RAYON LIGHTING

RFL4
4" LED Recessed Module
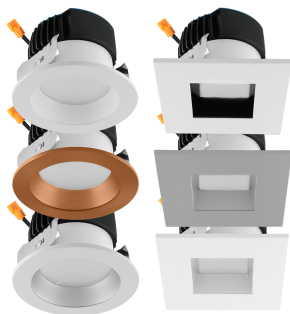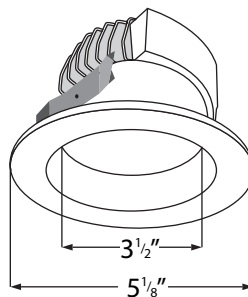## 850 Lumens

PROJECT:

MODEL #:

LOCATION:

CONTACT:

DIMENSIONS

$3\frac{1}{2}$"

$5\frac{1}{8}$"

USE OF PRODUCT
The Versatrim RFL4 Series is the ideal product for energy efficient lighting in existing, remodel, or new construction housings. This product may be used in hospitality, health care, commercial, retail, and residential applications. The Versatrim will reduce energy consumption, emits little heat, and reduces cooling loads for added costs savings. Approximately 75% in energy savings compared to incandescent light source.

VERSATRIM FEATURES
- Watts: 12 W
- Lumens: 850 Lumens
- Voltage: (120V standard); 120-277V (with optional 0-10V dimming driver)
- Color Temperature: Warm dim(3000K - 1800K)
- Color Rendering Index: 90+ CRI Typical
- SDCM: 3 Step binning
- LED Life: 50,000 hours
- Versatility: Interchangeable baffle, reflector, and trim ring in round and square
- EM Battery: 90 min, 800 lumens only
- Warranty: 5 Year Limited Warranty
- Wet Location Certified

LED DRIVER
Durable 120V dimmable driver provides high power factor with the optimum thermal management to prevent damage caused by high temperature. Driver protections include: output open load, over-current and short circuit, and over temperature with auto recovery.

DIMMING
Available in 8 driver selections. Standard Triac/ELV, 120V. (018) 0-10V dimming in 800 lumens, 120-277V. (PEQ0) Lutron Hi-Lume Premier Ecosystem 0.1% w/soft on, fade to black dimming, 120-277V. (LDE1) Lutron Hi-Lume 1% Ecosystem with soft on, fade to black dimming, 120-277V. (LTE) Hi-Lume 1% 2-wire, 120V (L3DA) Hi-lume 1% EcoSystem/3-Wire L3D Driver (EEI) eldoLED Eco 1% Dim (0-10V), 120-277V. (EDIO) eldoLED Solo 0.1% Dim(0-10V), 120-277V. (EDID) eldoLED Solo 0.1% Dim(DALI), 120-277V.

ELECTRICAL CONNECTION
LED module quick connect allows easy connection to Rayon LED housing. Optional edison screw base or GU24 adaptor available for retrofit applications.

Emergency Battery
Optional emergency battery with up to 90 minute illumination time. 800 lumens only.

MOUNTING
Torsion springs supplied for convenient mounting to existing, remodel, or new construction housing.

MODULE MECHANICS
The RFL4 Series is constructed of durable heat sink, baffle/reflector, trim ring, diffused lens and Cree LEDs for optimum performance. Interchangeable round or square baffle, reflector, and trim ring are designed for convenient color selection and replacement in the field. Diffused, polycarbonate, impact-resistant lens provides for even light output, glare control, and conceals LEDs from view
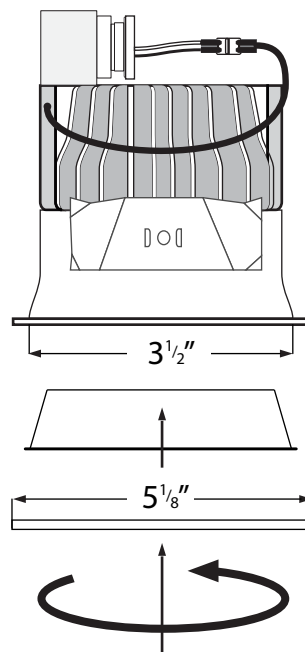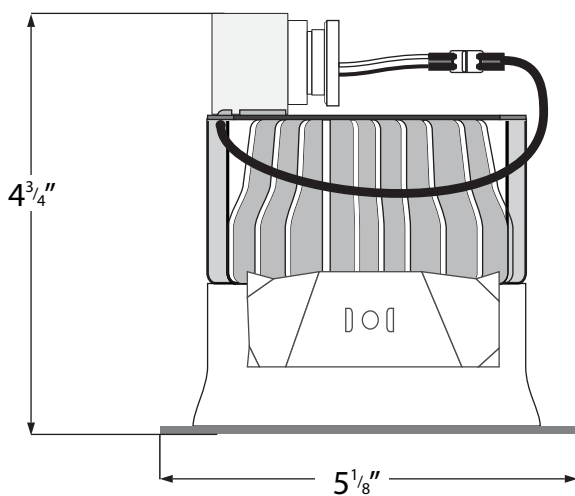
LABELS/COMPLIANCE
-CSA Classified for wet location
-LM79 and LM80
-Can be used for state of California Title 24 compliance
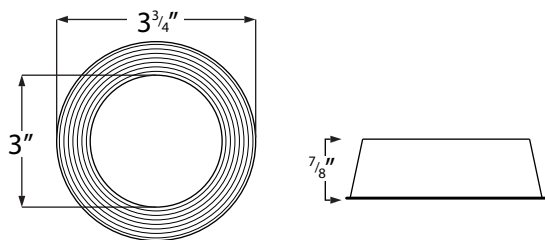-JA8 Certified

ORDERING INFO

RFL4	8L					

Series	Lumens	Color Temp.	Dimming	Baffle	or	Reflector	Trim
RFL4	8L - 850 Lumens (120V)	WD - Warm Dim (3000K-1800K)	Leave blank - Triac/ELV 018[1] - 0-10V Dimming (800 lumens) PEQ0[1] - Lutron Hi-Lume Premier Ecosystem 0.1% w/soft on, fade to black dimming LDE1[1] - Lutron Hi-Lume 1% Ecosystem with soft on, fade to black dimming LTE[1,2] - Hi-Lume 1% 2-wire L3DA[1] - Hi-lume 1% EcoSystem/3-Wire L3D Driver EEI[1,3] - eldoLED Eco 1% Dim (0-10V) EDIO[1,3] - eldoLED Solo 0.1% Dim (0-10V) EDID[1,3] - eldoLED Solo 0.1% Dim (DALI)				

ROUND

Baffle	Reflector	Trim
4BLW - White 4BLSN - Satin Nickel 4BLC - Copper 4BLB - Black 4BLBZ - Bronze	4RLW - White 4RLCH - Chrome 4RLSN - Satin Nickel 4RLC - Copper 4RLB - Black 4RLBZ - Bronze 4RLH - Haze 4RLCX - Custom	4TLW - White 4TLSN - Satin Nickel 4TLC - Copper 4TLB - Black 4TLBZ - Bronze 4TLH - Haze 4TLCX - Custom

SQUARE

Baffle	Reflector	Trim
4SBLW - White 4SBLB - Black	4SRLW - White 4SRLB - Black 4SRLH - Haze 4SRLSN - Satin Nickel 4SRLCH - Chrome 4SRLBZ - Bronze 4SRLCX - Custom	4STLW - White 4STLB - Black 4STLH - Haze 4STLSN - Satin Nickel 4STLBZ - Bronze 4STLCX - Custom

Options
SBA - Screw base adapter (Included)
G-24 - GU24 adapter
277SDT[1] - 277V Step down transformer
347SDT[1] - 347V Step down transformer
EM[1] - Emergency back-up

1. Requires dedicated housing.
2. 120V only.
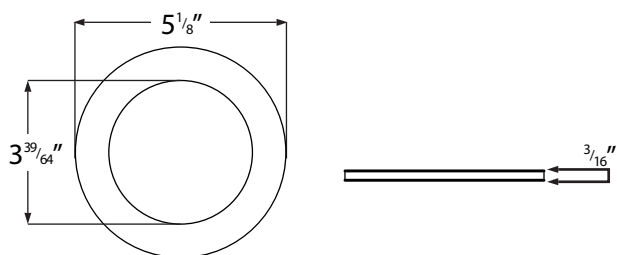3. Must specify logarithmic or linear eldoLED diver.

www.rayonlighting.com
info@rayonlighting.com
tel: 323.446.2626
fax:323.446.2606
Specification and product availability subject to change without notice
10/20

RAYON LIGHTING

RFL4
4" LED Recessed Module
800 Lumens

PROJECT:

MODEL #:

LOCATION:

CONTACT:

RETROFIT DIMENSIONS

$4^{3}/_{4}''$

$5^{1}/_{8}''$

$3^{1}/_{2}''$

$5^{1}/_{8}''$

Round

Baffle/Reflector

$3^{3}/_{4}''$

$3''$

$7/_{8}''$

Trim

$5^{1}/_{8}''$

$3^{39}/_{64}''$

$3/_{16}''$

Square

Baffle/Reflector

$2^{13}/_{16}''$

$2^{2}/_{16}''$

$7/_{8}''$

Trim

$5^{1}/_{8}''$

$2^{33}/_{64}''$

$13/_{64}''$

Specification and product availability subject to change without notice

RAYON LIGHTING

NEW CONSTRUCTION/REMODEL DIMENSIONS

$3^3/_8$"

$5^1/_8$" $5^1/_8$"

$3^1/_2$"

$5^1/_8$"

Round

Baffle/Reflector

$3^3/_4$"

3"

$7/_8$"

Trim

$5^1/_8$"

$3^{39}/_{64}$"

$3/_{16}$"

Square

Baffle/Reflector

$2^{13}/_{16}$"

$2^2/_{16}$"

$7/_8$"

Trim

$5^1/_8$"

$2^{33}/_{64}$"

$13/_{64}$"

RAYON LIGHTING

RFL4
4" LED Recessed Module
800 Lumens
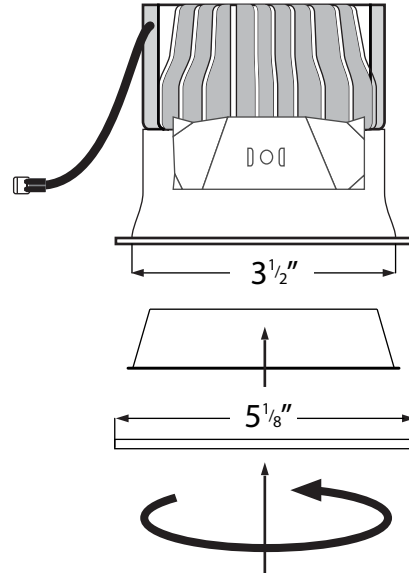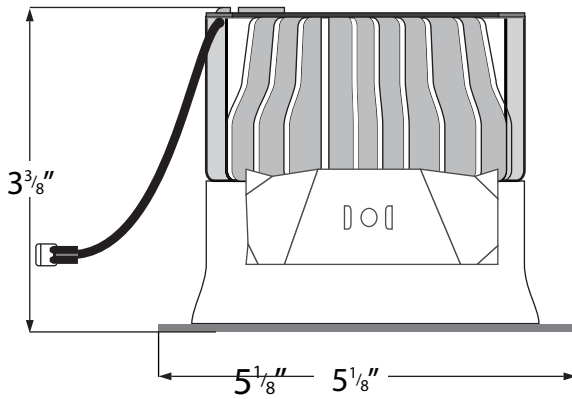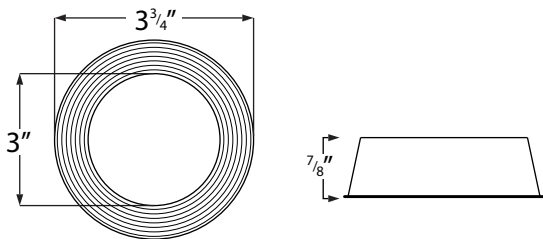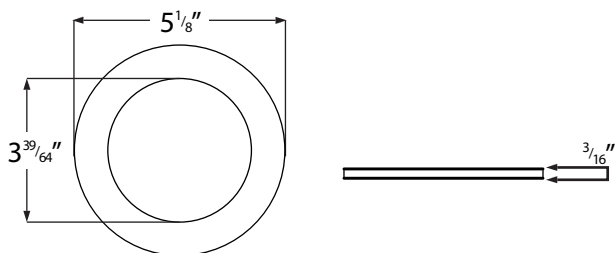
PROJECT:
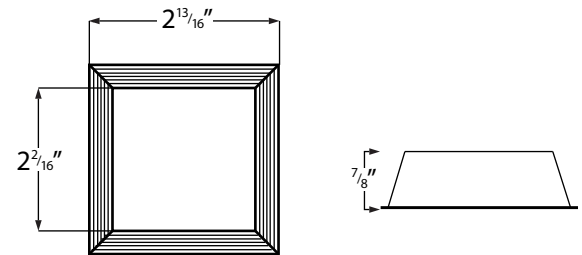
MODEL #:
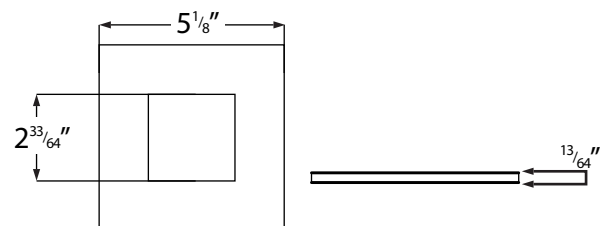
LOCATION:

CONTACT:

COMPATIBLE RAYON 4" HOUSING
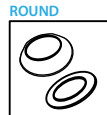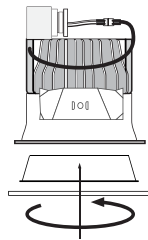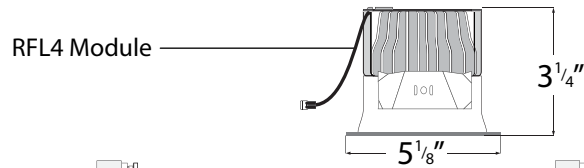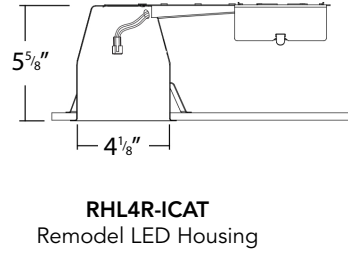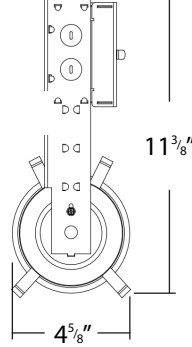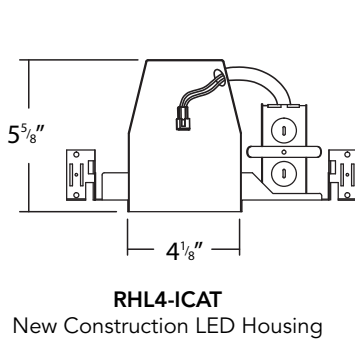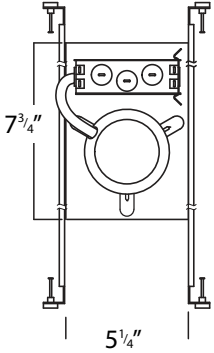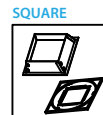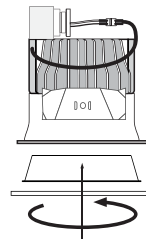
7³/₄"

5¹/₄"

5⁵/₈"

4¹/₈"

RHL4-ICAT
New Construction LED Housing

11³/₈"

4⁵/₈"

5⁵/₈"

4¹/₈"

RHL4R-ICAT
Remodel LED Housing

2¹/₄"

Optional
Edison Adaptor
For Retrofit

1¹/₄"

RFL4 Module

3¹/₄"

5¹/₈"

ROUND

OR

SQUARE

RAYON LIGHTING

RHL4-ICAT
4" IC Air-tight
New Construction LED Housing

PROJECT:

MODEL #:

LOCATION:

CONTACT:

DIMENSIONS

Compatible
with RFL4Series

91.5mm

6-1/8"

8-7/8"

5-5/8"

4-1/16"

4-1/4"
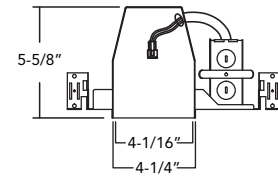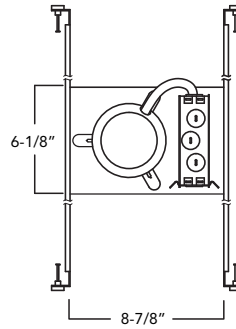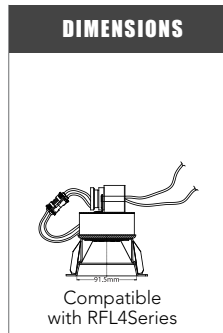
USE OF PRODUCT
The RHL4-ICAT is the ideal product for general purpose recessed LED housing for residential, commercial, hospitality, health care, restaurant and retail applications. This product is compatible with the Versatrim RFL4 Series in round or square in various baffle, reflector, and trim ring color selections to achieve a particular look.

CONSTRUCTION
• Minimum Clearance Rated for IC/ Non - IC application. "IC" or insulated ceiling housings are rated for direct contact with insulation. No minimum clearance is required.
• Ceiling Thickness Up to 1¼.
• Bar Hangers Bar Hangers are adjustable from 13-5/8 to 25" and can be repositioned to 90° on plaster frame. Pre-installed"real nail" easily installs in regular lumber, engineered lumber
• Junction Box Junction box is listed for through branch circuit wiring and contains seven 7/8" knockouts and four ROMEX pryouts with Romex cable clamp. Ground wire provided on J-Box.
• New Construction Frame Galvanized steel construction.
• Connection Quick connect provided for easy connection to VersaTrim RFL4 Series LED module
to meet non-screw base socket requirements per California Title 24.

DIMMING
Available in 11 driver selections. Standard Triac/ELV, 120V. (018) 0-10V dimming in 800 lumens, 120-277V. (011) 0-10V dimming in 1100 lumens, 120-277V. (PEQ0) Lutron Hi-Lume Premier Ecosystem 0.1% w/soft on, fade to black dimming, 120-277V. (PEQ1) Lutron Hi-Lume Premier 1% w/soft on, fade to black dimming, 120-277V. (LDE1) Lutron Hi-Lume 1% Ecosystem with soft on, fade to black dimming, 120-277V. (LDE5) Lutron Hi-Lume 5% Ecosystem, 120-277V. (LTE) Hi-Lume 1% 2-wire, 120V (L3DA) Hi-lume 1% EcoSystem/3-Wire L3D Driver (EEI) eldoLED Eco 1% Dim (0-10V), 120-277V. (EDIO) eldoLED Solo 0.1% Dim(0-10V), 120-277V. (EDID) eldoLED Solo 0.1% Dim(DALI), 120-277V.

EMERGENCY
Optional emergency back-up may be ordered separately. Unit operates for 90 minutes with LED modules up to 20 Watts and is Damp location rated , 120/277AC operational.

MODULE COMPATIBILITY
RHL4-ICAT is compatible with the Versatrim RFL4 Series in round or square in various baffle, reflector, and trim ring color selections to achieve appearance of choice.

LABELS/COMPLIANCE
cUL listed for Wet location
Certified under ASTM-283 for Air-Tight Construction
Title 24 Compliant

cULus TITLE24 Compliant Powered by: CREE DIMMABLE AIR TIGHT 5 YEAR WARRANTY UL WET LISTING

ORDERING INFO

RHL4-ICAT

1. 120V only.
2. Must specify logarithmic or linear eldoLED diver.

Series	Dimming	Options
RHL4-ICAT - 4" IC Air-Tight New Construction LED Housing	**Leave blank** - Triac/ELV **018** - 0-10V Dimming (800 lumens) **PEQ0** - Lutron Hi-Lume Premier Ecosystem 0.1% w/soft on, fade to black dimming **PEQ1** - Lutron Hi-lume Premier 1% w/soft on, fade to black dimming **LDE1** - Lutron Hi-Lume 1% Ecosystem with soft on, fade to black dimming **LDE5** - Lutron Hi- Lume 5% Ecosystem **LTE¹** - Hi-Lume 1% 2-wire **L3DA** - Hi-lume 1% EcoSystem/3-Wire L3D Driver **EEI²** - eldoLED Eco 1% Dim (0-10V) **EDIO²** - eldoLED Solo 0.1% Dim (0-10V) **EDID²** - eldoLED Solo 0.1% Dim (DALI)	**EM** - Emergency battery **277SDT** - 277V Step down transformer **347SDT** - 347V Step down transformert

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Specification and product availability subject to change without notice

RAYON LIGHTING

RHL4R-ICAT
4" IC Air-tight
Remodel LED Housing

PROJECT:

MODEL #:

LOCATION:

CONTACT:

DIMENSIONS

Compatible with RFL4 Series

4 3/4"

11 5/8"

5 3/4"

4"

4 3/4"
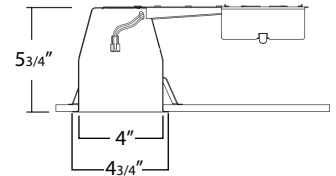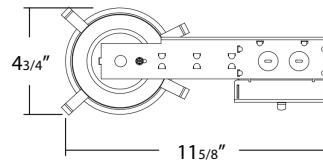
USE OF PRODUCT
The RHL4R-ICAT is the ideal product for general purpose recessed LED housing for residential, commercial, hospitality, health care, restaurant and retail applications. This product is compatible with the Versatrim RFL4 Series in round or square in various baffle, reflector, and trim ring color selections to achieve a particular look.

CONSTRUCTION
• Minimum Clearance "IC" or insulated ceiling housings are rated for direct contact with insulation. No minimum clearance is required.
• CEILING THICKNESS Up to 1¼.
• BAR HANGERS Bar Hangers are adjustable from 13-5/8"to 25" and can be repositioned to 90° on plaster frame. Pre-installed"real nail" easily installs in wood or composite joists.
• JUNCTION BOX Junction box is listed for through branch circuit wiring and contains seven 7/8 knockouts and four ROMEX pryouts with Romex cable clamp. Ground wire provided on J-Box.
• REMODEL FRAME Galvanized steel construction
• CONNECTION Quick connect provided for easy connection to Versatrim RFL4 Series LED module to meet non-screw base socket requirements per California Title 24.

DIMMING
Available in 11 driver selections. Standard Triac/ELV, 120V. (018) 0-10V dimming in 800 lumens, 120-277V. (011) 0-10V dimming in 1100 lumens, 120-277V. (PEQ0) Lutron Hi-Lume Premier Ecosystem 0.1% w/soft on, fade to black dimming, 120-277V. (PEQ1) Lutron Hi-Lume Premier 1% w/soft on, fade to black dimming, 120-277V. (LDE1) Lutron Hi-Lume 1% Ecosystem with soft on, fade to black dimming, 120-277V. (LDE5) Lutron Hi-Lume 5% Ecosystem, 120-277V. (LTE) Hi-Lume 1% 2-wire, 120V (L3DA) Hi-lume 1% EcoSystem/3-Wire L3D Driver (EEI) eldoLED Eco 1% Dim (0-10V), 120-277V. (EDIO) eldoLED Solo 0.1% Dim(0-10V), 120-277V. (EDID) eldoLED Solo 0.1% Dim(DALI), 120-277V.

EMERGENCY
Optional emergency back-up may be ordered separately. Unit operates for 90 minutes with LED modules up to 20 Watts and is Damp location rated , 120/277AC operational.

MODULE COMPATIBILITY
RHL4R-ICAT is compatible with the Versatrim RFL4 Series in round or square in various baffle, reflector, and trim ring color selections to achieve appearance of choice.

LABELS/COMPLIANCE
cUL listed for Wet location
Certified under ASTM-283 for Air-Tight Construction
Title 24 Compliant

ORDERING INFO

RHL4R-ICAT		
Series	**Dimming**	**Options**
RHL4R-ICAT - 4" IC Air-Tight Remodel LED Housing	**Leave blank** - Triac/ELV **018** - 0-10V Dimming (800 lumens) **PEQ0** - Lutron Hi-Lume Premier Ecosystem 0.1% w/soft on, fade to black dimming **PEQ1** - Lutron Hi-lume Premier 1% w/soft on, fade to black dimming **LDE1** - Lutron Hi-Lume 1% Ecosystem with soft on, fade to black dimming **LDE5** - Lutron Hi- Lume 5% Ecosystem **LTE[1]** - Hi-Lume 1% 2-wire **L3DA** - Hi-lume 1% EcoSystem/3-Wire L3D Driver **EEI[2]** - eldoLED Eco 1% Dim (0-10V) **EDIO[2]** - eldoLED Solo 0.1% Dim (0-10V) **EDID[2]** - eldoLED Solo 0.1% Dim (DALI)	**EM** - Emergency battery **277SDT** - 277V Step down transformer **347SDT** - 347V Step down transformert

1. 120V only.
2. Must specify logarithmic or linear eldoLED diver.

RHL4S-ICAT
4" IC Air-tight Shallow New Construction LED Housing

PROJECT:

MODEL #:

LOCATION:

CONTACT:

DIMENSIONS
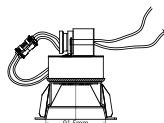
Compatible with
RFL4 800 lumen series only

8 1/16"

5 3/16"
7 1/2"

4"
1/2"
4-1/2"

4-1/2"
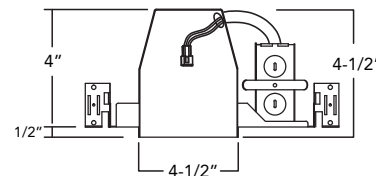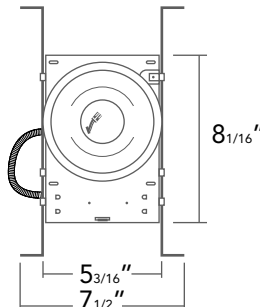
USE OF PRODUCT
The RHL4S-ICAT is the ideal product for general purpose recessed LED housing for residential, commercial, hospitality, health care, restaurant and retail applications where plenum space is limited. This product is compatible with the Versatrim RFL4 800 lumens in round or square in various baffle, reflector, and trim ring color selections to achieve a particular look.

CONSTRUCTION
• Height 4" Height makes it ideal for shallow spaces.
• Minimum Clearance "IC" or insulated ceiling housings are rated for direct contact with insulation. No minimum clearance is required.
• CEILING THICKNESS Up to 1¼.
• BAR HANGERS Bar Hangers are adjustable from 13-5/8"to 25" and can be repositioned to 90°.
• JUNCTION BOX Junction box is listed for through branch circuit wiring and contains seven 7/8 knockouts and four ROMEX pryouts with strain relief.
• PLASTER FRAME Galvanized steel construction
• CONNECTION Quick connect provided for easy connection to Versatrim RFL4 Series LED module to meet non-screw base socket requirements per
California Title 24.

EMERGENCY
Optional emergency back-up may be ordered separately. Unit operates for 90 minutes with LED modules up to 20 Watts and is Damp location rated , 120/277AC operational.

MODULE COMPATIBILITY
RHL4S-ICAT is compatible with the Versatrim RFL4-8L Series only in round or square in various baffle, reflector, and trim ring color selections to achieve appearance of choice.

DIMMING
Available in 10 driver selections. Standard Triac/ELV, 120V. (018) 0-10V dimming in 800 lumens, 120-277V. (PEQ0) Lutron Hi-Lume Premier Ecosystem 0.1% w/soft on, fade to black dimming, 120-277V. (PEQ1) Lutron Hi-Lume Premier 1% w/soft on, fade to black dimming, 120-277V. (LDE1) Lutron Hi-Lume 1% Ecosystem with soft on, fade to black dimming, 120-277V. (LDE5) Lutron Hi-Lume 5% Ecosystem, 120-277V. (LTE) Hi-Lume 1% 2-wire, 120V (L3DA) Hi-lume 1% EcoSystem/3-Wire L3D Driver (EEI) eldoLED Eco 1% Dim (0-10V), 120-277V. (EDIO) eldoLED Solo 0.1% Dim(0-10V), 120-277V. (EDID) eldoLED Solo 0.1% Dim(DALI), 120-277V.

LABELS/COMPLIANCE
CSA listed for Wet location
Certified under ASTM-283 for Air-Tight Construction
Title 24 Compliant

ORDERING INFO

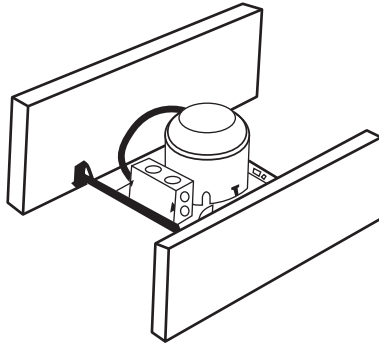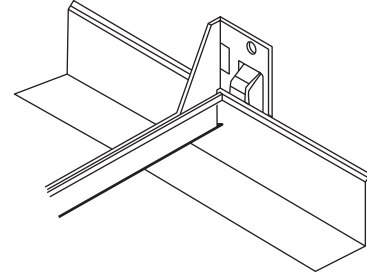| RHL4S-ICAT		
Series	**Dimming**	**Options**
RHL4S-ICAT[1] - 4" IC Air-Tight Shallow New Construction LED Housing	**Leave blank** - Triac/ELV **018** - 0-10V Dimming (800 lumens) **PEQ0** - Lutron Hi-Lume Premier Ecosystem 0.1% w/soft on, fade to black dimming **PEQ1** - Lutron Hi-lume Premier 1% w/soft on, fade to black dimming **LDE1** - Lutron Hi-Lume 1% Ecosystem with soft on, fade to black dimming **LDE5** - Lutron Hi- Lume 5% Ecosystem **LTE[1]** - Hi-Lume 1% 2-wire **L3DA** - Hi-lume 1% EcoSystem/3-Wire L3D Driver **EEI[2]** - eldoLED Eco 1% Dim (0-10V) **EDIO[2]** - eldoLED Solo 0.1% Dim (0-10V) **EDID[2]** - eldoLED Solo 0.1% Dim (DALI)	**EM** - Emergency battery **277SDT** - 277V Step down transformer **347SDT** - 347V Step down transformert

1. RHL4S-ICAT is compatible with the Versatrim RFL4-8L series only.
2. 120V only.
3. Must specify logarithmic or linear eldoLED diver.

www.rayonlighting.com

info@rayonlighting.com

tel: 323.446.2626

fax:323.446.2606

Specification and product availability subject to change without notice

RFL4
4" LED Recessed Module
800 Lumens

PROJECT:

MODEL #:

LOCATION:

CONTACT:

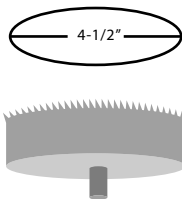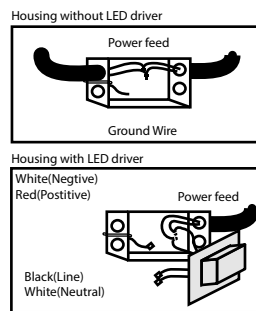## NEW CONSTRUCTION INSTALLATION

Drawing 1

Drawing 2

1. Fastening fixture to ceiling

Joist-type ceiling-extend bar hangers to fit between joists. Position fixture temporarily by hammering "Nail" into joists. (Drawing 1), then secure permanently with nails. Hangers should be level with bottom of joists. Suspended (T-bar) ceilings-extend bar hangers 1" past T-bars, then rest fixture on T-bars. Secure fixture to T-bars with wire (drawing 2)
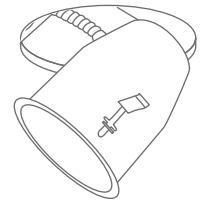
REMODEL INSTALLATION

4-1/2"

Housing without LED driver

Power feed

Ground Wire

Housing with LED driver

White(Negtive)
Red(Postitive)

Power feed

Black(Line)
White(Neutral)

Carefully cut a hole of 4-1/2" diameter into the ceiling.

Pull supply wire through opening and make electrical connections. Refer to "electrical connections" section.

Insert the housing in ceiling cutout as illustrated.
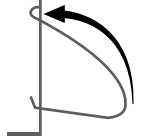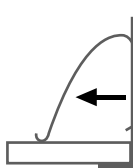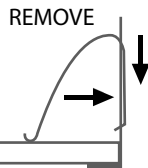
INSTALL

REMOVE

With clips seated properly in can (fig.1)
Insert remodel housing into ceiling, junction box first.
Hold fixture up against ceiling and push chip through housing solt (fig. 2)
To lock clip in place push flat portion against side of can (fig. 2)
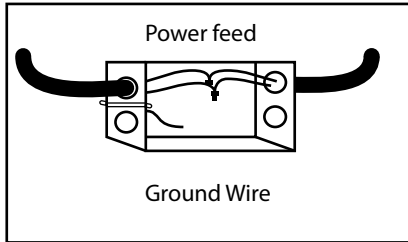To release pull down on clip (fig. 3)

Fig.1   Fig.2   Fig.3

TRIM INSTALLATION

Final Result

Connect the male(module) into the female(Can) connector. Insert baffle/reflector into the module use trim to secure.

RFL4
4" LED Recessed Module
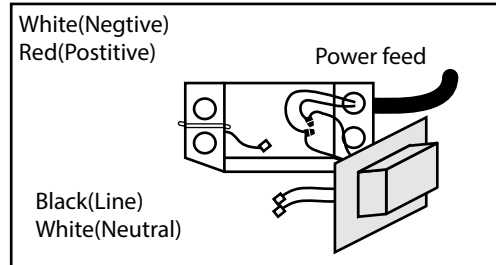## 800 Lumens

ELECTRICAL CONNECTION

1. Housing without LED driver

Power feed

Ground Wire

Connect-
• Black - Supply Voltage
• White - Neutral
• Green Ground J-box wire -copper
  or green grounding wire

2. Housing with LED driver

White(Negtive)
Red(Postitive)

Power feed

Black(Line)
White(Neutral)

Junction box contains two wires. A black(hot+) and a white(neutral-) which must be spliced to the house current feed wire. Make sure to splice white to white and colored or black to black. After splicing has been completed, tuck splices carefully into junction box and replace cover(drawings 3)
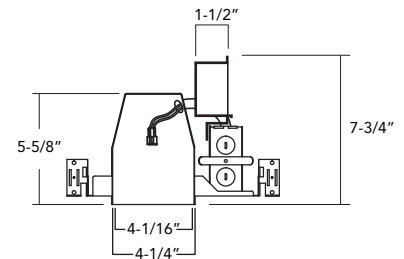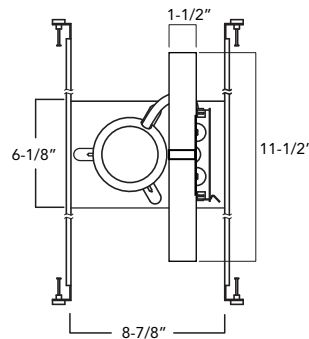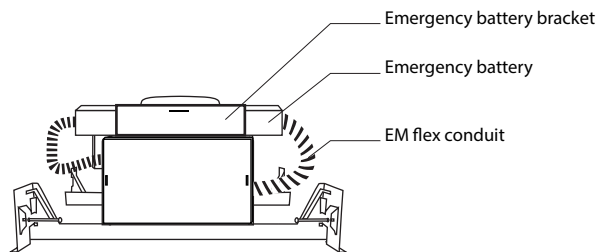
3. Grounding
for Romex or 3 wire BX. flexible armour cable instadllations attach supply groundlead(green) to bare copper groundlead or ground screw in wiring box mounted on plaster frame. Local electrical codes should be consulted to determine acceptable installation-conduit Romex, or flexible Armour cable.

DIMMER SWITCH WIRING

INPUT CONTROL DIMMER SWITCH

Input
LED DRIVER
Output
+
−
120V
Dimmer Switch
LED PCB
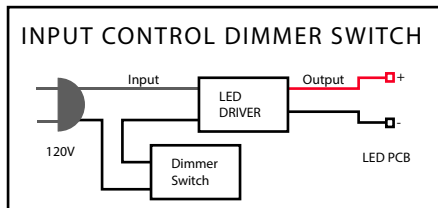
EMERGENCY BATTERY DIMENSIONS

Emergency battery bracket

Emergency battery

EM flex conduit

1-1/2"
6-1/8"
11-1/2"
8-7/8"

1-1/2"
5-5/8"
7-3/4"
4-1/16"
4-1/4"

Emergency battery test switch available in remote or integral

CHARGE
PUSH
TO TEST
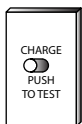
Remote within ceiling   integral within the trim

Specification and product availability
subject to change without notice

RFL4
4" LED Recessed Module
800 Lumens

PROJECT:

MODEL #:

LOCATION:

CONTACT:

Versatrim Photometrics

RFL4
8L Round Trim

TEST DATE	28Feb18
SERIES	RFL4
LUMENS	8L
CCT	3000K
LUMENS	773
WATTS	9.08

Characteristics

Lumens Per Lamp:	N.A. (absolute)
Total Lamp Lumens:	N.A. (absolute)
Luminaire Lumens:	773
Total Luminaire Efficiency:	N.A.
Luminaire Efficiency Rating (LER):	85
Total Luminaire Watts:	9.08
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.20
Basic Luminous shape	Point
Luminous Length (0-180)	0.00 ft
Luminous Width (90-270)	0.00 ft
Luminous Height	0.00 ft

Lumens Per Zone

ZONE	LUMENS
0-10	38.65
10-20	107.70
20-30	154.40
30-40	167.70
40-50	143.28
50-60	89.74
60-70	44.92
70-80	20.53
80-90	6.13

Polar graph
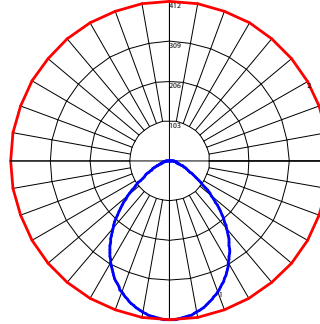
Maximum Candela = 411.625   Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)