

**Behavioral Health Luminaires**  
*Designed to Ensure Safety for Patients and Caregivers*

Healthcare  
Luminaires

HC



# 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 and ligature resistant 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



Kenall's Indigo-Clean Technology combines white ambient light with 405 nm Indigo light providing environmental disinfection while the light is on. Indigo Clean kills harmful pathogens such as Methicillin-resistant Staphylococcus aureus (MRSA).

- The 405 nm 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 405 nm emitted from Indigo-Clean Technology reflects off of walls and surfaces
- Not intended for medical use

### 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-09S17036476. Contact manufacturer for a copy of this report.

## 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 support whole room disinfection
- 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:

- Ligature resistant 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](http://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. Tunable White option 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
- Tunable White option available

Nominal sizes:	1' x 4'; 2' x 2'; 2' x 4'
Installation Type:	Surface; Recessed ceiling mount, grid or flange
Lamp Type:	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:	2' x 2'; 2' x 4'
Installation Type:	Surface; Recessed ceiling mount, flange
Lamp Type:	LED



#### 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

Nominal sizes:	2' x 2'; 2' x 4'
Installation Type:	Surface; Recessed ceiling mount, flange
Lamp Type:	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:	2' x 2'; 2' x 4'
Installation Type:	Surface; Recessed ceiling mount, flange
Lamp Type:	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: | 4" x 24", 36", 48", 72" or 96"  
 Installation Types: | Recessed ceiling mount, grid or flange  
 Lamp Type: | LED



**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: | 4" x 48"  
 Installation Types: | Recessed ceiling mount, grid or flange  
 Lamp Type: | LED



## 6 Behavioral Health Luminaires

### 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 BHD6 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

Nominal size  
Installation Type  
Lamp Type

6" aperture  
Recessed  
LED



#### 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: 1' x 4', 2' x 2' or 2' x 4'  
Installation types: Recessed ceiling mount – grid or flange  
Lamp type: LED



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**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" x 24"; 9" x 48"  
 Installation Type: Corner  
 Lamp types: 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

Nominal Sizes: 8" x 24"; 8" x 48"  
 Installation Type: Corner  
 Lamp types: LED, T5, T5HO, T8



### 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

\*\* 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-09S17036476. Contact manufacturer for a copy of this report.

#### 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:

12" x 24", 12" x 48"

RMCD:

24" x 24", 24" x 48"

Installation Type:

Recessed ceiling mount, grid or flange

Lamp types:

LED, T8



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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

Nominal Sizes: | 9" x 11" x 29", 9" x 11" x 53"  
 Installation Type: | Wall  
 Lamp Types: | LED, T8



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" x 11" x 29"; 7" x 11" x 53"  
 Installation Type: | Wall  
 Lamp types: | 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" x 11" x 29", 7" x 11" x 53"  
 Installation Type: | Wall  
 Lamp types: | LED, T8



## Behavioral Health Luminaires

### 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.



#### 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



#### 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: 6.10" × 4.85"; 4.85" × 6.10";  
5.6" × 3.7"; 4" × 5.38"  
Installation Type: Semi-recessed wall mount  
Lamp Type: LED



#### 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



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## 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](http://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.



**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.



**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.



**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.



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



**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.



**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.



**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.



**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.

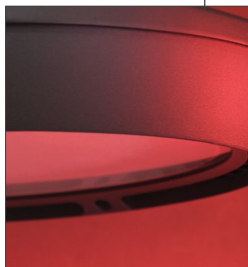
## State-of-the-art, certified testing facility

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

### Thermal Testing

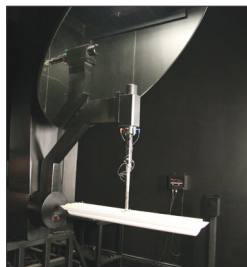


Cold Weather Testing



High Temperature Testing

### Photometrics Testing



### Ingress Testing



Solids and Particulates Testing



Water Ingress Testing





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L10072-031419