

CATALOGUE

2021
2022

NORMAL CARE
OT/ICU RESUSCITATION
BIOMEDICAL EQUIPMENT





TLV worldwide

Through its strong presence on 5 continents, TRATO-TLV group has become the European leader in lighting and hospital equipment. The company built its success on the response tailored to the needs of its customers and its adaptation to international norms and standards. The group currently generates 30% of its revenue internationally in over 55 countries.

For more information on TRATO TLV group: www.trato-tlv.com

Who are we?

TLV is a French designer and manufacturer of lighting units and equipment for hospitals.

The company sales all over the world products for:

- Normal care rooms
- OT/ICU Resuscitation

With 250 employees (TRATO-TLV group) and a modern production facility, TLV is a leading international supplier to private and public healthcare institutions.

Design and Innovation

TLV has been building lighting and hospital equipment solutions providing quality, comfort, safety, and good value to healthcare professionals all over the world for more than 70 years.

Today, TLV offers the most complete range on the market, using the most advanced technologies. Many of its models are equipped with LEDs, contributing to sustainable development through their long working life and high light output.

TLV's R&D department lies at the heart of its operations. It uses the finest and most efficient materials to build ergonomic, high-performance hospital equipment and lighting units.

TLV has a dedicated styling unit within its design office, enabling it to develop devices with added aesthetic and ergonomic value.

Quality

TLV is involved in a continual improvement process via its quality management system. This is based mainly on the following standards:

- ISO 9001: Quality management systems – requirements
- ISO 13485: Quality management system requirements for medical devices.
- Directive 93/42/EEC about medical devices
- Regulation 2017/745/UE about medical devices

■ BED HEAD UNITS (P.10 - P.61)

• FLUIDYS - P.14



• AXIS - P.22



• MEDISSIMA - P.30



• HI-BEAM - P.36



• MEDIVA - P.42



• LYSA - P.48



• COCOON - P.54







NORMAL CARE RANGE

Bed head units
Vertical bed head units associated with wall lighting unit
Architectural concepts
Non-medicalized wall lighting units
Wall lighting units
Extra lighting





BED HEAD UNITS

FLUIDYS	p.14
AXIS	p.22
MEDISSIMA	p.30
HI-BEAM	p.36
MEDIVA	p.42
LYSA	p.48
COCOON	p.54

Continuous lighting The FLUIDYS offers the possibility of a continuous direct light, adding an aesthetic appreciation.

Design and ergonomics The bed head unit can integrate an optional 300 mm long (minimum length) medical accessory mounting rail. This rail can be positioned at the top or bottom of the bed head unit.

Medical gas casing These easy-clean medical gas casings provide protection. They are securely fastened to the cover, for easy installation and maintenance.

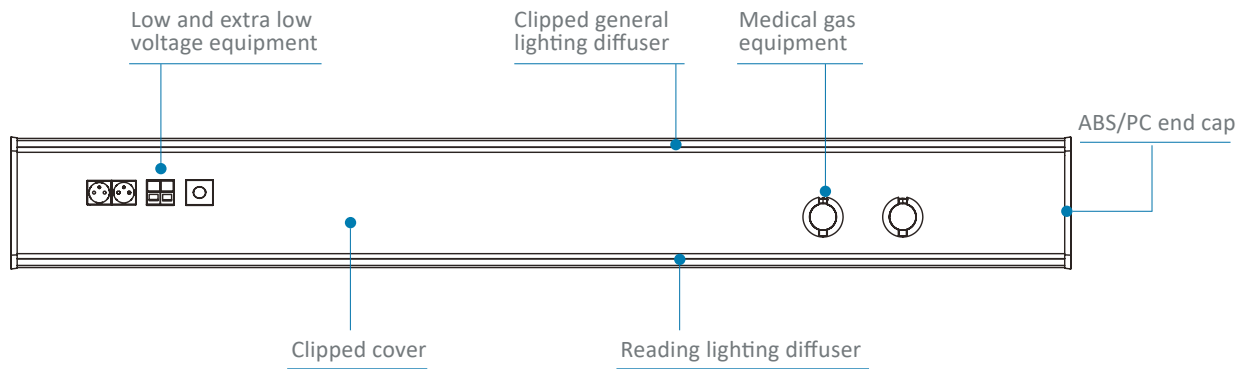




FLUIDYS

TECHNICAL FEATURES

Front view

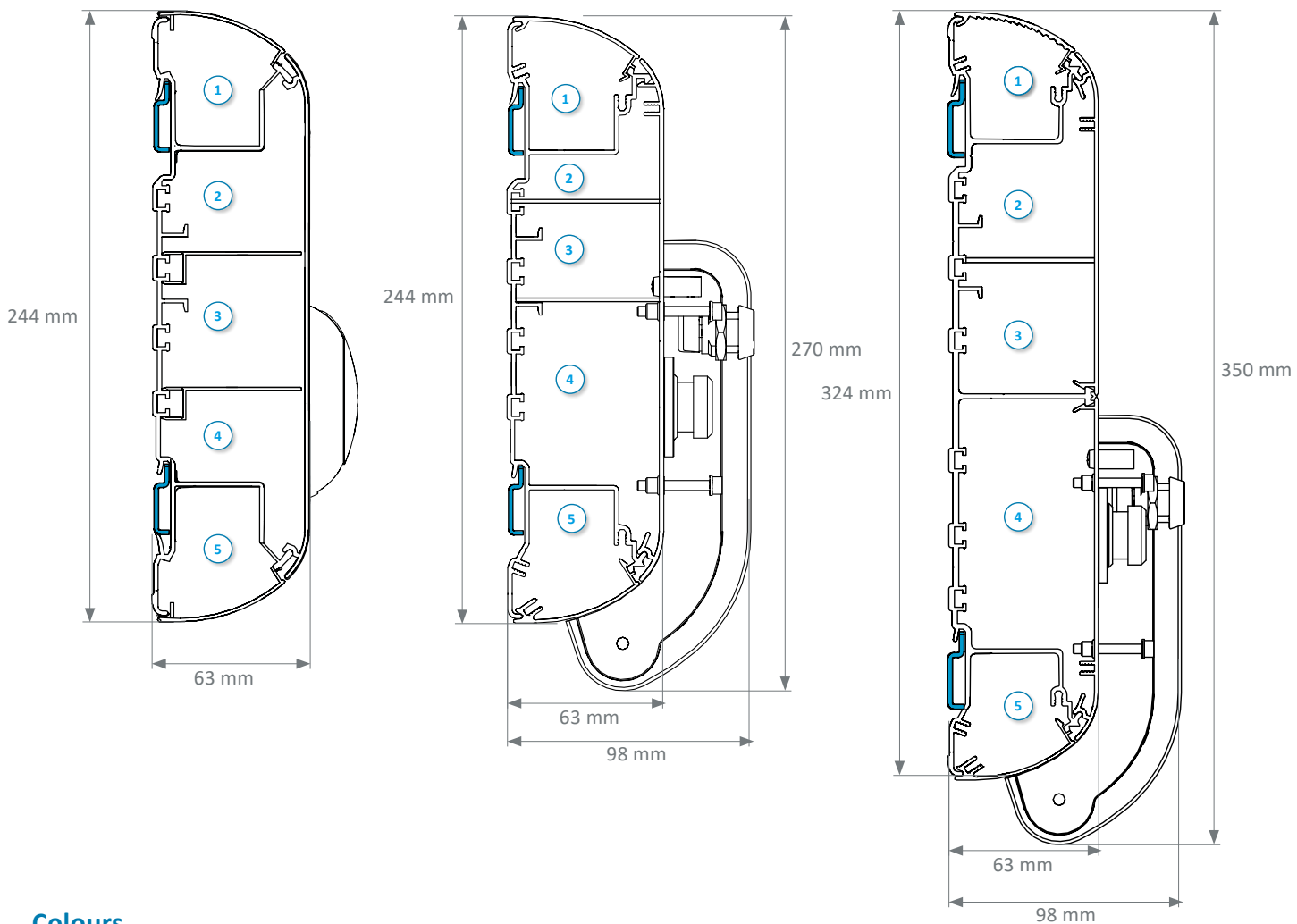


Cross-section

Fluidys

Mono Secured Fluidys

Duo Secured Fluidys



Colours

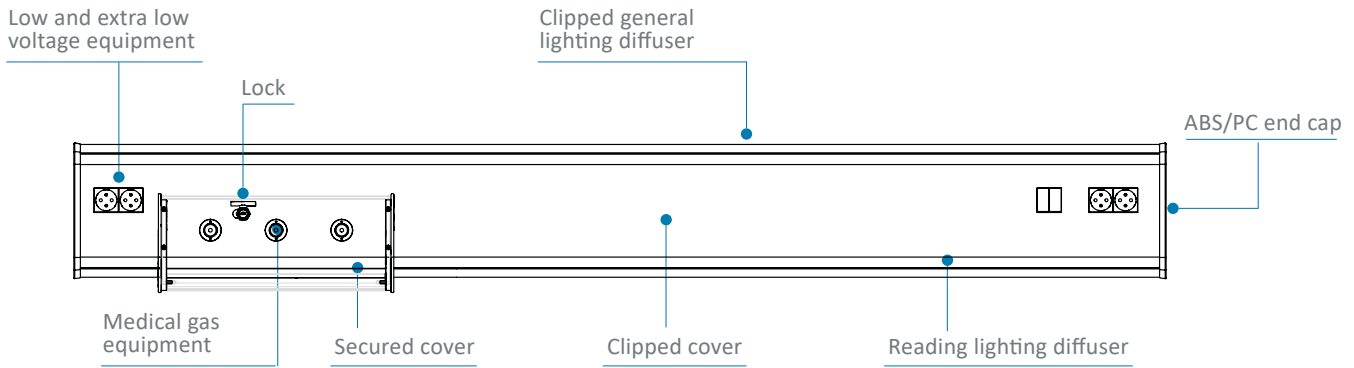
	White RAL 9016	Grey RAL 7040	Grey RAL 9006
Aluminum profile	●		●
Medical gas casing	●	●	
End caps	●	●	

- ① General and night light compartment
- ② Extra low voltage compartment
- ③ Low voltage compartment
- ④ Medical gas compartment
- ⑤ Reading lighting compartment

SECURED FLUIDYS

The Fluidys bed head unit has a specific cover secured by key for medical gas. Made of PMMA (Polymethyl methacrylate), the transparent cover is resistant and can be adapted to environments which require a maximum security. It has a high impact resistance rating IK 07.

Front view

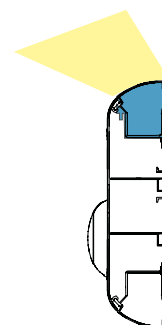


TECHNICAL FEATURES

Its optical design allows perfect control of the lighting, favouring the well-being of care teams and patients.

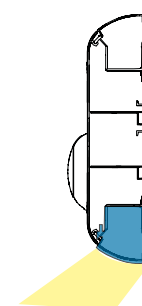
General lighting

- Extruded polycarbonate diffuser
- MIRO 20 SILVER® aluminum reflector



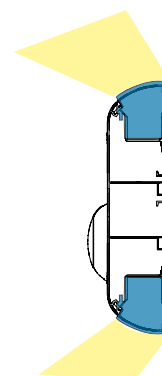
Reading lighting

- Extruded polycarbonate diffuser
- MIRO 20 SILVER® aluminum reflector



Caring lighting

Caring lighting is a combination of direct (reading) lighting with indirect (general) lighting.



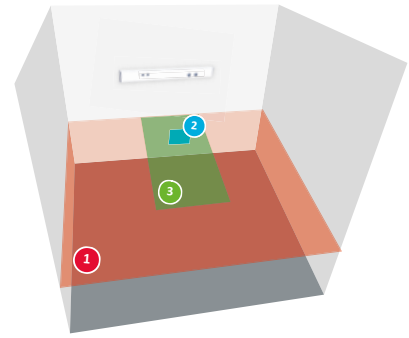
Lighting power

Lighting	Modules power	Types of sources	Color temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	35,9 W (4 Ft)	LED	3000 K 4000 K	5965 lm	42,2 W	141,4 lm/W	Fixed / DALI
	44,3 W (5 Ft)	LED	3000 K 4000 K	7390 lm	51,1 W	143,6 lm/W	Fixed / DALI
General lighting (Dynamic lighting)	47,2 W (4 Ft)	LED	2700 K to 6500 K	6200 lm	54 W	114,8 lm/W	DALI
Reading lighting	12,5 W (2Ft)	LED	3000 K 4000 K	2173 lm	15,9 W	136,6 lm/W	Fixed / DALI
Night light	1 x 3,1 W	LED	3000 K	335 lm	4,9 W	68,1 lm/W	Fixed

EFFICIENT LIGHTING

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



	General lighting Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).	Reading lighting Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the unit is located.	Caring lighting Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.
LED	4 Ft module 	2 Ft module 	General and reading lighting combined
Consumption	42,2 W	15,9 W	58,1 W
Average lighting	143 lx	322 lx	535 lx

Dynamic Lighting



The FLUIDYS bed head unit is available with dynamic lighting.
 For more information please see page 304.



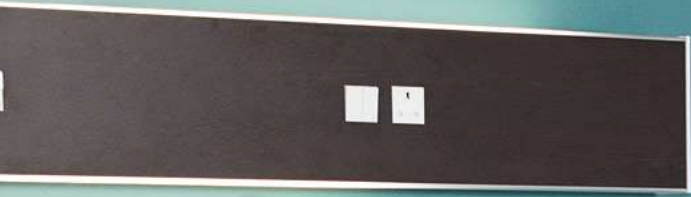


Continuous lighting The AXIS bed head unit offers the possibility of a continuous direct light, adding an aesthetic appreciation.

Design and ergonomics The bed head unit can integrate an optional vertical stainless steel tube support and a shelf which would be positioned at the bottom of the bed head unit.

Personnalisation The cover of the AXIS bed head unit is fully customizable in the color of your choice: plain wood or decorative film. It fits easily with the decoration of the room.

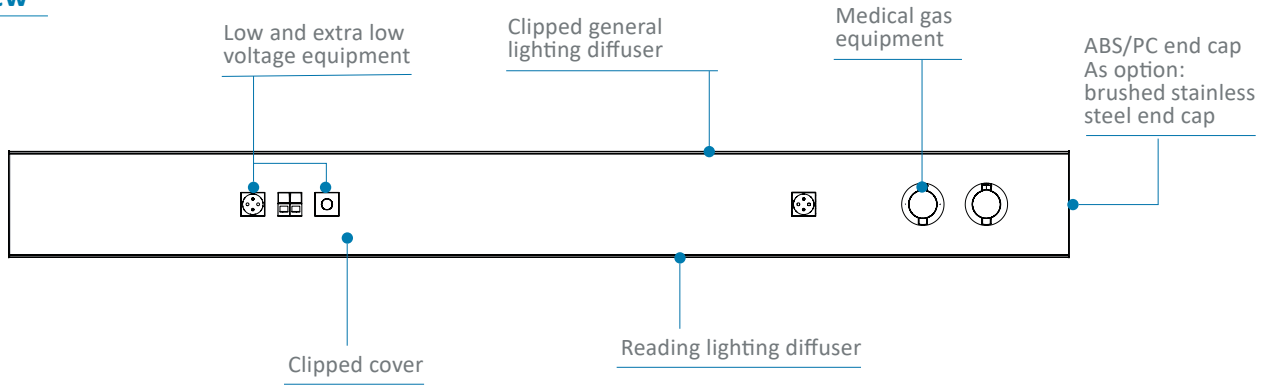




AXIS

TECHNICAL FEATURES

Front view



Cross-section



Colours

	White RAL 9016	Grey RAL 7040	Grey RAL 9006	Plain colours or wood finishes	Brushed stainless steel
Aluminum profile	●		●		
Medical gas casing	●	●			
End caps	●	●			●
Laminate stick on the cover	SEE PAGE 302				

OPTIONAL ACCESSORIES

TLV has developed a range of optional equipment for the AXIS bed head unit to meet the needs of healthcare staff.



Brushed stainless steel end cap

The ABS/PC end caps can be replaced by brushed stainless steel end caps to provide cohesion with all the biomedical accessories.



Stainless steel vertical tube support for accessories

Stainless steel tube $\varnothing 30$ mm: max load 25 kg.
Dimensions: (HxW) 1180 mm x 150 mm.



Stainless steel tablet support for accessories

Brushed stainless steel tablet support for accessories
: maximum load 5 kg.
Dimensions (HxWxD) 331 mm x 207 mm x 200 mm.

FEW OTHER CONFIGURATIONS:
COMBINATION OF ONE OR MORE WOOD PANELS AND / OR ACRYLIC PANELS
WITH AN AXIS BED HEAD UNIT



Acrylic panel with inclusion of broken glass (or other decorations)

AXIS bed head unit



AXIS bed head unit

Acrylic panel with inclusion of broken glass (or other decorations)

Matching wood panel with the tint of the laminate cover of the bed head unit



Acrylic panel with inclusion of broken glass (or other decorations)

FLEX-E LED reading spotlamp

AXIS bed head unit

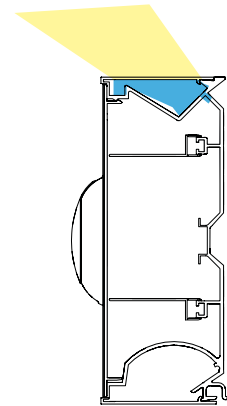
Matching wood panel with the tint of the laminate cover of the bed head unit

CONTROLLED LIGHTING

The AXIS optics have been studied to enable a perfect control of lighting. The aim is to contribute to improve the well being of the healthcare teams and the patient.

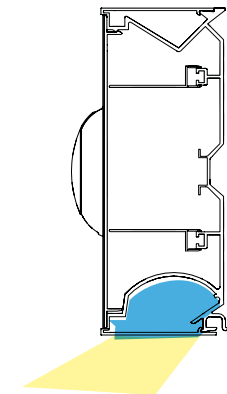
General lighting

- Diffuser made of satin co-extruded polycarbonate



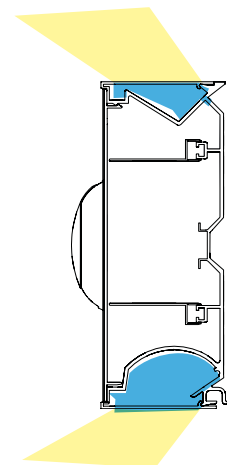
Reading lighting

- Diffuser made of satin co-extruded polycarbonate



Caring lighting

Caring lighting combines direct (reading) lighting with indirect (general) lighting.



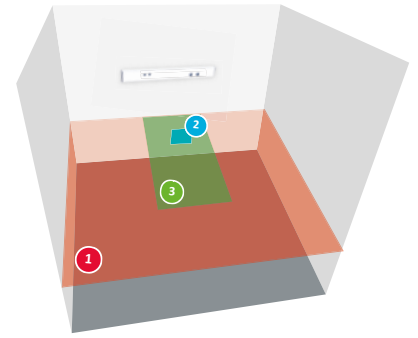
Lighting power

Lighting	Modules power	Types of sources	Color temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	35,9 W (4 Ft)	LED	3000 K 4000 K	5965 lm	42,2 W	141,4 lm/W	Fixed / DALI
	44,3 W (5 Ft)	LED	3000 K 4000 K	7390 lm	51,5 W	143,6 lm/W	Fixed / DALI
General lighting (Dynamic lighting)	47,2 W (4 Ft)	LED	2700 K to 6500 K	6200 lm	54 W	114,8 lm/W	DALI
Reading lighting	17,7 W (2Ft)	LED	3000 K 4000 K	2945 lm	21,5 W	136,9 lm/W	Fixed / DALI
Night light	1 x 3,1 W	LED	3000 K	335 lm	4,9 W	68,1 lm/W	Fixed

EFFICIENT LIGHTING

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



	General lighting Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).	Reading lighting Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the unit is located.	Caring lighting Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.
LED	4 Ft module 	2 Ft module 	General and reading lighting combined
Consumption	42,2 W	21,5 W	63,7 W
Average lighting	131 lx	301 lx	410 lx

Dynamic Lighting

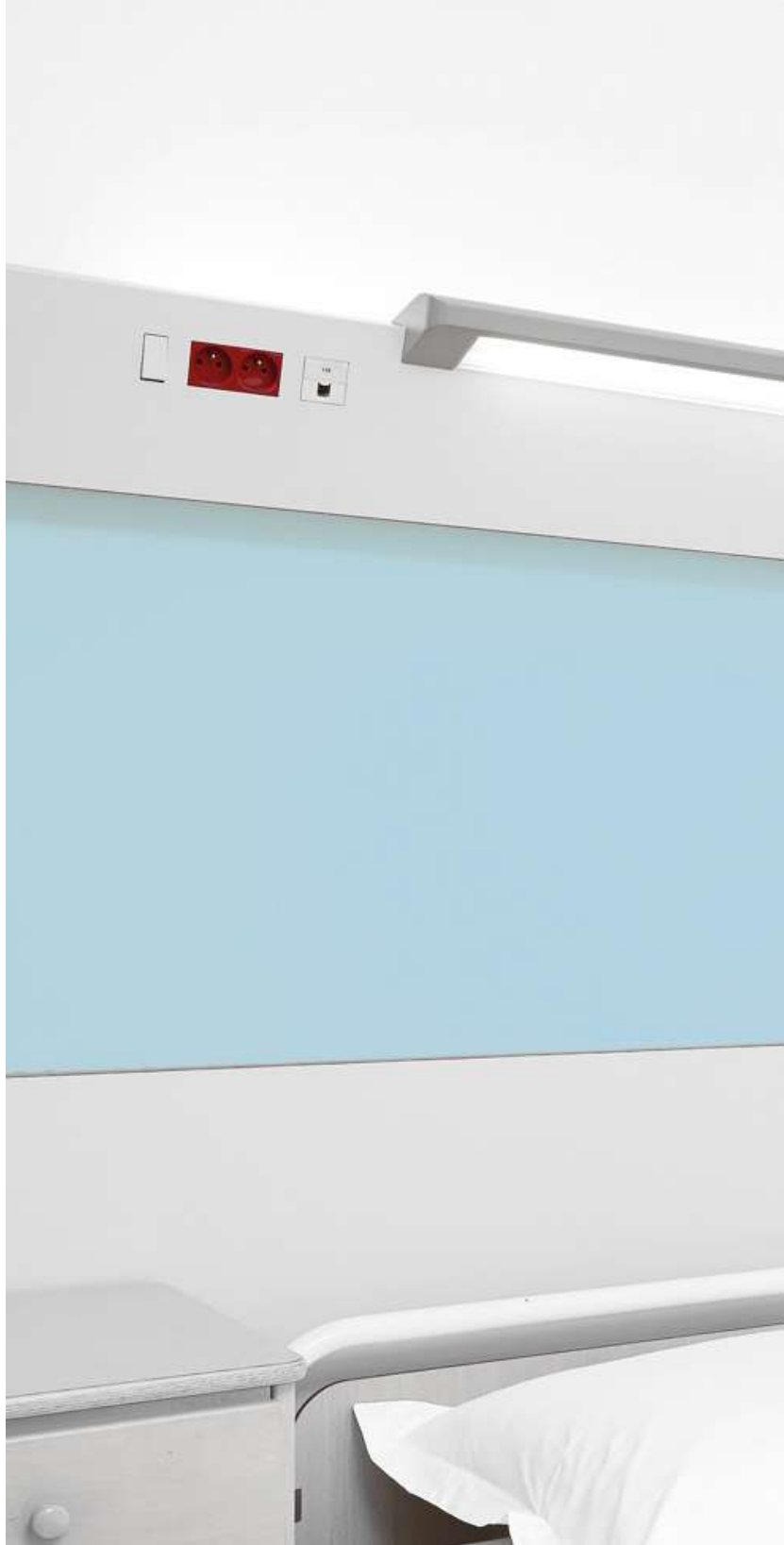


The AXIS wall lighting unit is available with dynamic lighting.
 For more information, please see page 304.



Design & Ergonomics MEDISSIMA's equipment and accessories are within easy reach for users. Its smooth surfaces facilitate cleaning and disinfection.

Medical gas casing The innovative design of the medical gas casing and its integration to the front, ease the installation and maintenance. Retractable flap has been designed in the respect of MEDISSIMA's aesthetics.

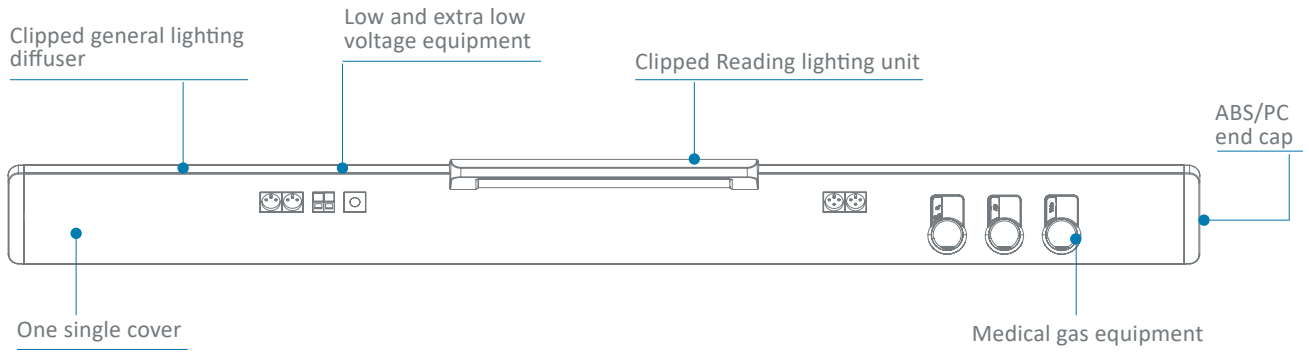




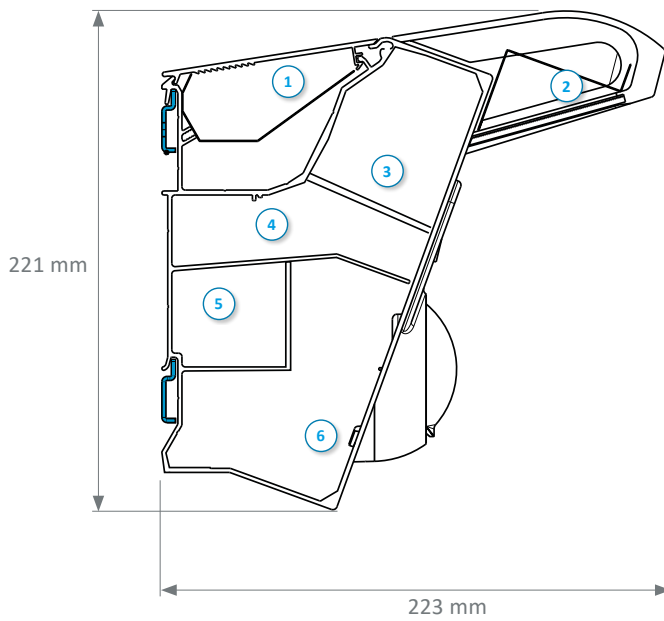
MEDISSIMA

TECHNICAL FEATURES

Front view



Cross-section



- ① Night orientation and general lighting compartment
- ② Reading lighting unit
- ③ Electrical equipment
- ④ Low voltage compartment
- ⑤ Extra low voltage compartment
- ⑥ Medical gas compartment

Colours

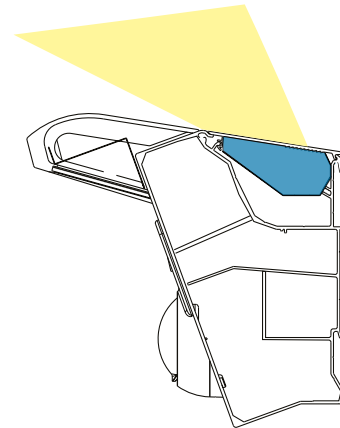
	White RAL 9016	Grey RAL 7035	Grey RAL 7040
Aluminum profile	●	●	
Medical gas casing	●		●
End caps	●		●
Lighting unit			●

CONTROLLED LIGHTING

Its optical design allows perfect control of the lighting, favouring the well-being of care teams and patients.

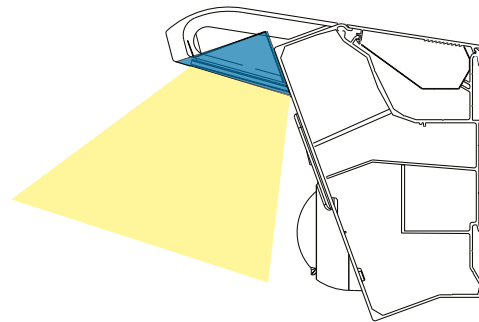
General lighting

- Extruded PMMA* diffuser with asymmetric grooves
- MIRO 20 SILVER® aluminum reflector



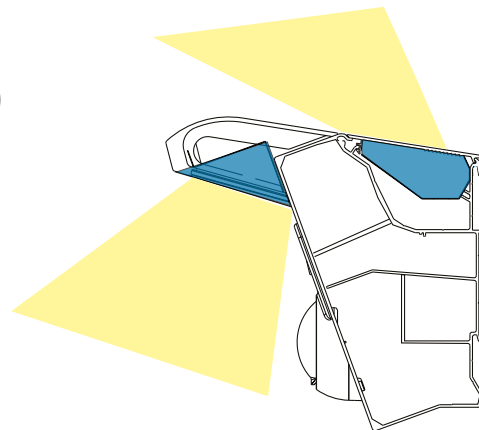
Reading lighting

- Pressed PMMA* micro-prismatic diffuser
- MIRO 20 SILVER® aluminum reflector



Caring lighting

Caring lighting combines direct (reading) lighting with indirect (general) lighting.



Lighting power

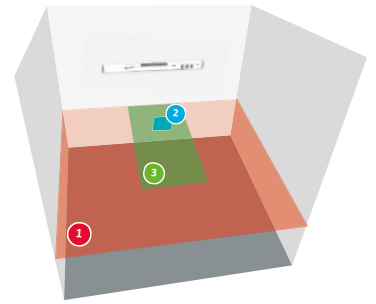
Lighting	Modules power	Types of sources	Color temperature	Luminous flux	Consumption	System Efficiency	Driver(s)
General lighting	35,9 W (4 Ft)	LED	3000 K 4000 K	5965 lm	42,2 W	141,4 lm/W	Fixed / DALI
	44,3 W (5 Ft)	LED	3000 K 4000 K	7390 lm	51,5 W	143,6 lm/W	Fixed / DALI
Reading lighting	12,5 W (2 Ft)	LED	3000 K 4000 K	2173 lm	15,9 W	136,6 lm/W	Fixed / DALI
Night light	1 x 3,1 W	LED	3000 K	335 lm	4,9 W	68,1 lm/W	Fixed

*Polymethyl Metacrylate

EFFICIENT LIGHTING

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



General lighting

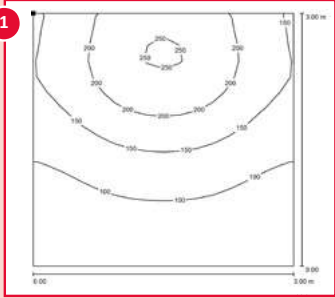
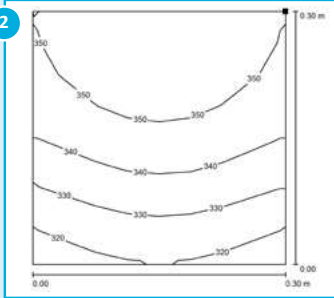
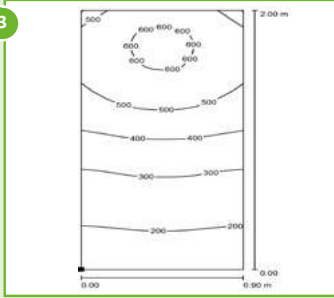
Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).

Reading lighting

Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the unit is located.

Caring lighting

Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.

LED	4 ft module 	2 ft module 	General and reading lighting combined 
Consumption	42,2 W	15,9 W	58,1 W
Average lighting	140 lx	326 lx	394 lx



Design and Ergonomics The HI-BEAM bed head unit features an innovative aesthetic design. Its curved shape is unique in the market.

LED LED sources of HI-BEAM bed head unit provide excellent energy performance.

Medical gas casing Gas casing are available with or without cap. They are perfectly integrated into the design of the bed head unit, with easy access for the care team.



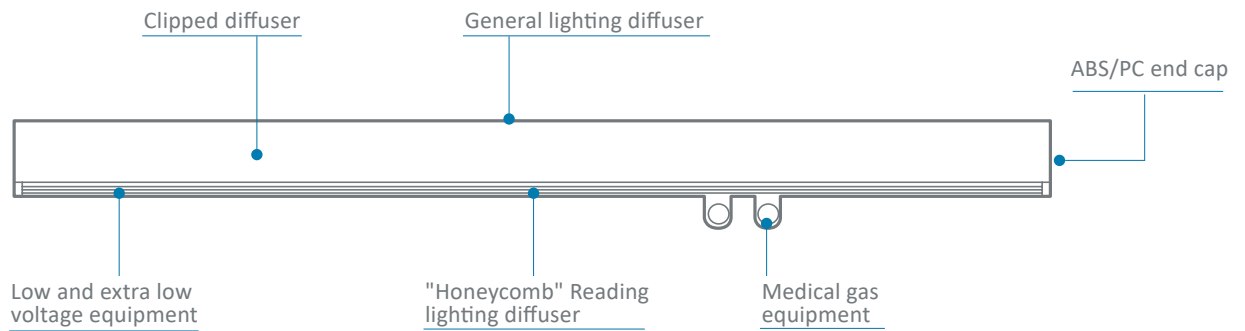


HI-BEAM

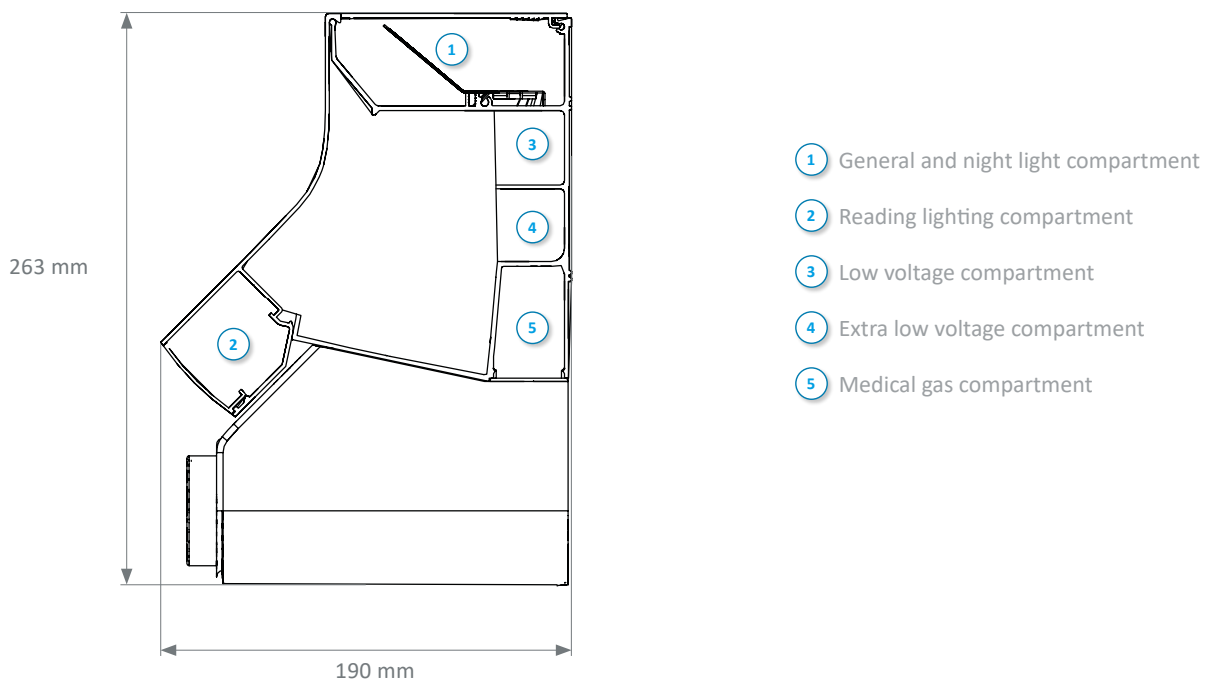
TECHNICAL FEATURES

The HI-BEAM is a customizable product offering an innovative, ultra-modern design. With its unique shape, it blends perfectly into normal care rooms.

Front view



Cross-section



Colours

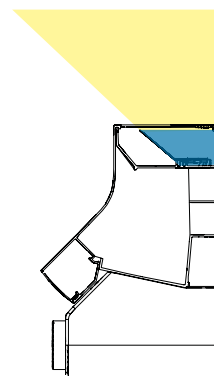
	White RAL 9016	Grey RAL 7035	Grey RAL 7004	Grey RAL 9006	Black RAL 7022	Bronze
Aluminum profile	●			●		●
Medical gas casing	●		●		●	
Caps	●		●			
End caps	●	●			●	

CONTROLLED LIGHTING

The HI-BEAM bed head unit incorporates anti-glare reading lighting with honeycomb diffuser. The quality of the light promotes the comfort and well-being of patients and healthcare professionals.

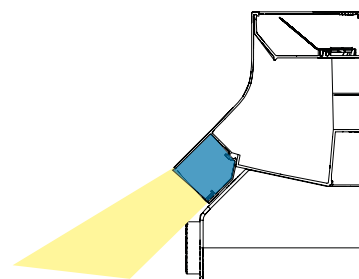
General lighting

- Extruded clear anti-UV treated polycarbonate diffuser with asymmetric grooves
- MIRO 20 SILVER® aluminum reflector



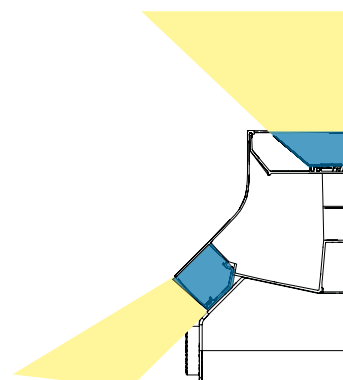
Reading lighting

- Extruded opal anti-UV treated polycarbonate diffuser with asymmetric grooves
- MIRO 20 SILVER® aluminum reflector



Caring lighting

Caring lighting combines direct (reading) lighting with indirect (general) lighting.



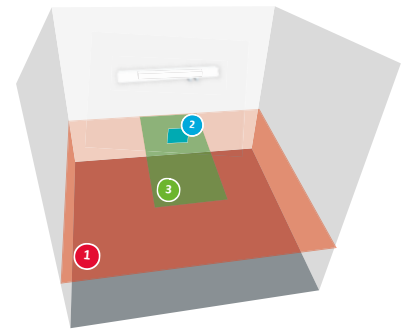
Lighting power

Lighting	Modules power	Types of sources	Color temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	35,9 W (4 Ft)	LED	3000 K 4000 K	5965 lm	42,2 W	141,4 lm/W	Fixed / DALI
General lighting (Dynamic lighting)	47,2 W (4 Ft)	LED	2700 K to 6500 K	6200 lm	54 W	114,8 lm/W	DALI
Reading lighting	16,1 W (2 Ft)	LED	3000 K 4000 K	2716 lm	19,8 W	137,3 lm/W	Fixed / DALI
Night light	1 x 3,1 W	LED	3000 K	335 lm	4,9 W	68,1 lm/W	Fixed

EFFICIENT LIGHTING

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



General lighting

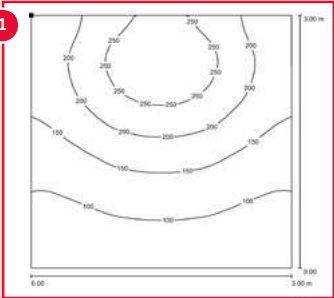
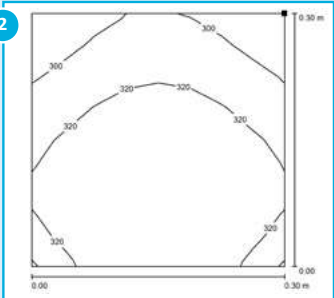
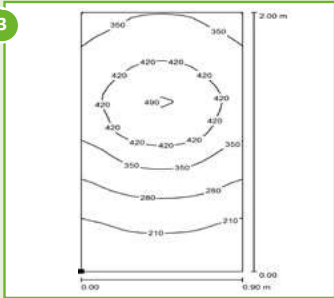
Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).

Reading lighting

Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the unit is located.

Caring lighting

Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.

LED	4 ft module	2 ft module	General and reading lighting combined
			
Consumption	42,2 W	19,8 W	62 W
Average lighting	162 lx	320 lx	334 lx

Dynamic Lighting



The HI-BEAM bed head unit is available with dynamic lighting.
For more information please see page 304.



Easy maintenance MEDIVA's separate compartment for medical gas provides quick and easy access for installation and maintenance. The bed head unit can be installed quickly in just three steps, saving time and manpower.

Design & Ergonomics MEDIVA's electrical devices are ideally positioned, with easy access for patients and care staff. The bed head unit has smooth surfaces, making it easy to clean.

Personalisation Gas casing are available in seven colours, to match with the decor of normal care rooms.

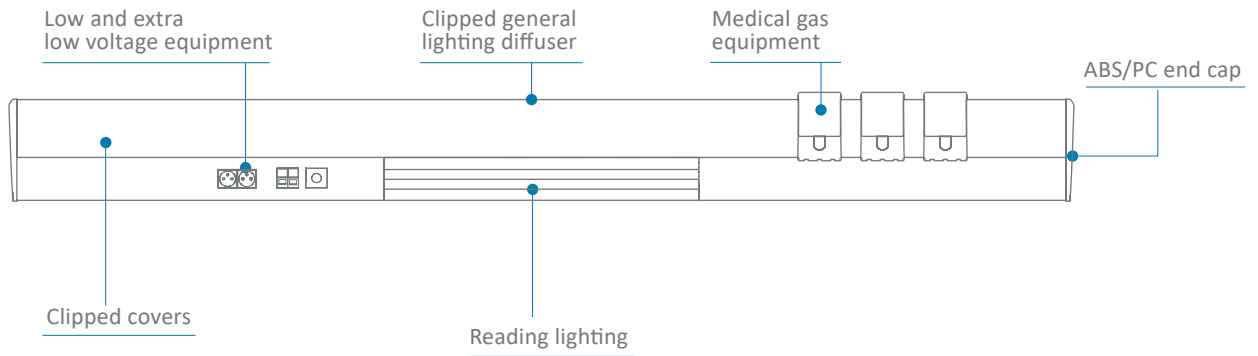




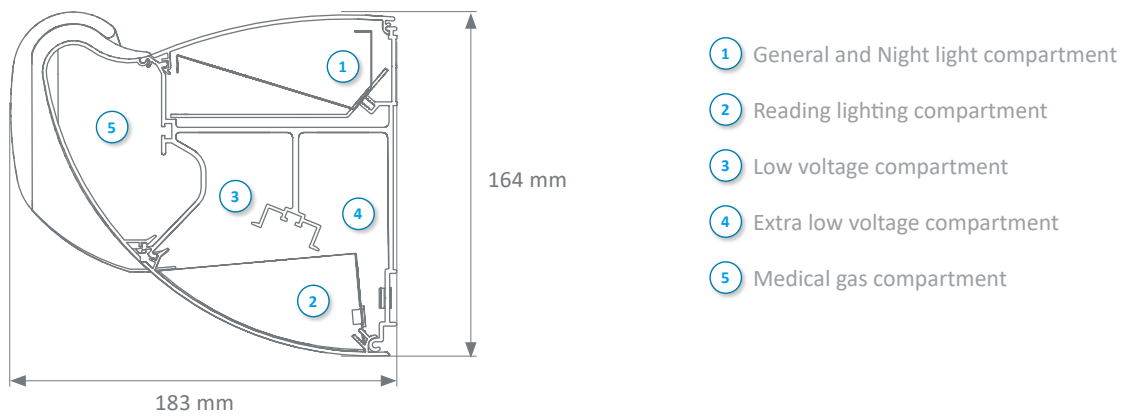
MEDIVA

TECHNICAL FEATURES

Front view



Cross-section



Colours

	WHITE RAL 9016	GREY RAL 9006	GREY RAL 7040	ORANGE RAL 2003	BLUE RAL DESIGN 260 80 15	PLUM RAL DESIGN 330 30 35	PINK RAL DESIGN 010 80 20	GREEN RAL DESIGN 110 70 77
Aluminum profile	●	●						
End caps	●	●						
Gas casing	●		●	●	●	●	●	●

Seven gas casing, to match the MEDIVA with the decor of your normal care rooms.

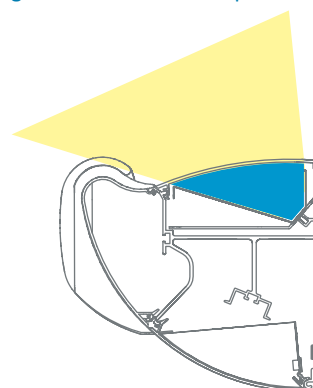


CONTROLLED LIGHTING

The optics of the MEDIVA allow optimum control of the lighting, favouring the well-being of care teams and patients.

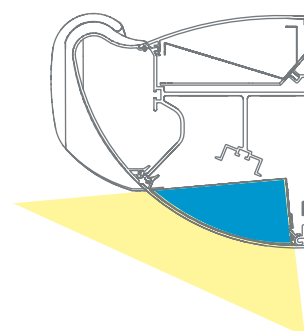
General lighting

- Clear polycarbonate diffuser opal with anti-UV treatment
- MIRO 20 SILVER® aluminium reflector



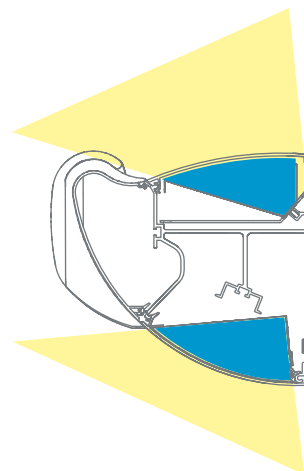
Reading lighting

- Opal polycarbonate diffuser with anti-UV treatment
- MIRO 20 SILVER® aluminium reflector



Caring lighting

Caring lighting combines direct (reading) lighting with indirect (general) lighting.



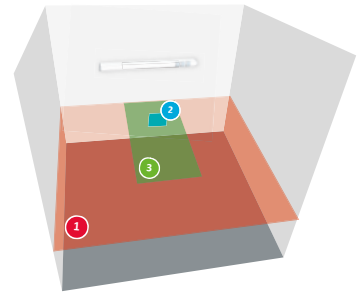
Lighting power

Lighting	Modules power	Types of sources	Color temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	35,9 W (4 Ft)	LED	3000 K 4000 K	5965 lm	42,2 W	141,4 lm/W	Fixed / DALI
	44,3 W (5 Ft)	LED	3000 K 4000 K	7390 lm	51,5 W	143,6 lm/W	Fixed / DALI
Reading lighting	9,8 W (2 Ft)	LED	3000 K 4000 K	1756 lm	11,8 W	149,2 lm/W	Fixed / DALI
Night light	1 x 3,1 W	LED	3000 K	335 lm	4,9 W	68,1 lm/W	Fixed

EFFICIENT LIGHTING

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



General lighting

Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).

Reading lighting

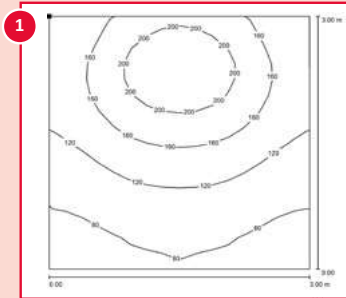
Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the unit is located.

Caring lighting

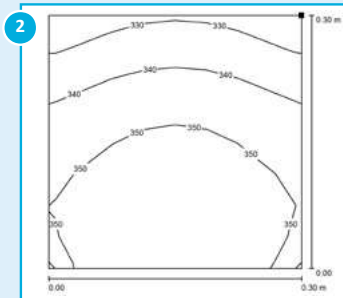
Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.

LED

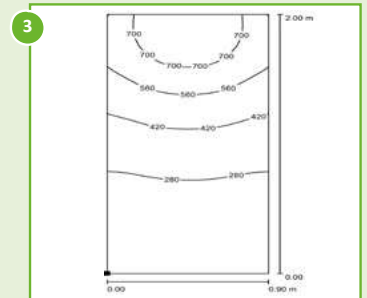
4 Ft module



2 Ft module



General and reading lighting combined



Consumption	42,2 W	11,8 W	54 W
Average lighting	133 lx	335 lx	423 lx



Design & Ergonomics The pure form and the thinness of LYSA wall lighting unit make it discreet in normal care room. Low and extra low voltage equipment, integrated to the duct, are within easy reach of the users.

Innovation Available in LED version, LYSA wall lighting unit has an efficient and comfortable optical system for patients and caregivers. Integration of dynamic lighting simulating a 24 hours light cycle, will be helpful for the patient well-being.





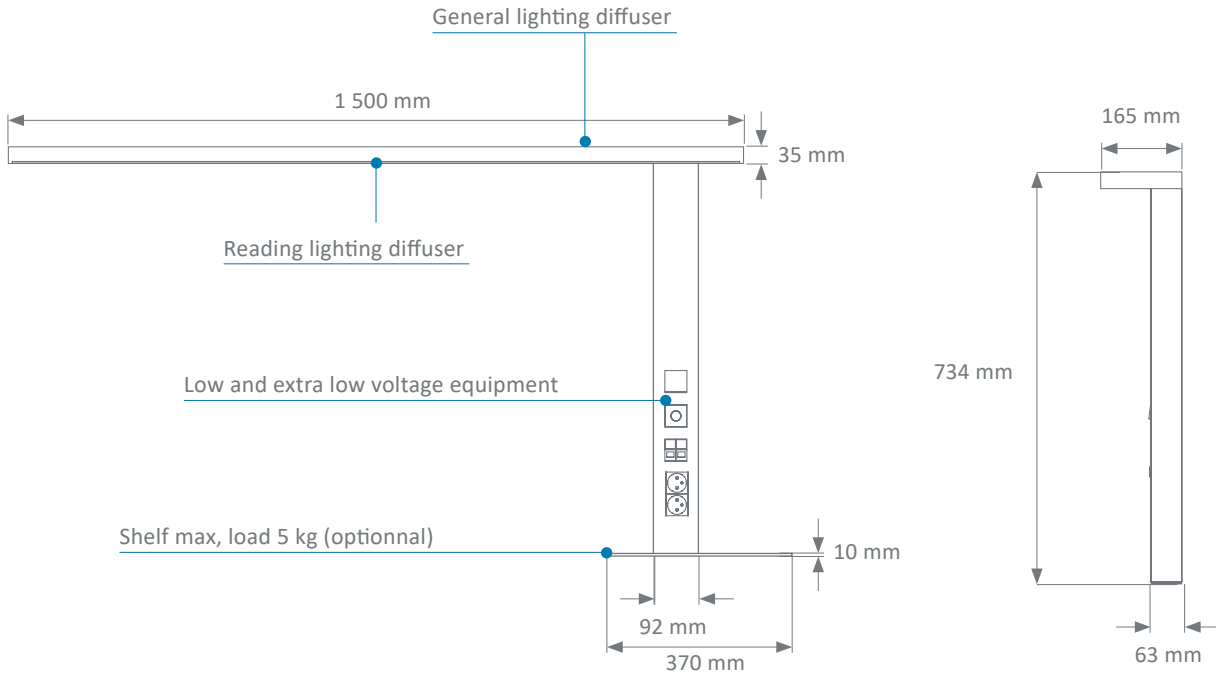
LYSA

TECHNICAL FEATURES

Front view

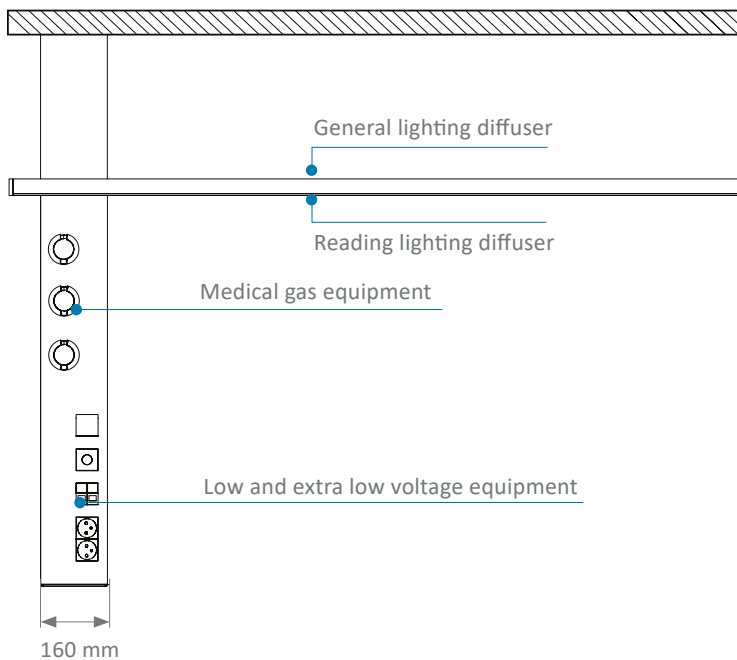
Side view

LYSA with electrical equipment

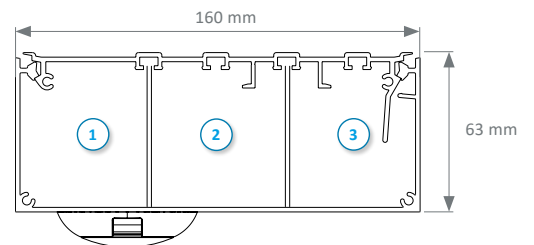


LYSA with electrical and medical gas equipment

Cross-section



- ① Medical gas compartment
- ② Low voltage compartment
- ③ Extra low voltage compartment



Colours

	Grey RAL 9006	Grey RAL 9007	White RAL 9016
LYSA	●	●	●

CONTROLLED LIGHTING

The LYSA bed head unit is ideal for rest homes, retirement homes, and nursing homes. The quality of the light promotes the comfort and well-being of patients and healthcare professionals.

General lighting

- Clear polycarbonate indirect diffuser
- MIRO 20 Silver® Aluminum reflector



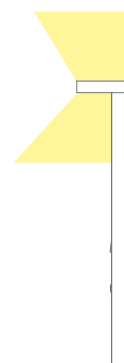
Reading lighting

- Satin-finish polycarbonate direct diffuser
- MIRO 20 Silver® Aluminum reflector



Caring lighting

Caring lighting combines direct (reading) lighting with indirect (general) lighting.

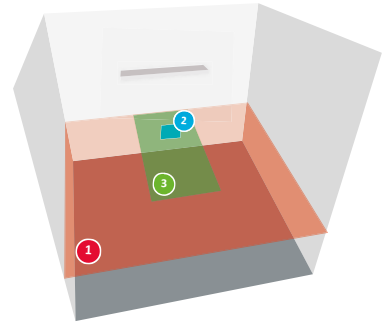


Lighting power

Lighting	Modules power	Types of sources	Color Temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	28,7 W (3 Ft)	LED	3000 K 4000 K	5039 lm (length 1050 mm)	33,2 W	151,9 lm/W	Fixed / DALI
	35,3 W (4 Ft)	LED	3000 K 4000 K	6255 lm (length 1300 mm and 1500 mm)	40,8 W	153,4 lm/W	Fixed / DALI
General lighting (Dynamic lighting)	38,9 W (3 Ft)	LED	2700 K to 6500 K	5000 lm	44,9 W	111,4 lm/W	DALI
	47,2 W (4 Ft)	LED	2700 K to 6500 K	6200 lm	54 W	114,8 lm/W	DALI
Reading lighting	8,9 W (2 Ft)	LED	3000 K 4000 K	1710 lm	10,8 W	158,8 lm/W	Fixed / DALI
Night light	3,1 W	LED	3000 K	335 lm	4,9 W	68,1 lm/W	Fixed

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



General lighting

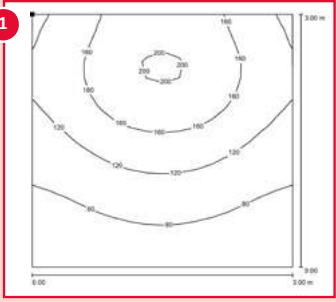
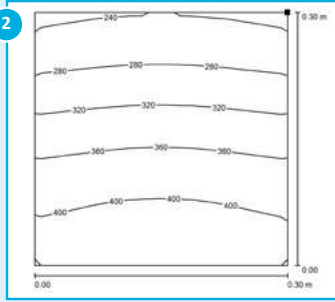
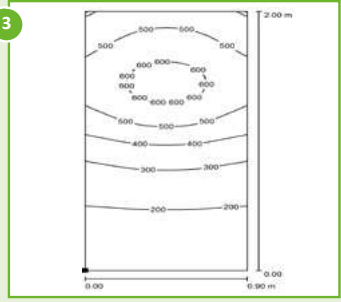
Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).

Reading lighting

Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the light fitting is mounted.

Caring lighting

Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.

LED	3 Ft module	2 Ft module	General and reading lighting combined
			
Consumption	33,2 W	10,8 W	44 W
Average lighting	125 lx	353 lx	397 lx

Dynamic Lighting



The LYSA vertical bed head unit is available with dynamic lighting.

For more information please see page 304.





LYSA with electrical and medical gas equipment



LYSA with electrical and medical gas equipment

Design & Ergonomics The configuration of the Cocoon set apart the patient space from the medical atmosphere. The bedside table integrated to the bed head unit is suspended for easy floor cleaning. One ergonomic drawer is included for easy access when patient is lying down.

Innovation Available in LED version, LYSA wall lighting unit has an efficient and comfortable optical system for patients and hospital staff. Integration, as option, of dynamic lighting simulating a 24 hours light cycle, will be helpful for the patient well-being.





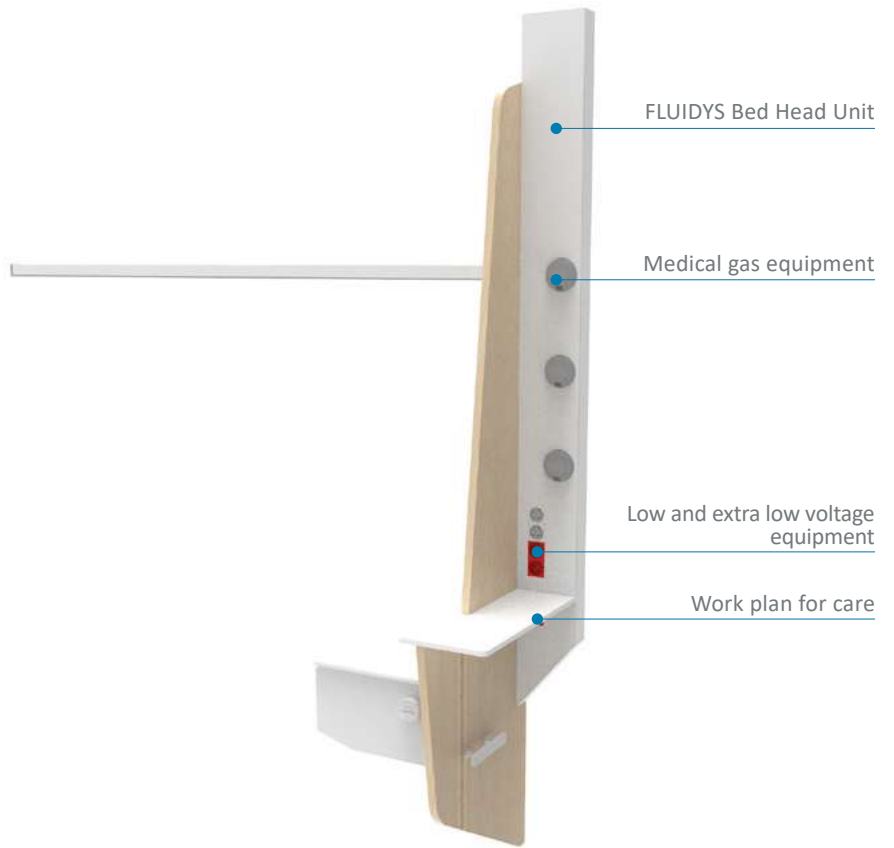
COCOON

STRENGTHS

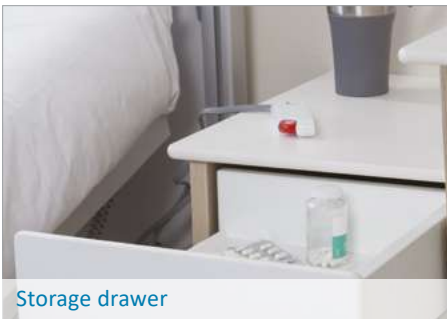
Nursing side



Accessory mounting rail (optional)



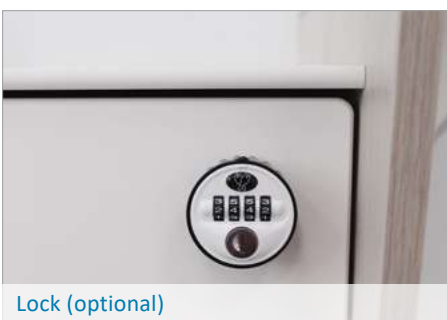
Patient side



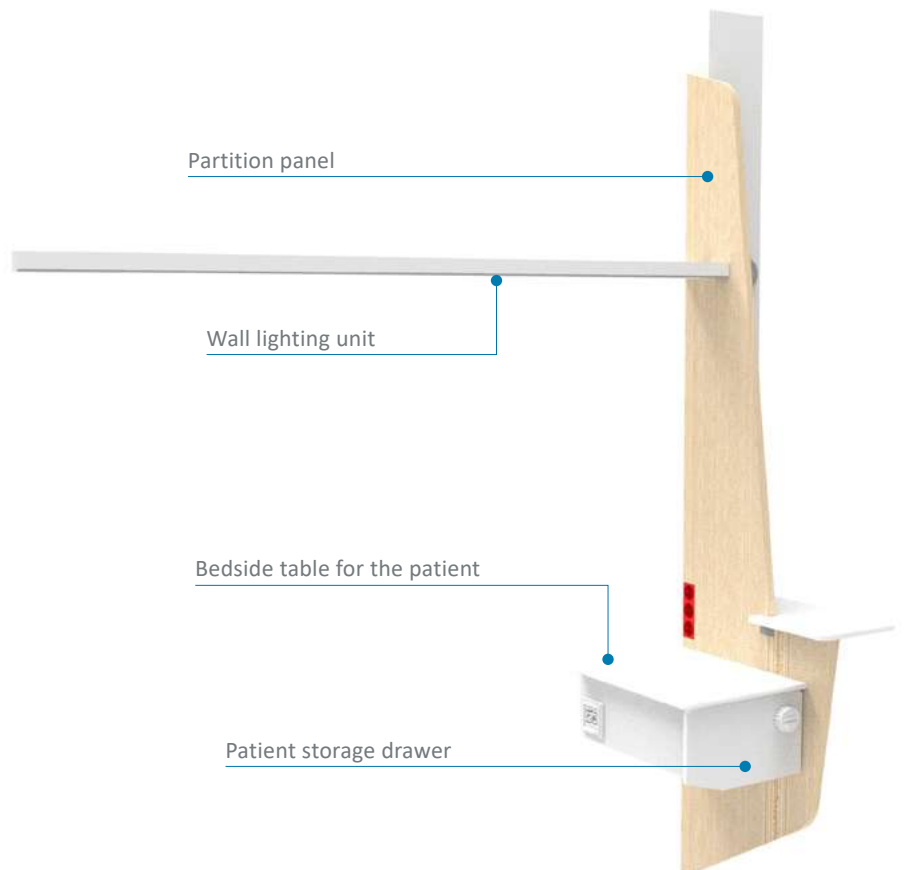
Storage drawer



Fridge (option)



Lock (optional)

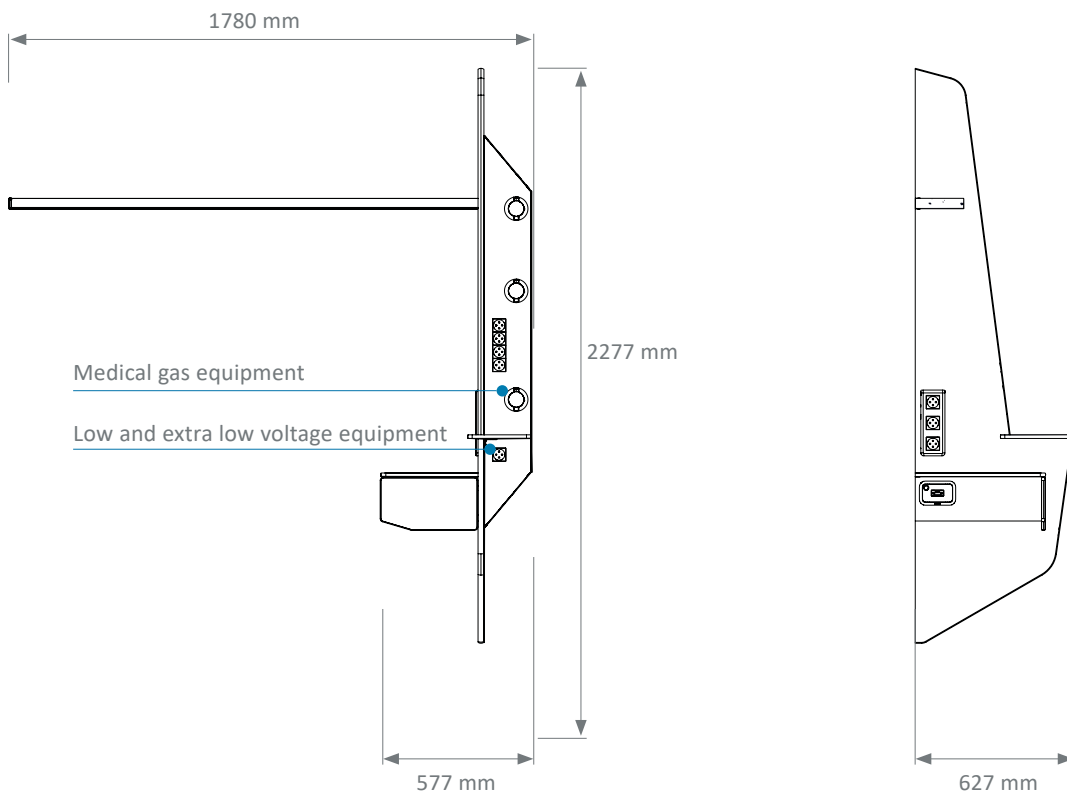


TECHNICAL FEATURES

Front view

Side view

COCOON with LYSA lighting unit



Colors

	GREY RAL 9006	GREY RAL 9007	WHITE RAL 9016
Wall lighting unit	●	●	●
Aluminium profile	●		●
Panel	SEE PAGE 302		

CONTROLLED LIGHTING

The COCOON concept is ideal for all type of health institution. The quality of the light promotes the comfort and well-being of patients and healthcare professionals.

General lighting

- Clear polycarbonate indirect diffuser
- MIRO 20 Silver® Aluminum reflector



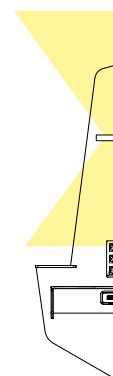
Reading lighting

- Satin-finish polycarbonate direct diffuser
- MIRO 20 Silver® Aluminum reflector



Caring lighting

Caring lighting combines direct (reading) lighting with indirect (general) lighting.



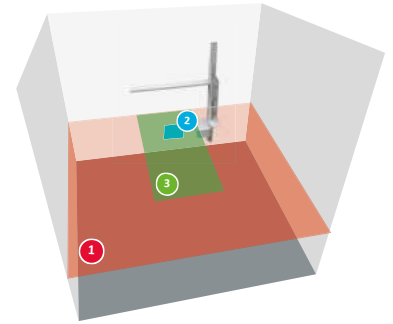
Lighting power

Lighting	Modules power	Types of sources	Color temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	28,7 W (3 Ft)	LED	3000 K 4000 K	5039 lm (length 1050 mm)	33,2 W	151,9 lm/W	Fixed / DALI
	35,3 W (4 Ft)	LED	3000 K 4000 K	6255 lm (length 1300 mm)	40,8 W	133,4 lm/W	Fixed / DALI
General lighting (Dynamic lighting)	38,9 W (3 Ft)	LED	2700 K to 6500 K	5000 lm	44,9 W	111,4 lm/W	DALI
	47,2 W (4 Ft)	LED	2700 K to 6500 K	6200 lm	54 W	114,8 lm/W	DALI
Reading lighting	8,9 W (2 Ft)	LED	3000 K 4000 K	1710 lm	10,8 W	158,8 lm/W	Fixed / DALI
Night light	3,1 W	LED	3000 K	335 lm	4,9 W	68,1 lm/W	Fixed

EFFICIENT LIGHTING

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



	General lighting Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).	Reading lighting Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the light fitting is mounted.	Caring lighting Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.
LED	3 ft module 	2 ft module 	General and reading lighting combined
Consumption	33,2 W	10,8 W	44 W
Average lighting	125 lx	353 lx	397 lx

Dynamic Lighting

The COCOON bed head unit is available with dynamic lighting.
 For more information, please see page 304.









VERTICAL BED HEAD UNITS ASSOCIATED WITH WALL LIGHTING UNIT

FLUIDYS
SIMPLE-CARE
SILEA

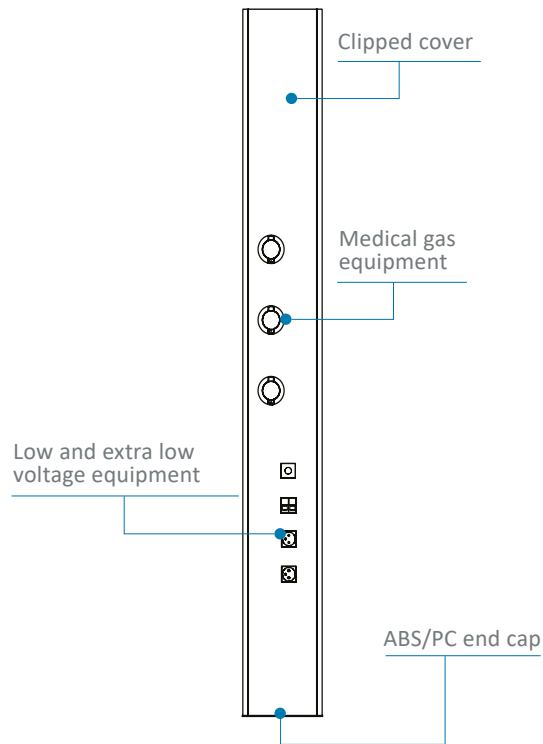
p.64
p.68
p.70



FLUIDYS

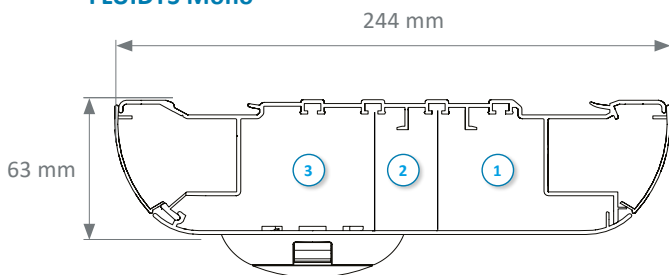
TECHNICAL FEATURES

Front view

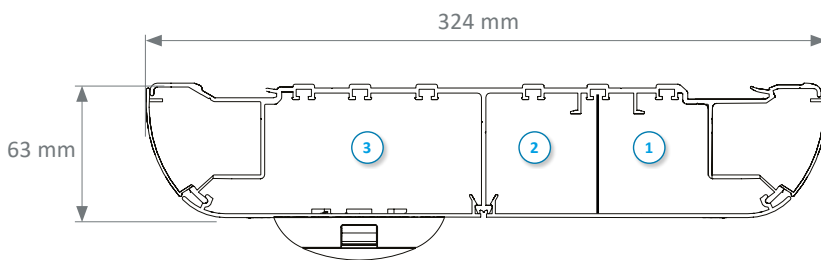


Cross-section

FLUIDYS Mono



FLUIDYS Duo



- ① Extra low voltage compartment
- ② Low voltage compartment
- ③ Medical gas compartment

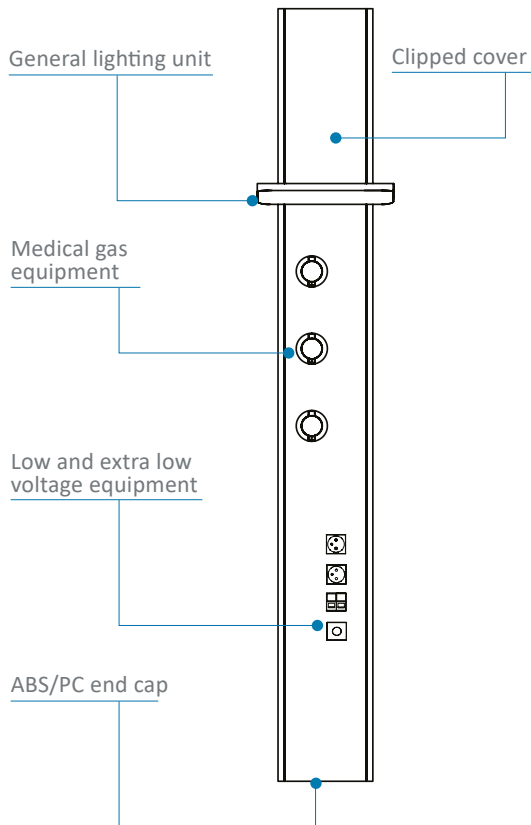
Colours

	White RAL 9016	Grey RAL 7040	Grey RAL 9006
Aluminum profile	●		●
Medical gas casing	●	●	
End caps	●	●	

AS OPTION: VERTICAL BED HEAD UNIT WITH LUMIA LIGHTING UNIT

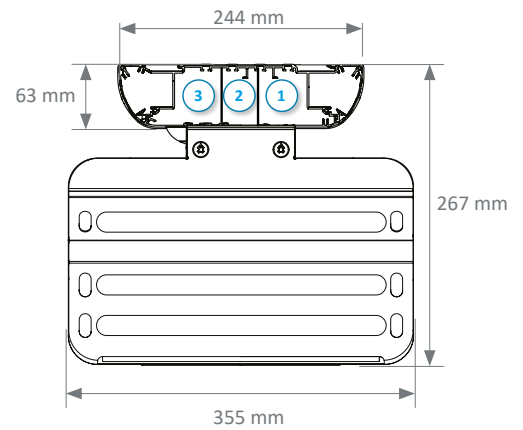
The FLUIDYS bed head unit with LUMIA lighting unit offers many possible options for integrating electrical and medical gas equipment. It provides efficient, high-quality indirect lighting to contribute to the well-being of care teams and patients. LUMIA lighting unit is equipped with a clear glass diffuser with an aluminum reflector.

Front view

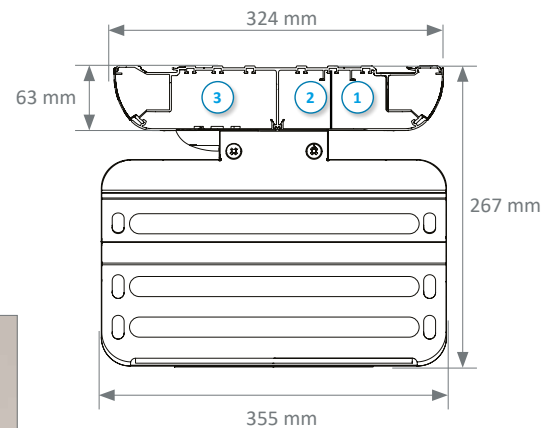


Cross-section

LUMIA Mono lighting unit



LUMIA Duo lighting unit



- ① Extra low voltage compartment
- ② Low voltage compartment
- ③ Medical gas compartment

Colours

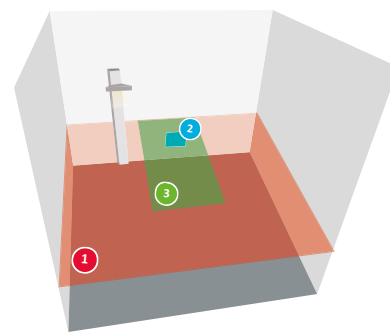
	White RAL 9016	Grey RAL 9006
Lighting unit	●	●

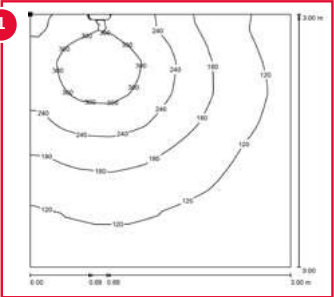
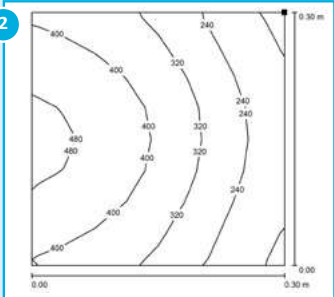
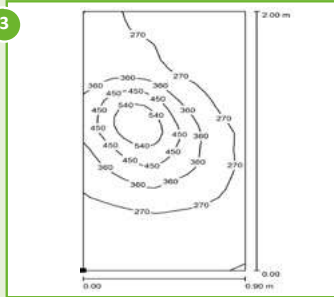


EFFICIENT LIGHTING

Lighting study for FLUIDYS bed head unit with LUMIA lighting unit

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



	General lighting Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).	Reading lighting Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the light fitting is mounted.	Caring lighting Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.
LED	3 ft module	1 ft module	General and reading lighting combined
			
Consumption	37,6 W	4,9 W	42,5 W
Average lighting	149 lx	339 lx	304 lx

Lighting power

Lighting	Modules power	Types of sources	Color Temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	32,3 W (3 Ft)	LED	3000 K 4000 K	5531 lm	37,6 W	147,3 lm/W	Fixed / DALI
Reading lighting	3,1 W (1 Ft)	LED	4000 K	335 lm	4,9 W	68,1 lm/W	Fixed

EEI* **A⁺**

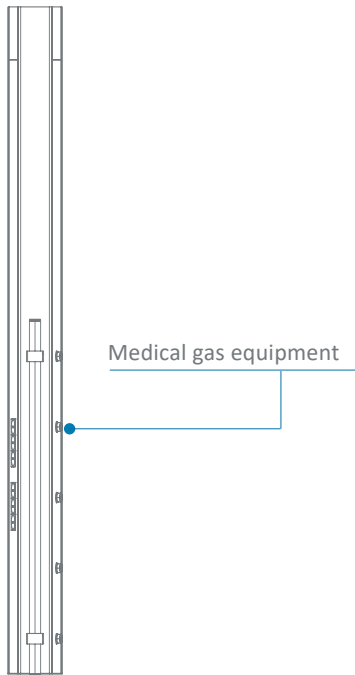
* Energy Efficiency Index



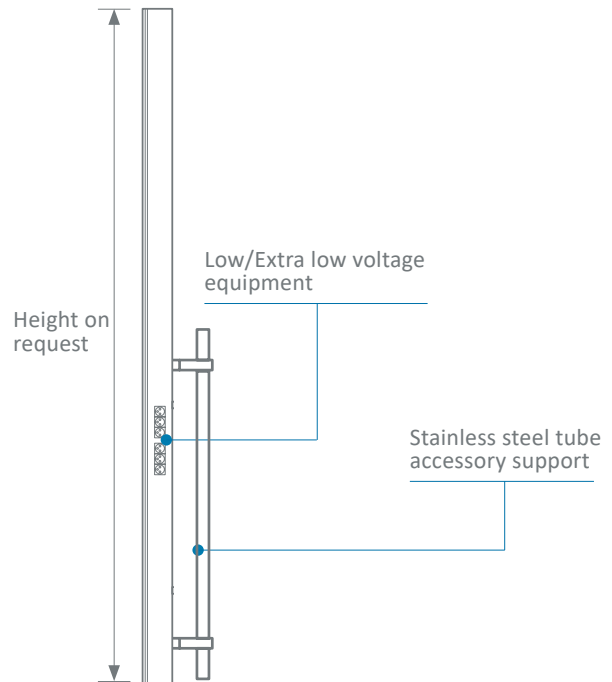
SIMPLE-CARE

TECHNICAL FEATURES

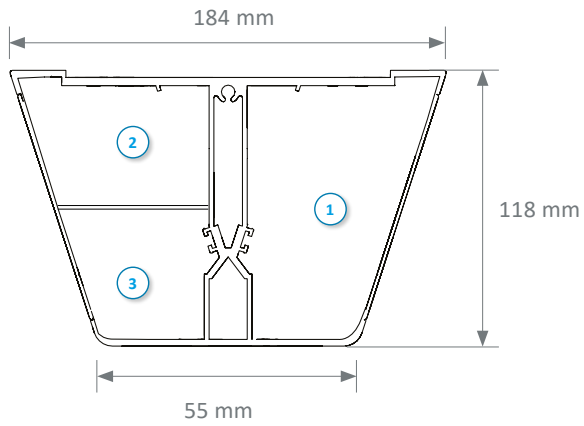
Front view



Side view



Cross-section



- ① Medical gas compartment
- ② Low voltage compartment
- ③ Extra low voltage compartment

Colours

White
RAL 9016

SIMPLE-CARE

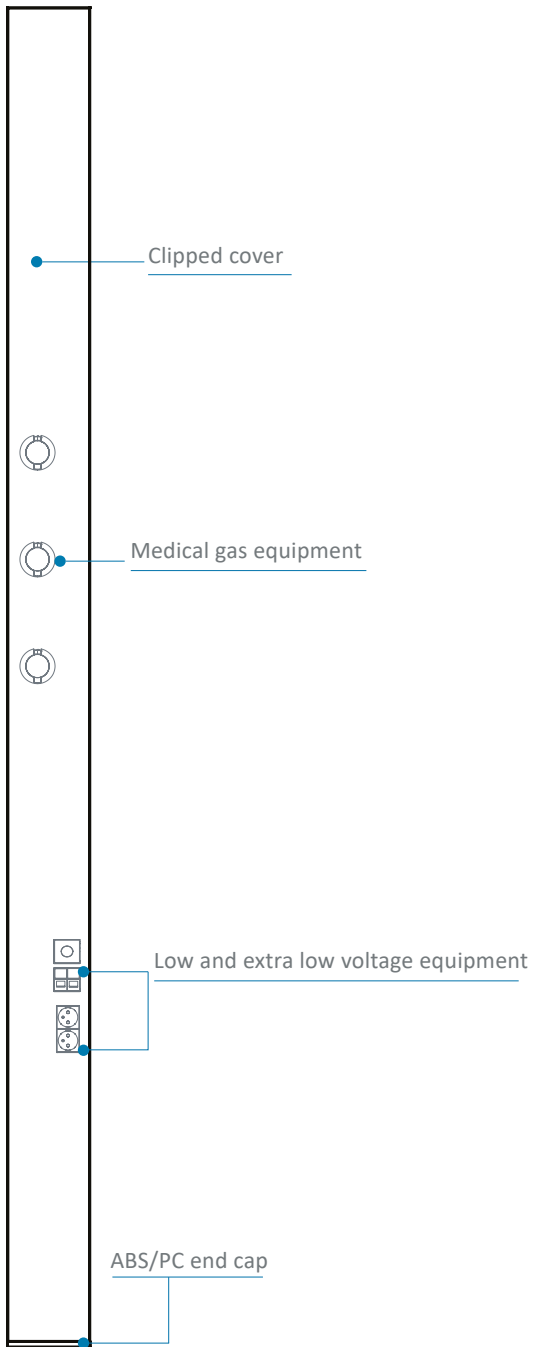




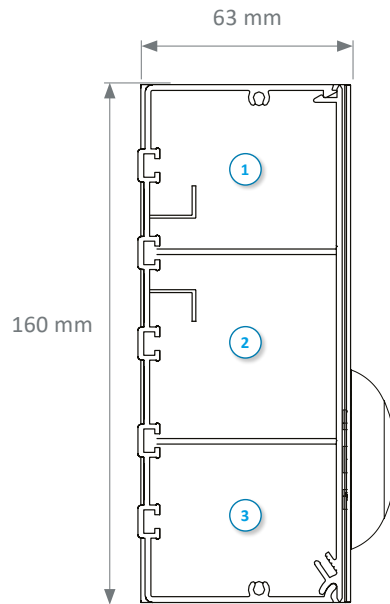
SILEA

TECHNICAL FEATURES

Front view



Cross-section



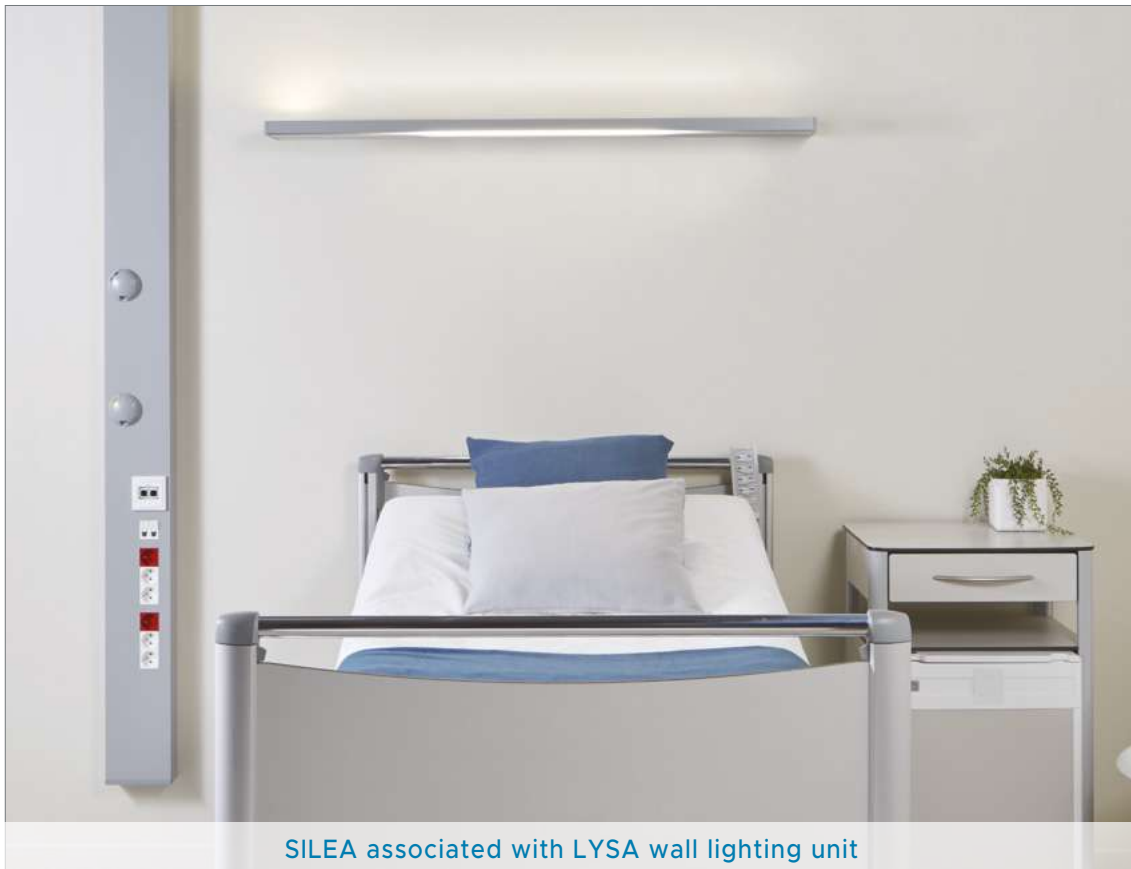
- ① Extra low voltage compartment
- ② Low voltage compartment
- ③ Medical gas compartment

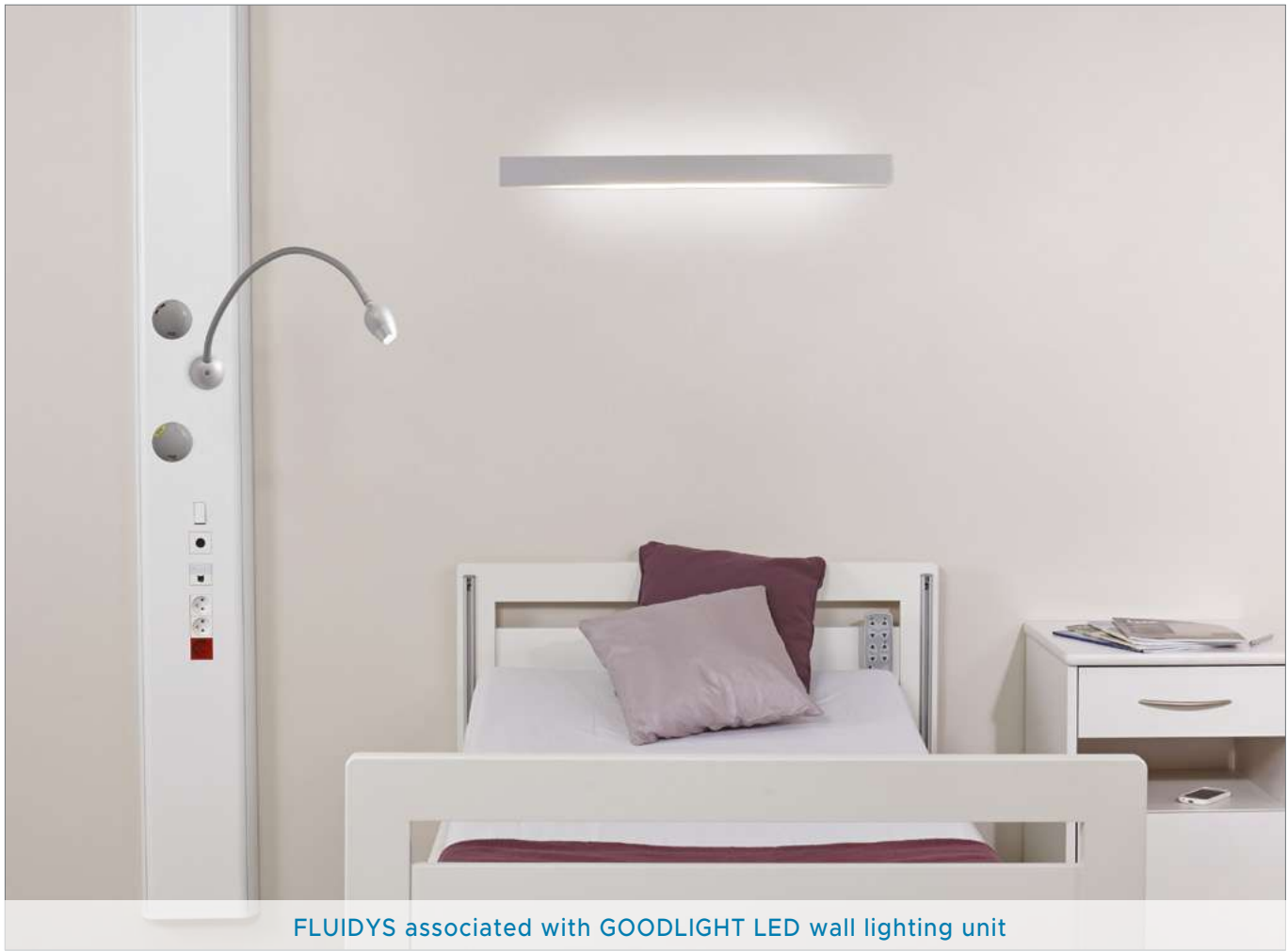
Colours

	White RAL 9016	Grey RAL 9006	Grey RAL 7040
Aluminum profile	●	●	
Medical gas casing	●		●
End caps	●		●

VERTICAL BED HEAD UNITS LIGHTING

Combined with a wall-mounted lighting unit from the TLV range, the FLUIDYS, SIMPLE-CARE and SILEA bed head units offer a comfortable and efficient lighting solution to contribute to the well-being of patients and healthcare professionals.



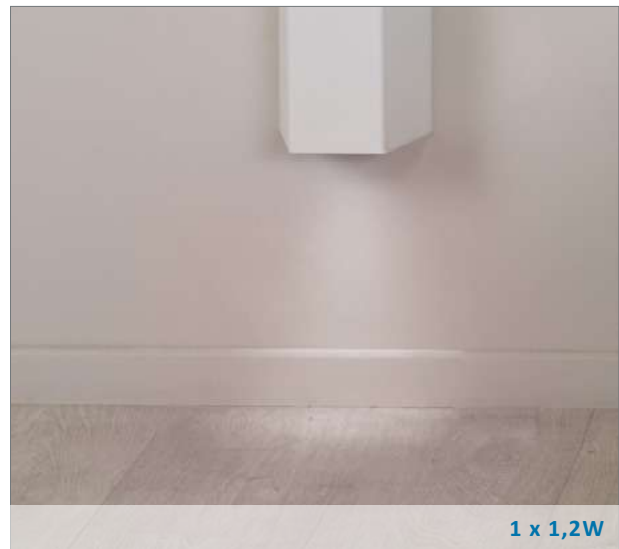


Optionnal lighting

Reading spot lamp FLEX-E LED (flexible stem grey).



LED night light built into the bottom end cap.







ARCHITECTURAL CONCEPTS

GOODWOOD	p.76
GOODWOOD MOVE	p.86
MADEIRA	p.92
ARTIDYS	p.102

Custom made design GOODWOOD's panels are fully customized (colours, materials, decorative film) and can match with decor of any room.

Lighting GOODWOOD lets you have an individual wall-mounted lighting unit for each bed (GOODLIGHT) or an integrated cap incorporating the light sources.





GOODWOOD

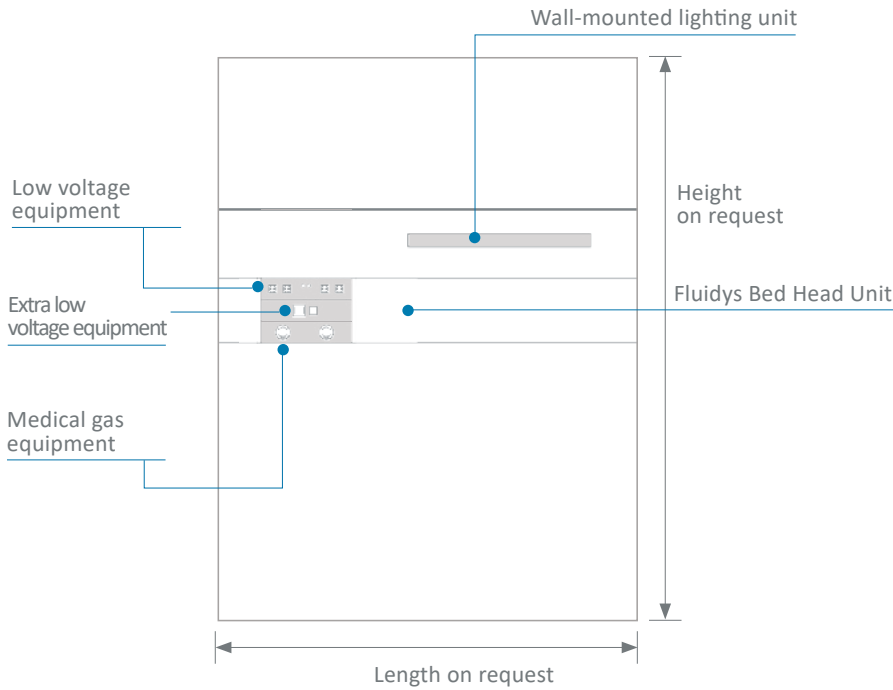
TECHNICAL FEATURES

The GOODWOOD architectural concept offers many possible options for integrating electrical and medical gas equipment. Thanks to its slim profile, it is easy to incorporate into your caring area. It can also be equipped with an optional stainless steel accessory mounting rail (25x10 mm).

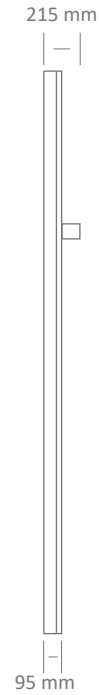
1 bed standard configuration

Front view

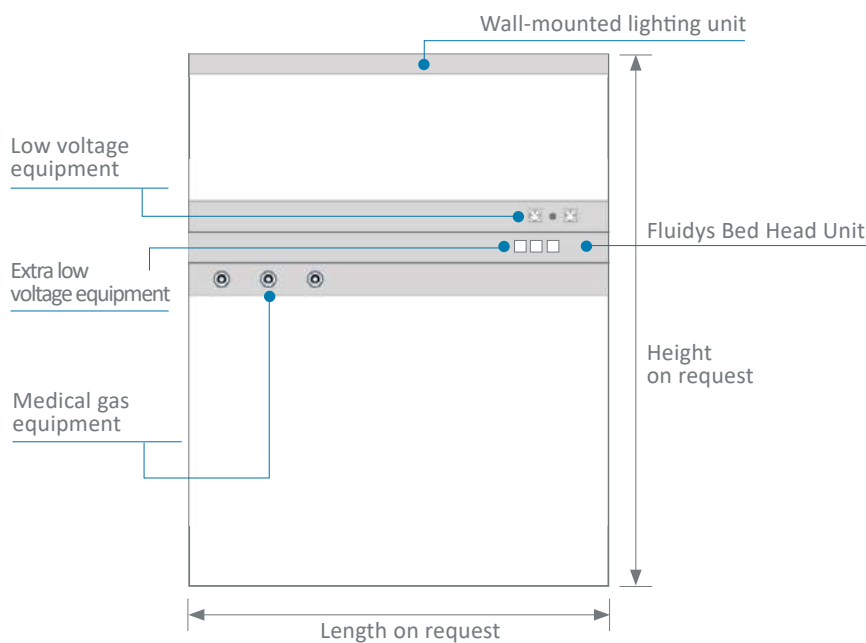
GOODWOOD with GOODLIGHT lighting unit



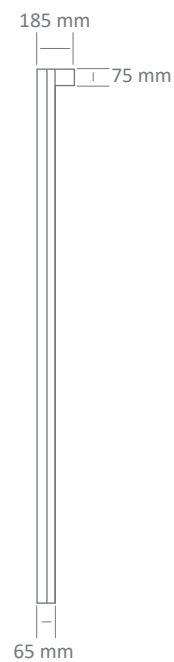
Side view



GOODWOOD with GOODLIGHT or LYSA lighting unit



GOODLIGHT

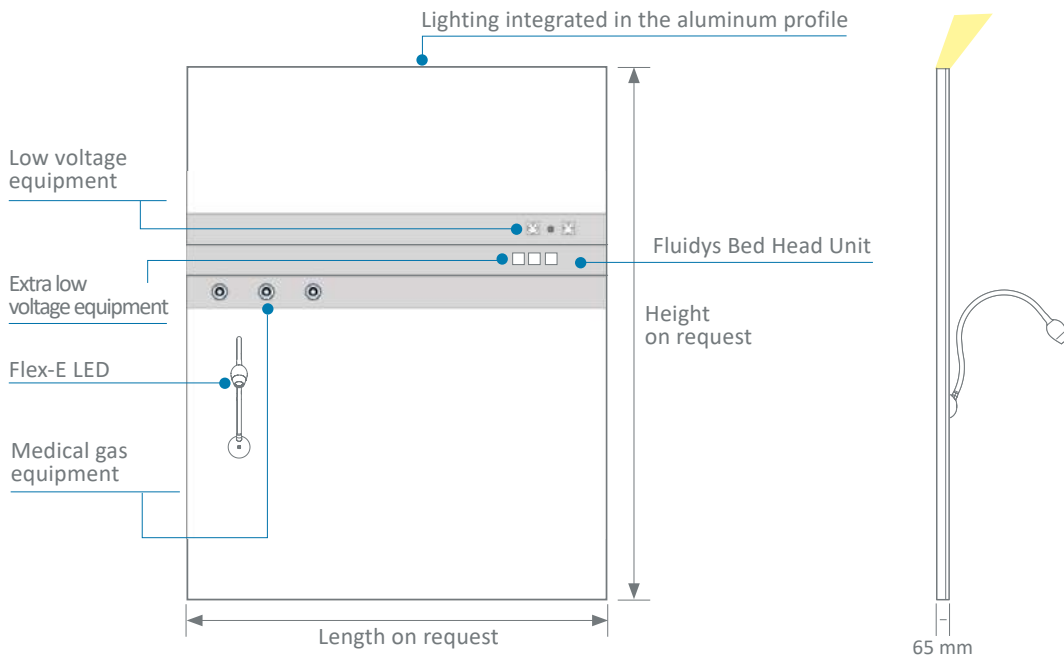


LYSA



CONFIGURATIONS

GOODWOOD with integrated aluminum profile



See the colors of laminated panels page 302

Configuration examples

2-beds Goodwood with Goodlight wall lighting unit and built-in bedside tables



2-beds Goodwood with Goodlight wall lighting unit and built-in bedside tables



2-beds Goodwood with Goodlight wall lighting unit



1-bed Goodwood with Goodlight wall lighting unit



1-bed Goodwood with Goodlight wall lighting unit and accessory mounting rail

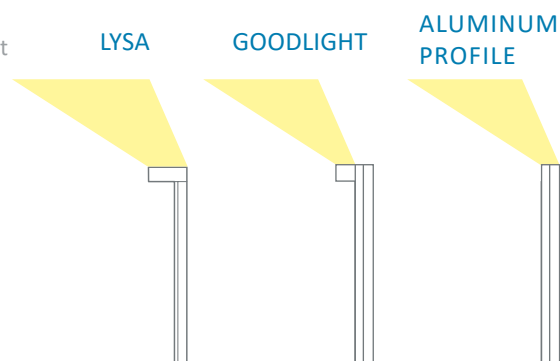


CONTROLLED LIGHTING

The GOODWOOD concept offers lighting unit on the front panel, or a GOODLIGHT unit overhanging its front panel. It also incorporates LED night light at the bottom.

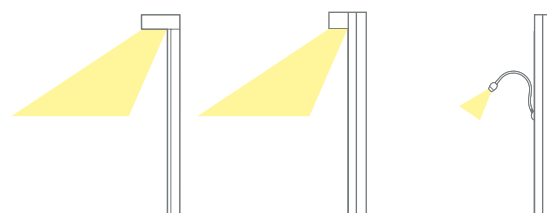
General lighting

- Clear satin-finish PMMA diffuser with anti-UV treatment
- MIRO 20 SILVER® Aluminum reflector (for LYSA and GOODLIGHT)



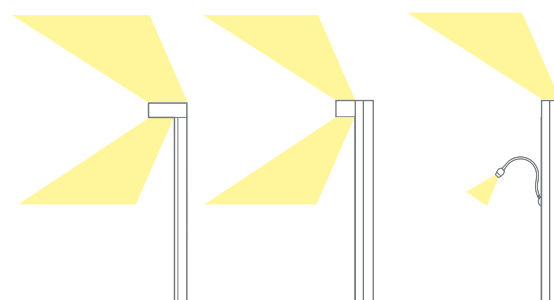
Reading lighting

- Satin-finish PMMA diffuser
- MIRO 20 SILVER® Aluminum reflector (for LYSA and GOODLIGHT)



Caring lighting

Caring lighting combines direct (reading) and indirect (general) lighting.



Lighting power (LYSA or GOODLIGHT)

Lighting	Modules power	Types of sources	Color temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	28,7 W (3 Ft)	LED	3000 K 4000 K	5039 lm	33,2 W	151,9 lm/W	Fixed / DALI
General lighting (Dynamic lighting)	38,9 W (3 Ft)	LED	2700 K to 6500 K	5000 lm	44,9 W	111,4 lm/W	DALI
Reading lighting	8,9 W (2 Ft)	LED	3000 K 4000 K	1710 lm	10,8 W	158,8 lm/W	Fixed / DALI
Night light	1 x 3,1 W	LED	3000 K	335 lm	4,9 W	68,1 lm/W	Fixed

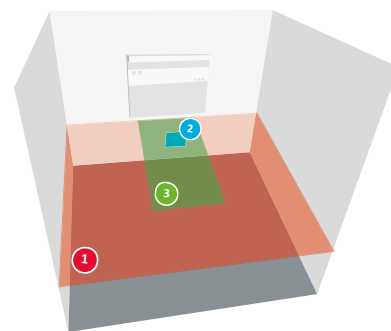
Lighting powers for the aluminum profile configuration will be available in summer 2021

* PMMA: Polymethyl methacrylate

EFFICIENT LIGHTING

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



GOODLIGHT lighting unit

General lighting

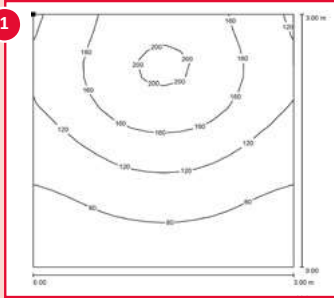
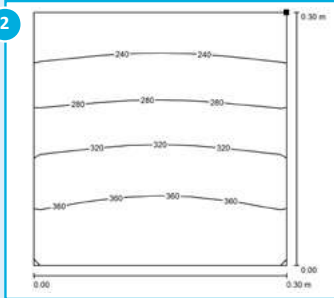
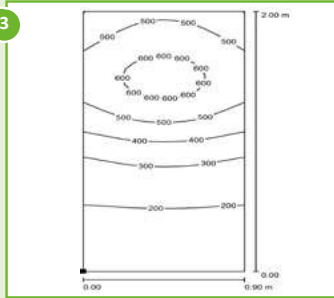
Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).

Reading lighting

Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the light fitting is mounted.

Caring lighting

Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.

LED	3 ft module	2 ft module	General and reading lighting combined
			
Consumption	33,2 W	10,8 W	44 W
Average lighting	125 lx	350 lx	379 lx

Dynamic Lighting



The GOODWOOD architectural concept is available with dynamic lighting.
For more information, please see page 304.



Crédit photo : Hôpital Européen - Marseille









Custom made design GOODWOOD MOVE's panels are fully personalisable (colours, material, decorative film) to match the decor of any room. In addition, the sliding panel can be installed on the right or on left side of the patient according to the need, or both sides for a maternity room for example.

Hidden equipment Medical gas outlets and low and extra low voltage equipment are hidden behind a sliding panel to give a hotel aesthetic to product.

Custom lighting Depending on the needs, the GOODWOOD MOVE concept offers different LED lighting solutions: indirect lighting tray and reading spot FLEX-E LED, GOODLIGHT or LYSA wall lighting units.





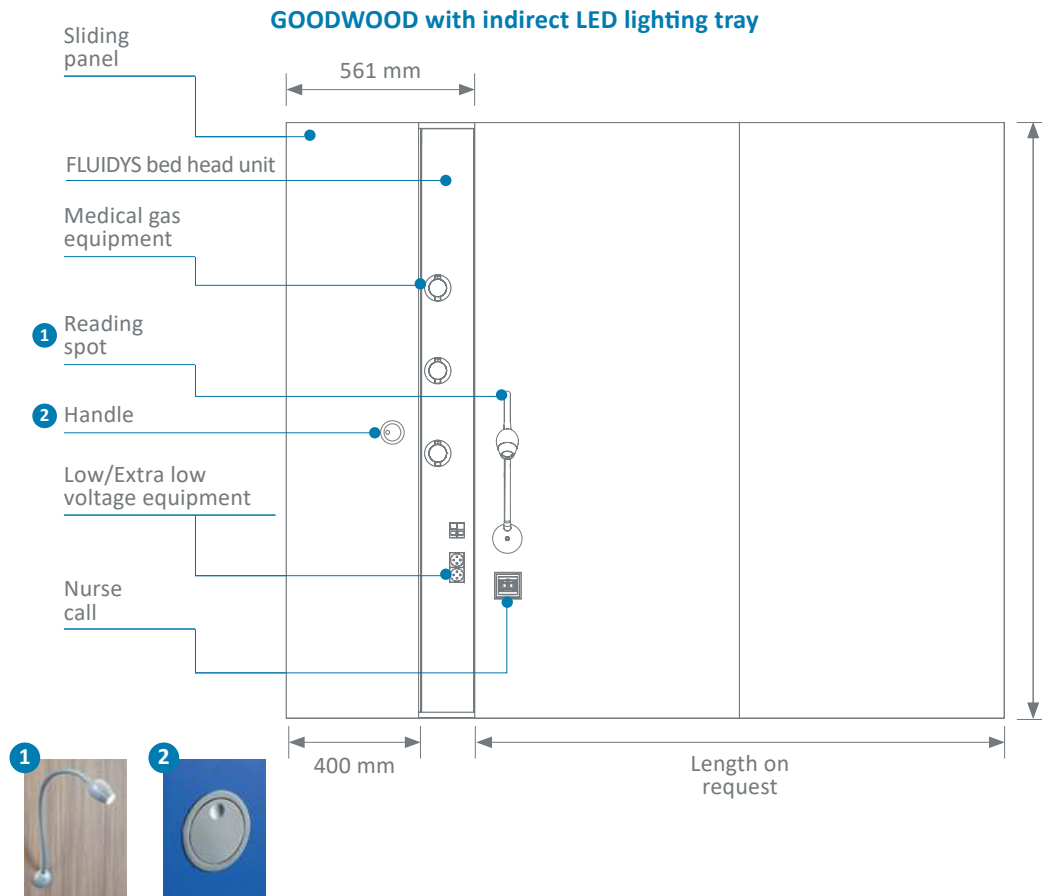
GOODWOOD MOVE

TECHNICAL FEATURES

GOODWOOD MOVE architectural concept hides electrical equipment and medical gas outlets behind a sliding panel. It brings atmosphere to the hospital room and contributes to the overall aesthetic of the room.

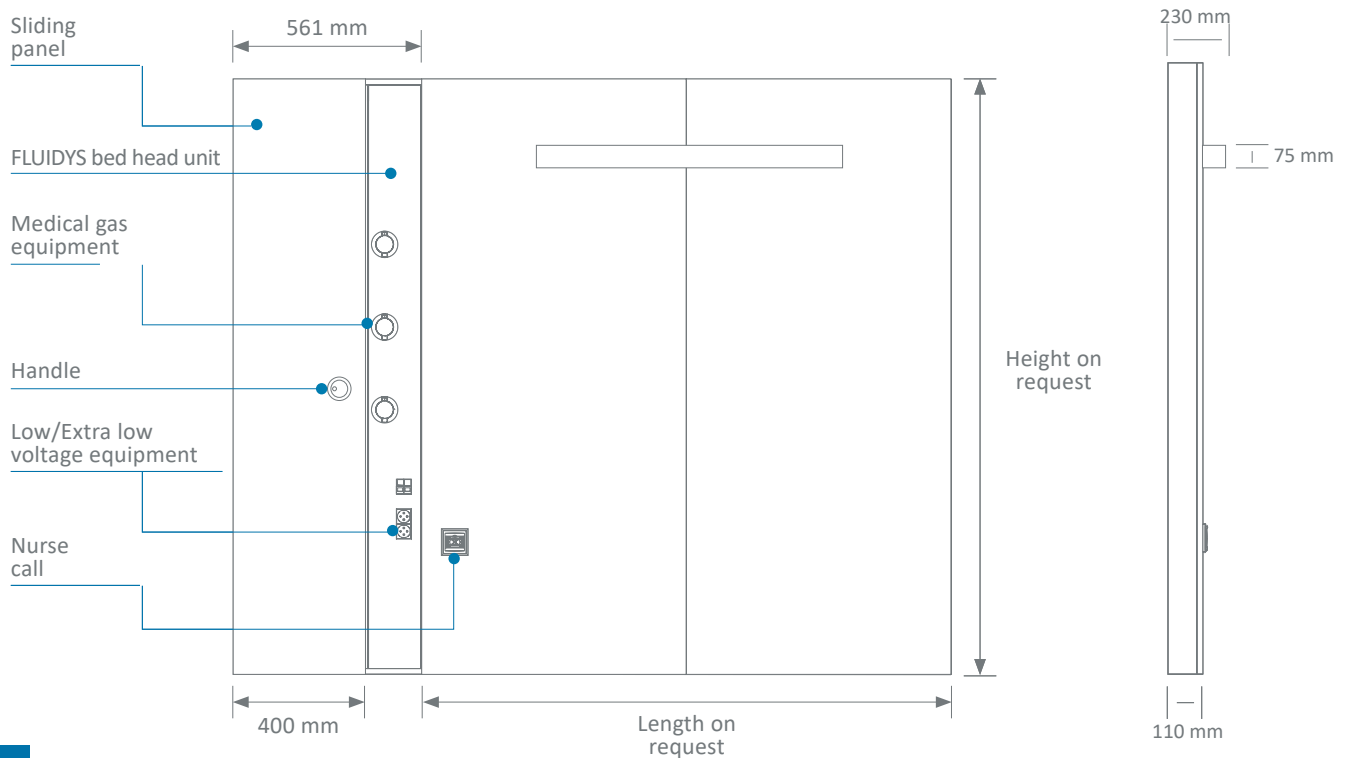
Configuration

Front view



Side view

GOODWOOD with GOODLIGHT wall lighting unit



CONFIGURATIONS

See the colors of laminated panels page 302.

Configuration examples



CONTROLLED LIGHTING

The GOODWOOD MOVE concept offers comfortable LED lighting.

GOODWOOD MOVE with GOODLIGHT LED wall lighting unit

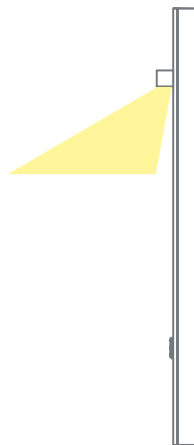
General lighting

- Clear satin-finish PMMA* diffuser with anti-UV treatment
- MIRO 20 SILVER® Aluminum reflector



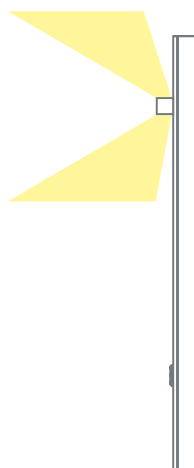
Reading lighting

- Satin-finish polycarbonate direct diffuser
- MIRO 20 SILVER® Aluminum reflector



Caring lighting

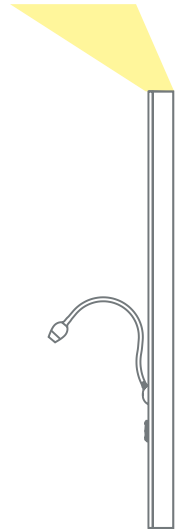
Caring lighting combines direct (reading) and indirect (general) lighting.



GOODWOOD MOVE with indirect LED lighting tray and FLEX-E LED

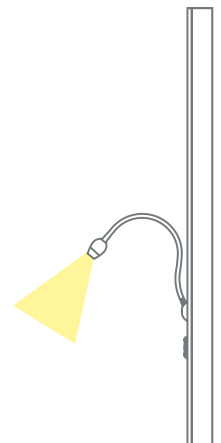
General lighting

- Clear polycarbonate diffuser
- Pre-lacquered reflector



Reading lighting

PMMA* lens

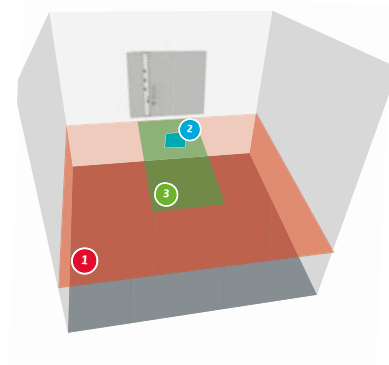


* PMMA: Polymethyl methacrylate

EFFICIENT LIGHTING

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



Version
with GOODLIGHT LED
wall lighting unit

General lighting

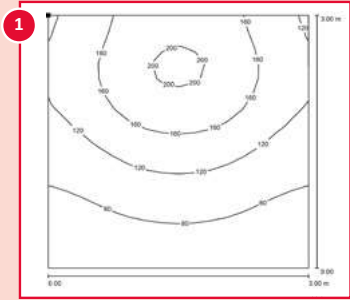
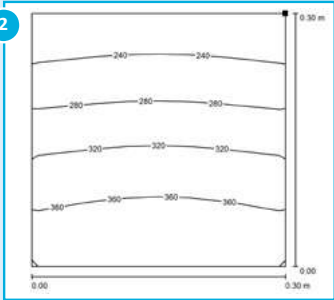
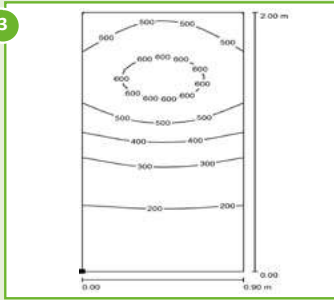
Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).

Reading lighting

Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the light fitting is mounted.

Caring lighting

Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.

LED	3 ft module	2 ft module	General and reading lighting combined
			
Consumption	33,2 W	10,8 W	44 W
Average lighting	125 lx	350 lx	379 lx

Lighting power

Lighting	Modules power	Types of sources	Color temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	28,7 W (3 Ft)	LED	3000 K 4000 K	5039 lm	33,2 W	151,9 lm/W	Fixed / DALI
General lighting (Dynamic lighting)	38,9 W (3 Ft)	LED	2700 K to 6500 K	5000 lm	44,9 W	111,4 lm/W	DALI
Reading lighting	8,9 W (2 Ft)	LED	3000 K 4000 K	1 710 lm	10,8 W	158,8 lm/W	Fixed / DALI
Night light	1 x 3,1 W	LED	3000 K	335 lm	4,9 W	68,1 lm/W	Fixed

The lighting powers for the LED tray configuration will be available in summer 2021





Custom design The MADEIRA is fully customized and can be configured by integrating: door, drawer, and technical equipment (x-ray film viewer, multimedia screen, haemodialysis water purifier, wardrobe, bedside table, etc.).

Design and ergonomics Available with a wide choice of materials and colours, to adapt the panels to your needs. The smooth surfaces of the MADEIRA make it easy to clean and disinfect.

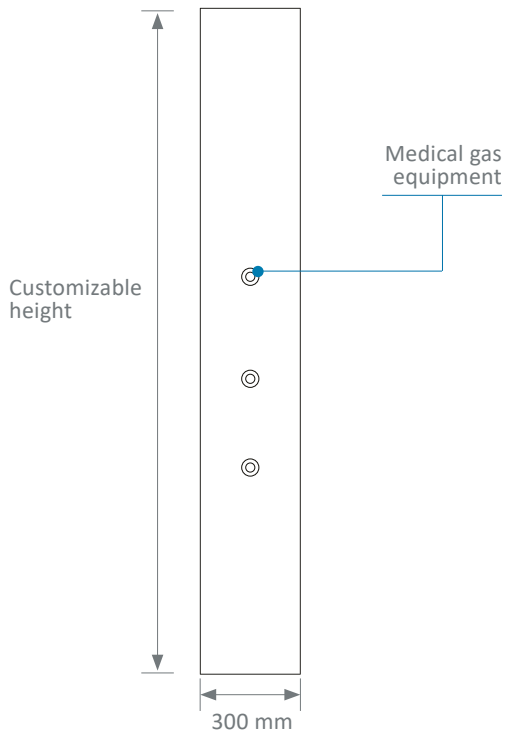




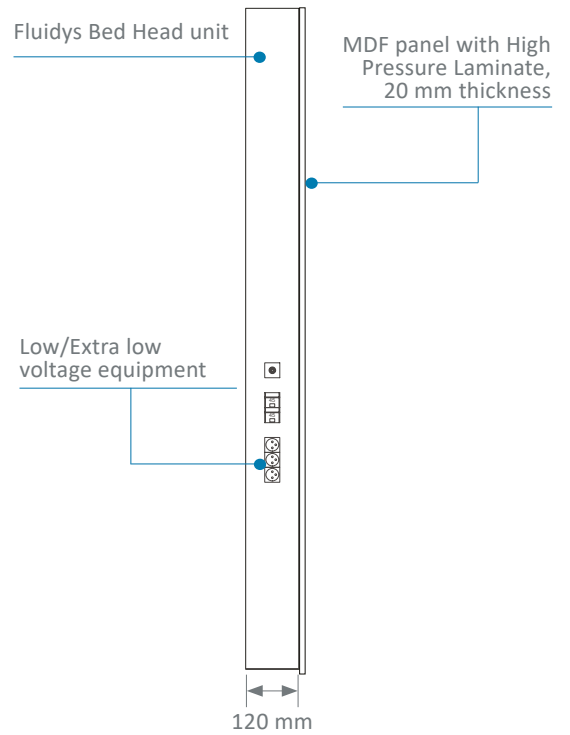
MADEIRA

1 bed standard configuration

Front view

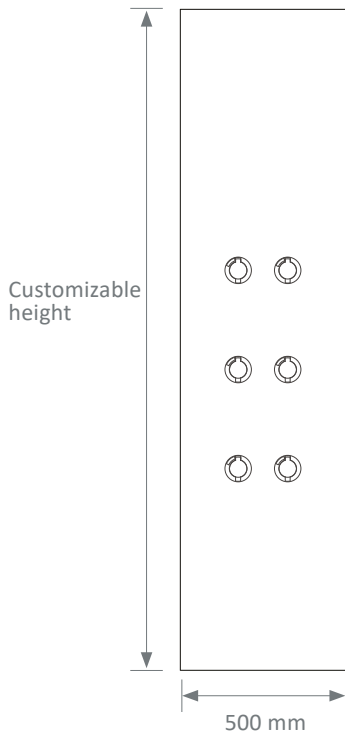


Side view

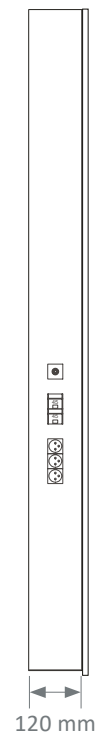


2 beds standard configuration

Front view



Side view



See the colors of laminated panels page 302

Lighting

Combined with a wall-mounted lighting unit from the TLV range (LINA, LYSA, LUMIA or GOODLIGHT), the concept MADEIRA provides a comfortable, efficient lighting solution to contribute to the well-being of patients and healthcare professionals.

It can optionally be equipped with the following:

A FLEX-E LED reading spotlamp on flexible.
For more information, see page 138.



LED night light built into the bottom fitting.



Optionnal Equipment

The MADEIRA concept is also available in **custom made configuration**. It can incorporate extra low/low voltage devices and medical gas on the front panel or on the sides. If necessary, the side profiles can be equipped with a rail (on the right and/or left-hand side), where biomedical accessories can be fixed.

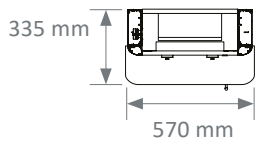
It can include your choice of technical devices, for example :

Haemodialysis water purifier

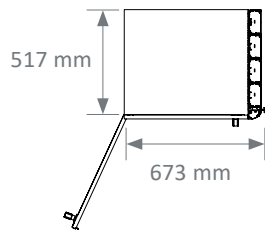


Example of MADEIRA custom-made configurations

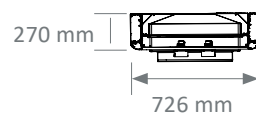
With a bedside table and cabinet in the lower part.



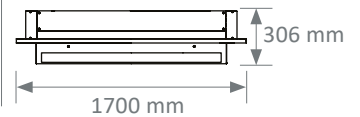
With a cupboard at the top and a wardrobe equipped with safe.



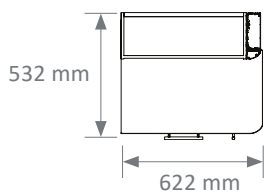
With a haemodialysis water purifier.



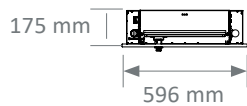
With a wall lighting unit.



With upper niches and a bedside table in the lower part, where a fridge can be integrated.



With wood panels covering the electrical distribution profiles.



With steel front panel.



With flush mounted wood panels between the electrical distribution profiles.









Design and Ergonomics The frame of ARTIDYS is fully customized with the decoration of your choice. Its aesthetic and technical characteristics provide a discreet, convenient way to make equipment available. This architectural concept can easily be combined with wall lighting units from the TLV range.

Easy maintenance The sliding frame mounted on a ball bearing system makes it easy to open for access to the operational devices, which are protected from dust. The built-in distribution unit and its compartments, are separated by independent covers for easy maintenance.



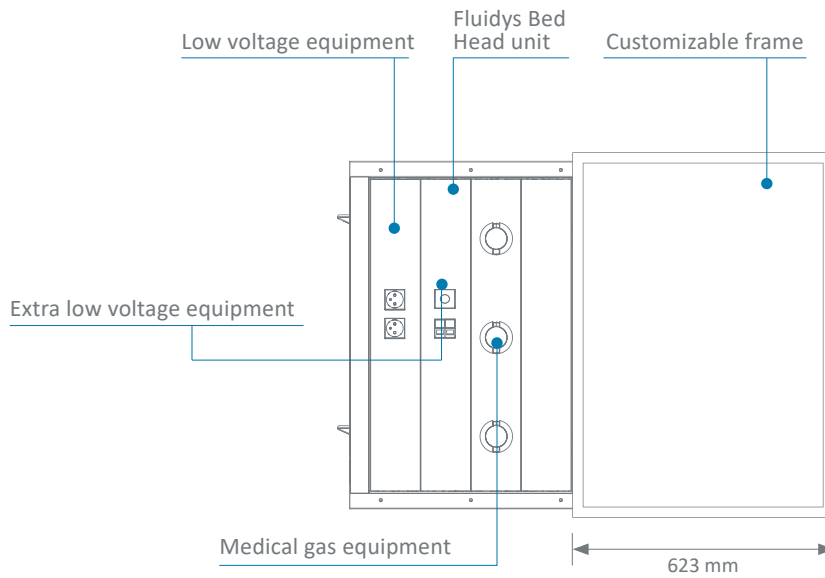


ARTIDYS

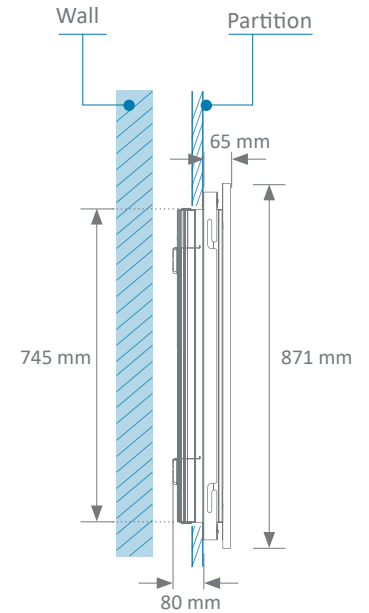
TECHNICAL FEATURES

The Artidys combines aesthetics and ergonomics to facilitate access to functionalities for care teams.

Front view

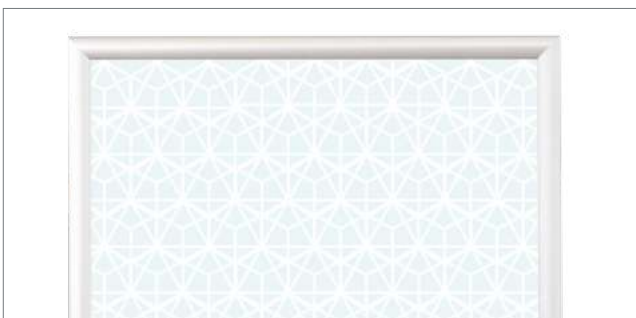


Side view



Customisation

The ARTIDYS architectural concept can be customised with your choice of decoration. It therefore blends in perfectly with caring facilities.



Note: These are decoration examples only.

LIGHTING

ARTIDYS architectural concept can easily be combined with wall lighting units from TLV range to offer a discreet and elegant solution for normal care rooms and provide comfort and safety to patients and healthcare professionals.





NON-MEDICALIZED WALL LIGHTING UNITS

LYSA	p.48
LINA	p.108
AVOLYS	p.114

WALL LIGHTING UNITS

LYSA	p.120
GOODLIGHT	p.126
LUMIA	p.132

The new LINA wall lighting unit has an elegant design. It is ideal for lighting retirement homes and clinics. Thanks to its built-in electrical devices and its direct and indirect lighting, it satisfies the needs of medical teams and remains comfortable for the patient.

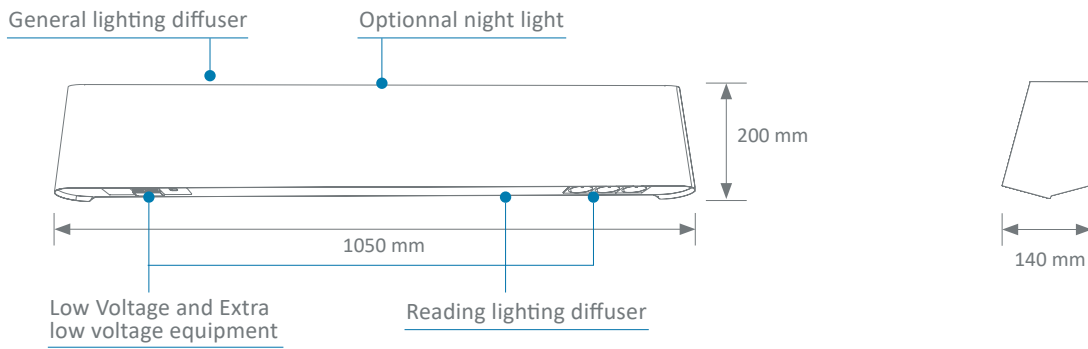




LINA

TECHNICAL FEATURES

Front view



Colors

	GRIS RAL 9007
LINA	●

Other color on request.

Colors examples



Low and extra low voltage equipment

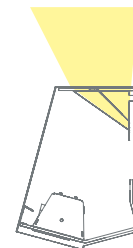
The LINA light fitting meets lighting and electrical distribution requirements of normal care rooms, and can integrate up to six electrical devices (power sockets, call button, switches, etc...).



CONTROLLED LIGHTING

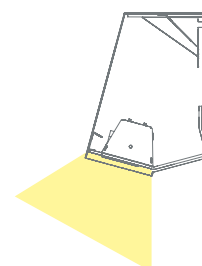
General lighting

- PMMA* choc frost opal direct diffuser
- MIRO 20 ® aluminum reflector



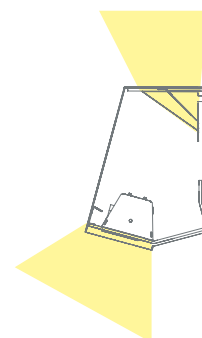
Reading lighting

- Diffuser made of clear indirect PMMA*
- MIRO 20 ® aluminum reflector



Caring lighting

Caring lighting combines direct (reading) and indirect (general) lighting.



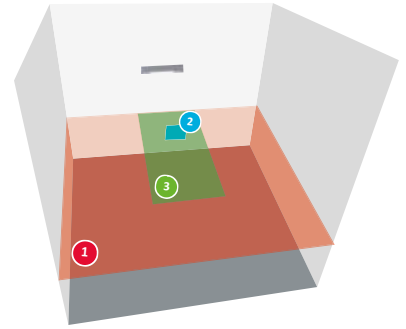
Lighting power

Lighting	Modules power	Types of sources	Color temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	26,9 W (3 Ft)	LED	3 000 K 4 000 K	4482 lm	31,4 W	142,6 lm/W	Fixed / DALI
General lighting (Dynamic lighting)	38,9 W (3 Ft)	LED	2 700 K to 6 500 K	5000 lm	44,9 W	111,4 lm/W	DALI
Reading lighting	16,1 W (2 Ft)	LED	3 000 K 4 000 K	2716 lm	19,8 W	137,3 lm/W	Fixed / DALI
Night light	1 x 3,1 W	LED	3 000 K	335 lm	4,9 W	68,1 lm/W	Fixed

EFFICIENT LIGHTING

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



General lighting

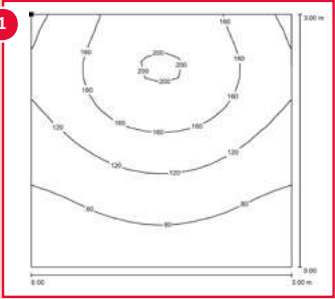
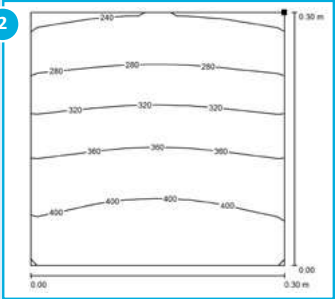
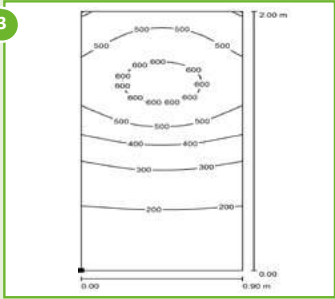
Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).

Reading lighting

Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the light fitting is mounted.

Caring lighting

Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.

LED	3 ft module	2 ft module	General and reading lighting combined
			
Consumption	31,4 W	19,8 W	51,2 W
Average lighting	105 lx	304 lx	357 lx

Dynamic Lighting



The LINA wall lighting unit is available with dynamic lighting.

For more information, please see page 304.



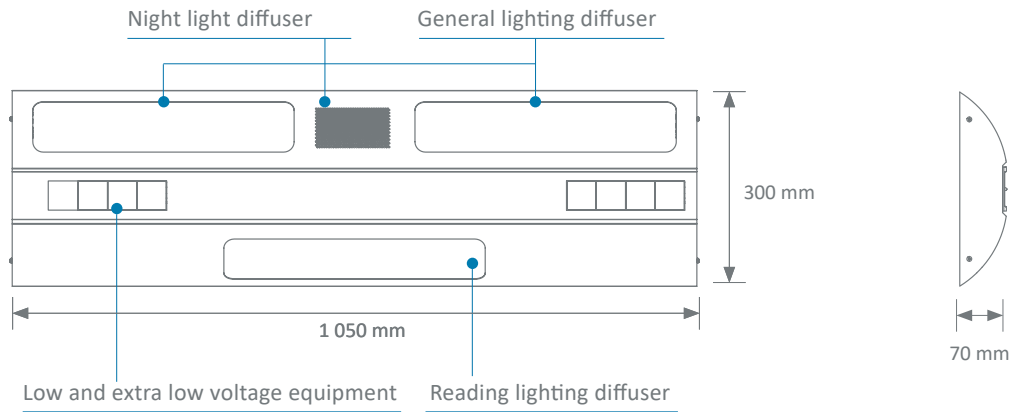
Thanks to its IK08, AVOLYS wall lighting unit is suitable for lighting secure environments such as psychiatric departments, alzheimer units, or prisons. It provides comfortable, high-quality lighting for patients and care teams.





AVOLYS

Front view



Colours

	White RAL 9016
AVOLYS	●

Ergonomics

AVOLYS satisfies the lighting and electrical distribution needs of normal care rooms, and can incorporate up to eight electrical accessories.

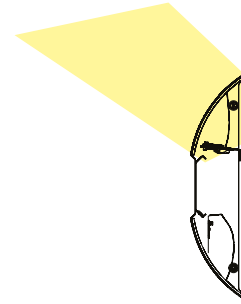
The wall-mounted lighting unit also impact resistance rating (IK08), providing maximum safety to patients and healthcare professionals working in a secure environment (nursing home, Alzheimer units, specialist hospitals, prisons, and psychiatric departments).



CONTROLLED LIGHTING

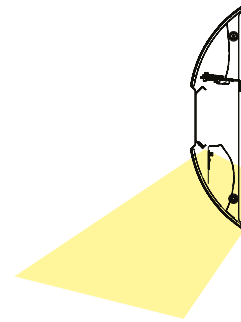
General lighting

- PMMA * diffuser
- MIRO 20 SILVER® Aluminum reflector



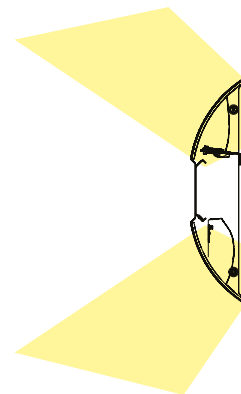
Reading lighting

- PMMA diffuser
- MIRO 20 SILVER® Aluminum reflector



Caring lighting

Caring lighting combines direct (reading) and indirect (general) lighting.

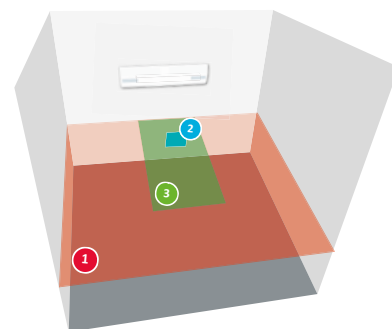


Lighting power

Lighting	Modules power	Types of sources	Colour temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	22,1 W (2 Ft)	LED	3000 K	3771 lm	25,9 W	145,6 lm/W	Fixed / DALI
Reading lighting	8,4 W (1 Ft)	LED	3000 K	1481 lm	10,2 W	145,1 lm/W	Fixed / DALI
Night light	1 x 3,1 W	LED	3000 K	335 lm	4,9 W	68,1 lm/W	Fixed

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



General lighting

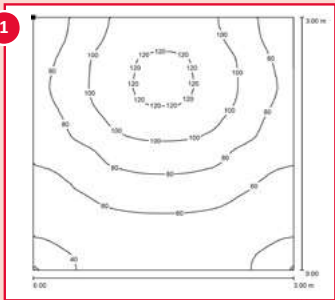
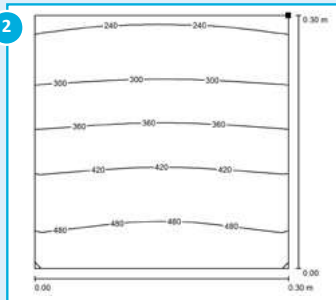
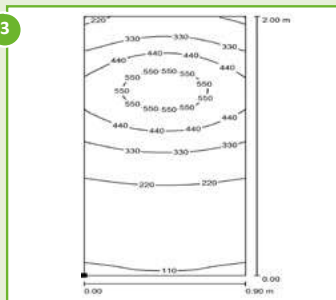
Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).

Reading lighting

Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the light fitting is mounted.

Caring lighting

Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.

LED	2 Ft module	1 Ft module	General and reading lighting combined
			
Consumption	25,9 W	10,2 W	36,1 W
Average lighting	78 lx	378 lx	305 lx



Available in 3 colors, the LYSA wall lighting unit is ideal for retirement homes and clinics. The pure form and the thinness of LYSA make it discreet in the normal care room. The quality of the light promotes the comfort and well-being of patients and healthcare professionals.

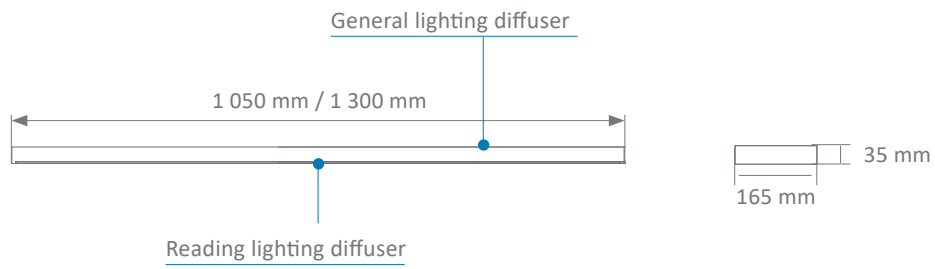




LYSA

TECHNICAL FEATURES

Front view / Side view



Colours

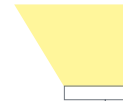
	Grey RAL 9006	Grey RAL 9007	White RAL 9016
LYSA	●	●	●



CONTROLLED LIGHTING

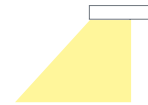
General lighting

- Clear polycarbonate indirect diffuser
- MIRO 20 Silver® Aluminum reflector



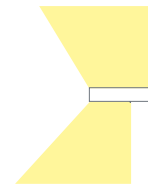
Reading lighting

- Satin-finish polycarbonate direct diffuser
- MIRO 20 Silver® Aluminum reflector



Caring lighting

Caring lighting combines direct (reading) lighting with indirect (general) lighting.



Lighting power

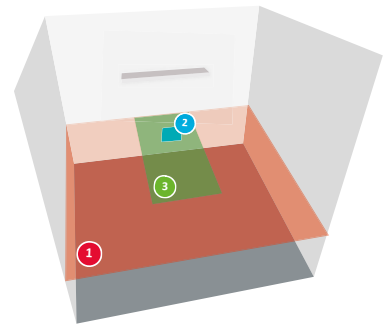
Lighting	Modules power	Types of sources	Color Temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	28,7 W (3 Ft)	LED	3000 K 4000 K	5039 lm (length 1050 mm)	33,2 W	151,9 lm/W	Fixed / DALI
	35,3 W (4 Ft)	LED	3000 K 4000 K	6255 lm (length 1300 mm)	40,8 W	153,4 lm/W	Fixed / DALI
General lighting (Dynamic lighting)	38,9 W (3 Ft)	LED	2700 K to 6500 K	5000 lm	44,9 W	111,4 lm/W	DALI
	47,2 W (4 Ft)	LED	2700 K to 6500 K	6200 lm	54 W	114,8 lm/W	DALI
Reading lighting	8,9 W (2 Ft)	LED	3000 K 4000 K	1710 lm	10,8 W	158,8 lm/W	Fixed / DALI
Night light	3,1 W	LED	3000 K	335 lm*	4,9 W	68,1 lm/W	Fixed

* Only available for Lysa 1300 mm

EFFICIENT LIGHTING

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



General lighting

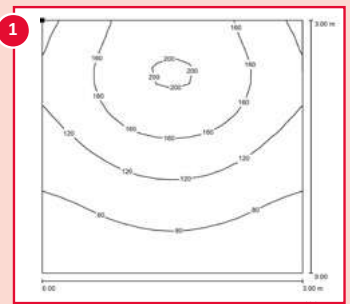
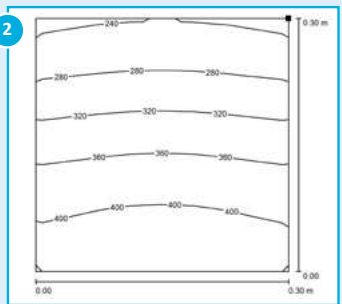
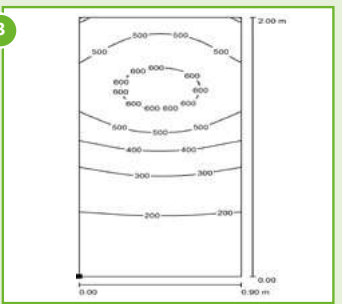
Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).

Reading lighting

Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the light fitting is mounted.

Caring lighting

Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.

LED	3 Ft module	2 Ft module	General and reading lighting combined
			
Consumption	33,2 W	10,8 W	44 W
Average lighting	125 lx	353 lx	397 lx

Dynamic Lighting



The LYSA wall lighting unit is available with dynamic lighting.
For more information, please see page 304.



Thanks to its timeless and simple design, GOODLIGHT wall lighting unit is suitable for retirement homes or in addition to an architectural concept in hospital room. It provides comfortable, high-quality lighting for patients and care teams.

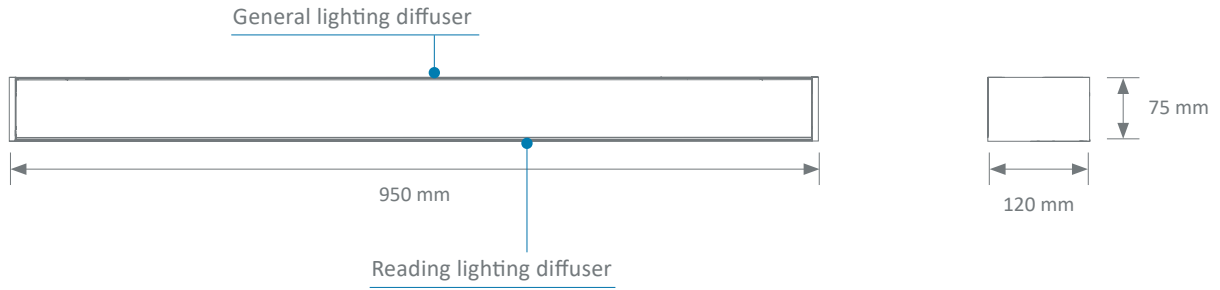




GOODLIGHT

TECHNICAL FEATURES

Back view



Colours

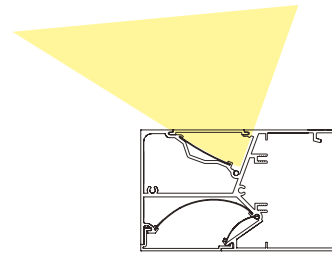
	GREY RAL 9006	GREY RAL 9007	WHITE RAL 9016
GOODLIGHT	●	●	●



CONTROLLED LIGHTING

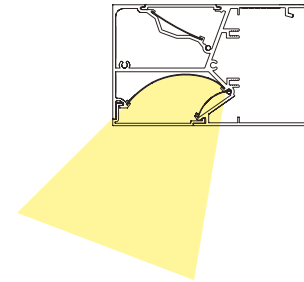
General lighting

- Clear satin-finish PMMA* diffuser with anti-UV treatment
- MIRO 20 SILVER® Aluminum reflector



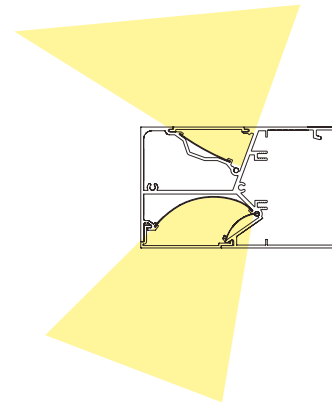
Reading lighting

- Satin-finish polycarbonate diffuser
- MIRO 20 SILVER® Aluminum reflector



Caring lighting

Caring lighting combines direct (reading) lighting with indirect (general) lighting.



Lighting power

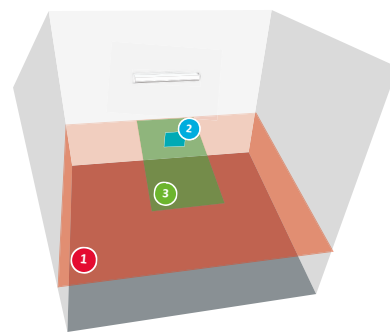
Lighting	Modules power	Types of sources	Color temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	28,7 W (3 Ft)	LED	3000 K 4000 K	5039 lm	33,2 W	151,9 lm/W	Fixed / DALI
General lighting (Dynamic lighting)	38,9 W (3 Ft)	LED	2700 K to 6500 K	5000 lm	44,9 W	111,4 lm/W	DALI
Reading lighting	8,9 W (2 Ft)	LED	3000 K 4000 K	1710 lm	10,8 W	158,8 lm/W	Fixed / DALI
Night light	1 x 3,1 W	LED	3000 K	335 lm	4,9 W	68,1 lm/W	Fixed

* PMMA: Polymethyl methacrylate

EFFICIENT LIGHTING

Lighting study

- Standard room
- Dimensions of the room: 3 m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83



	General lighting Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).	Reading lighting Virtual reading plane 0.3 m x 0.3 m inclined at 75° located 1.1 m from the floor and 1 m from the wall where the light fitting is mounted.	Caring lighting Virtual examination plane 2 m x 0.9 m located 0.85 m from the floor, centred in width and 0.1 m from the wall.
LED	3 ft module 	2 ft module 	General and reading lighting combined
Consumption	33,2 W	10,8 W	44 W
Average lighting	125 lx	350 lx	379 lx

Dynamic Lighting



The GOODLIGHT wall lighting unit is available with dynamic lighting.

For more information, please see page 304.



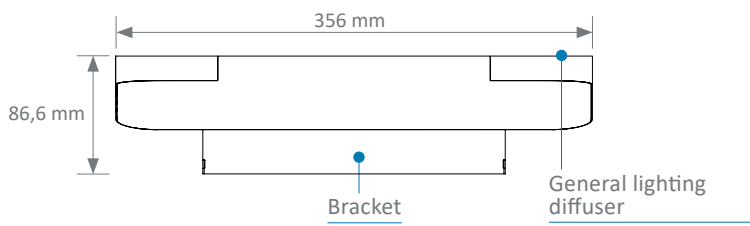
The LUMIA wall lighting unit provides high-performance and comfortable indirect lighting, contributing to the well-being of care teams and patients.



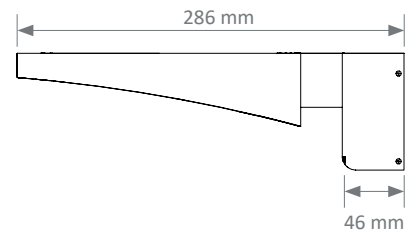
LUMIA

TECHNICAL FEATURES

Front view



Side view



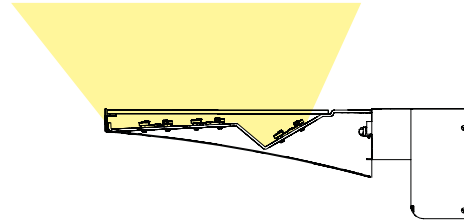
Colours

	White RAL 9016	Grey RAL 9006
LUMIA	●	●

CONTROLLED AND EFFICIENT LIGHTING

General lighting

- Clear glass diffuser
- Aluminum reflector



Lighting study

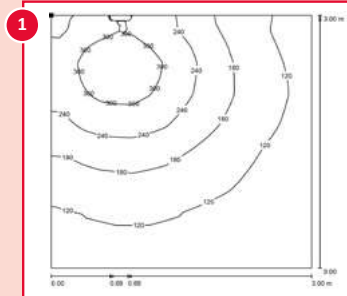
- Standard room
- Dimensions of the room: 3m x 3 m, ceiling clearance 2.5 m
- Reflection coefficients: ceiling 7, walls 5, and floor 3
- Coefficient of depreciation 0.83

General lighting

Virtual general lighting plane of a surface equal to the one of the room, located 0.85 m above the floor (3 m x 3 m for a single room).

LED

Module 3 ft



Consumption	37,6 W
Average lighting	171 lx

Lighting power

Lighting	Modules power	Types of sources	Color Temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	32,3 W (3 Ft)	LED	3000 K 4000 K	5531 lm	37,6 W	147,3 lm/W	Fixed / DALI





EXTRA LIGHTING

FLEX-E LED
NATLYS

p.138
p.140

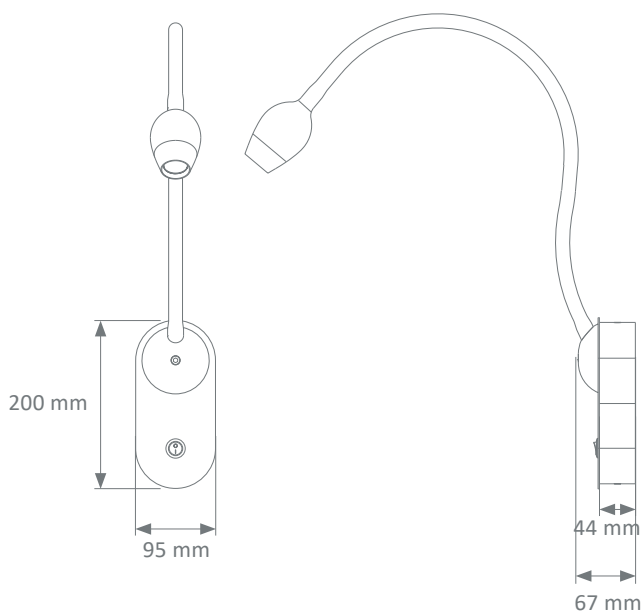


FLEX-E LED

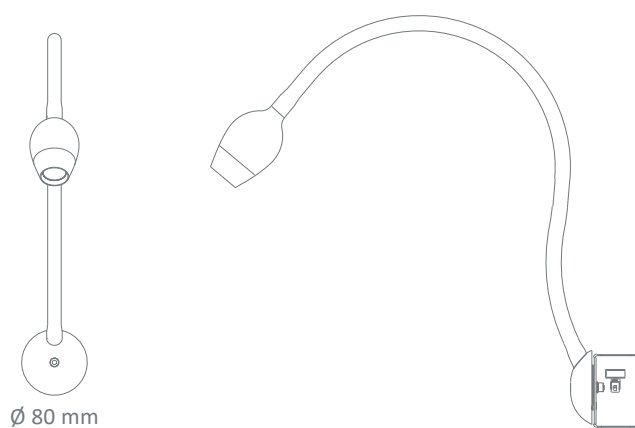
TECHNICAL FEATURES

- Semi-rigid flexible with \varnothing 16,5 mm PVC conduit, length : 640 mm
- Spot dimensions : \varnothing 60 mm
- PMMA* lens
- Control: external or switch
- Spot head in grey painted aluminum and natural anodized
- Net weight : 1,2 kg

Mounting on wall bracket



Mounting on bed head unit (Fluidys, Madeira, Medissima, Goodwood)



Lighting power

Lighting	Power	Types of sources	Color temperature	Luminous Flux	Consumption	System Efficiency	Driver(s)
General lighting	3,1 W	LED	4000 K	335 lm	4,9 W	68,1 lm/W	Fixed

* PMMA: Polymethyl methacrylate

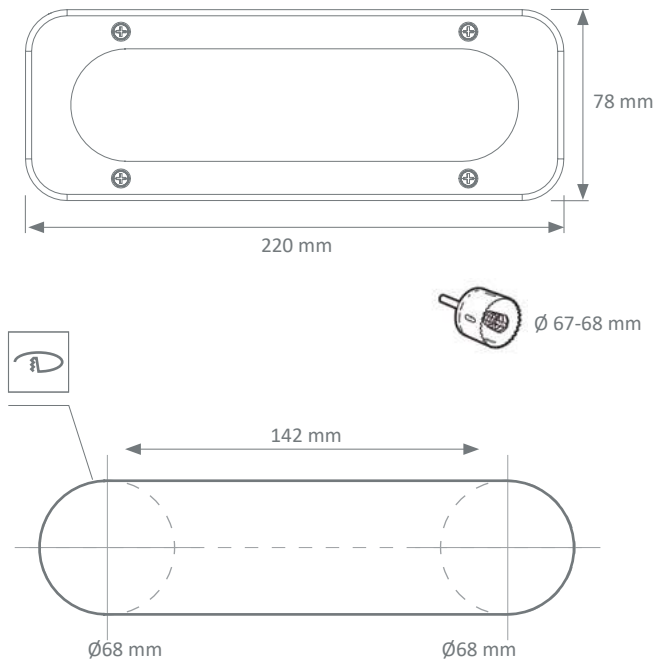


NATLYS

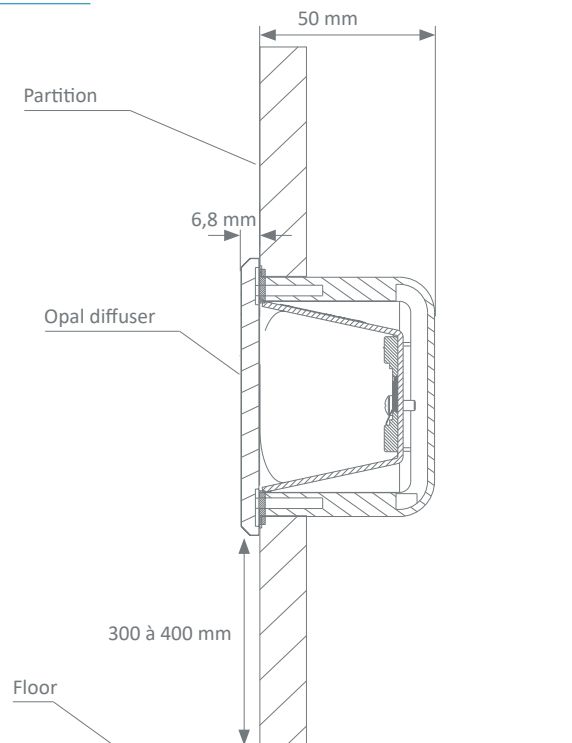
TECHNICAL FEATURES

NATLYS is a orientation light that allows hospital staff or patients who need to leave their bed during the night to move without disturbing sleeping patients. The orientation light can be installed on plasterboard, plywood or wood panels.

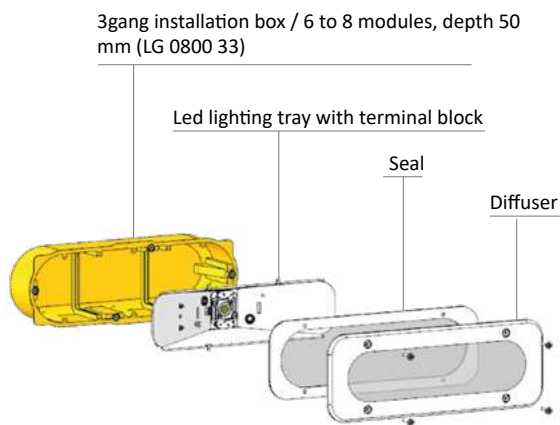
Front view



Side view



Exploded view



Driver

Fixed

Standards

Class I

650°

IP20
IP65

Efficiency energy index

A+

Lighting	Modules power	Type of sources	Colour Temperature	Level of illumination	Consumption	Driver
Orientation	3,1W	LED	3 000 K / 4 000 K	335 lm	4,9W	Fixed

Characteristics:

- Power supply: 220 - 240V ~
- Frequency: 50 - 60 Hz
- IK 08 on the front (5 joules)
- Colour : white RAL 9016
- CRI 90
- Light surface 185x45 mm
- IP65 only on the front panel (Secondary IP).

Standards:

- Complies with EN 60598-1
- DIRECTIVE 2014/35 / EU
- DIRECTIVE 2014/30 / EU

LAMINATE PANELS COLORS FOR AXIS, COCOON, GOODWOOD, GOODWOOD MOVE, MADEIRA, FLUIDYS CONCEPT FOR AMBULATORY USE

Colors

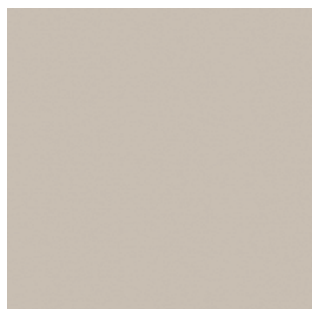
AXIS and COCOON bed head units and GOODWOOD, GOODWOOD MOVE and MADEIRA architectural concepts, offer a wide range of colors. Only the laminate panels proposed below have an antibacterial SANITIZED® treatment.



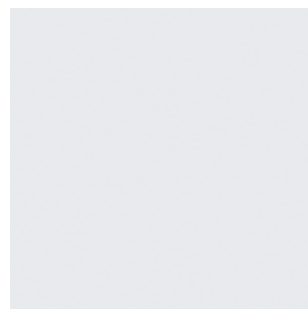
Plains colors



Blue B086
Finish : FA



Beige B116
Finish : FA



White B117
Finish : FA



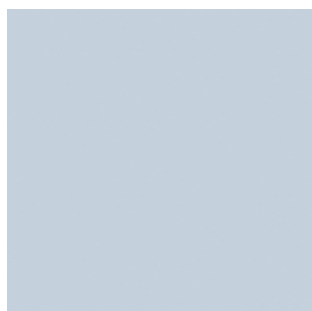
Blue B124
Finish : FA



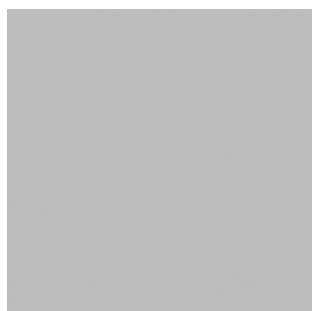
Blue C118
Finish : FA



Celadon C190
Finish : FA



Smoke F008
Finish : FA



Gray G044
Finish : FA



Orange G078
Finish : FA



Yellow J018
Finish : FA



Green P092
Finish : FA



Pink R058
Finish : FA

Woods



Pecan Wood B023
Finish : FA



Washed Oak C103
Finish : SEV



Vendome Oak C133
Finish : SEV



Natural Cherry tree C181
Finish : EXM



Northern Maple E028
Finish : FA



Faroese Maple E103
Finish : EXM



Crystal Ash F058
Finish : SEV



Monreale Ash F061
Finish : SEV



Bergen Beech H028
Finish : EXM



Natural Hazel N056
Finish : EXM



Walnut Havana N114
Finish : EXM



Appalachian Walnut N118
Finish : EXM

FA Finish: Light satin finish with an extra fine grain and soft texture

EXM Finish: Extra matt with a rough texture that recreates the authenticity of the original materials

SEV Finish: The fibre of wood underpinned by a subtly irregular and silky grained surface

NB : The colors shown here may differ from finished products.
Contact our sales force to view our samples. Other colors, on request.

THE EFFECT OF DYNAMIC LIGHTING

TLV products equipped with Dynamic Lighting combine two innovative technologies. By equipping a system with LED sources, energy efficiency can be improved and therefore the overall consumption of the system can be reduced, whilst the effects of natural lighting from sunrise to sunset are simulated by artificial intelligence.

This means that the lighting automatically adjusts its colour temperature and its brightness throughout the day and without requiring any intervention.

The intelligence of the TLV Dynamic Lighting system resides in its ability to satisfy the lighting needs of health-care facilities and its ability to simulate the biological effects of natural light, which contributes to improving the day-to-day comfort of residents and medical personnel alike.

Dynamic Lighting creates a natural and stimulating light environment inside buildings. It boosts human feelings of well-being. It can also be adapted to the needs of its users. In a hospital setting, Dynamic Lighting can be a means to improve the comfort of patients and care personnel.

■ Advantages and benefits for patients and care teams

- Improves the patient environment
- More pleasant wake cycle
- Stimulating light during the daytime
- A feeling of well-being thanks to light that is closer to natural light
- Helps resynchronise the circadian rhythm
- Positive effect on mood and feelings of well-being
- Promotes concentration in care teams

■ TLV products available with Dynamic Lighting

Products	Dynamic Lighting
FLUIDYS	●
HI-BEAM	●
LUMIA	●
LYSA	●
GOODLIGHT	●
LINA	●
ILUS	●
SKYDECO	●

APPLICATIONS IN A HOSPITAL ENVIRONMENT

Dynamic Lighting can be used in normal care rooms, OT/ICU Resuscitation areas, and passageways.

■ Normal care rooms

One of the essential functions of the system is to use light to restore a temporal reference to people whose circadian rhythm has been upset.



■ OT/ICU resuscitation areas and passageways in health-care facilities

Surgery times in the operating theatre, lack of exposure to natural light, examination cubicles where patient privacy must be protected: all of these situations require medical personnel to work in artificial lighting, cut off from any temporal reference. Dynamic Lighting can compensate for this.



■ Retirement homes and nursing homes

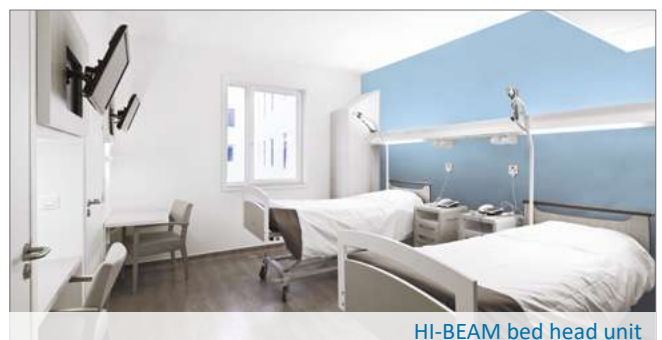
Chronobiological changes in the elderly can result in a phase shift in the sleepwake cycle, leading to an earlier bedtime and earlier rising compared to socio-cultural norms.

To remedy this problem, the Dynamic Lighting option synchronized to the (24-hour) circadian cycle allows residents to resynchronize their biological rhythm and avoid a significant offset of their day/night cycles. This makes the sleep-wake cycles more pleasant, because the lighting adapts gradually.



■ Alzheimer Units

Alzheimer patients can be subject to changes in their circadian rhythm, and sometimes their sleepwake cycle becomes disrupted. Dynamic Lighting contributes to resynchronising the internal biological clock.



OPERATION

Thanks to its embedded electronics, the TLV Dynamic Lighting system is just as easy to use as a standard product.

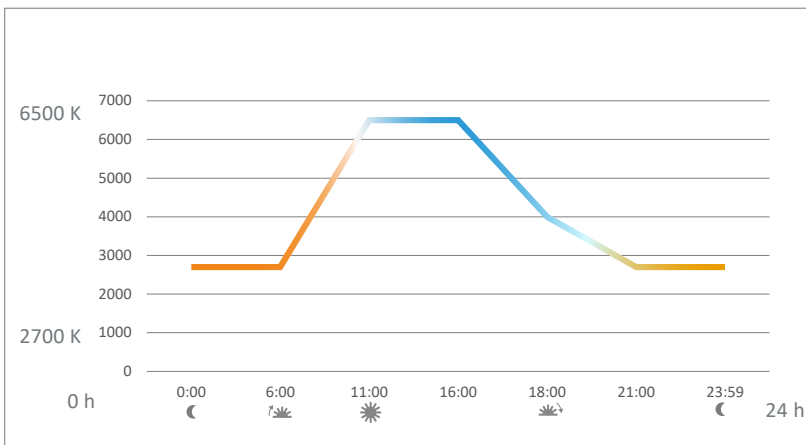
When it is switched on, the colour temperature is automatically adjusted according to the location, the time, and the position of the sun. The colour temperature is then adjusted throughout the day.

In parallel, the artificial lighting can be adjusted (optionally) according to the natural light available. This saves energy.

For areas without natural light, it is possible to vary the brightness according to the time of day. In this operating mode, the behaviour of the product tends to reproduce a circadian cycle, for a gentler awakening phase and a more pleasant end to the day.

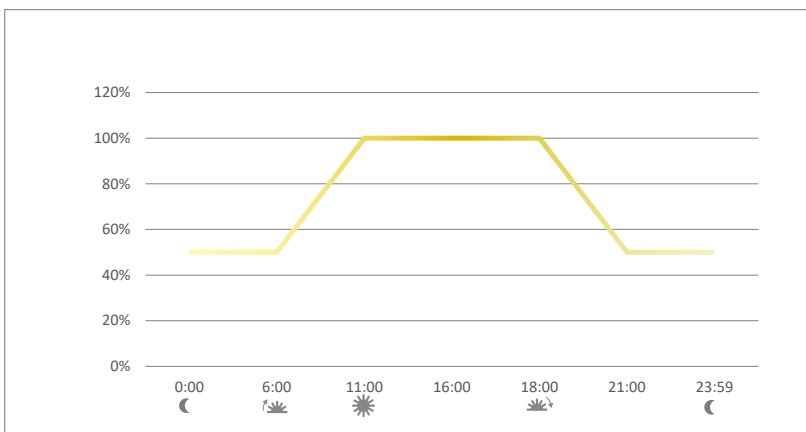
The caring lighting control can be used at any time to switch the Dynamic Lighting to 100% intensity with a neutral tone. This care mode, combined with the reading lighting, provides high-performance lighting in accordance with AFE* recommendations.

■ Variation in colour temperature and intensity over a 24-hour cycle.



The curve adjusts automatically according to location and season.

- The brightness control can be synchronised:
 - To the colour temperature variation curve.
 - With an optional brightness sensor, for the light intensity to adapt automatically to the natural light available.



The curve adjusts spontaneously according to the location and seasons or the automatic light-up and lights-out time, depending on the requirements of the department. This means that patients can be woken up with a warm tone just before breakfast.

* AFE : French Lighting Association

LIGHT: AN ESSENTIAL ELEMENT OF OUR DAILY LIVES

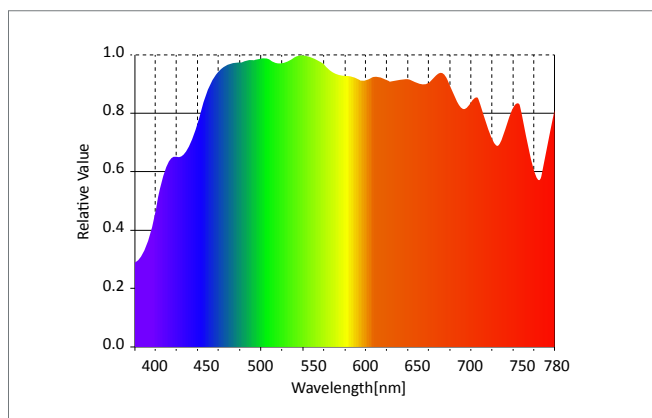
TLV's Dynamic Lighting technology provides health-care facilities with a quality of light much closer to that of natural light—an essential element for our biological rhythms.

The effects of natural light in our daily lives are partly thanks to the spectrum that makes up this light. Until now, the use of fluorescent light sources did not allow us to properly reproduce the spectrum of daylight, whose wavelengths are continuous and fall between 380 and 780 nm.

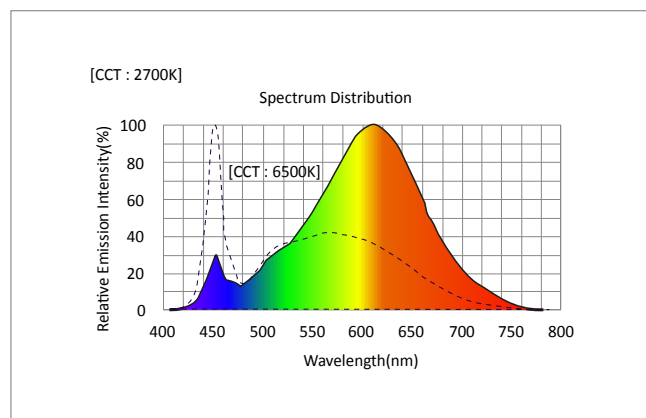
Thanks to the use of TLV technology, which combines the use of high-performance LEDs with embedded artificial intelligence, the light emitted is far more similar to the spectrum of sunlight. The characteristic rays of fluorescent sources are gone, and are replaced by a more complete, more natural, and therefore more pleasant spectrum.

To do this, TLV uses two light spectra: a 2700K spectrum and a 6500K spectrum. These are mixed appropriately according to the time of day, to obtain the most natural lighting possible. The warm light spectrum provides significant red content, like the light at sunrise and sunset. The cold light spectrum provides significant blue content, which is invigorating.

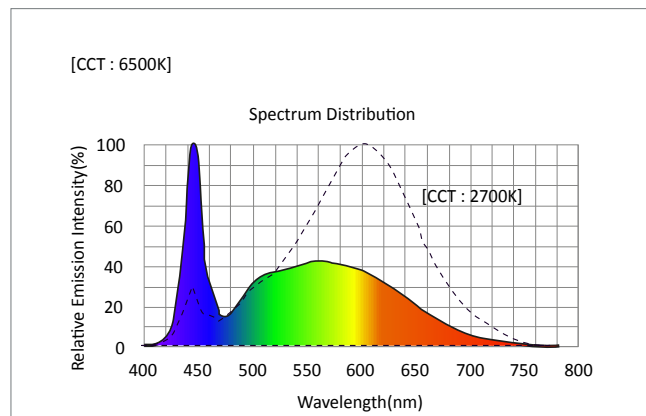
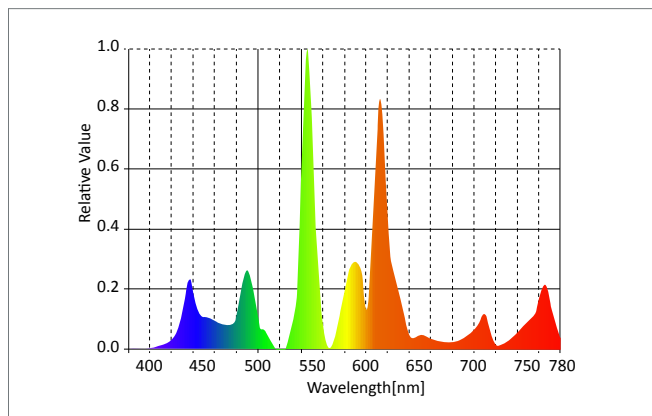
■ Natural light



■ TLV artificial tunable white light



■ Fluorescent artificial light



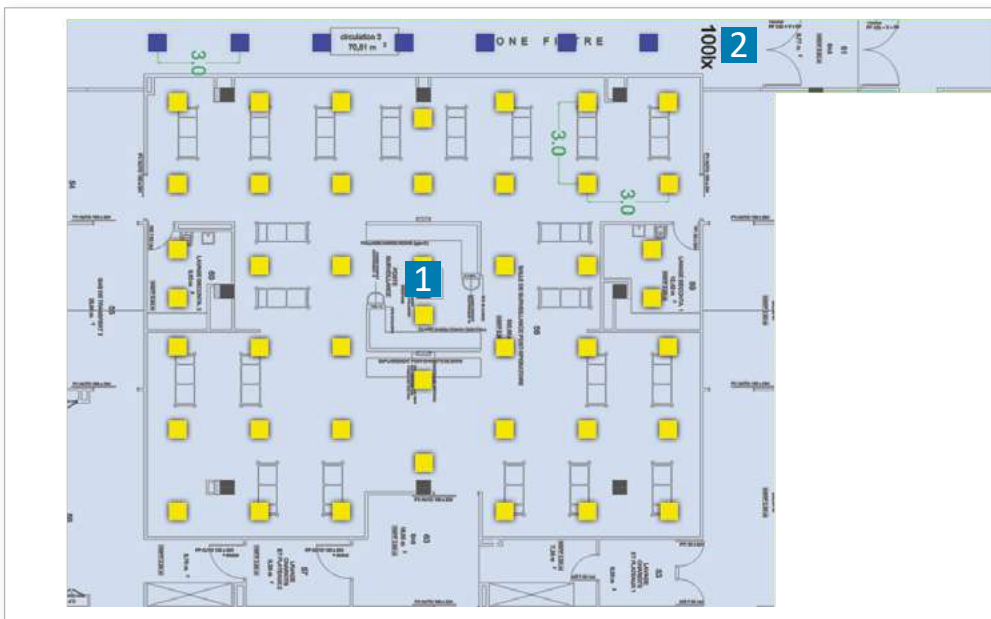
CIRCULATION LIGHTING

TRATO, TLV sister company, specialized in lighting, offers many products for circulation spaces, offices and waiting rooms. The different LED solutions provide efficient and effective lighting contributing to the comfort of patients and caregivers. For more product information, visit www.trato.fr.

TRATO
Lighting



AREA 1 Recovery room - Circulation

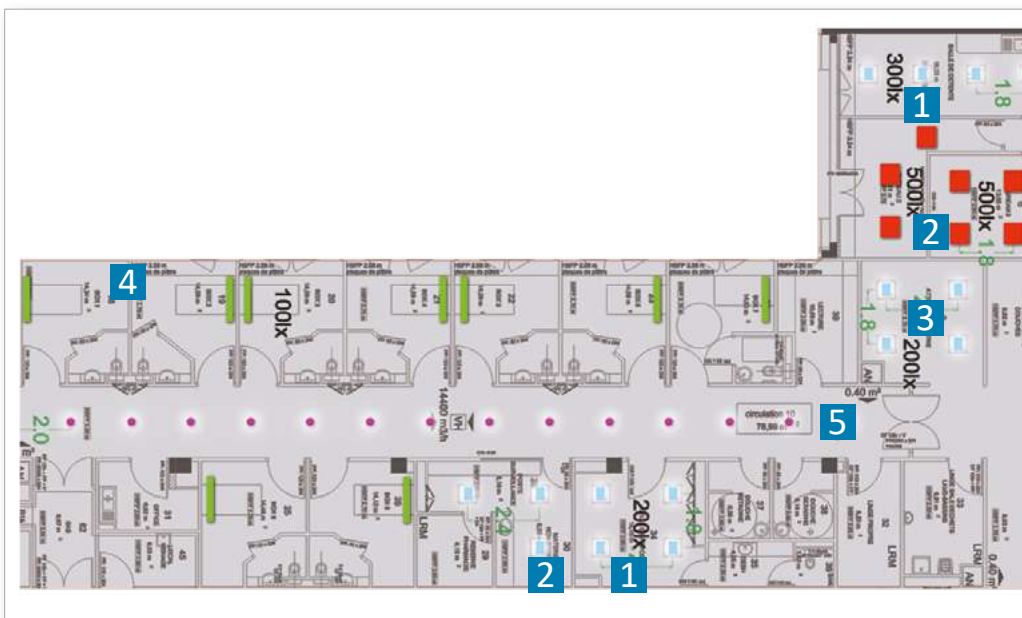


1 Recovery room

2 Circulations



AREA 2 Normal care – Circulation – Offices – Waiting rooms



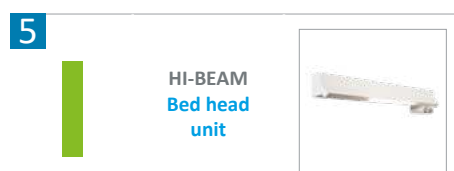
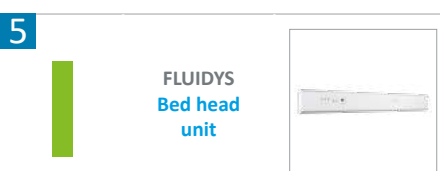
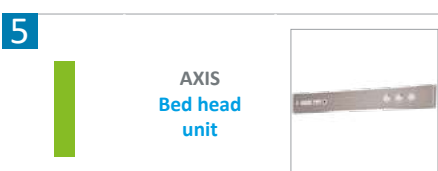
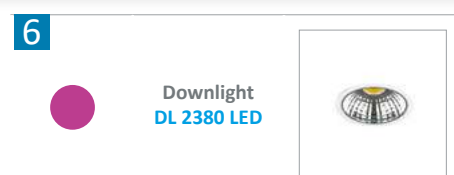
1 Break rooms

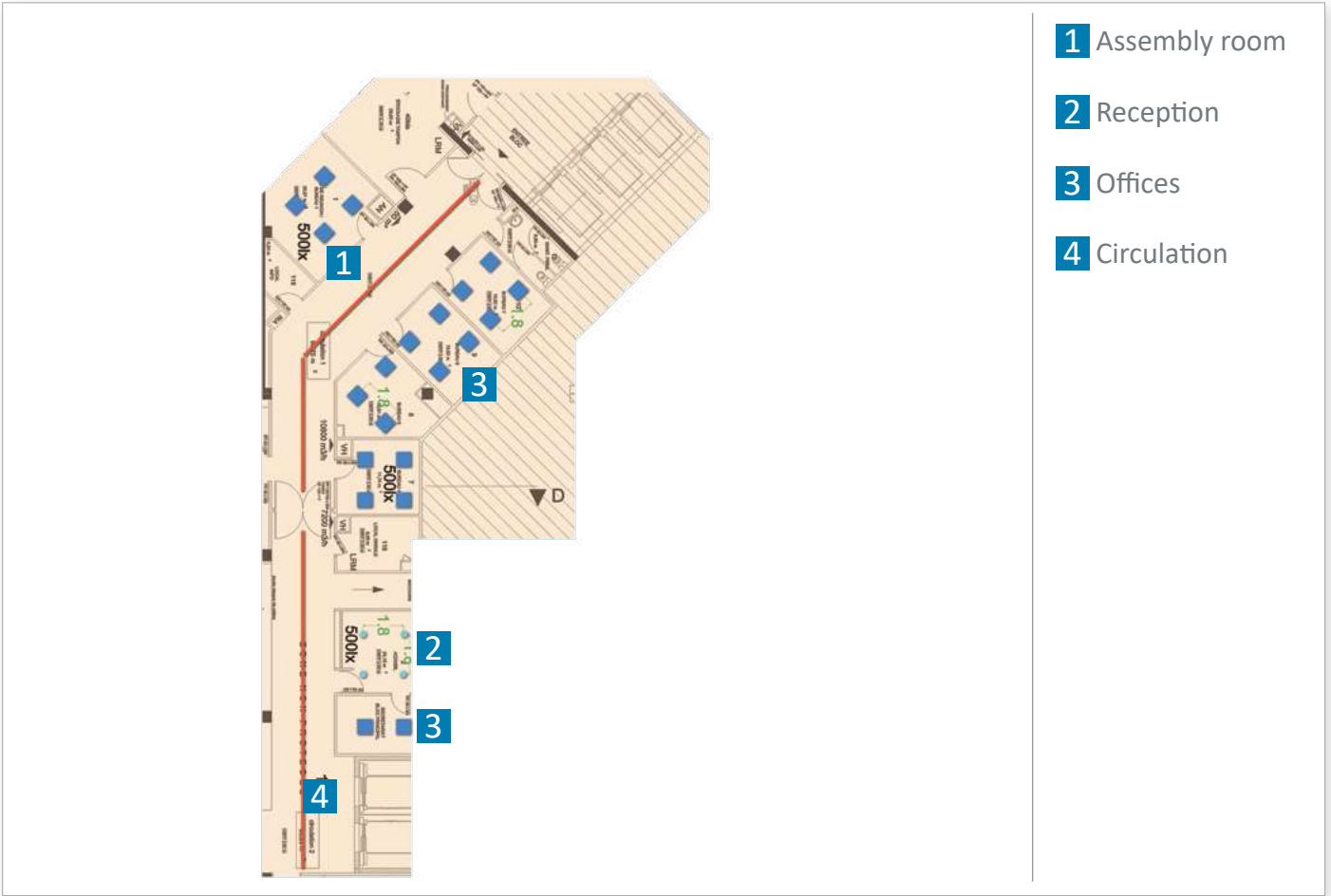
2 Offices

3 Waiting room

4 Normal care

5 Circulation






- 1** Assembly room
- 2** Reception
- 3** Offices
- 4** Circulation


1 3

 Recessed luminaire
LE 4060 LED



2

 Downlight
DL 3921 LED



4

 Lighting system
SE 3581 LED



4

 Asymmetrical continuous rows
LC 3833 FLUO





NORMS & RECOMMENDATIONS

- EN ISO 9001 and EN ISO 13485: Quality management systems
- Low Voltage Directive (LVD) 2014/35/UE
- CE Medical Devices Marking according to 93/42/EEC Directive
- EN ISO 11197: Medical supply units
- EN ISO 7396-1: Medical gas pipeline systems - Part 1
- EN 60601-1: Medical electrical equipment - Part 1
- EN 60598: Luminaires - Part 1: General requirements and tests - Part 2-25: Luminaires for use in clinical areas of hospitals and health care buildings
- Directive 2014/30/UE: Electromagnetic Compatibility (EMC)
- Article EC5 safety regulation against the risks of fire and panic in public buildings
- European rules for caring centers lighting

Photo credits

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Special care bed head units, Sealed lightings, Medical gas monitoring & Biomedical
Accessories

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TLV Healthcare