



STANDARDS & LISTINGS

Kenall products are tested to ensure they meet the performance listings relevant to their intended end use. For complete details on specific product listings, please refer to each of the product feature sections within this guide.



UL/CUL Listed A product bearing the UL mark is determined to have met the minimum requirements of the applicable product safety standards as certified by Underwriters Laboratories, LLC, a Nationally Recognized Testing Laboratory (NRTL). The "US" next to the mark indicates compliance with US standards, and "C" next to the mark indicates compliance with Canadian standards.



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 Mark is determined to have met the minimum requirements of the applicable product safety standards as certified by Intertek, a Nationally Recognized Testing Laboratory (NRTL). The "US" next to the mark indicates compliance with US standards, and "C" next to the mark indicates compliance with Canadian standards.



Canadian Standards Association — A product bearing the CSA Mark is determined to have met the minimum requirements of the applicable product safety standard, as certified by the Canadian Standards Association, a Nationally Recognized Test Lab (NRTL). The "US" next to the mark, indicates compliance with US standards, and a "C" indicates compliance with Canadian standards. If no US or C is next to the mark, compliance is to Canadian standards only.



3G—3G testing, which is conducted according to ANSI standard C136.31-2010, simulates the dynamic vibratory stresses that transportation luminaires will experience in the field to determine whether they will be able to withstand such stresses during normal installation in their intended application.



FN refers to Food Zone/Non-Food Contact. Fixtures are located in food preparation and handling areas but do not come in contact with food under normal conditions. All fixtures in this category have a higher level of construction: housing painted with paint that meets U.S. Code of Federal Regulations; fasteners constructed with stainless-steel and removable without tools; and FDA-approved Food Grade polycarbonate material outer exposed lensing.



4G—4G testing, which is conducted according to ANSI standard C136.31-2010, simulates the dynamic vibratory stresses that transportation luminaires will experience in the field to determine whether they will be able to withstand such stresses during normal installation in their intended application.



HAZ - The National Electric Code (NEC) identifies and classifies potentially hazardous materials and conditions. Kenall's hazardous-rated products are approved for use in Class 1, Division 2, Groups A, B, C, and D. Basic requirements for Class I Division 2 electrical equipment is no arcing or sparking parts be present, or if present, be in an explosion-proof enclosure.



ADA Compliant - Although ADA is not specific to lighting, it does impact fixture by creating standards for wall sconce projection space and hanging light clearance. Section 4.4 of the ADA states that "objects projecting from walls with their leading edges between 27" and 80" above the finished floor shall protrude no more than 4" into walks, halls, corridors, passageways or aisles."



IC RATED - An IC rated fixture must, by definition, "be approved for zero clearance insulation cover by a Nationally Recognized Testing Laboratory (NRTL), such as Underwriters Laboratory (UL). "IC" is short for Insulation Contact, which means that any housing that bears this rating can make direct contact with ceiling insulation.



BSL — BioSafety Level (BSL-x) classifies the relative danger from biohazardous material to the surrounding people and environment. There are four biosafety levels (BSL1 - BSL4) with the highest number representing the greatest risk. Luminaires in each class are designed to provide the protections necessary for containing risks associated with that level. For example, BSL-1 laboratories provide protection for pathogens such as E. coli and are most often found in high schools and colleges. BSL-2 labs protect against more dangerous organisms such as HIV, influenza A and MRSA. BSL-3 labs work with SARS-CoV, West Nile and other very dangerous viruses in tightly controlled clinical spaces with close supervision. BSL-4 is reserved for the most exotic and dangerous diseases where treatments are not available, such as viral hemorrhagic fever (Ebola and Marburg are examples) and smallpox. Fixtures for BSL-3 and 4 spaces must demonstrate and extremely reliable seal.



IDA Approved (International Dark-Sky Association) — Educational, environmental 501(c)(3) nonprofit dedicated to protecting and preserving the nighttime environment and our heritage of dark skies through quality outdoor lighting.



IK10 RATED - Impact protection (IK) ratings indicate the ability of an enclosure to protect its contents from external impacts, per IEC IEC 60068-2-75:1997-08. The IK10 ratings range from IK00, or no protection, up to IK10, a maximum of 20 joules of impact protection, or the equivalent of a 5kg mass dropped from 40 cm above the impacted surface.



www.kenall.com

P: 800-4-Kenall

F: 262-891-9701

10200 55th Street Kenosha, Wisconsin 53144



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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.



IP66 - UL Certified IP66 per IEC 60598 ensures that the enclosure is dust-tight and protected against water projected in powerful jets without any harmful effects.



IP67 - UL Certified IP67 per IEC 60598 ensures that the enclosure is dust-tight and protected against water immersion up to 1 meter without any harmful effects.



ISO 3 — Suitable for ISO 3, Class 1 Rated Rooms (FED-STD 209E). Measures the number of particles equal to or greater than 0.5 mm in one cubic foot of air. The measurement must not exceed specified particle limits in order for the space to be considered a controlled 'clean room' environment.



ISO 5 — Suitable for ISO 5, Class 100 Rated Rooms (FED-STD 209E). Measures the number of particles equal to or greater than 0.5 mm in one cubic foot of air. The measurement must not exceed specified particle limits in order for the space to be considered a controlled 'clean room' environment.



Ligature Resistant — Based on standards of new construction, and also applicable to substantial renovations, select Kenall fixtures bearing this mark have been reviewed by mental health professionals for ligature-resistance and other safety criteria to earn a [Patient Safety Standard Guidelines](#) listing.



MIL STD 461G — Military Standards testing measurements cover both radiated and conducted electromagnetic emissions in addition to maximum allowable amounts of emitted energy based on both frequency range and field strength. Luminaires meeting MIL STD 461G pose the lowest possible likelihood of causing EMI-related issues.



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. Kenall products are tested to ensure they meet performance listings relevant to their intended end use. For complete details on specific product listings, please refer to each of product feature sections within this guide.



The OSHPD listing pertains to standards that protruding objects and horizontal projections must meet in order to comply with the requirements of California Office of State Health Planning and Development (OSHPD) California Building Code, Sections 1003.3.1 through 1003.3.4, for buildings and structures used for medical, surgical, psychiatric, nursing or custodial care for persons who are nonambulatory or bedridden.



NSF Protocol P442-2015 — This protocol is a series of minimum requirements for the design, construction, performance and certifications of luminaires for cleanrooms. Intended to protect the controlled environment from the common causes of particulate contamination related to or resulting from the use of lighting fixtures. The protocol requires a pressure decay resistance test along with NSF2 and IP65 certifications.



UL48 — The ANSI/UL 48 signifies that a manufacturer's products are in compliance with Underwriter's Laboratories (UL) requirements for all electric signs, art forms and outline lighting for use in accordance with the National Electrical Code, NFPA 70.



UL 924 — ANSI/UL 924 is UL's Standard for Safety of Emergency Lighting and Power Equipment. ANSI/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 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.

