

$L^* / L_u^*$  normalized central-field lightness

$$L^* = V (L_s/s)^n [(1-s+sL/L_s)^n - 1] \quad [1]$$

$$n = -0,25 \quad [2]$$

$$V = 1/(0,036 n L_u^{-0,30}) \quad [3]$$

$$L_s = 0,025 L_u^{0,705} \quad [4]$$

$$s = 1/[1+(n V L_s^n)^{1/(1-n)}] \quad [5]$$

$$L_u = 0,1; 1; 10; 100; 1000 \text{ cd/m}^2 \quad [6]$$

$$dL = [1/nV][L_s/s]^{1-n} [1-s+sL/L_s]^{1-n} \quad [7]$$

$$L^* = V (L_s/s)^n [(1-s(L-L_s)/L_s)^n - 1] \quad [8]$$

$$dL = [1/nV][L_s/s]^{1-n} [(1-s(L-L_s)/L_s)^{1-n}] \quad [9]$$

Richter, K. (1993), CIE proceedings,  
Advanced Colorimetry, p. 79–84, CIE3 &  
<http://color.li.tu-berlin.de/BUA4BF.PDF>

surround-field luminance

→  $L_u$  [cd/m<sup>2</sup>]

0,1

1

10

100

1000

0

1

2

3

central-field luminance  $L$  [cd/m<sup>2</sup>]

0,001

0,01

0,1

1

10

100

1000

10000

-3

-2

-1

0

1

2

3

4



→  $\log L$  [cd/m<sup>2</sup>]