

Relative hexagon metric based on 3 elementary colours rgb^*_3



$0 \leq r^*_3, g^*_3, b^*_3, c^*_{RGB}, t^* \leq 1$ for standard device SRS00
 Triangle coordinates rgb^*_3 with hue angles 30, 150, 270 degree
 $X = RJGC'BM'$

relative
chroma

$$c^*_{RGB} = \max(r^*_3, g^*_3, b^*_3) - \min(r^*_3, g^*_3, b^*_3)$$

relative
blackness

$$n^*_{RGB} = 1 - \max(r^*_3, g^*_3, b^*_3)$$

relative triangle
lightness

$$t^*_{RGB} = 1 - n^*_{RGB} - 0,5 c^*_{RGB}$$

relative
rg-chroma

$$a^*_{RGB} = \cos(30)r^*_3 + \cos(150)g^*_3$$

relative
jb-chroma

$$b^*_{RGB} = \sin(30)r^*_3 + \sin(150)g^*_3 + \sin(270)b^*_3$$

hue angle

$$h^*_{RGB} = \text{atan} [b^*_{RGB} / a^*_{RGB}]$$