

Program Outline: Michigan Energy Code Requirements for Lighting Installations

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Act 54 Credits: 1 Hour – Administrative, 1 Hour – Plan Review, 2 Hours – Specialty

1. Introduction - Objectives
2. Michigan Uniform Energy Code
  - a. Scope and General Requirements
  - b. Construction Documents
  - c. Inspections
  - d. Referenced Standards
  - e. Definitions
  - f. Relationship to ASHRAE 90.1-2007 Standard
  - g. Role of the Code Official
    - i. Plan review
    - ii. Inspection
3. ASHRAE 90.1-2007, Chapter 8, Power
  - a. Voltage Drop
  - b. Submittals
  - c. Manuals
  - d. Comparison of ASHRAE 90.1-2007, 2010, 2013
4. ASHRAE 90.1-2007, Chapter 9, Lighting
  - a. Scope
  - b. Alterations
  - c. Power limitations
  - d. Compliance Paths
    - i. Building Area Method
    - ii. Space-by-Space Method
      1. Trade-off restrictions
      2. Exceptions
  - e. Lighting Control
    - i. Automatic Lighting Shutoff
    - ii. Space Control
    - iii. Exterior Lighting Control
    - iv. Additional Control
    - v. Tandem Wiring
  - f. Lighting Power Densities
    - i. Exterior
    - ii. Interior
      1. Building Area Method Examples
      2. Space-by-Space Method Examples
    - iii. Comparison of ASHRAE 90.1-2007, 2010, 2013
5. Lighting System Design for Energy Code Compliance

- a. Lighting Control Strategies
- b. Lamps & Ballasts
- c. LEDs and Drivers
- d. Line Voltage Controls
- e. Low Voltage Controls
- f. Dimming
- g. Occupancy Sensors
- h. Photosensors
- i. Advanced Controls