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Energy Efficient Application Example #1 **California Title 24 Kitchen**

Relevant Title 24 Requirements:

- Air-tight luminaire construction & installation for all IC rated recessed fixtures
- All permanently installed luminaires must be high efficacy (fluorescent, no medium base sockets allowed)
- Up to 50% of total lamp wattage may be from low efficacy luminaires.
- Loads for low voltage track, rail and cable lighting systems shall be calculated as the total rated wattage of the connected transformers feeding the tracks.

Solution

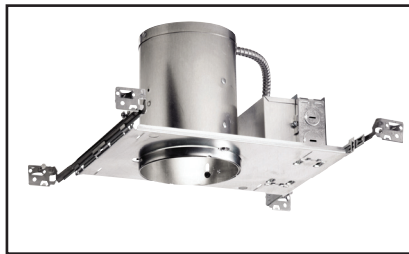
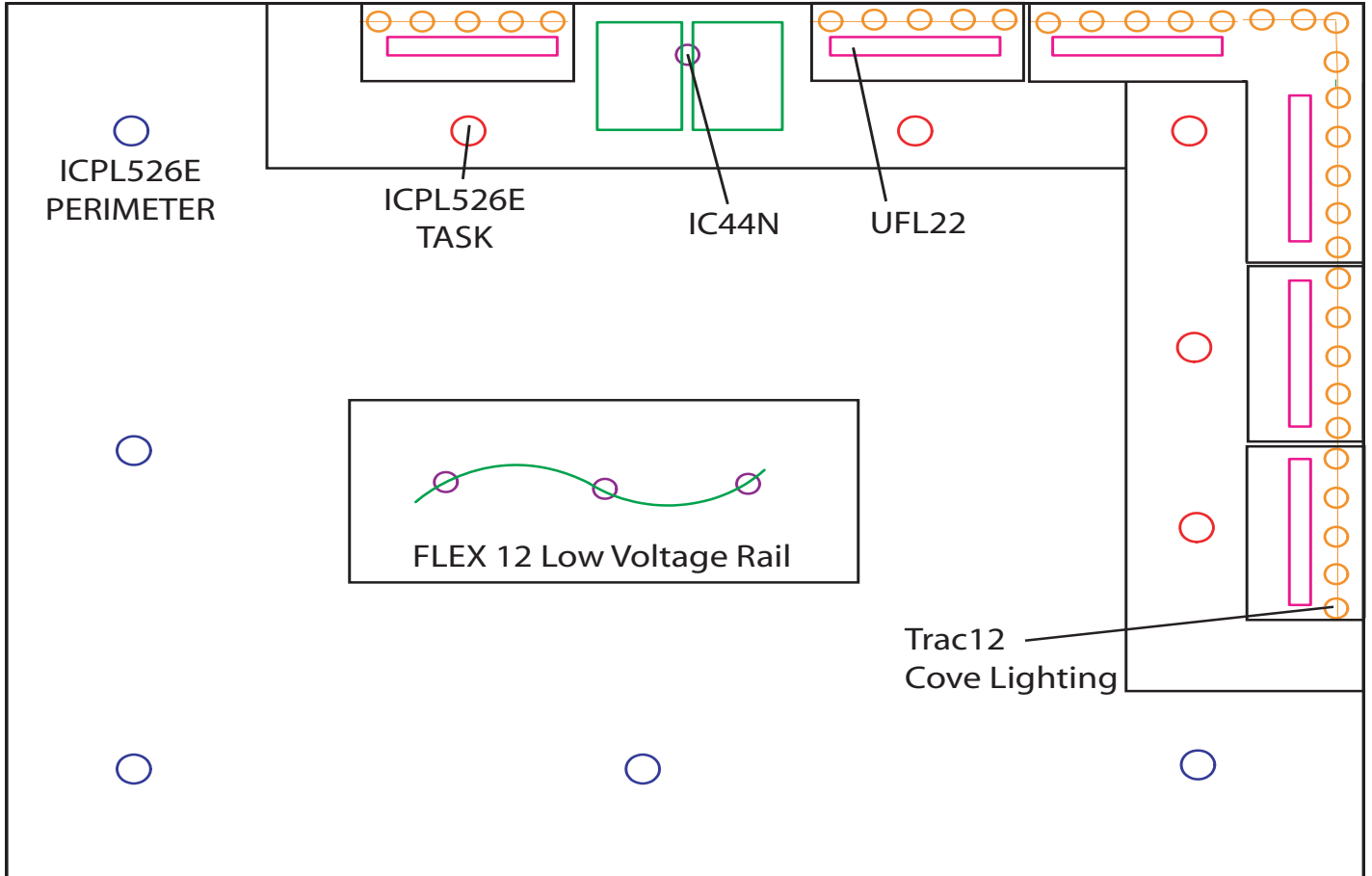
(5) 5" **ICPL526E** 26w CFL Energy Star listed downlights provide general illumination of 46fc at a workplane height of 3'. Perimeter lighting is supplied by an additional (5) **ICPL526E** fluorescent downlights to fill out the space. These are switched separately. Additional supplementary lighting is provided by (6) **UFL22** 14w T5 fluorescent Energy Star listed undercabinet luminaries. These fill the shadow created by the recessed downlights and amplify task lighting levels. Total high efficacy fluorescent watts are 370.

Since one half of the total wattage of a space can be in the form of non-high efficiency sources, up to 370 watts of incandescent lighting can be added into the kitchen. In this example, a **Flex12** low voltage trac system with (3) 35-watt TLP series decorative pendants has been placed over the island, and an **IC44** 50w MR16 downlight has been located over the sink to provide task illumination and to add color, sparkle and visual interest.

Trac 12 can be added as cove lighting. (34) 3 watt xenon lamps on a 150w remote transformer add a warm perimeter effect, and can be used as ambient light with the pendants for a non-task decorative lighting scene.

The total watts of the lower efficacy incandescent sources is 350, based on 2) 150 watt remote transformers (Trac 12 and Flex 12) and an IC44 50 watt recessed housing.

Independent switching is essential to create ambience in a room that is primarily fluorescent. Non-task perimeter fluorescent should be switched independently of the countertop downlights. The single recessed IC44 MR16 over the sink, the decorative halogen pendants, and the Trac 12 cove lighting should be operated independently on the appropriate dimmers.



ICPL526E



UFL22



FLEX 12



IC44N