

# **2021** HEALTHCARE LED LIGHTING PROGRAM



#### **APPLICATIONS FOR LIGHTING RETROFITS**

#### PATIENT ROOMS



GS Lighting Group



#### WASHROOMS





CORRIDORS



SPECIALIZED ROOMS



**MRI SUITES** 







**PUBLIC SPACES** 



OFFICES







EXTERIOR



GS Lighting Group A division of Gross Sales I to

#### PATIENT BED LIGHTING

#### Metalumen

Patient care in long-term or short-term health care facilities require luminaires that meet compliances for examination. Medical practitioners require lighting that is high in output and colour quality, to ensure that they can accurately evaluate the patients and meet their medical needs. When Medical practitioners are not with the patient, the luminaire has the controls capability of meeting their lighting needs for ambient lighting or enough for patient to read.

#### FLEXI BLD Four modes of operation: ambient, reading, reading & ambient, and exam Available switch options: pull chain, safety, remote Optional chart light is available Antimicrobial finish





#### **REMEDI™- LED MULTI-FUNCTION BED LIGHT**

#### AMBIENT



Remedi's indirect ambient compartment provides soft general illumination for the patient while delivering over 10 avg. footcandles over a 12' x 12' area



The examination solution meets the highest recommendations for illumination level (100 fc) and uniformity (5:1 max:min) without the need to mechanically adjust the luminaire housing

#### READING

Exam (Open)

compartment directs light at both the horizontal and inclined reading planes with illumination levels exceeding the recommended values and with excellent uniformity across the target area

The reading

Reading

HEALTH CARE

#### **NIGHT LIGHT**

Ambient





Reading & Ambient

#### **EVEXIA™ - PATIENT BED LIGHT**





Switch reduces risk of damage from motorized





The integral night light option is available with 3-way low profile, stainless steel switches

AMBIENT

Outside compartments provide

ambient illumination

The dual LED optical compartments provide ambient and reading illumination.



- MediMode™
- The MediMode recessed patient light blends the need for multi-function illumination with the desire for an aesthetically pleasing appearance. The healthcare team and the patient both benefit to the optical approach that meets performance targets while enhancing visual comfort.

#### MediMode Behavioral

The features and aesthetics of MediMode can be extended to low, medium and high risk behavioral spaces. This allows consistency in appearance, operation and servicing throughout the facility. Recommended by the NY State Office of Mental Health.

#### MediMode PowerHUBB™

Hubbell's PowerHUBB, an enterprise level Power-Over-Ethernet (PoE) lighting and control platform technology delivers all the standard features of MediMode while seamlessly integrating MideMode and other luminaires with sensors, human interfaces and software for a scalable intelligent building controls solution.



TRI-SWITCHING

READING



Examination utilizes the center + the outside compartmer



Outside compartments provide a higher level of illumination for reading function

Examination utilizes the center + the outside compartments



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#### **EXTERIOR SITE LIGHTING - POST TOP, FLOOD, WALL PACKS, LANDSCAPE**





:6

#### 52% Energy Savings

 \$155 Annual Savings Per Fixture compared to 400W MH (460 Watts)

#### Ratio LED

Featuring Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues.



#### **63%** Energy Savings

 \$233 Annual Savings Per Fixture compared to 750W MH (764 Watts)

#### Viper LED

 The Beacon Viper luminaire is available in two sizes with a wide choice of different LED Wattage configurations and optical distributions designed to replace HID lighting up to 1000W MH or HPS. Luminaires are suitable for wet locations.

#### **RATIO FAMILY OF POST TOP, WALL AND FLOOD**

Size	RAR1-80L	RAR1-160L	RAR2-320L	RAR2-480L
Lumens	3,000/6,000	9,000/18,000	15,000/21,000	24,000/48,000
Watts	25/50W	70-135W	110-165W	185-340W
LPW	120	129	136	136
Mounting	Arm & Knuckle	Arm & Knuckle	Arm & Knuckle	Arm & Knuckle
CCT	3K, 4K, 5K	3K, 4K, 5K	3K, 4K, 5K	3K, 4K, 5K
Distributions	II, III, IV, V			
IP Rating	IP66	IP66	IP66	IP66
Legacy Equivalence	100-175W	175-400W	250-400W	400-750W











	-	
Size	RWL1	RWL2
Lumens	1,000–5,000	6,000–19,500
Watts	10-45	45–155
LPW	136	148
CCT	3K, 4K, 5K	3K, 4K, 5K
Distributions	III, IV	II, III, IV
IP Rating	IP65	IP65
Legacy Equivalence	42W–175W	175W-400W



### EMERGENCY LIGHTING

#### **ABB Emergi-Lite**

A global manufacturer of emergency lighting and exit signs for the specification markets, Emergi-Lite provides products using innovative technologies designed for permance, reliability and cost efficiency to met the highest standards in the industry.

















**Nexus Monitoring System** Emergency Lighting Exit Sign and Battery Unit Monitoring and testing system.



EA Series -Extruded Aluminum Picotogram



EAC Series -Aluminum Combination Unit



EN Series -NEMA-4X Rated Pictogram



EX10 Series -Economical and good quality



EXP Series -For any hazardous locations



EX3 Series -Slim, modular, state-of-the-art



Eclipse Series -Full automatic emergency lighting



EMEX -Emergency Power Battery System



ENC Series -NEMA-4X Rated Combination Unit



EX10-P Series -Economical Combination Unit



EXHZ Series -Hazardous Locations Combo Unit



EAE Series -Aluminum Slim Edge-Lit



ESL Series -High Performance Long Life Battery



CH Series -Central DC Systems

GS Lighting Group



#### SAVING ENERGY IS ALWAYS A BRIGHT IDEA.

Upgrade to new LED lighting with saveONenergy incentives to shorten payback periods, reduce maintenance costs, and cut operating costs.

#### **OUR PROCESS AND PROCEDURE**

#### Step 1 – Evaluation and Audit:

Our energy team will meet with your client group to understand your objectives and goals, your lighting requirements for user groups in each space and then audit existing lighting systems (wattages, voltage, lighting levels)

#### Step 2 – Education and Design:

GS Lighting Group will provide a design process that allows for a level of explanation and education on various lighting systems. We believe in providing clients clarity in the design process to facilitate an understanding of LED fixture technology and control options. Our design team will provide computer generated interior and exterior lighting designs plans on reflected building and site drawings, so you can visual future results. This process will provide you an expectation for installed results. We can provide educational seminars to your management group and supply samples for review.

#### Step 3 – The Proposal:

This step takes the above design to a ROI stage. We will provide you all the details. What your current installed lighting systems is, current lighting levels and current energy load. The proposal will provide the approved design, fixture specs, the expected design light levels and cost. Our proposal will breakdown a Return on Investment based on your energy reduction load.

#### Step 4 – Implementation:

Once you are certain that our proposal meets all your requirements and goals, we can help with the submitted IESO retrofit Save on Energy Program paperwork to help you submit your retrofit for approval and receive the rebates available.

#### Step 5 – Installation:

We can provide you an option for a turnkey solution with a licenced and certified Electrical Contracting company.





#### Energy Savings: 62.6%

Prior to the retrofit, the dealership's outdoor lighting consumed 626,546 kWh annually. After the LED retrofit, the electricity consumption fell to 234,183 kWh—or a 62.6% decline. When calculating that drop with a utility rate of \$0.10 per kWh, the dealership reduced its electricity bills from \$62,655 to an estimated \$23,183— an eye-opening \$39,472 in just one year.

## Healthcare Solutions

#### PATIENT BED LIGHTS



#### **REMEDI**<sup>™</sup>

Multi-function LED Patient Bed Light | Ambient | Reading | Exam





- Addresses the ambient, reading task and examination requirements for the patient bed environment
- Unique, open design reduces the visual impact and overall cross-sectional size while providing the necessary durability
- Four distinct optical compartments eliminate the need to physically manipulate any portion of the luminaire – a time saver for the medical staff and safer for the patient
- Illuminance of 100+ footcandles on the bed surface with a 5:1 max/min
- Optional full-length, indirect night light with either amber or white LED light source
- · Standard antimicrobial finish inhibits the growth of microbes
- Available in 3000K, 3500K and 4000K CCTs

#### EVEXIA™

Patient Bed Light





- Provides ambient and reading illumination for the patient bed environment
- Clean form reduces visual impact and simplifies routine cleaning
- Durable die cast and extruded aluminum housing
- Standard antimicrobial finish inhibits growth of microbes
- Optional tunable white light for ambient illumination
- Available in 3000K, 3500K and 4000K CCTs

#### MediMode™

Recessed 2x4 LED Patient Room Ambient | Reading | Exam



- · Designed for the varied illumination requirements at the patient bed
- Provides a low-glare, indirect solution for ambient and reading task illumination
- Dedicated compartment delivers illuminance of 100+ footcandles for the critical examination functions
- Optional full lensed door simplifies cleaning, protects patient from contamination and meets IP65 and UL Sanitation requirements
- Removable service trays for key components simplifies maintenance activities
- · Available with integrated low voltage controller to allow control from a patient pillow switch
- Available in both 2x4 and 2x2 models with standard antimicrobial finish that inhibits the growth of microbes
- Available in 3000K, 3500K and 4000K CCTs

#### NiteWay™ Patient Room LED Night Light





- Optical design limits glare while delivering even illumination on the floor plane
- The smooth form facilitates simple cleaning while the polycarbonate lens and die cast
   aluminum faceplate
  - provides durability
- Low profile design is available in either a vertical or horizontal orientation
- · Standard antimicrobial finish inhibits the growth of microbes on painted surfaces
- Wet location listed
- No exposed fasteners
- Available in 3000K CCTs and amber (590nm)

#### PATIENT BED LIGHTS



#### LiteFrame NSF2

Commercial LED Downlight - NSF2 Splash Zone Rating



## Remote phosphor technology delivers color consistency from fixture to fixture while providing energy savings and lower maintenance costs

- Designed for optimal life and lumen maintenance
- Wide selection of reflector finishes; clear Alzak reflector has antimicrobial finish
- · Approved for NSF2 Splash Zone applications

high-level examination illumination

• 0-10V dimming is standard

simplifies cleaning

Available with 3000K, 3500K and 4000K CCTs and 80 CRI

Designed specifically to provide comfortable ambient and

Lens gasket option and wet location listing available

Available in 3000K, 3500K and 4000K CCTs

Standard with 90 CRI with R9>50 for excellent color rendering Enclosed lens protects patients against contaminants and

Available in both 2x4 and 2x2 models with standard antimicrobial finish that inhibits the growth of microbes on painted surfaces

#### LTRX Recessed 2x4 LED Patient Room Light: Ambient/Exam



#### LiteFrame IP65

Commercial LED Downlight - IP65 option



- Remote phosphor technology delivers color consistency from fixture to fixture while providing energy savings and lower maintenance costs
   Designed for optimal life and lumen maintenance
- Designed for optimal life and lumen maintenance
- Wide selection of reflector finishes; clear Alzak reflector has antimicrobial finish
- IP65 trim option provides protection from dust and moisture intrusion
- 0-10V dimming is standard
- Available with 3000K, 3500K and 4000K CCTs and 80 CRI

#### LiteFrame IP65

Commercial LED Downlight - IP65 option



- LED backlit, sand-blasted panels along the edges of the mirror provide even illumination and excellent facial rendering
- Locking feature secures mirror to housing
- The housing comes with a standard antimicrobial paint finish.
- Available in three sizes (18"x40", 24"x40" and 36"x40") and two light outputs
- All models are ADA compliant





#### PRODUCT OVERVIEW

The Obsidian Message Sign provides a reliable method to highlight critical messaging. The high contrast face panel clearly communicates the message in visible red or green letters when the sign is energized. In the Off condition, the face becomes black without any message bleed through - eliminating any confusion. A variety of standard message panels are available with custom messages available upon request.









Patient care in long-term or short-term health care facilities require luminaires that meet compliances for examination.

Medical practitioners require lighting that is high in output and colour quality, to ensure that they can accurately evaluate the patients and meet their medical needs. When Medical practitioners are not with the patient, the luminaire has the controls capability of meeting their lighting needs for ambient lighting or enough for patient to read.

In health care environments, the facilities have cleaning process and procedures in place to help prevent the spread of microorganisms and dust. It is important for patient rooms to be cleaned to help maintain the health of the patients and medical practitioners. Metalumen's luminaires have been designed to simplify the cleaning of the luminaires and minimize the spread of microorganisms.

#### **IDEAL APPLICATIONS**

- Patient rooms
- Treatment rooms
- Emergency and triage bed areas
- Convalescent and elderly care exam rooms
- Convalescent, elderly and palliative care spaces



#### **FLEXI BLD**



- Four modes of operation: ambient, reading, reading & ambient, and exam
- Available switch options: pull chain, safety, remote
- Optional chart light is available
- Antimicrobial finish







#### **RM4DI BED LIGHT**



- Two Pull Chain options are available to control reading and ambiant lighting
- Antimicrobial finish
- Internal drivers











#### SECURESEAL HC04 LED. RECESSED



The SecureSeal Ceiling Light offers a quality recessed troffer for sterile environments including operating and diagnostics, treatment rooms and laboratories. Available in 1×2, 1×4, 2×2 and 2×4 sizes for T-bar or plaster ceilings. 3000, 3500 & 4000K





#### CARLISLE TC5 LED. RECESSED. DIRECT





- Up to 139 LPW
- Excellent lumen packages ranging from 2600 to 8200 lumens
- One-piece, easily removable lens for quick maintenance and room
- side access to driver



#### LUMINAIRE SPECIFICATION

Ideas brought to light

Exam Lighting – During medical examinations, lighting requirements demand an average of 100 fc on the bed. Metalumen's bed lights with full light output are designed to meet this requirement to ensure Medical practitioners can accurately evaluate the patient.



Metalu

Optical Systems – Metalumen's Bed Light luminaires are offered with direct and indirect lenses to help reduce dust and particles of filth on the luminaire to help facility cleaning process.

Luminaire Finish – Cleaning in the health care industry is a process to remove microorganisms, and particles of filth. Metalumen's luminaires are offered with Anti-Microbial powder coat finish for the luminaires to help with the disinfection process.

Controls/Switching – Luminaires come standard with 0-10v 1% dimming drivers to optimize their output for ambient or reading. Luminaires are offered with 2 or 4 position pull chain to control with luminaire direct or indirect light. Consult the factory for other luminaire controls for the Bed Lights.

Colour Rendering – In health care environments it is important to provide accurate medical diagnoses. To prevent the incorrect diagnoses of cyanosis; when oxygen levels in the blood are dangerously depleted and is indicated by blueish or discoloured skin. Metalumen's Bed lights are offered with 3 step McAdam Eclipse 90 CRI LEDs with high R9 to achieve COI (Cyanosis Observation Index) compliance of less than 3.3. Consult factory for Circadian Rhythm stimulant Lighting.



Exam (Open)

Reading

Ambient

Reading & Ambient

For more information, please visit www.metalumen.com Metalumen reserves the right to change specifications for product improvement without notice. 20200716

#### **MIRA SERIES LED LIGHTS**













Inspired by the aerodynamic shape of an airplane wing, the Amico Skyline Series Overbed LED Light offers a sleek and elegant design that meets the needs of both the patient and caregiver. When placed on the headwall above the patient bed, the Skyline overbed light delivers high level illumination and light distribution to allow caregivers to perform thorough examinations with ease while additional reading and ambient functions improve patient comfort and well-being.

#### **MULTIPLE DIRECTIONAL LIGHT CONFIGURATIONS**



Reading Light



Ambient Light



Examination Light









The Amico Slimline Series Overbed LED Light offers a minimalist design that meets the needs of both the patient and caregiver. Incorporating the latest LED edge-lit technology the Slimline overbed light is designed to provide high level illumination and light distribution while meeting the aesthetic requirements of the patient room. With infection control in mind, this fixture is designed with seam-free surfaces and clean edges.

#### MULTIPLE DIRECTIONAL LIGHT CONFIGURATIONS



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We designed the Solar Eclipse 2 x 4 LED Light to provide you with all of the functions a patient room requires conveniently in one fixture. This modern multifunction patient room fixture offers Reading, Ambient, and Exam functions as well as an optional Night Light, to provide the patient an optimal healing environment while maximizing clinical efficiencies with proper lumen output and glare-free lighting.

#### **OTHER CONFIGURATIONS**



Multifunction





Ambient / Exam

Exam





The Solar Series Multifunction 2 x 4 LED Light offers a traditional patient room lighting design in this multi-compartment ceiling fixture. The standard functions include Reading, Ambient, and Exam lighting with the option to add a Chart and Night light. A basket section provides general ambient lighting while the parabolic louvered lens provides direct and controlled exam lighting to support caregivers. Glare free lenses and reflectors cover all of the lighting functions and ensure patient comfort while maximizing clinical efficiencies.

#### **MULTIPLE DIRECTIONAL LIGHT CONFIGURATIONS**







Indirect Ambient



Create an environment that nurtures healing while maximizing clinical workflow efficiencies. The asymmetrical design of the Duo Med LED Multifunction Light makes it the ideal solution for areas where light can be obstructed by equipment such as booms, allowing for maximum light output onto the patient bed. The modern design provides visual comfort for patients and enables the clinician to perform their tasks with the highest degree of efficiency.

#### **OTHER CONFIGURATIONS**

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0			
•	•	•	



Reading (optional)

Exam / Ambient

#### LUNAR LED NIGHT LIGHT





The Lunar LED Night Lights bring a soft, low level of illumination to the hospital room. This Night Light allows the clinical staff and patients to navigate safely through dark rooms. The unique faceplate has minimal protrusion from the wall and provides even light distribution. For ultimate convenience, the Lunar Night Light is available with optional photocell technology.

#### LOUVERED LED NIGHT LIGHT

Amico's Louvered LED Night Light provides subtle lighting that is perfect for any healthcare environment.

Its energy-efficient LED lasts for 50,000 hours. The Louvered Series Night Lights are available in 2700K, 3000K, and 3500K soft white, amber, and blue colors.









The Solar Series Surgical Luminaire LED Light is designed to be used as perimeter lighting in the Operating Room. These specialized luminaires provide supplementary illumination that allows clinicians to perform their tasks with a great deal of precision and accuracy. The Solar Surgical Luminaire offers high-level illumination and a color rendering index of 80 to 90+ to meet all the demands required in a surgical suite. The Symmetrical / Asymmetrical lens used is designed to reduce shadowing and glare. Optional Green LEDs can be used to optimize visibility by reducing glare and reflection on the monitor and minimizing eye strain for surgeons during long procedures.

#### **OTHER CONFIGURATIONS**



1 x 4



2 x 2



2 x 4

**Optional Green LED** 

Cleanroom 2 x 4 LED Light





The Solar Series Cleanroom LED Light (CLS) by Amico is a recessed IC-rated IP65 luminaire suitable for ISO Class 3 grid or flanged cleanroom applications. This wet location luminaire features an inset or overlapping door with a triple gasket for a reliable seal. Available with NSF/ANSI 2 for Food Zone, Splash Zone and Non-Food Zone Applications.

The Solar Series Cleanroom fixtures are available in 2 x 4, 2 x 2, and 1 x 4 models.

#### **OTHER CONFIGURATIONS**







#### MIRA 50, 65 & 90 LED LIGHT

The Mira Series LED Light offers the latest advancements in mirror surgery, procedure and examination lighting. Its 36 precisely positioned LEDs provide superior shadow control, depth of field, and light intensity to provide caregivers with advanced visual acuity. Clinicians can easily customize light intensity with five levels of dimming and an endo mode conveniently located on the light head for easy access. The Mira's removable handle is ergonomically positioned off to the side to maximize the light field and can be rotated to electronically focus the light beam to a concentrated 6" for more targeted surgical procedures. Our Mira Series LED Exam lights come in in 50.000, 65.000 and 90.000 Lux options and offer a CRI of 95+ for advanced color accuracy.

#### GAMMA 50 LED LIGHT

Small but mighty, the Gamma 50 LED can be used in various settings throughout the hospital and is most suitable for minor examinations. It's compact and innovative design allows for maximum light output without sacrificing functionality. The maintenance-free LED's provide 50,000 Lux of light, a CRI of 95+, and a color temperature of 4500K for exceptional color accuracy. A capacitive touch keypad is located on the back of the light for ultimate convenience.







Introducing Amico's most versatile light yet. The Nova is a fully recessed exam light and can be used in various settings throughout the hospital environment. It is safe, easy to operate and provides the ultimate infection control. Precisely positioned LEDs and 360 degrees rotation allow for increased illumination and superior shadow control, making the NOVA the perfect alternative to ceiling mounted exam lights.







#### MOTORIZED EXAM LIGHTING

Nova LED Motorized Exam Light

The Nova LED Motorized Light is a fully recessed exam light and can be used in various settings throughout the hospital environment. This fixture provides a safe alternative to ceiling-mounted exam lighting and offers a convenient solution in lowceiling areas. Its precisely positioned LEDs and 360 degrees of rotation allow for increased illumination and superior shadow control to support caregivers with advanced visual acuity. The Nova can be installed in multiple configurations within the room to maximize light output and enhance clinical efficiencies. This versatile fixture is ideal for Labor & Delivery, Patient Rooms, Intensive Care Units, Emergency Departments, and many more.







#### NOVA WALL CONTROL KEYPAD

Our innovative backlit wall control keypad offers precise and convenient control of light intensity and direction. Control up to two fixtures on one keypad with easy-to-use tactile buttons and customizable dimming. The wall control keypad is designed with a Mylar cover for ease of cleaning and infection control.



#### SOLAR SERIES MRI Suite LED Solutions



Amico is proud to present our portfolio of MRI lighting solutions designed for an Enhanced Patient Experience. Choose any combination of lighting products to create your ideal design, or request a custom design project. All of our fixtures are certified to meet MRI vendor EMI requirements making them an ideal choice for any MRI suite.





MRI Image Ceiling Panels



MRI Cove Lighting



RGB Wall Mounted



MRI Down Lighting

Visit amico.com for more information about our MRI Series of lights





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#### **BEHAVIORAL HEALTH** STARTILE SERIES

#### **HOUSING/FRAME:**

• White painted extruded aluminum frame (standard) encased in a 16 gauge cold rolled steel frame with beveled edges to deflect the force of an impact. Other finishes available.

#### LENS

 Two lenses provide maximum durability. Interior lens is White Polycarbonate and exterior is .060 Clear Polycarbonate. Lens secured by "Z" rails.

#### LED

 Available in four color temperatures 3000°K, 3500°K, 4200°K and 5700°K. Other color temperatures available, consult factory. Standard 0-10V Meanwell dimming driver with 10-100% range.

#### **EXAMINATION ROOMS** AURAMED CONTEMPO MULTI-FUNCTION

#### **FEATURES**

- · Intended for Patient Rooms, Skilled Nursing Facilities, Assisted Living, Clinics, and more
- Provides reading, ambient and exam illumination for the patient room environment
- Low Voltage Control options provides lighting control interface to a pillow speaker, bed side rail or other low voltage devices
- AAOH14 can be used in pairs adjacent to the patient bed. Fixtures are quoted and sold individually.
- Grid installation with optional flange kit
- This product was Made in America and complies with the Buy American Act requirements

#### MRI/IMAGING SUITES - IMAGE OVERLAY STARTILE MRI SERIES - VARA KAMIN'S IMPRESSIONS OF LIGHT<sup>®</sup>, INC SERIES

#### **IMAGES:**

Images are from Vara Kamin's Impressions of Light®, Inc. (VKI). Images sit directly in the grid with the Recessed Frame on top. Image options are on page 3 and are printed on 1/4" polycarbonate. Additional options available, consult factory. Images sit directly in the grid with the Recessed Frame on top. VKI murals are available and scalable to various project requirements. Images may need to be edited based on configuration. Images are printed on polycarbonate, unless otherwise specified.

#### **RECESSED FRAME:**

Straight edge Recessed Frame illuminates the Image by raising the StarTile 3-inches (standard) above standard (15/16") grid ceiling.
 Frame is available in aluminum (MRI compliant) with a white powder coat finish, unless otherwise specified.

#### **STARTILE FRAME:**

· Fixture Frame White Extruded Aluminum. Non-ferrous material content.

#### STARTILE LENS:

• Opal Polycarbonate lens standard.

#### STARTILE LED:

Recommended color temperature for VKI Images is 4200°K. Standard 0-10V Meanwell dimming driver with 10-100% range.





#### PATIENT ROOMS STARMED HEADWALL SERIES

#### **FEATURES:**

- Intended for Healthcare Settings, Alternative Care Facilities, Patient Rooms, Skilled Nursing, Hospitals, and more
- Headwall patient room fixture provides up/down lighting for ambient and reading functions
- Available in 2ft or 4ft
- Aluminum construction with welded or decorative endcaps
- Standard antimicrobial finish

#### STARMED DOS+1 SERIES

#### CONSTRUCTION:

- 20 gauge formed cold rolled steel housing seam welded and ground smooth. Stainless steel option available. Optional inset frame with clear polycarbonate
- lens to provide surface for easy cleaning. Frame fastened to housing via hinge.

#### LENS:

Ambient lens is white polycarbonate. Exam lens is available in clear ribbed acrylic or white frosted ribbed acrylic (recommended).

#### LED:

Ambient and exam compartments available in three color temperatures 3500°K, 4000°K and 5000°K with maximum 3-step MacAdam variation allowance. Minimum 80 CRI standard. Optional minimum 90 CRI available on Ambient and Exam compartments. Optional reading lights are 3000°K non-dimmable.

#### **ELECTRONICS:**

0-10V dimming available with 10-100% range and 1-100% range for Ambient compartment. Must specify dimming under options. Optional low voltage controller provides control of lighting from a pillow speaker, bed side rail or wall switch. LV2 controls ambient and reading functions without dimming (on/off function only). Must specify voltage for LV2. LV3 controls ambient function with dimming, and reading and/or night light function without dimming. Exam function provided on independent circuit unless otherwise specified (non-dimming). Other hardware/accessories sold by others.

#### STARMED SERIES

#### HOUSING:

20 gauge formed cold rolled steel housing seam welded and ground smooth. Aluminum and stainless steel options available.

#### FRAME:

Inset 18 gauge formed cold rolled steel or stainless steel door frame. Optional 16 gauge aluminum.

#### LENS:

White frosted polycarbonate or acrylic shields high performing Exam compartment LED's. Ambient compartment shielded by a white ribbed polycarbonate inner lens. Reading light standard. Clear lens over ambient and reading doorframe seals compartment for easy cleaning.

#### LED:

Exam and ambient available in three color temperatures 3500°K, 4000°K and 5000°K. Other color temperatures available, consult factory. 0-10V dimming available with 10-100% range and 1-100% range. Must specify dimming under options. Reading light is 3000K° unless otherwise specified

#### **STARSURGICAL SERIES**

#### **HOUSING:**

20 gauge formed cold rolled steel housing with continuous seam welds. Aluminum and stainless-steel options available.

#### FRAME:

Inset or overlapping doorframe available in aluminum, cold rolled steel, and stainless steel. Extruded inset door available in anodized aluminum or white painted aluminum. Frame held to housing via aircraft cable.

#### LENS:

Symmetric and symmetric/asymmetric acrylic with RFI Grid has serves as an inner lens with a 0.060 clear acrylic lens outer lens for smooth surface. Optional prismatic acrylic or polycarbonate installed with smooth side out and does not require additional outer lens. Inset (cold rolled steel, stainless steel and .050 alum) and Overlapping frame uses a rail hold down system.

#### LED:

Available in three color temperatures 3500°K, 4000°K and 5000°K with maximum 3-step MacAdam variation allowance. Other color temperatures available, consult factory. Minimum 80 CRI standard with optional minimum 90 CRI available. 0-10V dimming available with 10-100% range and 1-100% range. Must specify dimming under options.













#### **HEALTHCARE & DISINFECTION**

 Current has the right lighting and controls solutions to enhance Healthcare environments while emphasizing safety and efficiency.

# Air and Surface UV LED Solutions Disinfection Lighting for Occupied Spaces



## 365DisnFx<sup>™</sup> technology

Decades of UV and LED experience drive solutions for continuous disinfection.

#### **COMING SOON!**





## DIFFERENT SOLUTIONS FOR DIFFERENT NEEDS

Meeting today's challenging demands for cleaner facilities requires complementary disinfection measures based on facility use and design. GE Current, a Daintree company, stands ready with disinfection UV solutions that provide an additive solution for both viruses in the air and bacteria on surfaces without time and occupancy constraints.

**COMPLIANT** IEC 62471 – Photobiological Safety for Lamps and Lamp Systems standard and American Conference of Governmental Industrial Hygienists (ACGIH®) TLVs® guidelines for human exposure to UV.

**CONTINUOUS** Flexible LED solutions for 24-hour occupancy with UV dosage designed to operate below human health exposure limits.\*

**TEST-DRIVEN** Third-party testing substantiates our claims and validates our predictive models; we continue to expand our testing to verify effectiveness against additional pathogens.\*\*

### A BREAKTHROUGH IN LED

#### NOW

- Traditional UV germicidal disinfection lighting
- Xenon discharge or mercury-based lamps deliver uncontrolled high doses of UV to inactivate pathogens.
- For use in unoccupied spaces only or with safeguards required to eliminate possibility of direct exposure.
- Lamp sizes that can create limitations related to form factor.

#### NEXT

- LED disinfection lighting solutions
- Controllable LED functionality can be designed to emit high-efficiency low-dose UVC for continuous use in occupied spaces.
- Flexible design and application integration due to LED system size.

\*Of IEC 62471 Photobiological Safety for Lamps and Lamp Systems standard and American Conference of Governmental Industrial Hygienists (ACGIH®). \*\*GE Current, a Daintree company, is certified through UL's Data Acceptance Program (DAP) to perform testing to the IEC 62471 safety standard.



Facility owners and managers must deal with the ever-changing backdrop of concerns related to spaces where people gather and interact. Current teams have been applying resources and design expertise in meeting this growing industry challenge.



- Fixture light source available with wired or wireless controls
- Glass lens transmits UVA

- fits most ceiling designs
- Similar in appearance to a standard smoke detector

#### Disinfection Lighting for Occupied Spaces: 365DisInFx<sup>™</sup>

- LED-delivered solutions that help inactivate pathogens both in the air and on surfaces
- LED solutions designed to deliver 24-hour deactivation in occupied spaces
- Meets IEC 62471 standards and ACGIH<sup>®</sup> guidelines for 24-hour-a-day occupancy

365DisInFx<sup>™</sup> UV technology addresses airborne pathogens and should be used in conjunction with proper PPE and cleaning protocols as part of a complete indoor disinfection strategy. If combining two or more UV solutions, please consult a trained product application representative to ensure the total irradiance (UV dose) does not exceed recommended human exposure limits. This may negatively impact inactivation rates.

#### WHY CURRENT?

We bring a long-standing and broad range of experience in light source and fixture technology. That, coupled with scientific know-how and investment, has led to highly effective solutions- targeting specific UV wavelengths-for surface and airborne pathogen deactivation.



#### **UVA TECHNOLOGY: SURFACE DISINFECTION**

A division of Gross Sales Ltd.

GS Lighting Group

Many bacterial and fungal pathogens are transmitted primarily through high-touch surfaces. 365DisInFx<sup>™</sup> UVA technology integrated into the light fixture helps provide surface disinfection while lighting the space.







#### **UVC TECHNOLOGY: AIR DISINFECTION**

While droplets fall quickly out of suspension, aerosolized viruses can remain airborne for hours. 365DisInFx<sup>™</sup> UVC technology solutions can help reduce viruses in air.<sup>1</sup>



\* If combining two or more UV solutions, please consult a trained product application representative to ensure the total irradiance (UV dose) does not exceed recommended human exposure limits. This may negatively impact inactivation rates.

24/7 Continuous Inactivation





#### Projected\* Coronavirus Inactivation ACGIH® Exposure Threshold Limit Value (TLVs®) vs. Wavelength



Continuous low dosage at 254 nm inactivates aerosolized pathogens without exceeding ACGIH TLVs\*



#### **FIXTURE INSTALLATION & CONTROLS**

Hospitals: 6200 US |1400 Canada



1.7-million HAI infections per year



#### **HIGH-LEVEL TECH SUMMARY**

930,000 Staffed hospitals beds



99,000 HAI related deaths per year



37-million admissions per year



\$20-billion HAI's cost hospital per year



- Patented Current Disinfection Lighting technology has been shown to be capable of 1+ log kill of common pathogens with a sing 8-hour exposure in in-vitro tests
- Sale for continuous exposure under IEC photobiological safety standard 62471 (US patent 9,937,274)
- 365nm UVA light is invisible to the human eye
- Integrated in fixture with standard white light. Disinfection light can be controlled independently of white light using wired or wireless controls
- Current demonstration embodiment is 2x2 recessed fixture, but can be integrated into many types of lighting devices.

#### THE PROBLEM

HAI's are present in every hospital environment. While all hospitals address infection control through various methods. A single case of an AI can be devastating for patient wellbeing, hospital reputation/public relations as well as cost.

Hospital readmissions represent a major health and financial burden. Nearly 30% of hospitalized patients are readmitted within 1 year of hospitalization.

## THE CENTERS FOR DISEASE CONTROL (CDC) ESTIMATES

- 1.7 million HAIs, \$20B healthcare cost, 99,000 deaths per year
- Infection control departments are highly interested in disinfection solution.

#### THE SOLUTION

Imagine incorporating a solution to reduce HAI's in to an everyday light fixture that is virtually in every area in hospital ceilings.

Lab & clinical testing has shown that Current's DisInfection products have the ability to significantly reduce HAI's including MRSA & other pathogens commonly present in hospital environments.

- Having 90-99% Infection kill rates in less than an 8 hour period.
- Current's Patented DisInfection Technology offers a safe 'continuous' UV wavelength/intensity while greatly reducing HAIs.
  - Passes all requirements for IEC62471 –
     Photobiological Safety of lamps and lamp systems
     (for human exposure)(US Patent 9,937,274)

#### **OUR OBJECTIVES**

- 1. Establish human safety of UV wavelength / intensity
- 2. Characterize disinfecting capability versus common pathogens
- 3. Develop prototypes and technology platform



#### **EFFICACY OF AN ULTRAVIOLET-A LIGHTING** SYSTEM FOR CONTINUOUS DECONTAMINATION **OF HEALTHCARE-ASSOCIATED PATHOGENS ON** SURFACES OVERVIEW

1 in 25 hospitals patients has a healthcare-associated infection (HAI) while being treated in a medical facility. Estimated 1.7-million HAIs in U.S. acute care hospitals are in 2015. of those, about 99,000 patients with HAIs died during their hospitalizations.

This research showed that 8 hours of UV-A light exposure resulted in modest reductions of several bacteria's (See figurers). In addition, 4 hours of UV-A exposure from a ceiling light fixture resulted in a signification reduction in the frequency of recovery of pathogenic microorganisms and in counts of total aerobic bacteria and MRSA on in-use medical equipment.

These findings suggest that UV-A could potentially be useful in healthcare settings to provide continuous low-level decontamination without posing a threat to inhabitants.



Note: Critically, the prototype tested abides by the standards provided by the International Electrotechnical Commission (EC\_ and the international Commission of Illumination (IEC standard 62471:2006) regarding exposure to UV-A. Thus, the light source poses no photobiological hazard to people when operated for up to 8 hours per day in occupied rooms. In areas that are not occupied or only intermittently occupied, th light source could be run continuously without ill effect.

#### SUMMARY OF PATHOGEN TESTING AT GRC



Single treatment ( $\sim$ 3W/m<sup>2</sup> x 8hrs = 8.85J/cm<sup>2</sup> total irradiance)

#### **FIXTURE INSTALLATION & CONTROLS**

Disinfection light can be controlled independently of white light using wired or wireless controls.



Pathogen

2ftx2ft recessed luminaire



Wireless Daintree or 3rd party sensors/modules



Occupancy sensors

Meters Thermostats

## GS Lighting Group

GS Lighting Group, a division of Gross Sales Limited is proud to be celebrating over 25 years in the lighting business. Since 1990 we have a vision of supporting our clients with professional lighting services with leading lighting technology from all our manufacturing partners.

#### Why you should consider LED Retrofits

GS Lighting Group can help you achieve the following dramatic benefits without costly infrastructure changes.

- Reduce your hydro usage on Lighting by up to 70%
- Reduce long term maintenance and labour cost
- · Improve employee satisfaction and productivity
- · Improve light levels and quality
- · Improve facility safety interior and exterior
- · Improve patient or resident comfort
- · Improve doctor and nurse patient care
- Enable lighting control systems dimming, motion / daylight sensors, etc.
- · Reduce your carbon footprint
- · Provide corporate stewardship on environmental concerns



### Book your Lighting Audit, Design Meeting or Lighting Seminar today.



#### **GS Lighting Group Healthcare LED solutions Group**

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