

# FC-NDT-LED High Power Filtered Fiber-Coupled UV LED Light Source

Ver. 3.0

#### Introduction

FC-NDT-LED High-Power UV 365 nm fiber-coupled LED light sources are designed especially for NDT illumination with videoscopes, boroscopes as well as any other applications requiring high brightness fiber coupled filtered UV light source. The FC-NDT-LED housing is self-contained light source including all necessary driver electronics and thermal management, no special controller box is required to operate the module if used at factory preset power (max. power).



#### **Key Features**

- Single chip High Brightness UV LED light source
- Filtered 365nm UV light to eliminate residual visible light
- Optional Remote Controller for Power and ON/OFF control
- Optional control form computer via USB or RS232
- Remote control by I<sup>2</sup>C protocol for OEMs
- Long life

#### **Applications**

- NDT applications with Videoscope
- Illumination through very small apertures

#### **Optical Specifications**

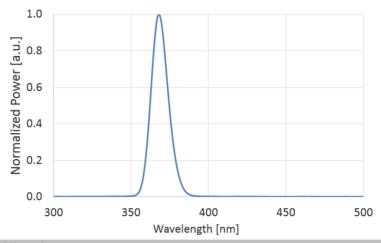
For standard video-scope fiber P/N: P40-LG500-063 (Outer diameter 1.0mm, Core diameter 500um, NA: 0.63, Length 4m) the 1200 [ $\mu$ W/cm²] as achieved at 1.125 inch distance from fiber distal end. White light is <0.5FC. (white light is >1FC at 0.2 inch distance)

• For details on optical fibers, please see Ordering Information section



Main Office	European Sales Office	North America Sales Office	
Phone: +972-72-2500097	Phone: +44-(0)77-9172-9592	Phone: +1-(248)-436-8160	
Fax: +972-72-2500096	Fax: $+44-(0)20-7681-2977$	Fax: +1-(248)-281-5236	
sales@lumi.works	sales.europe@lumi.works	sales.usa@lumi.works	
Lumiworks-Photonics Ltd. P.O.B. 244 Givat-Shmuel 5410102, Israel			

# Lumiworks



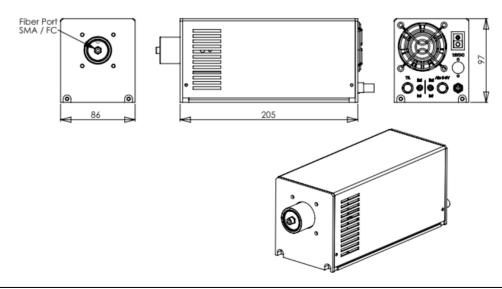
# **Electrical Specifications**

Digital modulation (TTL Input)	Hz	DC-30000
Analog modulation (Analog Input)	Hz	DC-100
Analog power control	%	0-100
ON/OFF		Power switch or by TTL signal
Input Voltage	V	12

### **General Specifications**

Operation temperature range	°C	10 - 35
Storage temperature range	°C	-10 - 55
Operating relative humidity (Non-condensing)	%	<90
Head weight	g	750

### **Mechanical Drawings**



 Main Office
 European Sales Office
 North America Sales Office

 Phone: +972-72-2500097
 Phone: +44-(0)77-9172-9592
 Phone: +1-(248)-436-8160

 Fax: +972-72-2500096
 Fax: +44-(0)20-7681-2977
 Fax: +1-(248)-281-5236

 sales@lumi.works
 sales.europe@lumi.works
 sales.usa@lumi.works

Lumiworks-Photonics Ltd. P.O.B. 244 Givat-Shmuel 5410102, Israel



# **Ordering Information**

Item Description	P/N	
Fiber-Coupled High-Power filtered UV 365 nm LED light	FC-F-UV-XX	
source for NDT applications.		
XX – Please specify output connector SMA or FC	16-1-00-88	
Power adaptor is included.		
Optical Fiber not included - see below.		
RemCTRL not included - see below		
Optional wired remote-control unit for manual control of	RemCTRL	
the HB-FC illuminator. Cable included.	Kemene	
USB interface to control HB-FC-White from Windows	FC-F-UV-USB	
software like uManager etc. LabVIEW, Python and other		
example control code is available.	1 C-1 -0 V-03B	
Cable included.		
RS232 interface to control HB-FC-White from Windows		
software like uManager etc. LabVIEW, Python and other	FC-F-UV-RS232	
example control code is available.		
Cable included.		
Ø1 inch Fiber collimator for High NA fibers up to NA=0.53	FCM1-0.5	
Ø0.5 inch Fiber collimator for High NA fibers up to NA=0.53	FCM05-0.5	
Ø1 inch Fiber collimator for High NA fibers up to NA=0.63	FCM1-0.6	
Ø1 inch Focuser to be used with FCM1-0.X fiber collimator.	FOC1	
Please specify requirement	LOCI	

# **Optional Fibers:**

Fiber P/N	Core [mm]	OD [mm]	NA	Lighting Angle [Deg.]
PXX-LG500-063	0.5	1.0	0.63	78
PXX-LG1000-063	1.0	2.2	0.63	78
PXX-LG1000-050	1.0	2.2	0.5	60
PXX-LG1500-050	1.5	2.2	0.5	60
PXX-LG2000-050	2.0	3.0	0.5	60

PXX – XX is fiber length in dm (decimeter) Connectors: SMA – Cut and polished end

Main Office	<b>European Sales Office</b>	North America Sales Office
Phone: +972-72-2500097	Phone: +44-(0)77-9172-9592	Phone: +1-(248)-436-8160
Fax: +972-72-2500096	Fax: +44-(0)20-7681-2977	Fax: +1-(248)-281-5236
sales@lumi.works	sales.europe@lumi.works	sales.usa@lumi.works
Lumiworks-Photon	ics Ltd P O B 244 Givat-Shr	nuel 5410102 Israel