HALO

LED

Recessed Lighting in the 21st century

HALO LED

Saves Energy
Saves Money

COOPER Lighting

APPLICATIONS

Sustainable Lighting for Hospitality

Halo LED luminaires are ideal for creating maintenance-free public spaces. Hotels, restaurants and night-time businesses will reduce expensive electric bills and maintenance costs by choosing the Halo LED downlight. Luminaires will last approximately eleven years based on twelve hours of use per day.

Maintenance-Free for Healthcare

Cooper Lighting's LED's are ideal for creating low maintenance public spaces, patient rooms and recovery rooms. Energy efficient fixtures reduce energy consumption and LED's long life lowers maintenance costs. A warm white color temperature creates a familiar home-like environment.

Comparable Task Lighting for Commercial Spaces

Focus on the importance of lighting. Halo LED luminaires provide light output comparable to traditional sources while saving energy and eliminating the inconvenience and distraction of frequent maintenance.

Unique Benefits for Retailers

LED luminaires do not emit damaging ultraviolet or infrared wavelengths so garments and fabrics can be illuminated without color deterioration. An LED does not emit heat like traditional light sources reducing the load on air conditioning systems.

Comfortable Illumination for the Home

Quality optical design provides light output and distribution comparable to an incandescent lamp source. Excellent cut-off, color quality and a warm white color temperature create an enjoyable illuminated environment. Full range dimming provides the ability to set different moods.

HALO LED FEATURES

Superior light quality

Consumes 75% less energy compared to 65W BR30 incandescent lamp

For use in new construction or existing applications

Uses less than 15 watts

600 lumen output

Projected 50,000 hour life

Warm color temperature (3000°K with CRI over 80)

Greater than 40 lumens per watt

Dimmable

Designed to last

Virtually maintenance free

Three year limited warranty

COOPER Lighting

Features and Benefits of LED Lighting

Revolutionary Lighting Technology

An LED (Light Emitting Diode) is composed of various semiconductor materials and when an electrical current passes through the diode, the recombination of positive and negative charges within the different compositions results in the emission of photons or light. LED's are also referred to as "Solid State lighting."

Environmental and legislative awareness continues to drive demand for energy efficient lighting solutions in residential and commercial applications. LED luminaires are high-efficiency alternatives to traditional light sources. Capitalize on the light quality, longevity and convenience benefits of solid state lighting.

Reduces the Environmental Impact of Lighting

The supply of fossil fuels impacts lighting and all energy consuming products. Lighting fixtures constitute a large percentage of electric utility bills - as much as 40% in some commercial facilities. Lighting will need to change to meet higher mandated efficiency levels. Changes in the lighting industry are being driven by energy legislation that has been established to meet concerns of excessive consumption. The future of lighting is with high efficiency products that meet lower energy consumption levels.

Saves Energy and Money

Changing one incandescent lamp to a HALO LED recessed downlight will save you hundreds of dollars over the life of the fixture. Changing multiple fixtures will significantly lower your electric bill and change how you view lighting. The Halo LED luminaire is more efficient than traditional light sources consuming 75% less energy than a 65 watt incandescent lamp.

Increases Reliability

LED's are solid state devices that do not have filaments or glass components that could break. Due to LED's solid state principles the light source is not susceptible to vibration reducing the risk of premature failure. Over 70% of the initial light output is maintained after 50,000 hours of operation. The sustainability of the Halo LED fixture dramatically reduces maintenance and service costs over traditional sources. The Halo LED fixture can last five times longer than a fluorescent or fifty times longer than an incandescent source.

Reduces Energy Cost

10 Fixtures operating for 50,000 hours at 10¢/Kwh

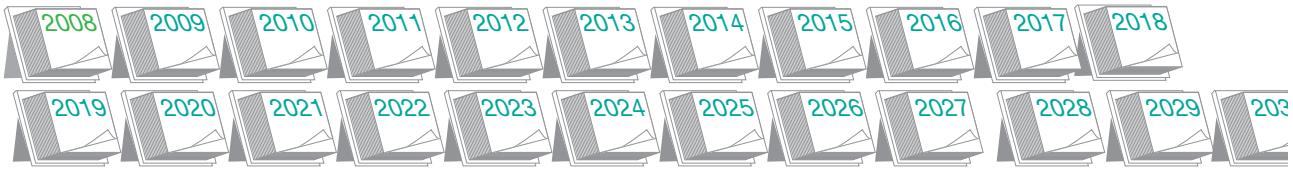
14W LED=$700 (10 fixtures operating over 50,000 hrs.)

65W Incandescent=$3,250 (10 fixtures operating over 50,000 hrs.)

LED Life

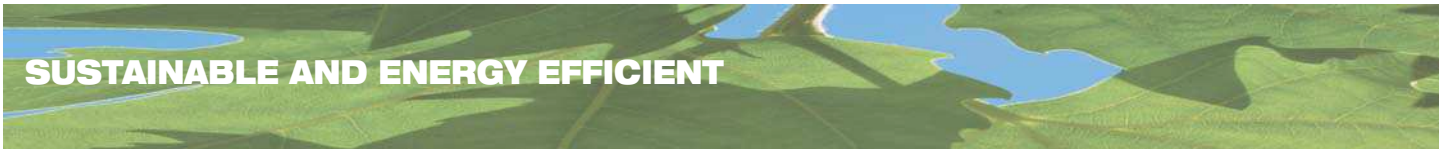
Six hours use per day 50,000 Hour Life

LED = 22.8 years (50,000 hour life)



Incandescent= 0.46 years (published 1,000 hour life)

Fluorescent=5.5 years (published 12,000 hour life



LED Module

ML706830 LED Module includes LED, Driver, Heat Sink, Torsion Springs and Edison Base Adapter

Quality of Light

The HALO LED luminaire provides light output and distribution comparable to a 65 watt BR30 incandescent lamp or an 18 watt compact fluorescent lamp. It provides excellent color rendering; a warm white color temperature, and produces over 600 productive beam lumens out of the luminaire. The superior optical design also yields good cutoff and low-glare. The Halo luminaire can be dimmed to 15% (nominal) with most standard AC incandescent analog dimmers and is capable of dimming to 5% (nominal) with select incandescent dimmers that have a low-end adjustment.

Cutoff

The cutoff angle of a luminaire is the angle when the brightness of the source is no longer visible. This is the deciding factor for visual comfort in a lighting system. Deep cutoff optics are desirable in creating low brightness luminaires, allowing the eye to see more effectively. The Halo LED downlight provides a 50° cutoff and low-glare.

Modular Design

Installation and replacement is simple. The product is contractor friendly and installs in the same manner as a lamp. The ML706830 is designed for use in the dedicated H750ICAT housing for new construction applications or for retrofit application with a screw-in Edison base adapter (included with module) for use in existing HALO or ALL-PRO H7 housings. The HALO LED Module is compatible with H7 AIRTITE, IC rated housings and is Title 24 compliant when used with the dedicated LED H750ICAT housing.

Engineering and Construction

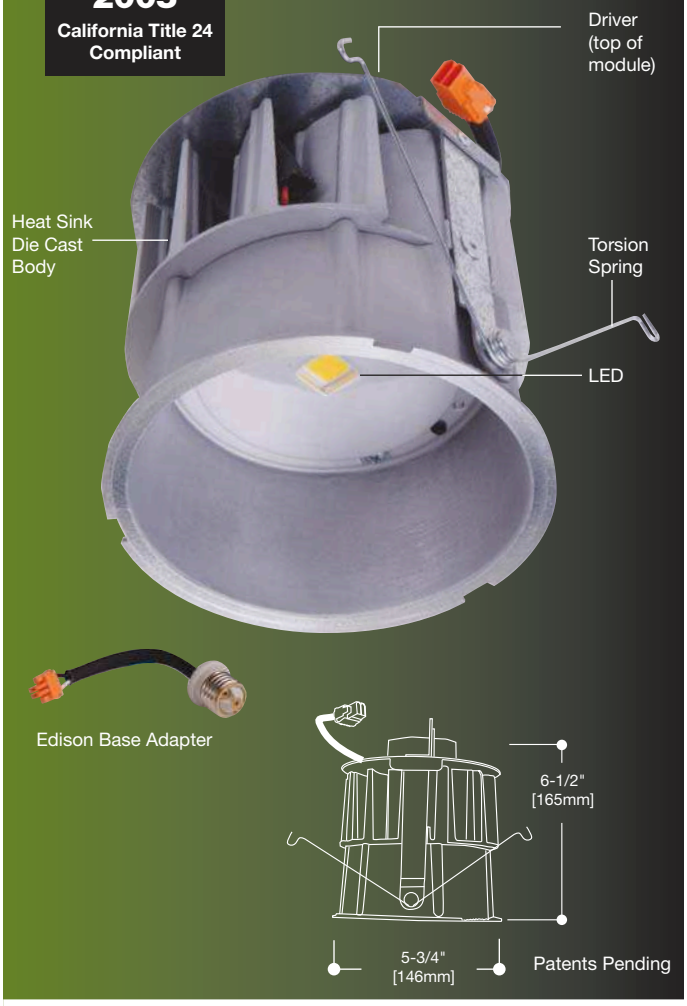
Durable die-cast aluminum construction conducts heat away from the LED keeping the junction temperatures below specified maximums even when installed in insulated ceiling environments. The LED module is controlled with a high efficiency driver with a power factor of >.90 at an input power of 120V, 60 Hz.

Features

- Comparable in light output and distribution to a 65 watt BR30 incandescent lamp or an 18 watt compact fluorescent luminaire while consuming less than 15 watts of electricity.
- Exceeds high efficacy requirements for California Title 24 2005 standard
- Can be dimmed to 15% (nominal) with most standard AC incandescent analog dimmers and is capable of dimming to 5% (nominal) with select incandescent dimmers that have a low-end adjustment.
- Excellent color rendering (80 nominal CRI) and warm white color temperature (3045K nominal).
- Does not emit damaging ultraviolet or infrared wavelengths that could damage fabrics and merchandise.
- Does not emit heat like traditional light sources.
- No mercury is present eliminating special recycling requirements.
- Patent pending optical design provides 50° cutoff and low glare.
- Product life is rated for 50,000 hours at 70% lumen maintenance (or approximately 20 years based on six hours of use per day).
- Compatible HALO and ALL-PRO housings include: H750ICAT, H7ICAT, H7ICATNB, H7ICT, H7ICTNB, H7RICAT, H7RT, H7T, H7TNB, EI700AT, EI700NB, EI700ATNB, EI700RAT, EI700, ET700, EI700R, ET700R.
- Multiple trim and reflector options including a wet location listed shower trim.
- High efficiency driver: power factor of >.90 at an input power of 120V, 60Hz.
- Cooper Lighting provides a three year warranty on the Halo LED Module.

HALO LED Module

T24 2005
California Title 24 Compliant



HALO LED Module, H750ICAT Housing and 494H06 Trim

PERFORMS LIKE A TRADITIONAL DOWNLIGHT

Dedicated HALO LED Housings

New Construction Housing

H750ICAT

- 6" Aperture New Construction Housing
- For Use With Halo 6" LED Modules
- Meets high efficacy California Title 24 - 2005 standard
- For Use in Insulated Ceilings - May Be Covered with Insulation
- AIR-TITE™ to Meet Restricted Airflow Requirements per ASTM-E283
- UL Listed Connector for Easy Installation
- Input 120V Line Voltage
- UL/cUL Listed

Compliance

The Halo LED fixture is designed to exceed the highest energy efficiency codes and standards in the industry. The HALO LED recessed luminaire exceeds high efficacy requirements for California Title 24 with energy savings in excess of 75% when compared to incandescent lamps.

Product Standards

HALO LED H7 Collection is in compliance with UL/cUL requirements. Module is compatible with IC-rated HALO housings for direct contact with insulation. The dedicated LED new construction housing (H750ICAT) exceeds California's high efficiency Title-24 standards and meets Restricted Air Flow Standard ASTM-E283.

Housing Features - Got Nail! Hanger Bars

The H750ICAT features the GOT NAIL!™ hanger bars with a preinstalled ready to use nail that easily penetrates regular lumber as well as engineered lumber, I-joists, and laminated veneer beams.

- The nail is regressed to prevent snagging and to ensure straight penetration.
- The right levelling flange on the hanger bar rests on the bottom of the joist and the housing can be held in position with one hand while the nails are hammered into the joist.
- Should it be necessary to reposition the housing, the bar hanger can be removed with a claw hammer without damaging the nail or the bar hanger.
- To accommodate tight joist spacing, the patented Pass-N-Thru™ feature allows tool-free shortening of bar hangers if necessary without having to remove them from the housing.

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The nail is regressed to prevent snagging and to ensure straight penetration.

Housing Features - Junction Box

The H750ICAT housing is provided with the Slide-N-Side III™ junction box wire traps.

- Wiring connections with non-metallic sheathed cable (NM) can be made outside the junction box first and then the NM cable can be slid into place in the wire trap.
- The H750ICAT housing is also equipped with Quick Connect wiring connectors.
- Simply trim the supply wires and push the wires into the connectors. No additional connectors or wire nuts are needed.
- In addition to the wire traps for type NM non metallic sheathed cable, Halo housings include several knock-outs for use with metallic cable or rigid conduit connectors.
- Slide-N-Side wire trap accommodates these popular sizes:

  -U.S. #14/2, #14/3, #12/2, #12/3
  -Canada: #14/2, #14/3, #12/2

Make wiring connections outside the junction box (with easy access to feed wires and housing wires) then Slide the cable into the wire trap for a secure connection. The Slide-N-Side III™ accepts the most popular sizes of non-metallic sheathed cable

EXCEEDS INDUSTRY ENERGY & SAFETY STANDARDS