Equations: colorimetric data transfer from rgb_d to $nce*_d$ data and $LCH*_{a,d}$ data

Given: rgb_d device colour data of any colour $rgb_d = lab*rgb_d$ and of 48 step colour circle j=0 to 47

$rgb_{Md,j}$ and adapted CIELAB data $L*_{Md,j}$, $C*_{ab,a,Md,j}$, $h_{ab,a,Md,j} = LCH*_{a,Md,j}$

Aim: calculate $nce*_d$ with ($0<=n*_d$, $c*_d$, $e*_d<=1$) **(similar to NCS data)** and $LCH*_{a,d}$ data of the device colour

Data of a given device (d) colour

relative chroma of the device colour	$c*_d = max\ [\ rgb_d\ ] - min\ [\ rgb_d\ ]$	(1)
relative blackness of the device colour	$n*_d = 1 - max\ [\ rgb_d\ ]$	(2)
relative triangle lightness of the device colour	$t*_d = 1 - n*_d - 0.5\ c*_d$	(3)
relative red-green chroma in 6x60 degree system s	$a*_{rs,d} = r_d\ cos(30) + g_d\ cos(150)$	(4)
relative yellow-blue chroma in 6x60 degree system s	$b*_{rs,d} = r_d\ sin(30) + g_d\ sin(150) + b_d\ sin(270)$	(5)
hue angle in 6x60 degree system s	$h_{ab,s,d} = arctan[\ b*_{rs,d}\ /\ a*_{rs,d}]$ ($0<= h_{ab,s,d}<=360$)	(6)
hue number in 6x60 degree system s	$e*_d = h_{ab,s,d}/360$ ($0<=e*_d<=1$)	(7)
CIELAB hue angle in device system	$h_{ab,a,d} = function\ [h_{ab,s,d}]$ (with table/equations)	(8)
adapted CIELAB $LCH*_{a,d}$ data of maximum colour M_d	$L*_{Md} = function\ [h_{ab,a,d}]$ (with table/equations)	(9)
	$C*_{ab,a,Md} = function\ [h_{ab,a,d}]$ (with table/equations)	(10)
	$h_{ab,a,Md} = h_{ab,a,d}$	(11)
relative lightness of maximum colour M_d	$l*_{Md} = [\ L*_{Md} - L*_{Nd}\ ]\ /\ [\ L*_{Wd} - L*_{Nd}\ ]$	(12)
relative lightness of the device colour	$l*_d = t*_d + l*_{Md}\ c*_d + 0.5\ c*_d$	(13)
adapted CIELAB $LCH*_{a,d}$ data of the device colour	$L*_d = l*_d\ [\ L*_{Wd} - L*_{Nd}\ ] + L*_{Nd}$	(14)
	$C*_{ab,a,d} = c*_d\ C*_{ab,a,Md}$	(15)

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