

Fire Rated Assemblies and Recessed Lighting

Fire ratings pertain to complete systems. A fire rated ceiling, for instance, is a complete system which is built to a specified design which has been tested and approved for a specified fire resistance. An example would be an L500 UL Floor/Ceiling design where the maximum joist spacing would be 16 inch centers including 2 x 10 inch solid or open web wood trusses, a minimum layer of 5/8 inch thick type X gypsum and a minimal ½ inch thick plywood floor. This system has been tested by Underwriters Laboratories and has been found to provide 60 minutes of integrity. This Fire Resistant Floor/Ceiling structure would be anticipated to fail once 60 minutes has lapsed. Any alteration of a tested and approved Fire Resistant Assembly could jeopardize the integrity of the assembly.

A recessed down light by itself can not possess a fire rating. As noted, the entire assembly needs to be covered by a specific rating. For a recessed light fixture to be rated in a specific assembly, it must be tested in the specific assembly. A fixture not tested nor approved for use in the specific assembly would reduce the assembly's overall effectiveness. By adding a fixture not approved for use as a listed component of the assembly, the integrity of the overall assembly would be compromised.

With a recessed fixture installed into the assembly, it would then be tested according to established test criteria. Results of this assembly with a fixture would be compared to an assembly which did not contain a fixture. The assembly with the installed fixture would have to perform almost identical to the assembly without the fixture. If the assembly with the fixture did not perform close to the assembly less the fixture, the results would be unacceptable and would not receive the sought after rating.

For a list of approved UL Fire Resistance Luminaires, please visit www.ul.com and perform a classification search for Fire Resistance CDHW. Capri Lighting's Firedome is the first product you will find on this list!