

Method	Modality		GAMMA				Harvard-30k AMD				Harvard-30k DR				Harvard-30k Glaucoma			
	OCT	Fundus	ACC	AUC	F1	Spec	ACC	AUC	F1	Spec	ACC	AUC	F1	Spec	ACC	AUC	F1	Spec
Inter-Modality Missing with ResNet-50 Backbone																		
2D-Resnet50 Backbone		✓	0.7050	0.7896	0.6409	0.6950	0.7312	0.7535	0.7223	0.4456	0.7381	0.7915	0.7047	0.9339	0.7312	0.7535	0.7223	0.8120
3D-Resnet50 Backbone	✓		0.6860	0.7453	0.6210	0.7321	0.6517	0.6998	0.6963	0.4325	0.7073	0.6994	0.6197	0.7689	0.6572	0.6989	0.7098	0.6835
B-IF + distill		✓	0.7153	0.8005	0.7233	0.8034	0.7235	0.7198	0.7003	0.4587	0.7362	0.6750	0.6968	0.9060	0.7339	0.7661	0.7247	0.8649
B-IF + distill	✓		0.6891	0.7859	0.6844	0.7600	0.6957	0.7014	0.6745	0.4478	0.6905	0.6525	0.6793	0.8673	0.6964	0.6895	0.6718	0.7455
M ² LC + distill		✓	0.7607	0.7561	0.7548	0.7682	0.7324	0.7267	0.7380	0.4604	0.7304	0.6789	0.7459	0.8642	0.7278	0.7023	0.7111	0.7899
M ² LC + distill	✓		0.7205	0.7566	0.7275	0.7625	0.6897	0.7223	0.6506	0.4521	0.6720	0.6505	0.6433	0.7892	0.6770	0.7122	0.6560	0.7100
IMDR (Ours)		✓	0.7900	0.7655	0.7433	0.8164	0.7517	0.8048	0.7659	0.4905	0.7619	0.7907	0.7218	0.9658	0.7554	0.7847	0.7512	0.8468
IMDR (Ours)	✓		0.7483	0.7912	0.8097	0.7625	0.7062	0.7269	0.7190	0.4897	0.7262	0.7469	0.7290	0.8863	0.7116	0.7507	0.7037	0.7517
Complete-Modality Fusion with ResNet-50 Backbone																		
B-IF	✓	✓	0.7099	0.8610	0.6691	0.7421	0.7167	0.8122	0.6901	0.4326	0.7355	0.7544	0.7396	0.9180	0.7366	0.7937	0.7289	0.8546
B-EF	✓	✓	0.6837	0.8024	0.6433	0.7528	0.6933	0.7912	0.6064	0.4520	0.7498	0.7413	0.7717	0.8852	0.7419	0.7752	0.7222	0.8401
HFS-IL	✓	✓	0.7431	0.8347	0.6800	0.7519	0.7500	0.8174	0.7104	0.4645	0.7557	0.7531	0.7647	0.9016	0.7334	0.8096	0.7281	0.9295
CR-AF	✓	✓	0.6703	0.8123	0.6777	0.7823	0.7300	0.8137	0.6773	0.4785	0.7657	0.7835	0.7627	0.9187	0.7392	0.7748	0.7309	0.8649
M ² LC	✓	✓	0.7200	0.8609	0.6804	0.7214	0.7400	0.8456	0.7073	0.4763	0.7736	0.8362	0.7601	0.9262	0.7473	0.7745	0.7354	0.8032
Eye-Most	✓	✓	0.8600	0.8493	0.8135	0.8230	0.7555	0.8230	0.7100	0.4803	0.7500	0.8034	0.7342	0.8994	0.7433	0.7540	0.7201	0.8455
IMDR (Ours)	✓	✓	0.8700	0.8320	0.8366	0.8349	0.7645	0.8310	0.7357	0.4950	0.7803	0.8534	0.7823	0.9320	0.7650	0.7711	0.74365	0.8639
Complete-Modality Fusion with Swin-transformer & UNETR Backbone																		
B-IF	✓	✓	0.7100	0.8856	0.7076	0.7613	0.7317	0.8382	0.7125	0.4389	0.7636	0.7795	0.7561	0.8955	0.7339	0.7332	0.7211	0.8567
HFS-IL	✓	✓	0.7326	0.8106	0.7005	0.8017	0.7217	0.8181	0.7196	0.4604	0.7083	0.6119	0.6884	0.8607	0.7415	0.7878	0.7681	0.8546
CR-AF	✓	✓	0.7425	0.8077	0.7562	0.8357	0.7436	0.8274	0.7348	0.4798	0.7489	0.7592	0.7581	0.8945	0.7324	0.7593	0.7420	0.8459
M ² LC	✓	✓	0.7860	0.7800	0.6823	0.8003	0.7493	0.8239	0.7120	0.4803	0.7521	0.7968	0.7439	0.8793	0.7498	0.7645	0.7423	0.8169
Eye-Most	✓	✓	0.8200	0.8321	0.7488	0.8430	0.7592	0.8334	0.7002	0.4945	0.7688	0.8259	0.7588	0.8977	0.7210	0.7200	0.7342	0.8555
IMDR (Ours)	✓	✓	0.8775	0.8495	0.7958	0.8649	0.7950	0.8509	0.7252	0.4978	0.7857	0.8500	0.7704	0.9231	0.7731	0.7898	0.7890	0.8654