

Recessed Ceiling Lighting: Can Do or No-Can Do?

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In general terms, any light fixture set into a ceiling may be described as recessed. Among lighting professionals, however, that term refers specifically to single aperture fixtures set into ceiling cavities, often with a round opening creating, in turn, a cylindrical recesses called cans.

Nowadays recessed-can lighting is among the most widely applied forms of lighting for both residential and commercial interiors. In its simpler forms this type of lighting is inexpensive and relatively easy to install. For these reasons, there is a tendency to pepper the ceiling with a plethora of recessed cans in hopes that this surfeit will satisfy any present or future lighting requirements.

What's wrong with that? To my way of thinking, plenty. I find such a scatter-shot

approach the single greatest misuse of lighting and a leading energy waster. How so? Because recessed-can lighting is not an efficient method of general lighting. Each fixture projects a pools of light to the floor level, each producing a circle of light whose size and intensity are determined by that fixture's efficiency, the lamp used and the distance from the surface aimed at. But in a large room or lobby, an excessive number of recessed cans (with the attendant increase in energy consumption and maintenance costs) must be deployed simply to bring the overall lighting to an acceptable level.

Another rap against recessed cans: they lack flexibility. Even with the most sophisticated can, once a hole has been cut in the ceiling, the area that you can light is relatively limited. More often than not, therefore, recessed-can lighting is not a good way to go as a source of general illumination.

To achieve a desired light level in any interior, I'd much prefer to use either recessed pockets or cove fluorescent, or possibly a reflected light thrown onto the ceiling *torchere* style. My choice for the light source would be [High Intensity Discharge \(HID\)](#), probably metal halide, placed in either a hanging fixture, a wall bracket or floor fixture. (To learn more about HID's, read our article, [Lay of the Land in Lighting](#).)

Am I totally opposed to recessed cans under all circumstances and settings? No, not if their use is carefully thought out beforehand and then executed with restraint. Recessed cans are useful, for example, in situations where the use of surface mounted or track lighting might be

aesthetically objectionable. The design and function of recessed cans are best realized when they are used as task lights – lighting concentrated in a specific area to enhance a function, such as a work area, a desk, over counters, reading chairs and the like. Recessed cans may also be used effectively to accent wall grouping where the reflected light accentuates the general illumination.

Entrance lobby using high intensity discharge (HID) metal halide lamps in recessed cans



Above all they should be installed only after careful planning and with a thorough knowledge of their capabilities (see examples on next page). I intend to follow up this article with another in the future to discuss the types and sizes of recessed cans and how each is designed to perform. For now, I would just suggest some caution before heading down the recessed-can route. While recessed cans may well be a good idea in certain circumstances, we should at least consider other – possibly better – options before arriving at any decision. Good lighting, efficient maintenance and limited resources require that we do no less. ■

Six typical recessed cans used to light a 9'x12' room, with 75-watt R-flood lamps



Entrance lobby using compact fluorescents in recessed cans



Residential living room using "mini" recessed halogen as accent lighting, along with general illuminants



Entrance lobby using a fixture to reflect light back onto the ceiling to bring up the general illumination



About the Author

Bill Joel received his B.A. from Brown University with creative design courses at the Rhode Island School of Design. He did further studies in interior and lighting design at the New York School of Design and Pratt Institute.

A professional member of AID-ASID from 1963 to 1993, Bill received a

Fellowship from ASID in 1978. In 1992, he became one of the first Certified Interior Designers of the Commonwealth of Virginia. His work experience includes residential, commercial and institutional remodeling and new structures, as well as a number of feasibility studies, all with an emphasis on effective, energy-conscious, quality-lit environments. For more details,

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