



nLight® Quick Reference Guide

Florida Building Code – Energy Conservation - (2017)
for Commercial Lighting and Electrical control requirements

About this guide: The scope of this guide includes lighting controls for interior and exterior applications, as required with an alteration of ≥ 50% luminaire replacement or ≥ 10% of new lighting system luminaires.
Exceptions: Dwellings units within commercial buildings; continuously lit security and emergency areas; exit stairs, ramps, and passageways; emergency egress lighting that is normally off.

Control Requirement*	Code Provision	Code Summary*	Space Type												
			Classroom, Lecture, Training Room	Conference, Meeting, Multipurpose Room	Private Office, Copy/Print Rooms	Employee Lunch and Break Rooms	Storage Rooms, Janitorial Closets	Lounges, Locker Rooms	Restroom	Lobby, Public Corridor	Open Office, Non-Exit Stairways	Warehouse			
On-Off Control	Full Auto-Off via Occupancy Sensor	C405.2.1.1.1	Lights must automatically turn off within 30 minutes of all occupants leaving the space.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Time-Switch Controls	C405.2.2 C405.2.2.1	Areas of the building without occupant sensor controls shall be provided with time switch controls. Areas must also have an override switch (<5000 sqft, ≤2 hours override).									(or)	(or)		
	Light Reduction Controls	C405.2.2.2	Spaces with time-switch controls shall have a manual control that allows the occupant to reduce the connected lighting load uniformly by at least 50%. These are not required in daylight zones or areas <0.6W/sqft.									(+)	(+)		
	Auto-Off ≤ 50%	C405.2.1.2	Occupancy sensors shall automatically reduce lighting in warehouse aiseways and open areas by ≥ 50%. The occupant sensors shall control lighting in each aisleway independently and shall not control lighting beyond the aisleway being controlled by the sensor.											✓	
	Manual-On or Auto-On ≤ 50%	C405.2.1.1.2	Automatically controlled spaces must be turned on manually, or instead can be turned on automatically to not more than 50% power.	✓	✓	✓	✓	✓	✓	✓					
	Full Automatic-On	C405.2.1.1.2	Automatically controlled spaces are allowed to turn on to full.								✓	✓	✓	✓	
	Manual Control (Local Switch)	C405.2.1.1.3 C405.2.2.3	Areas shall incorporate a manual control to allow occupants to turn lights off. NOTE: Safety may preclude the use of manual control in certain areas.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Daylight Control	Daylight - Responsive Controls	C405.2.3 C405.2.3.1	Daylight-responsive controls shall be provided within each space with sidelight and toplight daylight zones totaling >150W. Calibration mechanisms shall be readily accessible. NOTE: Daylight controls shall dim lights continuously from full to ≤ 15% in offices, classrooms, laboratories and library reading rooms.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Additional Controls	Automatic Receptacle (i.e. Plug Load) Control	C405.6.1	50% of receptacles and 25% of branch circuit feeders installed for modular furniture shall be automatically turned off by occupancy sensor within 20 minutes of all occupants leaving the space, or by time schedule.	✓	✓	✓	✓								

Other Lighting Control Requirements

C405.2.4.3

Hotel/Motel Sleeping Units and Guest Suites:

Master control device turns off all installed luminaires and switched receptacles within 20 minutes of occupants leaving.

Exceptions:

Lighting and switched receptacles controlled by a captive key system.

C408.3

Lighting System Functional Testing:

Before final inspection, a registered design professional provides evidence that lighting controls have been tested, calibrated, adjusted, programmed, and are in working condition:

C408.3.1.1: Test occupancy sensors

C408.3.1.2: Test auto time switch

C408.3.1.3: Test daylight responsive

C405.2.5

Exterior Lighting Controls:

- Automatically turn lights off with daylight
- Facade, landscape lights automatically turn off as a function of dusk/dawn and open/close time
- Reduce all other lighting by ≥30% from no later than midnight to 6AM, one hour after closing to one hour before opening, or when no activity is detected for > 15 minutes

Exceptions:

- Auto off emergency lighting
- Lighting for health and safety
- Covered vehicle entrances
- Building/parking structure exits for safety, security, or eye adaptation

C406

Additional Efficiency Package:

Note: Lighting options listed below, other options include: HVAC, renewable energy, outdoor air, service water heating.

C406.3: Reduced lighting power density:

Use 90% of total interior lighting power as identified in Table C405.4.2(1) or by using Space-by-Space method from C405.4.2.

C406.4: Enhanced digital lighting controls:

Continuous dimming, individually addressable luminaires, daylight zones, digitally reconfigurable, load shedding, individual user control, digitally reconfigurable occupancy sensor.

*This summary is for general information purposes only and is provided without any warranty as to accuracy, completeness, or otherwise. The user should read the applicable code sections for more complete and detailed descriptions of code requirements and exceptions and should consult with a professional engineer or other competent advisor before making any decision or taking any action based on this summary.