

ASSIST recommends...

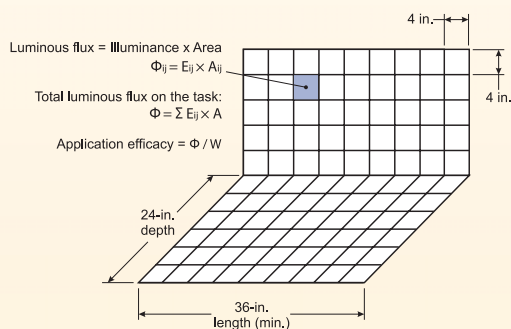
Under-cabinet Lighting

The Alliance for Solid-State Illumination Systems and Technologies (ASSIST) published a new volume in 2007 in its *ASSIST recommends* series. The three-part *ASSIST recommends...Under-cabinet Lighting* discusses this application in terms of general design, how to select LED-based under-cabinet lighting, and recommendations for manufacturers testing and evaluating their own luminaires.

This new publication discusses the need for testing criteria and methods that allow luminaires of the same type to be compared evenly, regardless of the light source inside. Comparing the performance of a fluorescent under-cabinet luminaire with that of a similar LED luminaire is difficult because the evaluation criteria used by the lighting industry differ for each light source.

"Application efficacy" criteria

The standard lumens-per-watt efficacy metric considers only the amount of light produced by the light source for a given power. Basing a luminaire comparison on "application efficacy," or how efficient the luminaire is for the application and the task being lighted, provides more useful information. Application efficacy considers how much light the luminaire is putting onto the task itself, rather than just what is exiting the luminaire.



Grid pattern for measuring illuminance from an under-cabinet luminaire

ASSIST Sponsors

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The performance of a luminaire depends on its various components and how they are integrated. LED performance, for example, is affected by the heat at the semiconductor's pn-junction, which may be attributed to the luminaire's design and installation. All luminaires should be tested as complete systems in the application environment, not just under ideal conditions. ASSIST recommendations provide methods for testing luminaires in their intended application.

Lighting how-to's

The new volume also includes lighting guides for homeowners, electrical contractors, and others selecting residential lighting. A general guide helps readers to get the best lighting from under-cabinet luminaires, including information on the performance of different light sources and their purchase and operational costs, installation tips, and things to watch out for. An LED-specific guide provides a checklist of questions to ask when looking for LED-based under-cabinet lighting.

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