Equations: colorimetric data transfer from rgb_d to $nce*_d$ data and $LCH*_d$ 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 CIELAB data $L*_{Md,j}$, $C*_{ab,Md,j}$, $h_{ab,Md,j} = LCH*_{Md,j}$

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	$h_{ab,d} = function\,[h_{ab,s,d}]$ (with table/equations)	(8)
adapted CIELAB $LCH*_d$ data of maximum colour M_d	$L*_{Md} = function\,[h_{ab,d}]$ (with table/equations)	(9)
	$C*_{ab,Md} = function\,[h_{ab,d}]$ (with table/equations)	(10)
	$h_{ab,Md} = h_{ab,d}$	(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)
CIELAB $LCH*_d$ data of the device colour	$L*_d = l*_d\,[\,L*_{Wd} - L*_{Nd}\,] + L*_{Nd}$	(14)
	$C*_{ab,d} = c*_d\,C*_{ab,Md}$	(15)

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