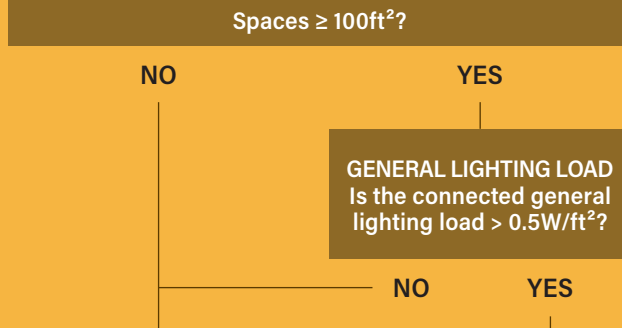


State Policy Goal: Title 24 Part 6, California Energy Code, is the cornerstone of the state's energy efficiency strategic plans, which aims to "decarbonize" as much as possible all energy sources.

In Title 24 2019, California added Occupancy type I (Institutional) but exempted I-3 and I-4. This means that Healthcare facilities are covered by Title 24, but they were specifically exempted from all but the Area Control and Daylighting mandatory control requirements.

Multi-level 130.1(b)

General lighting luminaires must be controlled per Table 130.1-A control step and uniformity criteria (which mandates dimming for LEDs)

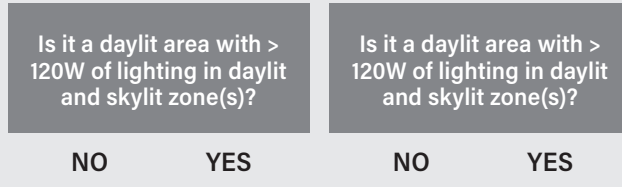


Key Exceptions

- Classrooms 0.7W/ft² if there is one step of 30-70% power
- Areas with single one/two lamp luminaire
- Areas Full or Partial Off by Sensors - Warehouse Zones, Library Stacks, Corridors and Sensors, Parking Garages if 50-60% off required areas
- Healthcare Facilities
- Restrooms

Daylighting 130.1(d)

When daylight illuminance > 150% of electric light, automatic daylight controls must reduce power by at least 65% (light level must never be less than electric light)
Daylighting areas: Skylit and primary sidelit spaces must be controlled automatically (and secondary sidelit spaces if following prescriptive method)



Key Exceptions

- Glazing in room is < 24ft²
- Parking Garages: daylight zone combined primary and secondary zone and at >150% of design electric light, luminaires in the daylight adaptation zone and dedicated ramps turn off lighting in zones > 60W
- Sidelit zones in retail merchandise and wholesale showrooms.
- When skylights blocked from direct sunlight >1,500 hours from 8:00AM-4:00PM
- Sidelit under some overhangs

Four Basic Space Types

Wattstopper interprets code requirements as four basic space archetypes that require specific control treatment

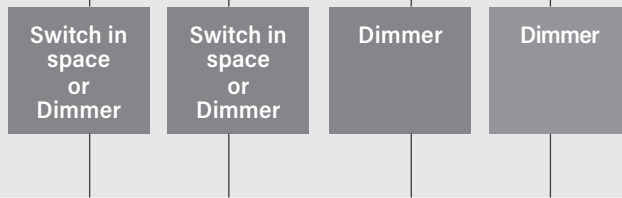


Key Exceptions

- Where full auto on is permitted, Manual On or Partial Auto On control is not required

Manual Area Control 130.1(a)

All luminaires require manually switched on/off controls and all areas enclosed by ceiling height partitions must be independently controlled



Key Exceptions

- 0.2W/ft² designated as areas of egress
- Pilot light switch allowed for malls, atria, retail sales areas, commercial and industrial storage, work areas, and convention halls/arenas
- Authorized personnel only switch allowed for 2+ stall public restrooms, stairwells, corridors, and parking areas

SPECIFIC AUTO OFF REQUIREMENTS FOR LIGHTING AND OTHER ELECTRICAL LOADS

Auto Off 130.1(c)

- Auto off for all interior lighting
- Separate controls per floor (except stairwells)
- Separate controls per 5,000ft²

Time Clock, Occupancy Sensor or Other

- Time clock on 2 hour override (No countdown timers except < 70ft² closet or data center)

Sensors Only (Partial On 50-70% or Manual On, if multilevel Required)

- Office ≤ 250ft²
- Multi-purpose < 1,000ft²
- Restrooms
- Classrooms
- Conference rooms

Full or Partial Off Sensor With Auto Off

- Library stacks
- Corridor
- Stairwell
- Warehouse aisle or open warehouse area

Partial Off Sensor Without Auto Off

- Hotel/motel and high-rise residential stairwells and common area guest room corridors
- Parking garages

All Sensors Set To Max 20 Minute

- Including Hotel Guest Rooms

Key Exceptions

- 24/7 operations
- 0.1W/ft² security/areas of egress
- Maximum zone size 20,000ft² for malls auditoriums, industrial spaces, single tenant retail spaces, and arenas
- Lights only on when normal power fails
- Electrical equipment rooms
- Healthcare Facilities

Plug Load 130.5(d)

Split wired receptacle or one controlled receptacle (CR) within 6ft of each uncontrolled receptacle (UCR)

Controlled Receptacle

- Office spaces
- Conference rooms
- Office space kitchens
- Lobbies
- Copy rooms
- Healthcare Exempted
- Motel/hotel guest rooms: 50% receptacles off within 30 minutes of vacancy

OTHER CODE REQUIREMENTS

110.12

Demand Responsive Controls

- All DR systems either act as Virtual End Node, or can respond to one via WiFi, ZigBee, BACnet, Ethernet, or Hardwired.
- New buildings, additions, or tenant improvements > 10,000ft² capable of reducing total lighting power by at least 15%
- Reduction must be uniform per table 130.1-A
- Spaces < 0.5W/ft² shall not count toward 10,000ft² of total lighting power
- Healthcare Exempted

130.4

Acceptance Testing and Certification

- Documentation that the system complies with relevant plans, specifications, and codes prior to final occupancy permit
- Healthcare Facilities Exempted

130.5(a)

Metering

- Based on size of electrical service
 - < 50 KVA
 - 50-250 KVA
 - 250-1,000 KVA
 - > 1,000 KVA
- Enables measurement of energy use from a single point
- Except CA Electric Code 517 spaces (Healthcare)

130.5(b)

Separation of Circuits

- Measurement devices can monitor electrical usage of load types
- 10% mixing per load type allowed
- Except CA Electric Code 517 spaces (Healthcare)