

# LUXIONA

LUXIONA Poland magazine

*Les Grands  
Crus*

EVENTS ● ● ●

REALISATIONS ● ● ●

PRODUCTS ● ● ●

LUXIONA  
Poland

troll

heper + MOONLIGHT

metalarte

Sagelux

## ●●● From the Editors



### From the Editors

We are pleased to present our LUXIONA Magazine No.4.

The following edition provides the subject of using the day light and minimizing the power consumption in case of office buildings illumination. The fixed element of our magazine is presentation of the investments that have been completed by our company. The interview with Ms Jolanta Kepler, the architect, describes the background of Aesculap Chifa project in Nowy Tomyśl. The newest trends in designing „clean rooms” will be discussed on the basis of the World Hearing Centre in Kajetany.

New illuminating systems program is worth mentioning as well. RETAIL and LUXIONA Poland products offer.

Additionally, the products section presents the most interesting solutions that enrich LUXIONA's offer.

We wish you a good reading.

**LUXIONA Editorial Staff**

**You are kindly welcome to visit our newest website [www.luxiona.pl](http://www.luxiona.pl) that is currently replacing the previous [www.agalight.pl](http://www.agalight.pl).**



## Events

- Interview with the architect – Mrs. Jolanta Kepler
- The ISO Conference
- Retail Program
- M-Light as the only dealer on the Dutch market



## Our projects

- Aesculap Chifa, Nowy Tomyśl
- The World Hearing Centre, Kajetany



## Products

- Using the day light in office buildings illumination
- Recommended products in our offer



**M-Light as the only dealer  
on the Dutch market**

## Interview between LUXIONA editorial staff and Mr. Rafał Wesołowski, the Director General of LUXIONA Poland S.A.

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**Rafał Wesołowski**  
Director General of LUXIONA Poland S.A.

### Dear Customers

We are extremely pleased to present you our next edition of the Luxiona Magazine. At the beginning I would like to inform you that our so far website [www.agalight.pl](http://www.agalight.pl) has been replaced by [www.luxiona.pl](http://www.luxiona.pl) domain. Not only the internet address has been changed but its content has improved as well. Apart from the communication aspect, our website shall provide an assistance for our partners in the scope of the solutions in illumination, as well as all technical information about our products such as: photometric curves, assembling instructions, declarations of conformity, certificates, attests, etc.



Aesculap Chifa, Nowy Tomyśl

The aim of the current magazine is to discuss one of the fields where our company has been successful for many years. It is the full offer of our luminary solutions of clean rooms. Our CLEAN luminaries meet the highest technical, quality and usage requirements for the products applied in clean rooms. Illumination and its very interesting solutions created by our designers have appeared in many prestige state and foreign medical buildings. You may find them in our recently issued catalogue: „Realization of Hospital Structures and Clean Rooms”, available both in print and on our website [www.luxiona.pl](http://www.luxiona.pl). Photos of the most interesting hospital structures, in Poland and abroad, are presented there. They are accompanied by the statements of the cooperating architects, electric designers and investors. The reference list of the hospital, laboratories, and pharmaceutical plant structures illuminated by our company is also included in the catalogue.

We have also included the interview with Mrs. Jolanta Kepler in the current magazine. She is the architect cooperating with our company during Aesculap Chifa project in Nowy Tomyśl, which is the producer and distributor of medical equipment of the highest quality parameters. I do strongly encourage to become familiar with the challenges Mrs Jolanta Kepler had to deal with, and also with our company during the project implementation. Clean rooms illumination is often connected with the necessity to face various requirements that have to be complied together – light intensity and color temperature, as well as their cleanliness, character of work performed in the room, its atmosphere, or power consumption costs. Later parts of our magazine present the way to meet the mentioned requirements on the basis of the World’s Hearing Centre, Kajetany.





Bank PKO BP, Warszawa

In the pages of our magazine we would like to give voice to our lighting techniques experts, it is to our illumination designers. Mr. Paweł Gierczak, one of our designers, is the author of a very interesting article named: „ Using the day light and minimizing the power consumption in case of office buildings illumination”. You are all invited to familiarize with this unique professional report.

The activity of LUXIONA Poland is not only illuminating the clean structures. The next editions of the magazine, as well as substance included on our website successively, will provide you with our most interesting lighting implementations. We have completed, or have been completing, some important projects recently. One of them is Technopark (Bionanopark) in Łódź, where our X-LINE, CLEAN and AGAT luminaries, designed for module ceilings with hidden structures, have been used. The project was implemented by Mr. Jerzy Jagas, the electrical engineer designer, an directed towards Archi-dea architectural studio of Mr. Przemysław Dudek, Łódź.

Our company is also illuminating other structures of public use. Here, the following are worth mentioning:

- Brodnica Shopping Centre, or Decade Shopping Centre in Malbork – the use of X-LINE LED luminaries;
- International Sport Centre in Ełk, in cooperation with Truchan Architectural Studio run by Mr. Tomasz Truchan, where X-LINE luminaries and LED down lights have been used;
- Białystok University of Technology, Forestry Department – Beryl SES, X-LINE 600 module, and Heper luminaries;
- University of Warmia and Mazury in Olsztyn (Catering with Diabetics and Food Bio-estimation Centre, in Food Sciences Department);
- Academic Park in Lublin, and Communication Centre in Legionów – Heper luminaries;
- the City Centre of Culture in Katowice Koszutki – X-LINE, RUBIN round version, specially created for the interior design;

- AGH Public Library in Kraków – X-LINE, RUBIN round version, X-WALL, BERYL LED luminaries;
- The Jan Kochanowski University in Kielce, Business and Management Department (fully multi media and modern structure).

**„Illumination and its very interesting solutions created by our designers have appeared in many prestige state and foreign medical buildings. You may find them in our recently issued catalogue: „Realization of Hospital Structures and Clean Rooms”, available both in print and on our website [www.luxiona.pl](http://www.luxiona.pl)”**

**Rafał Wesołowski,**  
Director General of LUXIONA Poland S.A.

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## Retail Program

Attractive and regular illumination of the retail structures is an important element supporting the process of sale. Meeting the merchandising rules, as well as illuminating market, the LUXIONA Poland company has prepared a special lighting program dedicated for the Retail sector.

Lighting solutions, which are designed in accordance to the newest technological and design solutions, are used both on **large, boutique, and small retail areas.**

Nowadays, so called "accenting illumination" is more significant in detailed retail, and is based on a game of lights and shadow what ideally emphasizes the character of: **car show-rooms, wineries, food and toys, storages, perfumeries, clothing boutiques, in-door design accessories studios, sport shopping centers.**

**The range of products to be find on pp. 22-23. For more information, please, search our website [www.luxiona.pl](http://www.luxiona.pl)**

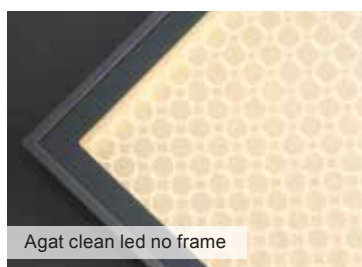
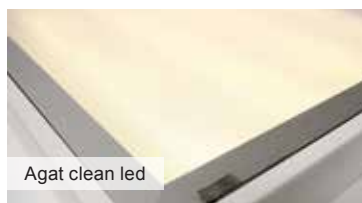


## The ISO 9 – ISO 3 Conference

LUXIONA Poland is an undisputed leader on the clean room solutions market – that is for so called clean structures, and these solutions refer to illuminating the sterile hospital rooms, pharmaceutical plants, or chemical laboratories.

Under the auspices of the LUXIONA Poland company there will be a conference held on 27.08. 2013 and 28.08.2013: **the ISO 9 – ISO 3 Conference: Electrical and Illuminating Equipment in CLEAN ROOM structures.**

Clean room illumination provides the luminary producers with some particular requirements. The main issues discussed during the conference will refer to the norms regulating illumination of clean rooms, as well as the technical requirements the product shall meet on the designing stage.







# The Polish Production Plant

## Jacentów

The Polish production plant of LUXIONA Poland is situated in Jacentów near Ostrowiec Świętokrzyski. The total area of land is 57,000 m<sup>2</sup>. Production process within the plant is carried out in accordance to the newest solutions and technologies. The power of the plant includes its machinery, the highest employees' competences, product flexibility, short lead time of completion, customizing the solutions, and its productivity. There are 35 thousand ID codes for finished products available in

computer system, such as: architectural luminaries, projectors, to be built-in luminaries, ceiling luminaries, CLEAN type luminaries, industrial and sport luminaries, and outside luminaries.

Owing to the continuous production process customized solutions the LUXIONA Poland Company responds quickly to the dynamic development and requirements of the market.





✕ Production flexibility

✕ Short lead time of completion

✕ Customizing solutions

✕ Wide range of product portfolio

✕ 35 000 ID codes of available finished products

✕ More than 80 years of experience





Aesculap Chifa in Nowy Tomyśl

## Jolanta Kepler – Aesculap Chifa, Nowy Tomyśl



Jolanta Kepler  
Architect

### Why has the implementation in Nowy Tomyśl become so appreciated and distinctive project?

In my opinion, it is the thrust between the Investor, Designer and Performer, as well as a good experience that has derived from a long-term cooperation between those. I must stress that the project commissioned to our studio referred to the arrangement of interior design, while the building aspect belonged to the company from Poznań. The final effect is a result of the whole investment process. In this particular case, the Investor knew what he really wanted and was able to express it.

### Could you describe the functionality of investment? What were the assumptions?

The functional assumption of the Project can be divided into 3 parts:

1. Main entrance – it's an representative stairway and reception, the main meeting hall during the breaks in lectures
2. lecture room – the company's "business card" where the products are proudly presented
3. Didactic rooms including lecture rooms, workshops for practical classes in using surgical tools.

### What was the greatest difficulty during the designing process?

The greatest challenge appeared to be arranging the interior design for the show room. Mostly because of the number of the products that were presented there. Our task was to find place for several thousands of surgical tools of different size and divided into groups quantitatively. Special furniture had to be designed that enabled their presentation with the easy access, presentation and exposition.

### Interior, the usable part are esthetic and smartly completed. Such an attention paid to esthetic values is hardly experienced as for that type of building structures.

It is all owned to the Investor. He put particular stress on a high standard and quality of completion. The B.Braun company office in Berlin was indicated as a model before entering the project. There are many elements that have an influence on the final result of the interior "climate", such as materials used, color temperature, esthetics of the details implementation and illuminating, of course.

### In what way did the LUXIONA's products support the





### **implementation of the assumptions referring to functionality and esthetics of the interiors?**

Our studio has been using the LUXIONA's products for many years (former AgaLight), and because of this we could responsibly trust and offer its products to our demanding Client. Having realized the wide range of the offer, the relation between the price and the quality, which is unbeatable on the Polish company, we were positive that the lighting will meet the Investor's requirements.

### **In what way was the offer and cooperation with LUXIONA a support for you and your team while implementation of the assumptions?**

The LUXIONA offer provided us with all the necessary types of luminaries and their unique forms. The assistance in selecting the proper parameters was also invaluable, as well as all consulting with the highly qualified technical staff as for the particular products.

### **How did you estimate the quality, or original propositions from our side meet your esthetic expectations?**

We were all astonished that in your offer we could find all the proper forms of illumination that perfectly met our project assumptions. They not only met the required parameters, but they also improved the esthetical effects. The luminaries used in the stairways, in the main hall, or so called „VolksWagen“ in exhibition room, not only illuminate but amaze with their unique forms.

### **How did the Western Investor evaluate the project?**

I think, the evaluation was positive but it is still good to ask.

### **What kind of experience derived from the process of preparation and implementation of the project are valuable and worth to be used in your future work?**

Selecting the proper interior illumination is a great challenge.

But this is my own opinion, of course. I am sure that architect's imagination is not able to provide him perfectly illuminated interior. We can see the forms of the created spaces, the color and what we want to expose. Our choices are optimized thanks to cooperation with these professionals who are aware of technical possibilities of various luminaries. Investors often tell the architects that all can be preserved on the paper... and it is true. However, when the whole is designed, assembled and cleaned... and we light them on – then our vision is truly verified. I must admit that the result in Nowy Tomyśl is really impressive. And we succeeded thanks to the great help of LUXIONA Poland.

**„I would like to thank you, and I truly recommend cooperation with the LUXIONA Poland company to all Architects and Investors.“**

**Jolanta Kepler**  
Architect

# Aesculap Chifa in Nowy Tomyśl



**Illumination Project Cooperation: LUXIONA Poland.**









# The World's Hearing Centre in Kajetany





**The World's Hearing Centre was founded in 2012. It is a modern hospital and an extremely important educational centre for educational development. The daily number of medical operations of hearing impediments being carried out in the centre is currently the highest in the world. It is here where the first operation of implanting the cochlear to a child with the partial deafness has been performed.**



# The World's Hearing Centre in Kajetany

Illumination in medical structures pays an important role, but it also requires professional knowledge, adequately selected products which are mostly designed in for the particular room. Apart from the obvious aim, which is gaining the proper light intensity, illumination is a tool creating the atmosphere of a given place. In case of operating or treatment rooms, the most crucial requirements lighting shall meet, refer to the cleanliness.

The LUXIONA Poland company had this great pleasure to participate in the project of illuminating the World's Hearing Centre in Kajetany. As a rule, the white light is used in hospitals. However, in case of the World's Hearing Centre in Kajetany untypical light color temperature was used: 3000K instead of the standard 4000K. It provided the spaces with more friendly atmosphere for patients, and at the same time appeared to be accurate for scientific research. LED technology was used in halls and bathrooms what reduces the costs of the power consumption.







**The following luminaries of LUXIONA Poland were used in the project:**

- operating rooms: Agat Clean 4x54W PPAR SH IP65,
- conference rooms: X-Line MOD600 4x24W PLX,
- wards: Rubin 4x18W PLX,
- halls: Beryl LED,
- bathrooms: Beryl LED, Ametyst LED,
- communication routes: Akcet N 2x36/1x18W,
- yard: Saturn 1x150W , Spider 6x70W,
- therapy wards: X-Line MOD600 4x24W PLX,
- treatment rooms, laboratories: Rubin Clean TCL 3x36W i 3x40W SHM IP54 i IP65,
- treatment rooms: Agat Clean TCL 2x40W, 2x55W, 3x40W SHM IP54 i IP65.

# Using the day light in office buildings illumination and minimizing the power consumption.

Health benefits from the sun light are as follows:

- better mood – the level of endorphins is increased
- treatment of some skin diseases,
- providing vitamin D synthesis,
- improvement of immunological system operation,
- increase in concentration and ability to learn,
- eye tiredness reduction.

It has been proved that using the day light in offices has a positive effect on employees and their mood what results in more professional work.

This article presents the calculation results for AGAT luminary of LUXIONA, with its various types of the light source and day light simulation for particular space in a year time.

The aim is to indicate the financial and environmental benefits that the day light provides for illuminating offices structures with the usage of light intensity detectors. Light detector is a simple instrument checking whether the level of lighting intensity is properly set. In case of default, when the assumptions are not met, detector runs the particular number of luminaries in order to gain the required light intensity level.

**„Day light is indispensable to sustain living on the Earth. It provides the regular functioning of the living creatures.”**

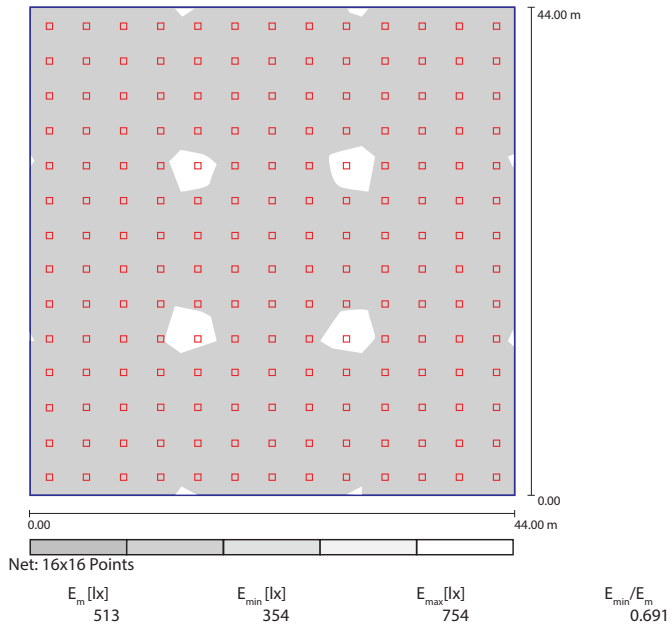


Catalina Office Center, Warszawa



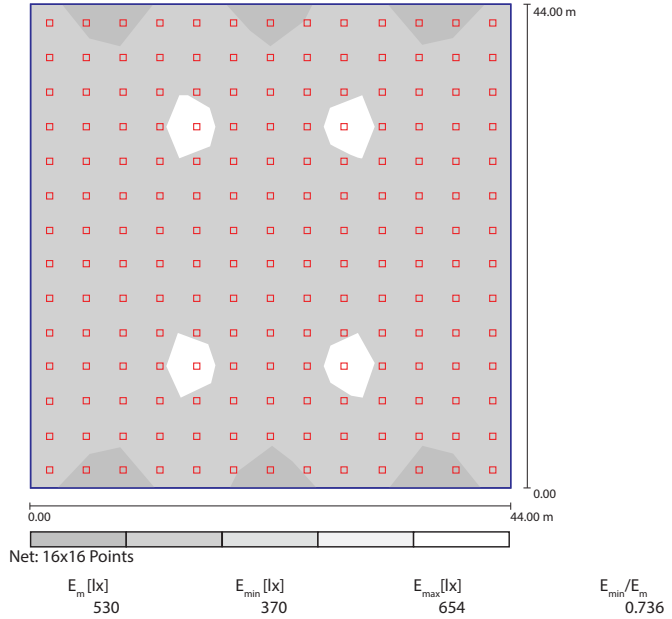
The fully glazed Warsaw Spire with the size similar to the office structure has been chosen as a model. The luminaries were assembled in the suspended ceiling at the height of 3 meters.

The calculation presented below refers to one floor together with the luminaries placement.



AGAT T5 LUX 4x24W PPAR-P RO of LUXIONA.

The total power of the luminaries is 18,018 (kW). When converted into annual power consumption in 2012, when the number of working hours were 2016, the power consumption will equal 36,3243MWh.



AGAT LED 8800lm 72W Micro-PRM of LUXIONA.

When the LED luminaries are used the total power and annual energy consumption are relatively 14,027 kW and 28,27843 MWh.



Bank PKO BP, Warszawa

To lower the energy consumption it is important to introduce the automatic lighting as lighting intensity level detectors, and what follows to use day light.

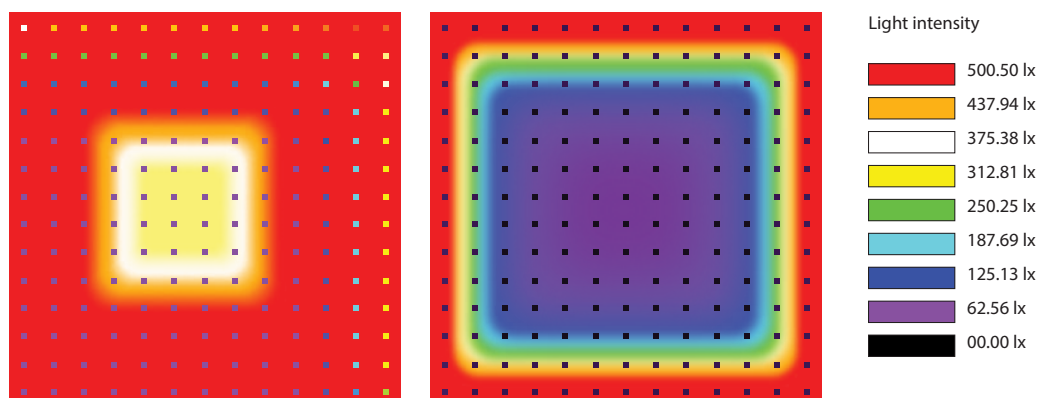
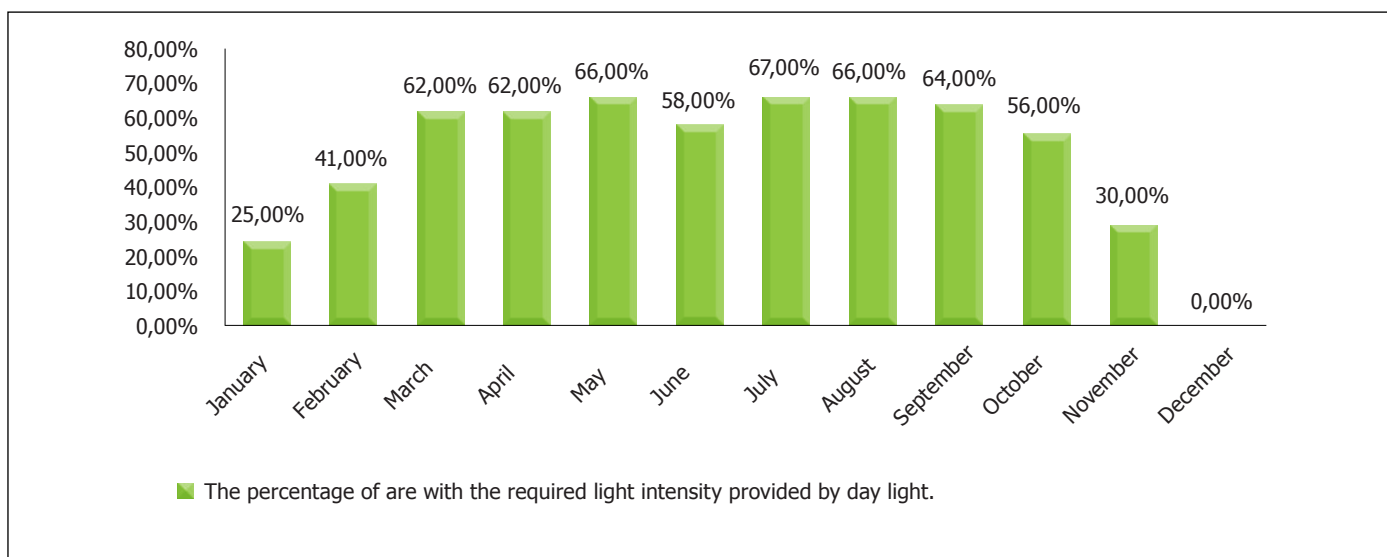
Calculations presented below were done for Warsaw in Dialux 4.10 program, each month except from December, with various horizontal configurations with luminaries usage elimination.

The percentage of cloud cover taken into calculation:

- 0-30% - clear sky
- 30-60% - partially clouded
- 60-100% - clouded

The resulted outcome for a particular month is a weighted arithmetic mean of three horizontal configurations, where the percentage of area with the required day light intensity is important. To determine the cloud cover, statistical data of 2012 were used.

The annual results are presented on a diagram below:



The most extreme results are presented above of July with cloudless sky, and for clouded January. It is worth mentioning that in July we have to cover the office area with only 20% of the artificial light, the rest is illuminated by day light.

The month of December was excluded from calculations as sunrise and sunset take place within 8.00 a.m. and 4.p.m. the arithmetic mean of all the months is 49,75%, and this means that such percentage of area will be illuminated according to PN-EN 12464-1 2011 norm during the whole year.



	Power [kW]	Energy [MWh]	Annual costs [zł]	CO2 use [kg]	Number of trees required for CO2 absorption [items.]
Fluorescent luminaries	18.018	36.3243	18160	36324	4749
LED	14.027	28.2784	14135	28278	3696
LED luminaries + detectors	14.227	14.2691	7135	14269	1866

Summing up, using modern LED luminaries together with detectors reduces the energy consumption during the year, and has a positive effect on our eco-system. The table presented above refers to one floor of a given structure. In case of large office structures, where the number of floors reaches 50, the annual saving is estimated to be around 551 000 PLN, not including the conservation costs which is much higher for the fluorescent luminaries. It should be noticed that the areas that not reach 500lx have the average light intensity of 200lx, so illuminating them does not require using the total lighting power of the luminary but only its 60%, lowering the energy consumption.

Calculations presented above were done on the basis of **AGAT LED** luminary. In case there is no suspended ceiling in an office structure, **RUBIN LED** luminaries may be used; they are of similar features to **AGAT LED**. To reduce energy consumption in the whole building, other spaces are recommended to be illuminated by LED solutions, such as communication routes, toilets, social rooms, conference rooms, etc. **BERYL LED O** belongs to such solutions and is ideal both for common and clean rooms as has IP44 class. **RUBIN LOOK LED** belongs to the IP class and may be assembled both on walls and on ceilings.

**Mr. Paweł Gierczak**  
Illumination designer of LUXIONA Poland

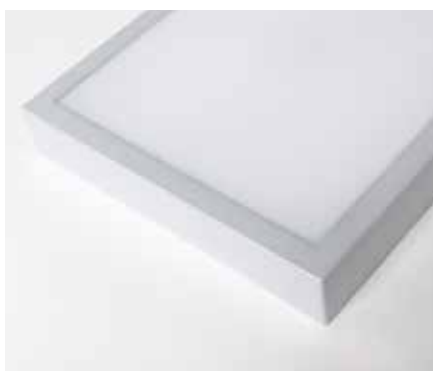
Agat LED



Agat LED

Luminary dedicated for suspended ceilings for LED sources, Luminary coffer made from steel sheet, powder coated in white, optical system of high efficiency designed for LED sources combined with the louver in polished or mat version, or transparent diffusor.

Rubin look LED



Rubin look LED

Surface mounted luminary for LED light sources. Assembled on ceilings by the use of plugs. Luminary coffer made from steel sheet, powder coated in white. Milky diffusor of a high permeability. Possible to be provided with emergency module and PIR motion sensor.

LUXIONA's recommended products available in its offer.



Tear

The luminary is used for the metal halide light sources (G8,5, G12), and the highly efficient LED panels of the leading lighting companies. The TEAR is adapted to be assembled on a three-phase track. The body is made from the aluminum cast. luminary is highly recommended for lighting the shop windows, shops' interiors, commercial spaces, the centers of culture and art – everywhere where the lighting emphasis is put on the singular items and attracts the customers attention.



Tytan KRB

As for retail spaces illumination, so called accent lighting pays a very important role. It is to pay the customers attention to a particular product. Accent lighting can be designed by with the use of reflectors with metal halide light source. TYTAN KRB luminary consists of the two elements: the cubic block made from a metal steel sheet powder coated where the electric equipment is assembled, and from the aluminum profile with the lighting element inside. Solution of this kind allows application of the luminary in various spaces of various character, without any interior design interference. This luminary is dedicated for representative interiors: retail spaces, spas, halls and entrances.



Beryl LED O

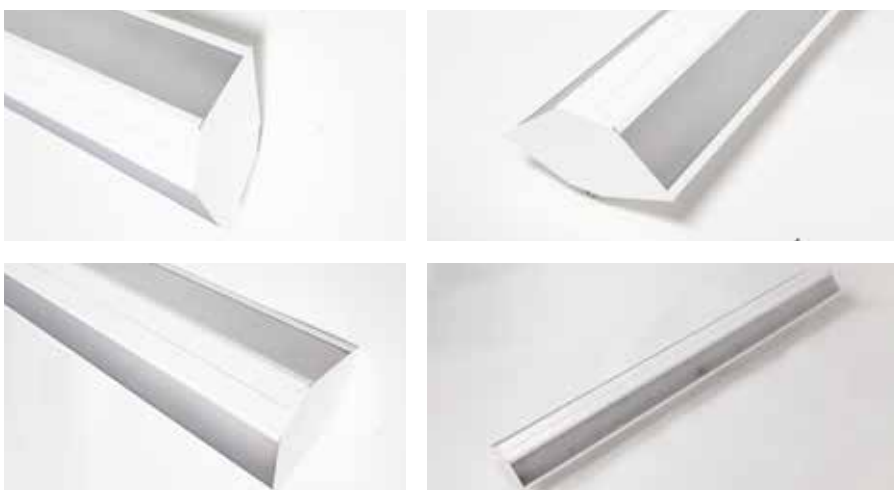
Luminary coffer made from cast, with no cooling radiator, what allows it to be assembled on various kinds of ceilings because of its weight. It is dedicated for official and prestige interiors, such as: hotels, banks, high standard offices. Owing to the newest components and LED sources of the leading lighting companies, this kind of luminary provides with the reduction in the power consumption.





### G-line

G-LINE system consists of the main, connecting, and light modules. The main and connecting modules form the grid system which is attached to the ceiling of the illuminated space. The particular modules are connected by the longitudinal and overlay connectors, and are extra fixed by the screws. G-LINE system is used for the large retail spaces or warehouses, where illumination system is an interesting solution that do not required suspended ceilings or pendant luminaries.



### Market Line LED

Luminary designer for LED light sources. Its coffer made from steel sheet. As a optical system the micro prism is used that perfectly shapes the light curve. To improve its functioning, the reflector made from polished alumini was assembled inside. The luminary is available in narrow and wide range of light distribution. Such a solution allows the luminary to be used both in industrial and retail spaces.



### X-line

X-line luminary group is equipped with parabolic louvers, polished or mat, milky diffusor, and electronic ballast. The luminaries are offered in one-fluorescent version (T-5) to be assembled on directly on module and gypsum ceilings, or on pendants. They may be joined by the special connectors what provides much ease in their placement, and the same much functionality. X-LINE luminaries in SNAKE system are joined in 120degree angle what provides with the unique lighting lines.

**All X-LINE luminaries available in LED version.**

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