Designed to Ensure Safety for Patients and Caregivers





A brand of **ligrand**

Behavioral Health Lighting that **Promotes Well-Being**

Kenall leverages decades of expertise in both medical and correctional lighting to provide state-of-the-art luminaires for sensitive behavioral health environments.

Features, including tamper-resistant and anti-ligature housings, and leak-resistant lenses, keep patients safe. To create a more comfortable, healthy environment, Kenall also offers color tuning, visible light disinfection and ingress protection ratings. From common rooms and hallways, to patient rooms and bathrooms, Kenall designs and manufactures energy-efficient luminaires that set the scene for healing.

Featuring state-of-the-art lighting technologies:

Indigo-Clean Technology

Prevent the spread of Staph*, such as MRSA**, at a nominal cost to your facility. Kenall's Indigo-Clean Technology combines white ambient light with 405nm Indigo light providing environmental disinfection while the light is on.

- The 405nm light targets bacteria and produces intra-cellular Reactive Oxygen Species (ROS)
- Similar to bleach, these ROS kill the bacteria and prevent it from re-populating the space
- The 405nm emitted from Indigo-Clean Technology reflects off of walls and surfaces

Tunable White Technology: Benefits Beyond Basic Illumination

Tunable white technology enables the user to independently control both color temperature and intensity of light within a given application, providing the ability to change the color of light from warm to neutral to cool in appearance, over time. This provides users with benefits, such as:

- Improved patient rest and recovery
- Assisting shift workers with staying alert while on duty
- Simple integration with existing controls

Kenall combines our white color tuning with dimming to provide even greater flexibility in adjusting the ambience of healthcare spaces.

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Cover Image: ECMC Mental Health Clinic Buffalo, NY

Antimicrobial Activity of a Continuous Visible Light Disinfection System by Rutala, et. al, ID Week 2016. Contact manufacturer for additional claim information. per independent lab report #SGS-09516076094 . Contact manufacturer for a copy

of this report.



(ICT

Best Practices:

Many healthcare facilities contain treatment areas specifically designed for the care of patients in crisis due to mental health issues or addiction. Lighting for these spaces must be sufficiently robust to support patient and staff safety, while still providing suitable illumination and comfort. The following best practices should be top of mind when specifying lighting for behavioral health applications.

1. Sealed for Safety and Security

To provide the proper safety and security, lighting should be IP-certified to prevent the ingress of dust and water, to prevent self-injury, and resist the spread of bacteria.

To address these needs, Kenall lighting solutions feature:

- Ingress Protection ratings (IP65)
- Tamper-resistant fasteners
- Antimicrobial finishes

2. Multi-function Capabilities

Because behavioral healthcare needs are varied, room luminaires must also be multi-functional. Healthcare appropriate listings, such as IP and NSF, are desirable.

Kenall lighting solutions feature:

- Multiple functions, including ambient, exam, reading and night light
- Single and double apertures to direct light when and where it's needed
- Optional Indigo-Clean Technology to reduce the spread of harmful bacteria
- NSF listings to ensure cleanability
- Standard 0-10V dimming

3. Designed for Durability

Behavioral health luminaires must be durable, and should be built with materials that provide protection for patients and staff. Materials must also withstand harsh cleaning protocols.

Kenall lighting solutions feature:

- Detention-grade housings with durable doorframes and tamper-resistant fasteners
- Impact-resistant polycarbonate lenses

4. Lighting Considerations For Behavioral Health Settings

To create an environment of healing, behavioral health lighting must be built to mitigate attempts at self-injury. Features such as color-tuning can also help preserve normal sleep/wake cycles.

Kenall lighting solutions feature:

- Anti-ligature designs
- Optional tunable white lighting

Kenall Luminaires Recommended by Leading Behavioral Health Authorities

Kenall is the leading manufacturer of luminaires that are recommended for use in behavioral health settings by state and federal agencies, including the Department of Veteran's Affairs and independent lighting consultants.

In addition to luminaires featured in this guide, Kenall's Correctional and High Abuse Product Selector Guides also feature lighting appropriate for behavioral health settings.

For additional information about individual product recommendations, visit the behavioral health section of kenall.com and click "View the Guidelines".



Comfortable, Multi-Function Lighting for Patient & Isolation Rooms

MedMaster™ multi-function luminaires offer a range of lumen packages with dimming to provide the appropriate levels of soothing light to promote calm behavior. Indigo-Clean® Technology and Tunable White options are also available.



MMAC Series

- Delivered lumen range: 3,865 11,214 lm
- Input Power: 49W 97W
- Efficacy: 79-121 lm/W
- · Center diffuser provides direct/indirect ambient lighting
- White and amber night light option
- Indigo-Clean Technology or Tunable White options available



 $1' \times 4'; 2' \times 2'; 2' \times 4'$ Surface; Recessed ceiling mount, grid or flange LED T5 T5HO T8





MMPC Series

- Delivered lumen range: 1,063 12,324 lm
- Input Power: 22W 175W
- Efficacy: 48-81 lm/W
- Multi-function luminaire offers ambient, reading, exam, chart and night light options

Nominal sizes:
Installation Type:
Lamp Type:

 $2' \times 2': 2' \times 4'$ Surface; Recessed ceiling mount, flange LED



sizes:



MMPCADE Series

- Delivered lumen range: 1,502–10,976 lm
- Input Power: 26W 148W
- Efficacy: 57 80 lm/W
- Doorframe with polycarbonate lens secured with Torx® fasteners for enhanced security
- Available in a variety of lens thicknesses, up to .375" for optimal security
- Multi-function luminaire offers ambient, reading, exam, chart and night light options



 $2' \times 2'; 2' \times 4'$ Surface; Recessed ceiling mount, flange LED, T5, T5HO, T8



MMPCAIE Series

- Delivered lumen range: 2,934 14,138 lm
- Input Power: 49W 172W
- Efficacy: 59 94 lm/W
- Doorframe with polycarbonate lens secured with Torx fasteners for enhanced security
- Available in a variety of lens thicknesses, up to .375" for optimal security
- Multi-function luminaire offers ambient, reading, exam, chart and night light options

Nominal sizes: Installation Type: Lamp Type:

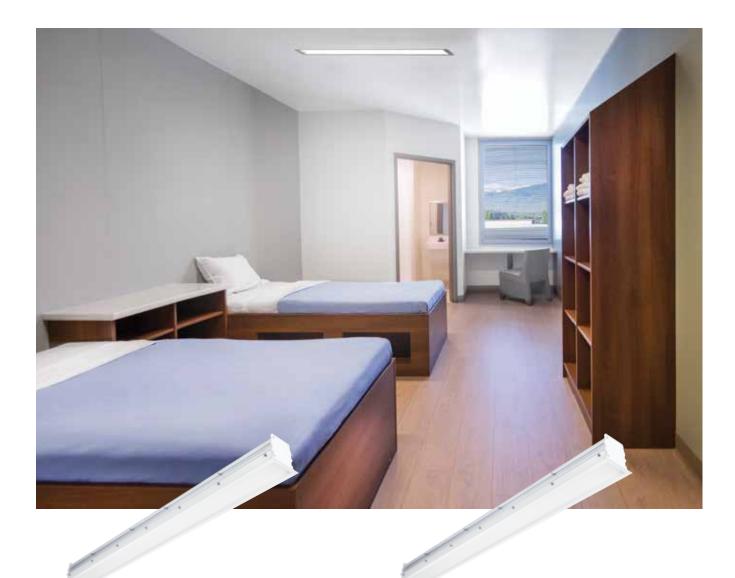
 $2' \times 2'; 2' \times 4'$ Surface; Recessed ceiling mount, flange LED, T5, T5HO, T8





MedMaster MedSlot Family - Lighting that Excels in both Form and Function

MedSlot is a new family of 4-inch wide healthcare luminaires, available in multiple lengths and configurations, that are ideal for the patient room. MedSlot's functional features — including reading, exam and ambient lighting — are integrated into a slim, architectural form.



NEW BHRS4 Series

- Delivered lumen range: 500 1,200 lm/ft
- Input Power: 4 12 W/ft
- Efficacy: 79 128 lm/W
- Single function linear slot luminaire provides ambient light
- Symmetric and 15° asymmetric optical distribution options

Nominal sizes: Installation Types: Lamp Type: 4"× 24", 36", 48", 72" or 96" Recessed ceiling mount, grid or flange LFD



NEW BHAERS4 Series

- Delivered lumen range: 957 5,410 lm
- Input Power: 10 57W
- Efficacy: 76 108 lm/W
- Multi-function linear slot luminaire provides ambient, exam and reading light options
- Symmetric and 15° asymmetric optical distribution options

Nominal size: Installation Types: Lamp Type: 4"× 48" Recessed ceiling mount, grid or flange LED





Sealed, IP-65 Rated Luminaires, Designed for Harsh Environments & Your Peace of Mind

These IP-65 rated luminaires are intended for challenging applications, and carry Kenall's exclusive Peace of Mind Guarantee against tampering and breakage – making them ideal for behavioral health settings.



NEW BHDL6 Series

- Delivered lumen range: 715 5,305 lm
- Input Power: 15 62W
- Efficacy: 48 86 lm/W
- Stainless or cold-rolled steel trim ring
- 1% dimming via 0-10V DALI or EcoSystem Control
- Tunable White (TW) option





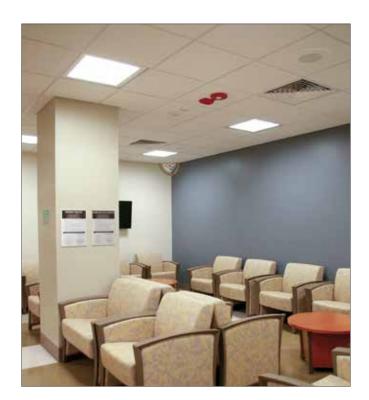


HASEDI Series

- Delivered lumen range: 4,164 21,394 lm
- Input power: 50 200W
- Efficacy: 81 107 lm/W
- Suitable for universal installation into 1" and 1.5" grid and flange (drywall) ceilings
- Doorframe secured to housing with continuous piano hinge
- Available with Indigo Clean Technology (ICT)

Nominal sizes: Installation types: Lamp type: $1' \times 4'$, $2' \times 2'$ or $2' \times 4'$ Recessed ceiling mount – grid or flange LFD







MightyMac[™] Corner Mount Luminaires Offer Disinfection, Tunability Options

The CC and CD Series are corner mount luminaires that are designed to withstand abuse. These luminaires can now be specified with Kenall's exclusive Indigo-Clean® Technology to provide disinfection, or Tunable White technology to preserve circadian rhythm and promote a sense of calm.



CC Series

- Delivered lumen range: 2,557 7,647 lm
- Input Power: 28 99W
- Efficacy: 70 101 lm/W
- Clamshell housing style prevents concealment of unauthorized items
- Available with Indigo Clean Technology (ICT) and Tunable White (TW) technology options

Nominal Sizes: 9 Installation Type: C Lamp types: L

9"× 24"; 9"× 48" Corner LED, T5, T5HO, T8







CD Series

- Delivered lumen range: 2,347 7,018 lm
- Input Power: 28 99W
- Efficacy: 67 93 lm/W
- Hinged door style
- Available with Indigo Clean Technology (ICT) and Tunable White (TW) technology options









MightyMac[™] Recessed Luminaires with Options to Fit Your Facility Needs

Kenall's MightyMac RMCA and RMCD Series are recessed, LED luminaires with completely concealed internal piano hinges. They are made to resist breakage and breaching. The RMCD offers an Indigo-Clean® Technology option to kill harmful bacteria, such as Staph*, including MRSA**. Tunable White technology is also available to control color temperature and intensity of light. Both are ideal for use in patient rooms, dayrooms, cafeterias, restrooms, and corridors to help prevent infection and reduce agitation.



RMCA Series

RMCD Series

RMCA and RMCD Series

- Delivered lumen range: 1,857 7,982 lm
- Input Power: 28 98W
- Lumens per watt: 51 88 lm/W
- Suitable for both grid and flange applications
- Full-length, concealed internal piano hinge
- Indigo Clean Technology (ICT) and Tunable White (TW) options available (RMCD only)

Nominal Sizes RMCA: RMCD: Installation Type: Lamp types:

12"× 24", 12"× 48" 24"× 24", 24"× 48" Recessed ceiling mount, grid or flange LED, T8



 Antimicrobial Activity of a Continuous Visible Light Disinfection System by Rutala, et al, ID Week 2016. Contact manufacturer for additional claim information. per independent lab report #SGS-09516076094. Contact manufacturer for a copy of this report.

Wall Mount Luminaires Built for Challenging Applications

MightyMac wall mount, clam shell luminaires are made to resist tampering. The clamshell design specifically deters concealment of unauthorized items. These features make them ideal for use in patient rooms, restrooms, corridors, and dayrooms.



WCBU Series

- Delivered lumen range: 3,751 6,152 lm
- Input Power: 56W, 99W
- Efficacy: 56 74 lm/W
- Dual-aperture fixture
- Smooth, ligature-resistant bull-nosed design

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Nominal Sizes:
9"× 11"× 29", 9"× 11"× 53"

Installation Type:
Wall

Lamp Types:
LED, T8
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WCU Series

- Delivered lumen range: 3,751 6,152 lm
- Input Power: 56W, 99W
- Efficacy: 56 74 lm/W
- Dual-aperture fixture

Nominal Sizes: 7 Installation Type: V Lamp types: L

e: | 7"×11"×29"; 7"×11"×53" Wall LED, T8



WCH Series

- Delivered lumen range: 2,775 3,076 lm
- Input Power: 50W
- Efficacy: 56 62 lm/W
- Single-aperture fixture

Nominal Sizes: 7"× 11"× 29", 7"× 11"× 53" Installation Type: Wall Lamp types: LED, T8





Complementary Products Built with Integrity

Kenall supports every part of the behavioral health facility with exit signage and step lights that use our signature, high-quality materials and tamper-resistant construction — so you can count on Kenall, right down to the last detail.





MCSL Series MedMaster[™] SoftStep Contour[™] steplight

- Delivered lumen range: 5 38 lm
- Input Power: 0.5W 3.3W
- Die-cast aluminum rectangular and oval housings
- White, amber or blue LED options
- Lumen output field adjustable to 100%, 50% and 25%
- Multiple decorator finishes

Nominal sizes: Installation Type: Lamp Type: $6.10" \times 4.85"$; $4.85" \times 6.10"$; $5.6" \times 3.7"$; $4" \times 5.38"$ Semi-recessed wall mount IFD





Millenium[™] METSU, METDU, METSW

- Surface mount wall or ceiling; single-face (METSU) or dual-face (METDU) option
- Wall mount single face (METSW)
- Indirect red or green LED
- Internal battery backup system
- High-impact polycarbonate construction





MightyMac[™] MMEX

- Surface mount wall or ceiling
- Single and dual-face options
- Indirect red or green LED
- 14-gauge cold rolled steel or stainless steel housing





Millenium METSR

- Semi-recessed wall mount Single Face
- Indirect Red or Green LED
- Internal Battery Backup System
- 20-gauge cold rolled steel housing
- Self diagnostic testing features





www.kenall.com | P: 800-4-Kenall | F: 262-891-9701 | 10200 55th Street Kenosha, Wisconsin 53144

This product complies with the Buy American Act: manufactured in the United States with more than 50% of the component cost of US origin. It may be covered by patents found at www.kenall.com/patents. Content of specification sheets is subject to change; please consult www.kenall.com for current product details.

Listings and Certifications

Fixtures designed for use in behavioral health settings must satisfy a large number of demanding lighting and environmental requirements. Listings applicable to behavioral health luminaires featured in this brochure are shown below. For additional information, please visit us on the web at www.kenall.com.



CCEA Approved—The City of Chicago Environmental Air (CCEA) rating ensures that the luminaire is inherently airtight. Wiring and/or branch circuit terminations are sealed off and gasketed from the plenum air space. This listing ensures that the luminaire is sealed to limit air flow from the room side to the plenum.



ETL— A product bearing the ETL Listed Mark is determined to have met the minimum requirements of prescribed product safety standards as certified by a Nationally Recognized Testing Laboratory (NRTL). The mark also indicates that the manufacturer's production site conforms to a range of compliance measures and is subject to periodic follow-up inspections to verify continued conformance.



IP64-UL Certified IP64 per IEC 60598 ensures that the enclosure is dust-tight and protected against splashing water without any harmful effects.



IP65 — UL Certified IP65 per IEC 60598 ensures that the enclosure is dust-tight and protected against jet streams of water from any direction without any harmful effects.



NFPA

ICT-Indicates white, ambient Kenall luminaires using Indigo-Clean Technology, which kills harmful bacteria, including Staph, such as MRSA.

NFPA101—This National Fire Protection Agency (NFPA) Life Safety Code pertains to egress facilities. The code establishes minimum criteria for the design of egress facilities so as to allow prompt escape of occupants from buildings or, where desirable, into safe areas within buildings.



NSF2— An NSF2 Listing denotes that the luminaire has been evaluated for corrosion resistance, cleanability and the ability of exposed material to withstand normal wear. This supports the infection control standards established by healthcare facilities as it indicates that the luminaire is easy to sanitize.



Tunable White — Tunable white technology enables the user to independently control both color temperature and intensity of light within a given application. This provides the ability to change the color of light from warm to neutral to cool in appearance, over time, based on the needs of the occupant or the space.



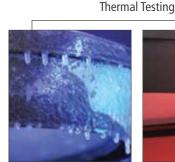
UL/cUL Listed—The UL symbol signifies that Underwriter's Laboratory (UL) has determined that a manufacturer has demonstrated the ability to produce a product complying with UL's requirements with respect to specific risk, performance under specific conditions, compliance with regulatory codes and specified standards, or any other conditions as determined by UL.

UL 924	
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UL 924 — UL 924 is UL's Standard for Safety of Emergency Lighting and Power Equipment.UL 924 listed electrical exit signs are tested and given a visibility rating of at least 100 feet, requiring them to be legible from a 100 foot viewing distance in total darkness. The battery backup is tested by UL and must provide at least 90 minutes of emergency operation. Letters must be red or green and at least 6" height with a 3/4" letter stroke.

State-of-the-art, certified testing facility

Kenall is equipped with a state-of-the-art certified safety laboratory, providing comprehensive in-house testing capabilities:



Cold Weather Testing



High Temperature Testing







Solids and Particulates Testing





Water Ingress Testing







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