

BTS256-LED-DA

Product tags: VIS , Handheld device



Description

The BTS256-LED light meter

The compact [BTS256-LED](#) meter is designed to measure the luminous flux, spectrum, color, and color rendering index of LEDs. One of its key features is the conical measurement port at the entry of the integrating sphere for measurement of individual onboard LEDs. The conical adapter is attached using a bayonet connector which makes it possible to use the BTS256-LED with other entrance optic options. Gigahertz-Optik also offers different accessories as part of the [BTS256-LED Plus Concept](#) with which the capabilities of the BTS256-LED can be enhanced.

Enhancement of the BTS256-LED using the diffusor window

The addition of the BTS256-LED-DA diffusor window to the BTS256-LED makes it possible to use the device for illuminance measurements. It provides the required cosine correction over a $\pm 30^\circ$ degree field of view and is therefore only recommended for measurement of directional lamps. Illuminance measurement of extended lighting systems and street lights should be performed using Gigahertz-Optik's [MSC15](#) and [BTS256-EF](#).

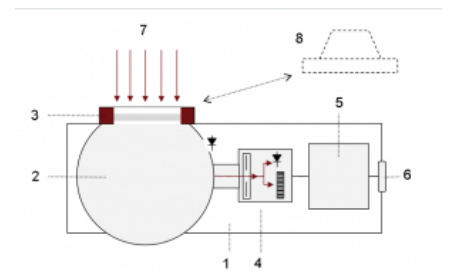
The BTS256-LED-DA diffusor window is also necessary when the BTS256-LED is to be combined with the [GB-GD-360-R40-2](#) goniometer to measure the luminous intensity radiance distribution.

Calibration

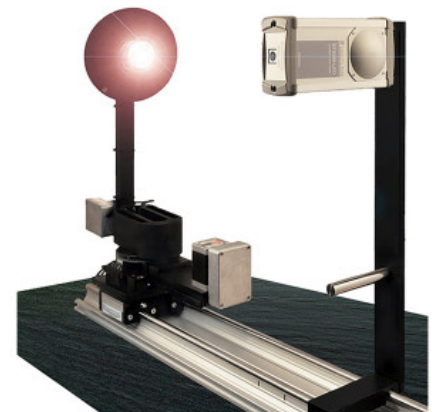
One essential quality feature of photometric devices is their precise and traceable calibration. The BTS256-LED-DA with BTS256-LED is calibrated by Gigahertz-Optik's calibration laboratory that is accredited by DAKKS (D-K-15047-01-00) for the *spectral responsivity* and *spectral irradiance* according to ISO/IEC 17025. The calibration also included the corresponding accessory components. Every device is delivered with its respective calibration certificate.



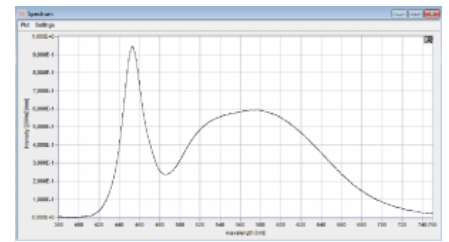
BTS256-LED with the BTS256-LED-DA diffusor window for illuminance measurements.



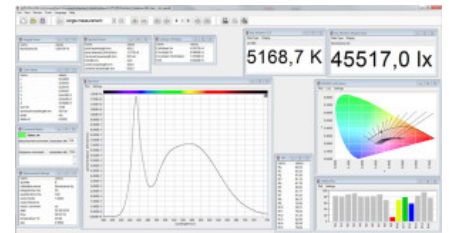
1) BTS256-LED & BTS256.LED-DA 2) Integrating sphere 3) Precision bayonet mount with diffus window 4) BiTec sensor with Si photodiode, CMOS diode array spectrometer and shutter 5) Microprocessor 6) USB 2.0 interface 7) Light incident 8) Conical measurement port with precision bayonet mount



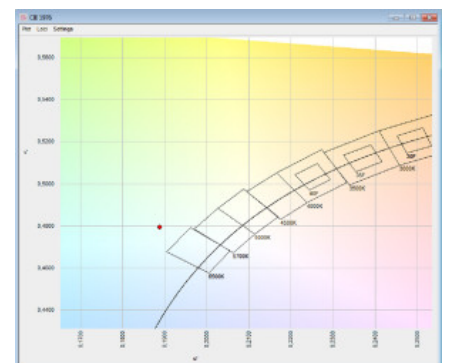
BTS256-LED with the BTS256-LED-DA diffusor window for measurement of the luminous intensity radiance distribution using the GB-



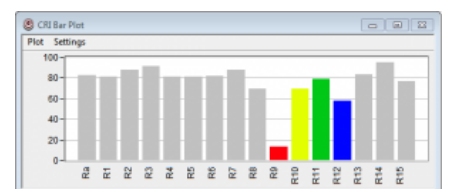
Full screen display of the luminous spectrum



S-BTS256 user software with modular desktop setup



CIE 1976 chromaticity table with binning fields





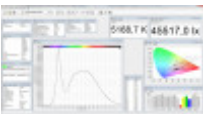

CRI Bar Plot



Specifications

General

Short description	Function enhancement to allow for illuminance measurements		
Main features	Cosine diffusor with bayonet connector for use with the BTS256-LED spectroradiometer		
Measurement range	40 lx to 400000 lx (spectral), 0,2 lx to 250000 lx (integral), 360 nm to 830 nm		
Typical applications	Enhancement of the BTS256-LED functions to allow for illuminance measurement of spot lamps as well as use with the GB-GD-360-R40-2 goniometer		
Calibration	Factory calibration. Traceable to international calibration standards		
Product			
Input optics	Bayonet adapter with diffuser window. 20 mm diameter of the diffuser window. $\pm 30^\circ$ cosine corrected field of view. 5 % cosine correction within the specified range.		
Calibration uncertainty	Illuminance $\pm 2.2\%$ spectral irradiance		
	λ		$u(k=2)$
	(360 – 399) nm		6,0 %
	(400 – 830) nm		4,0 %
General	This device is based on the BTS256-LED , please find detailed specification there.		
Spectral Detector			
max. illuminance	400,000 lx		
min. illuminance	40 lx		
Integral Detector			
max. illuminance	250000 lx		
Noise equivalent illuminance	0.2 lx		

Configurable with

Product Name	Product Image	Description
BTS256-LED Tester		Compact BiTec Spectroradiometer LED Tester for the Measurement of Total Luminous Flux of Single VIS and NIR LEDs
S-SDK-BTS256		Software Development Kit for BTS256 variants.
S-BTS256		Application software for BTS256 variants.
GB-GD-360-RB40		Goniometer for the measurement of 2π sources

Product Name	Product Image	Description
UPK-30S105-L		Stretched Design Specially for Side Emitting Fibers
BTS256-LED Plus Concept		The Plus concept describes the many applications that are possible with the BTS256-LED

Purchasing information

Article-Nr	Modell	Description
Product		
15308420	BTS256-LED	Measurement device, BTS256-LED-CA10 cone adapter, USB cable, hard-top casing, operation manual, software CD, calibration certificate.
15297959	BTS256-LED-DA	Diffuser window adapter with bayonet connector. Calibration of the illuminance (lx)
Re-calibration		
15300226	K-BTS256-LED-I	Recalibration of the BTS256-LED Tester. Only possible with the 10mm cone adapter.
15300729	K-BTS256-LED-DA-I	Recalibration of the BTS256-LED Tester with the BTS256-LED-DA adapter for the illuminance [lx] and spectral responsivity
Software		
15298218	S-SDK-BTS256	Software Development Kit for the implementation of the BTS256 or variants into custom made software