Paper Reconstruction Results

# Evaluation Scores: Blind face image restoration (section 5.1)

## CelebA-Test

{'niqe': 4.119179557692861,

'landmark\_distance': 2.024588062824381,

'arcface\_cos\_dist': 30.642253301890342,

'identity\_count': 0,

'lpips': 0.3467975927889347,

'mse': 168.78680419921875,

'ssim': 0.7071371987616025,

'psnr': 26.368665909225644,

'inception\_score\_mean': 5.92343698956958,

'inception\_score\_std': 0.32087075967611955,

'frechet\_inception\_distance': 39.72624822198429,

'kernel\_inception\_distance\_mean': 0.026494402402402382,

'kernel\_inception\_distance\_std': 0.0014112275621355203,

'precision': 0.7233333587646484,

'recall': 0.36169999837875366,

'f\_score': 0.4822518551526777}

## Real World Data

## LFW-Test

{'niqe': 3.985198270385082,

'ind\_psnr': 32.60547506233737,

'ind\_mse': 38.04277038574219,

'inception\_score\_mean': 5.922768806858001,

'inception\_score\_std': 0.32086995809315855,

'frechet\_inception\_distance': 50.05915566679312,

'kernel\_inception\_distance\_mean': 0.036500148983983995,

'kernel\_inception\_distance\_std': 0.0019462064883028062,

'precision': 0.7200467586517334,

'recall': 0.35440000891685486,

'f\_score': 0.47500645986249257}

## Wider-Test

{'niqe': 4.098970255329373,

'ind\_psnr': 29.478832495437263,

'ind\_mse': 84.17718505859375,

'inception\_score\_mean': 5.922768806858002,

'inception\_score\_std': 0.3208699580931586,

'frechet\_inception\_distance': 41.68454268308574,

'kernel\_inception\_distance\_mean': 0.015329495174624199,

'kernel\_inception\_distance\_std': 0.000748012094492318,

'precision': 0.7298969030380249,

'recall': 0.26739999651908875,

'f\_score': 0.3914068707489934}

## WebPhoto-Test

{'niqe': 4.23257570015818,

'ind\_psnr': 32.614691090859566,

'ind\_mse': 39.972633361816406,

'inception\_score\_mean': 5.922768806858002,

'inception\_score\_std': 0.3208699580931586,

'frechet\_inception\_distance': 81.46616457487104,

'kernel\_inception\_distance\_mean': 0.034437834969585385,

'kernel\_inception\_distance\_std': 0.0019004412108707771,

'precision': 0.6756756901741028,

'recall': 0.29980000853538513,

'f\_score': 0.41532060296189105}

## CelebAdult-Test

{'niqe': 3.722575455120232,

'ind\_psnr': 31.865314705362337,

'ind\_mse': 44.85574722290039,

'inception\_score\_mean': 5.922768806858002,

'inception\_score\_std': 0.3208699580931586,

'frechet\_inception\_distance': 103.28088013202319,

'kernel\_inception\_distance\_mean': 0.028214290964031986,

'kernel\_inception\_distance\_std': 0.0027093134973117166,

'precision': 0.605555534362793,

'recall': 0.3659000098705292,

'f\_score': 0.4561665787297882}

# Evaluation Scores: Controlled Experiments (section 5.2)

## Number of Flow Steps – 5

## colorization\_gaussian\_noise\_025

### MMSE

{'psnr': 24.0030517578125, 'mse': 319.61346435546875, 'lpips': 0.38073405623435974, 'ssim': 0.7680675387382507, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 90.45560214844065, 'kernel\_inception\_distance\_mean': 0.08657665855355356, 'kernel\_inception\_distance\_std': 0.0019713269633087546, 'precision': 0.4580000042915344, 'recall': 0.023600000888109207, 'f\_score': 0.044887044816382}

### Naive Flow

{'psnr': 24.20623207092285, 'mse': 314.555419921875, 'lpips': 0.3222966194152832, 'ssim': 0.776013970375061, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 68.10518268099969, 'kernel\_inception\_distance\_mean': 0.05912319114614615, 'kernel\_inception\_distance\_std': 0.002026003820448838, 'precision': 0.6183333396911621, 'recall': 0.2280000001192093, 'f\_score': 0.33315478639866386}

### PMRF

{'psnr': 23.90859603881836, 'mse': 324.1086730957031, 'lpips': 0.33748313784599304, 'ssim': 0.751271665096283, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 59.00425855723046, 'kernel\_inception\_distance\_mean': 0.04809688599349348, 'kernel\_inception\_distance\_std': 0.001816418700397385, 'precision': 0.6936666369438171, 'recall': 0.21699999272823334, 'f\_score': 0.330583443530447}

### Posterior conditioned on y

{'psnr': 23.933103561401367, 'mse': 331.6667175292969, 'lpips': 0.34372228384017944, 'ssim': 0.7617727518081665, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 71.36351598147871, 'kernel\_inception\_distance\_mean': 0.06372323564564567, 'kernel\_inception\_distance\_std': 0.002153421158674906, 'precision': 0.5443333387374878, 'recall': 0.2363000065088272, 'f\_score': 0.32954260094040533}

### Posterior conditioned on mmse

{'psnr': 23.805200576782227, 'mse': 330.6722412109375, 'lpips': 0.35592788457870483, 'ssim': 0.7535834312438965, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 75.67709057526378, 'kernel\_inception\_distance\_mean': 0.06771695267017015, 'kernel\_inception\_distance\_std': 0.002130423694937948, 'precision': 0.5580000281333923, 'recall': 0.18289999663829803, 'f\_score': 0.2754979075651052}

## gaussian\_noise\_035

### MMSE

{'psnr': 28.913164138793945, 'mse': 87.93732452392578, 'lpips': 0.2705918252468109, 'ssim': 0.8228782415390015, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 83.90543519617142, 'kernel\_inception\_distance\_mean': 0.0779621973023023, 'kernel\_inception\_distance\_std': 0.002154750431873566, 'precision': 0.3413333296775818, 'recall': 0.18080000579357147, 'f\_score': 0.2363881552498781}

### Naive Flow

{'psnr': 28.49585723876953, 'mse': 96.3966064453125, 'lpips': 0.2350458949804306, 'ssim': 0.8103598356246948, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 59.95772299199996, 'kernel\_inception\_distance\_mean': 0.05096775949949949, 'kernel\_inception\_distance\_std': 0.0019521942162308153, 'precision': 0.5943333506584167, 'recall': 0.32249999046325684, 'f\_score': 0.4181185201769356}

### PMRF

{'psnr': 28.56959342956543, 'mse': 95.17860412597656, 'lpips': 0.22814258933067322, 'ssim': 0.8114662170410156, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 57.26917234341187, 'kernel\_inception\_distance\_mean': 0.04712174935685688, 'kernel\_inception\_distance\_std': 0.001850985325665407, 'precision': 0.6516666412353516, 'recall': 0.31209999322891235, 'f\_score': 0.4220630742837834}

### Posterior conditioned on y

{'psnr': 28.280704498291016, 'mse': 101.632080078125, 'lpips': 0.2560883164405823, 'ssim': 0.8097206354141235, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 72.81605253759781, 'kernel\_inception\_distance\_mean': 0.06466940763513512, 'kernel\_inception\_distance\_std': 0.002090288471544028, 'precision': 0.46799999475479126, 'recall': 0.30149999260902405, 'f\_score': 0.36673683502708265}

### Posterior conditioned on mmse

{'psnr': 28.051387786865234, 'mse': 107.31572723388672, 'lpips': 0.26632174849510193, 'ssim': 0.8019072413444519, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 74.17118873234261, 'kernel\_inception\_distance\_mean': 0.06589294567567565, 'kernel\_inception\_distance\_std': 0.00217523995184301, 'precision': 0.44333332777023315, 'recall': 0.31869998574256897, 'f\_score': 0.37082453676011184}

## random\_inpainting\_gaussian\_noise\_01

### MMSE

{'psnr': 27.234909057617188, 'mse': 133.0171356201172, 'lpips': 0.3040527403354645, 'ssim': 0.7911161780357361, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 87.56078256337281, 'kernel\_inception\_distance\_mean': 0.082519736986987, 'kernel\_inception\_distance\_std': 0.0021327500873111332, 'precision': 0.2903333306312561, 'recall': 0.06400000303983688, 'f\_score': 0.1048805307163922}

### Naive Flow

{'psnr': 25.795272827148438, 'mse': 182.8358154296875, 'lpips': 0.2788292467594147, 'ssim': 0.747117280960083, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 62.90912736871593, 'kernel\_inception\_distance\_mean': 0.05407681943693694, 'kernel\_inception\_distance\_std': 0.0019579628000246786, 'precision': 0.5746666789054871, 'recall': 0.25029999017715454, 'f\_score': 0.3487148498863104}

### PMRF

{'psnr': 26.59981918334961, 'mse': 154.45333862304688, 'lpips': 0.26210543513298035, 'ssim': 0.7684594392776489, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 60.897028951350705, 'kernel\_inception\_distance\_mean': 0.05165592390390387, 'kernel\_inception\_distance\_std': 0.001869433046507632, 'precision': 0.6113333106040955, 'recall': 0.28130000829696655, 'f\_score': 0.38530505573522006}

### Posterior conditioned on y

{'psnr': 26.713321685791016, 'mse': 151.1521759033203, 'lpips': 0.2733665108680725, 'ssim': 0.7769913673400879, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 70.71857464861463, 'kernel\_inception\_distance\_mean': 0.06294806155155153, 'kernel\_inception\_distance\_std': 0.0020759952434442103, 'precision': 0.48399999737739563, 'recall': 0.2818000018596649, 'f\_score': 0.35620579863387214}

### Posterior conditioned on mmse

{'psnr': 26.288036346435547, 'mse': 166.37928771972656, 'lpips': 0.290607750415802, 'ssim': 0.76521897315979, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 72.2682685950688, 'kernel\_inception\_distance\_mean': 0.06398410247747749, 'kernel\_inception\_distance\_std': 0.002150820987702398, 'precision': 0.4816666543483734, 'recall': 0.25429999828338623, 'f\_score': 0.3328624440684881}

## sr\_bicubic\_x8\_gaussian\_noise\_005

### MMSE

{'psnr': 25.734426498413086, 'mse': 188.4752960205078, 'lpips': 0.3598952889442444, 'ssim': 0.7347357273101807, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 100.55283770864585, 'kernel\_inception\_distance\_mean': 0.0972038883008008, 'kernel\_inception\_distance\_std': 0.0021139375809285338, 'precision': 0.09700000286102295, 'recall': 0.006099999882280827, 'f\_score': 0.011478176339270953}

### Naive Flow

{'psnr': 25.259872436523438, 'mse': 208.8721466064453, 'lpips': 0.2999495267868042, 'ssim': 0.7163252830505371, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 67.27952553248699, 'kernel\_inception\_distance\_mean': 0.058811827304804803, 'kernel\_inception\_distance\_std': 0.0020576299219916276, 'precision': 0.578000009059906, 'recall': 0.16099999845027924, 'f\_score': 0.25184844280701496}

### PMRF

{'psnr': 25.05213737487793, 'mse': 219.38966369628906, 'lpips': 0.30339911580085754, 'ssim': 0.7097068428993225, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 65.44924261475339, 'kernel\_inception\_distance\_mean': 0.056230821864364365, 'kernel\_inception\_distance\_std': 0.001959480389478052, 'precision': 0.5770000219345093, 'recall': 0.16680000722408295, 'f\_score': 0.2587889326539707}

### Posterior conditioned on y

{'psnr': 24.6552791595459, 'mse': 239.5287322998047, 'lpips': 0.3265203535556793, 'ssim': 0.6971237063407898, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 69.30303015502511, 'kernel\_inception\_distance\_mean': 0.06099575876626629, 'kernel\_inception\_distance\_std': 0.0021219487138757855, 'precision': 0.5483333468437195, 'recall': 0.22030000388622284, 'f\_score': 0.31431849353374997}

### Posterior conditioned on mmse

{'psnr': 24.704965591430664, 'mse': 236.54258728027344, 'lpips': 0.32814955711364746, 'ssim': 0.6917135119438171, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 67.07001657700232, 'kernel\_inception\_distance\_mean': 0.05770362945945944, 'kernel\_inception\_distance\_std': 0.0020807692697287043, 'precision': 0.5529999732971191, 'recall': 0.22840000689029694, 'f\_score': 0.3232792447245831}

## Number of Flow Steps – 10

## colorization\_gaussian\_noise\_025

### MMSE

{'psnr': 24.001441955566406, 'mse': 320.1524353027344, 'lpips': 0.38103872537612915, 'ssim': 0.7679499387741089, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 89.78229973151431, 'kernel\_inception\_distance\_mean': 0.08625059286036033, 'kernel\_inception\_distance\_std': 0.0020116982599911537, 'precision': 0.46700000762939453, 'recall': 0.02329999953508377, 'f\_score': 0.04438547746950689}

### Naive Flow

{'psnr': 23.981983184814453, 'mse': 327.49017333984375, 'lpips': 0.3213295042514801, 'ssim': 0.7642829418182373, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 56.51396855191592, 'kernel\_inception\_distance\_mean': 0.04486510016016018, 'kernel\_inception\_distance\_std': 0.0017414222866875275, 'precision': 0.6813333630561829, 'recall': 0.28949999809265137, 'f\_score': 0.4063436943942963}

### PMRF

{'psnr': 23.694313049316406, 'mse': 336.8588562011719, 'lpips': 0.3371898829936981, 'ssim': 0.7329416275024414, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 48.280889812494024, 'kernel\_inception\_distance\_mean': 0.0342341692992993, 'kernel\_inception\_distance\_std': 0.0015562637396496787, 'precision': 0.7536666393280029, 'recall': 0.27219998836517334, 'f\_score': 0.3999507244282029}

### Posterior conditioned on y

{'psnr': 23.612186431884766, 'mse': 349.5781555175781, 'lpips': 0.34544751048088074, 'ssim': 0.7445678114891052, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 64.6487757460693, 'kernel\_inception\_distance\_mean': 0.05568829531781785, 'kernel\_inception\_distance\_std': 0.0019898753099939284, 'precision': 0.5846666693687439, 'recall': 0.2782000005245209, 'f\_score': 0.3770090406787285}

### Posterior conditioned on mmse

{'psnr': 23.526077270507812, 'mse': 347.010986328125, 'lpips': 0.3537907600402832, 'ssim': 0.7369312047958374, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 67.30322169060369, 'kernel\_inception\_distance\_mean': 0.05839361946446443, 'kernel\_inception\_distance\_std': 0.0020040400411942077, 'precision': 0.6153333187103271, 'recall': 0.2387000024318695, 'f\_score': 0.3439679952443211}

## gaussian\_noise\_035

### MMSE

{'psnr': 28.913522720336914, 'mse': 87.9671859741211, 'lpips': 0.27068090438842773, 'ssim': 0.8229435086250305, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 84.15931319652952, 'kernel\_inception\_distance\_mean': 0.07834990313813814, 'kernel\_inception\_distance\_std': 0.002211260374996792, 'precision': 0.3386666774749756, 'recall': 0.1454000025987625, 'f\_score': 0.20345187062854497}

### Naive Flow

{'psnr': 28.074569702148438, 'mse': 106.01441192626953, 'lpips': 0.23470236361026764, 'ssim': 0.7971768379211426, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 50.215772204353016, 'kernel\_inception\_distance\_mean': 0.03879461801551552, 'kernel\_inception\_distance\_std': 0.0017939648401868325, 'precision': 0.6473333239555359, 'recall': 0.3700000047683716, 'f\_score': 0.4708650079334524}

### PMRF

{'psnr': 28.27815055847168, 'mse': 101.71717834472656, 'lpips': 0.2270890474319458, 'ssim': 0.7972051501274109, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 47.132690260876245, 'kernel\_inception\_distance\_mean': 0.03443438062062061, 'kernel\_inception\_distance\_std': 0.0016718096422149824, 'precision': 0.7066666483879089, 'recall': 0.37950000166893005, 'f\_score': 0.49381003224239084}

### Posterior conditioned on y

{'psnr': 27.709136962890625, 'mse': 115.9446792602539, 'lpips': 0.2568562626838684, 'ssim': 0.7937548160552979, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 65.65855018808739, 'kernel\_inception\_distance\_mean': 0.05682505846346349, 'kernel\_inception\_distance\_std': 0.002057353103975147, 'precision': 0.5096666812896729, 'recall': 0.33070001006126404, 'f\_score': 0.40112674232587064}

### Posterior conditioned on mmse

{'psnr': 27.488712310791016, 'mse': 122.18679809570312, 'lpips': 0.2648022770881653, 'ssim': 0.7860490083694458, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 68.0340354474767, 'kernel\_inception\_distance\_mean': 0.059309655598098095, 'kernel\_inception\_distance\_std': 0.0021018431892584166, 'precision': 0.500333309173584, 'recall': 0.3580000102519989, 'f\_score': 0.4173654354544468}

## random\_inpainting\_gaussian\_noise\_01

### MMSE

{'psnr': 27.23660659790039, 'mse': 133.0352020263672, 'lpips': 0.30391591787338257, 'ssim': 0.7914575338363647, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 87.54551674421882, 'kernel\_inception\_distance\_mean': 0.08249935433433436, 'kernel\_inception\_distance\_std': 0.00216481786902853, 'precision': 0.29766666889190674, 'recall': 0.07010000199079514, 'f\_score': 0.11347648242203714}

### Naive Flow

{'psnr': 25.163406372070312, 'mse': 211.69801330566406, 'lpips': 0.278105229139328, 'ssim': 0.724967360496521, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 50.83841167755298, 'kernel\_inception\_distance\_mean': 0.039468163438438425, 'kernel\_inception\_distance\_std': 0.0016707829703655115, 'precision': 0.6553333401679993, 'recall': 0.32440000772476196, 'f\_score': 0.4339755119493238}

### PMRF

{'psnr': 26.273681640625, 'mse': 166.30311584472656, 'lpips': 0.2584667205810547, 'ssim': 0.7522663474082947, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 49.959215753197725, 'kernel\_inception\_distance\_mean': 0.03777712472972971, 'kernel\_inception\_distance\_std': 0.0016543537733199223, 'precision': 0.6779999732971191, 'recall': 0.3562000095844269, 'f\_score': 0.4670346180315806}

### Posterior conditioned on y

{'psnr': 26.213577270507812, 'mse': 169.30653381347656, 'lpips': 0.2728199362754822, 'ssim': 0.7625872492790222, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 65.47851607802494, 'kernel\_inception\_distance\_mean': 0.05711761191441442, 'kernel\_inception\_distance\_std': 0.0020511770743073922, 'precision': 0.5329999923706055, 'recall': 0.3028999865055084, 'f\_score': 0.38627992481483203}

### Posterior conditioned on mmse

{'psnr': 25.798187255859375, 'mse': 186.10006713867188, 'lpips': 0.28891313076019287, 'ssim': 0.7499139904975891, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 65.58326398352744, 'kernel\_inception\_distance\_mean': 0.05633728770270267, 'kernel\_inception\_distance\_std': 0.001976827256025635, 'precision': 0.5306666493415833, 'recall': 0.33649998903274536, 'f\_score': 0.41184546033332}

## sr\_bicubic\_x8\_gaussian\_noise\_005

### MMSE

{'psnr': 25.735671997070312, 'mse': 188.34768676757812, 'lpips': 0.35989078879356384, 'ssim': 0.7347449660301208, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 99.87633233738393, 'kernel\_inception\_distance\_mean': 0.09611201100350353, 'kernel\_inception\_distance\_std': 0.0020915687835305584, 'precision': 0.09799999743700027, 'recall': 0.00430000014603138, 'f\_score': 0.008238514432967553}

### Naive Flow

{'psnr': 24.751371383666992, 'mse': 234.02157592773438, 'lpips': 0.2918652594089508, 'ssim': 0.6911572217941284, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 51.824271901078646, 'kernel\_inception\_distance\_mean': 0.04012826074824823, 'kernel\_inception\_distance\_std': 0.0017171330330180766, 'precision': 0.6840000152587891, 'recall': 0.2766999900341034, 'f\_score': 0.39401019332300763}

### PMRF

{'psnr': 24.713367462158203, 'mse': 236.59677124023438, 'lpips': 0.29703643918037415, 'ssim': 0.6907110810279846, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 52.785424262740776, 'kernel\_inception\_distance\_mean': 0.04045765415165167, 'kernel\_inception\_distance\_std': 0.0017150928334667428, 'precision': 0.6779999732971191, 'recall': 0.24570000171661377, 'f\_score': 0.3606898324328516}

### Posterior conditioned on y

{'psnr': 24.31402587890625, 'mse': 258.0864562988281, 'lpips': 0.32244372367858887, 'ssim': 0.6822767853736877, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 61.44870522081965, 'kernel\_inception\_distance\_mean': 0.05244010236986987, 'kernel\_inception\_distance\_std': 0.0020158648184749705, 'precision': 0.5950000286102295, 'recall': 0.27869999408721924, 'f\_score': 0.379595971495104}

### Posterior conditioned on mmse

{'psnr': 24.35521125793457, 'mse': 255.48574829101562, 'lpips': 0.3235130310058594, 'ssim': 0.6769629120826721, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 58.000800159981054, 'kernel\_inception\_distance\_mean': 0.047942653138138135, 'kernel\_inception\_distance\_std': 0.0019638560330743522, 'precision': 0.6110000014305115, 'recall': 0.29989999532699585, 'f\_score': 0.4023249494479585}

## Number of Flow Steps – 20

## colorization\_gaussian\_noise\_025

### MMSE

{'psnr': 23.999862670898438, 'mse': 320.0015563964844, 'lpips': 0.38092362880706787, 'ssim': 0.7680352330207825, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 90.1995189950855, 'kernel\_inception\_distance\_mean': 0.08638761317817821, 'kernel\_inception\_distance\_std': 0.0020453985485275393, 'precision': 0.46966665983200073, 'recall': 0.020099999383091927, 'f\_score': 0.03855019281227197}

### Naive Flow

{'psnr': 23.6240234375, 'mse': 354.7991638183594, 'lpips': 0.32608669996261597, 'ssim': 0.7510438561439514, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 48.39635932136491, 'kernel\_inception\_distance\_mean': 0.03445825482982985, 'kernel\_inception\_distance\_std': 0.001588420667879525, 'precision': 0.7176666855812073, 'recall': 0.34380000829696655, 'f\_score': 0.46489223614885006}

### PMRF

{'psnr': 23.525609970092773, 'mse': 347.57281494140625, 'lpips': 0.34197086095809937, 'ssim': 0.7175442576408386, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 43.84343851382141, 'kernel\_inception\_distance\_mean': 0.02784067222972973, 'kernel\_inception\_distance\_std': 0.0013886513405837575, 'precision': 0.7649999856948853, 'recall': 0.2930000126361847, 'f\_score': 0.42371456678422964}

### Posterior conditioned on y

{'psnr': 23.360485076904297, 'mse': 369.2362976074219, 'lpips': 0.34523481130599976, 'ssim': 0.7284513115882874, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 55.9734654789321, 'kernel\_inception\_distance\_mean': 0.044823494316816814, 'kernel\_inception\_distance\_std': 0.0018113856863681199, 'precision': 0.6556666493415833, 'recall': 0.32850000262260437, 'f\_score': 0.4377033007537872}

### Posterior conditioned on mmse

{'psnr': 23.29240608215332, 'mse': 362.68670654296875, 'lpips': 0.35287874937057495, 'ssim': 0.7208399176597595, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 57.94368982049258, 'kernel\_inception\_distance\_mean': 0.04682294706956955, 'kernel\_inception\_distance\_std': 0.001786186722965719, 'precision': 0.6743333339691162, 'recall': 0.2680000066757202, 'f\_score': 0.38356137941955154}

## gaussian\_noise\_035

### MMSE

{'psnr': 28.913991928100586, 'mse': 87.93411254882812, 'lpips': 0.2706960141658783, 'ssim': 0.8229877948760986, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 84.14275847938563, 'kernel\_inception\_distance\_mean': 0.07826788058558559, 'kernel\_inception\_distance\_std': 0.002184552019070064, 'precision': 0.3383333384990692, 'recall': 0.16110000014305115, 'f\_score': 0.21826937316115416}

### Naive Flow

{'psnr': 27.781497955322266, 'mse': 113.27307891845703, 'lpips': 0.23693682253360748, 'ssim': 0.7861297130584717, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 44.48671219894101, 'kernel\_inception\_distance\_mean': 0.03163480737237238, 'kernel\_inception\_distance\_std': 0.0015872971644244583, 'precision': 0.684333324432373, 'recall': 0.39160001277923584, 'f\_score': 0.49814413091332327}

### PMRF

{'psnr': 28.036487579345703, 'mse': 107.43919372558594, 'lpips': 0.23373766243457794, 'ssim': 0.7842808961868286, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 44.50591099071414, 'kernel\_inception\_distance\_mean': 0.030280825703203233, 'kernel\_inception\_distance\_std': 0.0015632146251400815, 'precision': 0.7076666951179504, 'recall': 0.39890000224113464, 'f\_score': 0.5102055699710312}

### Posterior conditioned on y

{'psnr': 27.273765563964844, 'mse': 128.17979431152344, 'lpips': 0.25519078969955444, 'ssim': 0.7788037061691284, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 58.863617369878284, 'kernel\_inception\_distance\_mean': 0.048614865240240224, 'kernel\_inception\_distance\_std': 0.0019553187086830456, 'precision': 0.5663333535194397, 'recall': 0.3840000033378601, 'f\_score': 0.4576752106460292}

### Posterior conditioned on mmse

{'psnr': 27.037723541259766, 'mse': 135.49026489257812, 'lpips': 0.26250454783439636, 'ssim': 0.7702275514602661, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 59.964672037589025, 'kernel\_inception\_distance\_mean': 0.049832379532032005, 'kernel\_inception\_distance\_std': 0.0019204794806465858, 'precision': 0.5600000023841858, 'recall': 0.39320001006126404, 'f\_score': 0.4620058827042262}

## random\_inpainting\_gaussian\_noise\_01

### MMSE

{'psnr': 27.24171257019043, 'mse': 132.82688903808594, 'lpips': 0.3038502335548401, 'ssim': 0.7913332581520081, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 87.58245674197934, 'kernel\_inception\_distance\_mean': 0.08280905424424426, 'kernel\_inception\_distance\_std': 0.0021389612137669156, 'precision': 0.28866666555404663, 'recall': 0.06939999759197235, 'f\_score': 0.11189796736907569}

### Naive Flow

{'psnr': 24.687450408935547, 'mse': 236.7946014404297, 'lpips': 0.28130125999450684, 'ssim': 0.7062957882881165, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 44.32692242688603, 'kernel\_inception\_distance\_mean': 0.030541940072572583, 'kernel\_inception\_distance\_std': 0.0015269869219926005, 'precision': 0.6986666917800903, 'recall': 0.36970001459121704, 'f\_score': 0.48353638241460967}

### PMRF

{'psnr': 26.016525268554688, 'mse': 176.3866424560547, 'lpips': 0.26106858253479004, 'ssim': 0.7375776171684265, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 44.01888862063629, 'kernel\_inception\_distance\_mean': 0.029991202945445453, 'kernel\_inception\_distance\_std': 0.0015624367375262703, 'precision': 0.7023333311080933, 'recall': 0.3781999945640564, 'f\_score': 0.4916506611991908}

### Posterior conditioned on y

{'psnr': 25.824535369873047, 'mse': 184.92864990234375, 'lpips': 0.2711648941040039, 'ssim': 0.7475640177726746, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 57.23879903477285, 'kernel\_inception\_distance\_mean': 0.04752178604354354, 'kernel\_inception\_distance\_std': 0.0018003511958984736, 'precision': 0.5856666564941406, 'recall': 0.367900013923645, 'f\_score': 0.45191758009831995}

### Posterior conditioned on mmse

{'psnr': 25.403785705566406, 'mse': 203.5423126220703, 'lpips': 0.28641578555107117, 'ssim': 0.7345191240310669, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 57.23941803251125, 'kernel\_inception\_distance\_mean': 0.0466295794644645, 'kernel\_inception\_distance\_std': 0.001867044784227627, 'precision': 0.5933333039283752, 'recall': 0.3659000098705292, 'f\_score': 0.4526545495049802}

## sr\_bicubic\_x8\_gaussian\_noise\_005

### MMSE

{'psnr': 25.737092971801758, 'mse': 188.39894104003906, 'lpips': 0.3598347008228302, 'ssim': 0.7347599267959595, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 100.48644000741834, 'kernel\_inception\_distance\_mean': 0.09695684412912912, 'kernel\_inception\_distance\_std': 0.0021244896927571566, 'precision': 0.09733333438634872, 'recall': 0.004800000227987766, 'f\_score': 0.009148825484049208}

### Naive Flow

{'psnr': 24.338232040405273, 'mse': 256.9446105957031, 'lpips': 0.2952415645122528, 'ssim': 0.6691668033599854, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 45.00214007871875, 'kernel\_inception\_distance\_mean': 0.030929139527027024, 'kernel\_inception\_distance\_std': 0.0015187536673912018, 'precision': 0.7126666903495789, 'recall': 0.32179999351501465, 'f\_score': 0.4433900867181149}

### PMRF

{'psnr': 24.464794158935547, 'mse': 250.43980407714844, 'lpips': 0.29767662286758423, 'ssim': 0.6752535104751587, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 45.6424031559373, 'kernel\_inception\_distance\_mean': 0.031773300440440425, 'kernel\_inception\_distance\_std': 0.0015060219887744178, 'precision': 0.7106666564941406, 'recall': 0.29589998722076416, 'f\_score': 0.41782877644095645}

### Posterior conditioned on y

{'psnr': 24.007658004760742, 'mse': 276.077880859375, 'lpips': 0.32304224371910095, 'ssim': 0.6652524471282959, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 53.129478920514316, 'kernel\_inception\_distance\_mean': 0.04199974299799797, 'kernel\_inception\_distance\_std': 0.001823444114420573, 'precision': 0.6480000019073486, 'recall': 0.3181000053882599, 'f\_score': 0.4267235328469436}

### Posterior conditioned on mmse

{'psnr': 24.056442260742188, 'mse': 272.941650390625, 'lpips': 0.3228975236415863, 'ssim': 0.6606194376945496, 'inception\_score\_mean': 5.992193865394686, 'inception\_score\_std': 0.0883303767988342, 'frechet\_inception\_distance': 50.81728305280177, 'kernel\_inception\_distance\_mean': 0.038698848698698704, 'kernel\_inception\_distance\_std': 0.0018023229544556535, 'precision': 0.6610000133514404, 'recall': 0.3319000005722046, 'f\_score': 0.4419093599215949}

## Number of Flow Steps – 100

## colorization\_gaussian\_noise\_025

### MMSE

{'psnr': 24.006591796875, 'mse': 318.9187316894531, 'lpips': 0.3808581233024597, 'ssim': 0.7679928541183472, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 90.14040370619085, 'kernel\_inception\_distance\_mean': 0.08647330126376378, 'kernel\_inception\_distance\_std': 0.001975628912135808, 'precision': 0.4593333303928375, 'recall': 0.025800000876188278, 'f\_score': 0.048855848744088645}

### Naive Flow

{'psnr': 22.775310516357422, 'mse': 426.8180236816406, 'lpips': 0.3468288481235504, 'ssim': 0.7263831496238708, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 39.824651917110316, 'kernel\_inception\_distance\_mean': 0.02390231647897895, 'kernel\_inception\_distance\_std': 0.0012675129002186582, 'precision': 0.7196666598320007, 'recall': 0.3885999917984009, 'f\_score': 0.5046844235489336}

### PMRF

{'psnr': 23.339258193969727, 'mse': 360.0075378417969, 'lpips': 0.35143545269966125, 'ssim': 0.6981854438781738, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 42.33814359482528, 'kernel\_inception\_distance\_mean': 0.025404605355355363, 'kernel\_inception\_distance\_std': 0.001315802372569051, 'precision': 0.7509999871253967, 'recall': 0.30250000953674316, 'f\_score': 0.4312814503793167}

### Posterior conditioned on y

{'psnr': 23.04768180847168, 'mse': 388.0299987792969, 'lpips': 0.345864862203598, 'ssim': 0.7004722356796265, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 44.084596174433614, 'kernel\_inception\_distance\_mean': 0.02903937330580578, 'kernel\_inception\_distance\_std': 0.0014608869045227096, 'precision': 0.7163333296775818, 'recall': 0.3774000108242035, 'f\_score': 0.4943512213864268}

### Posterior conditioned on mmse

{'psnr': 22.982919692993164, 'mse': 383.0316162109375, 'lpips': 0.354275107383728, 'ssim': 0.6924984455108643, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 46.00203605183373, 'kernel\_inception\_distance\_mean': 0.030709236053553548, 'kernel\_inception\_distance\_std': 0.0014813451855441695, 'precision': 0.7549999952316284, 'recall': 0.2955999970436096, 'f\_score': 0.4248581724716519}

## gaussian\_noise\_035

### MMSE

{'psnr': 28.911951065063477, 'mse': 87.97919464111328, 'lpips': 0.2705727517604828, 'ssim': 0.822925865650177, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 83.79616813242282, 'kernel\_inception\_distance\_mean': 0.07815997302052054, 'kernel\_inception\_distance\_std': 0.002197740377321703, 'precision': 0.3323333263397217, 'recall': 0.19099999964237213, 'f\_score': 0.24258216345353495}

### Naive Flow

{'psnr': 27.458494186401367, 'mse': 121.875, 'lpips': 0.24433982372283936, 'ssim': 0.770269513130188, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 41.14610934273861, 'kernel\_inception\_distance\_mean': 0.02659163733233235, 'kernel\_inception\_distance\_std': 0.0014560543357936384, 'precision': 0.7009999752044678, 'recall': 0.430400013923645, 'f\_score': 0.5333399363402573}

### PMRF

{'psnr': 27.7552547454834, 'mse': 114.51339721679688, 'lpips': 0.24381139874458313, 'ssim': 0.7682967185974121, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 43.57415765282195, 'kernel\_inception\_distance\_mean': 0.028539732515015022, 'kernel\_inception\_distance\_std': 0.0014824717568140185, 'precision': 0.6983333230018616, 'recall': 0.39980000257492065, 'f\_score': 0.5084877361091902}

### Posterior conditioned on y

{'psnr': 26.6975154876709, 'mse': 146.3134307861328, 'lpips': 0.25389209389686584, 'ssim': 0.7523108720779419, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 45.970392936887606, 'kernel\_inception\_distance\_mean': 0.03254769355105103, 'kernel\_inception\_distance\_std': 0.0015524798992572377, 'precision': 0.6679999828338623, 'recall': 0.4408999979496002, 'f\_score': 0.531195231609071}

### Posterior conditioned on mmse

{'psnr': 26.45282554626465, 'mse': 154.91217041015625, 'lpips': 0.2605505585670471, 'ssim': 0.7421820163726807, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 46.292394633347385, 'kernel\_inception\_distance\_mean': 0.03251089304054058, 'kernel\_inception\_distance\_std': 0.0015400146732419834, 'precision': 0.6596666574478149, 'recall': 0.435699999332428, 'f\_score': 0.5247863999338456}

## random\_inpainting\_gaussian\_noise\_01

### MMSE

{'psnr': 27.238422393798828, 'mse': 132.9518280029297, 'lpips': 0.3037097752094269, 'ssim': 0.7912459373474121, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 87.42382765155665, 'kernel\_inception\_distance\_mean': 0.08254616117117118, 'kernel\_inception\_distance\_std': 0.0021602716316670503, 'precision': 0.29233333468437195, 'recall': 0.08060000091791153, 'f\_score': 0.12636074490816984}

### Naive Flow

### {'psnr': 24.21315574645996, 'mse': 264.6390686035156, 'lpips': 0.29104936122894287, 'ssim': 0.684169352054596, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 39.74127673857009, 'kernel\_inception\_distance\_mean': 0.02490949403153152, 'kernel\_inception\_distance\_std': 0.0013826379633490506, 'precision': 0.7250000238418579, 'recall': 0.3919999897480011, 'f\_score': 0.5088630231971718}

### PMRF

{'psnr': 25.740856170654297, 'mse': 187.7526092529297, 'lpips': 0.27017781138420105, 'ssim': 0.7199152708053589, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 41.060269145621476, 'kernel\_inception\_distance\_mean': 0.025751019324324328, 'kernel\_inception\_distance\_std': 0.0013596788878872253, 'precision': 0.70333331823349, 'recall': 0.39649999141693115, 'f\_score': 0.5071162187867524}

### Posterior conditioned on y

{'psnr': 25.355833053588867, 'mse': 205.43914794921875, 'lpips': 0.26970404386520386, 'ssim': 0.7226017117500305, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 45.15798402522586, 'kernel\_inception\_distance\_mean': 0.03184406529029029, 'kernel\_inception\_distance\_std': 0.0015237441104686022, 'precision': 0.6819999814033508, 'recall': 0.4041999876499176, 'f\_score': 0.5075757538471437}

### Posterior conditioned on mmse

{'psnr': 24.91255760192871, 'mse': 227.32801818847656, 'lpips': 0.2834620177745819, 'ssim': 0.7074845433235168, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 43.72385534177687, 'kernel\_inception\_distance\_mean': 0.02960975773023022, 'kernel\_inception\_distance\_std': 0.0015122321444314896, 'precision': 0.6946666836738586, 'recall': 0.4115999937057495, 'f\_score': 0.5169184039873975}

## sr\_bicubic\_x8\_gaussian\_noise\_005

### MMSE

{'psnr': 25.73686408996582, 'mse': 188.3335418701172, 'lpips': 0.35985779762268066, 'ssim': 0.7347162365913391, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 100.80454152046462, 'kernel\_inception\_distance\_mean': 0.09735815358108106, 'kernel\_inception\_distance\_std': 0.0021438630854424792, 'precision': 0.09866666793823242, 'recall': 0.007699999958276749, 'f\_score': 0.014285177002007581}

### Naive Flow

{'psnr': 23.84895896911621, 'mse': 287.4717102050781, 'lpips': 0.3063303530216217, 'ssim': 0.6417537927627563, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 41.439317723134764, 'kernel\_inception\_distance\_mean': 0.02612996706206204, 'kernel\_inception\_distance\_std': 0.0013407574933875736, 'precision': 0.7269999980926514, 'recall': 0.36500000953674316, 'f\_score': 0.48599817652581334}

### PMRF

{'psnr': 24.167129516601562, 'mse': 267.98663330078125, 'lpips': 0.3056447207927704, 'ssim': 0.6555127501487732, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 41.928343199047674, 'kernel\_inception\_distance\_mean': 0.026588689989989988, 'kernel\_inception\_distance\_std': 0.001397607571653611, 'precision': 0.7366666793823242, 'recall': 0.3319000005722046, 'f\_score': 0.45762173927961475}

### Posterior conditioned on y

{'psnr': 23.605148315429688, 'mse': 301.5735168457031, 'lpips': 0.32818055152893066, 'ssim': 0.6340723633766174, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 43.034855200606785, 'kernel\_inception\_distance\_mean': 0.027780930065065084, 'kernel\_inception\_distance\_std': 0.0013599958724130519, 'precision': 0.6936666369438171, 'recall': 0.3303999900817871, 'f\_score': 0.4476026147477874}

### Posterior conditioned on mmse

{'psnr': 23.674636840820312, 'mse': 296.8307800292969, 'lpips': 0.3293123245239258, 'ssim': 0.6315382122993469, 'inception\_score\_mean': 5.9923844119408916, 'inception\_score\_std': 0.08840428095626822, 'frechet\_inception\_distance': 43.85051875508577, 'kernel\_inception\_distance\_mean': 0.028838238581081053, 'kernel\_inception\_distance\_std': 0.0013848328344695546, 'precision': 0.7049999833106995, 'recall': 0.3490000069141388, 'f\_score': 0.4668785604019138}