

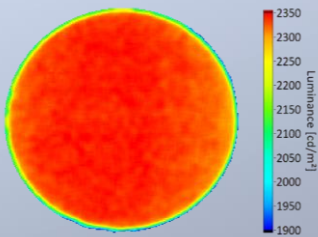
Overview

The Luminance Transfer Standard LTN₁₄ consists of an integrating sphere with satellite sphere and a temperature stabilized carrier board with up to six different LEDs. The main field of application is the calibration and the adjustment of cameras in test systems either in End of Line or laboratory environments without removing cameras. Customer specific versions are available on request.

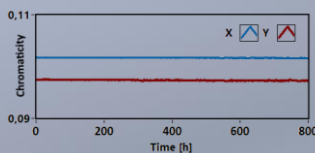


Number of color channels	6
Number of light density channels	8 per color
Current range per LED [mA]	5 – 50 / 5 - 200
Interfaces (LabVIEW or terminal based)	RS-232, USB
Luminance homogeneity [%]	> 98
Stability of luminance [%/100 h]	< 1
Stability of chromaticity [%/100 h]	< 0,5

Typical application: Camera calibration



Homogeneity: > 98 %



Stability: < 0,5 % / 800 h

LTN₁₄ ...

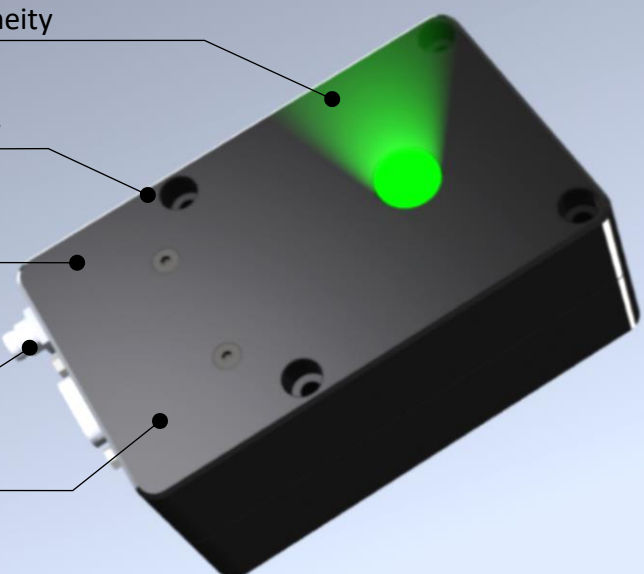
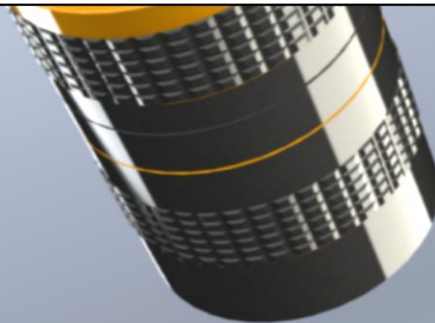
... high homogeneity

... outstanding stability

... intuitive operation

... industrial interfaces

... rugged housing



Calibration table

Color ¹	L _v [cd/m ²] ²	X _{nom}	Y _{nom}	λ _{Dom, nom} [nm]	Stability [%/100 h]
white	250 – 3500	0.368	0.382	---	< 1 %
blue	70 – 900	0.133	0.079	471	< 1 %
green	5 – 80	0.398	0.400	560	< 1 %
yellow	40 – 700	0.589	0.410	587	< 1 %
orange	40 – 1100	0.661	0.339	606	< 1 %
red	80 – 2000	0.710	0.290	633	< 1 %

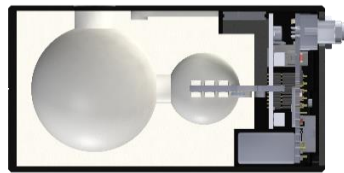
1: It is not possible to combine or mix several colors.

2: A maximum of eight customized luminance values per LED type is possible. The values can be selected in the specified range. Eight values are predefined by default.

Optional Filter Adapter



Integrating Sphere



Transport Case



Electrical and Mechanical Data

Power supply	12 V, 1.5 A
LED Package	PLCC2/PLCC4
Mass [g]	670
Diameter measuring port [mm]	14
Dimensions (l x w x h) [mm]	100 x 65 x 58
Ambient temperature [°C / °F]	15 – 30 / 59 - 68

