\begin{flushleft}

C = ((100 + T) / 100)^{2}\\

\vspace{0.5cm}

R\_{out} = (((\frac{B\_{in}}{255} - 0.5) \times C) + 0.5) \times 255\\

G\_{out} = (((\frac{G\_{in}}{255} - 0.5) \times C) + 0.5) \times 255\\

B\_{out} = (((\frac{B\_{in}}{255} - 0.5) \times C) + 0.5) \times 255\\

\end{flushleft}

\begin{flushleft}

R\_{1} = \frac{R}{255}\\

G\_{1} = \frac{G}{255}\\

B\_{1} = \frac{B}{255}\\

M = max(R\_1, G\_1, B\_1)\\

m = min(R\_1, G\_1, B\_1)\\

\Delta = M - m\\

\vspace{0.5cm}

H =\begin{cases}

0^{\circ} & \Delta = 0\\

60^{\circ} \times ( \frac{G\_1-B\_1}{\Delta} \mod 6) & M = R\_1\\

60^{\circ} \times (\frac{B\_1-R\_1}{\Delta} + 2) & M = G\_1\\

60^{\circ} \times (\frac{R\_1-G\_1}{\Delta} + 4) & M = B\_1\\ \end{cases}\\

\vspace{0.5cm}

S =\begin{cases}0 & \Delta = 0\\ \frac{\Delta}{1 - |2L - 1|} & otherwise\end{cases}\\

\vspace{0.5cm}

L = 0.5(M + m)\\

\end{flushleft}

\begin{flushleft}

C = (1 - \vert 2L - 1 \vert) \times S\\

X = C \times (1 - \vert \frac{H}{60^{\circ}} \mod 2 - 1 \vert)\\

m = L - C/2\\

\vspace{0.5cm}

(R\_1, G\_1, B\_1) =\begin{cases}

(C, X, 0) & 0^{\circ} \leq H < 60^{\circ}\\

(X, C, 0) & 60^{\circ} \leq H < 120^{\circ}\\

(0, C, X) & 120^{\circ} \leq H < 180^{\circ}\\

(0, X, C) & 180^{\circ} \leq H < 240^{\circ}\\

(X, 0, C) & 240^{\circ} \leq H < 300^{\circ}\\

(C, 0, X) & 300^{\circ} \leq H < 360^{\circ}\\

\end{cases}\\

\vspace{0.5cm}

(R, G, B) = (R\_1 + m, G\_1 + m, B\_1 + m)\\

\end{flushleft}

C\_{linear} = \begin{cases} \frac{ C\_{srgb} }{12.92} & C\_{srgb} \leq 0.04045\\ ( \frac{ C\_{srgb} + 0.055}{1.055} )^{2.4} & C\_{srgb} > 0.04045\end{cases}

\begin{bmatrix}

0.412383 & 0.357585 & 0.18048 \\

0.212635 & 0.71517 & 0.072192 \\

0.01933 & 0.119195 & 0.950528

\end{bmatrix}

\begin{bmatrix}r \\g \\b \end{bmatrix} =

\begin{bmatrix}X \\Y \\Z \end{bmatrix}

\begin{flushleft}

x\_1 = \frac{X}{95.047}\\

y\_1 = \frac{Y}{100.000}\\

z\_1 = \frac{Z}{108.883}\\

\vspace{0.5cm}

x\_2 =\begin{cases}

(x\_1)^{ \frac{1}{3} } & x\_1 > 0.008856\\

(7.787 \times x\_1) + \frac{16}{116} & otherwise

\end{cases}\\

\vspace{0.5cm}

y\_2 =\begin{cases}

(y\_1)^{ \frac{1}{3} } & y\_1 > 0.008856\\

(7.787 \times y\_1) + \frac{16}{116} & otherwise

\end{cases}\\

\vspace{0.5cm}

z\_2 =\begin{cases}

(z\_1)^{ \frac{1}{3} } & z\_1 > 0.008856\\

(7.787 \times z\_1) + \frac{16}{116} & otherwise

\end{cases}\\

\vspace{0.5cm}

CIE-L\* = (116 \times y\_2) - 16\\

CIE-a\* = 500 \times (x\_2 - y\_2)\\

CIE-b\* = 200 \times (y\_2 - z\_2)

\end{flushleft}