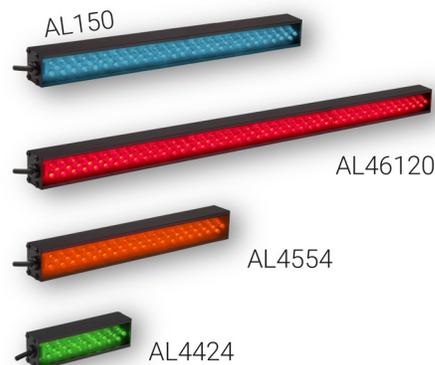




Expandable

### Product Highlights

- Provides very even illumination along the length of the light, with controlled fall off in the transverse direction
- Designed to provide low angle of incidence illumination over a long, wide area
- Applications requiring very even illumination over a wide area can utilize two BALAs aligned in parallel and facing each other
- AL150 - Expandable in 1" increments up to 82"
- AL150 Derivatives: AL46120 (20"), AL4554 (9"), AL4424 (4")



### General Specifications

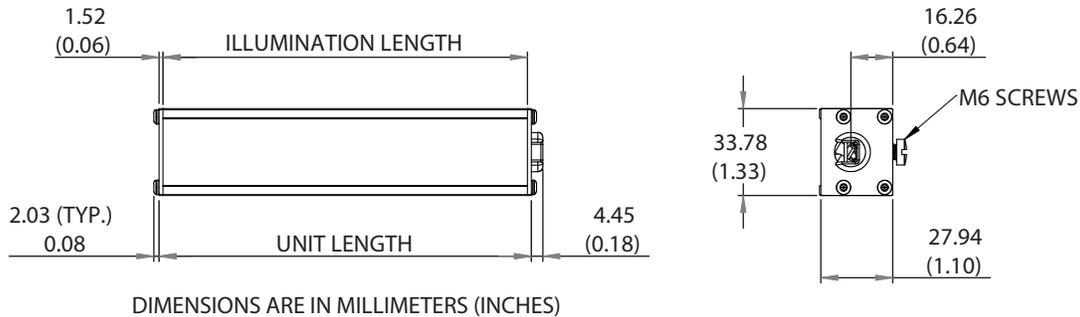
	Part	Color	24v Current (A)	All Other Controls (A Max)	Weight
Electrical Specifications	AL4424	625, 660	0.10	0.04	157.8 g (5.57 oz)
		395, 470, 520, WHI	0.08	0.06	
		880	0.09	0.03	
	AL4554	625, 660	0.15	0.13	267.6 g (9.44 oz)
		395, 470, 520, WHI	0.20	0.16	
		880	0.18	0.10	
	AL46120	625, 660	0.30	0.26	508.9 g (17.9 oz)
		395, 470, 520, WHI	0.41	0.32	
		880	0.36	0.21	
	AL150	625, 660	0.10	0.04	Varies
		395, 470, 520, WHI	0.08	0.06	
		880	0.09	0.03	
Normal Operating Temperature	0 - 60°C				
Weight (g)	Varies by size.				
Standard Cable Information	Up to 2 meters (80") long - 105°C rated PVC jacket, foil shield with drain.				
Photobiological Risk Factor IEC 62471	Exempt Applicable Wavelengths: 880 Group 1 (Low-Risk) Applicable Wavelengths: 470, 520, 625, 660, WHI Group 2 (Moderate Risk) Applicable Wavelengths: 395				
Compliance					
IP Rating	IP50				
Lumen Maintenance	L70 = 50,000 hours				

# AL150 Expandable Series BALA (Broad Area Linear Array) Bar Lights

## Mechanical Specifications

### AL150XXX (Expandable BALA)

Available in 1" Increments (25.4 mm) from approximately 1.5" (38.1mm) to 82" (2.0828m)



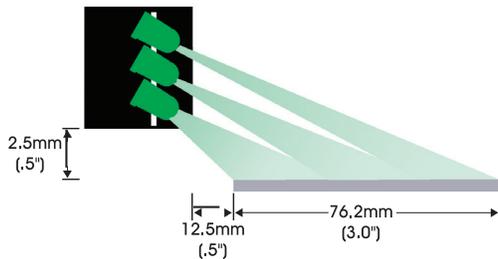
### AL150 Part Number Chart

Length		Part Number	Length		Part Number	Length		Part Number	Length		Part Number
Illuminated	Unit		Illuminated	Unit		Illuminated	Unit		Illuminated	Unit	
1.5"	1.619"	AL150006	21.9"	22.025"	AL150126	42.3"	42.435"	AL150246	62.7"	62.845"	AL150366
2.5"	2.639"	AL150012	22.9"	23.045"	AL150132	43.3"	43.455"	AL150252	63.7"	63.865"	AL150372
3.5"	3.659"	AL150018	23.9"	24.065"	AL150138	44.4"	44.475"	AL150258	64.8"	64.885"	AL150378
4.6"	4.679"	AL4424 <sup>1</sup>	25.0"	25.085"	AL150144	45.4"	45.495"	AL150264	65.8"	65.905"	AL150384
5.6"	5.699"	AL150030	26.0"	26.110"	AL150150	46.4"	46.515"	AL150270	66.8"	66.925"	AL150390
6.6"	6.719"	AL150036	27.0"	27.130"	AL150156	47.4"	47.535"	AL150276	67.8"	67.945"	AL150396
7.6"	7.739"	AL150042	28.0"	28.150"	AL150162	48.4"	48.555"	AL150282	68.8"	68.965"	AL150402
8.6"	8.759"	AL150048	29.0"	29.170"	AL150168	49.5"	49.575"	AL150288	69.9"	69.985"	AL150408
9.7"	9.779"	AL4554 <sup>1</sup>	30.1"	30.190"	AL150174	50.5"	50.600"	AL150294	70.9"	71.005"	AL150414
10.7"	10.799"	AL150060	31.1"	31.210"	AL150180	51.5"	51.620"	AL150300	71.9"	72.025"	AL150420
11.7"	11.819"	AL150066	32.1"	32.230"	AL150186	52.5"	52.640"	AL150306	72.9"	73.045"	AL150426
12.7"	12.839"	AL150072	33.1"	33.250"	AL150192	53.5"	53.660"	AL150312	73.9"	74.065"	AL150432
13.7"	13.865"	AL150078	34.1"	34.270"	AL150198	54.6"	54.680"	AL150318	75.0"	75.090"	AL150438
14.8"	14.885"	AL150084	35.2"	35.290"	AL150204	55.6"	55.700"	AL150324	76.0"	76.110"	AL150444
15.8"	15.905"	AL150090	36.2"	36.310"	AL150210	56.6"	56.720"	AL150330	77.0"	77.130"	AL150450
16.8"	16.925"	AL150096	37.2"	37.330"	AL150216	57.6"	57.740"	AL150336	78.0"	78.150"	AL150456
17.8"	17.945"	AL150102	38.2"	38.355"	AL150222	58.6"	58.760"	AL150342	79.0"	79.170"	AL150462
18.8"	18.965"	AL150108	38.3"	38.375"	AL150228	59.7"	59.780"	AL150348	80.1"	80.190"	AL150468
19.9"	19.985"	AL150114	40.3"	40.395"	AL150234	60.7"	60.800"	AL150354	81.1"	81.210"	AL150474
20.9"	21.005"	AL46120 <sup>1</sup>	41.3"	41.415"	AL150240	61.7"	61.820"	AL150360	82.1"	82.230"	AL150480

<sup>1</sup> AL4424, AL4554 and AL46120 represent legacy part numbers.

# AL150 Expandable Series BALA (Broad Area Linear Array) Bar Lights

## BALA Light Function Diagram



The Broad Area Linear Array (BALA) design is exclusive to Ai.

Originally designed for inspecting circuit boards, BALAs are aimed to create illumination that is very even in intensity along the length of the light, with controlled "fall off" in the transverse direction.

To create a wider area of illumination, two BALAs can be placed parallel to and facing each other.

## Part Number Key

Model	Model Extension	# of LEDs <sup>3</sup>	—	Spectral Wavelength	Connector/Control	Optional Light Conditioning	Alternative Connector
<b>XX</b>	<b>XXXXX</b>	<b>XXX</b>	<b>—</b>	<b>XXX</b>	<b>XX</b>	<b>X</b>	<b>XXX</b>
AL	150 4424 4554 46120	refer to chart on page 2		(UV) 395 <sup>2</sup> (blue) 470 (green) 520 (red) 625 (red) 660 (IR) 880 (white) WHI	C1 C5 IC I3 I3S 24	D (diffuser) P <sup>4</sup> (polarizer)	M12 <sup>1</sup>
Ex: AL15012-660C1 AL15084-66024				<sup>1</sup> Available with IC, I3 and I3S options only <sup>2</sup> Not available with 24 or IC options <sup>3</sup> Only applicable for AL150 and not AL4424, AL4554 or AL4120 <sup>4</sup> (blue) 470 will reduce the life of the polarizer			

**Stock Product:** *shipped within 3 days*    **Build to Order:** *shipped within 2 weeks*

AL4424-62524    AL4554-62524

AL4424-625IC    AL4554-625IC

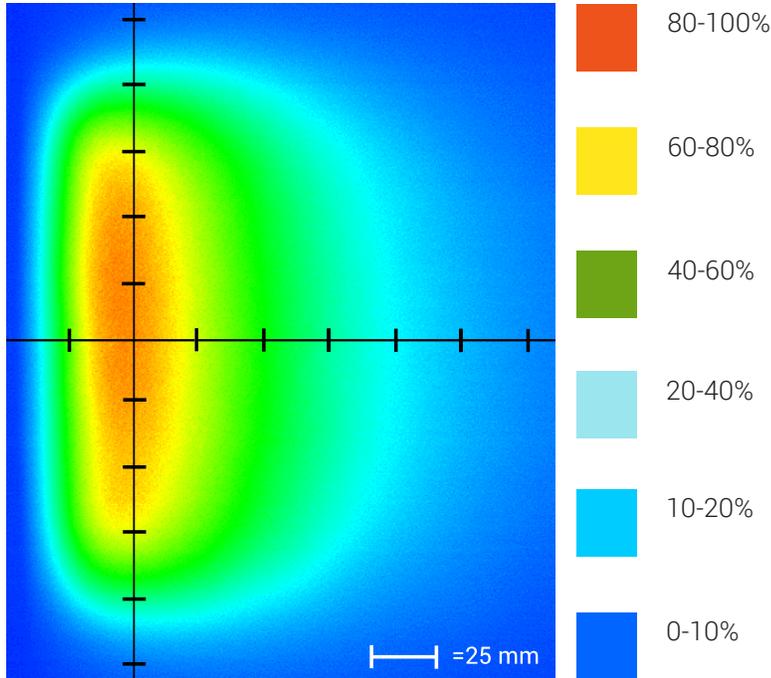
## Connector | Control Options

C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)	24
For use with: DCS Series Controllers	For use with: Pulsar 320 Strobe Controller.	Continuous in-line controller  Powered with: 24V power supply	Combination strobe/continuous in-line controller  Powered with: 24V power supply	Default-OFF strobe/continuous in-line controller  Powered with: 24V power supply	Flying/tinned leads  Powered with: 24V power supply

# AL150 Expandable Series BALA (Broad Area Linear Array) Bar Lights

## Optical Performance

### Intensity Distribution



Optical measurement taken using AL4554-660C5 @ 25mm

### Area of Illuminance & Intensity

Working Area (FWHM)  
@ Working Distance

102 X 218 (mm)  
@25 (mm)



Light Output

Irradiance (W/M<sup>2</sup>): Min 81.6; Typ 96  
Illuminance (kLux): Min 5.3; Typ 6.2

## Operation and Wiring

### ICS 2 (IC)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	0-10 VDC Analog Control	White
3	GND	Blue
4	GLO	Black
5	N/A	Gray

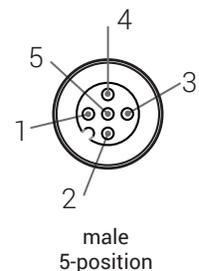
### ICS 3 (I3 and I3S)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	Reserved	White
3	GND	Blue
4	PNP/Active High Trigger	Black
5	0-10 VDC Analog Control	Gray

### 24 Volt

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	N/A	White
3	-24 VDC	Blue
4	N/A	Black
5	N/A	Gray

### Optional M12 Pinout



# AL150 Expandable Series BALA (**B**road **A**rea **L**inear **A**rray) Bar Lights

## Warranty Information

Every Advanced illumination, Inc. (Ai) product is thoroughly inspected and tested before leaving the factory. Products are warranted to be free of defects in workmanship and materials for a period of two years from the original date of purchase. Should a defect develop during this period, please contact Ai Customer Service or your Ai distributor for a Return Merchandise Authorization (RMA), and return the complete product, freight prepaid, to Ai. If a defect is found, Ai will - at our discretion - repair or replace the product without charge. Ai claims no liability for any implied warranties, including "merchantability" and "fitness for a specific purpose."

## Electromagnetic Compatibility

This product was tested and complies with the regulatory requirements and limits for electromagnetic compatibility (EMC) as stated in the product specifications. These requirements and limits are designed to provide reasonable protection against harmful interference only when the product is operated in its intended industrial electromagnetic environment. To minimize the potential for electromagnetic interference or unacceptable performance degradation, install and use this product in strict accordance with the instructions in the product documentation.

## Customer Service

For information on existing orders, or to make an order adjustment, contact us Monday through Friday 8:00 am to 5:00 pm ET or send an email to [orders@advill.com](mailto:orders@advill.com).

## Company Information

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