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Recessed Luminaires, Ceiling Compatibility

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Foreword

The purpose of this technical publication is to establish standardized dimensions for recessed luminaires that, if adhered to, will ensure compatibility with conventional generic ceiling suspension systems. Compatibility, as referred to in this technical publication, means that luminaires will be designed to fit into ceiling systems without causing distortion or misalignment of ceiling members and in such a manner as to ensure their proper support within the ceiling in accordance with the *National Electrical Code*[®]. Compatibility further means that a luminaire will be placed in support systems in a symmetrical manner without oversized gaps existing between the luminaire and ceiling tiles or ceiling suspension members.

It is not the intent of this technical publication to inhibit luminaire design or to impose arbitrary tolerances on any luminaire manufacturer.

This technical publication does not attempt to establish comprehensive ceiling grid system standards, other sizes and designs of ceiling systems may be used. However, NEMA-type luminaires may not be compatible with these non-defined systems.

In the preparation of this technical publication, input of users and other interested parties has been sought and evaluated. Inquiries, comments, and proposed or recommended revisions should be submitted to the Indoor Lighting Equipment Subdivision of NEMA by contacting:

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This standard was developed by the Luminaire Section to supersede and replace the original NEMA LE 1-1974 and later NEMA LE 4-1987. Section approval of the standard does not necessarily imply that all section members voted for its approval or participated in its development. At the time it was approved, the Luminaire Section was composed of the following members:

ABB	Legrand, North America
Acuity Brands, Inc.	Leviton Manufacturing Co. Inc.
Atlas Lighting Products, Incorporated	Lutron Electronics Company, Inc.
Cree, Inc.	MaxLite
Current Powered by GE	RAB Lighting
Dialight	Satco Products, Incorporated
Eaton Lighting Solutions	Signify North America Corporation
EiKO, Ltd.	Southwire Corporation
Emerson	TCP International Holdings Ltd.
EYE Lighting International of N.A., Incorporated	Universal Lighting Technologies
Halo Lighting Technologies	Westgate MFG Inc
Hubbell Lighting, Incorporated	

Section 1 General

1.1 Scope

This technical publication contains definitions, dimensions, and tolerances for recessed luminaires.

Drawing examples show fluorescent (tubular) lamps. However, these drawings also apply to luminaires with other light sources.

This standard does not apply to hard metric dimensioned products. However, soft metric dimensions or direct metric conversions may be applied throughout this standard as one inch equals 25.4 millimeters.

1.2 Definitions

ceiling suspension system: The entire network or grid of structural components that provide support for acoustical ceiling tiles, acoustical ceiling panels, luminaires, and air handling terminals.

recessed luminaire: A luminaire that is mounted above the ceiling (or behind a wall or other surface), with the opening of the luminaire essentially level with the surface.

splay: Decorative trim of various materials provided by ceiling manufacturers, used to conceal edges of the tile, and supporting member.

1.3 Support Wires

There shall be no ceiling grid support wires between recessed luminaire ends where the luminaires are mounted in continuous rows; see Figure 1-1.