sensation scaling functions
lightness
$$L^*$$
 and luminous value Y
adaptation on surround white:
 $L^* = 100 (Y / 100)^{1/2,0}$
adaptation on surround gray:
 $L^* = 100 (Y / 100)^{1/2,4}$
description with CIELAB 1976:
 $L^* = 116 (Y / 100)^{1/3,0} - 16$
adaptation on surround black:
 $L^* = 100 (Y / 100)^{1/3,0}$

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