

NCTCOG  
EAB Sub-Committee  
NEC Chapters 3 and 4

2017 National Electric Code  
Amendments to Chapters 3 & 4  
Review

# Recommended Amendments to the 2017 NEC

- Standard type is text from the NEC
- Highlighted with gray shading is text inserted
- ~~• Lined through type is text deleted from NEC~~
- A double asterisk (\*\*) at the beginning of an article identifies an amendment carried over from 2014
- A triple asterisk (\*\*\*) identifies a new or revised amendment to the 2017 code

# **\*\*Article 300.11(B)(1)&(2)**

## **300.11(B) Wiring Systems Installed Above Suspended Ceilings.**

Support wires that do not provide secure support shall not be permitted as the sole support. Support wires and associated fittings that provide secure support and that are installed in addition to the ceiling grid support wires shall be permitted as the sole support. Where independent wires are used, they shall be secured at both ends. Cables and raceways shall not be supported by ceiling grids.

# \*\* Article 300.11(B)(1)&(2) cont

**(1) Fire Rated Assemblies** Wiring located within the cavity of a fire-rated floor-ceiling or roof-ceiling assembly shall not be secured to, or supported by, the ceiling assembly, including the ceiling support wires. An independent means of secure support shall be provided to be attached to the assembly

*Exception: The ceiling support system shall be permitted to support wiring and equipment that have been tested as part of the fire-rated assembly*

*Exception 2: Ceiling grid support wires may be used for structural supports when the associated wiring is located in that area, not more than two raceways or cables supported per wire, with a maximum trade size ½"*

(Reason for change: To provide limited support of raceways and cables by ceiling grid support wire **in limited cavities**)

# \*\* Article 300.11(B)(1)&(2) cont

**(2) Non-Fire-Rated Assemblies** Wiring located within the cavity of a non-fire-rated floor-ceiling or roof-ceiling assembly shall not be secured to, or supported by, the ceiling assembly, including the ceiling support wires. An independent means of secure support shall be provided to be attached to the assembly.

*Exception: The ceiling support system shall be permitted to support branch-circuit wiring and associated equipment where installed in accordance with the ceiling system manufacturer's instructions.*

*Exception 2: Ceiling grid support wires may be used for structural supports when the associated wiring is located in that area, not more than two raceways or cables supported per wire, with a maximum trade size ½"*

(Reason for change: To provide limited support of raceways and cables by ceiling grid support wire **in limited cavities**)

- Is this amendment applicable? What do you do in your jurisdictions?
- Should amendment carry forward with subtle change to reasoning (in limited cavities)?
- **The EAB sub-committee voted to delete this amendment and go back to NEC. No cables or other electrical equipment shall be attached to ceiling support wires.**

# \*\*\* Article 336 Power and Control Tray Cable: Type TC

**336.10 Uses Permitted** Type TC cable shall be permitted to be used as follows:

- (1) For power, lighting, control and signal circuits
- (3) In raceways
- (8) Where installed in wet locations, Type TC cable shall also be resistant to moisture and corrosive agents
- (9) In one- and two-family dwelling units, Type TC-ER cable containing both power and control conductors that is identified for pulling through structural members shall be permitted. Type TC-ER cable used as interior wiring shall be installed per the requirements of Part II of Article 334.

Type TC-ER cable shall be permissible to be used as a wiring method for mini-split HVAC systems, as directed by the system manufacturer and Article 334 of the NEC.

- (10) Direct buried, where identified for such use

# \*\*\*Article 336 Power and Control Tray Cable: Type TC cont

**336.12 Uses Not Permitted** Type TC cable shall not be installed or used as follows:

- (1) Installed where exposed to physical damage
- (3) Used where exposed to direct rays of the sun, unless identified as sunlight resistant

**336.80 Ampacity** The ampacity of Type TC tray cable shall be determined in accordance with 392.80(A) for 14AWG and larger conductors.....and in accordance with 310.15 where installed in a raceway or as messenger-supported wiring.



**EAB sub-committee voted to delete the gray highlighted verbiage that was added to 336.10(9).**

**Type TC cable is already allowed by code for an approved wiring method for mini-split HVAC systems.**

# Handouts

1. **Type TC – Power Cable** [www.encorewire.com](http://www.encorewire.com)
2. **Type TC Control Cable** [www.southwire.com](http://www.southwire.com)
3. **UL 1277 Standard for Electrical Power and Control Tray Cables  
(with Optional Optical-Fiber Members)**
4. **Minnesota Dept of Labor & Industry** [www.dli.mn.gov](http://www.dli.mn.gov)
5. **Honeywell 14/4 Stranded TC** [www.honeywell.com](http://www.honeywell.com)
6. **Honeywell Mini-Split Cables**
  1. **Portable Cord (600v)**
  2. **Honeywell PN: 1070 (Power & Control Tray Cable)**

# \*\*\* Article 410.116 Clearance and Installation

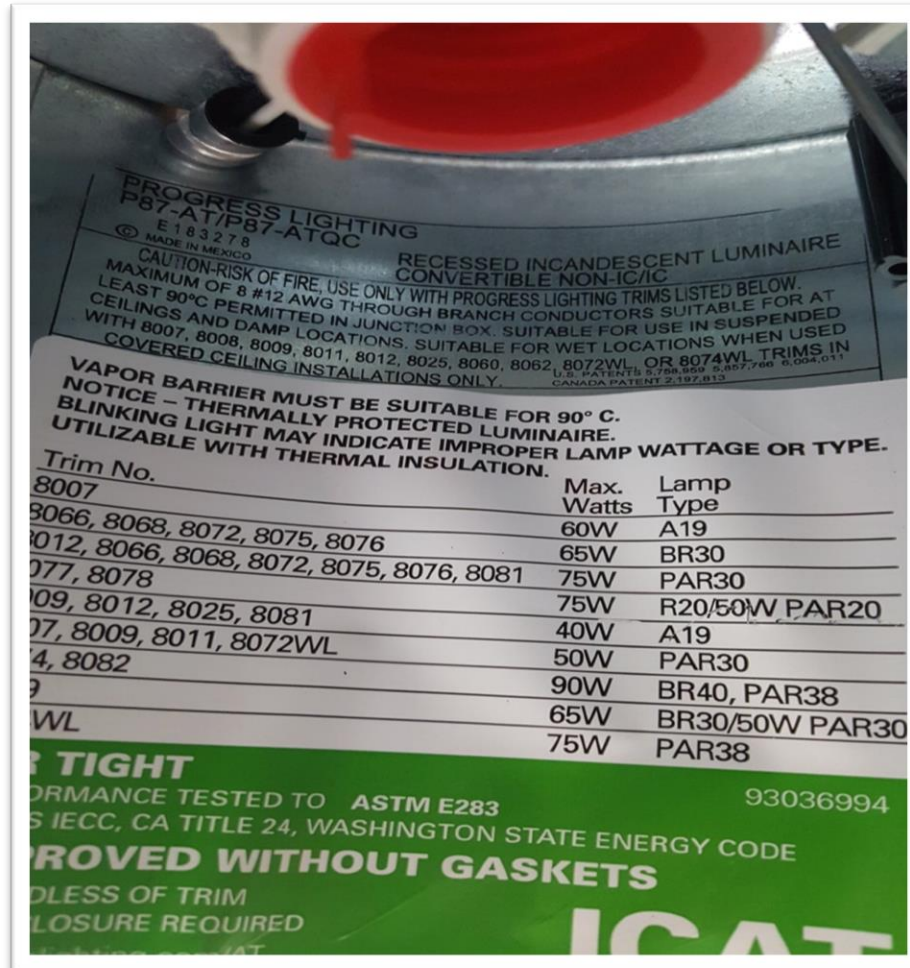
## (A) Clearance

- (1) **Non-Type IC** A recessed luminaire that is not identified for contact with insulation, **and Convertible Non-IC/IC luminaires** shall have all recessed parts spaced not less than ½” from combustible materials. The points of support and the trim finishing off the openings in the ceiling, wall or other finished surface shall be permitted to be in contact with combustible materials.
- (2) **Type IC** A recessed luminaire that is identified for contact with insulation, **Type IC**, shall be permitted to be in contact with combustible materials at recessed parts, points of support, and portions passing through or finishing off the opening in the building structure.

# \*\*\*Article 410.116 Clearance and Installation cont

**(B) Installation** Thermal insulation shall not be installed above a recessed luminaire or within 3” of the recessed luminaire’s enclosure, wiring compartment, ballast, transformer, LED driver, or power supply unless the luminaire is identified **only** as **Type IC** for insulation contact.

# Progress Lighting





Contact Info:

Matt Squire

City of Richardson

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Richardson Texas, 75080

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Other:

Electrical Inspector

Message Body:

RE product #P87-ATQC (recessed can)

I came across this luminaire during an inspection and red-tagged the contractor for not having a "Type IC" can in an insulated ceiling. Now, I have never seen a Recessed Incandescent Luminaire Convertible Non-IC/IC before. Normally, a recessed luminaire would be marked "Type IC" somewhere on the manufacturer nameplate. Is this specific product listed for use with insulation contact? If so, where can I find that information?

Thank you

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This e-mail was sent from a contact form on the Progress Lighting Website



Matt,

Our ratings are listed on the trim rather than the cans on the website. For example. The P97ATQC can take a P8066 trim which is a normal 6" step baffle with a 7 3/4 flange. If you enter P8066 into the search box on [www.progresslighting.com](http://www.progresslighting.com) it will pull up all of the P8066s. Double click on one of them. Then move the blue highlighted bar that is on 'overview' to product specifications'. Under that tab there is a red adobe attachment that you can click on for the Product Specs.

First it will show the CFL trim that does not go with the P87ATQC can so you have to scroll down until you get to the incandescent version. You will see a diagram of the trim and lamp and a list of Lamp wattage for each housing that it goes into. Each housing will list what wattage you can use for IC and NON-IC ratings..

I hope that this helped.

Thank you,

D Ennis

Progress Customer Service



Well...it's only spec'd for incandescent lamps but what determines whether it is IC rated or not is the wattage that is used for the lamps, thus the chart showing the maximum for IC verses NON-IC

**From:** Matt.Squire@cor.gov [<mailto:Matt.Squire@cor.gov>]

**Sent:** Friday, August 26, 2016 12:22 PM

**To:** Ennis, Debra

**Subject:** Re: FW: Progress Lighting Website: IC rating of recessed cans

\*External E-mail alert! Use caution before clicking links/attachments\*

Thank you for the reply. **So basically, this style can is only IC rated with use of incandescent lamps? That's how I am seeing this.**

Matt Squire  
Electrical Inspector  
**City of Richardson**  
**Building Inspections Dept**  
972.744.4182  
[matt.squire@cor.gov](mailto:matt.squire@cor.gov)

Hello Matt,

I am following up my voicemail regarding your question on the Type IC/Non-IC fixture manufactured by Progress Lighting you submitted.

This luminaire fixture falls under the Convertible Recessed Fixtures by UL, under our Category Code, IFAH. Part of the label notes this as it states 'Utilizable with Thermal Insulation'.

The Trims that are identified on the label are the only trims allowed for Type IC applications.

Regarding the use of CFL's, these have been investigated for use in 6 or 8 inch diameter totally enclosed luminaires. If the CFL will fit in the luminaire, and it is not marked 'NOT FOR USE in Totally Enclosed Luminaires' then the CFL will work.

Here is a link with the UL online directory for Self ballasted Fluorescent Lamps.

[http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/showpage.html?&name=OOLR.GuidelInfo&ccnshorttitle=Lamps,+Self-ballasted+and+Lamp+Adapters&objid=1074025577&cfgid=1073741824&version=versionless&parent\\_id=1073990762&sequence=1](http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/showpage.html?&name=OOLR.GuidelInfo&ccnshorttitle=Lamps,+Self-ballasted+and+Lamp+Adapters&objid=1074025577&cfgid=1073741824&version=versionless&parent_id=1073990762&sequence=1)

I hope this clarifies for you. If you have any questions, please do not hesitate to contact me.

Best Regards,

**Ryan Covington**  
**Lead Market Surveillance Engineer**

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