

Product Highlights

- Providing a broad area of illumination with controlled fall off for machine vision applications.



General Specifications

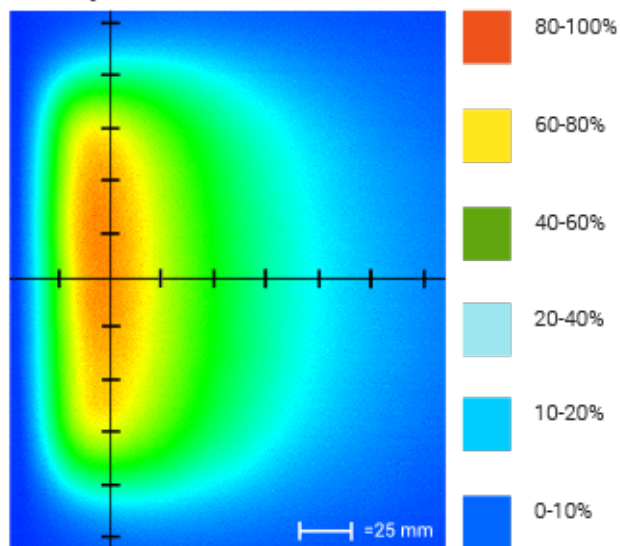
	Color	24V Current	All Other Controls
Electrical Specifications	625, 660	0.10 A	0.04 A
	395, 470, 520, WHI	0.08 A	0.06 A
	880	0.09 A	0.03 A
Normal Operating Temperature	0 - 60°C		
Weight	Varies by size		
Standard Cable Information	UP TO 2 METERS (80") LONG - 105°C RATED PVC JACKET, FOIL SHIELD WITH DRAIN.		
Photobiological Risk Factor	EXEMPT APPLICABLE WAVELENGTHS: 880 GROUP 1 (LOW-RISK) APPLICABLE WAVELENGTHS: 470, 520, 625, 660, WHI GROUP 2 (MODERATE-RISK) APPLICABLE WAVELENGTHS: 395		
Compliance	CE, RoHS, IEC 62471		
IP Rating	IP50		
Lumen Maintenance	L70 = 50,000 Hours		

Part Number Key

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

Optical Specs

Intensity Distribution



Optical measurement taken using AL4554-660C5 @ 25mm

Area of Illuminance & Intensity

Working Area (FWHM)
@ Working Distance

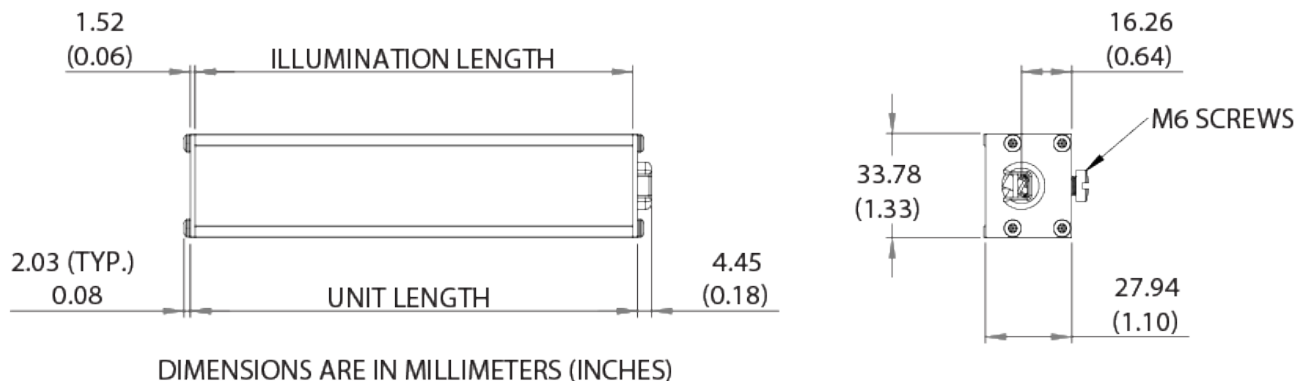
102 X 218 (mm)
@25 (mm)



Light Output

Irradiance (W/M²): Min 81.6; Typ 96
Illuminance (kLux): Min 5.3; Typ 6.2

Mechanical Specs

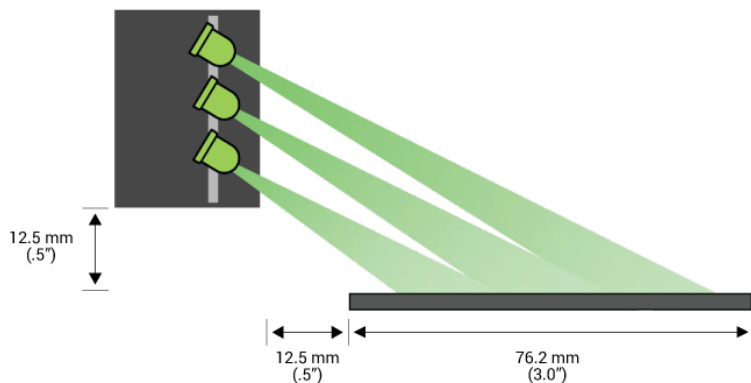


AL150 Part Number Chart

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 ¹	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 ¹	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 ¹	41.3"	41.415"	AL150240	61.7"	61.820"	AL150360	82.1"	82.230"	AL150480

¹AL4424, AL4554 and AL46120 represent legacy part numbers.

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.

Electrical Specs

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

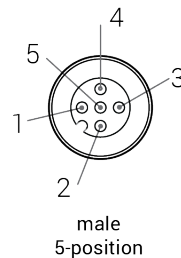
ICS 3 (I3 and I3S)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	GND	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



Control Specs

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.	Continous in-line controller Powered with: 24V power supply	Combination strobe/continous in-line controller Powered with: 24V power supply	Default-OFF strobe/continous in-line controller Powered with: 24V power supply	Flying/tinned leads Powered with: 24V power supply

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 FIVE YEARS from the original date of purchase. Should a defect develop during this period, customers may return the complete product, freight prepaid, to one of Ai's distributors or to the Ai factory. All product warranty returns require a Return Merchandise Authorization (RMA) number which is obtained from Customer Service. The RMA number must be clearly marked on the outside of the package. Ai will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. Ai disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose." For products under warranty that have since been discontinued, Ai will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, Ai reserves the right to repair or replace these products with an updated version. Ai cannot be held responsible for the unauthorized or inappropriate use of its products. Any unauthorized repair or modifications will result in a voided warranty.

No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

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.

Company Information

Advanced Illumination

440 State Garage Road, Rochester, VT 05767

Phone: 802.767.3830

Fax: 802.767.3831

Email: info@advancedillumination.com

Web: advancedillumination.com

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