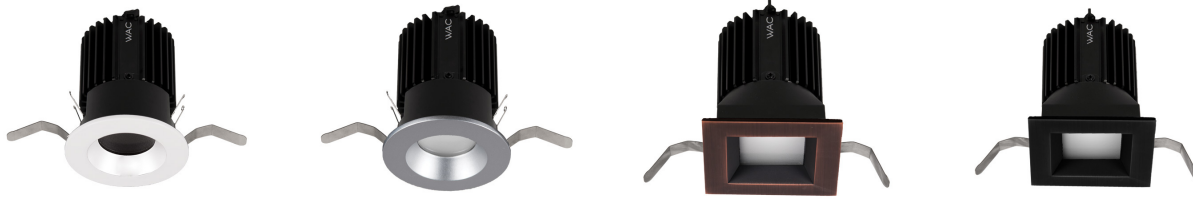


## Volta

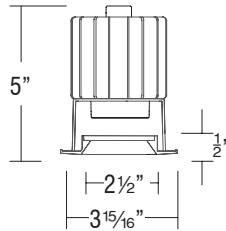
### Tunable White - 2" Shallow Regressed Downlight

R2RD1T | R2SD1T

Fixture Type: \_\_\_\_\_  
 Project: \_\_\_\_\_  
 Catalog#: \_\_\_\_\_  
 Location: \_\_\_\_\_



#### LINE DRAWING



#### PRODUCT DESCRIPTION

Volta 2" 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.

#### SPECIFICATIONS

<b>Construction:</b>	Durable die-cast self flanged aluminum construction
<b>Mounting:</b>	Heavy gauge retention clips support trim firmly Ceiling cut out (Round): Trim $\varnothing 3\frac{9}{16}"$ Invisible $\varnothing 4\frac{1}{4}"$ Ceiling cut out (Square): Trim $3\frac{9}{16}" \times 3\frac{9}{16}"$ Invisible $4\frac{1}{4}" \times 4\frac{1}{4}"$ Accommodates $\frac{1}{2}" - 1\frac{1}{2}"$ ceiling thickness
<b>Light Source:</b>	High output 3-step Mac Adam Ellipse COB Rated life of 50,000 hours at L70
<b>Input:</b>	Universal 120-277V AC, 50/60 Hz
<b>Dimming:</b>	2 Channel 0-10V: 100-0.1% 2 Channel DMX512-A with RDM: 100-0.1% linear dimming. Channels for intensity and CCT tuning.
<b>Maximum Delivered Intensity:</b>	Up to 4,066 cd (Square Narrow Flood 25°, TWB 5000K, CRI 98)
<b>Maximum Delivered Output:</b>	Up to 1,288 lm (Square Flood 35°, TWA 4000K, CRI 98)
<b>Standards:</b>	ETL & cETL Wet location listed
<b>Warranty:</b>	5 year WAC Lighting guaranteed warranty

#### BEAM ANGLES



#### FINISHES



Model	Beam	Lumens	CBCP	Color Temp	CRI
		Ref Output*			
R2RD1T Round R2SD1T Square	N 25°	Round	815	2345	TWA 1800K-4000K 98
		Square	950	2730	
	F 35°	Round	800	1740	
		Square	1085	2365	
	W 45°	Round	630	1050	
		Square	745	1240	
R2RD1T Round R2SD1T Square	N 25°	Round	755	3115	TWB 2700K-6500K 98
		Square	880	3630	
	F 35°	Round	845	2280	
		Square	1150	3105	
	W 45°	Round	680	1270	
		Square	805	1500	

Lumens and CBCP are reference values for 3000K Color Temperature and 85 CRI with 22 housing. Refer to Multiplier Table in Performance Data to determine other outputs.

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WAC GROUP

## Volta

### Tunable White - 2" Shallow Regressed Downlight

R2RD1T | R2SD1T

Fixture Type: \_\_\_\_\_

Project: \_\_\_\_\_

Catalog#: \_\_\_\_\_

Location: \_\_\_\_\_

## ORDERING INFORMATION

### CONFIGURATION TABLE

Model & Power	Beam	Color Temperature & CRI	Reflector Finish	Trim Finish
R2RD1T	N - 25°	TWA - 1800K-4000K	BK - BLACK	WT - WHITE
R2SD1T	F - 35°	TWB - 2700K-6500K	CB - COPPER	
	W - 45°		HZ - HAZE	
			WT - WHITE	

**R2RD1T-\_\_\_\_-\_\_**

Example: R2RD1T-NTWA-WT

### HOUSINGS (Required)

Model	Trim	Power	Driver
New Construction Airtight - Round R2RN	<b>T</b> <i>Trim</i>	<b>15</b> 15W IC	<b>T-X</b> DMX512-A
	<b>L</b> <i>Invisible Trim</i>	<b>22</b> 22W Non-IC	<b>T-Z</b> 2CH 0-10V
New Construction Airtight - Square R2SN	<b>T</b> <i>Trim</i>	<b>15</b> 15W IC	<b>T-X</b> DMX512-A
	<b>L</b> <i>Invisible Trim</i>	<b>22</b> 22W Non-IC	<b>T-Z</b> 2CH 0-10V
Remodel Non-IC Round & Square R2BR	<b>T</b> <i>Trim</i>	<b>15</b> 15W IC	<b>T-X</b> DMX512-A
		<b>22</b> 22W IC	<b>T-Z</b> 2CH 0-10V
Remodel Non-IC Round R2RR	<b>L</b> <i>Invisible Trim</i>	<b>15</b> 15W IC	<b>T-X</b> DMX512-A
		<b>22</b> 22W IC	<b>T-Z</b> 2CH 0-10V
Remodel Non-IC Square R2SR	<b>L</b> <i>Invisible Trim</i>	<b>15</b> 15W Non-IC	<b>T-X</b> DMX512-A
		<b>22</b> 22W Non-IC	<b>T-Z</b> 2CH 0-10V

### ACCESSORIES

LENS-16-HLD	<i>Accessory Holder</i>	LENS-16RED	<i>Red Lens</i>
LENS-16HCM	<i>Honeycomb Louver</i>	LENS-16FR	<i>Frosted Lens</i>
LENS-16CRL	<i>Cross Louver</i>	LENS-16SPR	<i>Spread Lens</i>
LENS-16AMB	<i>Amber Lens</i>	LENS-16BEL	<i>Beam Elongating Lens</i>
LENS-16BLU	<i>Blue Lens</i>		
LENS-16GRN	<i>Green Lens</i>		

### CEILING ADAPTERS

R2R-ADP1	<i>Round - ½" to 1" ceiling thickness</i>
R2R-ADP2	<i>Round - 1" to 1½" ceiling thickness</i>
R2S-ADP1	<i>Square - ½" to 1" ceiling thickness</i>
R2S-ADP2	<i>Square - 1" to 1½" ceiling thickness</i>

### INTERCHANGEABLE REFLECTORS

REF-R2-N	<i>Narrow Flood Beam</i>
REF-R2-F	<i>Flood Beam</i>
REF-R2-W	<i>Wide Beam</i>

### ORDERING NOTES

- The "White" trim finish is only available with the reflector finishes "Black" and "Haze".
- The "Narrow Flood - 25°", "Flood - 35°", and "Wide Flood - 45°" beam angles are available in 15W and 22W.

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WAC GROUP

## Volta

### Tunable White - 2" Shallow Regressed Downlight

R2RD1T | R2SD1T

Fixture Type: \_\_\_\_\_

Project: \_\_\_\_\_

Catalog#: \_\_\_\_\_

Location: \_\_\_\_\_

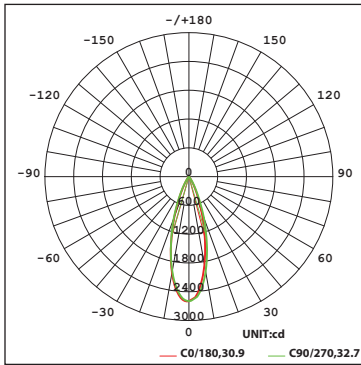
#### PERFORMANCE DATA

#### Polar Candela Distribution Charts

Samples shown with a 22W fixture set to 4000K and 98 CRI.

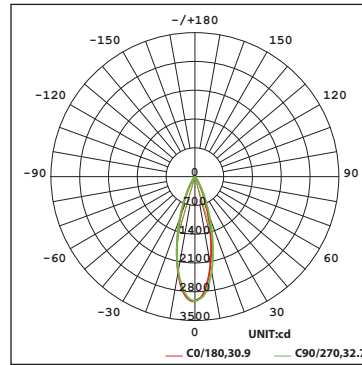
#### ROUND

##### Narrow Flood Beam: 25° Beam

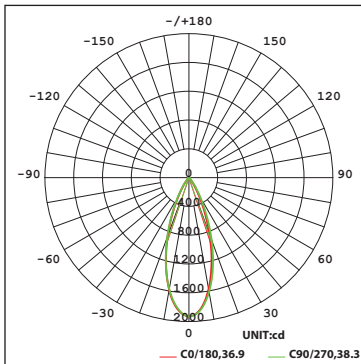


#### SQUARE

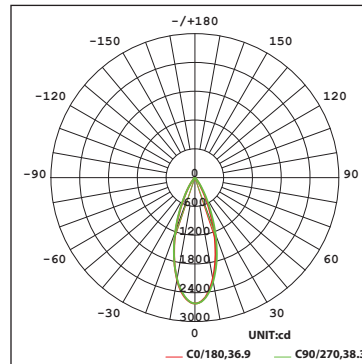
##### Narrow Flood Beam: 25° Beam



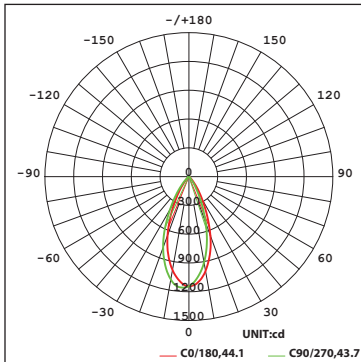
##### Flood Beam: 35° Beam



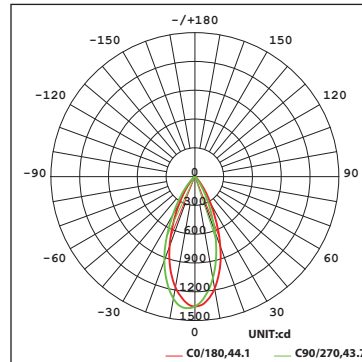
##### Flood Beam: 35° Beam



##### Wide Flood Beam: 45° Beam



##### Wide Flood Beam: 45° Beam



## Volta

### Tunable White - 2" Shallow Regressed Downlight

R2RD1T | R2SD1T

Fixture Type: \_\_\_\_\_

Project: \_\_\_\_\_

Catalog#: \_\_\_\_\_

Location: \_\_\_\_\_

### PERFORMANCE DATA

#### Unified Glare Rating (UGR) Table

UGR values shown are calculated for a Round Trim fixture with a 22W 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					
<b>x = 2H y = 2H</b>	5.0	5.8	5.2	5.9	6.1	5.6	6.3	5.8	6.5	6.6	
3H	5.1	5.8	5.3	6.0	6.2	5.6	6.3	5.8	6.4	6.6	
4H	5.1	5.7	5.3	6.0	6.2	5.5	6.2	5.8	6.4	6.6	
6H	5.0	5.6	5.3	5.9	6.1	5.5	6.1	5.8	6.3	6.6	
8H	5.0	5.6	5.3	5.8	6.1	5.4	6.0	5.7	6.3	6.6	
12H	4.9	5.5	5.3	5.8	6.1	5.4	6.0	5.7	6.2	6.5	
<b>4H</b>	2H	4.9	5.6	5.2	5.8	6.0	5.4	6.1	5.7	6.3	6.5
3H	5.0	5.6	5.3	5.9	6.1	5.5	6.1	5.8	6.3	6.6	
4H	5.1	5.6	5.4	5.9	6.2	5.5	6.0	5.8	6.3	6.6	
6H	5.0	5.5	5.4	5.8	6.2	5.4	5.9	5.8	6.2	6.6	
8H	5.0	5.4	5.4	5.8	6.1	5.4	5.8	5.8	6.2	6.6	
12H	4.9	5.3	5.3	5.7	6.1	5.4	5.8	5.8	6.1	6.5	
<b>8H</b>	4H	5.0	5.4	5.4	5.8	6.1	5.4	5.8	5.8	6.2	6.5
6H	4.9	5.3	5.4	5.7	6.1	5.3	5.7	5.8	6.1	6.5	
8H	4.9	5.2	5.3	5.6	6.1	5.3	5.6	5.8	6.0	6.5	
12H	4.9	5.1	5.3	5.6	6.0	5.3	5.5	5.7	6.0	6.5	
<b>12H</b>	4H	4.9	5.3	5.3	5.7	6.1	5.3	5.7	5.8	6.1	6.5
6H	4.9	5.2	5.3	5.6	6.1	5.3	5.6	5.7	6.0	6.5	
8H	4.8	5.1	5.3	5.6	6.0	5.3	5.5	5.7	6.0	6.4	

Round Fixture	Angle	UGR Range
Narrow Flood	25°	≤7
Flood	35°	≤9
Wide Flood	45°	≤13

Square Fixture	Angle	UGR Range
Narrow Flood	25°	≤7
Flood	35°	≤10
Wide 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
	22 (22W)	0.68	0.82	0.94	1.00	1.07	1.11
15 (15W)	0.46	0.56	0.64	0.68	0.73	0.75	
TWB (2700K - 6500K)	Housing Power Level	2700K	3000K	3500K	4000K	5000K	6500K
	22 (22W)	0.96	1.00	1.06	1.09	1.12	1.11
	15 (15W)	0.65	0.68	0.72	0.74	0.76	0.75

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# Volta

## Tunable White - 2" Shallow Regressed Downlight

R2RD1T | R2SD1T

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 2" TUNABLE WHITE DMX BYTE VALUE VS CCT

##### TWA DMX BYTE VALUES AT FULL INTENSITY

CCT (K)	CH 1: INTENSITY	CH 2: CCT
4000	255	255
3900	255	253
3800	255	247
3700	255	241
3600	255	233
3500	255	225
3400	255	219
3300	255	210
3200	255	202
3100	255	193
3000	255	185
2900	255	176
2800	255	166
2700	255	154
2600	255	141
2500	255	126
2400	255	109
2300	255	82
2200	255	79
2100	255	64
2000	255	46
1900	255	26
1800	255	0

##### TWB DMX BYTE VALUES AT FULL INTENSITY

CCT (K)	CH 1: INTENSITY	CH 2: CCT
6500	255	252
6400	255	249
6300	255	245
6200	255	241
6100	255	238
6000	255	232
5900	255	229
5800	255	228
5700	255	222
5600	255	217
5500	255	212
5400	255	208
5300	255	204
5200	255	199
5100	255	194
5000	255	190
4900	255	185
4800	255	179
4700	255	173
4600	255	168
4500	255	160
4400	255	152
4300	255	144
4200	255	138
4100	255	131
4000	255	123
3900	255	115
3800	255	107
3700	255	98
3600	255	89
3500	255	80
3400	255	71
3300	255	62
3200	255	51
3100	255	41
3000	255	30
2900	255	16
2800	255	4
2700	255	0