

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



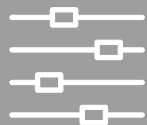
VIL350X



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 ⁵
Uniformity ¹	> 95 %		
Flat Field Beam Diameter ²	Ø13mm	Ø21mm	Ø35mm
Typical Optical Power	Up to 140mW	Up to 240mW	Up to 6W
Working Distance ³	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) ⁴ LED Driver (VLD0201)		LED Driver (VLD3001)

^{1, 2, 3, 4} Refer to page 2 for more information

⁵ Currently only offered with white LED and not for microscopy applications

VENTURE BIOTECH MODULES BUSINESS PRIVATE LIMITED (V-BMB)

All product specifications are subject to change without notice. Last updated: MAY-2024
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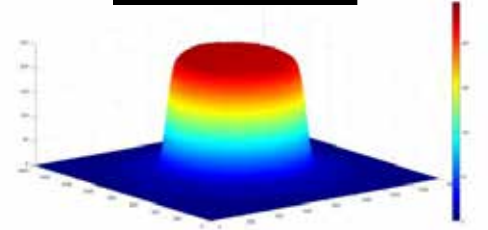
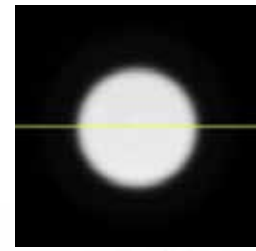
Part Number and Ordering Information



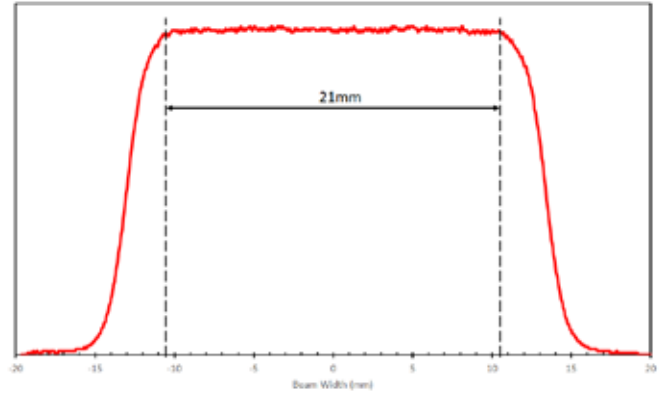
Only for VIL120X and VIL151X modules

Identifier	Wavelength/Color	Identifier	Wavelength/Color
A	CWH(Cool White)	L	505(Cyan)
B	NWH(Neutral White) ⁺	M	523(Green) ⁺
C	WWH(Warm White)	N	555(Lime)
D	365(Ultra Violet)	O	590(Amber)
E	385(Ultra Violet) ⁺	P	617(Red-Orange)
F	395(Violet)	Q	630(Red) ⁺
G	405(Violet)	R	660(Deep Red)
H	448(Royal Blue)	S	740(Far Red)
I	457(Blue)	T	850(Infrared)
J	460(Dental Blue)	U	940(Infrared)
K	470(Blue) ⁺		

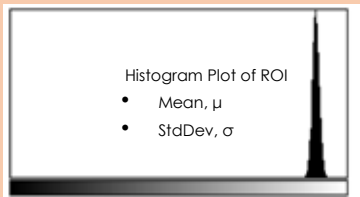
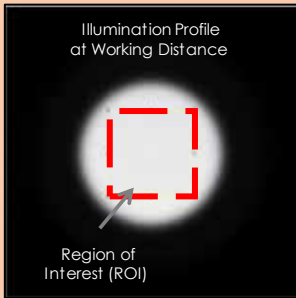
⁺Popular Wavelength



typical illumination profile of VIL120A



Definitions



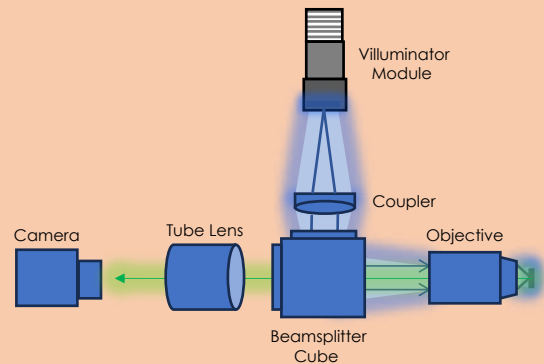
$$ROI \text{ Uniformity}^1 = \frac{Min}{Max} \times 100\%$$

Note: Min/Max is Mean±2σ within the entire ROI, where σ is the standard deviation after noise correction

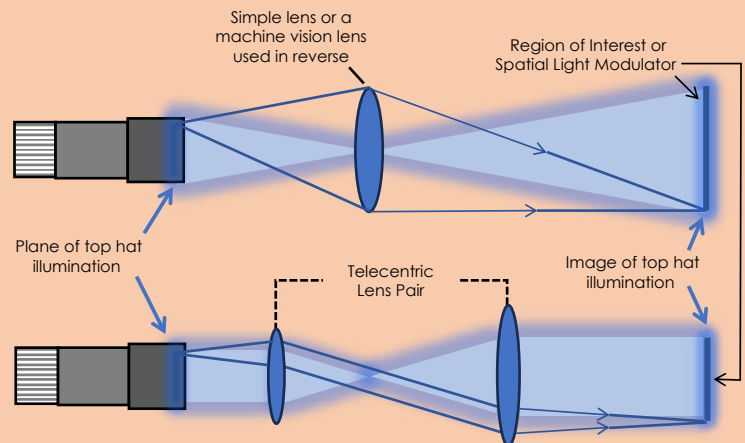
Applications

FLUORESCENCE MICROSCOPY

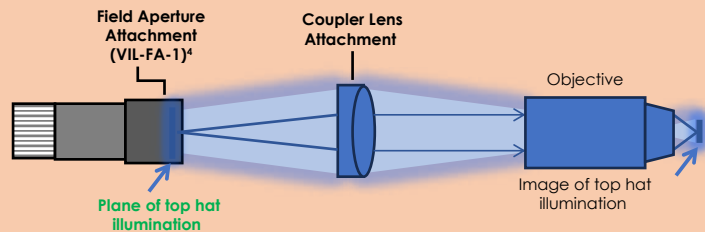
Only for VIL120X and VIL151X modules



GENERAL PROJECTION



Accessories



General example for microscopy

