Vega

A unique DC-driven LED light source for all your testing requirements

Vega is a light source developed for high precision measurements of camera systems, including those with extremely short exposure times. It uses LEDs that are driven by DC (direct current) technology making it one of our most sophisticated and unique light sources ever developed.

Main Features

- DC-driven LED technology
- Extremely high stability
- Temperature stability within half a degree
- Advanced flicker capabilities
- Sine, triangular, and square waveforms

DC TECHNOLOGY

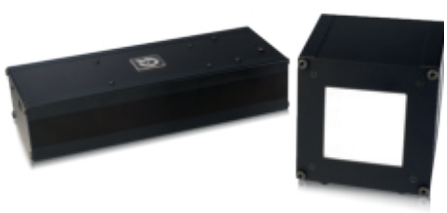
API AVAILABLE

Software INCLUDED

When to utilize Vega?

Vega is best utilized for high-intensity measurements such as contrast transfer accuracy (CTA), modulated light mitigation probability (MMP), contrast signal-to-noise ratio (CSNR), and tone curve measurements. These measurements are very beneficial for automotive-grade cameras and other systems with high demands on accuracy.

Vega is available as a starter set that includes one light source, or a set with either three or seven light sources. Every set comes with a controller and control software. In addition, we offer unique grayscale test charts specifically designed for high-performance measurements using Vega. Charts are always sold separately.



Vega Starter Set

Vega set with seven light sources

Unique Vega test charts

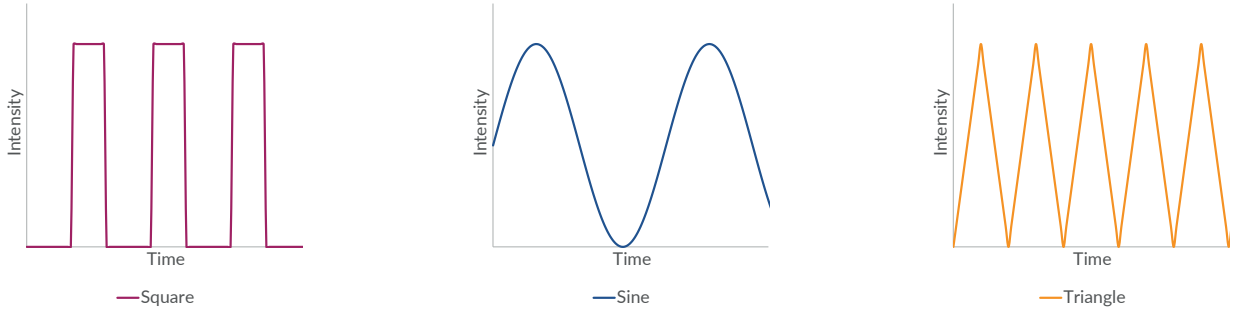
*API sold separately

Why Vega over other light sources?

Unlike PWM-controlled light sources, where intensity is regulated by the high-frequency of switching the LEDs on/off, Vega regulates the intensity by the amount of current. Vega offers 1,000,000 equal-width steps for intensity control. In addition, the DC driver does not affect temperature regulation and can achieve temperature stability within half a degree. The temperature system works both ways (i.e., heating and cooling), and it will remain consistent even when turning on/off different light sources or changing the intensities.

Generate flicker functionality

Vega also has advanced flicker capabilities and can be generated from a more comprehensive frequency range. We have further developed the low-frequency functionality to include sine, triangular, and square waveforms, which allows us to cover nearly all real-world scenarios.



At a Glance	Vega
Principle	Temperature stabilized, DC controlled, dimmable light source
Light sources	36 Temperature controlled LEDs based on iQ-DC technology
Uniformity (active area)	> 95% at 100% output intensity > 94% at 10% output intensity > 90% at 1% output intensity > 90% at 0.1% output intensity
Illumination stability	± 0,5%
Correlated Color Temperature (CCT)	4900 K (± 200 K)
Color Rendering Index (CRI)	> 95
Minimum luminance	0.1 – 0.5 cd/m²
Maximum luminance	55,500 – 61,500 cd/m²
Dim function	• Software based • 10^6 - 10 steps
Flicker frequency range	1 – 1000 Hz (Square) 10 – 1000 Hz (Sine) 10 – 1000 Hz (Triangle)
Flicker frequency step width	0.1 Hz (1 – 200 Hz) 0.2 Hz (200 – 500 Hz) 0.5 Hz (500 – 1000 Hz)
Software requirements	PC with Windows 10 operating system (or higher) USB port
Functions	• Intensity • Frequency • Duty cycle • Mode selection • Phase shift
API (C/C++/Python)*	Optional

Vega-250327

*API sold separately