



# ENFIS QUATTRO Array Red 630nm

Smart, powerful, compact, efficient, reliable light

## Features & Benefits

- Intense, high-power Red spot source
- Ultra-high power density
- Long-life and reliable, high-performance due to excellent thermal conductivity

## Outline Specification

- 27000mW typical power:
- 16cm<sup>2</sup> Aperture
- 1700mW/cm<sup>2</sup> power density
- Input power: 200W

## Light Engine Integration

Enfis can eliminate the time, cost and risk of integration by offering our arrays as part of a complete light engine solution

## Smart Array Technology

Light output from Enfis Arrays can be monitored and controlled via a patent-pending integrated photo-detection system, enabling precise control of light output.

## Thermal Management

Enfis arrays are designed to provide excellent thermal conductivity and to be integrated effectively with thermal hardware to ensure optimum performance and life.

## Optics

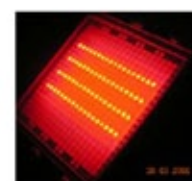
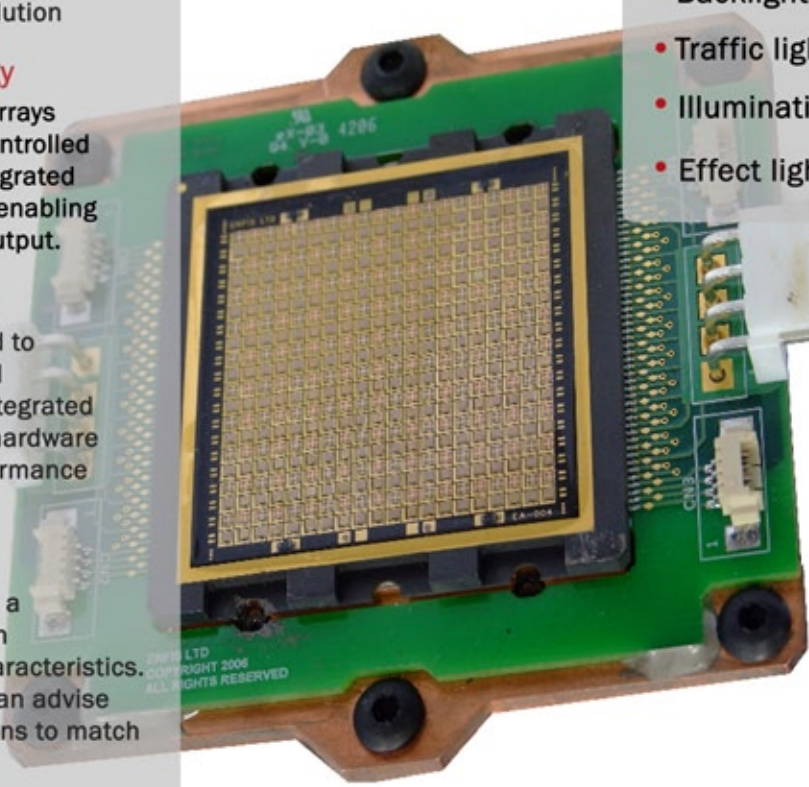
Enfis UNO arrays provide a compact spot source with Lambertian emission characteristics. Enfis technical experts can advise a range of optical solutions to match your requirements.

## Power Management

Enfis provides a range of feature-rich, powerful drivers and power supplies for our arrays. Our applications team can provide you with a solution for your specific requirements.

## Applications & Markets

- Skin treatment
- Backlighting
- Traffic lights
- Illumination
- Effect lighting



ENFIS LIMITED  
TECHNIUM 2, KING'S ROAD  
SWANSEA WATERFRONT  
SWANSEA SA1 8PJ UK

TEL +44 (0)1792 485660  
FAX +44 (0)1792 485537

**ENFIS** 

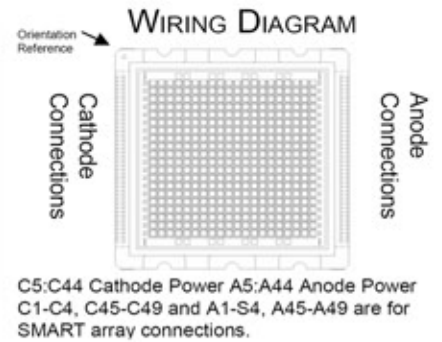
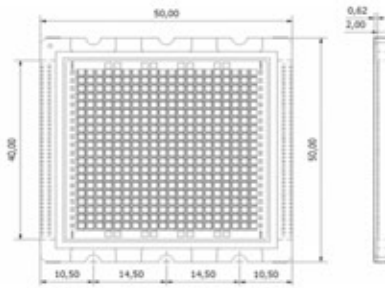


# Enfis QUATTRO Red 630nm

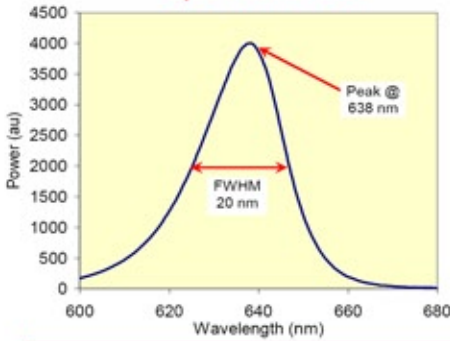
## Technical Specification

### Electro-Optical Characteristics

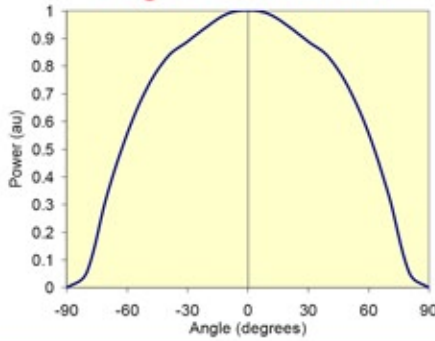
Item	Min	Typ	Max
Rated Current $I_f$ (mA)		8800	
Forward Voltage $V_f$ (Volts)		22	25
Peak Wavelength $\lambda_p$ (nm)	620	630	640
Dominant Wavelength $\lambda_d$ (nm)	610	620	630
Spectral Width $\Delta\lambda$ (nm)	15	20	30
Total Radiant Flux $\Phi_R$ (mW)	24000	27000	
Radiant Flux Density $d\Phi_R/dA$ (mW/cm <sup>2</sup> )	1500	1700	
Total Luminous Flux $\Phi_v$ (Lumen)		~4800	
Luminous Flux Density $\Phi_v/A$ (Lumen/cm <sup>2</sup> )		~300	
Total Electrical Power P (W)		200	220



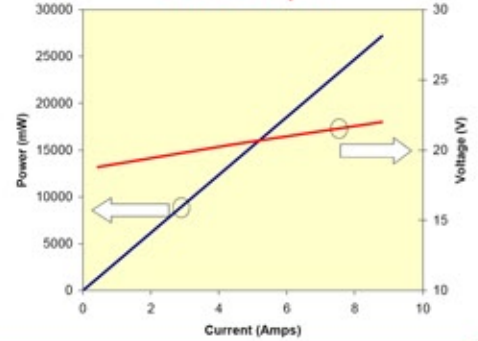
**Spectral Data**



**Angular Distribution**



**LIV Graph**



#### Heat Generation

Proper thermal design of the end product is of paramount importance. The operational junction temperature of each LED chip should be kept below 125°C. Please contact Enfis for further support in this matter.

#### 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.

ENFIS LIMITED  
TECHNIUM 2, KING'S ROAD  
SWANSEA WATERFRONT  
SWANSEA SA1 8PJ UK

TEL +44 (0)1792 485660  
FAX +44 (0)1792 485537

**ENFIS**

Quattro Array 630nm Rev. 1, Sep 07