7. References

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[8] Documentation, OpenCV: https://docs.opencv.org/4.x/

[9] Documentation, PVLIB: https://pvlib-python.readthedocs.io/en/stable/

Appendix C. Tables – SFV

image	latitude	longitude	SFV(%)	image	latitude	longitude	SFV(%)
parking_undistorted-0.jpg	40.4536	-3.7270	66.53	parking_undistorted-41.jpg	40.4537	-3.7269	65.43
parking_undistorted-1.jpg	40.4536	-3.7270	64.91	parking_undistorted-44.jpg	40.4537	-3.7267	48.96
parking_undistorted-10.jpg	40.4536	-3.7270	64.49	parking_undistorted-45.jpg	40.4529	-3.7269	49.95
parking_undistorted-100.jpg	40.4536	-3.7270	25.16	parking_undistorted-46.jpg	40.4529	-3.7269	46.09
parking_undistorted-103.jpg	40.4536	-3.7269	25.63	parking_undistorted-48.jpg	40.4530	-3.7269	47.55
parking_undistorted-105.jpg	40.4536	-3.7268	25.32	parking_undistorted-49.jpg	40.4530	-3.7269	46.46
parking_undistorted-109.jpg	40.4533	-3.7265	24.70	parking_undistorted-5.jpg	40.4530	-3.7269	62.06
parking_undistorted-11.jpg	40.4533	-3.7266	63.55	parking_undistorted-50.jpg	40.4530	-3.7269	47.32
parking_undistorted-110.jpg	40.4533	-3.7266	25.64	parking_undistorted-51.jpg	40.4529	-3.7268	50.26
parking_undistorted-111.jpg	40.4533	-3.7266	31.19	parking_undistorted-53.jpg	40.4530	-3.7268	47.80
parking_undistorted-112.jpg	40.4533	-3.7267	36.60	parking_undistorted-54.jpg	40.4531	-3.7268	74.15
parking_undistorted-12.jpg	40.4533	-3.7267	62.67	parking_undistorted-55.jpg	40.4531	-3.7269	71.67
parking_undistorted-13.jpg	40.4533	-3.7267	59.22	parking_undistorted-6.jpg	40.4529	-3.7270	62.03
parking_undistorted-14.jpg	40.4533	-3.7268	54.46	parking_undistorted-60.jpg	40.4529	-3.7270	51.74
parking_undistorted-15.jpg	40.4533	-3.7267	60.71	parking_undistorted-61.jpg	40.4530	-3.7270	55.15
parking_undistorted-16.jpg	40.4536	-3.7267	55.42	parking_undistorted-62.jpg	40.4530	-3.7270	55.38
parking_undistorted-17.jpg	40.4533	-3.7267	68.67	parking_undistorted-63.jpg	40.4530	-3.7270	52.88
parking_undistorted-18.jpg	40.4532	-3.7267	70.12	parking_undistorted-64.jpg	40.4530	-3.7270	53.74
parking_undistorted-19.jpg	40.4532	-3.7268	70.20	parking_undistorted-67.jpg	40.4531	-3.7271	35.56
parking_undistorted-2.jpg	40.4536	-3.7267	64.79	parking_undistorted-7.jpg	40.4532	-3.7271	62.90
parking_undistorted-20.jpg	40.4536	-3.7266	69.40	parking_undistorted-72.jpg	40.4531	-3.7270	41.65
parking_undistorted-21.jpg	40.4536	-3.7266	70.08	parking_undistorted-73.jpg	40.4531	-3.7269	41.68
parking_undistorted-22.jpg	40.4537	-3.7266	70.35	parking_undistorted-74.jpg	40.4531	-3.7269	39.88
parking_undistorted-23.jpg	40.4537	-3.7266	70.15	parking_undistorted-75.jpg	40.4532	-3.7268	43.28
parking_undistorted-24.jpg	40.4537	-3.7266	69.94	parking_undistorted-76.jpg	40.4532	-3.7268	39.88
parking_undistorted-25.jpg	40.4537	-3.7267	71.21	parking_undistorted-77.jpg	40.4531	-3.7268	37.24
parking_undistorted-26.jpg	40.4537	-3.7267	72.39	parking_undistorted-78.jpg	40.4531	-3.7267	33.83
parking_undistorted-27.jpg	40.4537	-3.7267	72.16	parking_undistorted-79.jpg	40.4532	-3.7267	30.00
parking_undistorted-28.jpg	40.4537	-3.7268	71.61	parking_undistorted-8.jpg	40.4532	-3.7267	62.73
parking_undistorted-29.jpg	40.4537	-3.7268	72.24	parking_undistorted-80.jpg	40.4532	-3.7266	30.54
parking_undistorted-3.jpg	40.4537	-3.7268	64.02	parking_undistorted-81.jpg	40.4532	-3.7265	27.67
parking_undistorted-30.jpg	40.4536	-3.7269	82.56	parking_undistorted-82.jpg	40.4532	-3.7266	19.95
parking_undistorted-31.jpg	40.4536	-3.7269	83.52	parking_undistorted-83.jpg	40.4532	-3.7265	53.80
parking_undistorted-32.jpg	40.4536	-3.7269	75.76	parking_undistorted-84.jpg	40.4532	-3.7265	22.52
parking_undistorted-33.jpg	40.4536	-3.7270	74.49	parking_undistorted-85.jpg	40.4532	-3.7264	23.79
parking_undistorted-34.jpg	40.4536	-3.7270	62.70	parking_undistorted-86.jpg	40.4532	-3.7264	24.72
parking_undistorted-35.jpg	40.4536	-3.7270	73.55	parking_undistorted-87.jpg	40.4532	-3.7264	26.42
parking_undistorted-36.jpg	40.4536	-3.7272	71.46	parking_undistorted-88.jpg	40.4532	-3.7264	25.34
parking_undistorted-37.jpg	40.4536	-3.7272	68.83	parking_undistorted-89.jpg	40.4532	-3.7263	26.27
parking_undistorted-38.jpg	40.4537	-3.7271	65.26	parking_undistorted-9.jpg	40.4532	-3.7263	62.36
parking_undistorted-39.jpg	40.4537	-3.7271	62.32	parking_undistorted-90.jpg	40.4532	-3.7263	27.18
parking_undistorted-4.jpg	40.4537	-3.7270	62.78	parking_undistorted-92.jpg	40.4532	-3.7266	21.62
parking_undistorted-40.jpg	40.4537	-3.7269	68.14	parking_undistorted-99.jpg	40.4533	-3.7265	25.69

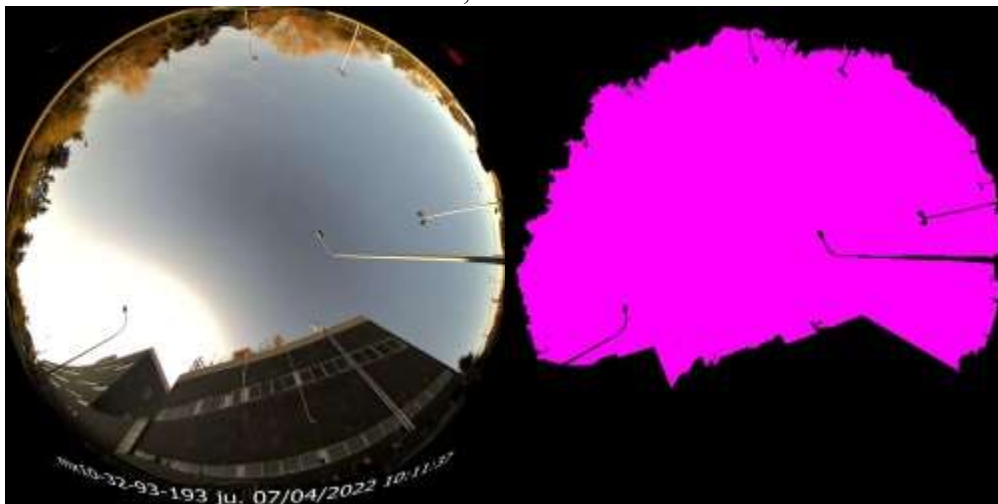# Appendix D. All-Sky Images – Original Undistorted vs Filter
(Index → parking_undistorted-{index}.jpg)
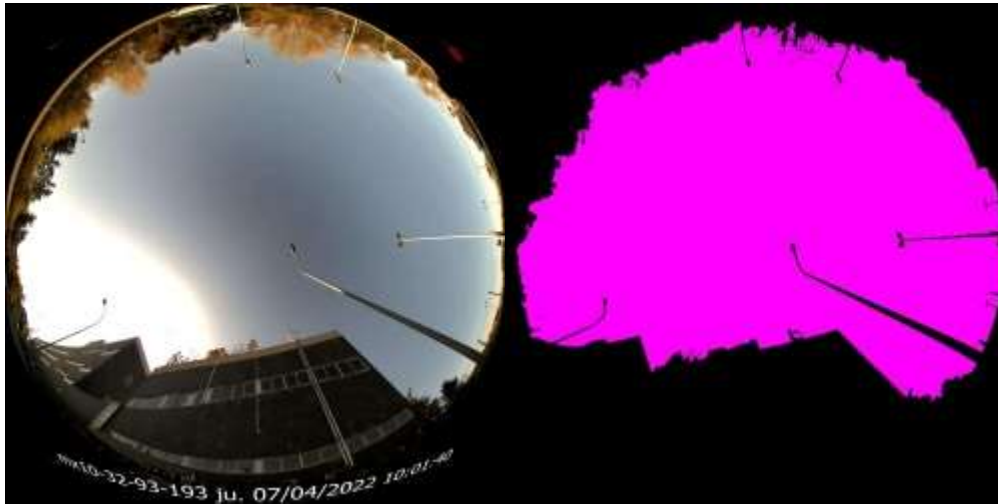
Index – 0, SFV – 66.53%
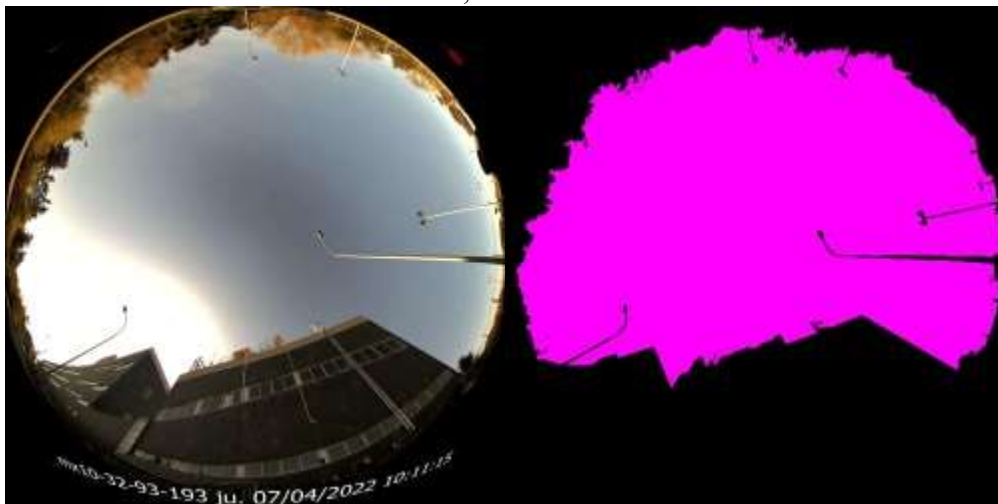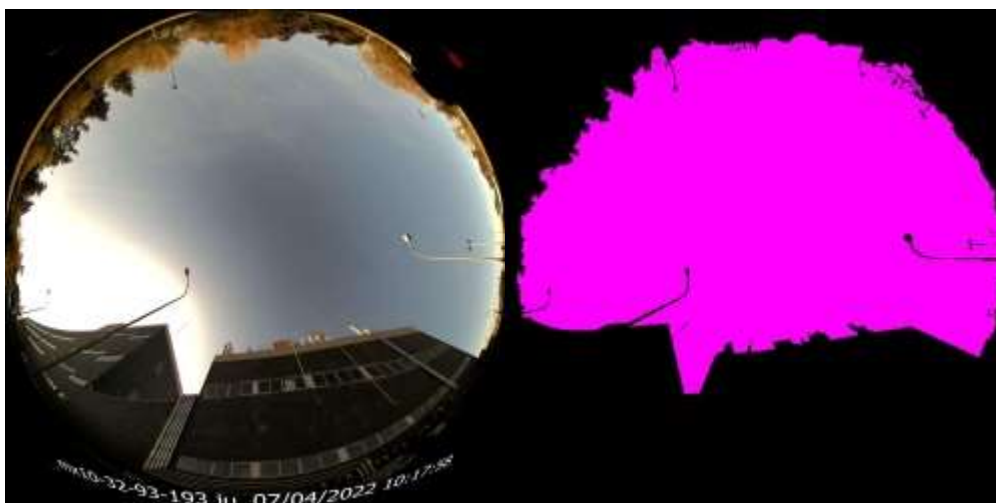

Index – 1, SFV – 64.91%

Index – 2, SFV – 64.78%

Index – 3, SFV – 64.08%

Index – 4, SFV – 62.78%

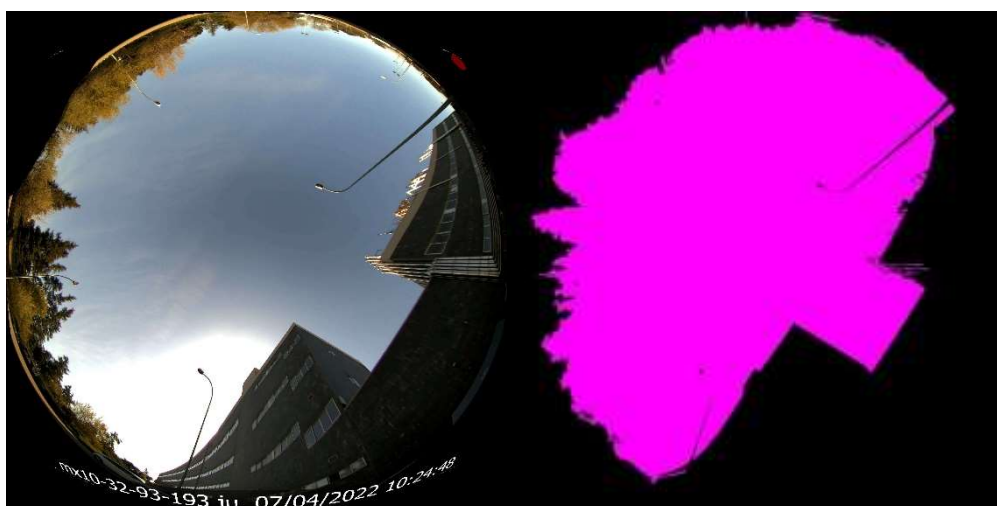Index – 5, SFV – 62.06%

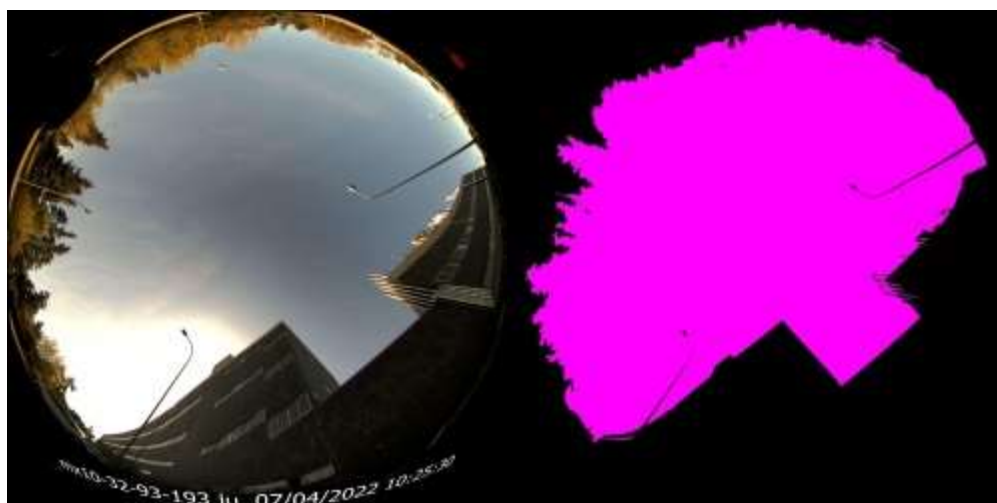Index – 6, SFV – 62.03%

Index – 7, SFV – 62.90%

Index – 8, SFV – 62.73%
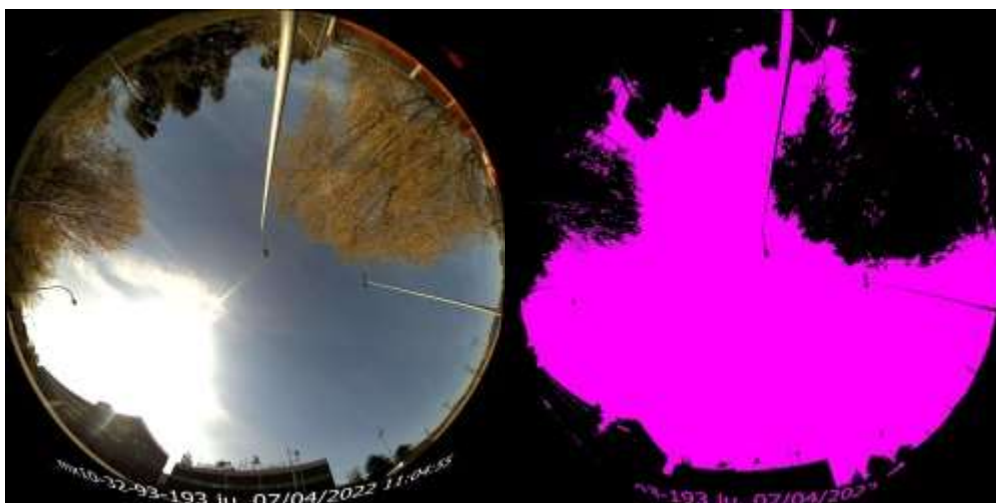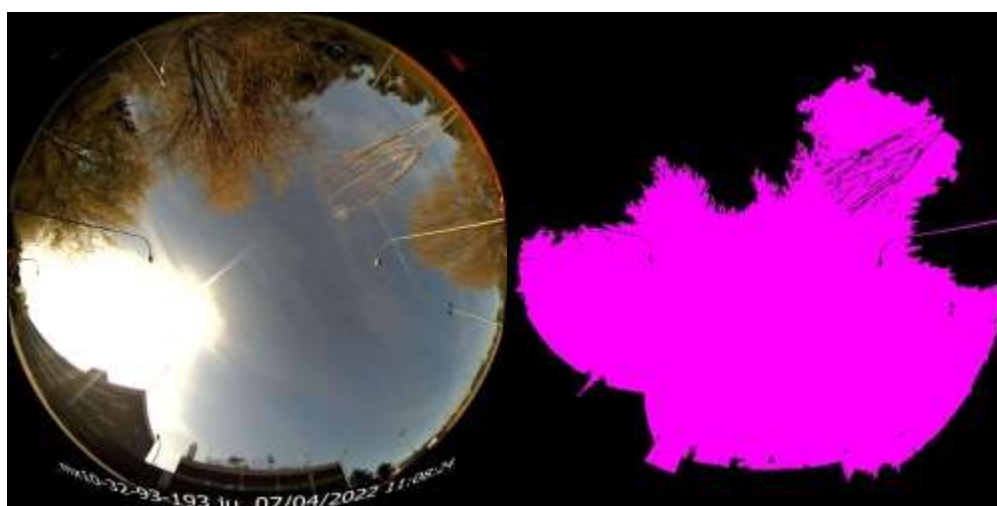
Index – 9, SFV – 62.34%

Index – 10, SFV – 64.49%

Index – 11, SFV – 63.55%

Index – 12, SFV – 62.67%

Index – 13, SFV – 59.22%

Index – 14, SFV – 54.46%

Index – 15, SFV – 60.71%

Index – 16, SFV – 55.42%

Index – 17, SFV – 68.67%

Index – 18, SFV – 70.12%

Index – 19, SFV – 70.20%

Index – 20, SFV – 69.40%

Index – 21, SFV – 70.08%

Index – 22, SFV – 70.35%

Index – 23, SFV – 70.15%

Index – 24, SFV – 69.94%

Index – 25, SFV – 71.20%

Index – 26, SFV – 72.39%

Index – 27, SFV – 72.16%

Index – 28, SFV – 71.61%
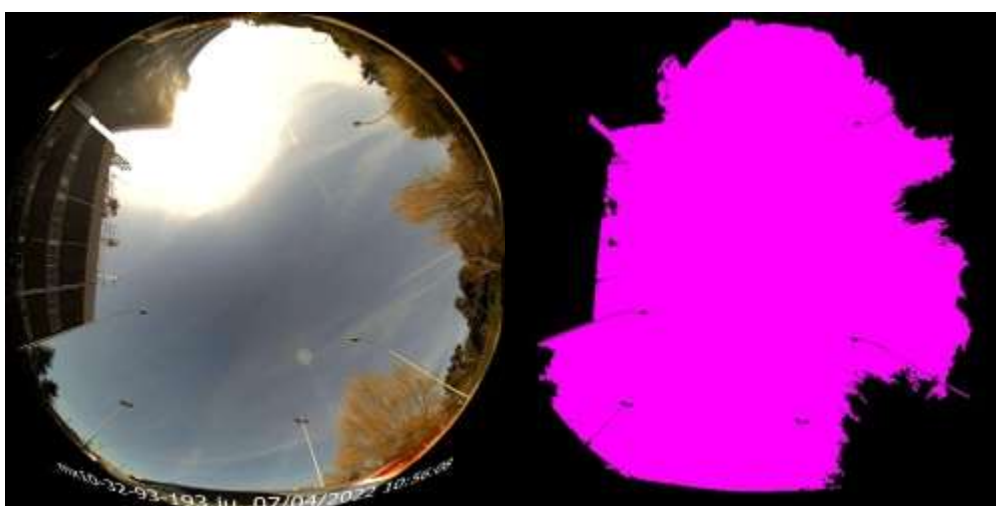
Index – 29, SFV – 72.24%

Index – 30, SFV – 82.55%

Index – 31, SFV – 83.52%

Index – 32, SFV – 75.76%

Index – 33, SFV – 74.49%

Index – 34, SFV – 62.70%

Index – 35, SFV – 73.55%
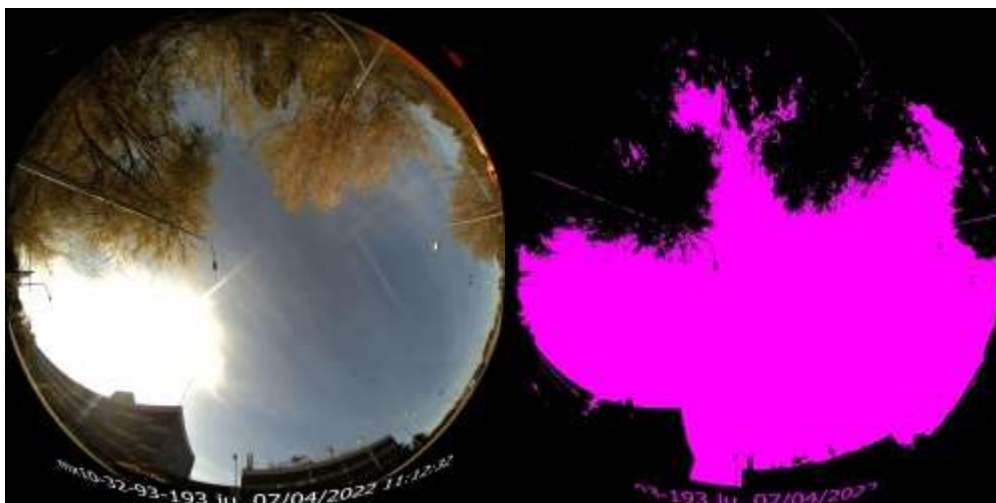
Index – 36, SFV – 71.46%

Index – 37, SFV – 68.83%

Index – 38, SFV – 65.25%

Index – 39, SFV – 62.32%

Index – 40, SFV – 68.13%

Index – 41, SFV – 65.43%

Index – 44, SFV – 48.96%

Index – 45, SFV – 49.95%

Index – 46, SFV – 46.09%

Index – 48, SFV – 47.55%

Index – 49, SFV – 46.46%

Index – 50, SFV – 47.32%

Index – 51, SFV – 50.26%

Index – 53, SFV – 47.80%

Index – 54, SFV – 74.15%

Index – 55, SFV – 71.67%

Index – 60, SFV – 51.74%

Index – 61, SFV – 55.15%

Index – 62, SFV – 55.38%

Index – 63, SFV – 52.88%

Index – 64, SFV – 53.74%

Index – 67, SFV – 35.56%

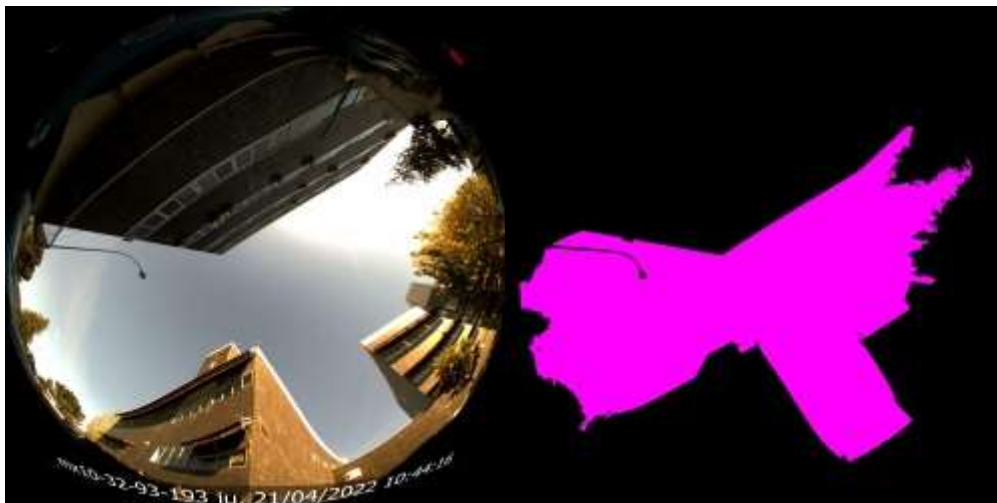Index – 72, SFV – 41.65%

Index – 73, SFV – 41.68%

Index – 74, SFV – 39.88%

Index – 75, SFV – 43.28%
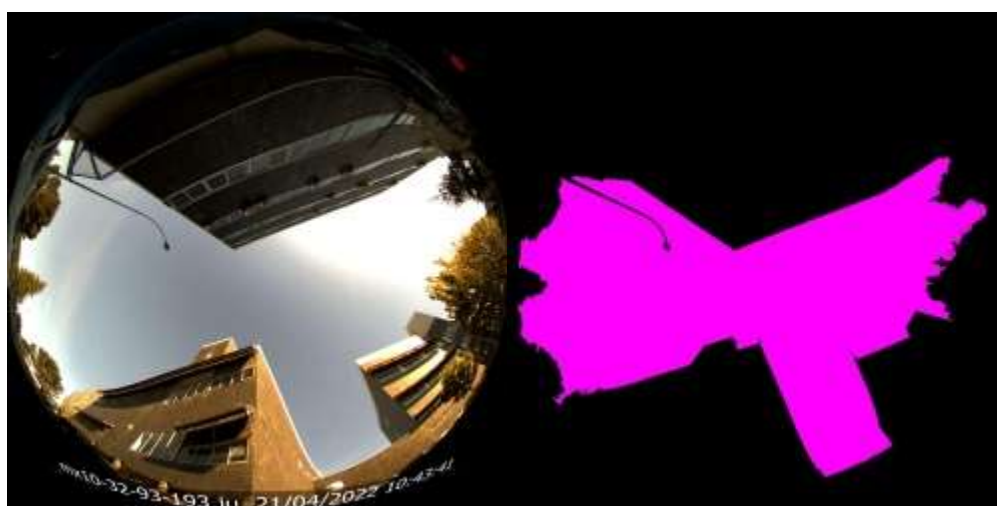
Index – 76, SFV – 39.88%

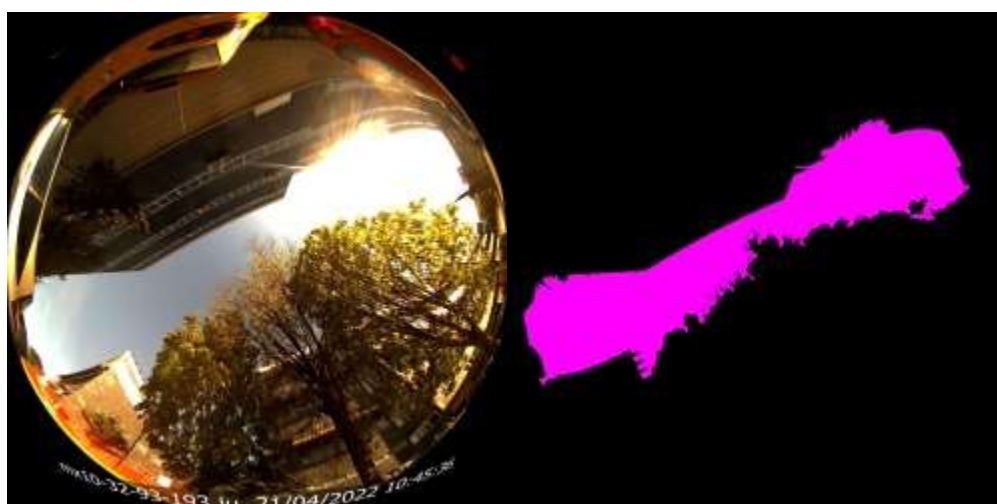Index – 77, SFV – 37.24%

Index – 78, SFV – 33.83%

Index – 79, SFV – 30.00%

Index – 80, SFV – 30.54%

Index – 81, SFV – 27.67%

Index – 82, SFV – 19.95%

Index – 83, SFV – 53.80%

Index – 84, SFV – 22.52%

Index – 85, SFV – 23.79%

Index – 86, SFV – 24.72%

Index – 87, SFV – 26.42%
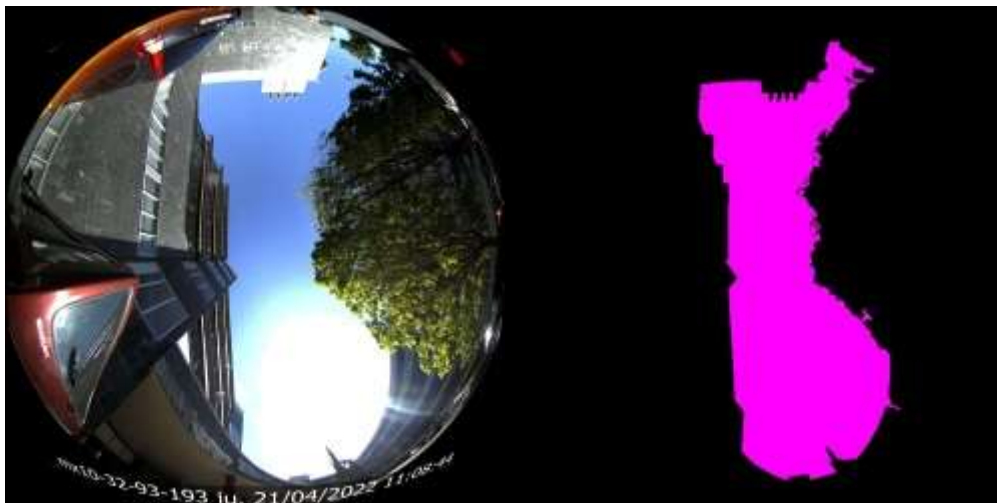

Index – 88, SFV – 25.34%

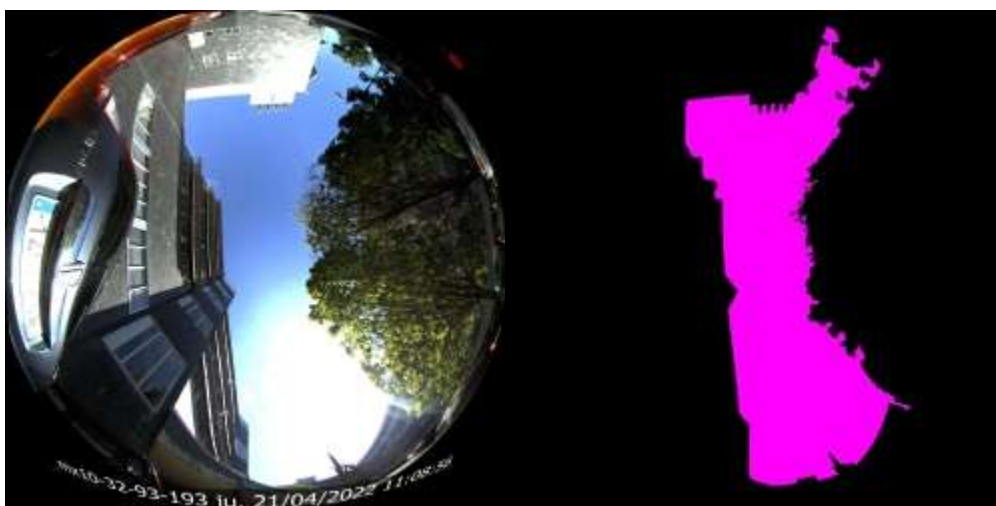Index – 89, SFV – 26.27%

Index – 90, SFV – 27.18%

Index – 92, SFV – 21.62%

Index – 99, SFV – 25.68%

Index – 100, SFV – 25.16%

Index – 103, SFV – 25.63%

Index – 105, SFV – 25.32%

Index – 109, SFV – 24.70%

Index – 110, SFV – 25.64%

Index – 111, SFV – 31.19%

Index – 112, SFV – 36.60%