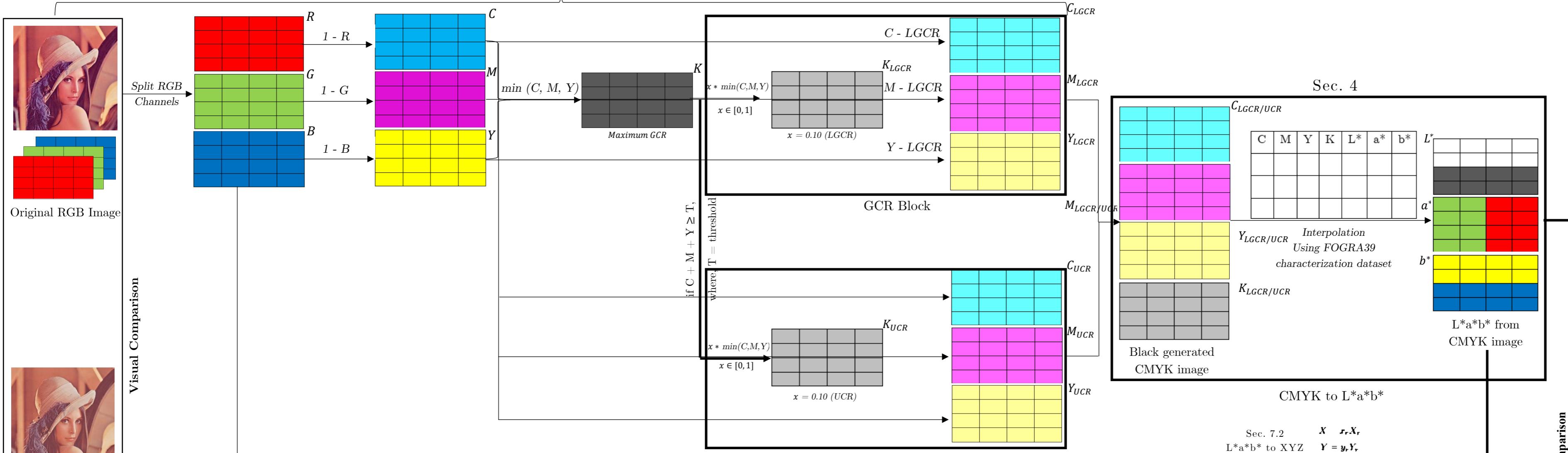
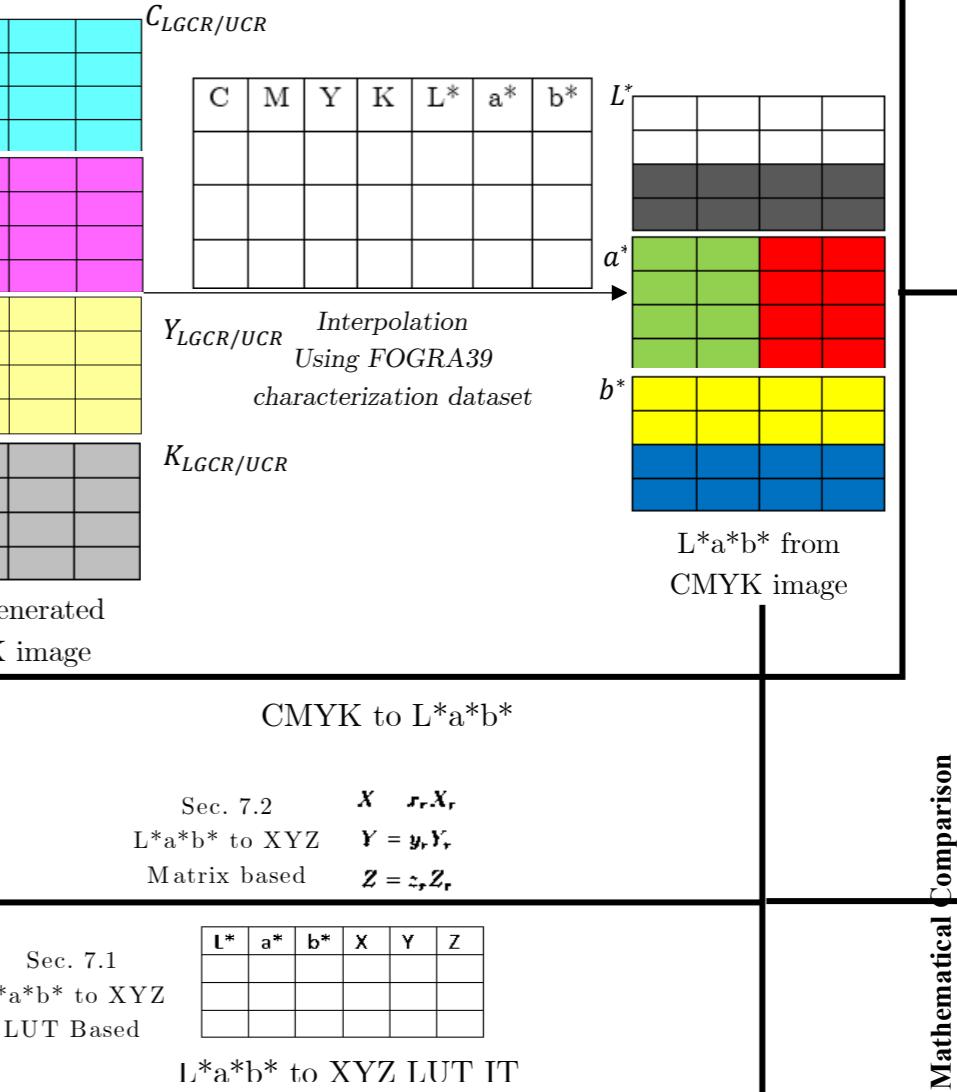


Sec. 3



Sec. 4



Sec. 6

$$\Delta E_{76} = 18.16$$

Sec. 7.2  $X = x_r X_r$   
L\*a\*b\* to XYZ  $Y = y_r Y_r$   
Matrix based  $Z = z_r Z_r$

Sec. 7.1  $L^*a^*b^* \rightarrow X, Y, Z$   
LUT Based

$L^*$	$a^*$	$b^*$	$X$	$Y$	$Z$

L\*a\*b\* to XYZ LUT IT



Converted RGB Image (Colorimetric)

Sec. 7

$$R_{sRGB} = \begin{cases} 12.92 \times R_{\text{linear}} & \text{if } R_{\text{linear}} \leq 0.04045 \\ (1.055 \times R_{\text{linear}}^{1/2.4}) - 0.055 & \text{if } R_{\text{linear}} > 0.04045 \end{cases}$$

Companding

$$\begin{bmatrix} X \\ Y \\ Z \end{bmatrix} = [M] \begin{bmatrix} r \\ g \\ b \end{bmatrix}$$

$$\begin{bmatrix} 3.2404542 & 1.5371385 & 0.4985314 \\ 0.9692660 & 1.8760108 & 0.0415560 \\ 0.0556434 & 0.2040259 & 1.0572252 \end{bmatrix}$$

Transformation matrix

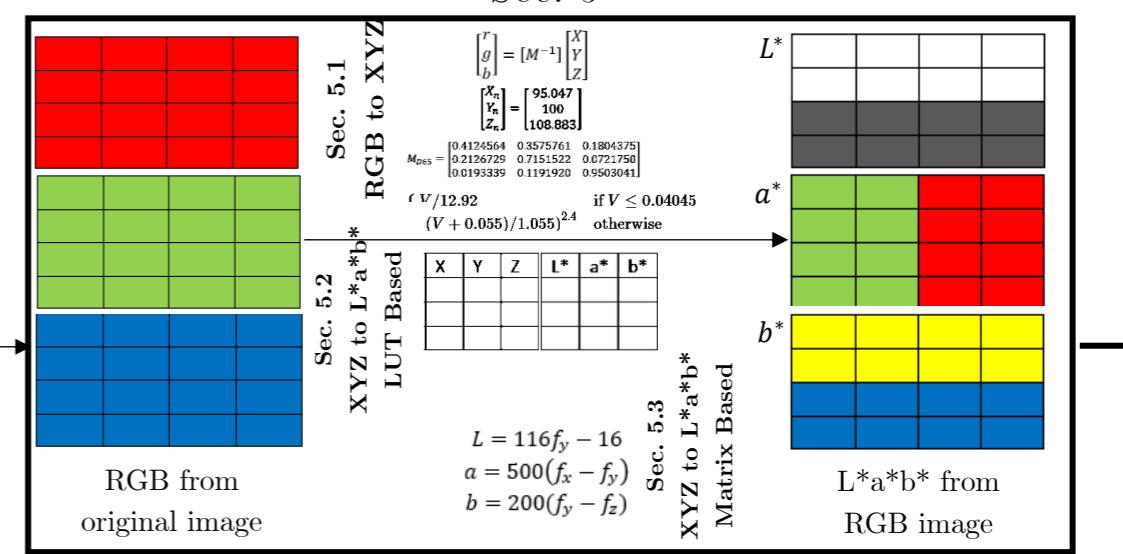
Sec. 7.1  
L\*a\*b\* to XYZ  
LUT Based

$L^*$	$a^*$	$b^*$	$X$	$Y$	$Z$

L\*a\*b\* to XYZ LUT IT

 $\Delta E_{76} = 77.81$ 

Sec. 5



RGB to L\*a\*b\*