| | Ahash 64 bits | Phash 64 bits | Dhash 64 bits | Whash 64 bits | Crop resistant hash 64 bits | SIFT 30 descriptors | ORB 30 descriptors | FAST + DAISY 30 descriptors | FAST + LATCH 30 descriptors | Inception v3 raw features Jensen-Shannon | ResNet50 2x raw features Jensen-Shannon | ResNet101 2x raw features Jensen-Shannon | SimCLR v1 ResNet50 2x raw features Jensen-Shannon | SimCLR v2 ResNet50 2x raw features Jensen-Shannon | SimCLR v2 ResNet101 2x raw features Jensen-Shannon |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| gaussian noise 0.05 | 1 | 1 | 1 | 1 | 1 | 0.87 | 1 | 0.63 | 1 | 0.86 | 0.89 | 0.94 | 1 | 1 | 1 |
| speckle noise 0.05 | 1 | 1 | 1 | 1 | 1 | 0.99 | 1 | 0.97 | 1 | 0.99 | 1 | 1 | 1 | 1 | 1 |
| s&p noise 0.15 | 1 | 1 | 1 | 1 | 1 | 0.87 | 1 | 0.54 | 0.99 | 0.84 | 0.85 | 0.92 | 0.99 | 0.99 | 0.99 |
| gaussian filter 7x7 | 1 | 1 | 1 | 1 | 1 | 0.92 | 1 | 0.57 | 1 | 0.96 | 0.99 | 1 | 1 | 1 | 1 |
| median filter 7x7 | 1 | 1 | 1 | 1 | 1 | 0.91 | 0.99 | 0.61 | 0.99 | 0.95 | 0.98 | 0.98 | 0.99 | 1 | 0.99 |
| jpg compression 10 | 1 | 1 | 1 | 1 | 1 | 0.98 | 1 | 1 | 1 | 0.96 | 0.97 | 0.97 | 1 | 1 | 1 |
| cropping 60 and rescaling | 0.47 | 0.45 | 0.5 | 0.49 | 0.53 | 0.93 | 0.7 | 0.49 | 0.45 | 0.81 | 0.89 | 0.88 | 0.95 | 0.96 | 0.96 |
| rotation 60 and rescaling | 0.51 | 0.54 | 0.54 | 0.52 | 0.51 | 0.61 | 0.65 | 0.53 | 0.55 | 0.6 | 0.74 | 0.75 | 0.71 | 0.86 | 0.88 |
| shearing 20 | 0.52 | 0.53 | 0.54 | 0.53 | 0.52 | 0.53 | 0.57 | 0.69 | 0.66 | 0.79 | 0.89 | 0.9 | 0.95 | 0.98 | 0.98 |
| scaling 1.6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.71 | 0.51 | 1 | 1 | 1 | 1 | 1 | 1 |
| text length 50 | 0.85 | 0.97 | 0.99 | 0.83 | 0.96 | 0.5 | 0.58 | 0.45 | 0.48 | 0.83 | 0.91 | 0.89 | 0.95 | 1 | 1 |
| color enhancement 2 | 1 | 1 | 1 | 0.99 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| sharpness enhancement 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.97 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| contrast enhancement 2 | 0.99 | 1 | 1 | 0.99 | 0.97 | 0.98 | 0.99 | 0.65 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| brightness enhancement 2 | 0.89 | 0.99 | 1 | 0.93 | 0.85 | 0.76 | 0.83 | 0.62 | 0.89 | 0.99 | 0.98 | 0.98 | 1 | 1 | 1 |