



**MEDIC\_**  
MEDICAL LIGHTING



# Light \_builds tomorrow

[www.spectra-lighting.pl](http://www.spectra-lighting.pl)

## CONTACT

+48 22 567 01 00

[info@spectra-lighting.pl](mailto:info@spectra-lighting.pl)



# SPECTRA

SINCE 2000, WE HAVE BEEN  
A PIONEER IN CREATING  
INNOVATIVE LIGHTING  
SOLUTIONS, INSPIRING  
DESIGNERS GLOBALLY.

Our vision extends beyond mere illumination of spaces – we aim to craft experiences that enhance quality of life and nurture our planet for future generations.

Our solutions are straightforward, yet promote environmental sustainability and energy efficiency. Each project represents a stride towards progress, encompassing innovation and guaranteeing exceptional comfort in daily use.



We support the Sustainable Development Goals.



# MEDICAL FACILITY SOLUTIONS

**Spectra Lighting is committed to enhancing healthcare environments through our range of medical lighting products. Our products are designed using the latest LED technology and tested in advanced photometric laboratories.**

As a partner in the comprehensive implementation of projects for architects and designers, we offer a wide range of products that meet even the most demanding standards of medical spaces, such as operating rooms, pharmaceutical laboratories, and intensive care units.

## We contribute to increasing social and economic equality

Our commitment to continuously develop our employees' skills and expand the factory's technological capabilities allows us to improve the efficiency and quality of various facilities.



Medical and Gynecological Clinic  
Grójec, Poland, designed by AGL-Architekci sp z o.o.

MEDIC IS A PROFESSIONAL  
PRODUCT DESIGNED FOR  
SPACES WITH ELEVATED  
CLEANLINESS STANDARDS.



research and  
pharmaceutical  
laboratories



rooms for round-the-clock nursing care



blood collection sites



therapy and exercise facilities



operating, postoperative,  
and recovery rooms  
and their environs



disinfection chambers



reception, registration,  
and waiting areas



hallways, lounges,  
recreation area,  
residents' quarters



maternity units and birthing centers



laparoscopy, endoscopy,  
dermatology, nursing,  
ophthalmology, laryngology,  
and stomatology rooms





# SMART SOLUTIONS

**Lighting in healthcare facilities plays a crucial role in ensuring optimal working conditions for staff and in supporting the treatment and recovery of patients.**

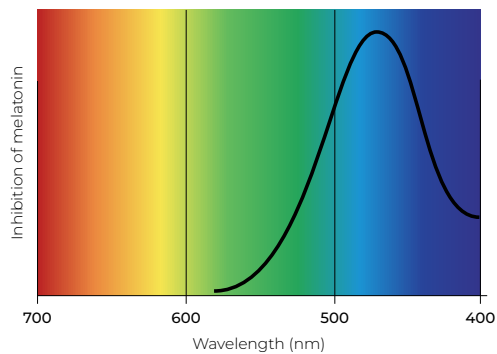
## PHOTOBIOLOGICAL SAFETY

Studies on biorhythms conducted in 2017 by Jeffrey C. Hall, Michael Rosbash, and Michael W. Young have shown that disruptions to the circadian rhythm, such as exposure to high-intensity light with a high color temperature at night, can have a negative impact on human health and well-being. These disruptions can lead to a decrease in immune parameters as well as psychological

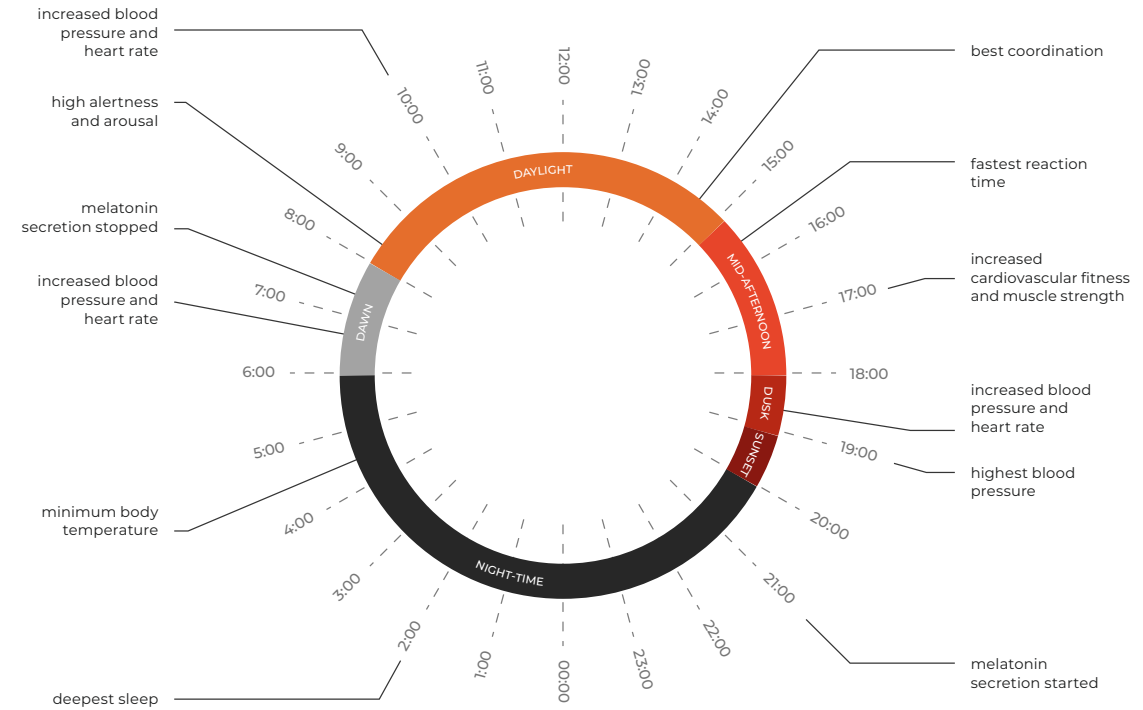
and behavioral disorders. Therefore, supporting the body's circadian rhythm through appropriate lighting is extremely important in the process of treatment and recovery, especially for long-term patients. The decision to use HCL (Human Centric Lighting) systems addresses the need to mitigate the negative effects of constant artificial lighting by mimicking the natural changes in light color and intensity that regulate the human daily rhythm. HCL uses technologies such as Tunable White LED and DALI and Casambi, allowing for the programming of dimming and color changes to mimic this natural cycle.

## GREEN FUTURE

Automation and intelligent lighting management allow for optimal energy use, resulting in reduced CO<sub>2</sub> emissions and operating costs. Additionally, integrating HCL with DALI and Casambi systems (as well as other smart building elements such as heating, ventilation, and air conditioning (HVAC)) creates a holistic approach to resource management. Such solutions not only support the health and well-being of patients but also contribute to the protection of the natural environment.



The 24-hour cycle of physiological processes is primarily regulated by light, influencing the production of melatonin and, consequently, sleep quality and duration.



## HCL: CIRCADIAN RHYTHM

Optimal light color and intensity tailored to the rhythm

<b>DAWN</b> 2700-3000 K   100-300 lm/m <sup>2</sup>	<b>DAYLIGHT</b> 5000-6500 K   500-1000 lm/m <sup>2</sup>	<b>MID-AFTERNOON</b> 4000-5000 K   300-500 lm/m <sup>2</sup>
<b>DUSK</b> 2700-3000 K   100-300 lm/m <sup>2</sup>	<b>SUNSET</b> 1800-2700 K   50-100 lm/m <sup>2</sup>	<b>NIGHT-TIME</b> 0 K   0-30 lm/m <sup>2</sup>

## SUSTAINABLE LIGHTING FOR THE FUTURE

**How implementing HCL into our solutions supports climate goals**

- improving sleep and health
- reducing energy consumption
- increasing productivity and comfort
- improving living conditions in urban and social environments
- improving mood and mental health



# THE SIGNIFICANCE OF COLOR

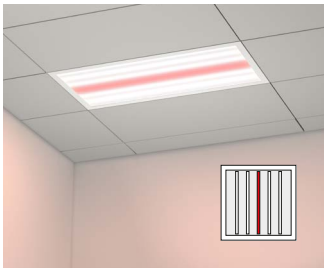
LED light sources can be customized to suit the specific requirements of facilities through RGB color adjustment and tuning function



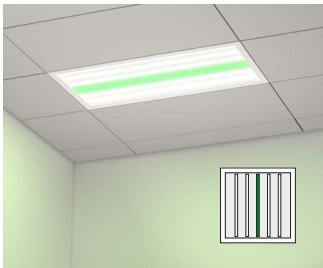
Non-standard configurations or combining RGB with white light sources (830/840 nm) enable meeting the highest standards of color rendering and diagnostic control. In medical environments, where accuracy and precision are crucial, these solutions ensure excellent lighting quality across different sectors.



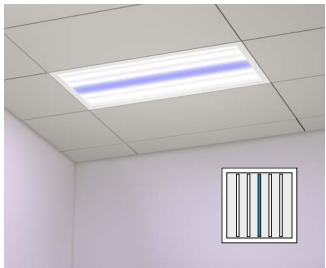
**TUNABLE WHITE**  
suitable for offices and medical facilities, where adjustable color temperature enhances productivity and aligns with the natural circadian rhythm



**RED**  
e.g. for monitoring screens, owing to its capacity to reduce reflections and glare



**GREEN**  
e.g. in the pharmaceutical industry, for checking tablet coatings and print quality, providing clear visibility of details



**BLUE**  
e.g. in phototherapy is utilized in treating conditions like jaundice in newborns, converting bilirubin into a more easily removable form

Non-standard lighting colors mentioned above are available upon request. Please contact us.

The MEDIC luminaire is designed to prioritize the safety, efficiency, and comfort of patients and staff members

# OUR PROPOSAL FOR THE HEALTHCARE INDUSTRY



**EASY TO INSTALL**  
minimal interference in the luminaire structure – lead-out cable

**EPDM GASKET**  
durable and contemporary, bonded copolymers

**PMMA**  
chemical-resistant PMMA cover for clean room applications

**HYGIENE**  
Glass and paint coatings with antibacterial and antifungal properties, providing resistance to corrosion, temperature, chemicals, and abrasion

**PERSONALIZATION**  
microprismatic, PLX diffusers, and 4mm thick chemically frosted tempered glass

**LATCH MECHANISM**  
convenient screwless sealing option

**QUALITY CERTIFICATION**  
CE, PZH, ENEC

**CONSISTENT BRIGHTNESS**  
uniformly diffuse luminance for the CRI>80 variant

**ANTI-REFLECTIVE (UGR<19)**  
glare reduction, improved visibility

**HALOGEN-FREE**  
possibility to personalize the luminaire to a halogen-free version

**VARYING DIMENSIONS**  
available in various dimensions, suitable for use in clip-in ceilings



\*Possibility of substitution with a screw mechanism.  
Some of the above solutions are available on request and are not included in the standard offer.

OUR MEDICAL FRAMES COMPLY WITH THE EN 60598-1 STANDARD. CERTIFIED BY THE **NATIONAL INSTITUTE OF PUBLIC HEALTH** AND **ENEC**, THEY GUARANTEE THE ESSENTIAL PRECISION AND RELIABILITY OF LIGHTING FOLLOWING **EUROPEAN QUALITY STANDARDS**.

Spectra's contemporary factory incorporates cutting-edge technologies ensuring production process flexibility and consistent quality. Tailored to epidemiological, ecological, and economic standards, our lighting systems are effortless to install and maintain, allowing for dynamic space configuration. Our company holds **ISO 9001 and ISO 14001 certifications**, affirming our dedication to superior quality management and environmental preservation.



real color  
**CRI>95**  
series

**HIGH CRI**  
Contains high R9 and R13 values, ensuring accurate reproduction of tissue and blood colors

The MEDIC product offers customization through a selection of various diffusers and optical systems.

SPECTRA'S DIFFUSER	EXTERNAL MATERIAL	PROPERTIES		CONSTRUCTION	CHARACTERISTIC
1. Microprismatic, single-element	PMMA cover	glare reduction		microprismatic cover and/or transparent cover made of tempered glass	plastic cover suitable for applications requiring a minimal level of glare
2. Microprismatic, two-element	transparent tempered glass + PMMA cover				
3. Glass Frosted	tempered glass	standard	chemically frosted	laminated glass matt	durable against breakage and chemicals, minimizing scattered light
4. Glass Frosted Anti-reflective		anti-reflective properties	chemically frosted	laminated glass matt	built to withstand breakage and chemicals in environments utilizing laser beams or scattered light
5. PLX	PMMA cover	diffusing/opalescent		PMMA cover	versatile plastic cover designed for common use



1. Microprismatic (MICRO-P), single-element



1. Microprismatic (MICRO-P), two-element



3. Glass Frosted



4. Glass Frosted Anti-reflective



5. PLX

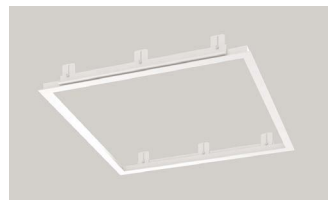
Additional combinations are available upon request. Please contact us.





## ACCESSORIES

### CEILING GRID MOUNTING FRAME



12.000.0001.01  
12.000.0001.02  
12.000.0001.03

# \_MEDIC

## FOR MODULAR CEILING

**APPLICATION:** healing and treatment rooms with increased hygiene requirements, laboratory and production rooms for the pharmaceutical, chemical, electronic and food industries

**HOUSING:** steel sheet, powder-coated

**POWER SUPPLY:** electronic, complete with luminaire



### Dane techniczne

LUMINAIRE POWER	22–136 [W]
LUMINAIRE LUMINOUS FLUX	2250–13700 [lm]
TYPE OF DIFFUSER/PLATE	PLX, Micro-p, Glass Frosted
CRI	80, 90, 95
DISTRIBUTION ANGLE	Ra>80: 126°, 120°x104°, 128° Ra>90: 93°, 103°, 104°
COLOR TEMPERATURE	2700, 3000, 3500, 4000, 5000, 5700, 6500 [K]
SDCM*	≤ 3
SUPPLY VOLTAGE	230 VAC 50Hz
SIZE	600x600, 1200x600, 300x600, 1200x300 [mm]**
COLOR	RAL 9016 (white) <i>Option to select a color from the Spectra color palette (see p. 27)</i>

\*Light color adjustment based on MacAdam's ellipse.

\*\*Other dimensions are available upon request. Please contact us.

### CATALOG NUMBER

03.203.11 ...

03.203.12 ...

03.203.15 ...



As a manufacturer, we retain the right to alter standard solutions without advance notice. Non-standard or extra lighting options can be provided upon request. Custom-ordered products require extended production time for the preparation of additional design documentation. The brochure showcases a wide array of possibilities and features.



# \_MEDIC

## SURFACE-MOUNTED

**APPLICATION:** healing and treatment rooms with increased hygiene requirements, laboratory and production rooms for the pharmaceutical, chemical, electronic and food industries

**HOUSING:** steel sheet, powder-coated

**POWER SUPPLY:** electronic, complete with luminaire



IP65

### Dane techniczne

LUMINAIRE POWER	22– 136 [W]
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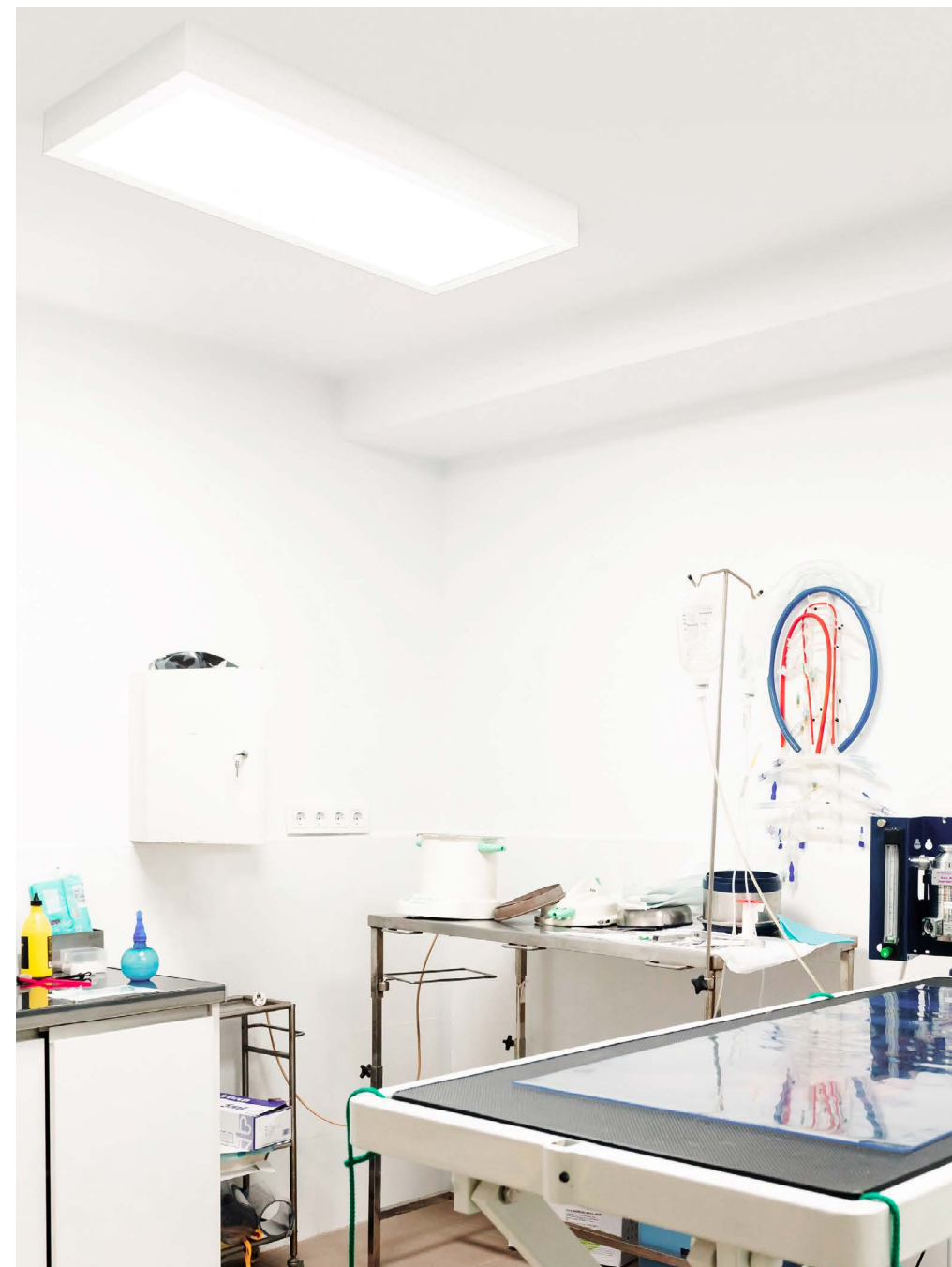
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#### CATALOG NUMBER

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03.203.22 ...

03.203.25 ...



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# \_MEDIC

## CLIP-IN

**APPLICATION:** healing and treatment rooms with increased hygiene requirements, laboratory and production rooms for the pharmaceutical, chemical, electronic and food industries

**HOUSING:** steel sheet, powder-coated

**POWER SUPPLY:** electronic, complete with luminaire



### Dane techniczne

LUMINAIRE POWER	22– 136 [W]
LUMINAIRE LUMINOUS FLUX	2250– 13700 [lm]
TYPE OF DIFFUSER/PLATE	PLX, Micro-p, Glass Frosted
CRI	80, 90, 95
DISTRIBUTION ANGLE	Ra>80: 126°, 120°x104°, 128° Ra>90: 93°, 103°, 104°
COLOR TEMPERATURE	2700, 3000, 3500, 4000, 5000, 5700, 6500 [K]
SDCM*	≤ 3
SUPPLY VOLTAGE	230 VAC 50Hz
SIZE	600x600, 1200x600, 300x600, 1200x300 [mm]**
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#### CATALOG NUMBER

03.203.31 ...

03.203.32 ...

03.203.35 ...



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# \_SOLUTIONS

## FOR EACH HOSPITAL AREA

GENERAL COMMUNICATION

GASTRONOMY

POM. OGÓLNODOSTĘPNE

TECHNICAL ROOMS

HOSPITAL SERVICE DEPARTMENTS

OPERATING THEATRE

VASCULAR LABORATORY

CARDIOSURGICAL INTENSIVE CARE

NUCLEAR MEDICINE DEPARTMENT

INVASIVE CARDIOLOGY

NUCLEAR MEDICINE FACILITY



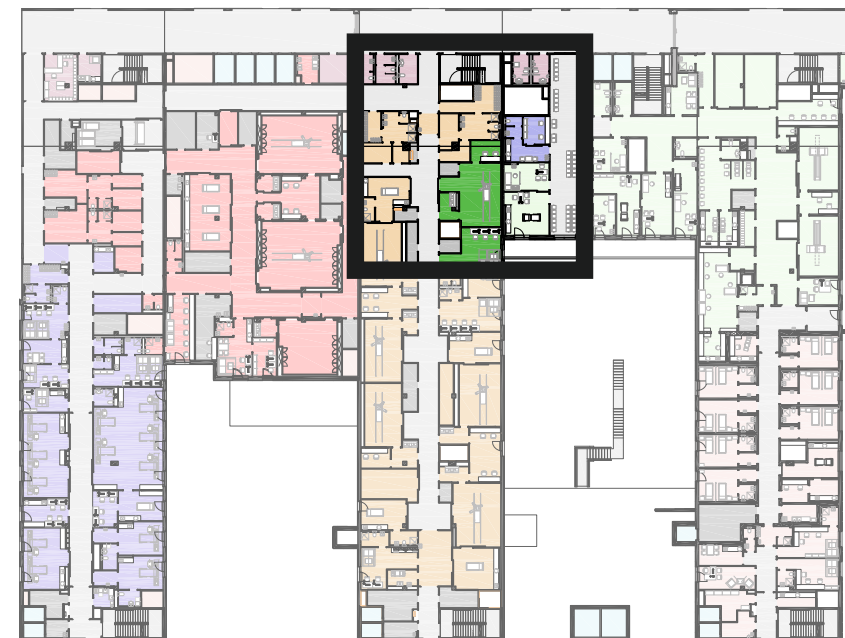
MEDICAL SERIES



OTHER

### HOSPITAL

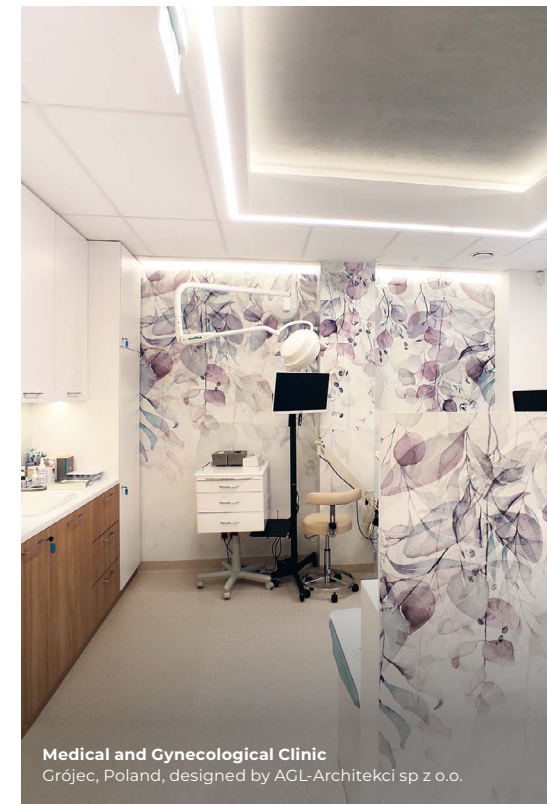
Lighting tailored to suit every room type.



### ODDZIAŁY

- General communication
- Technical rooms
- Hospital service departments
- Gastronomy
- Common areas
- Shafts
- Elevators
- Operating theatre
- Vascular laboratory
- Cardiosurgical intensive care
- Nuclear medicine department
- Invasive cardiology
- Nuclear medicine facility
- Planned admissions

Laboratory for Magnetic Resonance  
Quadra at St. Hospital Anny  
Piaseczno, Poland, designed by AGL-Architekci sp z o.o.



Medical and Gynecological Clinic  
Grójec, Poland, designed by AGL-Architekci sp z o.o.



Medical and Gynecological Clinic  
Grójec, Poland, designed by AGL-Architekci sp z o.o.



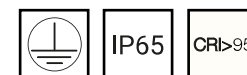
# EXPLORE THE FULL RANGE OF MEDICAL SERIES PRODUCTS

**Our offering includes a wide variety of lighting solutions tailored to meet the needs of different areas within the hospital, from the entrance to the exit. Please visit our website for more detailed information.**

The significance of decor and lighting is frequently overlooked. Many medical facilities fail to recognize that disregarding this element results in an unwelcoming atmosphere. Adequate lighting enhances health, staff efficiency, and patient treatment, leading to reduced healthcare expenses. It is also crucial for spatial orientation and optimizing operations in areas like reception, hallways, and surgical suites.

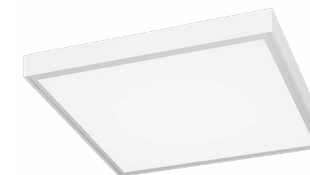


[spectra-lighting.pl/en/purpose/medical](https://spectra-lighting.pl/en/purpose/medical)



## MEDIC

Crafted with the utmost medical standards in consideration, this product features cutting-edge technology and superior light quality crucial for environments demanding accurate and dependable illumination.



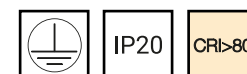
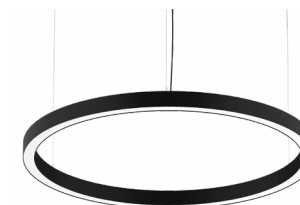
## MIKA

Provides adequate light intensity essential in medical settings. Ideal for spaces necessitating high-quality illumination, aiding staff work and patient well-being.



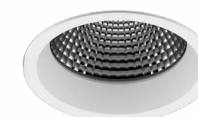
## AVALANGE

Intense and uniform illumination suitable for spaces that demand bright and vivid lighting, ideal for locations where visibility and precision are essential.



## ARC

It merges design with high light efficiency, making it suitable for both medical and public spaces, enhancing the overall aesthetic.



## CONTI

Reliable and versatile, ideal for technical rooms and public spaces, providing efficient and energy-efficient lighting.



## TALIS

A compact luminaire with versatile possibilities. Its high-quality light makes it suitable for use in public spaces and technical areas alike.

## COLOR PALETTE

We have our own powder coating facility in the company's production plant. If you dream of a non-standard housing color – we will make it for you.\*

BLACK	RED COPPER	CHROME	TERRA GLOW
ANTHRACITE	METALLIC GOLD MAT	TRANSP. ALU	OLIVE WHISPER
GRAY			CAPRI BLUE
WHITE	DESERT STORM		SANDSTONE GLOW
MATT WHITE	ROMAN GOLD		ASHEN CREAM
WARM WHITE	CROWN GOLD		
MAIN (RAL)			INDIVIDUAL
			CREATIVE

\*On request, you can choose any RAL color or use an individual Spectra palette



# NOTES

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## \_MEDIC

scan the code to view  
the luminaire family  
on the website.



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