



# COMMERCIAL LIGHTING INCENTIVE PROGRAM (CLIP): PROGRAM REQUIREMENTS

## GENERAL

Lighting projects must show a minimum energy savings of 10% from existing baseline conditions to qualify for CLIP incentive payments.

Total incentive payments cannot exceed 100% of the invoiced project costs.

The project invoice must include an itemized description of the lighting materials installed and their associated costs. Invoices may include other costs directly related to the lighting installation, such as labor charges, permit fees, project design costs, or specialized equipment rental charges. LADWP will not include in incentive calculations any additional charges for excess materials, spare parts, or other costs not directly related to the lighting project.

Customers must provide detailed information regarding the building operating hours with their CLIP applications. LADWP will verify all figures during site inspections.

Only permanently installed, hardwired fixtures are eligible for incentives. Table lamps, task lighting, construction lighting, and other temporary and/or portable luminaires are not eligible.

CLIP will not pay incentives for the installation of incandescent, halogen, compact fluorescent, mercury

vapor, probe-start metal halide, T-12 linear fluorescent, or other outdated technologies when more energy efficient options are available.

All installed products must comply with California's appliance efficiency standards, as demonstrated by listing in the Appliance Efficiency Database of the California Energy Commission.

All installed products must have a Power Factor (PF) greater than or equal to .9 and total harmonic distortion (THD) less than or equal to 20% or otherwise specified.

All installed products must be listed by Underwriters Laboratory (UL), or an equivalent organization.

All products installed in exterior locations must be approved for outdoor use by the manufacturer.

Existing fixtures must be operational to qualify for incentives.

All installed luminaires, retrofit kits, and lamps must be dimming-capable when required by applicable federal, state, or local codes. Customers are responsible for verifying their proposed projects meet all requirements with their local code compliance officials.

## INCENTIVE RATES

All incentives are calculated per kilowatt-hour of annualized, first-year energy savings and shall be paid at the levels shown in Table 1: Incentive Levels.

**Table 1: Incentive Levels**

Category	Measures	Incentive per kWh Saved
A	<b>Lamp-only retrofits; other</b> Examples: Screw-in LED, Linear fluorescent tube only replacement	\$0.08
B	<b>Non-Conforming LED fixture replacement or retrofit - Installed products do not meet one or more requirements specified in Table 4</b> Example: LED fixture replacement (LED and driver) meets only PF and THD	\$0.08
C	<b>Conforming Lighting fixture replacement or retrofit - Installed products meet all program requirements</b> Examples: Fluorescent fixture retrofit, LED fixture replacement (LED and driver)	\$0.24
D	<b>Sensor-based controls</b> Examples: Occupancy/vacancy controls, Daylight controls	\$0.15
E	<b>Interactive Effects</b>	\$0.08

## FLUORESCENT LIGHTING

Linear fluorescent lamps must have a Color Rendering Index (CRI) greater than or equal to 80 (Series 800).

Four-foot T8 fluorescent replacement lamps must appear on the appropriate Commercial Lighting Qualifying Product List published ([www.cee1.org](http://www.cee1.org)) by the Consortium for Energy Efficiency (CEE) at the time of application.

CLIP applications with 4-foot T8 fluorescent lamps must include manufacturer's documentation showing all products are compatible. All system components, including lamps, ballasts, and controls, must operate correctly together. System wattages are calculated at full light output.

## LIGHT-EMITTING DIODE (LED)

Light-emitting diode (LED) lighting, including both lamps and fixtures, must meet or exceed the applicable values for each factor shown in the tables below. Efficacy is calculated using initial lumens at full light output divided by the total system watts.

**Table 2: LED Minimum Requirements**

LED Type or Application	Efficacy (Initial Lumens/Watts)	Color Rendering Index (CRI)	Power Factor	THD	Dimming	Warranty
<i>Documentation Source</i>	Energy Star or LM79	Energy Star or LM79	Energy Star or LM79		Specification sheet	Specification sheet
Decorative Lamp	65	80	≥ .9	N/A	Yes	3 Yrs.
Directional Lamp	65	80	≥ .9	N/A	Yes	3 Yrs.
Omni-directional Lamp	70	80	≥ .9	N/A	Yes	3 Yrs.

**Table 3: Minimum Requirements for LED Lamp Only Replacing T8 or CFL**

Customers must provide manufacturer documentation showing the LED system wattage and compatibility for the product paired with the fluorescent ballast to be used in the project.

Replacing Fluorescent	Efficacy (Initial Lumens/Watts)	Color Rendering Index (CRI)	Power Factor	THD	Dimming Only where required by Title 24	Warranty
<i>Documentation Source</i>	Lighting Facts or LM79	Lighting Facts or LM79	Lighting Facts or LM79	Lighting Facts or LM79	Specification sheet	Specification sheet
T8	90	80	≥ .9	≤ 20%	Yes	5 Yrs
CFL	65	80	≥ .9	≤ 20%	Yes	3 Yrs

**Table 4: LED Minimum Requirements for LED Fixtures (retrofit or replacement)**

LED Type or Application	Efficacy (Initial Lumens/ Watts)	Color Rendering Index (CRI)	Power Factor	THD	Dimming (Only where required by Title 24)	Warranty
<i>Documentation Source</i>	Lighting Facts or LM79	Lighting Facts or LM79	Lighting Facts or LM79	Lighting Facts or LM79	Specification sheet	Specification sheet
Recessed Downlights	65	75	≥ .9	≤ 20%	Yes	5 Yrs.
Track Mono-Point	60	75	≥ .9	≤ 20%	Yes	5 Yrs.
Interior Surface: Wall/Ceiling Mounted	75	80	≥ .9	≤ 20%	Yes	5 Yrs.
Troffers	90	80	≥ .9	≤ 20%	Yes	5 Yrs.
Lowbays	90	70	≥ .9	≤ 20%	Yes	5 Yrs.
Highbays	90	70	≥ .9	≤ 20%	Yes	5 Yrs.
Linear Tube	90	80	≥ .9	≤ 20%	Yes	5 Yrs.
Strip Lighting	120	80	≥ .9	≤ 20%	Yes	5 Yrs.
Parking Garage	80	70	≥ .9	≤ 20%	Yes	5 Yrs.
Exterior: Pole Mount	80	70	≥ .9	≤ 20%	Yes	5 Yrs.
Exterior Surface: Wall/Ceiling Mounted	75	70	≥ .9	≤ 20%	Yes	5 Yrs.
Refrigeration Case Lighting	50	75	≥ .9	≤ 20%	Yes	5 Yrs.
Fuel Pump Canopy	85	70	≥ .9	≤ 20%	Yes	5 Yrs.

Customers must submit documentation to validate that their proposed LED products meet the program requirements shown in Table 3 and 4. Customers may submit any combination of documents from the following sources:

- Manufacturer’s Specification Sheet for dimming and warranty
- U.S. Department of Energy’s “LED Lighting Facts” website [www.lightingfacts.com](http://www.lightingfacts.com)
- LM-79 test report from a certified NVLAP laboratory

By submitting a CLIP application, the customer understands and agrees that each LED fixture retrofit or replacement product must meet or exceed all applicable requirements found in Table 4 to qualify for the Category C incentive level. LED retrofit or replacement products that do not meet one or more applicable Table 4 requirements for efficacy, color rendering, dimming capability, or warranty may be eligible for incentives at the reduced Category B level. All proposed products must meet power factor (PF) and total harmonic distortion (THD) requirements found in Table 4 to receive an incentive.

LED products designed to operate using existing fluorescent ballasts are eligible for incentives only in fixtures containing existing electronic (non-magnetic) ballasts. Customers must document system wattages, accounting for both lamp and ballast energy use. Customers must provide manufacturer documentation showing the LED system wattage and compatibility for the product paired with fluorescent ballast to be used in the project. In cases where manufacturer documentation does not provide system wattages, listing lamp-only or “bare lamp” wattages, LADWP will add two (2) watts per LED lamp in calculations to account for ballast energy use.

**New LED exit signs are eligible for incentives when they meet these requirements:**

- Replace existing incandescent or fluorescent exit signs
- Input wattage < 5 watts
- Are UL-approved, ETL-listed, or have equivalent certification
- **Have a 5 year warranty**
- Meets local fire code and permit requirements

## FIXTURE/LAMP REMOVAL

CLIP will not pay incentives for the removal of fixtures, unless the customer also completes other qualified measures in the space as part of a lighting redesign project. LADWP will pay Category C level incentives when customers remove some fixtures and complete qualified retrofit or replacement measures on other fixtures within the same space.

CLIP will not pay incentives for the removal of lamps (de-lamping) from multi-lamp fixtures, unless the customer also completes other qualified measures within the fixtures. The fixtures must have excess lamp holders or sockets permanently removed, and may not contain a ballast or driver capable of operating additional lamps.

## CONTROLS

Incentive rates for energy savings attributable to controls will be paid at the Category D rate shown in Table 1: Incentive Levels.

The LADWP will use the standardized values shown in Table 5 to calculate energy savings attributable to control strategies. CLIP does not allow for user-defined savings projections for these strategies.

Table 5: Control Allowances

Strategy	Savings
Occupancy	24%
Daylight	28%
Institutional Tuning	38%
Combination	40%

Incentives for daylight control systems are only applicable to fixtures located within the daylight zone, as defined in the current version of California's Title 24 Energy Standard. Photocells controlling the on and off cycles of exterior fixtures are not eligible.

CLIP will pay incentives for the installation of new sensors or for replacement of existing, non-operational sensors. System wattages are calculated at full light output.

Passive infrared, ultrasonic, dual technology, or microwave sensors controlling interior or exterior fixtures are eligible. Sensors may be either hardwired or battery-operated (wireless). Wireless sensor batteries must have a minimum rated design life of 5 years or greater.

## INTERACTIVE EFFECTS

Energy efficient lighting measures reduce the internal heat load of a building or enclosed space, and may reduce the building's cooling energy consumption. Customers submitting CLIP applications may identify areas in their facilities with mechanical, refrigeration cycle, comfort cooling. Only these identified areas may be eligible for the additional interactive effect incentives. CLIP will calculate energy savings for interactive effects in conditioned

spaces using a standardized value of eight percent (8%) of the net energy reduction achieved by the lighting measures taken in the space. CLIP will pay incentives for interactive effects at the Category E level. All exterior locations, non-conditioned spaces, and areas cooled by evaporative "swamp" coolers or fans are ineligible for interactive effect incentives

## DEFINITIONS

Lamp-only retrofit is defined as the replacement of an existing lamp with a new lamp that results in energy savings, without modification or electrical rewiring of the existing fixture. Replacement of lamp holders or sockets with a similar product does not constitute a modification.

Fixture replacement means the total removal of an existing fixture and the installation of a new fixture.

Retrofit means the replacement of components, other than lamps, and electrical rewiring within an existing fixture.

High bay means a fixture mounted at a height greater than 12 feet above the floor.

Strip Lighting is a LED array designed to replace existing lamps in a fixture.

Occupancy sensors adjust light levels according to the presence of occupants.

Daylight sensors adjust light levels automatically in response to the presence of natural light.

Institutional tuning is the adjustment of light levels through commissioning and technology to meet location-specific needs or building policies or the provision of switches or controls for areas or groups of occupants. Time clocks and twist timers are not eligible for incentives.

Omnidirectional lamps emit lighting in all directions. Includes ANSI standard lamp shapes: A, BT, P, PS, S and T.

Decorative lamps, sometimes considered ornamental lighting, include ANSI standard lamp shapes: B, BA, C, CA, DC, F and G.

Directional lamps radiate light in a specific direction. Includes ANSI standard lamp shapes: R, BR, ER, MR, MRX and PAR.