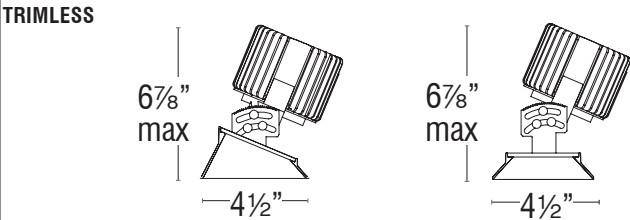
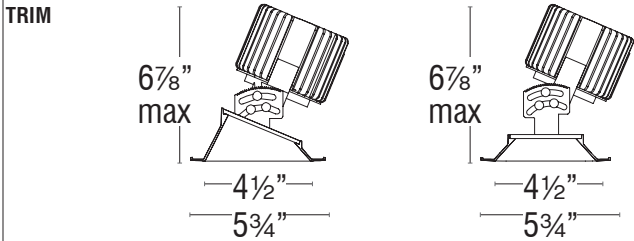


Volta
Tunable White - 4.5" Adjustable
R4RAT | R4RAL | R4SAT | R4SAL

Fixture Type: _____
Project: _____
Catalog#: _____
Location: _____



LINE DRAWING



PRODUCT DESCRIPTION

Volta 4.5" Tunable White recessed series represents an innovation in design and technology for architectural lighting. This high lumen and adaptable family of fixtures with a comprehensive set of round and square fittings, affords a sustainable solution for commercial, corporate, and upscale residential applications. The Adjustable Volta fixtures are capable of adjusting 0-45° vertically and 365° horizontally with locking positions.

SPECIFICATIONS

Construction:	Durable die-cast self flanged aluminum construction
Mounting:	Heavy gauge retention clips support trim firmly Ceiling cut out (Round): Trim $\varnothing$ 5 1/8" $\bigcirc$ Trimless $\varnothing$ 5 1/8" $\bigcirc$ Ceiling cut out (Square): Trim 5 1/8" x 5 1/8" $\square$ Trimless 5 1/8" x 5 1/8" $\square$ Accommodates ceiling thickness of 1/2" - 1" up to 45°, 1 1/2" up to 35°
Light Source:	High output 3-step Mac Adam Ellipse COB Rated life of 50,000 hours at L70
Input:	Universal 120-277V AC, 50/60 Hz
Dimming:	2 Channel 0-10V: 100-0.1% 2 Channel DMX512-A with RDM: 100-0.1% linear dimming. Channels for intensity and CCT tuning.
Maximum Delivered Intensity:	Up to 7,868 cd (Round Narrow Flood 25°, TWB 5000K, CRI 98)
Maximum Delivered Output:	Up to 2,150 lm (Round Narrow Flood 25°, TWB 5000K, CRI 98)
Standards:	ETL & cETL Wet location listed, Title 24 JA8 Compliant
Warranty:	5 year WAC Lighting guaranteed warranty

BEAM ANGLES



FINISHES



TRIM STYLES



Model	Beam	Lumens Ref Output*	CBCP	Color Temp	CRI
R4RAT Round Trim R4RAL Round Trimless	N 25° Round Square	1930 1615	6745 5645	TWA 1800K-4000K	98
	F 45° Round Square	1750 1485	3410 2890		
R4SAT Square Trim R4SAL Square Trimless	N 25° Round Square	1920 1605	7025 5880	TWB 2700K-6500K	98
	F 45° Round Square	1775 1505	3455 2930		

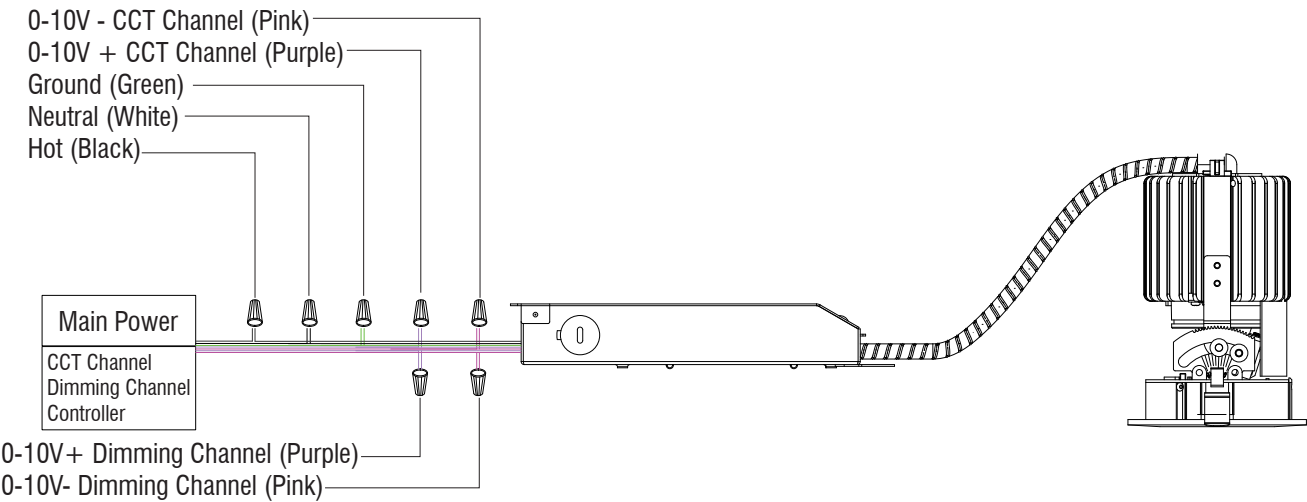
Lumens and CBCP are reference values for TWA/TWB trim tuned to 3000K Color Temperature with 36 housing. Refer to Multiplier Table in Performance Data to determine other outputs.

Volta
Tunable White - 4.5" Adjustable
R4RAT | R4RAL | R4SAT | R4SAL

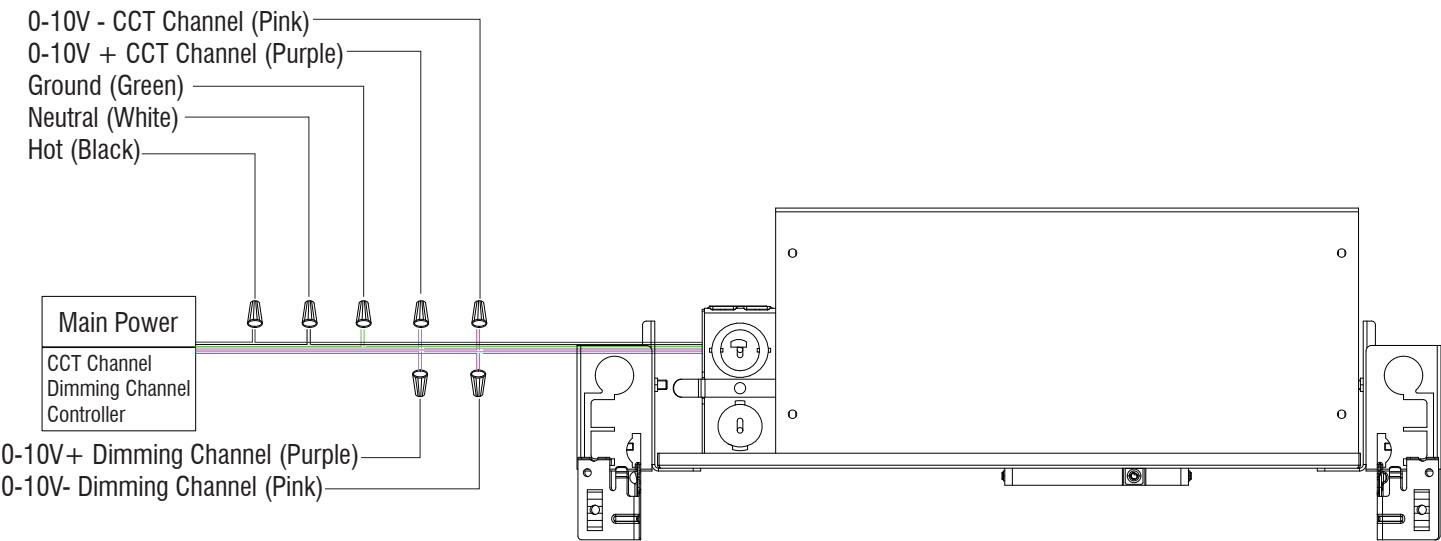
Fixture Type: _____
Project: _____
Catalog#: _____
Location: _____

WIRING DIAGRAMS

Remodel Installation



New Construction Installation



Volta
Tunable White - 4.5" Adjustable
R4RAT | R4RAL | R4SAT | R4SAL

Fixture Type: _____
Project: _____
Catalog#: _____
Location: _____

ORDERING INFORMATION

CONFIGURATION TABLE				
Model	Beam	Color Temperature & CRI	Reflector Finish	Trim Finish
R4RAT R4SAT R4RAL R4SAL	N: Narrow Flood - 25° F: Flood - 45°	TWA - 1800K-4000K TWB - 2700K-6500K	BK - BLACK CB - COPPER HZ - HAZE WT - WHITE	WT - WHITE

R4RAT-____-____ Example: R4RAT-NTWA-WT

HOUSINGS (Required)						
Model	Trim	Power	Rating	Driver		
New Construction Airtight	R4RN (Round) R4SN (Square)	T Trim	15 20W IC	T-X DMX512-A		
		L Trimless	25 29W IC	T-Z 2CH 0-10V		
			36 44W Non-IC			
New Construction Airtight Chicago Plenum	R4RC (Round) R4SC(Square)	T Trim	15 20W IC	T-X DMX512-A		
		L Trimless	25 29W IC	T-Z 2CH 0-10V		
			36 44W Non-IC			
Remodel Round or Square	R4BR	T Trim	15 20W Non-IC	T-X DMX512-A		
			25 29W Non-IC	T-Z 2CH 0-10V		
			36 44W Non-IC			
Remodel	R4RR (Round) R4SR (Square)	L Trimless	15 20W Non-IC	T-X DMX512-A		
			25 29W Non-IC	T-Z 2CH 0-10V		
			36 44W Non-IC			

ACCESSORIES			
LENS-73-HLD	Accessory Holder	LENS-73-GRN	Green Lens
LENS-73-HCM	Honeycomb Louver	LENS-73-RED	Red Lens
LENS-73-CRL	Cross Louver	LENS-73-FR	Frosted Lens
LENS-73-SNOOT	Snoot	LENS-73-SPR	Spread Lens
LENS-73-AMB	Amber Lens	LENS-73-BEL	Beam Elongating Lens
LENS-73-BLU	Blue Lens		

FIELD REPLACEABLE DRIVER (New Construction)	
D-R4N-15T-X	DMX512-A Driver for 20W
D-R4N-25T-X	DMX512-A Driver for 29W
D-R4N-36T-X	DMX512-A Driver for 44W
D-R4N-15T-Z	2CH 0-10V Driver for 20W
D-R4N-25T-Z	2CH 0-10V Driver for 29W
D-R4N-36T-Z	2CH 0-10V Driver for 44W

INTERCHANGEABLE REFLECTORS	
REF-R4-N	Narrow Flood Beam
REF-R4-F	Flood Beam
REF-R4-W	Wide Beam

ORDERING NOTES

- The "White" trim finish is only available with the reflector finishes "Black" and "Haze".
- Trimless fixtures cannot be ordered with a trim finish.
- The "Narrow Flood - 25°" and "Flood - 45°" beam angles are available in 20W, 29W, and 44W.

Volta
Tunable White - 4.5" Adjustable
R4RAT | R4RAL | R4SAT | R4SAL

Fixture Type:

Project:

Catalog#:

Location:

FEATURES

Optics: • The adjustable optics have a moving range of 0-45° vertically and 365° horizontally lockable hot aiming • Center beam alignment retained through the full adjustment range • An indexed vertical scale is built-in for precise and accurate alignment	Construction: • Durable die-cast self flanged aluminum construction • Heavy gauge retention clips support trim firmly
LED: • High output COB LED with a 3-step Mac Adam ellipse • Rated operational life of 50,000 hours at L70 (LED maintains 70% of its initial delivered lumens when brand new for 50,000 hours of use.) • Natural and Vivid Precision LED CCT Tuning • Consistent 98 CRI across all settings	Trim and Reflector: • Integral patterned tempered trim lens included standard with every fixture
Electrical: • Volta is compatible with 120-277 VAC, 50/60 Hz • Housings for the Volta 4.5" family are available in 20W, 29W, 44W, with varying ratings and standards	Installation: • Requires housing for installation. • New Construction housings for this fixture are IC rated based on power level. The 36 power level is non-IC rated. • All Remodel housings are non-IC rated.
Dimming: • Linear dimming: 1st channel input is intensity changing, 2nd channel input is CCT changing • 2 Channel 0-10V: 100 - 0.1% • 2 Channel DMX512-A with RDM: 100 - 0.1%	Warranty: • WAC Architectural limited warranty up to 5 years • Full warranty found at: waclighting.com/warranty
Notes: • Trim and trimless fixtures of the same shape (Round/Square) have the same performance. Minor variations occur due to fixture shape. • The White and Black finishes are powder coated while the Haze is enamel coated and the Copper Bronze is plated and brushed. • The Volta product family is compatible with a wide range of accessories. • Use the DMX Byte Value vs CCT table to determine how to set each CCT value.	

Volta

Tunable White - 4.5" Adjustable

R4RAT | R4RAL | R4SAT | R4SAL

Fixture Type:

Project:

Catalog#:

Location:

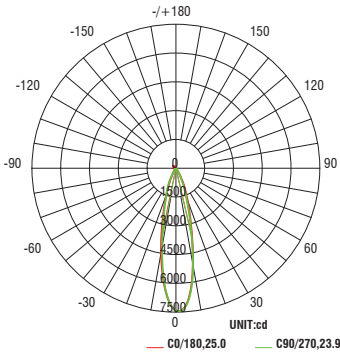
PERFORMANCE DATA

Polar Candela Distribution Charts

Samples shown with a 44W fixture set to 4000K and 98 CRI.

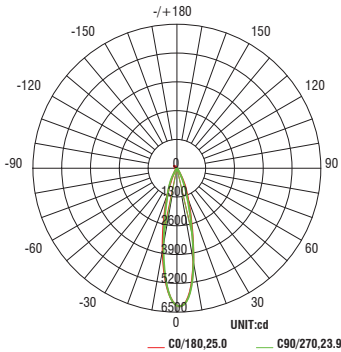
ROUND

Narrow Flood Beam: 25° Beam

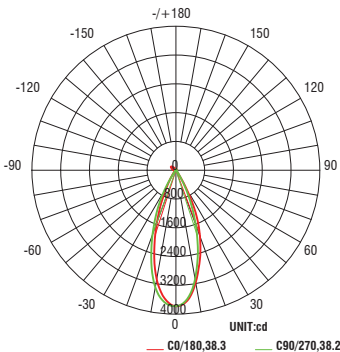


SQUARE

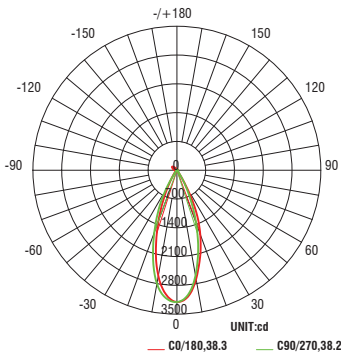
Narrow Flood Beam: 25° Beam



Flood Beam: 45° Beam



Flood Beam: 45° Beam



Volta
Tunable White - 4.5" Adjustable
R4RAT | R4RAL | R4SAT | R4SAL

Fixture Type:

Project:

Catalog#:

Location:

PERFORMANCE DATA

Unified Glare Rating (UGR) Table
UGR values shown are calculated at 3000K and 90 CRI.

Round Fixture	Angle	UGR Range	Square Fixture	Angle	UGR Range
Narrow Flood	25°	≤ 14	Narrow Flood	25°	≤ 14
Flood	45°	≤ 14	Flood	45°	≤ 14

Lumens and CBCP Multiplier Table
Use the below table to determine lumens and CBCP values for the combinations of power, color temperature, and CRI values.

Lumens & CBCP Multiplier		Color Temperature					
TWA (1800K - 4000K)	Housing Power Level	1800K	2200K	2700K	3000K	3500K	4000K
	36 (44W)	0.68	0.82	0.94	1.00	1.07	1.11
	25 (29W)	0.48	0.57	0.66	0.70	0.75	0.78
	15 (20W)	0.33	0.39	0.45	0.48	0.51	0.53
TWB (2700K - 6500K)	Housing Power Level	2700K	3000K	3500K	4000K	5000K	6500K
	36 (44W)	0.96	1.00	1.06	1.09	1.12	1.11
	25 (29W)	0.67	0.70	0.74	0.76	0.78	0.78
	15 (20W)	0.46	0.48	0.51	0.52	0.54	0.53

Volta

Tunable White - 4.5" Adjustable

R4RAT | R4RAL | R4SAT | R4SAL

Fixture Type: _____

Project: _____

Catalog#: _____

Location: _____

PERFORMANCE DATA

NATURAL TUNABLE WHITE CCT TUNING:

The CCT of the Volta Tunable White fixture may be adjusted.

Using the DMX byte values in the adjacent table mapped to CH1 and CH2 of the desired output, the Volta Tunable White fixture may be tuned to increments of 100K (Kelvin) from 1800K to 4000K for TWA and 2700K to 6500K for TWB, at full intensity.

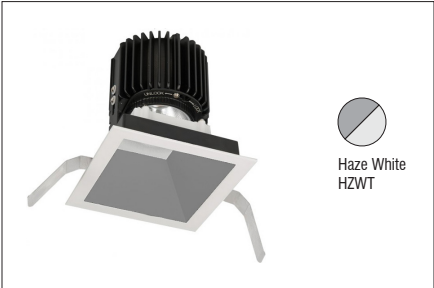
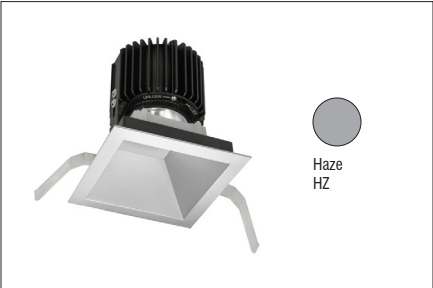
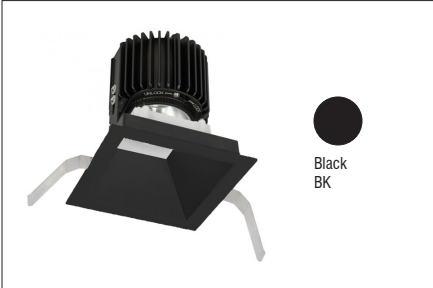
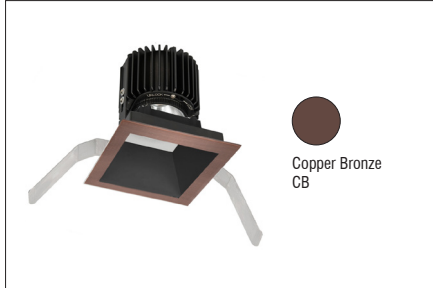
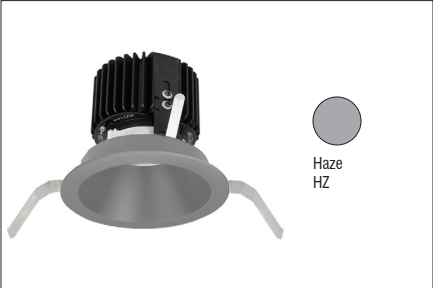
Note: Through compatible RDM tool, fixture channels can be reassigned to desired consecutive channels. Factory default is DMX channel 1 and 2.

VOLTA 4.5" TUNABLE WHITE DMX BYTE VALUE VS CCT					
TWA DMX BYTE VALUES AT FULL INTENSITY			TWB DMX BYTE VALUES AT FULL INTENSITY		
CCT (K)	CH 1: INTENSITY	CH 2: CCT	CCT (K)	CH 1: INTENSITY	CH 2: CCT
4000	255	255	6500	255	252
3900	255	250	6400	255	249
3800	255	240	6300	255	245
3700	255	230	6200	255	243
3600	255	219	6100	255	241
3500	255	207	6000	255	237
3400	255	196	5900	255	234
3300	255	186	5800	255	230
3200	255	176	5700	255	226
3100	255	163	5600	255	222
3000	255	153	5500	255	218
2900	255	140	5400	255	214
2800	255	130	5300	255	210
2700	255	117	5200	255	205
2600	255	105	5100	255	200
2500	255	92	5000	255	195
2400	255	79	4900	255	190
2300	255	66	4800	255	185
2200	255	51	4700	255	180
2100	255	38	4600	255	175
2000	255	23	4500	255	170
1900	255	10	4400	255	164
1800	255	0	4300	255	158
			4200	255	151
			4100	255	143
			4000	255	134
			3900	255	125
			3800	255	119
			3700	255	110
			3600	255	101
			3500	255	92
			3400	255	83
			3300	255	74
			3200	255	64
			3100	255	53
			3000	255	41
			2900	255	29
			2800	255	15
			2700	255	0

Volta
Tunable White - 4.5" Adjustable
R4RAT | R4RAL | R4SAT | R4SAL

Fixture Type: _____
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Catalog#: _____
Location: _____

TRIM AND HOUSING COLOR OPTIONS



ROUND TRIM

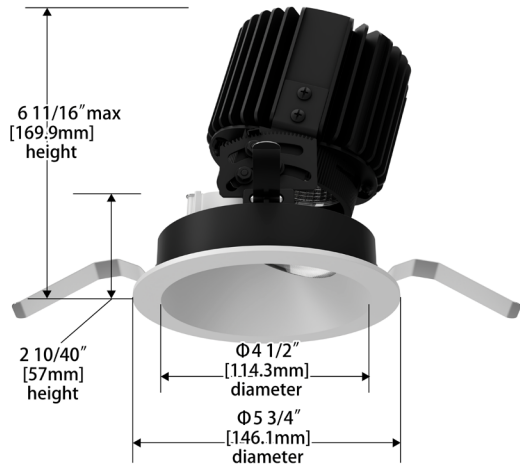
SQUARE TRIM

Volta
Tunable White - 4.5" Adjustable
R4RAT | R4RAL | R4SAT | R4SAL

Fixture Type: _____
Project: _____
Catalog#: _____
Location: _____

DIMENSIONAL DIAGRAMS

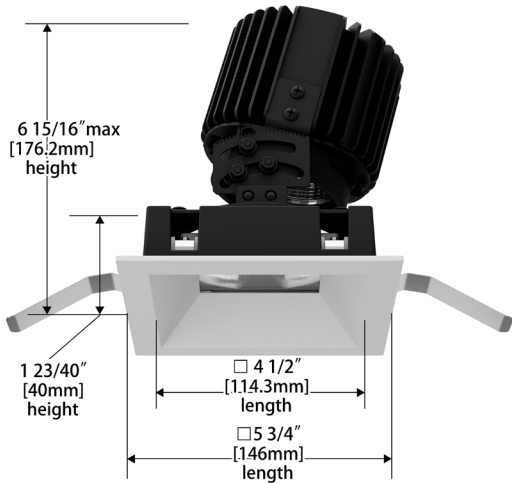
Round Trim (R4RAT)



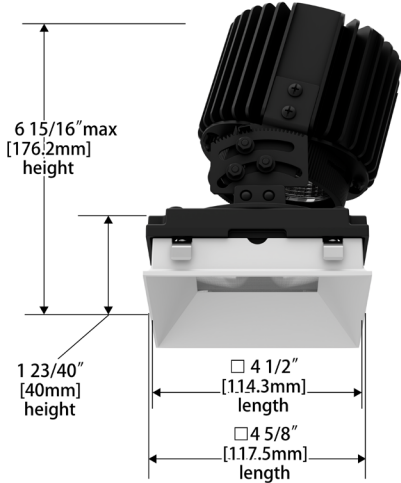
Round Trimless (R4RAL)



Square Trim (R4SAT)



Square Trimless (R4SAL)

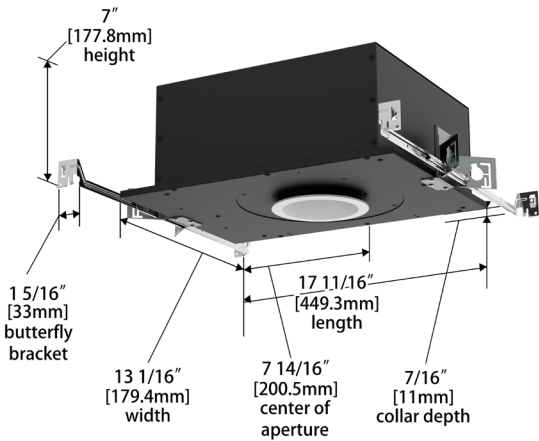


Volta
Tunable White - 4.5" Adjustable
R4RAT | R4RAL | R4SAT | R4SAL

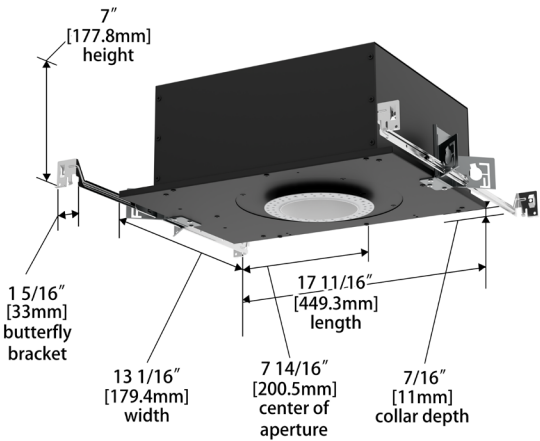
Fixture Type: _____
Project: _____
Catalog#: _____
Location: _____

DIMENSIONAL DIAGRAMS

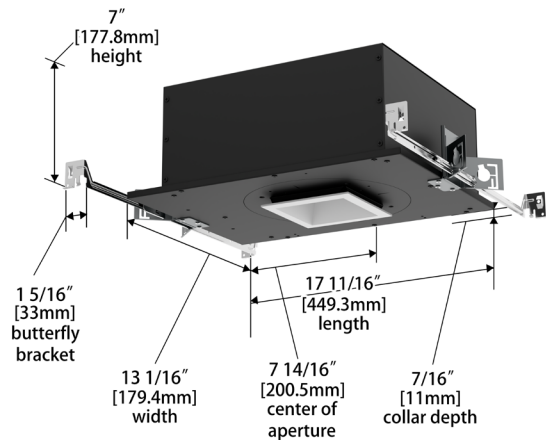
New Construction - Round Trim



New Construction - Round Trimless



New Construction - Square Trim



New Construction - Square Trimless

