

Equations: colorimetric data transfer from LCH^* (CIELAB) to nce^* and rgb^*_3

Given: CIELAB data of any colour L^* , C^*_{ab} , $h_{ab} = LCH^* = LAB^*LCH^*$ or L^* , a^* , b^*

CIELAB data L^*_X , $C^*_{ab,X}$, $h_{ab,X}$, a^*_X , b^*_X of eight basic colours $X = RJGC'BM'NW$

Aim: nce^* and rgb^*_3 elementary colour data of the given colour

hue angle of the given colour and of M	$h_{ab} = H^*$	(1)
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LCH^*_M data of maximum colour M	$L^*_M = \text{function} [h_{ab}]$	(with table or equation) (2)
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$C^*_{ab,M} = \text{function} [h_{ab}]$	(with table or equation) (3)
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$H^*_M = h_{ab}$	(4)
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relative CIELAB lightness of the given colour	$l^* = [L^* - L^*_N] / [L^*_W - L^*_N]$	(5)
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relative chroma of the given colour	$c^* = C^*_{ab} / C^*_{ab,M}$	(6)
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relative triangle lightness of the given colour	$t^* = l^* - [L^*_M - L^*_N] / [L^*_W - L^*_N] c^* + 0,5 c^*$	(7)
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relative blackness of the given colour	$n^* = 1 - t^* - 0,5 c^*$	(8)
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relative whiteness of the given colour	$w^* = 1 - n^* - c^*$	(9)
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elementary hue angle of the given colour	$e^* = \text{function} [h_{ab}]$	(with table or equation) (10)
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$rgb^*_{3,M}$ data of maximum colour M	$r^*_{3,M} = \text{function} [h_{ab}]$	(with table or equation) (11)
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$g^*_{3,M} = \text{function} [h_{ab}]$	(with table or equation) (12)
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$b^*_{3,M} = \text{function} [h_{ab}]$	(with table or equation) (13)
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relative rgb^*_3 data of the given colour	$r^*_3 = w^* + c^* r^*_{3,M}$	(14)
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$g^*_3 = w^* + c^* g^*_{3,M}$	(15)
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$b^*_3 = w^* + c^* b^*_{3,M}$	(16)
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