ATMOSPHERE RPS 3.5IN *Downlight Trim*

A2RD-D46, A2RD-D56

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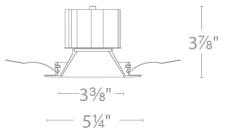

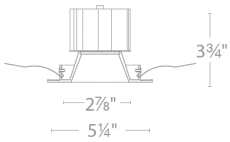

Fixture Type:

Catalog Number:

Project:

Location:

FINISHES

Haze/ White

White

Black/ White

Model	*Power*	*Max Combined Drive Current* [1]	*Max # of Fixtures*	*Beam*		*Lumens Ref Output**	*CBCP Ref Output**	*Color Temp*		*CRI*	*Finish (Interior/Flange)*
A2RD-D46 (Round)	13W	350mA	1 per 2 Channel	**N**	22°	575	2125	**C1**	2700K-6500K	98	**HZWT** Haze/White **WT** White **BKWT** Black/White
				F	45°	610	1210				
A2RD-D56 (Square)				**N**	22°	555	2125				
				F	45°	595	1225				
A2RD-D46 (Round)	13W	350mA	1 per 2 Channel	**N**	22°	575	2085	**C2**	1800K-4000K	98	
				F	45°	605	1190				
A2RD-D56 (Square)				**N**	22°	565	2155				
				F	45°	600	1245				

Example: **A2RD-D46N-C1WT**

[1]Maximum Combined Drive Current is the sum of the drive currents on both channels.
If 350mA is applied to one channel, no current may be applied to the other channel.
If 150mA is applied to one channel, then 200mA max may be applied to the other channel.

*Reference output represents delivered photometrics at 3000K. Use multiplier table below to determine the output for other combinations.

Lumen & CBCP Multiplier	COLOR TEMPERATURE					
C1 (2700K-6500K)	2700K	3000K	3500K	4000K	5000K	6500K
	0.96	1.00	1.06	1.09	1.12	1.11
C2 (1800K-4000K)	1800K	2200K	2700K	3000K	3500K	4000K
	0.68	0.82	0.94	1.00	1.07	1.11

DESCRIPTION

Atmosphere RPS 3.5" Downlight packages innovation in a compact form factor. Its shallow housing is designed to fit in tight plenum spaces without sacrificing lumen output.

FEATURES

- Natural and vivid precision LED CCT Tuning
- AISPIRE remote power supply (RPS) required, sold separately
- Designed to fit in tight plenum
- Wet location listed for trims
- 3.5" trim aperture, 3.5" housing height
- 35° cut-off angle
- Dimmable via AISPIRE RPS units, refer to RPS specification for compatibility
- 8 year product warranty

SPECIFICATIONS

Construction:	Die-cast aluminum trim with extruded aluminum heat sink
Input:	36VDC Class 2 Low Voltage, DC Power Supply. See Fixture Configuration table above.
Dimming:	Refer to RPS specification for protocol and compatibility
Remote Power Supply (RPS):	**A2D20-BK, A2D40-BK.** Reference compatible RPS specifications for further requirements
Mounting:	Retention clips firmly hold trim to housing.
Ceiling thickness:	1/2" - 1 1/2" (A2RD-268-CT) 1/2" - 1" (A2RD-466-CT)
Finish:	Powder coated white and black, white, enamel coated haze
Standards:	UL & cUL wet location listed

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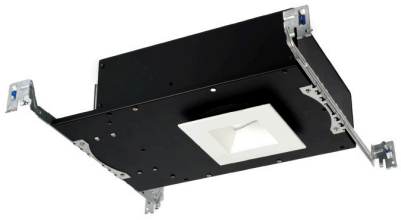
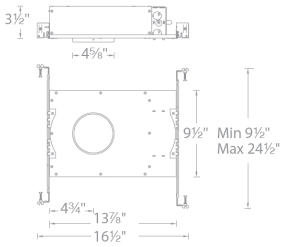
ATMOSPHERE RPS 3.5IN *Housing*

A2RD-268-CT, A2RD-446-CT



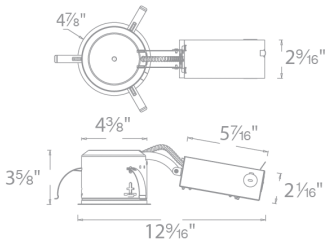
Shown with open square white trim



Model

A2RD-268-CT	New Construction, IC-rated, Airtight

Example: **A2RD-268-CT**



Model

A2RD-446-CT	Remodel, Non IC-rated, Airtight

Example: **A2RD-446-CT**

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AiSPiRE® Remote Power Supply (RPS)

A2D *LED DMX Power Unit*

Model	*# of channels*	*Finish*
A2D20 *2 x 75W Class 2 output DMX LED power unit* **A2D40** *4 x 75W Class 2 output DMX LED power unit*	4 8	**BK** Black

Example: **A2D20-BK**

FINISHES

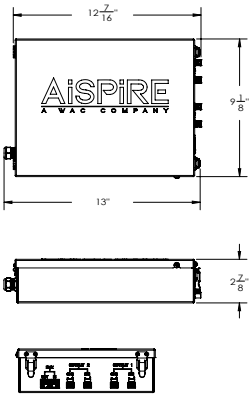
Black

FEATURES

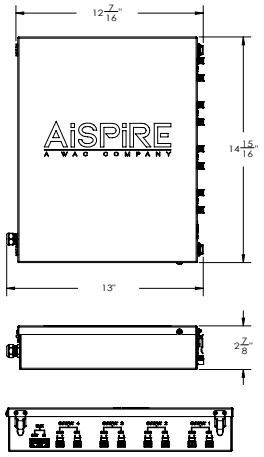
- 75W Max. Output Power (Per DMX Power Unit)
- 250mA-1500mA output current selection
- Class 2 power supply
- Built-in DMX512 interface
- IP20 rating
- UL Damp loctation listed

LINE DRAWING

A2D20 - 4 Channel



A2D40- 8 Channel



Fixture Type:

Catalog Number:

Project:

Location:

*** See RPS spec sheet for wiring diagram details**

INPUT

Voltage Range:	120VAC
Frequency Range:	50/60Hz
Power Factor:	0.99 @100VAC
THD:	<15% @full load
Current:	0.9A @100VAC
Standby Power Consumption:	<0.5w

OUTPUT

LED Channels:	APD20-BK: 4 Channels APD40-BK: 8 Channels
Selectable Current:	250mA, 300mA, 350mA, 400mA, 450mA, 500mA, 600mA, 700mA, 800mA, 900mA, 1A, 1.1A, 1.2A, 1.3A, 1.4A, 1.5A
DC Voltage Range:	6-48VDC
Current Tolerance:	± 3%
Rated Power:	72W per channel 75W max (per 2-channel output)

CONTROL

Control Protocol:	DMX 512-A, DMX 512
Diming Range:	0%-100%
Control Input:	DMX RJ45
Dimming Curve:	Linear/Logarithm (Selectable)

PROTECTION

Short Circuit, Voltage, Over Temp:	Recovers automatically after fault condition is removed

ENVIRONMENT

Ambient Operating Temp:	-4˚F - 113˚C (-20˚F - 45˚C)

SAFETY & EMC

- Safety Standard: UL, Damp Location
- EMC Emission: FCC Part 15 Class B
- Surge Immunity: Line-Line 1 kV

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ATMOSPHERE RPS

Natural Tunable White - DMX Tuning Chart

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Natural White CCT Tuning:

The CCT of an Atmosphere RPS fixture may be adjusted, when installed to 2 Channels on any output of the AISPIRE Remote Power Supply.

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

CAUTION:

For Atmosphere RPS systems, control channel inputs and resulting channel outputs are critical to not overdriving fixtures.

It is critical to follow fixture specifications for Maximum Combined Drive Current which is the sum of the drive currents on both channels.

Example:

Reference fixture specification sheet for specific maximum current ratings.
When 350mA is the rated Maximum Combined Drive Current of the fixture:

- If 350mA (DMX byte value: 255) is applied to one channel, no current (DMX byte value: 0) may be applied to the other channel.
- If 150mA (DMX byte value: 107) is applied to one channel, then 200mA current (DMX byte value: 148) maximum may be applied to the other channel.

† Byte values generated with RPS at default settings.

C1 DMX Byte Values† at Full Intensity

CCT (K)	CH1: 2700K	CH2: 6500K
6500	0	255
6400	6	249
6300	10	245
6200	14	241
6100	19	236
6000	24	231
5900	29	226
5800	34	221
5700	39	216
5600	45	210
5500	50	205
5400	55	200
5300	60	195
5200	66	189
5100	71	184
5000	77	178
4900	83	172
4800	89	166
4700	95	160
4600	101	154
4500	107	148
4400	113	142
4300	119	136
4200	126	129
4100	133	122
4000	140	115
3900	147	108
3800	154	101
3700	161	94
3600	168	87
3500	177	78
3400	186	69
3300	195	60
3200	204	51
3100	215	40
3000	227	28
2900	243	12
2800	254	1
2700	255	0

C2 DMX Byte Values† at Full Intensity

CCT (K)	CH1: 1800K	CH2: 4000K
4000	0	255
3900	3	252
3800	15	240
3700	27	228
3600	41	214
3500	53	202
3400	62	193
3300	70	185
3200	80	175
3100	90	165
3000	100	155
2900	110	145
2800	120	135
2700	132	123
2600	144	111
2500	155	100
2400	166	89
2300	178	77
2200	190	65
2100	204	51
2000	218	37
1900	230	25
1800	255	0

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ATMOSPHERE

Natural Tunable White

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Spectral Matching to Natural Light

- ATMOSPHERE technology delivers optimized spectral syncing to natural light in a tunable white solution
- ATMOSPHERE maximizes the emotional elements of light and color to deliver a first class human experience
- ATMOSPHERE significantly reduces the blue spike and cyan valley to deliver a closer match to natural light

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 distribuition 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 98 CRI. Excellent TM-30 metrics; Skin tones and artwork render impeccably
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

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