Project		Catalog #		Type	
Prepared by		Notes		Date	

HALO

RL4 | LED System 80CRI/90CRI

4" LED retrofit module-trim

Typical Applications
Residential

Interactive Menu

- Order Information page 2
- Product Specifications page 3
- Photometric Data page 4
- Energy & Performance Data page 4
- Product Warranty

Product Certification

ENERGY STAR

Can be used for **IECC** International Energy Conservation Code High Efficacy Compliance

Efficiency Standards T24 Can be used to comply with 2016 Title 24 Part 6 LED Enclosed Light Source Requirements (JA8)

Efficiency Standards T20 California Title 20 Certified LED Tier 1 Lamp
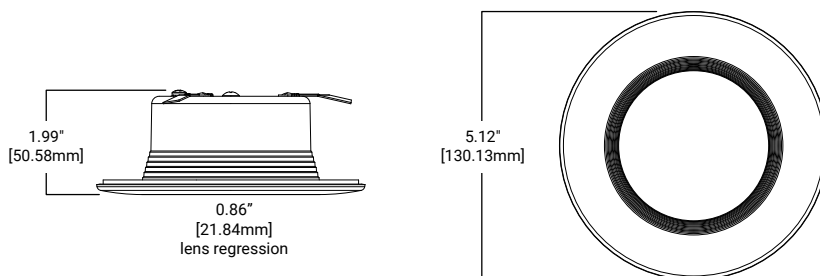
UL CERTIFIED SAFETY

RoHS COMPLIANT

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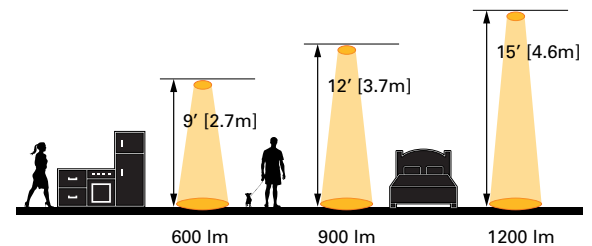Certified to California Appliance Efficiency Database under JA8.

Product Features

5 seleCCTable colors 2700K • 3000K • 3500K 4000K • 5000K

airease

Showerlight

Top Product Features

- ENERGY STAR® certified
- 80 CRI: 2700K, 3000K, 3500K, or 4000K CCT
- 90 CRI: 2700K, 3000K, 3500K, 4000K, or 5000K CCT
- Retrofits existing 4" housings with screwbase adapter included
- Use with Halo 4" LED housings - new construction & remodel

RL4 Dimensions

1.99"
[50.58mm]

0.86"
[21.84mm]
lens regression

5.12"
[130.13mm]

Scale

9' [2.7m]

12' [3.7m]

15' [4.6m]

600 lm   900 lm   1200 lm

additional
product diagrams

COOPER
Lighting Solutions

Order Information*

Icon Key: △ Configurable Product

SAMPLE ORDER NUMBER: **RL460WH927PK**

Complete unit includes RL4 LED and Halo H995 series LED housing, or compatible 4" E26 screw based housing, ordered separately. Optional accessory designer trim ring ordered separately. RL4 LED and housing to be ordered separately.

RL46 Models	Accessories (Order Separately)

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80 CRI **RL460WH827PK** = 4" Retrofit Baffle - Trim LED Module, 80 CRI, 2700K, Matte White **RL460WH830PK** = 4" Retrofit Baffle - Trim LED Module, 80 CRI, 3000K, Matte White **RL460WH835PK** = 4" Retrofit Baffle - Trim LED Module, 80 CRI, 3500K, Matte White **RL460WH840PK** = 4" Retrofit Baffle - Trim LED Module, 80 CRI, 4000K, Matte White **90 CRI** **RL460WH927PK** = 4" Retrofit Baffle - Trim LED Module, 90 CRI, 2700K, Matte White **RL460WH930PK** = 4" Retrofit Baffle - Trim LED Module, 90 CRI, 3000K, Matte White **RL460WH935PK** = 4" Retrofit Baffle - Trim LED Module, 90 CRI, 3500K, Matte White **RL460WH940PK** = 4" Retrofit Baffle - Trim LED Module, 90 CRI, 4000K, Matte White **RL460WH950PK** = 4" Retrofit Baffle - Trim LED Module, 90 CRI, 5000K, Matte White	**RL4TRMWHB =** 4" Matte White Paintable Trim Ring, Baffle **RL4TRMSNB =** 4" Satin Nickel Trim Ring, Baffle **RL4TRMTBZB =** 4" Tuscan Bronze Trim Ring, Baffle **RL4TRMMBB =** 4" decorative overlay, matte black, Baffle **RL4TRMWH =** 4" Matte White Paintable Trim Ring, Smooth Splay **RL4TRMSN =** 4" Satin Nickel Trim Ring, Smooth Splay **RL4TRMTBZ =** 4" Tuscan Bronze Trim Ring, Smooth Splay **RL4TRMMB =** 4" decorative overlay, matte black, smooth splay **HE26LED** = Replacement screw base adapter (one included with unit) E26 Screw base adapter for retrofit (included)

Housing Compatibility

The RL4 is UL Listed in Halo and All-Pro recessed housings, and is UL Classified for use with any 4 inch diameter recessed housing constructed of steel or aluminum with an internal volume that exceeds 62.3 in3 in addition to those noted below:

Housing

Compatible Halo LED Housings with LED luminaire connector (high-efficacy compliant)
H995ICAT = 4" LED Insulated Ceiling, AIR-TITE New Construction Housing with LED luminaire connector (high efficacy compliant) **H995RICAT** = 4" LED Insulated Ceiling, AIR-TITE Remodel Housing with LED luminaire connector (high efficacy compliant) **Halo LED 4-inch** **H245ICAT** = 4" IC, airtight ultra-shallow new construction housing, LED, 120 - 277V **H245RICAT** = 4" IC, airtight ultra-shallow remodeler housing, LED, 120 - 277V

Housing Compatibility

Compatible Halo Incandescent E26 Screwbase Housings
Halo Standard Housings 4-inch **H99ICAT** = 4" Non-Insulated Ceiling AIR-TITE, Shallow New Construction Housing, 120V **H99TAT** = 4" non-IC, airtight shallow new construction housing, E26, 120V **H99RTAT** = 4" Non-Insulated Ceiling Shallow Remodel Housing, 120V **E4ICATSB** = 4" non-IC, airtight shallow new construction housing, adjustable socket bracket, E26, 120V **E4TATSB** = 4" non-IC, airtight shallow new construction housing, adjustable socket bracket, E26, 120V **E4RTATSB** = 4" non-IC, airtight shallow remodeler housing, adjustable socket bracket, E26, 120V

Product Specifications

Mechanical
Module-Trim
- Module construction includes LED, heat sink, reflector, lens, baffle and trim ring
- Regressed baffle
- Heat sink designed to conduct heat away from the LED keeping the junction temperatures below specified maximums, even when installed in insulated ceiling environments. L70 at 50,000 hours.
- Designer trim finish options (sold separately)
- White (Paintable) Trim Ring
- Satin Nickel Trim Ring
- Tuscan Bronze Trim Ring

Lens
- Regressed lens
- Impact-resistant polycarbonate
- Convex form for lamp-like appearance
- High lumen transmission
- Diffusing for even illumination

Mounting
- Push-N-Twist universal installation clips
- Clips are pre-installed and designed to fit 4" compatible recessed housings

Housing Compatibility
See Housing Compatibility section.

LED
- Color Temperature (CCT)† Options:
  - 90 CRI: 2700K, 3000K, 3500K, 4000K, and 5000K
  - 80 CRI: 2700K, 3000K, 3500K, and 4000K
- CRI options: 80 and 90†
  - 90 CRI can be used to comply with California Title 24 High Efficacy requirements. Certified to California Appliance Efficiency Database under JA8.

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 exceeds ENERGY STAR® color standards per ANSI C78.377-2008
- 90 CRI model features high color performance with R9 greater than 50
- Every Halo LED is quality tested, measured, and serialized in a permanent record to register lumens, wattage, CRI and CCT
- Halo LED serialized testing and measurement ensures color and lumen consistency on a per-unit basis, and validates long-term product consistency over time

Electrical
Power Connections
- LED connector is a non-screw base luminaire disconnect offering easy installation with Halo H995 Series LED housings
- LED Connector meets California Title-24 high efficacy luminaire requirement for a non-screw base socket, and where required to qualify as a high efficacy luminaire
- The included E26 medium screw-base Edison adapter provides easy retrofit of incandescent housings (see Housing Compatibility)

Ground Connection
Separate grounding cable included on the RL4 module for attachment to the housing during installation.

LED Driver
- With the latest "driver-on-board" electronic technology, the driver is integrated in the module.
- 120V 50/60 Hz constant current dimmable driver provides high-efficiency operation
- Driver meets FCC 47CFR Part 15 EMI/RFI consumer limits for use in residential and commercial installations
- Driver features high power factor and low THD and has integral thermal protection in the event of over temperature or internal failure
- If dimming is not required the fixture can be operated from a standard wall switch

Dimming
- Designed for continuous dimming capability to nominally 5% with many 120V Leading Edge (LE) and Trailing Edge (TE) Phase Control dimmers. (Dimmers with low end trim adjustment offer greater assurance of achieving 5% level.)
- Consult dimmer manufacturer for compatibility and conditions of use.

**Note:** some dimmers require a neutral in the wallbox.

Warranty
Eaton provides a five year limited warranty on the RL4 LED.

Compliance
- UL/cUL Listed 1598 Luminaire (with listed housings)
- UL Classified (with other housings - see Housing Compatibility)
- UL/cUL Listed for Damp Location
- UL/cUL Listed for Wet Location – Shower Applications
- IP65 Ingress Protection rated
- May be installed in IC rated housings in direct contact with air-permeable insulation** and combustible material
- Airtight certified per ASTM E283 (not exceeding 2.0 CFM under 75 Pascals pressure difference)
- 90 CRI: Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.*
- 80 CRI: Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as an LED luminaire.
- Can be used for International Energy Conservation Code (IECC) high efficiency luminaire compliance.
- ENERGY STAR® Certified luminaire - consult ENERGY STAR® Certified Product List*
- EMI/RFI per FCC 47CFR Part 15 Class B Consumer limits, suitable for use in residential and commercial installations
- Contains no mercury or lead and RoHS compliant.
- Photometric testing in accordance with IES LM-79
- Lumen maintenance projections in accordance with IES LM-80 and TM-21

Suitable for use in closets. Compliant with NFPA 70, NEC Sec. 410.16 (A)(1) and 410.16 (C)(3).
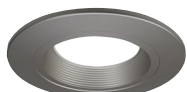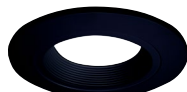
Designer Trim Dimensions

5.3"
[134.6mm]

0.86"
[21.8mm]

5.3"
[134.6mm]

0.86"
[21.8mm]
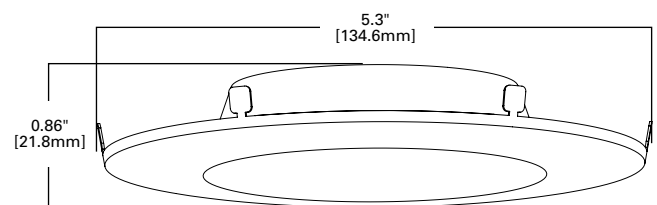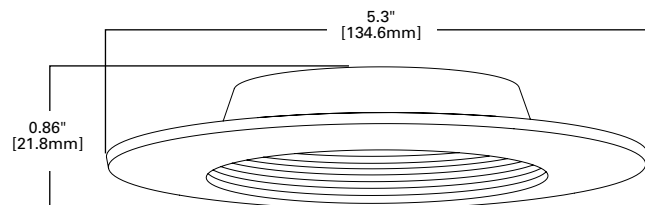
RL4TRMWHB
Matte White (Paintable)
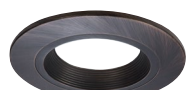
RL4TRMTBZB
Tuscan Bronze

RL4TRMWH
Matte White (Paintable)

RL4TRMTBZ
Tuscan Bronze

RL4TRMSNB
Satin Nickel

RL4TRMMBB
Matte Black

RL4TRMSN
Satin Nickel

RL4TRMMB
Matte Black

Dimensional and Mounting Details

RL4

Cat No.	CRI	CCT	Lumens	Power (W)	LPW
RL460WH827PK	80	2700	600	7.4	81
RL460WH830PK	80	3000	587	7.2	82
RL460WH835PK	80	3500	589	7.22	82
RL460WH840PK	80	4000	713	7.21	99
RL460WH927PK	92	2700	530	8.0	66
RL460WH930PK	90	3000	570	8.0	71
RL460WH935PK	92	3500	550	8.0	69
RL460WH940PK	92	4000	560	8.0	67
RL460WH950PK	92	5000	600	8.2	73

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: 50/60Hz
THD: <20%
Input Power: 7.3W - 10.0W (per CRI and CCT)
Input Current: 0.075A - 0.0875A (per input power)
Maximum IC (Insulated Ceiling) Ambient Continuous Operating Temperature: 25°C (77°F)
Maximum Non-IC Ambient Continuous Operating Temperature 40°C (104°F)

RL4 Series Photometric*

RL460WH6930PK		
Luminaire lumens		570
Input watts		8
LER (LPW)		71.3
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	201	35.3
0-40	319	56
0-60	506	88.8
0-90	570	100
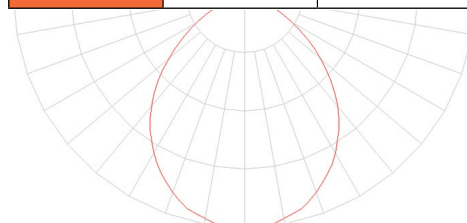
* Tested in accordance with IES LM63. Field results may vary.

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