percieved color terms (colorness: cube root coordinates)

percieved color terms	name and relationship with standard chromaticity values	notes:
lightness	$L^* = 116\,(\,Y / 100\,)^{1/3} - 16$	*definition 1976 in:*
	Aproximation: $L^* = 100\,(\,Y / 100\,)^{1/3}$	*CIELUV, CIELAB*
chromaticness	*for linear chromatic value diagram (AT, B)*	
red−green	$a^* = 500\,[\,(X / X_n)^{1/3} - (Y / Y_n)^{1/3}\,]$	*definition 1976 in:*
	$= 500\,(a' - a'_n)\,Y^{1/3}$	*CIELAB*
yellow−blue	$b^* = 200\,[\,(Y / Y_n)^{1/3} - (Z / Z_n)^{1/3}\,]$	
	$= 500\,(b' - b'_n)\,Y^{1/3}$	*n=D65 (surround)*
radial	$C^* = [\,a^{*2} + b^{*2}\,]^{1/2}$	
saturation	**= chromaticness / lightness**	*definition*
red−green	$S^*_a = a^* / [\,100\,(Y / 100)^{1/3}\,]$	*for:*
	$= 21{,}6\,(a' - a'_n)$	*CIELAB 1976*
yellow−blue	$S^*_b = b^* / [\,100\,(Y / 100)^{1/3}\,]$	
	$= 21{,}6\,(b' - b'_n)$	
radial	$S^*_c = C^* / [\,100\,(Y / 100)^{1/3}\,]$	
	$= 21{,}6\,[\,(a' - a'_n)^2 + (b' - b'_n)^2\,]^{1/2}$	
chromaticity	*for nonlinear chromaticity diagram (a', b')*	*definition*
red−green	$a' = (1 / X_n)^{1/3}\,(x / y)^{1/3}$	*opponent*
yellow−blue	$= 0{,}2191\,(x / y)^{1/3}$ for *D65*	*color system*
radial	$b' = -0{,}4\,(1 / Z_n)^{1/3}\,(z / y)^{1/3}$	
	$= -0{,}08376\,(z / y)^{1/3}$ for *D65*	
	$c' = [\,(a' - a'_n)^2 + (b' - b'_n)^2\,]^{1/2}$	