

# The Core Family

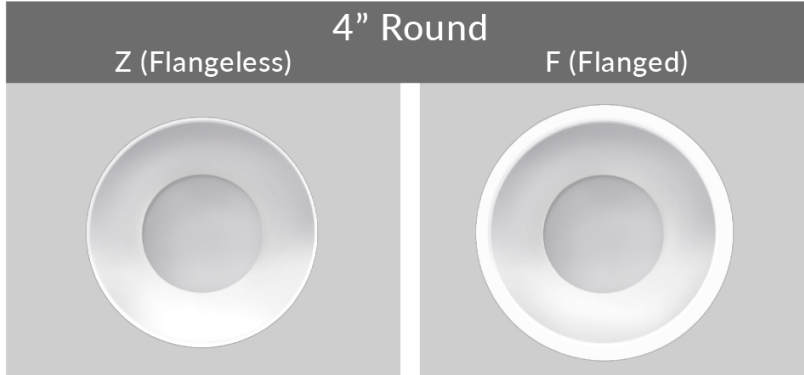
The Core family line offers a rich diversity of technical and aesthetic options. Our 4" round adjustable offers 14+ finishes & custom wood choices. A wide range of source/optic selections, 3 ranges of Ambient Dim™ (Warm Dim), 4beam spreads, and a plethora of driver/control options including TruPhase™ (phase dimming down to 0.1%). Our Core product family is created on platform allowing for a high degree of modification

PROJECT:

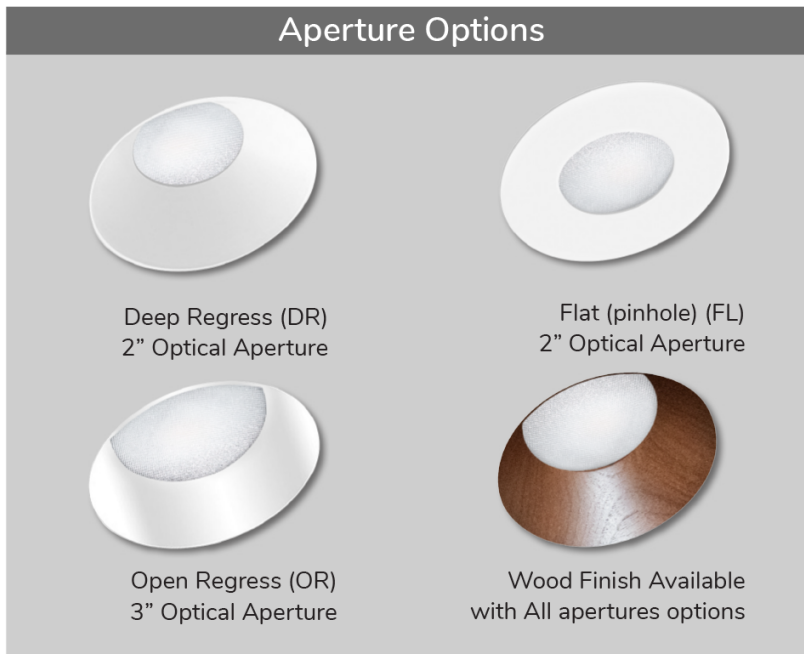
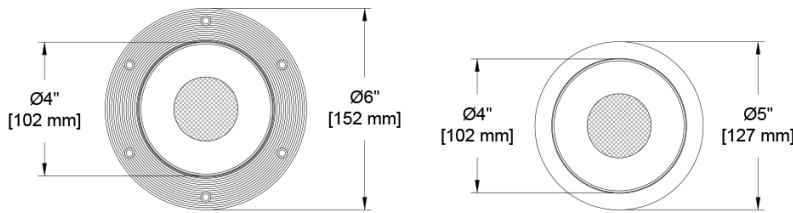
TYPE:

SPECIFIER:

DATE:



Deep Regress shown



## Key Points (CR4D-RA)

### Trim

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

### Source / Optics

- 2400K, 2700K, 3000K, 3500K, 4000K AmbientDim™, RGBW, & Tunable White options
- 90 CRI, 55+ R9 Standard | 95 CRI 90+ R9 Optional
- Up to 2177 delivered lumens
- 4 beams spreads available - 15°, 24°, 40°, and 55°

### Housing

- Heavy gauge steel for new construction or remodel
- - Title 24 compliant to JA8 with Airtight Housing
- Us 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
- Airtight Shallow Housing available

### Driver

- TruPhase™ - Dimming down to 0.1% - 120V only
- 0-10, DALI-2, DMX, Lutron or Casambi
- Flicker Free to IEEE 1789-2015
- Prewired and integral housing
- Universal 120-277v available

# Ordering Codes

PROJECT:

SPECIFIER:

DATE:

TYPE:

QUANTITY:

Ordering Code Example: CR4D-RA-DR-Z-AU-C20-35-24-E2-P14-92A-91L-97L-CP

FIXTURE	APERTURE	TRIM	MOUNTING	SOURCE / WATTS	CCT	BEAM	DRIVER / CONTROL	TRIM FINISH	LENS ACCESSORIES	ACCESSORIES
CR4D-RA										
Core 4" Round Adjustable Downlight	DR Deep Regress	Flanged Trims	Flanged Housings	C14 ●● 15W 1149Lm 90+CRI, 60+R9	24 2400K	15 Spot	C1 0-10 1.0%, UNV (120-277V) linear	W White Paint	Aperture Lens	EM Emergency Pack
	OR Open Regress	F Flanged Trim	U Universal - Non-IC Housing	C20 ●● 21W 1422Lm** 90+CRI, 60+R9	27 2700K	24 Narrow Flood	C2 ELV/Triac 1.0%, (120V) linear	B Black Paint	91A Solite	CP Chicago Plenum
	FL Flat (Pin Hole)	FS Flanged Shower Trim*	AU ●● Airtight Universal IC-Rated	C28* 30W* 2006Lm** 90+CRI, 60+R9	30 3000K	40 Flood	E1 0-10 0.1%, UNV (120-277V) log	D Wood*	93A Frosted	Controls
		(for mounting choose from Flanged Housings)	Flangeless Housings	Tunable	40 4000K	55 Wide Flood	E2 DALI-2 0.1%, UNV (120-277V) log	PXX Specialty Paint Color*	XXA Other Aperture Lens Treatments*	LR Lutron Wireless RF PowPak
		Z Flangeless Trim	P Plaster - Non-IC Housing	T9 10W 645Lm 87+CRI, 60+R9 Tunable White	TW1840 1800-4000K Tunable White w/ E1, E2, E3, E4		E3 0-10 0.1%, UNV (120-277V) linear	C Custom/RAL Color**	Reflector (lamp) Media	ATH Lutron Athena Wireless Node Must be used with E2 driver
		ZS Flangeless Shower Trim*	AP ●● Airtight Plaster IC-Rated	T15 15W 975Lm 90+CRI, 60+R9 Tunable White	TW2765 2700-6500K Tunable White w/ E1, E2, E3, E4		E4^ DMX 0.1%, UNV (120-277V) Universal DMX Driver/Controller RGBW-DMX	P01-P15	91L Solite	CA Casambi Wireless BLE to be paired with driver
		(for mounting choose from Flangeless Housings)	PM Panel Mount	T20 ●● 21W 90+CRI, 60+R9 Tunable White	RG1280 1200-8000K RGBW Dynamic Color Changing Requires E2 or E4		TR2 TruPhase™ 0.1%, (120-120V) log Up to 20W Forward and Reverse compatible Phase Dimming Static White & Ambient Dim only	C Custom/RAL Color**	93L Frosted	XXL Other reflector (lamp) media*
		* Aperture Lens Required	ASU * ●● Airtight Shallow Universal IC-Rated	RGBW 95+CRI, 90+R9	Ambient Dim™		LD Digital Ecosystem* 1.0%, UNV (120-277V) ECO Hi-Lume SoftOn/Fade-to-Black LDE1	FINISH GUIDE LINK	97L Black Hexcel Louver	1 piece of media per opening (aperture or reflector) can be selected.
			ASP * ●● Airtight Shallow Plaster IC-Rated	A14 ●● 15W 882Lm 95+CRI, 90+R9	Ambient Dim™		* Not compatible with C28	WOOD TRIM GUIDE	99L Black Hexcel Louver	*See Lens Accessory Guide
			ASPM * ●● Airtight Shallow Panel IC-Rated	A20 ●● 1522Lm 95+CRI, 90+R9	Ambient Dim™			LENS ACCESSORY VISUAL GUIDE LINK		

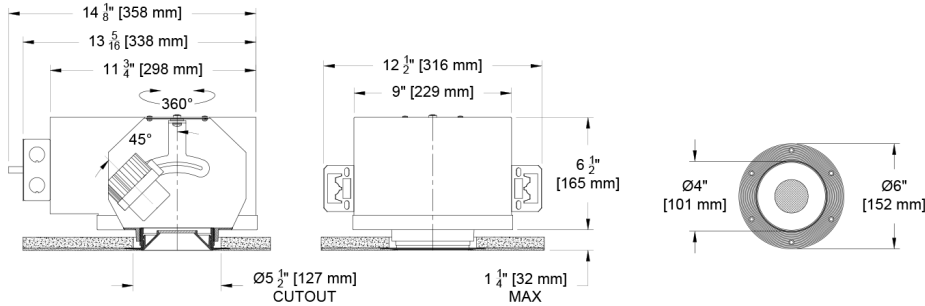
# Ceiling Cutouts and Dimensions

Deep Regress Shown - others similar

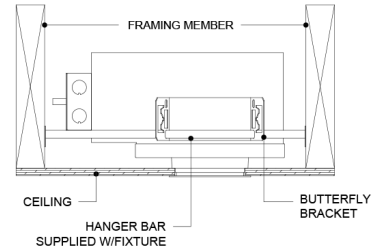
## Round Flangeless Housing

## Plaster Trim (P/AP)

CR4D-RA-DR-Z-P/AP-



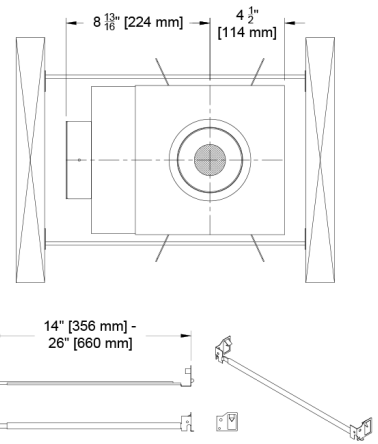
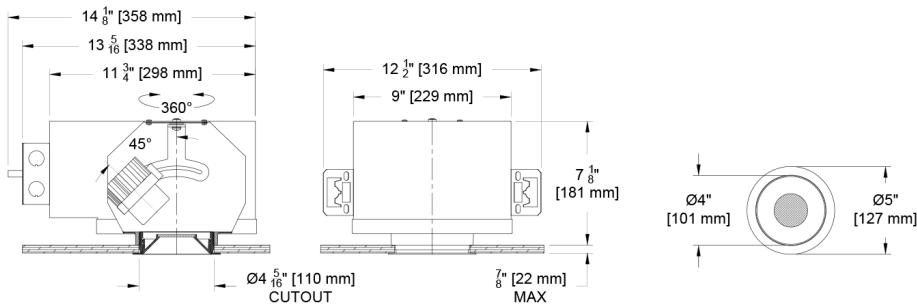
## Hanger Bar Detail



## Round Flanged Housing

## Universal Mount (U/AU)

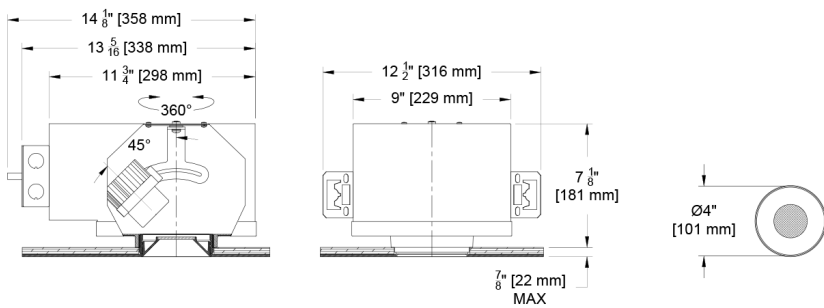
CR4D-RA-DR-F-U/AU-



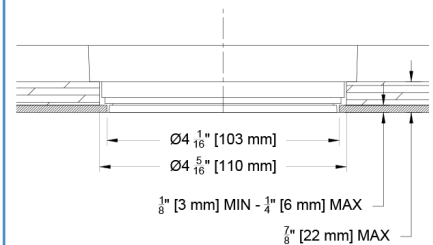
## Round Flangeless Housing

## Panel Mount (PM/APM)

CR4D-RA-DR-Z-PM/APM-



## Panel Mount Detail



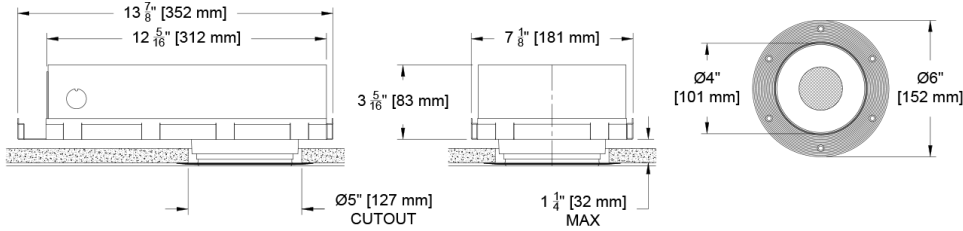
# Ceiling Cutouts and Dimensions

Deep Regress Shown - others similar

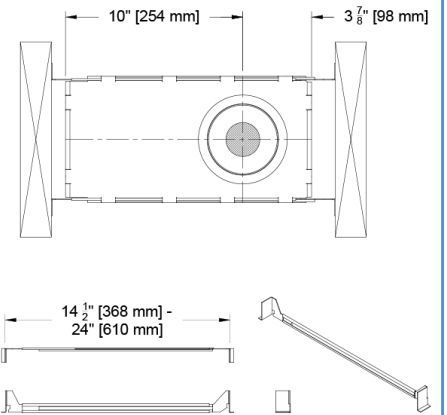
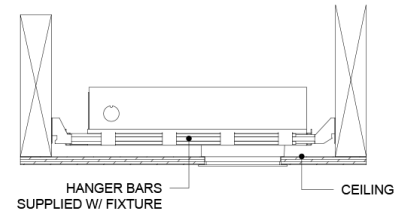
## Round Flangeless Housing

## Airtight Shallow Plaster (ASP)

CR4D-RA-DR-Z-ASP-



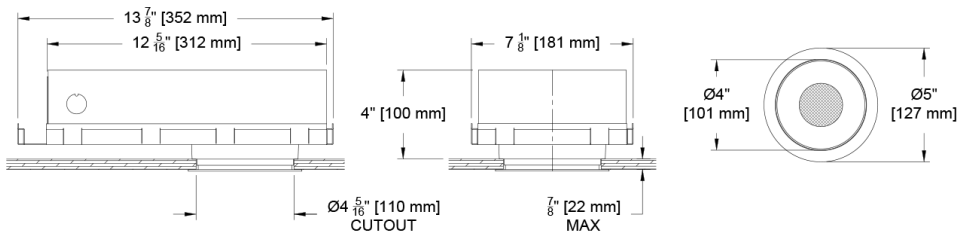
## Hanger Bar Detail



## Round Flanged Housing

## Airtight Shallow Universal (ASU)

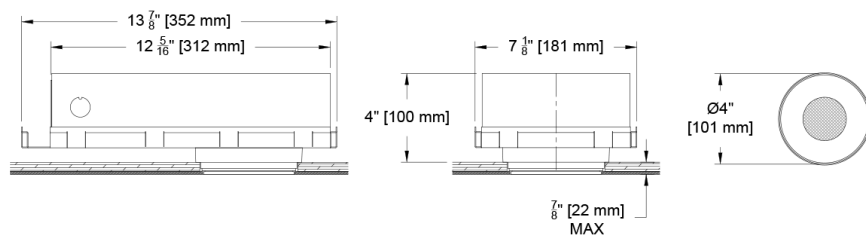
CR4D-RA-DR-F-ASU-



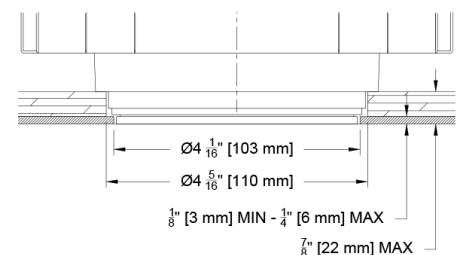
## Round Flangeless Housing

## Airtight Shallow Panel (ASPM)

CR4D-RA-Z-ASPM-



## Panel Mount Detail



# Shallow Housing Photometric Table

All data below is based from goniometer measurement of production representative product. All lumen values can vary +/-10% from LED manufacturer rated nominal flux.

ROUND Beamspreads		15°					24°					40°				55°			
Source		System watts (W)	Del. Lumens (lm)	Lumen/Watt	Peak CD	10% Field	Del. Lumens (lm)	Lumen/Watt	Peak CD	10% Field	Del. Lumens (lm)	Lumen/Watt	Peak CD	10% Field	Del. Lumens (lm)	Lumen/Watt	Peak CD	10% Field	
Deep Regress	Citizen C14	15	1149	77	7832	42°	1074	72	4247	46°	1117	74	2867	51°	1098	73	1416	71°	
	Citizen C20	21	1609	71	12541	33°	1457	64	8949	38°	1565	69	4239	58°	1093	48	1691	77°	
	Citizen C28	30	2046	68	16106	41°	2006	67	9871	47°	2069	69	5688	54°	2020	67	3155	69°	
	Tunable White T9	10	630	65	4192	37°	626	65	3047	43°	645	66	1835	54°	498	51	727	78°	
	Tunable White T15	14	957	69	6214	37°	959	69	4671	43°	975	70	2847	54°	752	54	1106	78°	
	Tunable White T20	20	1372	68	8908	37°													
	Ambient Dim A14	15	882	59	7188	38°	858	57	4167	44°	801	53	2027	57°	844	56	1286	70°	
	Ambient Dim A20	22	-	-	-	-	1522	69	6304	52°									
Open Regress	Citizen C14	15	1267	84	7877	42°	1179	79	4203	52°	1183	79	2421	66°	1199	80	1533	75°	
	Citizen C20	21	1689	80	12229	41°	1571	75	6562	57°	1578	75	3459	63°	1536	73	1965	76°	
	Citizen C28	30	2331	78	16883	44°	2169	72	9060	55°	2177	73	5140	67°	2163	72	2939	75°	
	Tunable White T9	10	783	80	4275	42°	764	78	3041	47°	760	77	1878	59°	610	62	744	81°	
	Tunable White 15	16	1335	80	7145	42°	1310	78	5213	49°	1298	77	3216	59°	1052	62	1283	81°	
	Tunable White T20																		
	Ambient Dim A14	15	861	57	6189	39°	801	53	4708	53°	991	66	2238	60°	773	52	1080	72°	
	Ambient Dim A20																		
Flat (Pin Hole)	Citizen C14	15	824	55	7851	37°	716	48	4844	46°	700	52	2399	51°	623	42	1370	64°	
	Citizen C20	21	1099	52	11216	35°	967	46	6544	42°	933	44	3732	49°	830	40	1957	62°	
	Citizen C28	30	1517	51	16982	32°	1334	44	8389	44°	1288	43	5154	53°	1145	38	2926	59°	
	Tunable White T9	10	504	51	52	32°	449	46	2726	38°	544	55	1832	50°	334	34	726	62°	
	Tunable White T15	16	874	52	7256	33°	784	48	4755	38°	947	57	3184	50°	582	35	1259	62°	
	Tunable White T20																		
	Ambient Dim A14	15	747	50	7305	36°	702	47	4077	42°	678	45	2247	50°	622	41	1076	63°	
	Ambient Dim A20																		
CCT Multiplier																			
CCT	Citizen																		
2700	0.95																		
3000	1.00																		
3500	1.02																		
4000	1.03																		
All measurements based on 3000 CCT. Ambient Dim based on full output.																			

# 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

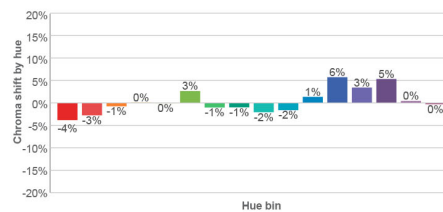
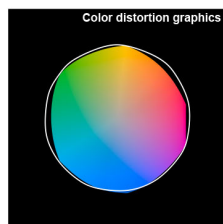
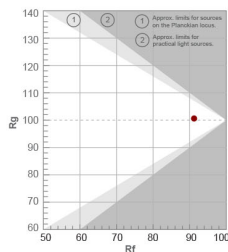
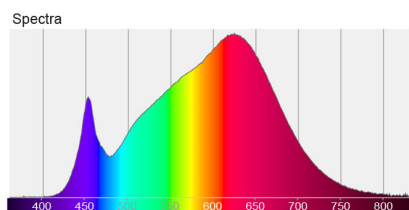
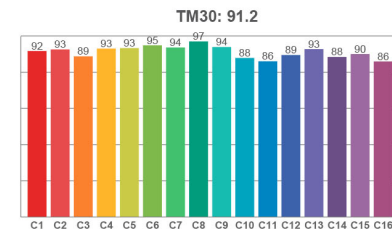
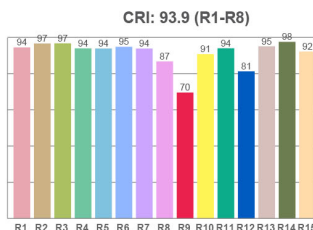
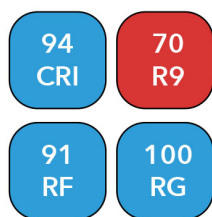
ROUND Beamspreads		15°					24°				40°				55°			
Source		System watts (W)	Del. Lumens (lm)	Lumen/Watt	Peak CD	10% Field	Del. Lumens (lm)	Lumen/Watt	Peak CD	10% Field	Del. Lumens (lm)	Lumen/Watt	Peak CD	10% Field	Del. Lumens (lm)	Lumen/Watt	Peak CD	10% Field
Deep Regress	Citizen C14	15	1470	99	9722	36°	1598	108	7339	42°	1658	112	3857	58°	1518	102	2170	74°
	Citizen C20						2185	102	10054	42°								
Open Regress	Citizen C14	15	1548	104	9734	36°	1639	111	7306	42°	1688	114	3870	58°	1586	107	2203	76°
	Citizen C20						2234	104	10205	42°								
Flat (Pin Hole)	Citizen C14	15	1271	86	9583	34°	1446	98	7379	40°	1552	105	3848	56°	1366	92	2167	71°
	Citizen C20						1983	92	10151	40°								
CCT Multiplier																		
CCT	Citizen																	
2700	0.95																	
3000	1.00																	
3500	1.02																	
4000	1.03																	
All measurements based on 3000 CCT. Ambient Dim based on full output.		<p>20.4°</p>				<p>26.6°</p>				<p>39.4°</p>				<p>50.7°</p>				

# Color Data

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

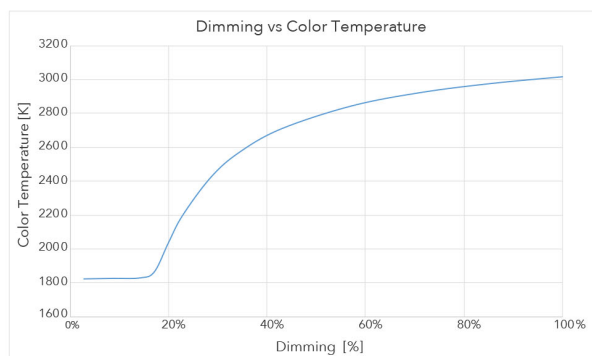
## Citizen Sources - C14, C20 and C28

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

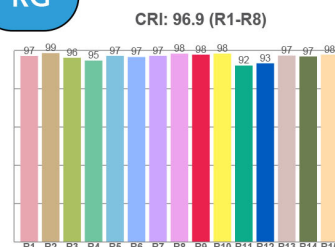
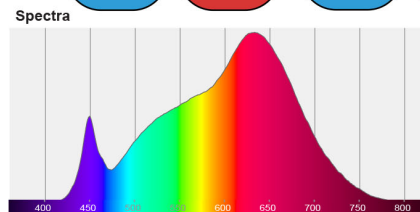


## Ambient Dim - 3000k to 1900k

- <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

