

# Atmosphere Pro 4.5"

Trimless Housing



## SPECIFICATIONS

**Construction:** 20 Gauge cold rolled steel  
Diecast spackle flange included

**Input:** Universal 120 - 277V AC 50/60 Hz

**Dimming:** 2 Channel 0-10V: 100-0.1%;  
2 Channel DMX 512 RDM: 100-0.1%  
Linear dimming, 1st input channel intensity changing, 2nd input channel is CCT changing.

**Mounting:** New construction housings included with universal mounting brackets and hanger bars (Min. 14 1/2" & Max. 24 1/2")  
Ceiling cut out (Round): Ø 5 1/8"  
Ceiling cut out (Square): 5 1/8" x 5 1/8"  
New Construction Ceiling Thickness: See Chart  
Below remodel ceiling thickness: 1/2-1"

Fixture Type:

Catalog Number:

Project:

Location:

Standards: ETL & cETL

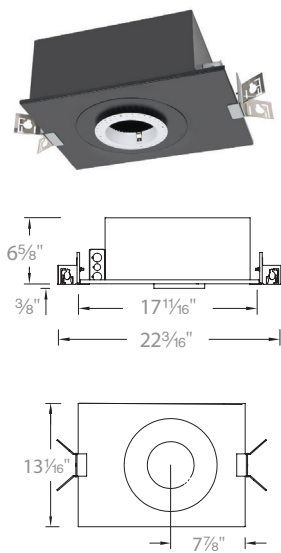
Warranty: 8 year product warranty

## HOUSINGS

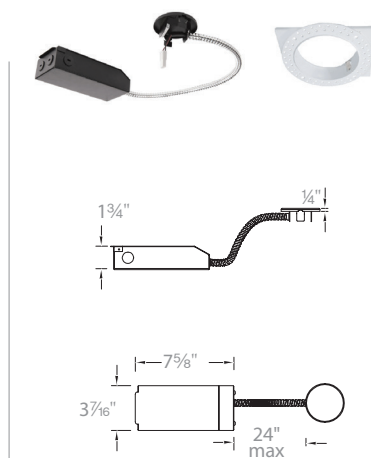
Model	Power	Rating	Driver
New Construction <b>A1RB-247</b> Round	<b>1</b> 20W <b>2</b> 29W <b>3</b> 44W	IC Airtight IC Airtight Non IC Airtight	<b>CT-X</b> DMX <b>CT-Z</b> 0-10V
New Construction <b>A1RB-257</b> Square			
Remodel <b>A1RB-347</b> Round <b>A1RB-357</b> Square	<b>1</b> 20W <b>2</b> 29W <b>3</b> 44W	Non-IC Non-IC Non-IC	

Example: **A1RB-3663-CT-X**

## LINE DRAWINGS



New Construction



Remodel

New Construction Chart		Ceiling Thickness		
Trim Model	Trim Description	1/2"	1"	1 1/2"
<b>A1RB-D</b>	Downlight	Yes	Yes	Yes
<b>A1RB-S</b>	Shallow Regressed Downlight	Yes	Yes	Yes
<b>A1RB-A</b>	Adjustable	Yes, to 45°	Yes, to 45°	Yes, to 35°
<b>A1RB-W</b>	Wall Wash	Yes	Yes	No

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## Natural Tunable White -DMX Tuning Chart



### Natural White CCT Tuning:

The CCT of an Atmosphere fixture may be adjusted.

Using the DMX byte values in the adjacent table mapped to CH1 and CH2 of the desired output, the Atmosphere fixture may be tuned in increments of 100K (Kelvin) from 2700K to 6500K for C1 and 1800K to 4000K for C2, 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.

### ATMOSPHERE Pro 4.5" DMX Value vs CCT

C1 DMX Byte Values at Full Intensity			C2 DMX Byte Values at Full Intensity		
CCT (K)	CH 1: Intensity	CH 2: CCT	CCT (K)	CH 1: Intensity	CH 2: CCT
6500	255	252	4000	255	255
6400	255	249	3900	255	253
6300	255	245	3800	255	247
6200	255	241	3700	255	241
6100	255	238	3600	255	233
6000	255	232	3500	255	225
5900	255	229	3400	255	219
5800	255	228	3300	255	210
5700	255	222	3200	255	202
5600	255	217	3100	255	193
5500	255	212	3000	255	185
5400	255	208	2900	255	176
5300	255	204	2800	255	166
5200	255	199	2700	255	154
5100	255	194	2600	255	141
5000	255	190	2500	255	126
4900	255	185	2400	255	109
4800	255	179	2300	255	82
4700	255	173	2200	255	79
4600	255	168	2100	255	64
4500	255	160	2000	255	46
4400	255	152	1900	255	26
4300	255	144	1800	255	0
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			

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## What is Human Centric Lighting (HCL)

- Throughout evolution, the human visual system has evolved under the natural light of sun and fire.
- Human--centric lighting by definition encompasses the effects of lighting on the physical and emotional -being of people.
- As part of the HCL initiative, there is a drive to develop "natural" sources of lighting. The human species has been conditioned to function in daylight hours by the light of the sun, and after dusk, of the warm glow of fire. Thus, we define natural light sources as those which match the spectral distribution of sunlight and firelight.

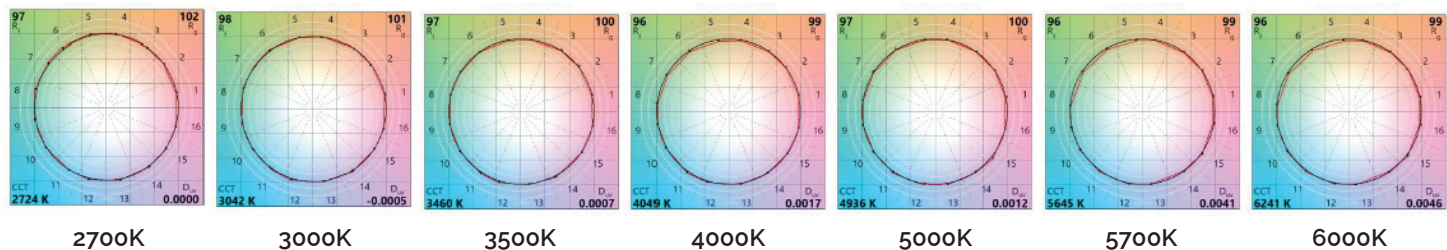
## Human Centric Light Spectrum

FEATURES	BENEFITS
Spectrum engineered to closely emulate natural light with reduced short blue wavelength intensity	Full, consistent light spectrum with fewer spectral spikes, the closest match to natural light available
Natural and vivid color rendering	Typical 97 CRI with R1-R15 values ranging from 91 to 99 Excellent TM-30 metrics; Rf ranging from 94-97 and Rg from 98-104
High efficacy human-centric spectra	Greater energy savings, lower utility and environment costs
Affordable spectra optimized for humans	Accelerate adoption of full spectrum natural lighting

## Excellent Color Rendering and TM-30 Metrics

CCT	Rf	Rg	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
2700K	95	103	97	99	94	94	97	98	97	98	99	97	91	98	98	95	98
3000K	95	104	98	99	93	94	97	98	96	96	97	96	92	95	98	95	97
3500K	95	98	98	98	97	98	98	98	98	97	93	97	97	95	98	97	98
4000K	97	100	99	99	97	99	99	99	99	98	94	97	99	96	99	98	98
5000K	97	100	98	99	98	98	98	98	99	96	95	98	98	98	98	98	97
5700K	94	98	98	98	97	95	98	97	96	95	92	97	96	98	98	98	97
6000K	95	98	98	98	97	96	98	98	96	96	93	97	96	98	98	98	97

Note: Typical 85C hot values shown, slight differences may exist

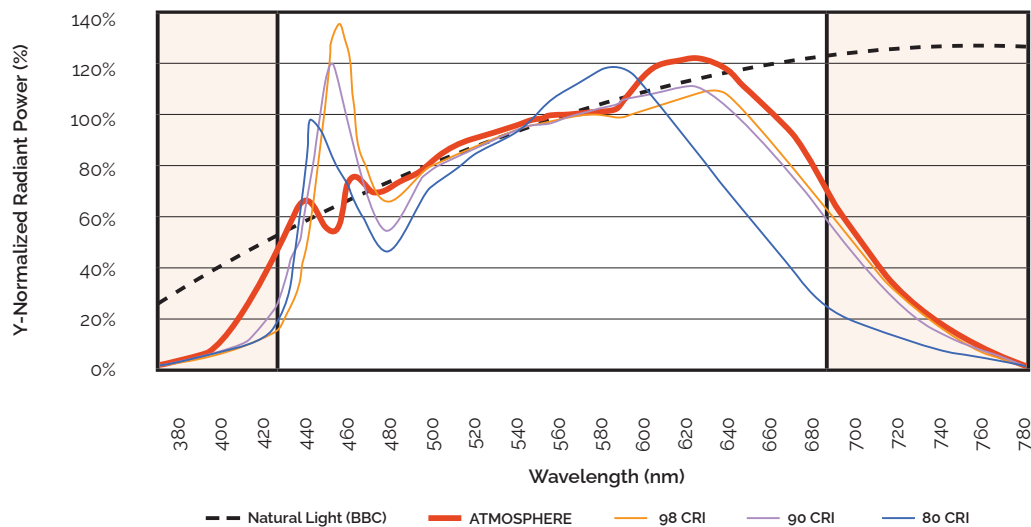




## Spectral Matching to Natural Light

- As close of a spectral match as possible to natural light
- Standard LED light sources spectral distribution (SPD) have larger deviations from the Blackbody Curve (BBC)
- ATMOSPHERE significantly reduces the blue spike and cyan valley to deliver a closer match to natural light

**4000K Spectral Comparison BBC vs LED**



*SPD's of LED light sources at 4000K against the blackbody curve.*

These examples deviate from the natural light that humans have evolved under for millions of years. It is recommended to work within the realm of natural light to avoid tweaking circadian rhythms until the effects on humans are understood.