Filtered High-Power Fiber-Coupled LED Light Sources

(Part Numbers: FFC-xxxx-xxx)

FEATURES

- Allow insertion of optical filters
- High output power
- Broad wavelength selections in VIS, UV and NIR
- SMA port for up to 1,500µm fiber code
- Interchangeable fiber patch-cords
- Compact, machined, metal housing with integrated heat sink
- Multiple mounting features for lab and OEM applications
- Locking electrical connector

APPLICATIONS

- Microscopy
- Fluorescence
- Sensors
- Medical imaging
- Semiconductor equipment
- Testing instruments
- Medical instruments
- Machine vision

PRODUCT DESCRIPTION

Mightex FFC-series filtered LED light sources employ the latest high-power LED technologies and a proprietary coupling optics to achieve maximum optical output power. Optical output is coupled into a fiber through a standard SMA fiber adaptor port (SMA fiber patch cords are sold separately). Users may insert an optical filter into the light source to tailor output spectrum and intensity. Example applications include fluorescence excitation with a bandpass filter, wavelength selection from a white LED, attenuating intensity with a neutral density filter, and polarized output with a polarizer.

Filters are not included in standard FFC products. Maximum filter diameter is 1”(25.4mm) and minimum diameter is 12mm. Maximum filter thickness is 5mm. Filters with diameters of 1” or 25mm can be directly loaded into the filter holder. Smaller filters may need an adapter.

FFC series also features a locking electrical connector for secured connection. FFC series are designed as a universal light source for general lab use and OEM applications. The one-piece machined housing features multiple mounting holes. All Mightex LED drivers such as the SLC series or other LED drivers and current sources can be used to drive the light sources.

(Filter not included)

PERFORMANCE SPECIFICATIONS

Wavelength Code	Description	Peak Wavelength (nm)	I_{op} (mA)	V_{op} (V)	Radiant Flux[1] (mW)
0000	Cool White	5,500K	1,000	3.9	3.0
0001	Warm White	4,000K	1,000	3.9	3.0
0240	Deep UV	240	25	10	8µW
0255	Deep UV	255	30	6.5	40µW
0260	Deep UV	260	30	6.5	40µW
0275	Deep UV	275	30	6.2	50µW
0280	Deep UV	280	30	5.8	80µW
0285	Deep UV	285	30	5.8	80µW
0295	Deep UV	295	30	5.5	65µW
0310	Deep UV	310	30	5.5	80µW
0325	Deep UV	325	30	5.0	50µW
0340	Deep UV	340	30	5.0	50µW
0365	UV 365nm	365	500	3.8	5.0
0385	UV 385nm	385	500	3.8	5.0
0400	UV 400nm	400	350	3.5	0.7
0455	Royal Blue	455	1,000	3.9	5.2
0470	Blue	470	1,000	3.9	4.2
0505	Cyan	505	1,000	3.9	3.0
0530	Green	530	1,000	3.9	2.0
0590	Amber	590	1,000	3.2	1.1
0617	Red-Orange	617	1,000	3.0	6.0
0625	Red	625	1,000	3.0	6.0
0656	Deep Red	656	1,000	3.1	6.0
0657	Deep Red	657	350	2.4	1.0
0740	NIR	740	1,000	2.5	3.1
0850	NIR	850	1,000	2.1	3.8
0940	NIR	940	1,000	2.4	3.8

1 - Measured with no filter. With 400µm-core 0.22 numerical aperture (NA) fiber. Output optical power scales approximately linearly with fiber core area and NA^2

Mightex Systems, 2343 Brimley Road, Suite 868, Toronto, Ontario M1S 3L6, Canada
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www.mightex.com or www.mightexsystems.com

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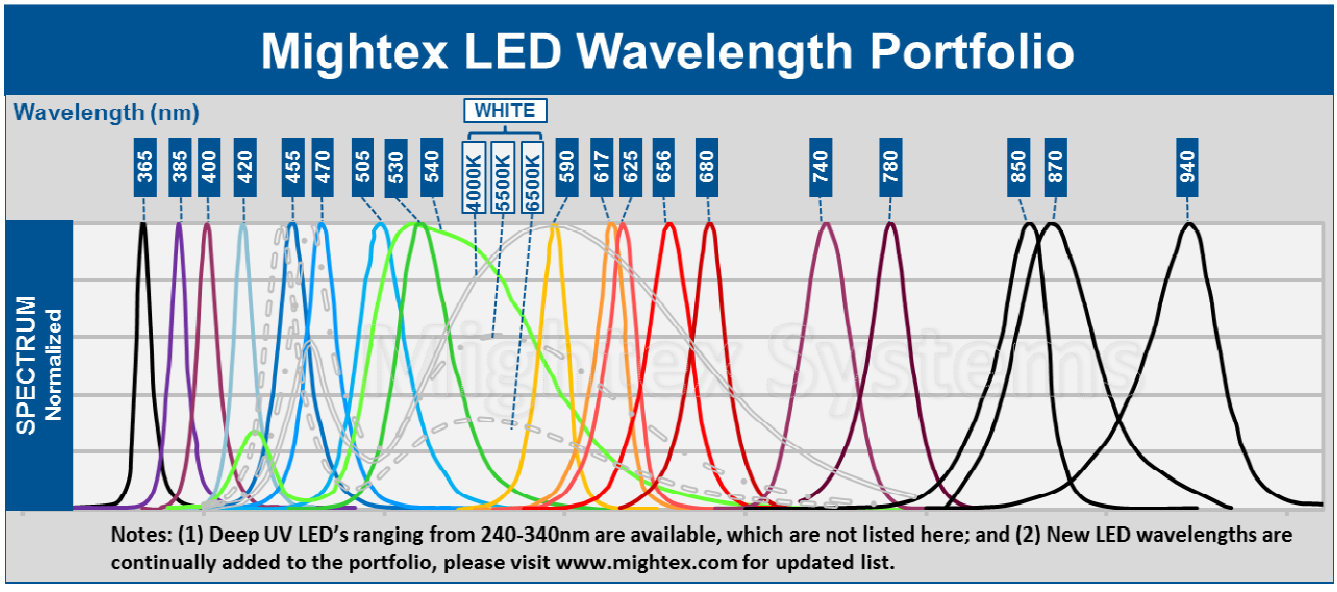
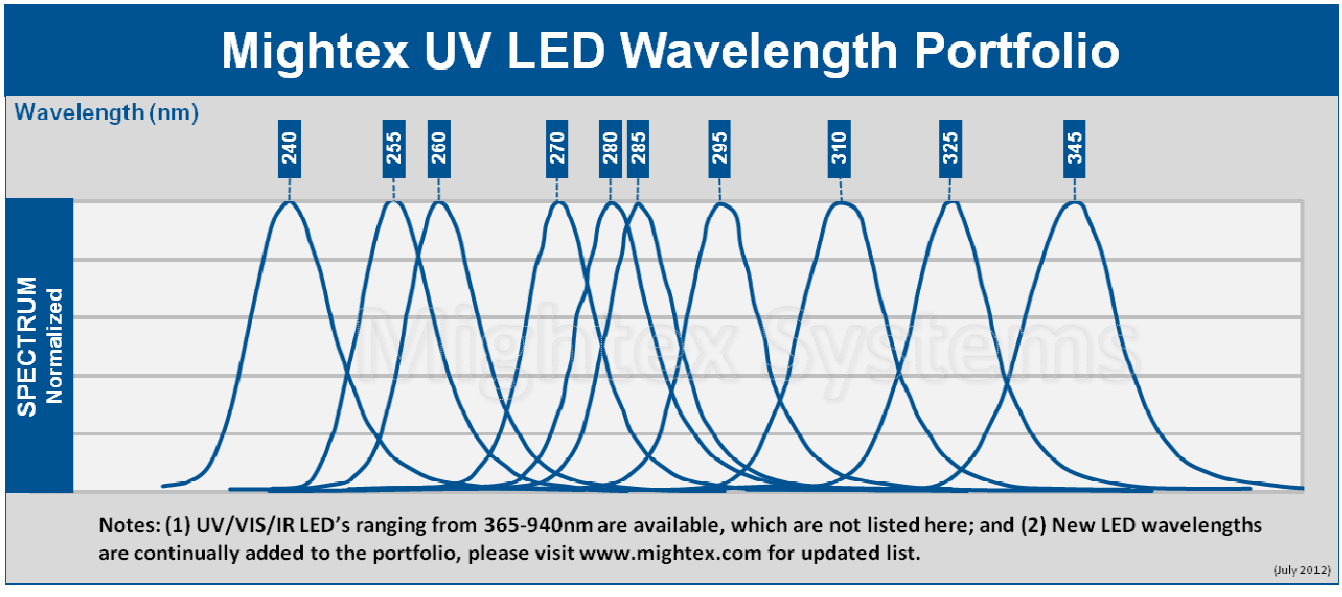
SPECTRAL RESPONSE





PRECISOMETER | **European Distributor of Mightex**

Official Distribution, System Integration & Local Technical Support Partner

European Office & Lab:
Precisometer (Wfront Principle B.V.)
Eisingastraat 9, 2201 DJ Noordwijk, Netherlands

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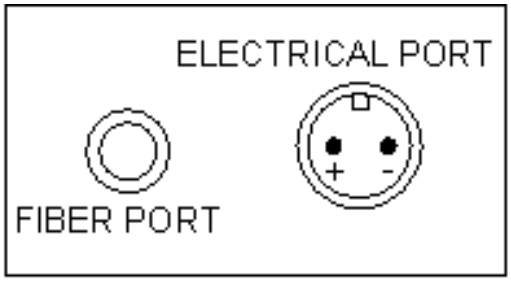
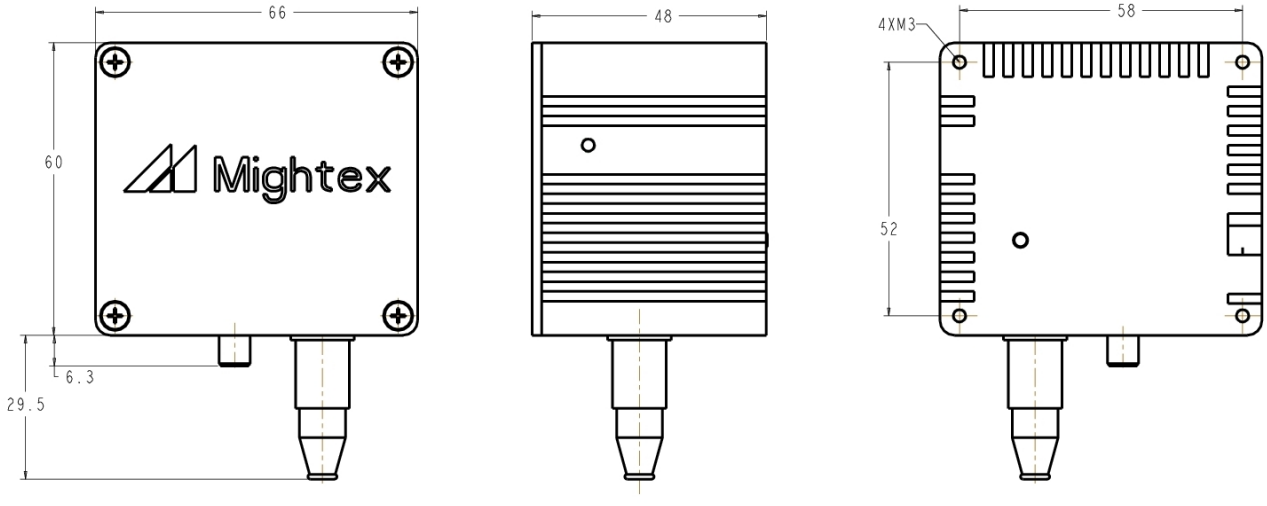
ELECTRICAL PIN LAYOUT



INSTALATION DRAWING



PART NUMBER AND ORDERING INFORMATION

FFC - ☐ ☐ ☐ ☐ - 000

Wavelength Code

For example, FFC-0470-000 is a 470nm filtered fiber-coupled light source with SMA fiber adaptor.

With a world-class OEM design team, Mightex offers a broad range of customized solutions in order to meet individual customer's unique requirements. Please call 1-416-840-4991 or email sales@mightex.com for details.

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