

Explanation: for all divide zero, these value are assigned zero

LUV to XYZ

If  $L=0$ , I assign 0 for both u and v to avoid divided by zero problem.

xyY to LUV

if  $y=0$ , X and Z are assigned 0.

XYZ to LUV

If  $d=0$ , u and v are assigned 0.

BGR to xyY

If  $X+Y+Z=0$ , x and y are assigned 0.

No-Linear RGB to RGB

If value is greater than 255, assign it to 255. If value is less than 0, assign it to 0. Finally round every value to get an integer value.

Program2 and Program3

When getting L, u, v values, If value is greater than 100, assign it to 100. If value is less than 0, assign it to 0.

