31.13	96.04	72.71	48.92	63.77	75.79	62.82	50.09	67.75	80.35	66.06	52.32	63.00	47.42	9.22	18.58	29.00	18.93	12.40	<b>25.18</b>	37.70	25.09
$+MOP_{1.5K}+MiHo+NCC$	0.39	85.05	92.19	19.06	32.95	49.65	33.89	48.05	66.00	78.98	64.34	19.82	57.50	78.92	2.75	6.92	14.66	8.11	11.98	23.56	36.40	23.98
$+MAGSAC_{\uparrow}$	27.63	95.89	76.47	42.61	56.99	69.45	56.35	47.63	65.97	79.30	64.30	48.79	62.57	51.58	7.65	17.14	27.48	17.42	12.70	24.88	37.37	24.98
$+MAGSAC_{\downarrow}$	32.36	96.33	71.91	43.53	58.31	71.07	57.64	48.30	66.69	79.62	64.87	53.64	62.73	46.79	8.51	17.70	27.68	17.96	12.35	24.20	36.85	24.47
$+MOP_{2,0K}+MiHo$	0.40	92.27	99.72	44.49	60.07	72.67	59.08	49.36	66.73	79.40	65.16	19.81	60.96	79.29	4.93	10.74	20.57	12.08	11.62	24.32	37.20	24.38
$+MAGSAC_{\uparrow}$	20.25	95.25	83.13	49.38	64.09	75.85	63.11	49.58	66.69	79.40	65.22	43.97	62.79	55.83	8.78	18.08	28.25	18.37	12.79	25.26	<b>37.90</b>	25.32
$+MAGSAC_{\downarrow}$	31.13	96.04	72.73	49.12	63.89	75.88	62.96	50.34	67.96	80.52	66.27	52.23	62.95	47.40	9.11	18.40	28.68	18.73	12.39	25.11	37.50	25.00
$+ \begin{aligned} & + MOP_{2,0K} + MiHo + NCC \\ & + MAGSAC_{\uparrow} \\ & + MAGSAC_{\downarrow} \end{aligned}$	0.40	85.05	92.18	19.02	32.75	49.54	33.77	48.13	65.98	79.00	64.37	19.81	57.44	78.79	2.66	6.84	14.63	8.04	11.89	23.72	36.66	24.09
	27.62	95.87	76.47	42.65	56.78	69.12	56.18	47.44	65.86	79.21	64.17	48.80	62.52	51.46	7.56	16.72	26.78	17.02	12.33	24.34	36.48	24.38
	32.38	96.32	71.91	43.75	58.33	71.01	57.70	48.98	67.09	79.78	65.28	53.70	62.61	46.61	8.44	17.49	27.32	17.75	12.32	23.92	36.48	24.24
+MAGSAC↓	0.78	92.31	99.41	45.11	60.55	73.18	59.61	48.98	66.34	79.07	64.79	24.27	59.39	75.01	5.13	11.06	21.17	12.45	11.32	23.94	37.08	24.11
	20.38	95.18	82.98	49.46	63.94	75.94	63.11	50.35	67.10	79.67	65.70	47.08	61.14	52.95	8.72	17.71	27.82	18.08	12.70	24.62	37.07	24.80
	31.25	95.95	72.57	49.28	63.85	75.89	63.01	50.80	67.91	80.44	66.38	55.21	61.28	44.68	9.17	18.27	28.40	18.61	<b>13.09</b>	25.07	37.06	25.07
	0.78	84.83	91.61	17.60	30.72	45.99	31.44	46.80	64.81	77.94	63.18	24.27	55.92	74.60	2.63	7.10	14.40	8.04	11.84	24.04	36.45	24.11
	28.18	95.72	75.80	42.05	55.91	67.93	55.29	48.84	66.03	78.62	64.50	51.50	60.82	48.94	8.16	16.98	27.22	17.45	12.48	24.21	36.67	24.45
	33.00	96.15	71.19	42.08	56.14	68.01	55.41	48.38	65.68	78.50	64.19	56.22	60.93	44.13	7.85	17.00	27.01	17.28	11.90	24.49	37.29	24.56
	0.76	92.30	99.44	45.24	60.88	73.47	59.86	48.91	66.29	79.01	64.74	23.96	59.47	75.26	5.26	11.34	21.40	12.66	11.26	23.94	36.93	24.05
	20.42	95.20	82.96	49.48	64.04	76.01	63.18	49.54	66.41	79.17	65.04	46.87	61.15	52.96	8.41	17.43	27.38	17.74	12.12	24.02	36.71	24.28
	31.25	95.96	72.59	49.33	63.80	75.91	63.01	50.62	67.78	80.29	66.23	54.97	61.31	44.78	8.62	17.76	27.91	18.09	12.37	24.50	36.88	24.59
	0.76	84.82	91.63	17.61	30.98	46.68	31.76	46.45	64.52	77.82	62.93	23.96	56.02	74.80	2.81	7.02	14.24	8.02	11.83	23.79	36.49	24.04
	28.18	95.69	75.79	41.31	55.58	68.13	55.01	47.75	65.55	78.56	63.96	51.27	60.93	49.10	7.99	17.07	27.18	17.41	11.71	23.61	35.94	23.75
	32.94	96.18	71.29	42.84	57.03	69.24	56.37	46.95	65.06	78.32	63.45	56.06	61.03	44.09	8.01	17.01	26.98	17.33	12.49	24.23	36.73	24.48
$+MOP_{1.5K}$ $+MAGSAC\uparrow$	0.77 20.38 31.27	92.30 95.19 95.96	99.41 82.99 72.56	44.83 49.50 49.20	60.49 64.28 63.64	73.14 76.12 75.58	59.49 63.30 62.81	47.90 49.87 <b>51.13</b>	65.54 66.78 <b>68.33</b>	78.59 79.46 <b>80.78</b>	64.01 65.37 <b>66.75</b>	23.88 46.82 54.94	59.47 61.20 61.32	75.34 53.13 44.84	5.42 8.79 8.83	11.55 17.62 18.06	21.44 27.79 28.29	12.80 18.07 18.39	11.69 12.93 11.98	24.29 24.65 24.19	37.17 36.80 36.77	24.38 24.79 24.31
$+MOP_{1.5K}+NCC$ $+MAGSAC\uparrow$	0.77 28.23 32.93	84.82 95.71 96.19	91.61 75.75 71.30	17.60 41.58 43.03	31.20 55.87 57.64	46.77 68.53 69.52	31.86 55.33 56.73	47.15 46.56 47.73	64.80 65.50 65.14	77.87 78.48 78.33	63.27 63.51 63.73	23.88 51.23 55.95	56.01 60.97 61.10	74.91 49.22 44.32	2.93 7.72 7.96	7.12 16.95 17.31	14.43 27.32 27.79	8.16 17.33 17.69	11.97 11.43 12.17	24.02 23.72 25.01	36.76 36.53 37.66	24.25 23.89 24.95
$+MOP_{2.0K}$ $+MAGSAC_{\uparrow}$	0.77 20.38 31.26	92.30 95.18 95.97	99.42 82.98 72.56	44.61 49.33 48.71	60.37 64.00 63.34	73.11 75.84 75.48	59.36 63.06 62.51	47.86 49.84 50.79	65.89 66.82 68.24	78.83 79.55 80.66	64.19 65.40 66.57	23.91 46.86 54.93	59.49 61.23 61.28	75.30 53.11 44.81	5.39 8.65 8.85	11.50 17.50 18.06	21.27 27.77 28.11	12.72 17.97 18.34	11.55 12.87 11.74	24.15 24.91 23.83	37.04 36.99 36.37	24.25 24.93 23.98
+MOP <sub>2.0K</sub> +NCC +MAGSAC↑	0.77 28.22 32.93	84.82 95.70 96.18	91.62 75.75 71.29	17.76 41.14 42.00	31.19 55.55 56.72	46.67 68.22 68.92	31.87 54.97 55.88	46.99 46.41 47.38	64.86 64.90 65.34	77.90 78.33 78.59	63.25 63.21 63.77	23.91 51.27 55.95	56.01 60.94 61.08	74.73 49.02 44.28	3.05 8.18 8.05	7.22 17.29 17.43	14.42 27.92 27.74	8.23 17.80 17.74	11.77 12.02 12.52	24.13 24.16 24.81	36.87 36.73 37.54	24.26 24.30 24.96