

Volta

Tunable White - 4.5" Downlight

R4RD2T | R4RD2L | R4SD2T | R4SD2L

Fixture Type: _____

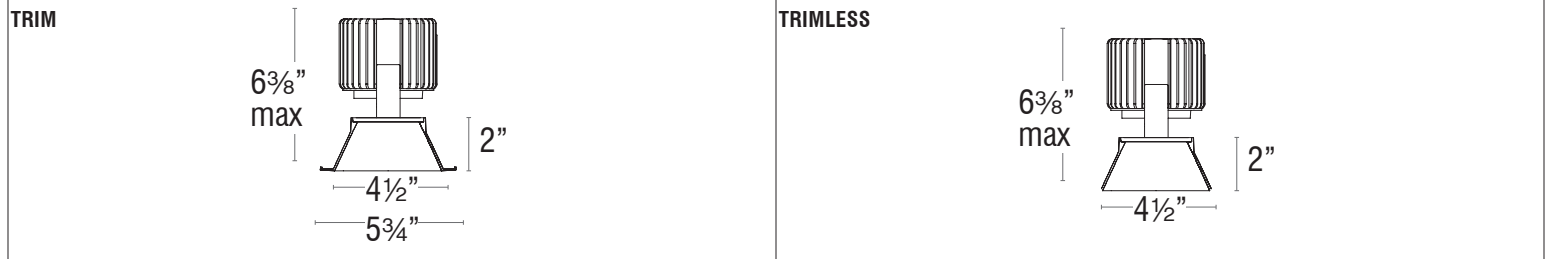
Project: _____

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. A built-in field selectable light engine height allows for a cut-off angle adjustment of 30-34°.

SPECIFICATIONS

Construction:	Durable die-cast self flanged aluminum construction
Mounting:	Heavy gauge retention clips support trim firmly Ceiling cut out (Round): Trim $\text{Ø } 5\frac{1}{8}"$ Trimless $\text{Ø } 5\frac{1}{8}"$ Ceiling cut out (Square): Trim $5\frac{1}{8}" \times 5\frac{1}{8}"$ Trimless $5\frac{1}{8}" \times 5\frac{1}{8}"$ Accommodates ceiling thickness of 1/2" - 1 1/2"
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 12,080 cd (Square Narrow Flood 25°, TWA 4000K, CRI 98)
Maximum Delivered Output:	Up to 3,622 lm (Square 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
R4RD2T Round Trim R4RD2L Round Trimless	N 25° Round	2295	6420	TWA 1800K-4000K	98
	Square	2445	6835		
	F 45° Round	2185	3600		
R4SD2T Square Trim R4SD2L Square Trimless	Square	2315	3805	TWB 2700K-6500K	98
	W 60° Round	2215	2460		
	Square	2345	2600		
R4SD2T Square Trim R4SD2L Square Trimless	N 25° Round	2520	6915	TWB 2700K-6500K	98
	Square	2680	7365		
	F 45° Round	2495	3990		
R4SD2T Square Trim R4SD2L Square Trimless	Square	2640	4220	TWB 2700K-6500K	98
	W 60° Round	2565	2730		
	Square	2714	2890		

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.

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ORDERING INFORMATION

CONFIGURATION TABLE				
Model & Power	Beam	Color Temperature & CRI	Reflector Finish	Trim Finish
R4RD2T	N: Narrow Flood - 25°	TWA - 1800K-4000K	BK - BLACK	WT - WHITE
R4SD2T	F: Flood - 45°	TWB - 2700K-6500K	CB - COPPER	
R4RD2L	W: Wide Flood - 60°		HZ - HAZE	
R4SD2L			WT - WHITE	

R4RD2T-___-___ Example: R4RD2T-NTWA-WT

HOUSINGS (Required)					
Model	Trim	Power	Rating	Driver	
New Construction Airtight	R4RN (Round)	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)	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)	L Trimless	15 20W Non-IC	T-X	DMX512-A
			25 29W Non-IC	T-Z	2CH 0-10V
			36 44W Non-IC		
	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 <i>Accessory Holder</i>	LENS-73-GRN <i>Green Lens</i>
LENS-73-HCM <i>Honeycomb Louver</i>	LENS-73-RED <i>Red Lens</i>
LENS-73-CRL <i>Cross Louver</i>	LENS-73-FR <i>Frosted Lens</i>
LENS-73-SNOOT <i>Snoot</i>	LENS-73-SPR <i>Spread Lens</i>
LENS-73-AMB <i>Amber Lens</i>	LENS-73-BEL <i>Beam Elongating Lens</i>
LENS-73-BLU <i>Blue Lens</i>	

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

INTERCHANGEABLE REFLECTORS	
REF-R4-N	<i>Narrow Flood Beam</i>
REF-R4-F	<i>Flood Beam</i>
REF-R4-W	<i>Wide Beam</i>

ORDERING NOTES
1. The "White" trim finish is only available with the reflector finishes "Black" and "Haze".
2. Trimless fixtures cannot be ordered with a trim finish.
3. The "Narrow Flood - 25°", "Flood - 45°", "Wide Flood - 60°" beam angles are available in 20W, 29W, and 44W.

wacarchitectural.com | WAC Architectural, a WAC Group brand.

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WAC Group retains the right to modify the design of our products at any time as part of the company's continuous improvement program.

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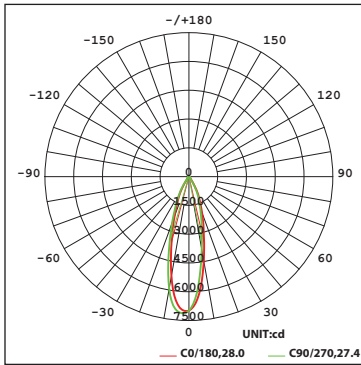
PERFORMANCE DATA

Polar Candela Distribution Charts

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

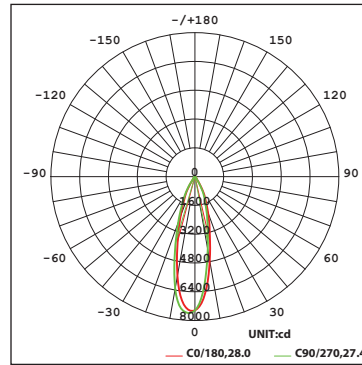
ROUND

Narrow Flood Beam: 25° Beam

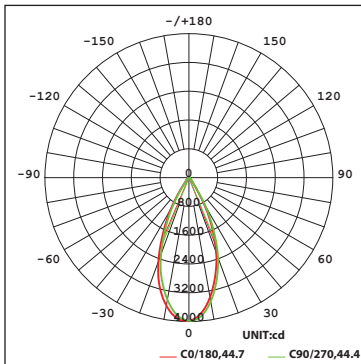


SQUARE

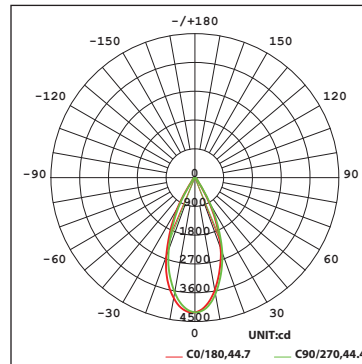
Narrow Flood Beam: 25° Beam



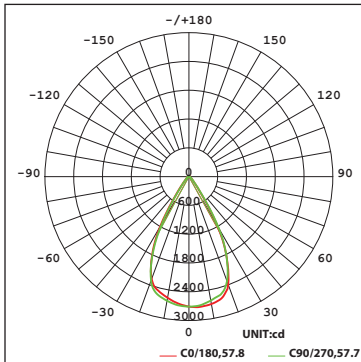
Flood Beam: 45° Beam



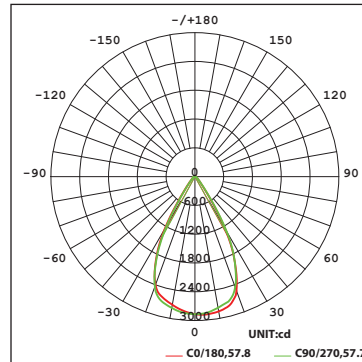
Flood Beam: 45° Beam



Wide Flood Beam: 60° Beam



Wide Flood Beam: 60° Beam



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PERFORMANCE DATA

Unified Glare Rating (UGR) Table

UGR values shown are calculated for a Round Trim fixture with a 44W Narrow Flood Beam (25°) optic at 4000K and 98 CRI. General performance of other beam angles shown below.

ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	7.5	8.3	7.7	8.5	8.7	8.1	9.0	8.4	9.2	9.4
3H	8.1	8.8	8.4	9.1	9.3	8.6	9.3	8.9	9.6	9.8
4H	8.4	9.2	8.8	9.4	9.7	8.8	9.5	9.1	9.8	10.0
6H	8.9	9.5	9.2	9.8	10.1	9.0	9.7	9.4	10.0	10.3
8H	9.1	9.7	9.4	10.0	10.3	9.2	9.8	9.5	10.1	10.4
12H	9.2	9.8	9.6	10.1	10.5	9.3	9.9	9.6	10.2	10.5
4H	2H	7.6	8.3	7.9	8.6	8.8	8.2	8.9	8.5	9.2
3H	8.4	9.0	8.8	9.3	9.7	8.8	9.4	9.1	9.7	10.0
4H	8.9	9.5	9.3	9.8	10.2	9.1	9.7	9.5	10.0	10.3
6H	9.5	10.0	9.9	10.4	10.8	9.4	9.9	9.8	10.3	10.7
8H	9.8	10.2	10.2	10.6	11.0	9.6	10.0	10.0	10.4	10.9
12H	10.0	10.4	10.4	10.8	11.3	9.7	10.1	10.2	10.6	11.0
8H	4H	9.0	9.4	9.4	9.8	10.3	9.1	9.6	9.6	10.0
6H	9.7	10.1	10.2	10.5	11.0	9.5	9.9	10.0	10.4	10.8
8H	10.0	10.4	10.5	10.8	11.3	9.7	10.1	10.2	10.5	11.0
12H	10.4	10.7	10.9	11.1	11.7	9.9	10.2	10.4	10.7	11.2
12H	4H	8.9	9.4	9.4	9.8	10.2	9.1	9.5	9.6	10.0
6H	9.7	10.0	10.2	10.5	11.0	9.5	9.9	10.0	10.3	10.8
8H	10.1	10.4	10.6	10.8	11.4	9.8	10.1	10.3	10.5	11.1

Round Fixture	Angle	UGR Range
Narrow Flood	25°	≤12
Flood	45°	≤12
Wide Flood	60°	≤13

Square Fixture	Angle	UGR Range
Narrow Flood	25°	≤12
Flood	45°	≤12
Wide Flood	60°	≤13

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

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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