



Luminaire Requirements used in Environmental Air Spaces Other than Ducts and Plenums per the Electrical Code Specification of the City of Chicago

Upon successful completion of the evaluation, a Listed Recessed Luminaire will be eligible for the marking, "CCEA" (City of Chicago Environmental Air other than Ducts and Plenums). These specifications are from Section 18-27-300.22(c)(2) of the City of Chicago Electrical Code. Construction Requirements for CCEA marking:

1. All conductors shall be installed in metal that is inherently airtight. For example, Wiring Compartments, that may or may not be integral to the Luminaire that serve to enclose Luminaire wiring and/or branch circuit terminations are intended by those requirements to be sealed off and gasketed from the plenum air space.
2. Factory installed wiring shall be one of the following:
 - a. Type MI Cable and corresponding fittings listed for the purpose as permitted in NEC, Article 332.
 - b. Type MC Cable employing a smooth or corrugated impervious metal sheath without an overall nonmetallic covering, and corresponding fittings listed for the purpose as permitted in NEC, Article 330.
 - c. Conductors installed in flexible metallic tubing and corresponding fittings listed for the purpose as permitted in NEC, Article 360.
3. Luminaire Chassis: Recessed Luminaries shall have metal wiring compartments with no openings to the air space. Unused screw openings shall be closed by use of metallic screws, rivets, sealant or equivalent. All interference fit seams or joints (seams between two mating parts) are to be tight and overlapping or shall be additionally gasketed or sealed, unless the opening is found to be less than 0.05 in., such as at the corner of where two overlapping seams intersect. The seam-opening dimension is measured by use of a round pin feller gauge.
4. All Recessed Luminaire wiring compartment covers, junction boxes and junction box covers shall have no holes and all covers that open into the plenum space shall be gasketed.
5. All knockouts shall be of the "flush" or "press back" type. When inspected, the knock out shall be tight and secure.
6. Recessed Luminaire Housings, not serving as a wiring compartment, may have open holes to the environmental air space.
7. Gaskets and sealing materials shall be temperature rated for the application and shall be rated 94HB minimum or shall be subjected to the Horizontal Burning Flame Test, per UL 94. Also, gaskets may be rated with a HBF, HF-1, or HF-2, or may be subjected to the Horizontal Burn Foam Material Test, per UL 94. Listed Air Duct and Air Connector Closure System (ALKW), aluminum UL 181A-P tape may be used as sealing material except for covers.
8. The use of non-metallic parts are not permitted for the following items:
 - a. wireways,
 - b. junction boxes, and
 - c. enclosure of electrical parts, such as:
 - i. wire,
 - ii. splices,
 - iii. miscellaneous components (lampholders, ballasts, capacitors, etc.).
Exception: Self Heating Thermal Protectors (Insulation Detectors).
 - d. Any parts on the plenum side of the recessed fixture with the exception of the gaskets.

Any deviations to the above will require submission for further evaluation.

Location of CCEA Marking on Luminaire: The CCEA mark shall be located adjacent to the Listing Mark.

