

# ENFIS UNO AIR COOLED LIGHT ENGINE

## UPTO 36W POWER CAPABILITY

Wavelengths (nm)	Typical Array Light Output Levels*
375	310 mW
410	4680 mW
465	4680 mW / 252 Lumens
520	1980 mW / 792 Lumens
595	770 mW / 360 Lumens
630	1760 mW / 288 Lumens
870	2250 mW
6500K	337 Lumens

\* taken at 25°C ambient temperature

Note : Luminous output power specifications are determined by the integrated electronics, power and thermal management systems. Higher Power levels may be achieved with custom assemblies and electronics.

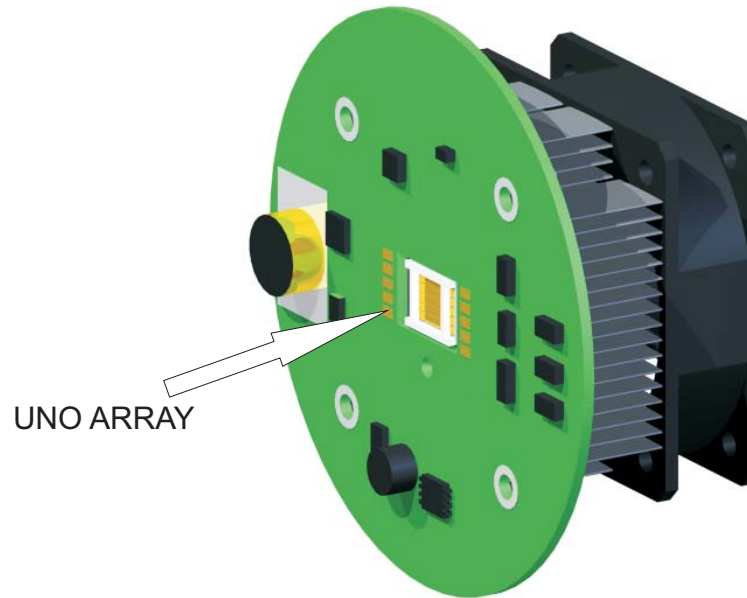
Contact [info@enfis.com](mailto:info@enfis.com) for further details.

### MARKETS :-

- Lighting
- Projection
- Backlighting
- Medical
- Dental
- Consumer
- Inspection
- Security
- UV Curing

### 225 LED Chip Density Capability

- Single Colour - Ultra High Power Density
- In-built Thermal Sensing
- Optical Feedback Capability for Auto Power Control
- High Thermal Conductivity System <math>< 2^{\circ}\text{C/W}</math>
- Array Aperture: 7mm x 7mm - Emitting Area: 0.5cm<sup>2</sup>
- Light Engine Package Dimensions:  $\Phi 79\text{mm} \times 45\text{mm(L)}$
- Low Input Voltage 9 Volt Operation
- Typical Ambient Operating Temperature: +10 <math>\Leftrightarrow</math> +45°C



### ENFIS UNO LED ARRAYS



**Integrated LED Lighting Solution**

**UNO Array**  
0.5cm<sup>2</sup> Emitting Area

**Integrated Heat Removal System**  
Low Thermal Resistance  
Active Fan Control

**Power**  
9V Battery or  
9V External DC Supply

**Smart Electronics**  
- Active Thermal Feedback  
- Integrated Efficient LED Driver  
- Optical Power Monitoring Input (Optional)

**Plug & Play**  
- Simple ON/OFF or  
Variable Intensity Control  
using PC Software

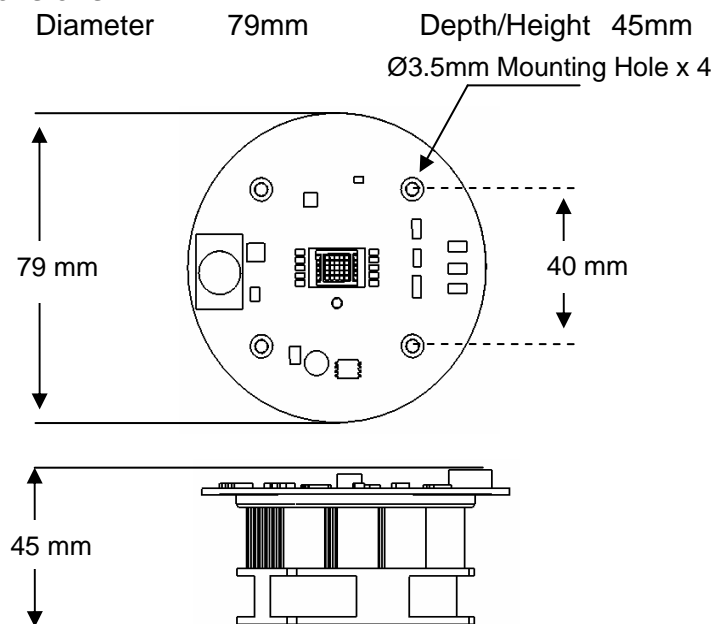
**Calibration**  
In built features  
PC software available  
USB connectivity  
using adaptor cable

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# ENFIS UNO AIR LED LIGHT ENGINE

Rev. 1.1

## Dimensions



## Technical Specification

Operating Temperature	10°C .....+45°C
Storage Temperature	-20°C .....+85°C
Weight:	~ 120g

## Input

Input Voltage	9V <5A DC
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## Light Output Powers

Colour	Peak Wavelength CCT (K)	Light (mW)	Light (Lumens)	Input Power (W)
UV(A)	375 nm	310 mW	---	18 W
Violet	410 nm	4680 mW	---	36 W
Blue	465 nm	4680 mW	252 lm	36 W
Green	520 nm	1980 mW	792 lm	36 W
Amber	595 nm	770 mW	360 lm	18 W
Red	630 nm	1760 mW	288 lm	18 W
NIR	870 nm	2250 mW	---	18 W
White	6500K	---	337 lm	18 W

## LED Driver PCB

Efficient LED driver based on switch mode technology  
Photodiode input capability for light monitoring and control  
Temperature monitoring and control  
USB/Serial PC interface

## Connectivity

TTL RS-232 interface

## Thermal Management

Composite metal heatsink with integrated low noise DC fan  
Low thermal resistance < 2 C/W  
Compact size and low weight

## Handling LED Array

Contact with the encapsulant on the surface of the LED array must be avoided to prevent damage. Do not apply pressure to the encapsulant or allow it to come into contact with the sharp objects.  
During operation the encapsulant will be hot and contact should be avoided.

## Static Electricity

Care must be taken when handling, these products are sensitive to static electricity. Observe static handling precautions.



## Cleaning

Avoid touching the LED array surface  
To clean - BLOW surface with either dry air or nitrogen gas

## Eye Safety Precautions

The light output of the products may cause injuries to human eyes in circumstances where the products are viewed directly with unshielded eyes for more than a few seconds. Please refer to IEC 60825-1:2001 for further information.



*Specifications contained in this document are for guidance purposes and subject to change at the discretion of Enfis.*