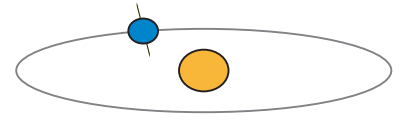




La lettre de l'Optique Fluide®

La lettre des Syzygies



Autumn 2003

EDITORIAL

We have the pleasure to present you the letter of the Syzygies of the autumn 2003.

In the products column, you will find an article on a new colorimetry software developed by IDYLUX.

The article of the "exhibition" column treat about the last exhibition where MEGALUX and SIBYLUX companies showed their last creations.

Finally, does not miss the column News which treats of the last information about Fluid Optics. You will see that the Fluid Optics has a new Internet gateway.

The inventors of the Fluid Optics

PRODUCTS

IDYLUX develops some new colorimetry software

IDYLUX was created from the computer science department of MEGALUX. IDYLUX proposes products and services of scientific data processing. IDYLUX makes the development of the software packages of optical simulation 2D (Horus) and 3D (Khnoum) dedicated to the Fluid Optics, and when the need requires it, create new compu-

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PERLUCIDA ARBOR on the stand of MEGALUX-SIBYLUX

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EXHIBITION

PERLUCIDA ARBOR on the stand of MEGALUX-SIBYLUX



It was in Paris, in the hall 7.1 of the exhibition Opto 2003, a new type of tree was born for the first time: THE PERLUCIDA ARBOR (*).

PERLUCIDA ARBOR, as its name indicates it, is a tree of light and lucidity. It has magnificently illuminated the stand during all the exhibition confirming us that fabulous applications are already possible. HELIOS ILLUMINATOR®, the most powerful Fluid Optics illuminator for plastic optical fibres, supply dozens of thou-

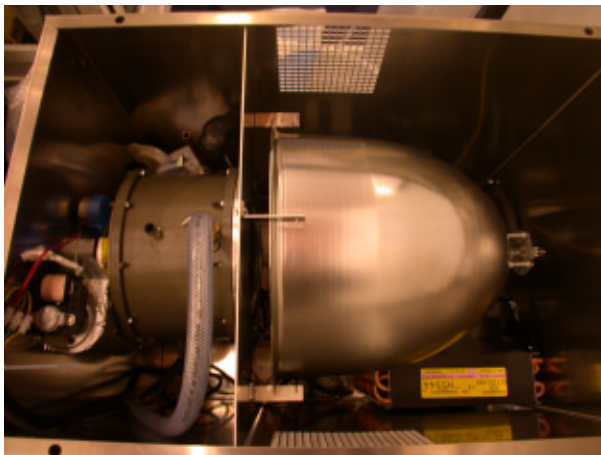
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PERLUCIDA ARBOR

sand lumens, in an average and constant temperature of about sixty degrees. The light produced in big quantity, naturally, fed the various branches of optical fibres, as sap feeds the branches of trees..

This original realization, exclusively intended to put in evidence the real possibility of injecting very big quantities of light in bundles of plastic optical fibres, allowed, once again, to demonstrate new possibilities offered by the concept of the Fluid Optics.



ILLUMINATOR OF THE MASS PRODUCTION

SIBYLUX, partner company, the manufacturer of HELIOS ILLUMINATOR®, is happy to announce you first mass productions.. These illuminators are sharply lighter, more compact than the two prototypes of research and development. The dimensions 800x500x600 mm authorize it a weight of about 40 kg.

Thanks to HELIOS ILLUMINATOR®, SIBYLUX is lead contractor of numerous new illumination projects with plastic optical fibres.



CHILD'S POOL ENLIGHTENED

You did not miss in the Opto exhibition, a picture, the illumination of a child's pool enlightened with the big mushroom of the tepid water supply. The whole pool is brilliant, aesthetics, and every child can safely wade in.. The huge aquatic mushroom is enlightened using a harness of 6 metres including 7000 plastic optical fibres of 0,75 mm in diameter. Colour wheel positioned on the blue (see the photo).

While the powers of the classic illuminators for plastic optical fibres, are generally limited to powers of 400W, HELIOS ILLUMINATOR® uses street lighting lamps of 2000W presenting reduced cost prices and life expectancies announced of about 8 000 hours. The maintenance of our illuminators is at present annual but we work to make it bi-

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annual. Due to this considerable reduction of maintenance and in spite of these considerable increases of power, these illuminators become the easiest and the less expensive lighting tools of the market.

If you wish to admire again the PERLUCIDA ARBOR, do not hesitate to visit us at the BATIMAT exhibition, hall 7.2, stand G54, where we shall be present from Monday, November 3 till Saturday , November 8 and shall welcome you with pleasure.

(*) We thank our friend Olivier, fine Latinist, who helped us to name this new flora.

ter applications allowing to develop projects or products based on the Fluid Optics. IDYLUX, use the part of the code which is not confidential to develop new computer products with the perspective to create new scientific software packages.

With the launch of the HELIOS ILLUMINATOR[®], MEGALUX must interest in colorimetry of the light produced with these illuminators. The absorption of light by plastic optical fibres is different according to the wavelength, so the spectrum of the light emerging from these fibres is modified. So, the colour rendering of light can be modified too. This phenomenon is not very present with the illuminators of small power. With the illuminators of big power, able to enlighten optical fibres of very big length, the phenomenon of modification of emergent colour of light becomes very perceptible. It is so necessary to know how to inject a light with a predetermined colour so that emergent light is in accordance with forecasts and with necessities.

HELIOS ILLUMINATOR[®] uses a fluid filter able to eliminate infra-red energy and to modify the spectrum of light of the initial beam produced. In this way, it is possible to obtain beams of light of wished colour. Colorimetry study allows to reach the result in a methodical and reproducible way.

Thanks to these studies of colorimetry led by MEGALUX, SIBYLUX will be able to make and commercialize illuminators perfectly adapted to the necessities of the architects and designers of light.

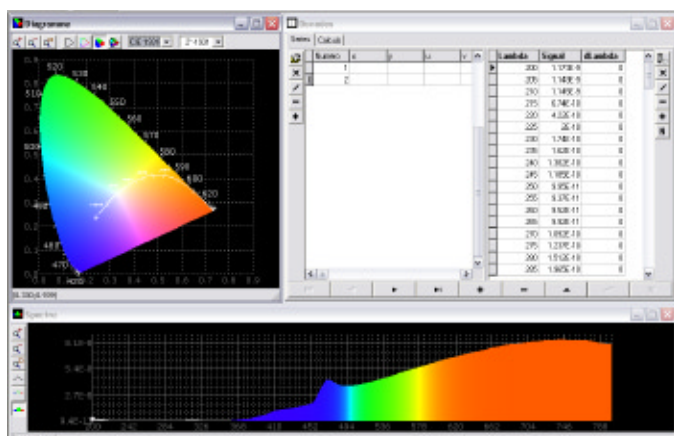
To avoid realizing numerous boring calculations, IDYLUX realizes an application allowing to foresee colorimetry results from raw data created with a spectro-radiometer.

The commercial version of this application will be called « IWEN's » name which represents the concept of colour in ancient Egyptian.

IWEN's main spot is to make all the colorimetry calculations of the recommendation CIE 15.2-1986 (2nd Publishing edition 1986 - Corrected Reprint on 1996) and the calculation of the colour rendering index following recommendation CIE 13.3-1995.

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The other functions are developed around the work on spectral measurements. It is possible to normalize a spectrum and to make classic operations on spectrum measurements.



IWEN 1.0

Transmittances, reflectances, absorbances will be obtain in some clicks from two or several spectrums. Classic arithmetic operations, on spectrums, will be also assured. A database of the main illuminants integrated to IWEN allow to work on the colour rendering of transparent or reflective materials. A reading data interface allows to obtain spectral measures from any text file produced with the majority of spectro-radiometers.

IWEN does not work only with data coming from measuring instruments, but also from data entered manually. It is so possible to model a spectrum from documentation and to make all the wished colorimetry calculations. The modelled spectrum can be continuous or intermittent, constituted from measures distributed regularly or irregularly with spectral bandwiths constant or not.

NEWS

MEGALUX and SIBYLUX companies will present new products based on the concept of the Fluid Optics at the BATIMAT 2003 exhibition (stand Hall 7.2-G54).

Stay informed permanently by consulting the internet gateway, dedicated to the Fluid Optics at the address :

<http://www.optique-fluide.net>

The web site of the letter of Syzygies is at the address : <http://www.syzygies.optique-fluide.org>. In this site, you can consult all the previous letters of Syzygies. If there is a subject you wish to see treated in this letter, you can directly contact us by email at the address: redaction@syzygies.optique-fluide.org. On the internet site of MEGALUX (<http://www.megalux.com>), you can consult, directly in line, all the documentation of the company as well as articles. For more information about HELIOS ILLUMINATOR, go to the site of the SIBYLUX company at the address: <http://www.sibylux.com>.

NEXT LETTER

The next Letter of Szygies will appear during the next Winter.