

# AB2LED

2" LED ADJUSTABLE  
AIM FROM BELOW  
120/277V



### APPLICATIONS:

Architektür AB2LED is a 2" specification grade LED adjustable luminaire that combines superior brightness control with energy savings and low maintenance costs. Suitable for a variety of commercial, retail, and institutional applications with ambient temperatures up to 35°C (71) 25°C (9L, 12L) during operation with free airflow around the fixture.

### J-TUBE ASSEMBLY:

Utilizing Prescolite's revolutionary J-Tube design and optimal thermal management, the AB2LED eliminates the need for a traditional downlight housing. The J-Tube assembly combines the traditional J-Box and driver electronics into a compact form that can be installed and accessed from below the ceiling plane.

### REFLECTOR & OPTICS:

High purity spun aluminum reflector with iridescence suppressed Alzak anodized finishes. Also available with Prescolite's American Matte™ finish (MFC), SoftSheen™ or Softglow® finishes. Painted reflectors are also available. Aim from below capability with 361° horizontal rotation and 35° vertical tilt. Available with field interchangeable upper reflector optics in 25°, 35°, or 45° beam distributions. Trim styles include open, pinhole, or slot. A variety of lens/media are available with an accessory holder that can accommodate up to 2 media.

### LED LIGHT ENGINE:

Xicato LED Module has a fixture to fixture color consistency of less than 2 SDCM. Secured to an extruded aluminum heat sink for excellent thermal management providing optimal life and lumen maintenance (minimum 50,000 hours at 70% lumen maintenance).

### LED DRIVER:

Energy efficient electronic constant current driver with 50,000 hour minimum anticipated life. Meets UL Class 2, FCC 47CFR Part 15, Class B compliant, inherent short-circuit protection, self limited, overload protected.

### DIMMING:

Comes standard with 0-10V standard dimming capability. Flicker-free dimming to 10%. For sizing control systems, the 0-10V control circuit will draw up to 1 mA. Also available with 0-10V to below 1%.

### CERTIFICATIONS:

CSA C/US certified to UL1598. Suitable for damp locations. Non-IC rated and 2IN/2OUT through branch wiring. For connection to flexible conduit only.

### WARRANTY:

5 Year Warranty.

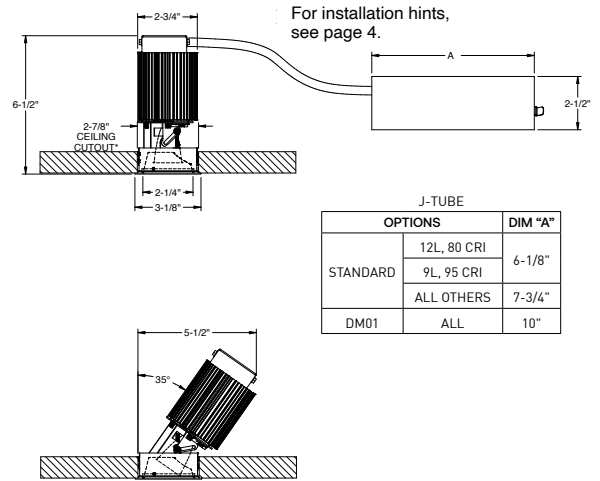
DATE: \_\_\_\_\_ TYPE: \_\_\_\_\_

FIRM NAME: \_\_\_\_\_

PROJECT: \_\_\_\_\_



Ceiling Cutout: 2 7/8"  
Ceiling Thickness 1/2"-1"  
Not to Scale



CATALOG NUMBER:

EXAMPLE: AB2LED-2AB9LED9L30K8MD25PHWCWT

Order accessories separately

J-TUBE ASSEMBLY	VOLTAGE	LIGHT ENGINE	OUTPUT	LED COLOR	CRI	LOWER TRIM STYLE	LOWER REFL. FINISH <sup>3</sup>	LOWER REFL. COLORS <sup>3,4</sup>	FLANGE OPTIONS <sup>4</sup>	ACCESSORIES
<input type="checkbox"/> <b>AB2LED</b> J-Tube Assembly with Standard 0-10V 10% Dimming  <input type="checkbox"/> <b>DM01<sup>6</sup></b> eLdoLED 0-10V dimming to less than 1%	Standard 120/277V  <b>OPTIONS</b> Standard 0-10V 10% Dimming	<input type="checkbox"/> <b>2AB9LED</b> 2" Open Reflector/Light Engine Assembly with Xicato module  <input type="checkbox"/> <b>9L</b> 900 Delivered Lumens  <input type="checkbox"/> <b>12L</b> 1200 Delivered Lumens	<input type="checkbox"/> <b>7L<sup>9</sup></b> 700 Delivered Lumens  <input type="checkbox"/> <b>9L</b> 900 Delivered Lumens  <input type="checkbox"/> <b>12L</b> 1200 Delivered Lumens	<input type="checkbox"/> <b>27K</b> 2700 Kelvin  <input type="checkbox"/> <b>30K</b> 3000 Kelvin  <input type="checkbox"/> <b>35K</b> 3500 Kelvin  <input type="checkbox"/> <b>40K</b> 4000 Kelvin	<input type="checkbox"/> <b>8<sup>10</sup></b> Nominal 80+ CRI  <input type="checkbox"/> <b>9<sup>1</sup></b> Nominal 95+ CRI	Standard Angle Cut  <input type="checkbox"/> <b>PH<sup>2</sup></b> Pinhole  <input type="checkbox"/> <b>SLT<sup>2</sup></b> Slot	Standard Specular  <input type="checkbox"/> <b>SS</b> Semi-Specular  <input type="checkbox"/> <b>MFC</b> American Matte™  <input type="checkbox"/> <b>VS</b> Softglow®  <input type="checkbox"/> <b>VSS</b> SoftSheen™	Standard Clear Alzak  <input type="checkbox"/> <b>CG</b> Champagne Gold Alzak  <input type="checkbox"/> <b>BL</b> Black Alzak  <input type="checkbox"/> <b>LW</b> Light Wheat Alzak  <input type="checkbox"/> <b>PW</b> Pewter Alzak  <input type="checkbox"/> <b>BC</b> Painted Flat Black Cone  <input type="checkbox"/> <b>WC</b> Painted White Cone	Standard Clear Anodized  <input type="checkbox"/> <b>WT</b> White Trim Flange  <input type="checkbox"/> <b>BT</b> Flat Black Trim Flange  <input type="checkbox"/> <b>CT</b> Clear Trim Flange	<input type="checkbox"/> <b>FMR2</b> 2" Flush Mount Ring  <input type="checkbox"/> <b>AB2AH<sup>5</sup></b> AB2 Accessory Holder  <input type="checkbox"/> <b>AML11</b> Amber Filter  <input type="checkbox"/> <b>BL11</b> Blue Filter  <input type="checkbox"/> <b>GRL11</b> Green Filter  <input type="checkbox"/> <b>H11BL</b> Hexcell Louver Black  <input type="checkbox"/> <b>LL11</b> Linear Spread Lens  <input type="checkbox"/> <b>PL11</b> Prismatic Diffusion Lens  <input type="checkbox"/> <b>D2FRM</b> Mounting Frame  <input type="checkbox"/> <b>D2ICAT<sup>6,7</sup></b> IC Rated, Air Tight housing  <input type="checkbox"/> <b>D2CP<sup>6,7</sup></b> CCEA compliant housing  <input type="checkbox"/> <b>LiteGear<sup>8</sup></b> Inverter, single phase central lighting, 125VA-250VA  <input type="checkbox"/> <b>LPS Series<sup>8</sup></b> LitePower micro-inverter, 20VA-55VA

<sup>1</sup> 95+ CRI not available on 12L

<sup>2</sup> Pinhole or Slot options are available with painted finishes only. Specify WC or BC for insert color with BT or WT for flange color.

<sup>3</sup> Upper reflector is always Specular

<sup>4</sup> For all reflector colors except Clear Alzak, flange color must be specified, either CT, WT or BT

<sup>5</sup> AB2AH is required for all media, accepts up to 2 media, 0.25" max total thickness. Not compatible with WFL45

<sup>6</sup> DM01 not compatible with D2ICAT or D2CP

<sup>7</sup> Available with 7L 80+ CRI only

<sup>8</sup> See page 4 for Central Inverter Compatibility note and web links

<sup>9</sup> Not available with Standard 0-10V 10% Dimming

<sup>10</sup> Not available with Standard 0-10V 10% Dimming+9L

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ELECTRICAL DATA	7L		9L		12L
	80+ CRI	95 CRI	80+ CRI	95 CRI	80+ CRI
Input Voltage	120 or 277V	120 or 277V	120 or 277V	120 or 277V	120 or 277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Input Power (Watts)	13.8 W	19.1 W	17.8 W	23.6 W	22.4 W
Input Current (@120V)	0.116 A	0.160 A	0.150 A	0.190 A	0.189 A
Input Current (@277V)	0.050 A	0.069 A	0.065 A	0.086 A	0.081 A
Constant Current Output	350 mA	500 mA	470 mA	630 mA	670 mA
Power Factor	≥0.90	≥0.90	≥0.90	≥0.90	≥0.90
EMI Filtering (FCC 47CFR, Part 15)	Class B	Class B	Class B	Class B	Class B
Operating Temp	-30°C to 35°C	-30°C to 35°C	-30°C to 25°C	-30°C to 25°C	-30°C to 25°C

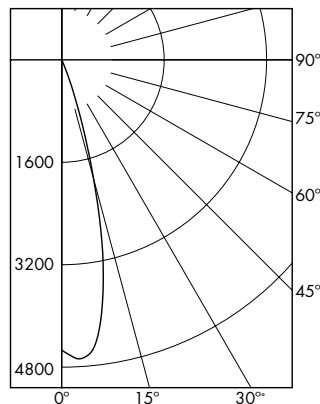
\*Data for standard 0-10V 10% dimming models. Electrical and photometric data may vary slightly with other dimming options.  
\*\*Short circuit, over-voltage, over-current protection.

**PERFORMANCE SUMMARY**

Model	Output	Beam Distribution	Delivered Lumens	Input Watts	Lumens Per Watt	Full Catalog Number
AB2LED	7L	25°	568	13.8	41.2	AB2LED-2AB9LED7L30K8MD25
		35°	719	13.8	52.1	AB2LED-2AB9LED7L30K8FL35
		45°	720	13.8	52.2	AB2LED-2AB9LED7L30K8WFL45
	9L	25°	734	17.8	41.2	AB2LED-2AB9LED9L30K8MD25
		35°	929	17.8	52.2	AB2LED-2AB9LED9L30K8FL35
		45°	931	17.8	52.3	AB2LED-2AB9LED9L30K8WFL45
	12L	25°	979	22.3	43.9	AB2LED-2AB9LED12L30K8MD25
		35°	1238	22.3	55.5	AB2LED-2AB9LED12L30K8FL35
		45°	1241	22.4	55.4	AB2LED-2AB9LED12L30K8WFL45

**AB2LED-2AB9LED12L30K8MD25**

LED Light Engine: 3000K, 80 CRI  
System Wattage: 22.3  
Fixture delivered lumens: 979  
Fixture Efficacy: 43.9  
Spacing Criteria: 0.50



**CANDELA DISTRIBUTION**

DEG	CANDELA
0	4536
5	4636
15	1925
25	21
35	1
45	0
55	0
65	0
75	0
85	0
90	0

**ZONAL LUMEN SUMMARY**

ZONE	LUMENS	%LUMINAIRE
0-30	978	99.9
0-40	979	100.0
0-60	979	100.0
0-90	979	100.0
0-180	979	100.0

**LUMINANCE DATA IN CANDELA/SQ. METER**

Angle in Vertical	Average
45°	0
55°	0
65°	0
75°	0
85°	0

**COEFFICIENTS OF UTILIZATION** Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance														
	80%			70%			50%			30%			10%		
	70	50	30	70	50	30	70	50	30	70	50	30	70	50	30
1	115	114	112	110	109	108	107	106	105	104	103	102	100	100	99
2	112	109	106	104	103	102	101	100	99	98	97	96	95	94	92
3	109	105	102	99	98	97	96	95	94	93	92	91	90	89	88
4	106	102	98	96	95	94	93	92	91	90	89	88	87	86	85
5	104	99	95	93	92	91	90	89	88	87	86	85	84	83	82
6	101	96	92	90	89	88	87	86	85	84	83	82	81	80	79
7	99	94	90	88	87	86	85	84	83	82	81	80	79	78	77
8	97	91	88	85	84	83	82	81	80	79	78	77	76	75	74
9	96	89	86	83	82	81	80	79	78	77	76	75	74	73	72
10	93	87	84	82	81	80	79	78	77	76	75	74	73	72	71

AB2LED-2AB9LED12L30K8MD25

Test No. 17.02848

Test No. 17.02848

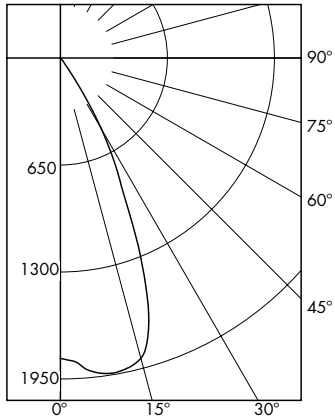
Tested at 25°C Ambient in accordance to IESNA LM-79-2008

**AB2LED**

2" LED ADJUSTABLE  
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120/277V

**AB2LED-2AB9LED12L30K8FL35**

LED Light Engine: 3000K, 80 CRI  
System Wattage: 22.3  
Fixture delivered lumens: 1238  
Fixture Efficacy: 55.5  
Spacing Criteria: 0.86



**CANDELA DISTRIBUTION**

DEG	CANDELA
0	1825
5	1902
15	1889
25	905
35	102
45	5
55	1
65	0
75	0
85	0
90	0

**ZONAL LUMEN SUMMARY**

ZONE	LUMENS	%LUMINAIRE
0-30	1129	91.3
0-40	1230	99.4
0-60	1237	100.0
0-90	1238	100.0
0-180	1238	100.0

**LUMINANCE DATA IN CANDELA/SQ. METER**

Angle in Vertical	Average
45°	2474
55°	610
65°	0
75°	0
85°	0

**COEFFICIENTS OF UTILIZATION** Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%		70%		50%		30%		10%								
	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
1	114	112	110	108	112	110	108	106	104	103	102	101	100	99	98	97	
2	110	105	102	99	108	104	101	98	101	98	96	96	94	95	93	92	
3	105	100	95	92	103	98	94	91	96	93	90	93	91	88	91	89	87
4	101	94	90	86	99	93	89	86	91	88	85	89	86	84	88	85	83
5	97	90	85	81	95	89	84	81	87	83	80	86	82	79	84	81	79
6	93	85	80	77	92	85	80	76	83	79	76	82	78	75	81	77	75
7	89	81	76	73	88	81	76	72	80	75	72	78	75	72	77	74	71
8	86	78	73	69	85	77	72	69	76	72	69	75	71	68	74	71	68
9	82	74	69	66	81	74	69	66	73	68	65	72	68	65	71	68	65
10	79	71	66	63	79	71	66	63	70	65	62	69	65	62	68	65	62

AB2LED-2AB9LED12L30K8FL35

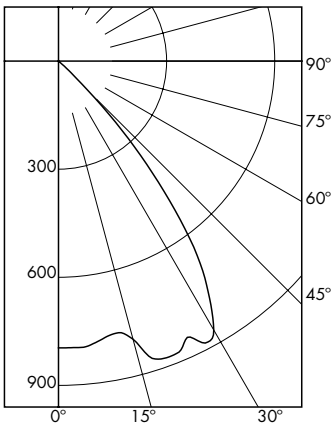
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Test No. 17.02619

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

**AB2LED-2AB9LED12L30K8WFL45**

LED Light Engine: 3000K, 80 CRI  
System Wattage: 22.4  
Fixture delivered lumens: 1241  
Fixture Efficacy: 55.4  
Spacing Criteria: 1.38



**CANDELA DISTRIBUTION**

DEG	CANDELA
0	796
5	797
15	799
25	846
35	686
45	116
55	2
65	1
75	0
85	0
90	0

**ZONAL LUMEN SUMMARY**

ZONE	LUMENS	%LUMINAIRE
0-30	710	57.2
0-40	1121	90.4
0-60	1240	100.0
0-90	1241	100.0
0-180	1241	100.0

**LUMINANCE DATA IN CANDELA/SQ. METER**

Angle in Vertical	Average
45°	51801
55°	1101
65°	747
75°	0
85°	0

**COEFFICIENTS OF UTILIZATION** Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%		70%		50%		30%		10%								
	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
1	113	110	108	105	111	108	106	103	104	102	100	100	99	97	97	96	94
2	107	102	97	94	105	100	96	93	97	93	91	94	97	89	91	89	87
3	101	94	89	84	99	93	88	84	90	86	82	87	84	81	85	82	80
4	95	87	81	76	93	86	80	76	84	79	75	81	77	74	80	76	73
5	90	80	74	69	88	80	74	69	78	72	68	76	71	68	74	70	67
6	84	75	68	63	83	74	68	63	72	67	63	71	66	62	69	65	62
7	80	69	63	58	78	69	62	58	67	62	58	66	61	57	65	60	57
8	75	65	58	53	74	64	58	53	63	57	53	62	57	53	61	56	53
9	71	60	54	49	70	60	53	49	59	53	49	58	53	49	57	52	49
10	67	56	50	46	66	56	50	46	55	49	45	54	49	45	53	49	45

AB2LED-2AB9LED12L30K8WFL45

Test No. 17.02886

Test No. 17.02886

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

## AB2LED

2" LED ADJUSTABLE  
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120/277V

### CENTRAL INVERTERS

For full fixture output in back-up mode, we recommend you visit [currentlighting.com/dual-lite](http://currentlighting.com/dual-lite) for your Central Lighting Inverter options. Please contact your local Current representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.

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### INSTALLATION HINTS

#### **Daisy Chain:**

Often times through branch wiring (Daisy Chaining) will be desired for installation of the AB2LED in an application. There is one knock out available in the J-tube for the line voltage, and one for the low voltage control wires. To accomplish 2in/2out through branch wiring. Prescolite suggests the use of an Arlington Duplex Connector (PN 4040AST).

#### **Ceiling Cut-out:**

Due to the discrete trim flange on the D2LED, the accuracy of the 2-7/8" ceiling cut-out is critical to achieving the best results. Prescolite recommends making this cut-out with a 2-7/8" hole saw, such as one manufactured by the Morse Company (TAC46 and TACPD4).

#### **Ceiling Clearance:**

When no top access is available to the J-Tube, 8" of plenum clearance is recommended for the standard driver/J-Tube options. For DM01 option, 10-1/2" plenum clearance is recommended.

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### DIMMING COMPATIBILITY

For more details and recommended dimmer list, see Dimming Compatibility Information at [www.currentlighting.com/prescolite](http://www.currentlighting.com/prescolite).

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### ADDITIONAL NOTES

\*Note: Use of the D2ICAT and D2CP can cause heat entrapment, which while safe to use, can shorten the expected life of this product from > 50,000 hours to 25,000 hours when used with the 12L or 95 CRI options. The product warranty in these applications will be 5 years, or 25,000 hours, whichever ever comes first.

\*Note: Ceiling thickness maximum when using D2ICAT or D2CP is 5/8". Ceiling thickness maximum when using D2FRM is 1". Bar hangers not included, order B6 for ceiling joists up to 24" centers or B24 for T-bar ceilings.

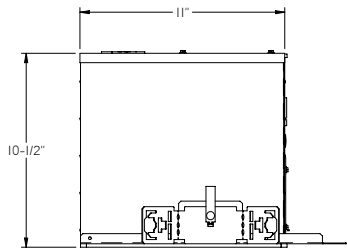
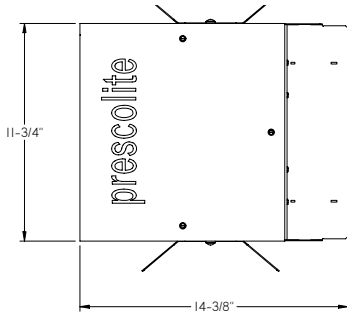
\*Note: The standard product is designed and listed to be installed into most ceiling types without the use of an accessory frame. These frames are provided as an optional accessory to be used when desired by the end user to provide extra support or required by local code.

\*Note: CP versions require the use of the D2ICAT accessory modified with metal plate in place of polycarbonate.

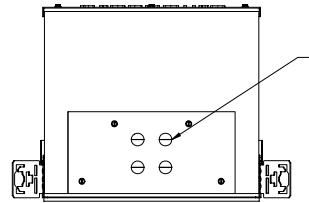
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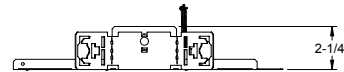
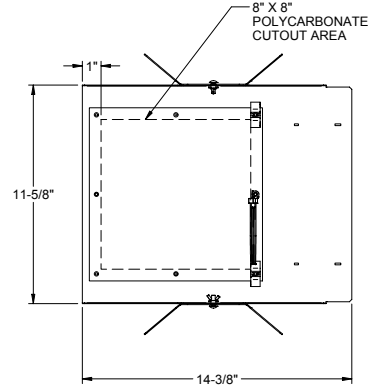
**ACCESSORIES**



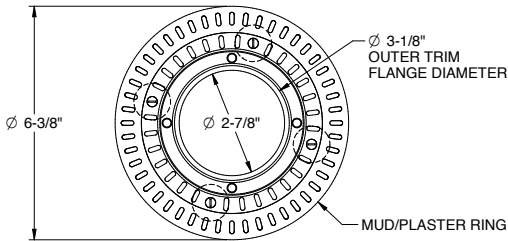
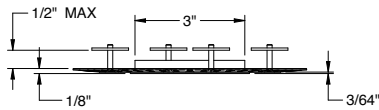
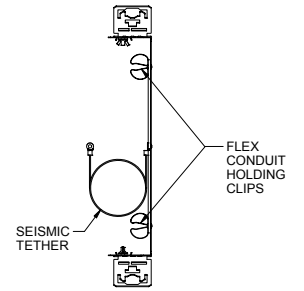
**D2ICAT/D2CP**



Entry Points  
For 3/8" Max.  
MC Flex.  
See instruction sheet  
for installation details.  
[www.prescolite.com](http://www.prescolite.com)



**D2FRM**



**FMR2**