

# VILLUMINATOR™

## Top Hat Illumination Modules

We offer a range of high performance and innovative flat top illumination modules for the most demanding optical illumination applications.



VIL151X



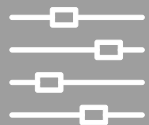
VIL350X



Unrivalled  
Uniformity



Versatile



Wide Wavelength  
Selection

## ABOUT OUR PRODUCT

Featuring our innovative patent-pending flat-fielding technology, by using LEDs as incoherent light sources, Villuminators™ flat top illumination modules are compact long-lasting luminaires with many choices of wavelengths that provide uniform top hat illumination, making them ideal for a variety of applications, including fluorescence imaging, machine vision, projection, display, and more.

## Features

- Superior Top Hat Uniformity (>95%)
- Versatile to fit many applications
- Wide Selection of wavelengths
- Long-lasting luminaires
- Customizable

## Specifications

	VIL120X	VIL151X	VIL350X <sup>5</sup>
Uniformity <sup>1</sup>	> 95 %		
Flat Field Beam Diameter <sup>2</sup>	Ø13mm	Ø21mm	Ø35mm
Typical Optical Power	Up to 140mW	Up to 240mW	Up to 6W
Working Distance <sup>3</sup>	16mm	19mm	23mm
Weight	140g	150g	580g
Dimension, mm	Ø38, Length 77	Ø40, Length 77	W97 x D81 x H106
Max Current/Voltage	1.5A / 4V		27A / 5V
Cooling	Passive Heatsink		Active Fan
Accessories	Field Aperture attachment (VIL-FA-1) <sup>4</sup> LED Driver (VLD0201)		LED Driver (VLD2501)

<sup>1, 2, 3, 4</sup> Refer to page 2 for more information

<sup>5</sup> Currently only offered with white LED and not for microscopy applications

## VBMB PTE LTD (V-BMB)

All product specifications are subject to change without notice. Last updated: NOV-2024  
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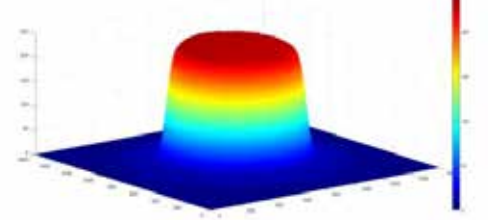
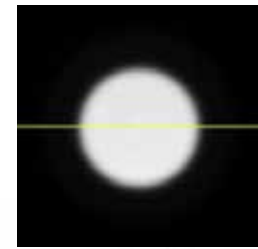
Website: [v-bmb.com](https://v-bmb.com)  
Email: [sales@v-bmb.com](mailto:sales@v-bmb.com)  
E-Shop: [shop.v-bmb.com](https://shop.v-bmb.com)  
LinkedIn: [www.linkedin.com/company/v-bmb/](https://www.linkedin.com/company/v-bmb/)

## Part Number and Ordering Information

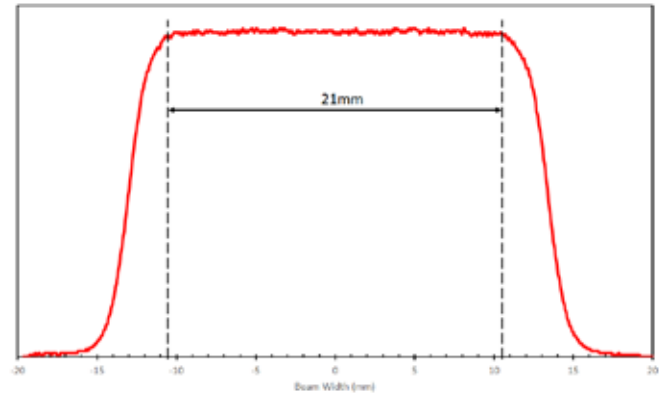


Only for VIL120X and VIL151X modules

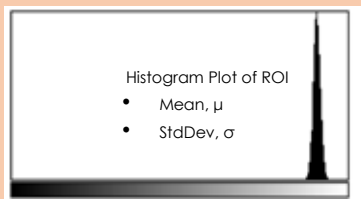
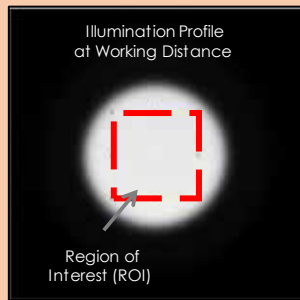
Identifier	Wavelength/Color	Identifier	Wavelength/Color
A	5700K (Cool White)	L	500 (Cyan)
B	4000K (Neutral White)	M	530 (Green)
C	2700K (Warm White)	N	554 (Lime)
D	365 (Ultra Violet)	O	590 (Amber)
E	385 (Ultra Violet)	P	615 (Red-Orange)
F	395 (Violet)	Q	630 (Red)
G	425 (Violet)	R	660 (Deep Red)
H	450 (Royal Blue)	S	730 (Far Red)
K	470 (Blue)		



Typical Illumination Profile of VIL151X

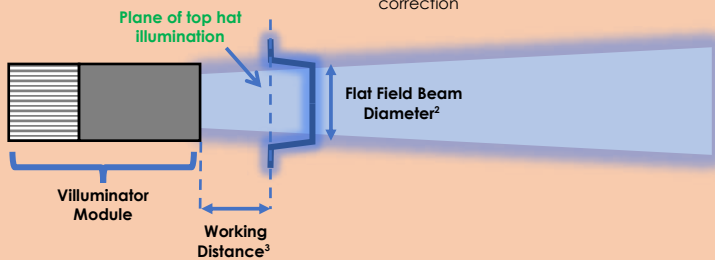


## Definitions

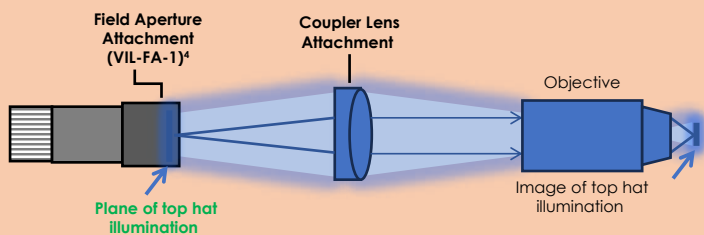


$$\text{ROI Uniformity}^1 = \frac{\text{Min}}{\text{Max}} \times 100\%$$

**Note:** Min/Max is  $\text{Mean} \pm 2\sigma$  within the entire ROI, where  $\sigma$  is the standard deviation after noise correction



## Accessories

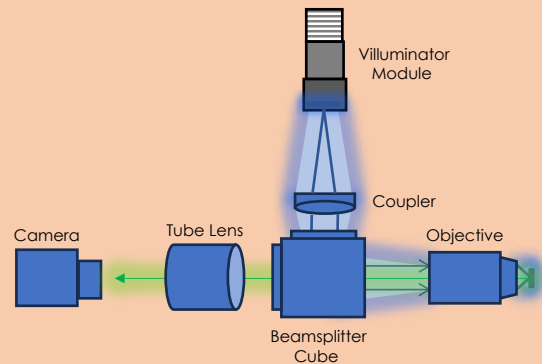


General example for microscopy

## Applications

### FLUORESCENCE MICROSCOPY

Only for VIL120X and VIL151X modules



### GENERAL PROJECTION

