# HALO®

## Description

The Halo RL4 Wireless is a complete LED Baffle-Trim Module for 4″ aperture recessed downlights. When paired with a ZigBee based system, the RL4 Wireless can perform dimming, white tuning, scheduling, grouping, geo-fencing, automations, and remote access all through a mobile device. The RL4 Wireless is for use with Halo, and is UL Certified for use with compatible 4″ housings. The RL4 Wireless lens provides uniform illumination and wet location listing. Precision construction makes any housing AIR-TITE for added savings and code compliance.

## Specification Features

### Wireless Systems
- Certified for use with Wink and SAMSUNG Smartthings hubs
- Group, Schedule, Geo-fence, and automate lighting actions through hub manufacturer's app
- Utilizes ZigBee Home Automation protocol
- Wireless functionality requires internent connection to Hub

### Wireless Pairing
- See Halo LED RL56 and RL4 Quick Start guide for wireless setup, guidance and troubleshooting

### Module - Trim
- Module construction includes LED Array, heat sink, reflector, lens, baffle and trim ring
- Regressed baffle
- Heat sink designed to conduct heat away from the LED Array keeping the junction temperatures below specified maximums, even when installed in insulated ceiling environments

### Optics
- Regressed lens
- Impact-resistant polycarbonate
- Convex form and lamp-like appearance
- Diffuse for even illumination

### Mounting
- Push-N-Twist universal installation clips are designed to fit 4″ compatible housings

### Housing Compatibility
See Housing Compatibility

### LED
- Mid power led array provides a uniform source with high efficiency and no pixilation

- 90 CRI minimum, R9 greater than 50
- Color accuracy within 3 SDCM at the CCT end points and 4 SDCM in between end points, provide color accuracy and uniformity
- Color Temperature (CCT) has an adjustable range from 2700K to 5000K (factory default 3000K)
- L70 at 50,000 hours

### LED Chromaticity
- A tight chromaticity specification ensures LED color uniformity, sustainable Color Rendering Index (CRI), and Correlated Color Temperature (CCT) over the useful life of the LED
- LED chromaticity of 3 SDCM meets ENERGY STAR® color standards

### Gaskets
- Closed cell gasket achieves restrictive airflow and wet location requirements without additional caulking

### Driver
- Integral 120V 50/60Hz constant current dimmable driver provides high efficiency operation
- In the app, continuous dimming from 100% to 5%
- Not recommended for use with any in-wall dimmers
- Dimming to 5% is best assured when using Halo recommended hub manufactures
- Inline electrical quick connect and E26 adapter (provided) provides mains connections
- Consult instruction sheets and quick start guide for more information

### Designer Skins (sold separately)
RL4 skins are accessory rings that attach to the RL4 for a permanent finish. Refer to the RL4 accessories specification sheet for details
- White (Paintable)
- Satin Nickel
- Tuscan Bronze

### Compliance
- UL Certified for use with Halo housings and for use with other's housings, see instruction sheet for conditions of acceptability
- Air-Tite certified per ASTM E283
- Wet and Damp Location listed
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions per FCC 47CFR Part 15B
- Contains no mercury or lead and RoHS compliant
- Photometric testing in accordance with IES LM-79-08
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- Can be used for State of California Title 24 high efficacy luminaire compliance. Complies with Title 24 JA8-2016-E
- Can be used for International Energy Conservation Code (IECC)
- FCC ID: 2AKCY-RL4ZHA
- IC: 4706A-RL4ZHA

### Warranty
Five year limited warranty, consult website for details.
www.cooperlighting.com

## RL4 Wireless
White

## 4-Inch LED Recessed Retrofit Module-Trim

## 90CRI CCT Adjustable

Range from 2700K-5000K

**FOR USE IN INSULATED CEILING AND NON- INSULATED CEILING RATED HOUSINGS**

**HIGH-EFFICACY LED WITH INTEGRAL DRIVER**

### Energy Data

**RL4 Series**
(Values at non-dimming line voltage)

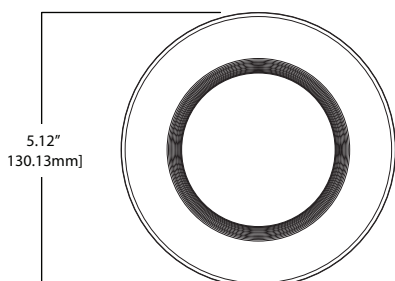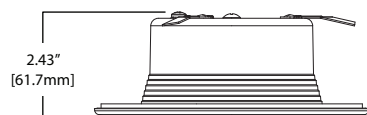| | |
|---|---|
| Minimum Starting Temp: -30°C (-22°F) | |
| EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer) | |
| Sound Rating: Class A | |
| Input Voltage: 120V | |
| Power Factor: >0.90 | |
| Input Frequency: 60Hz | |
| THD: <20% | |
| Input Power: 8.18W | |
| Input Current: 0.07A | |
| Maximum IC (Insulated Ceiling) Ambient Continuous Operating Temperature: 25°C (77°F) | |
| Maximum Non-IC Ambient Continuous Operating Temperature: 40°C (104°F) | |
| Watt-Hour: 8.18Wh | |

2.43″ [61.7mm]

5.12″ 130.13mm]

**90 CRI** nominal CCT: 2700K 3000K 3500K 4000K 5000K

IECC International Energy Conservation Code High Efficacy Compliance

T24 California Title 24 Residential and Non-Residential Compliant

Efficiency Standards

UL CERTIFIED
SAFETY US-CA
SÉCURITÉ US-CA
E349750

Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Appliance Efficiency Database under JA8.

echo plus

Works with SmartThings

Showerlight

ZigBee Certified product

WORKS WITH Wink

air tite

RoHS

## Ordering Information

Sample Number: **RL460WHZHA69 -** 4" Retrofit LED Module, Zigbee HA, 90CRI, Matte White
Complete unit includes a RL4 Baffle-Trim LED Module and a 4" compatible housing, ordered separately. Optional accessory designer trim ring ordered separately.
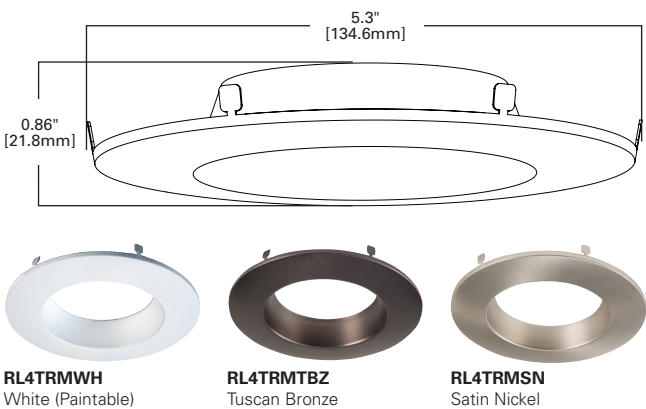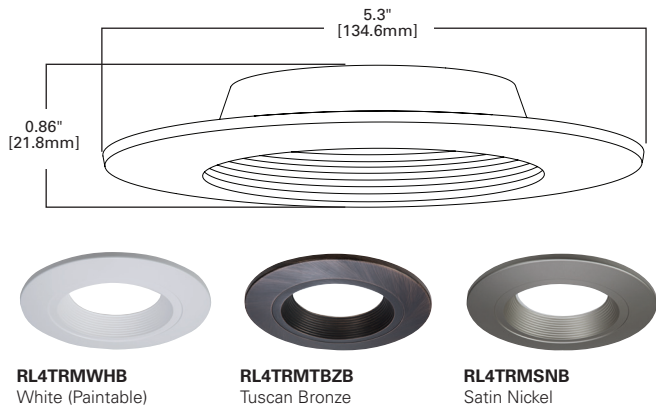
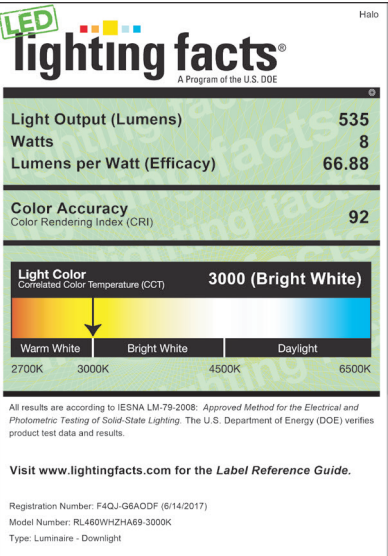| Module | Finish | Protocol | Lumens | CRI |
|---|---|---|---|---|
| **RL460**= 4" Retrofit Baffle Trim, LED Module, ZigBee Wireless, 90CRI, Tunable White 2700K-5000K | **WH**=Matte White | **ZHA**=ZigBee Home Automation | **6**=600 lumens (nominal) | **9**=90 CRI |

## Housing Compatibility

The RL4 is UL Certified in Halo recessed housings and for use with any 4 inch diameter recessed housing constructed of steel or aluminum with an internal volume that exceeds 62.3 in$^3$ in addition to those noted below:

| **Compatible Halo LED Housings with LED luminaire connector (high-efficacy compliant)** | | |
|---|---|---|
| **HALO LED** | **Recessed Can Size** | **Catalog Number** |
| | **4"** | H995ICAT, H995RICAT, H245ICAT, H245RICAT |

| **Compatible Halo Incandescent E26 Screwbase Housings** | | |
|---|---|---|
| **HALO** | **Recessed Can Size** | **Catalog Number** |
| | **4"** | H99ICAT, H99TAT, H99RTAT, E4ICATSB, E4TATSB, E4RTATSB |

## Designer Trim Dimensions

5.3" [134.6mm]     0.86" [21.8mm]

| **RL4TRMWHB** White (Paintable) | **RL4TRMTBZB** Tuscan Bronze | **RL4TRMSNB** Satin Nickel |
|---|---|---|

5.3" [134.6mm]     0.86" [21.8mm]

| **RL4TRMWH** White (Paintable) | **RL4TRMTBZ** Tuscan Bronze | **RL4TRMSN** Satin Nickel |
|---|---|---|

## Lighting Facts

**LED lighting facts®**
A Program of the U.S. DOE
Halo

| | |
|---|---|
| Light Output (Lumens) | 535 |
| Watts | 8 |
| Lumens per Watt (Efficacy) | 66.88 |

| Color Accuracy | 92 |
|---|---|
| Color Rendering Index (CRI) | |

**Light Color**
Correlated Color Temperature (CCT)    **3000 (Bright White)**

Warm White    Bright White    Daylight
2700K    3000K    4500K    6500K

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.* The U.S. Department of Energy (DOE) verifies product test data and results.

**Visit www.lightingfacts.com for the** *Label Reference Guide.*

Registration Number: F4QJ-G6AODF (6/14/2017)
Model Number: RL460WHZHA69-3000K
Type: Luminaire - Downlight

## Photometric Data

### RL4 Series Photometric*

| RL460WHZHA69-3000K | | |
|---|---|---|
| **Luminaire lumens** | | 535 |
| **Input watts** | | 8 |
| **LER (LPW)** | | 66.9 |
| **Spacing Criteria** | 0-180 | 1.18 |
| | 90-270 | 1.18 |
| | Diagonal | 1.26 |
| **Beam angle (degrees)** | | 93.1 |
| **Field angle (degrees)** | | 141.1 |
| **Zonal lumen** | **Lumens** | **% Lumens** |
| **0-30** | 189 | 35.3 |
| **0-40** | 300 | 56 |
| **0-60** | 475 | 88.8 |
| **0-90** | 535 | 100 |
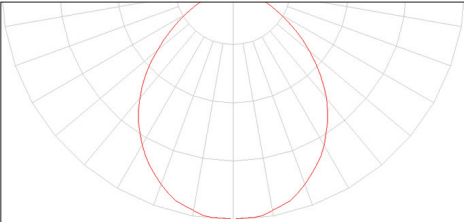
\* Tested in accordance with IES LM63. Field results may vary.