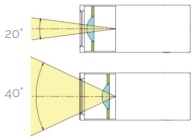
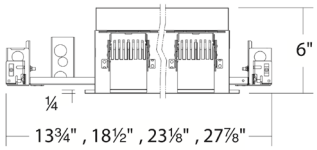
Atmosphere RPS Multiples

A2RG *Trimmed*

AiSPiRE
A WAC COMPANY



Adjustable between 20° - 40°



Fixture Type:

Catalog Number:

Project:

Location:

DESCRIPTION

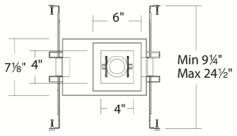
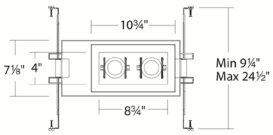
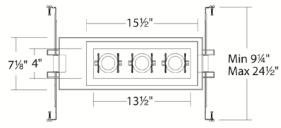
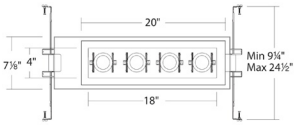
Retractable, adjustable spot lights

FEATURES

- Natural and Vivid Precision LED CCT Tuning
- ASPIRE remote power supply (RPS) compatible, sold seperately
- Continuously adjustable beam angle between 20˚ and 40˚
- 365˚ horizontal rotation and 180˚ vertical aiming
- Independently adjustable and retractable heads
- Accommodates one lens and glare control accessory
- 5 year WAC Lighting warranty

SPECIFICATIONS

Construction:	Die-cast aluminum trim and heat sink
Input Power:	36V Class 2 Low Voltage, DC Power See Fixture Configuration table below.
Remote Power Supplies (RPS):	**A2D20-BK· A2D40-BK**. Reference compatible RPS specifications for further requirements
Dimming:	Refer to RPS specifications for protocol and compatibility
Light Source:	High output COB LED rated life of 50,000 hours.
Finish:	Electrostatically Powder coated black and white
Ceiling Thickness:	½" - 1"
Standards:	UL & cUL Damp location listed, Airtight, Title 24 JA8-2019 Compliant
Operating Temp:	-4˚F to 10˚F (20˚C to 40˚C)

Model	Power per head		Max Current per head ǂ	Rating		Heads	Color Temp		CRI	Beam	Lumens *Ref. Output	CBCP *Ref. Output	Finish (Trim/Interior)
A2RG	**256** **156**	*8.5W* *12.5W*	*250mA* *350mA*	*IC* *Non IC*		**1D**	**C1**	*2700K-6500K*	*98*	*20°* *40°*	*390* *620*	*1550* *1055*	**WTWT** *White/White* **WTBK** *White/Black* **BKBK** *Black/Black*
							C2	*1800K-4000K*	*98*	*20°* *40°*	*345* *550*	*1290* *1150*	
A2RG	**256** **156**	*8.5W* *12.5W*	*250mA* *350mA*	*IC* *Non IC*		**2D**	**C1**	*2700K-6500K*	*98*	*20°* *40°*	*390 x2* *620 x2*	*1550x2* *1055x2*	**WTWT** *White/White* **WTBK** *White/Black* **BKBK** *Black/Black*
							C2	*1800K-4000K*	*98*	*20°* *40°*	*345 x2* *550 x2*	*1290 x2* *1150 x2*	
A2RG	**256** **156**	*8.5W* *12.5W*	*250mA* *350mA*	*IC* *Non IC*		**3D**	**C1**	*2700K-6500K*	*98*	*20°* *40°*	*390 x3* *620 x3*	*1550 x3* *1055 x3*	**WTWT** *White/White* **WTBK** *White/Black* **BKBK** *Black/Black*
							C2	*1800K-4000K*	*98*	*20°* *40°*	*345 x3* *550 x3*	*1290 x3* *1150 x3*	
A2RG	**256** **156**	*8.5W* *12.5W*	*250mA* *350mA*	*IC* *Non IC*		**4D**	**C1**	*2700K-6500K*	*98*	*20°* *40°*	*390 x4* *620 x4*	*1550 x4* *1055 x4*	**WTWT** *White/White* **WTBK** *White/Black* **BKBK** *Black/Black*
							C2	*1800K-4000K*	*98*	*20°* *40°*	*345 x4* *550 x4*	*1290 x4* *1150 x4*	

Example: **A2RG-1561D-C1WTWT**

*Reference output is 3000K at **1** (12.5W). Reference photometric performance on next page for other combinations.

ǂ Two channels per head required for CCT tuning. Max current per head is the sum of the drive currents on both channels.
Non-IC Example: If 350mA is applied to one channel, no current may be applied to the other channel.
If 200mA is applied to one channel, then 150mA maximum may be applied to the other channel.

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Atmosphere RPS Multiples

A2RG *Trimmed*

PHOTOMETRIC PERFORMANCE (PER HEAD):

8.5W

Model	Power	Color Temp		CRI	Beam	Lumens	CBCP
A2RG-25	*8.5W*	**C1**	*2700-6500K*	*98*	*20°* *40°*	*295* *460*	*1165* *785*
		C2	*1800K-4000K*	*98*	*20°* *40°*	*260* *410*	*975* *865*

12.5W

Model	Power	Color Temp		CRI	Beam	Lumens	CBCP
A2RG-15	*12.5W*	**C1**	*2700-6500K*	*98*	*20°* *40°*	*390* *620*	*1550* *1055*
		C2	*1800K-4000K*	*98*	*20°* *40°*	*345* *550*	*1290* *1150*

Reference output represents delivered photometrics at 3000K. Use multiplier 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

ACCOMMODATES ONE LENS ACCESSORY AND ONE GLARE CONTROL ACCESSORY

FLAT LENS

Amber	**LENS-16-AMB**
Blue	**LENS-16-BLU**
Green	**LENS-16-GRN**
Red	**LENS-16-RED**

FLAT LENS

Frosted	**LENS-16-FR**
Spread	**LENS-16-SPR**
Beam Elongating	**LENS-16-BEL**

GLARE CONTROL

Cross louver - Black	**LENS-16P-CRL-BK**
Cross louver - White	**LENS-16P-CRL-WT**
Snoot - Black	**LENS-16-SNOOT-BK**
Snoot - White	**LENS-16-SNOOT-WT**
Honey Comb Louver	**LENS-16-HCL**

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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

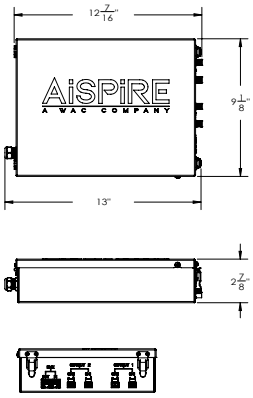
Black

FEATURES

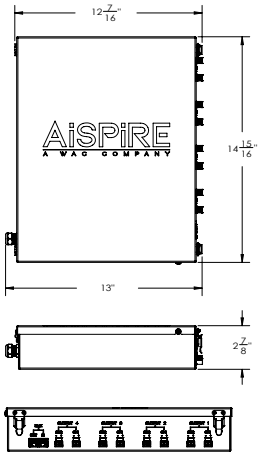
- 75W Max. Output Power (Per DMX Power Unit)
- 250mA-1500mA output current selection
- Class 2 power supply
- Built-in DMX512 interface
- IP20 rating
- UL Damp loctation listed

LINE DRAWING

A2D20 - 4 Channel



A2D40- 8 Channel



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, Over 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 2018, 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

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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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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