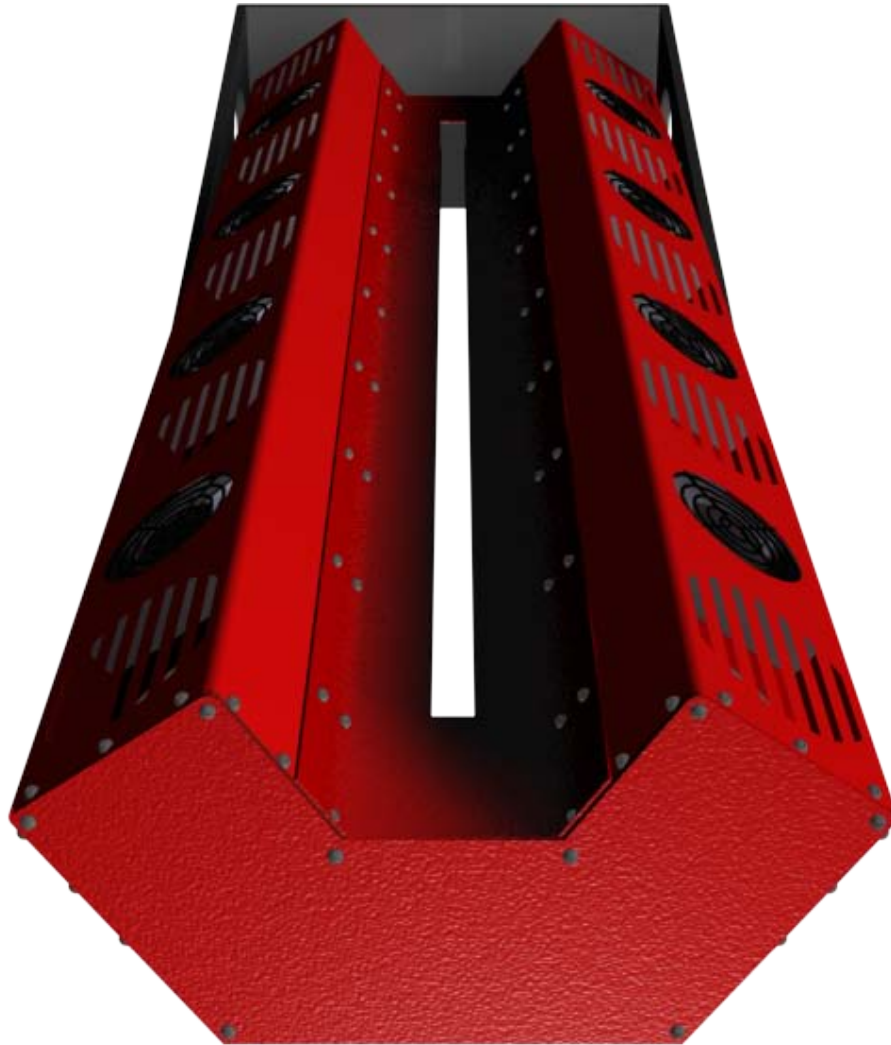


METIS SYSTEMS

HIGH QUALITY SCANNERS



by Metis

SynchroLight Lighting DRS A0

ENG v.0310-1.1

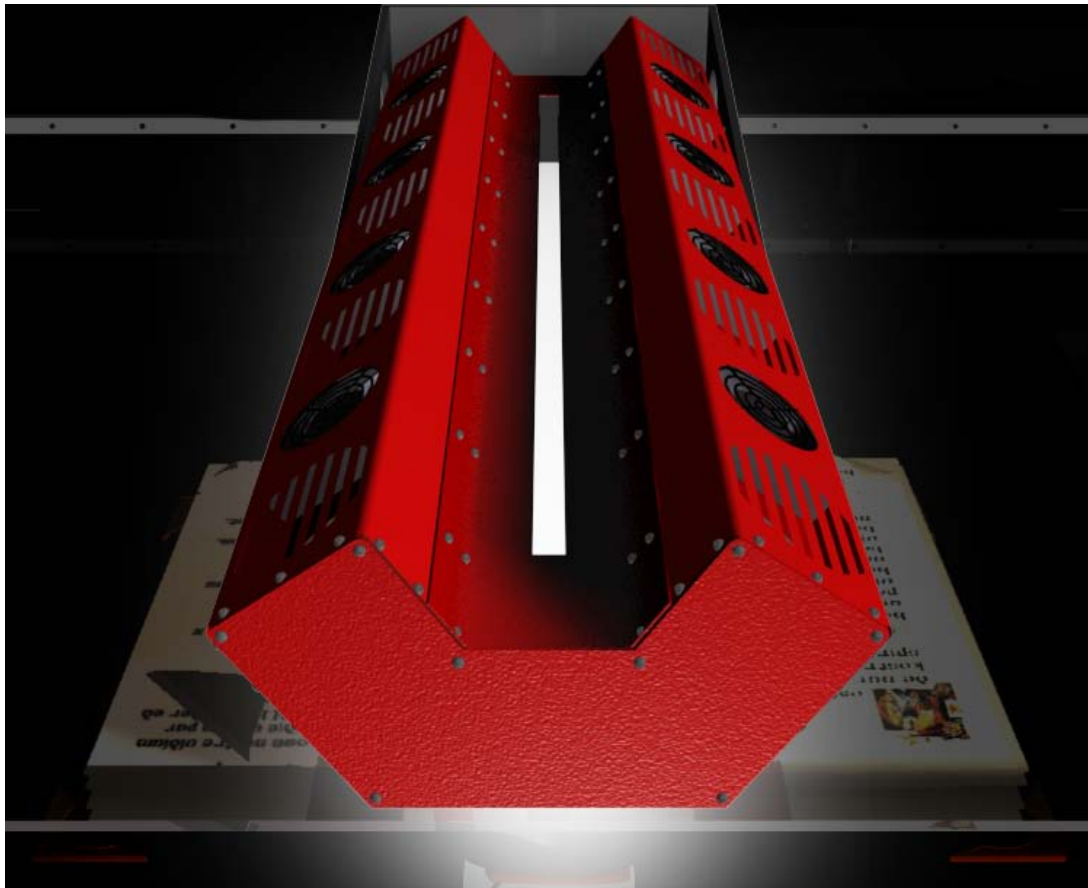
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INTRODUCTION

The SynchroLight lighting system integrated into the DRS A0 system is the result of years of research, development and improvement made by Metis. The unique technology built into the SynchroLight A0 (patent pending) is not available in any other system available today. Among the main features of the SynchroLight there are:

- Light is focused and concentrated into synchronized light blades. The unique technique of light concentration, implemented into the DRS 5070, vastly reduces the amount of light radiated on the document during the scan, and almost totally eliminate the scattered light in the working environment and towards the operator. The light is in fact concentrated in a thin line (a few cm wide) corresponding to the CCD line. During the scan the light moves on the original in perfect synchronization with the CCD in order to provide a perfectly uniform and homogeneous illumination.



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- The SynchroLight A0, thanks to its special technology developed by Metis, provides thousands of different light schematics in order to allow the light to be adapted to specific needs of reproduction such as: glossy originals, gold, parchments, etc.. This is a unique feature, in fact most scanners in the market provides only one (fixed) light schematics resulting in one unique possible result. Highly sophisticated and automated tools allow you to identify the best lighting schematic very quickly directly on the originals and without the need to make several attempts or scan. Moreover, manually operate the lighting is not required as the SynchoLight A0 is fully automated.
- Unlike competing systems based on LED, the LED lighting integrated into the SynchroLight DRS A0 are virtually insensitive to temperature changes of the surrounding environment and allow you to obtain a constant illumination over time; the SynchroLight A0 is in fact equipped with a sophisticated light and temperature control intelligence developed by Metis in order to maintain the performance of illumination constant over time and under all operating conditions, virtually eliminating the need to recalibrate the system for color consistency.
- The SynchroLight is active practically only during the scan (instantaneously power On/Off).
- The original also remains exposed to the light only for the few seconds needed to complete the acquisition.
- Light CRI (Color Rendering Index) of the SynchroLight is among the highest available today. The light also has an ideal color temperature of 5400° K perfectly suitable for professional reproduction purposes and perfectly matched on the specific sensitivity of the CCD used.
- Light emitted is completely IR/UV free.
- The SynchroLight have been designed in order to provide a higher level of light uniformity (compared to ALL systems available on the market).
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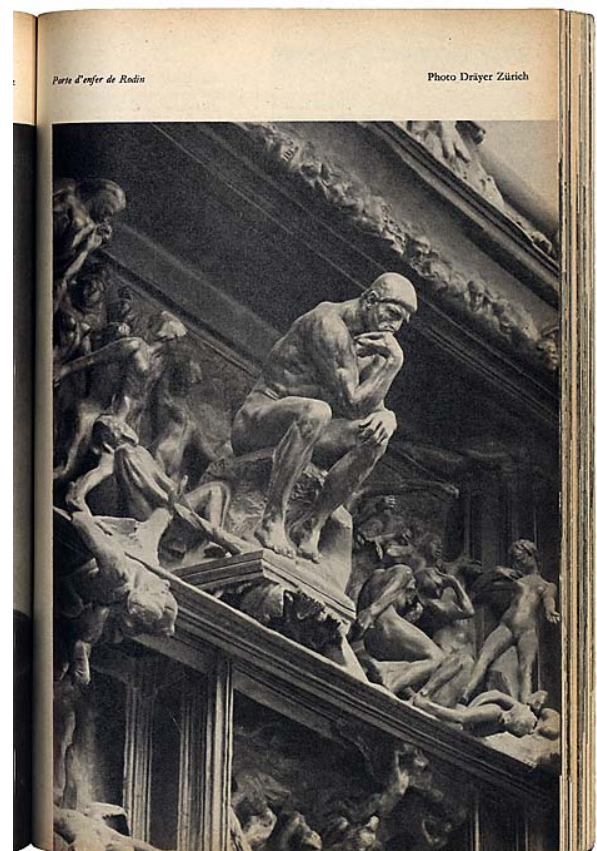
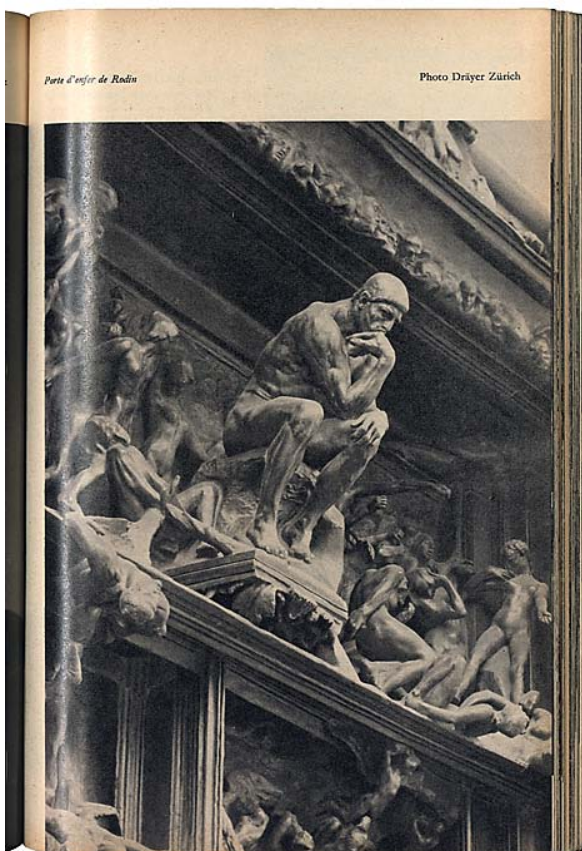
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THOUSANDS OF LIGHTING SCHEMATIC

The SynchroLight integrated into DRS A0 system provides thousands of different lighting schematic useful in optimizing the digital reproduction of particular types of originals. In fact not all originals respond similarly to the light and in order to accentuate or otherwise mitigate some aspects of their nature (or perhaps to eliminate unwanted reflections) it's required to be able to adjust the lighting angles. Within the DRS A0 specific user selectable light schematics allow optimizing for almost every kind of originals in order to control unwanted reflections and light incidence over the media surface.

The following image show 2 different results obtained with 2 possible SynchroLight schematics :



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In the DRS A0 system, by selecting the proper light schematics (usually an “unbalanced” light coming from one side only), it’s also possible to emphasize the document texture and even the smaller details or at the opposite to deliver a more uniform background that maximize document readability.

Usually balanced light provide the best solution for general reproduction purposes as it reduces the impact of the texture over the final image by maximizing the contrast between the written text and the background and by consequence the readability of the document.

Anyway reproducing some particular type of documents (as papyrus, parchments which may present interesting and valuable information in the texture) may require an unbalanced lighting which is also allowed into the DRS A0 system. Scanning books with limited opening angle may also require an “unbalanced” light schematic as the light on one side may otherwise cause unwanted shadows or reflections over the pages.

DRS SynchroLight allow thousand of different “balanced” light schematics (which should be used for more uniform enlightening and maximizing document readability). Furthermore thousands of different “unbalanced” light schematics may also be created (i.e. as usually required in order to maximize texture and media details or to avoid specific reflections).

Furthermore the light angle may also be changed automatically into the DRS Software.

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Here a selection of images of the same original acquired with different light schematics with the DRS A0 system. It's evident how the reflections and embossing in the Gold drastically change with even slight variations of the light schematics (and the user may select between thousands of possible results):



Product specification or appearance may change without prior notice.

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In the next 2 pages another selection of 8 images of the same original acquired with different light schematics with the DRS A0 system (differences in luminosity between the images were not compensated in order to properly evaluate the different reflections levels) :



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In addition to providing thousands of light schematics, and a very fine and accurate control of the light, the DRS software also incorporates a means of regulating the light intensity and angles in "real time" allowing to identify very quickly and directly on the subject of the digitization the best light schematic. This is another unique feature of the DRS A0 system that has no equivalent in any other system available today on the market.

Moreover, the DRS A0 system also provides light schematic optimized for the reproduction of :

- Maps, drawings and original that require a higher degree of uniformity of enlightening.
- Prints, engravings and original where you need to highlight the stroke / pattern against the background (the paper or the print media).
- Scrolls, papyrus, tissues where it is necessary to find a balance between the structure / pattern of the media and the content (the writings or drawings).
- Pictures, seals, coins, 3D objects which require controlling the light incidence over the surface of the original.