

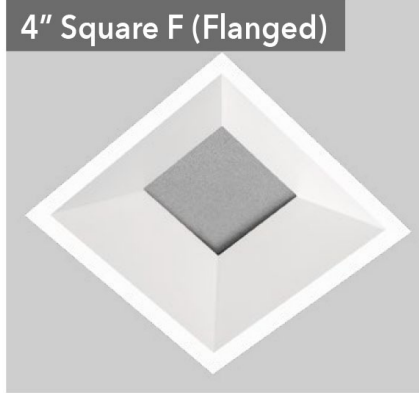
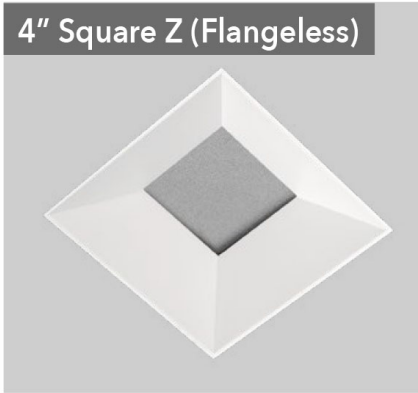
# Core 4" Square Downlight (102mm)

Formerly known as 1009, 1012 and 1017

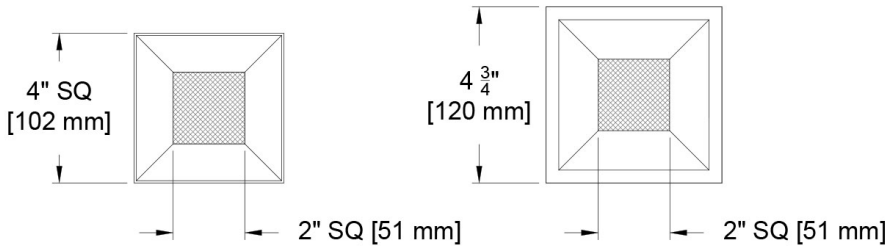
Adjustable Recessed Accent Light

## The Core Family

Welcome to the Core line of fixtures. You will find a rich diversity of technical and aesthetic options including 3 trim apertures, over 14 finishes including custom wood trims, flux and source selections featuring 90+ CRI fixed white and our world class Ambient Dim (Warm Dim), multiple beam spreads and plethora of driver and control choices. The Core downlight is created on a platform allowing a high degree of modification, so if you don't see what you are looking for, just ask. We are here to make your project right.



Deep Regress Shown



PROJECT:

TYPE:

SPECIFIER:

DATE:

### Key Points (CR4D-SA)

#### Trim

- Flanged or Flangeless
- Flangeless includes plaster flange with lip
- 14 color options + custom RAL or wood available
- One-piece die cast aluminum or machined wood trim

#### Source / Optics

- Lifetime: L87B3>55,000 hours at 40°C Ambient
- 2700, 3000, 3500, 4000K, Ambient Dim standard. Tunable White and RGBW upon request
- 90 CRI , 60+ R9 Standard- 95 CRI 90+R9 Optional with Ambient Dim
- <2 MacAdam Steps (<2SDCM) for fixed white
- Up to 2100 delivered lumens
- Adjustable to 45° with 358° of rotation
- 4 beamspreads available- 15°, 24°, 40°, and 55°

#### Housing

- **TITLE 24** Compliant to **JA8** with Airtight Housing
- **UL** Listed – Damp or wet with shower trim
- Approved for 8 (4-in / 4-out) #12 AWG conductors rated for 90°C through wiring
- IC Rated / Airtight Housing approved for use in direct contact with insulation – Chicago Plenum Available
- Heavy gauge aluminum for new construction or remodel

#### Driver

- Phase, 0-10, DALI, Ecosystem or Wireless Control
- Flicker free to IEEE 1798-2015
- Prewired and integral to housing
- Universal 120-277v

### Aperture Options



Deep Regress (DR)  
2" Optical Aperture  
Formerly known as 1009

FL- Flat (Pin Hole)  
2" Optical Aperture  
Formerly known as 1012

Open Regress (OR)  
3" Optical Aperture  
Formerly known as 1017

Wood Finish  
All apertures options

SQUARE Beamspreads		15°				24°				40°				55°			
Source	System watts (W)	Delivered Lumens (lm)	Lumens/ Watt	Peak CD	10% Field	Delivered Lumens (lm)	Lumens/ Watt	Peak CD	10% Field	Delivered Lumens (lm)	Lumens/ Watt	Peak CD	10% Field	Delivered Lumens (lm)	Lms/ Watt	Peak CD	10% Field
Citizen C14	15	1068	71	7642	42°	995	66	4174	46°	1037	69	3429	51°	996	66	1402	71°
Citizen C20	21	1424	68	10190	40°	1326	63	5562	39°	1382	66	4570	55°	1328	63	1870	73°
Citizen C28*	30	1848	62	13223	44°	1857	62	7791	47°	1916	64	6336	54°	1816	61	2556	69°
Ambient Dim A14	15	694	46	6220	43°	656	44	3189	44°	656	44	1827	53°	643	43	1028	70°

All Measurements delivered or derived delivered lumens based on 3000k with Deep Regress. Ambient dim at full output. C28 source requires active cooling and must be used with NIC housing.

# Core 4" Square Downlight (102mm)

Formerly known as 1009, 1012 and 1017

Adjustable Recessed Accent Light



## Ordering Codes

PROJECT:

SPECIFIER:

DATE:

TYPE:

QUANTITY:

Ordering Code Example: CR4D-SA-DR-Z-AU-C20-35-24-E2-P16-91A-91L-97L-CP-LR

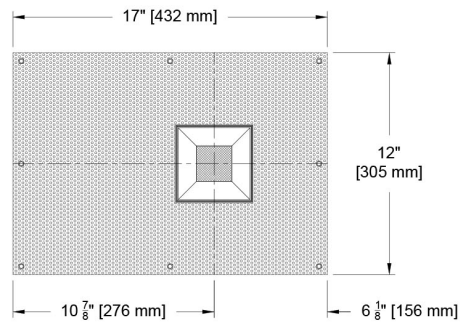
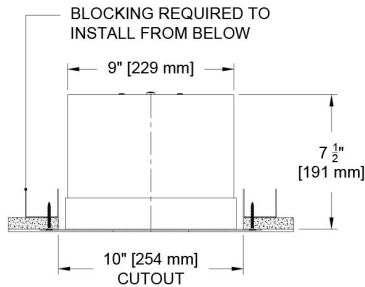
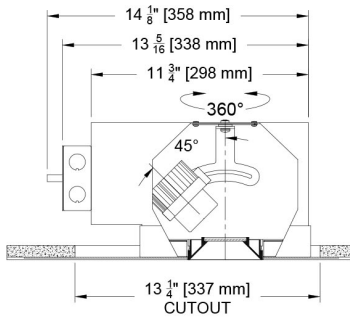
FIXTURE	APERTURE	TRIM	MOUNTING	SOURCE / WATTS	CCT	BEAM	DRIVER / CONTROL	TRIM FINISH	LENS ACCESSORIES	ACCESSORIES
CR4D-SA										
Core 4" Square Adjustable Downlight	<p>DR Deep Regress</p> <p>OR Open Regress</p> <p>FL Flat (Pin Hole)</p>	<p>F Flanged Trim</p> <p>Z Flangeless Trim</p> <p>FS Flanged Shower Trim*</p> <p>ZS Flangeless Shower Trim*</p> <p>* Aperture Lens Required</p>	<p>Flanged Housings</p> <p>U Universal - Non IC Housing</p> <p>AU Universal IC/Airtight*</p> <p>Flangeless Housings</p> <p>P Plaster</p> <p>AP Plaster IC/Airtight*</p> <p>PM Panel Mount</p> <p>APM Panel Mount Airtight/IC*</p> <p>● Supports CA Title 24 compliance to JA8 requirements</p>	<p>Citizen</p> <p>C14 15W 995Lm** 90+CRI, 60+R9</p> <p>C20 21W 1326Lm** 90+CRI, 60+R9</p> <p>C28 30W† 1857Lm** 90+CRI, 60+R9</p> <p>Ambient Dim</p> <p>A14 15W 656Lm 95+CRI, 90+R9 3000 to 1900K</p> <p>Tunable White 90+CRI, 70+R9 1800-4000K or 2700-6500K^+</p> <p>RGBW 90+CRI, 60+R9 ^</p> <p>● Supports CA Title 24 compliance to JA8 requirements.</p> <p>* Requires Active Cooling, must be used with NIC housing. Not compatible with L2 and LP drivers.</p> <p>† Does not Meet CA Title 24 with Flat aperture.</p> <p>** Based on Deep Regress 24" beam.</p> <p>^ Contact factory for photometrics</p> <p>+EldoLED driver selection required and will be supplied with 2 channel version</p>	<p>27 2700K</p> <p>30 3000K</p> <p>35 3500K</p> <p>40 4000K</p> <p>AD 3000-1900K</p>	<p>15 Spot</p> <p>24 Narrow Flood</p> <p>40 Flood</p> <p>55 Wide Flood</p>	<p>C1 0-10 1.0%, UNV (120-277V) linear</p> <p>C2 ELV/Triac 1.0%, (120V) linear</p> <p>EldoLED</p> <p>E1 0-10 0.1%, UNV (120-277V) log</p> <p>E2 DALI-2 0.1%, UNV (120-277V) log</p> <p>E3 0-10 0.1%, UNV (120-277V) linear</p> <p>Lutron</p> <p>LD Digital Ecosystem 1.0%, UNV (120-277V) ECO Hi-Lume SoftOn/Fade-to-Black LDE1</p> <p>LP Digital Ecosystem* 0.1%, UNV (120-277V) ECO Premier Hi-Lume SoftOn/Fade-to-Black, PEQ0, 20W max</p> <p>* Not compatible with C28 Source</p>	<p>W White Paint</p> <p>B Black Paint</p> <p>D Wood*</p> <p>PXX Specialty Paint Color*</p> <p>P01-P15</p> <p>C Custom/RAL Color**</p> <p>*Wood "D" Selection to be used with Z trim and PM mounting</p> <p>**See Specialty Finish Guide</p> <p>FINISH GUIDE LINK</p> <p>WOOD TRIM GUIDE</p>	<p>Aperture Lens</p> <p>91A Solite</p> <p>93A Frosted</p> <p>XXA Other Aperture Lens Treatments*</p> <p>Reflector (lamp) Media</p> <p>91L Solite</p> <p>93L Frosted</p> <p>97L Black Hexcel Louver</p> <p>XXL Other reflector (lamp) media*</p> <p>1 piece of Media per opening (aperture or reflector) can be selected</p> <p>*See Lens Accessory Guide</p> <p>LENS ACCESSORY VISUAL GUIDE LINK</p>	<p>EM Emergency Pack</p> <p>EMP Emergency Pack with phase cut control system utilizing C1 driver</p> <p>CP Chicago Plenum</p> <p>Controls</p> <p>LR Lutron Wireless RF PowPak</p> <p>ATH Lutron Athena Wireless Node <i>Must be used with E2 driver</i></p> <p>CA Casambi Wireless BLE to be paired with driver</p>

# Ceiling Cutouts and Dimensions

Deep Regress Shown - other apertures similar

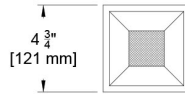
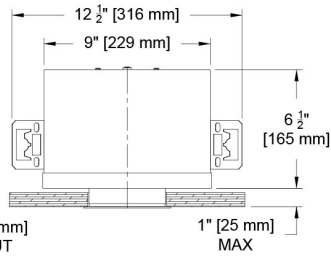
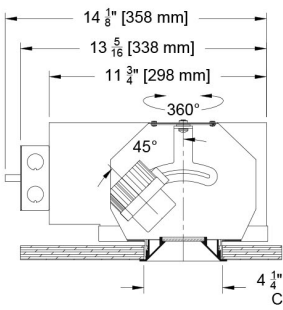
## Square Flangeless Housing

### Plaster Mount (P/AP) (CR4D-SA-DR-Z-P/AP)

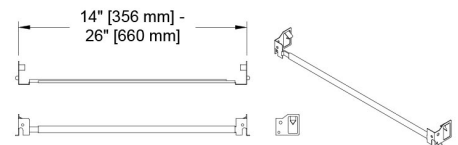
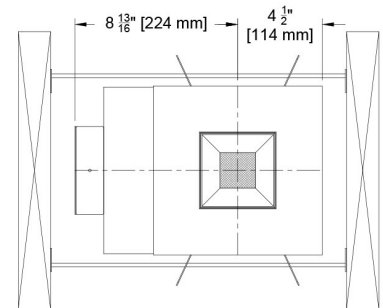
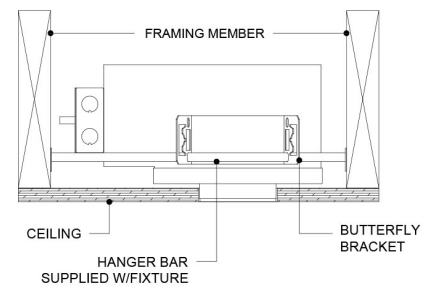


## Square Flanged Housing

### Flanged Mount (U/AU) (CR4D-SA-DR-F-U/AU)

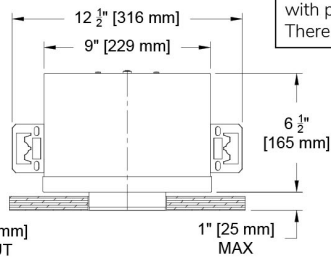
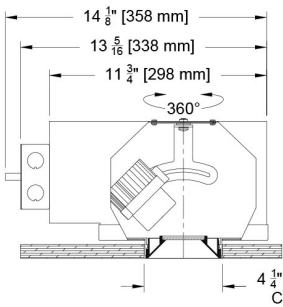


## Hanger Bar Detail

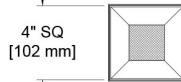


## Square Flangeless Housing

### Flangeless Mount (U/AU) (CR4D-SA-DR-Z-U/AU)

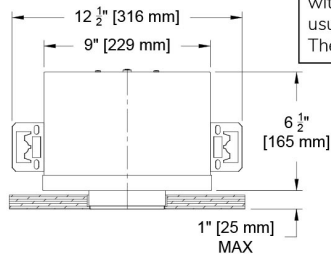
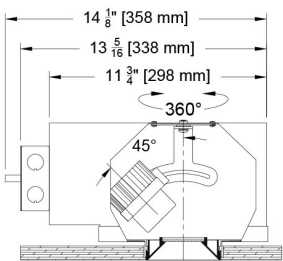


NOTE: This option is intended for use with precise and finished cutouts. There is no plaster or finish flange.



## Square Flangeless Housing

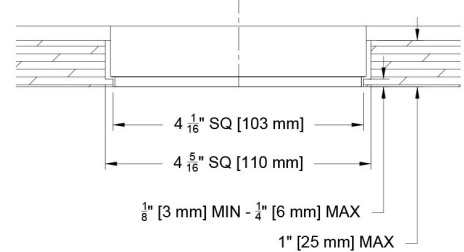
### Panel Mount (PM/APM) (CR4D-SA-DR-Z-PM/APM)



NOTE: This option is intended for use with precise and finished cutouts - usually millwork or wood ceilings. There is no plaster or finish flange.



## Panel Mount Detail



# Core 4" Square Downlight (102mm)

Formerly known as 1009, 1012 and 1017

Adjustable Recessed Accent Light



## Photometric Table

All data is based from goniometer measurements of production representative product. All lumen values can vary +/- 10% from LED manufacturer rated flux range. Measurements at 3000 CCT

SQUARE Beamspreads		15°					24°					40°					55°				
Source	System watts (W)	Delivered Lumens (lm)	Lumens/Watt	Peak CD	10% Field	Delivered Lumens (lm)	Lumens/Watt	Peak CD	10% Field	Delivered Lumens (lm)	Lumens/Watt	Peak CD	10% Field	Delivered Lumens (lm)	Lms/Watt	Peak CD	10% Field				
Deep Regress	Citizen C14	15	1068	71	7642	42°	995	66	4174	46°	1037	69	3429	51°	996	66	1402	71°			
	Citizen C20	21	1424	68	10190	40°	1326	63	5562	39°	1382	66	4570	55°	1328	63	1870	73°			
	Citizen C28*	30	1848	62	13223	44°	1857	62	7791	47°	1916	64	6336	54°	1816	61	2556	69°			
	Ambient Dim A14	15	694	46	6220	43°	656	44	3189	44°	656	44	1827	53°	643	43	1028	70°			
Open Regress	Citizen C14	15	1173	78	7776	42°	1091	73	4167	52°	1112	74	2422	66°	1058	71	1357	74°			
	Citizen C20	21	1564	74	10369	41°	1455	69	5559	57°	1482	71	3199	63°	1411	67	1810	76°			
	Citizen C28*	30	2158	72	14306	44°	2008	67	7669	55°	2045	68	4455	67°	1947	65	2496	72°			
	Ambient Dim A14	15	810	54	5857	39°	779	52	3270	56°	779	52	1829	60°	764	51	1058	72°			
Flat (Pin Hole)	Citizen C14	15	829	55	7740	37°	737	49	1436	46°	719	48	2379	51°	661	44	1357	64°			
	Citizen C20	21	1105	53	10321	35°	982	47	5513	42°	958	46	3169	49°	881	42	1808	62°			
	Citizen CZ8*	30	1525	51	14258	32°	1355	45	7604	44°	1322	44	4375	53°	1216	41	2496	59°			
	Ambient Dim A14	15	539	36	4828	36°	479	32	2326	42°	467	31	1301	50°	429	29	689	63°			
CCT Multiplier																					
CCT	Citizen																				
2700	0.95																				
3000	1.00																				
3500	1.02																				
4000	1.03																				
All measurements based on 3000 CCT.																					

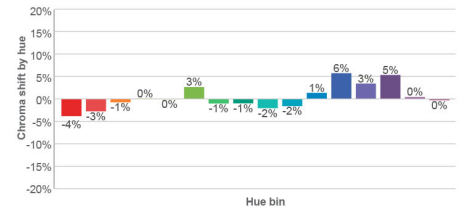
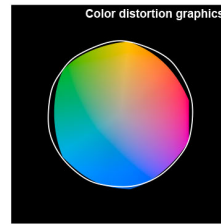
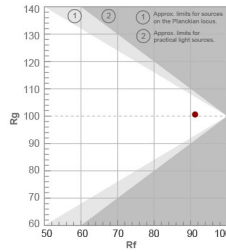
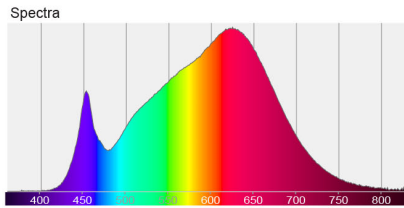
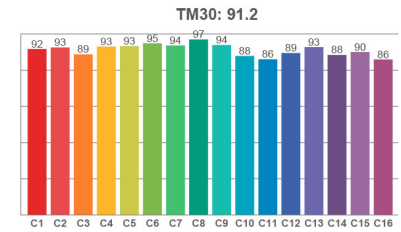
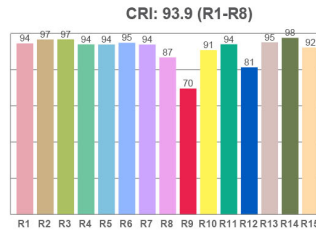
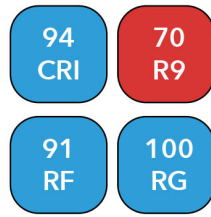
All Measurements delivered or derived delivered lumens based on 3000K. ISO CD plots based on Open Regress Ambient dim at full output. C28 source requires active cooling and must be used with NIC housing. Flat (Pin Hole) at wider beam angles experience significant beam clipping - refer to PDF report for exact FWHM beam angle.

# Color Data

All data is based from goniometer measurements of production representative product. All values can vary +/- 10% from LED manufacturer rated data range. Measurements at 3000 CCT

## Citizen Source C14, C20 and C28

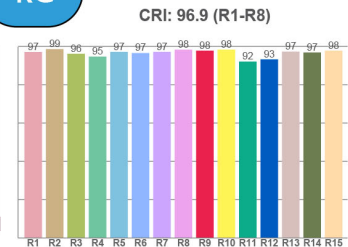
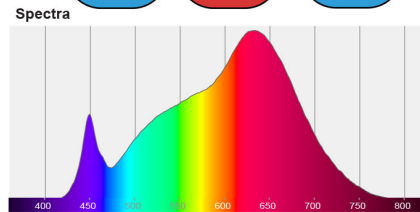
- <2 MacAdam Ellipse (<2 SDCM)
- 90+ CRI and RF
- 60+R9, Hue Bin 1



## Ambient Dim 3000k to 1900k

- <3 MacAdam Ellipse (<3 SDCM)
- 95+ CRI and RF
- 90+R9, Hue Bin 1
- Follows Black Body Locus through dimming range

### 3000 CCT Full Output



### 1850 CCT 5% Output

