HALO®

HALO LED H4 Series - 2nd Generation

The Halo H4 LED is a family of 4" aperture recessed downlight H457 series of housings designed for exclusive use with Halo EL406, ELG406, ELSG406 Series LED Light Engines and compatible 4" TL4 and TLS4 LED trims. Halo H4 LED housings have integral LED drivers that offer dimming as a standard feature.
This is a Non-IC, AIR-TITE™ housing for non-insulated ceiling installations, universal voltage 120V-277V input, and dimming with either 120V phase control dimmers, or 0-10V DC control systems. The H4 LED series offers high quality downlighting along with high efficacy – the result being great lighting and significant energy savings.

Catalog #		Type
Project		
Comments		Date
Prepared by		

DESIGN FEATURES

MECHANICAL

(A) Housings

- Single wall die-formed construction.
- Openings are gasketed for AIR-TITE installation.

(B) Plaster Frame

- Galvanized steel die-formed construction.
- Housing can be removed from plaster frame for access to junction box.
- Housing adjusts for ceilings up to 1-1/8" thickness.
- Plaster frame designed with removable bar hangers for installation in new construction.
- HALO identity embossed on plaster frame.

MOUNTING

(C) GOT NAIL! Pass -N-Thru™ Bar Hangers

Bar Hanger Features include:

- Pre-installed nail easily installs in regular lumber, engineered lumber and laminated beams.
- Safety and guidance system prevents snagging, ensures smooth straight nail penetration and allows bar hangers to be easily removed if necessary.
- Automatic leveling flange aligns the housing and lets you hold the housing in place with one hand while driving nails.
- Housing can be positioned at any point within 24" joist span.
- Score lines allow "tool-less" shortening for 12" joists.
- Bar hangers may be repositioned 90°.
- Bar hangers do not need to be removed from frame for shortening.
- Integral T-bar clips snaps onto T-bars - no additional clips required.

ELECTRICAL

(D) Junction Box

- Positioned to accommodate straight conduit runs.
- Seven 1/2" trade size conduit knockouts with true pry-out slots.
- Slide-N-Side™ connectors allow non metallic sheathed cable to be installed without tools and without removing knockouts.
- Accepts a wide range of non-metallic sheathed cables.
- The standard cable types used in lighting in both U.S. and Canada.
  - Allows wiring connections to be made outside the junction box.
  - Simply insert the cable directly into the trap after connections are made.
  - Accommodates the following standard nonmetallic sheathed cable types:
    US: #14/2, #14/3, #12/2, #12/3
    Canada: #14/2, #14/3, #12/2

(E) LED Light Engine Connection

- LED connector is a non-screw base connector offering easy installation with the H4 LED 2nd Generation EL406, ELG406, ELSG406 Series LED Light Engines.
- LED connector meets high-efficacy luminaire requirement for a non-screw base socket, and where required to qualify as a high-efficacy luminaire (California Title-24).

(F) LED Driver

- LED dimmable driver mounts to the housing junction box.
- Driver is a120V-277V Universal Voltage, high efficiency, electronic power supply providing low voltage power to EL Series LED Light Engines.
- Driver meets FCC EMI/RFI Consumer Level limits for use in residential and commercial installations.
- Driver features high power factor and THD, and has integral thermal protection in the event of over temperature or internal failure.
- Driver is specifically designed for compatibility with EL406 LED Light Engines, and ELG406, ELSG406 Adjustable Gimbal Light Engine / Trims.
- If dimming is not required the fixture can be operated from a standard wall switch.

Dimming - Phase Control

- The HALO H4 LED luminaire is designed for dimming capability to 10% in normal operation with most 120V leading edge (LE) and trailing edge (TE) phase control dimmers. (Consult dimmer manufacturer for application/ compatibility/loading. Note, some dimmers require a neutral in the wallbox).

Dimming - 0-10V

- Dimmable to 10% in typical operation with compatible 0-10V DC low voltage dimmers.
- 0-10V DC dimmers operate using two low voltage dimming wires (color coded violet and gray). The low voltage dimming wires are separate from the 120V AC or 277V AC power.
- Switching on/off is controlled via the line voltage (120V AC or 277V AC) power, and dimming is controlled via the 2-wire 0-10V DC low voltage wiring.

Warranty

Cooper Lighting Solutions provides a five year limited warranty on Halo LED Luminaires which includes the LED Recessed Housing, LED Light Engine, and LED trims.

Labels

- UL/cUL Listed 1598 Luminaire
- UL/cUL Listed for Damp Location
- UL/cUL Listed for Wet Location, covered ceiling - with select trims

Qualifications

- ENERGY STAR® Certification.**
- Use with designated LED light engines and trims for California Title 24 Non-Residential luminaire compliance
- Can be used for International Energy Conservaction Code (IECC) high efficacy luminaire compliance

AIR-TITE™

Certified under ASTM-E283 and listed UL/cUL 1598. May be used to meet restricted air-flow requirements.



H457TATE010

4-Inch LED Recessed Housing New Construction Non-Insulated Ceiling

High Efficacy LED Housing - Dimmable

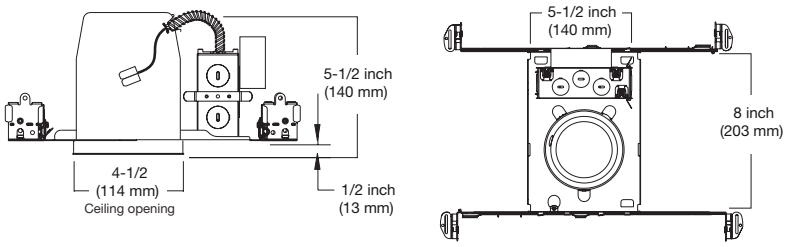
FOR USE IN NON-INSULATED CEILINGS

CAN BE USED IN INSULATED CEILINGS BUT INSULATION MUST BE KEPT 3" FROM ALL SIDES OF THE HOUSING

H4 Series LED Energy Data:
(Values at non-dimming line voltage.)
Minimum Starting Temp: -30°C (-22°F)
EMI/RFI: FCC Title 47 CFR, Part 18, (Consumer)
Sound Rating: Class A standards
Input Voltage: 120V-277V
Power Factor: >0.90
Input Frequency: 50/60Hz
THD: <25%
Input Power: 13W
Input Current: 121mA
Driver Compliance: UL8750, Class II rated
Maximum Non-IC (Non-Insulated Ceilng) Ambient Continuous Operating Room Temperature: 40°C (104°F)

**Refer to ENERGY STAR® Certified Products List and CEC Appliance Database for listings.

DIMENSIONS



ORDERING INFORMATION - H4 LED Downlights

SAMPLE NUMBER: H457TATE010 - EL406927 - TL410SC
Complete unit includes LED housing, light engine and trim; ordered separately.

H4 LED Housing			H4 LED Light Engine		
			EL406	CRI	CCT
H457 = 4˝ housing H4 LED series downlight, 2nd Generation	**TAT** = New Construction Non-Insulated Ceiling, AIR-TITE	**E010** = LED driver, 120V-277V, 50/60 Hz, dimmable with 120V LE/TE* phase control dimmers or 0-10V DC dimming controls (refer to dimmer manufacturer)	**EL406** = 4" LED Downlight Engine, 2nd Generation	**9** = 90 CRI	**27** = 2700K **30** = 3000K **35** = 3500K **40** = 4000K

Trim Options		Accessories
TL410SC = Specular Clear Reflector, Diffuse Polymer Dome Lens, White Ring, Shower Rated	**TL402TBZS** = Tuscan Bronze Reflector, Solite® Glass Lens, and Tuscan Bronze Ring, Shower Rated	**Thin Profile Designer Trim Rings** *For use with Round TL4 trims (not compatible with Square TLS4 trims, or adjustable gimbals ELG, ELSG trims.)*
TL410H = Haze Reflector, Diffuse Polymer Dome Lens, White Ring, Shower Rated	**TL402SBKS** = Specular Black Reflector, Solite® Glass Lens, and White Ring, Shower Rated	**TRM400WH** = White **TRM400BK** = Black **TRM400SN** = Satin Nickel **TRM400TBZ** = Tuscan Bronze **TRM400PC** = Polished Chrome
TL410WH = White Reflector, Diffuse Polymer Dome Lens, White Ring, Shower Rated	**TL403WBS** = White Baffle, Solite® Glass Lens, and White Ring, Shower Rated	
TL410SN = Satin Nickel Reflector, Diffuse Polymer Dome Lens, Satin Nickel Ring, Shower Rated	**TL403BBS** = Black Baffle, Solite® Glass Lens, and White Ring, Shower Rated	
TL410TBZ = Tuscan Bronze Reflector, Diffuse Polymer Dome Lens, Tuscan Bronze Ring, Shower Rated	**TLS408WHWB** = Square Baffle Trim, Solite® Glass Lens, White Ring with White Baffle, Shower Rated	
TL410SBK = Specular Black Reflector, Diffuse Polymer Dome Lens, White Ring, Shower Rated	**TLS408WHBB** = Square Baffle Trim, Solite® Glass Lens, White Ring with Black Baffle, Shower Rated	
TL411WB = White Baffle, Diffuse Polymer Dome Lens, White Ring, Shower Rated	**TLS408SNBB** = Square Baffle Trim, Solite® Glass Lens, Satin Nickel Ring with Black Baffle, Shower Rated	
TL411BB = Black Baffle, Diffuse Polymer Dome Lens, White Ring, Shower Rated	**TLS408TBZBB** = Square Baffle Trim, Solite® Glass Lens, Tuscan Bronze Ring with Black Baffle, Shower Rated	
TL402SCS = Specular Clear Reflector, Solite® Glass Lens, and White Ring, Shower Rated	**TL409WW** = Wall Wash, Semi-Specular Clear Reflector with White Ring, Shower Rated	
TL402HS = Haze Reflector, Solite® Glass Lens, and White Ring, Shower Rated	**TL409WHWW** = Wall Wash, White Reflector with White Ring, Shower Rated	
TL402WHS = White Reflector, Solite® Glass Lens, and White Ring, Shower Rated	**TL422PS** = Polymer “Dead Front” White Baffle & Regressed Lens, White Ring, Shower Rated	
TL402SNS = Satin Nickel Reflector, Solite® Glass Lens, and Satin Nickel Ring, Shower Rated		

* LE = Leading Edge (forward phase control) dimming
* TE = Trailing Edge (reverse phase control) dimming

ORDERING INFORMATION - H4 LED Adjustable Gimbals

SAMPLE NUMBER: H457TATE010 - ELG406930WH
Complete unit includes LED housing, light engine and trim; ordered separately.

H4 LED Light Engine				Optional Accessory Reflector Kit	Optional Len Media
	CRI	CCT	Finish	*(order separately)*	*(order separately)*
ELG406 = Round LED Adjustable Gimbal Light Engine - 2nd Generation **ELSG406** = Square LED Adjustable Gimbal Light Engine - 2nd Generation	**9** = 90 CRI	**27** = 2700K **30** = 3000K **35** = 3500K **40** = 4000K	**WH** = White **SN** = Satin Nickel **TBZ** = Tuscan Bronze	TL412RK includes: • 25° reflector (one is included with gimbal) • 35° reflector • 50° reflector TL412RK is for use with ELGxx and ELSGxx gimbals only.	One lens media may be used in place of clear lens. Optical Lenses • L110 Diffuse Sand Blasted Lens • L111 Soft Focus Textured Lens • L113 Prismatic Lens • L115 Linear Spread Lens Dichroic Color Films • L114 UV Filter • L120 Red • L121 Amber • L122 Yellow • L123 Green • L124 Daylight • L125 Blue • L127 Cosmetic Color Filters • L130 Yellow

Solite® is a registered trademark of AGC Flat Glass North America

Cooper Lighting Solutions
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com

Specifications and dimensions subject to change without notice.