Colourimetric scaling of achromatic colours between Peak White and Black
Relations between tristimulus value *Y*, luminance *L*, and lightness *L of ISO-standards**

Colour (light or paper)	**tristimu-lus values**	**HDR display luminance**	**relative luminance**		**CIELAB$_U$ lightness**	**TUBLOG$_U$ lightness**
Contrast W:N (25:1=100:4)	***Y*** ($5^{0,5}$=2,24	***L*** **[cd/m^2]**	$L_{rU}=L/L_U$	$L_{rW}=L/L_W$	$L^*_{CIELAB_U}=d_U L_{rU}^{1/3}-16$	$L^*_{TUBLOG_U}=t_U \log(L_{rU})+50$
White P1 (light)	224 =20*11,2	448 =40*11,2	11,2	2,24	135=85+50 $=c(11,2)^{1/3}-16$	125=75+50 =t log(11,2)+50
White W (fluo-recent paper)	100 =20*5	200 =40*5	5	1,00	100=50+50 $=c(5,00)^{1/3}-16$	100=50+50 =t log(5,00)+50
light Grey H (paper)	44,8 =20*2,24	89,6 =40*2,24	2,24	0,45	72=22+50 $=c(2,24)^{1/3}-16$	75=25+50 =t log(2,24)+50
Grey U (paper)	20	40 40*1	1	0,20	51=1+50 $=c(1,00)^{1/3}-16$	50=0+50 =t log(1,00)+50
dark Grey D (paper)	8,9 =20/2,24	17,8 40/2,24	0,45	0,09	35=−14+50 $=c(0,45)^{1/3}-16$	24=−25+50 =t log(0,45)+50
Black N (paper)	4 =20/5	8 40/5	0,20	0,04	23=−26+50 $=c(0,20)^{1/3}-16$	0=−50+50 =t log(0,20)+50
Black p1 (glossy paper)	1,9 =20/11,2	3,6 40/11,2	0,09	0,022	14=−35+50 $=c(0,09)^{1/3}-16$	−24=−74+50 =t log(0,09)+50
It is valid: CIELAB$_U$: d_U=d=66, TUBLOG$_U$: t_U=t=50/log(5)=71,533						