



- Premium-grade street lighting for general application in municipal & industrial zones
- ISO 9227:2012 assessed for use in marine surroundings, ANSI C136.31-2010 graded vibration resistance
- CE, RoHS, CB, UL, DLC, ENEC & TUV, international product marks
- The most competitive, quality-driven solution for projects worldwide



Arrol 4B Series

Premium Street Lights

CDN:SPEC143REV6

Technical Specifications Summary



Performance Summary:								
Code (Series-Wattage/Size)	AR4B-40	AR4B-80	AR4B-120	AR4B-155	AR4B-195	AR4B-235	AR4B-275	AR4B-310
Nominal Power	40W	80W	120W	155W	195W	235W	275W	310W
Luminaire Efficacy @ CRI>70, 5000K CCT	124lm/W	125lm/W	129lm/W	129lm/W	127lm/W	127lm/W	127lm/W	128lm/W
Lumen Output @ CRI>70, 5000K CCT	4,960lm	10,000lm	15,480lm	19,995lm	24,765lm	29,845lm	34,925lm	39,680lm
Lumen Maintenance (TM21 Reported)	L90B10 ≥100,000 hours @ Tj 80°C, 25°C Ambient							
Lumen Maintenance (TM21 Calculated)	L80B10 ≥100,000 hours @ Tj 80°C, 25°C Ambient							
Certification	CE, RoHS, CB, UL, DLC, ENEC, TUV							
Product Warranty	5 Years							
Light Source and Photometric Parameters:								
Chip Brand, Model, & Size	Nichia 3535 NVSL219C							
Chip Efficacy @ CRI>70, 5000K CCT	174lm/W @ 350mA @25°C							
Light Emmission	Direct							
CCT	5000K, (3000K, 4000K, 5700K)							
CRI	≥70, (≥80 optional)							
SDCM	≤5							
Diffusers	Clear, (Frosted optional)							
Symmetric Light Distribution	10°, 25°, 40°, 60°, 90°, 120°, 150°							
Asymmetric Light Distribution	IESNA Type 1M, 2M, 3M, 3L, 4S, 4M							
Optical Accessories	Backspill Guard							
Electrical Parameters:								
System Operating Power	40W	80W	120W	155W	195W	235W	275W	310W
Driver Brand	Philips							
Driver Model	Xitanium 929001402280			Xitanium 929001401680		Xitanium 929001402280 (x1) Xitanium 929001401680 (x1)		
Typical Driver Lifetime	100,000 hours @TCase 70°C							
Input Voltage	120-277VAC							
Input Frequency	50-60Hz							
Qty of Drivers per Light	1					2		
Inrush Current Per Driver @ 230VAC measured at 50% Ipeak (Peak/Duration)	46A/440µs							
Recommended Lights per Circuit (16A Type B MCB)	≤11pcs at Maximum Product Power Note: MCB may allow for an increased number of lights per circuit for the lower powered versions					≤5pcs at Maximum Product Power Note: MCB may allow for an increased number of lights per circuit for the lower powered versions		
Power Factor	>0.95							
THD	<15%							
Insulation Class	Class I							
Surge Protection/Fusing	10kA (optional), 20kA (optional) TVS (Transient Voltage Suppressors on individual LED Modules)							
Environmental Parameters:								
IP Rating	IP67							
IK Rating	IK10							
Ambient Usage Tolerance	-40°C to 50°C							
Ambient Storage Tolerance	-40°C to 50°C							
Driver automatic turn-off temperature	TCase 85°C - Power to LEDs is reduced							
Ambient Humidity Tolerance	15% to 90% RH							



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Physical/Mechanical Parameters:								
Product Dimensions: LxWxH (mm)	463 x 345 x 116	523 x 345 x 116	583 x 345 x 116	643 x 345 x116	703 x 345 x 116	763 x 345 x 116	823 x 345 x 116	883 x 345 x 116
Qty of LED Chips	18	36	54	72	90	108	126	144
Qty of Modules	1	2	3	4	5	6	7	8
Windage	0.0427m²	0.0464m²	0.0501m²	0.0548m²	0.0585m²	0.0622m²	0.0668m²	0.0706m²
Electrical Connection	Terminal Block or 800mm Cable							
Fixture Weight²	6.5kg	7.1kg	8.2kg	8.9kg	9.5kg	10.8kg	11.5kg	12.5kg
Fixture Primary Material(s)	Aluminium Alloy and Stainless Steel Fasteners							
Fixture Finish	AzkoNobel Powder Coated (Marine-Grade Optional)							
Lens(es) Materials	UV Stabilised Polycarbonate							
Dimming/Controls Parameters:								
Dimming Options	1-10V, DALI							
Built-in Controls	Photocell, NEMA Socket and Cap							
Compatible intelligent lighting systems	Wireless Controls and Monitoring							
Options/Accessories:								
Mounting Styles	Slip Fit							
Miscellaneous Accessories	3m Cable Extension c/w IP68 Barrel Connector, Bird Spikes, Safety Cable							
Available Product Colours	Grey (RAL 7004), Black (RAL 9011), White (RAL 9010)							

¹ Electrical Parameter data is for D1 drivers, unless otherwise stated

² Excludes bracketry. Refer to the Packaging Weights & Dimensions data sheet for bracketry and accessory weights

All stated values should be considered indicative only. Technical data is provided from sample luminaires and construction components as assessed by OEM(s) under industry-standard, laboratory conditions. In practice, stated values can vary. Kellwood Lighting operates a policy of continual product improvement. Our luminaires' capabilities are regularly enhanced to outperform in-class market alternatives. Please contact our technical team directly for clarifications prior to purchase. All images depicted should be considered indicative only. Stated product warranty periods do not include associated labour costs. Stated product warranty periods are for UK projects only. For international projects, please contact our offices directly. Optional upgrades can often affect or supersede unit technical parameters, capabilities, and warranties. It is the responsibility of the purchasing authority to ensure selected hardware is suitable for application. For further documentation, including Returns Policy and Conditions of Unit Failure, please contact our offices. Hazardous area documentation (eg. ATEX) are issued to OEM codes. WEEE compliance reference code: WEE/MP3838PR/SCH. Please do not look directly at LED lighting products during operation.

This datasheet & corresponding certification should be reviewed by a competent person to ensure project suitability.

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Features Summary



Rotatable Spigot Mount

Allows for post-top & side-entry mounting, $\pm 20^\circ$ range to provide easily levelling



Separate Driver Compartment

Easy access for rapid maintenance



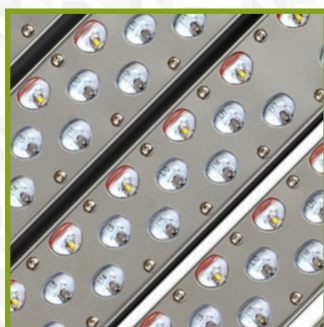
NEMA Socket

Ensures compatibility with standardised street lighting controls



Fitting Colouration

Grey RAL:7004, Black RAL:9011, Bronze RAL:8014, White RAL:9010, Custom availability subject to MOQ



Advanced Optics

Over 15 available light distribution patterns ensure optimum light levels



Optional Backspill Guard

Minimises rear light trespass for maximum optical control



Stainless Steel Components

Exposed metal fixtures are made from 304 stainless steel



Spirit Level

Integrated within fitting for increased ease-of-install



Corrosion Resistance

Minimum 100µm, salt-spray tested, corrosion-resistance Akzo Nobel surface finish



Surge Protection Device

10KA, 20KA integrated surge protection device



Bird Spikes

Helps reduce avian nuisance



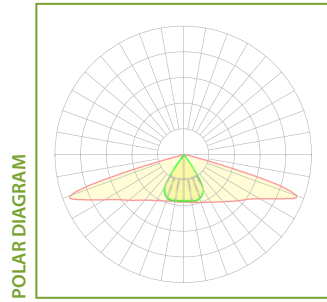
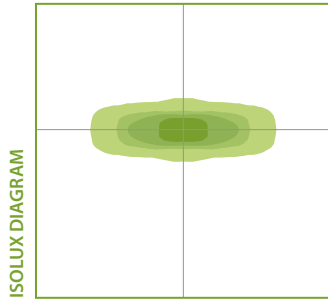
DALI / 1-10V Dimming

Intelligent control systems are available subject to MOQ

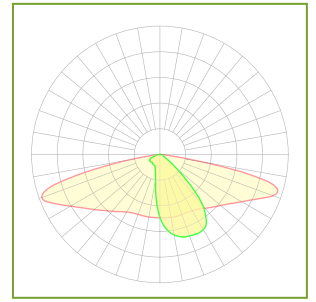
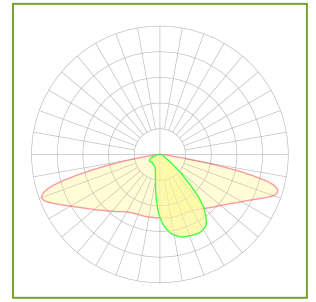
Please note - images shown are intended to be illustrative only. For exact data, please refer to specific product photometry, available for download from our website.

Indicative Product Photometry

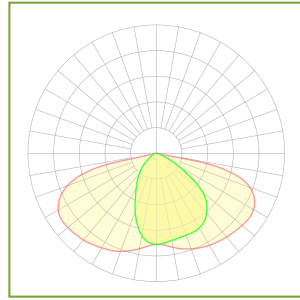
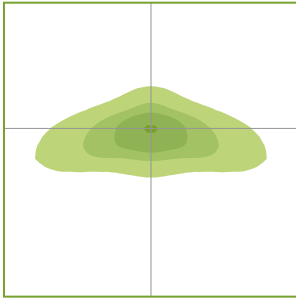
IESNA Type 1 Medium ▶▶



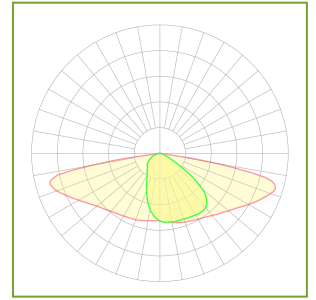
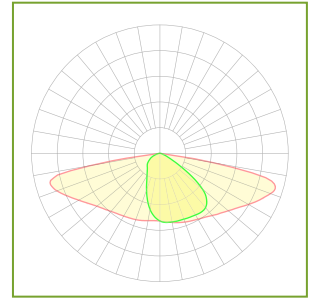
IESNA Type 2 Medium ▶▶



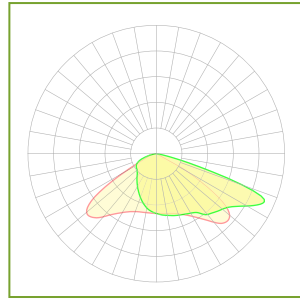
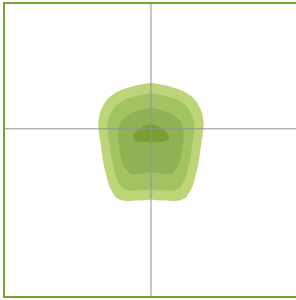
IESNA Type 3 Medium ▶▶



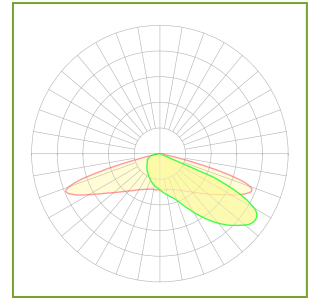
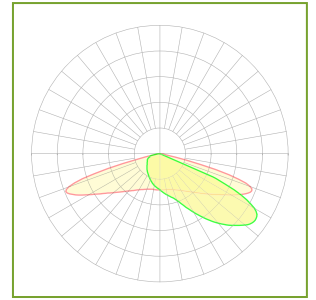
IESNA Type 3 Long ▶▶



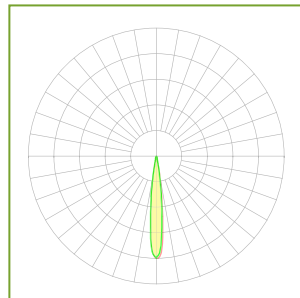
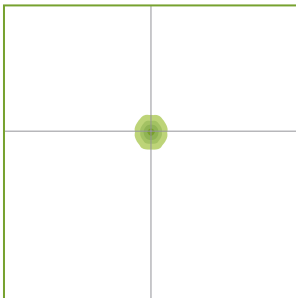
IESNA Type 4 Short ▶▶



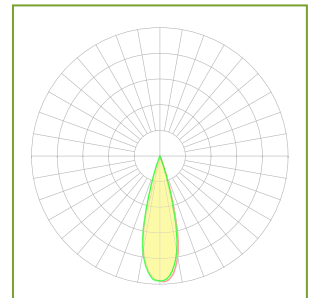
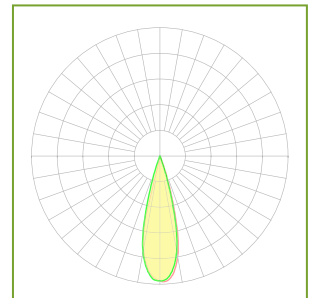
IESNA Type 4 Medium ▶▶



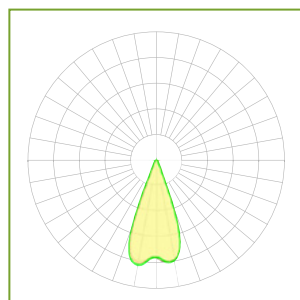
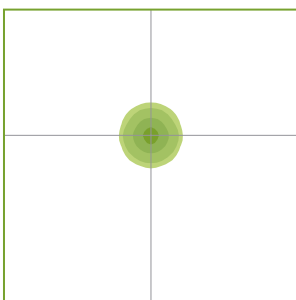
10° Optic ▶▶



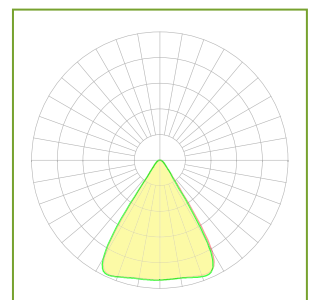
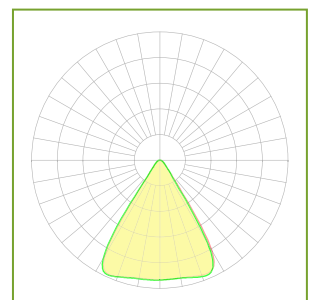
25° Optic ▶▶



40° Optic ▶▶



60° Optic ▶▶



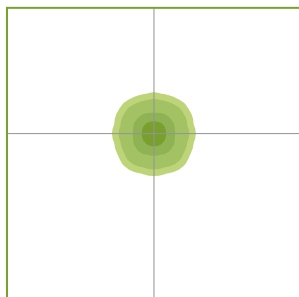
Colourations on isolux diagrams are qualitative, i.e. the same colour on any two isolux diagrams will not necessarily have the same lux value.

Please note - images shown are intended to be illustrative only. For exact data, please refer to specific product photometry, available for download from our website.

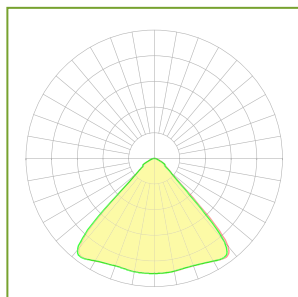
Indicative Product Photometry

90° Optic

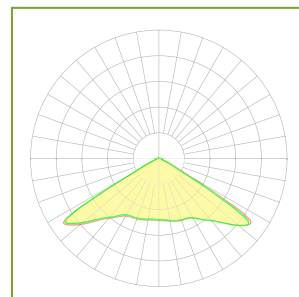
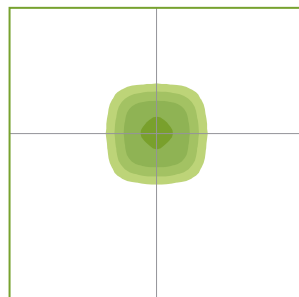
ISOLUX DIAGRAM



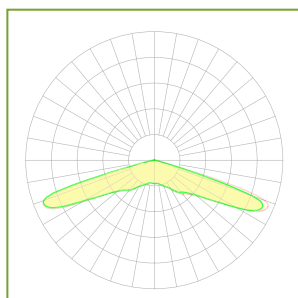
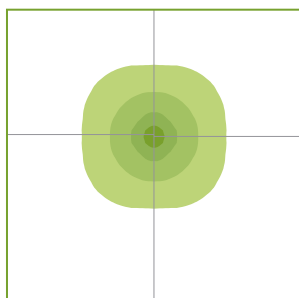
POLAR DIAGRAM



120° Optic



150° Optic



Diffusers

This series is available with the following diffusers. Each diffuser will have a varying effect on photometric distribution and intensity. Please refer to downloadable photometrics for exact data.



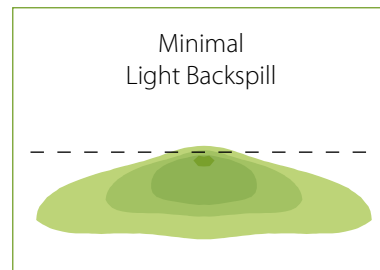
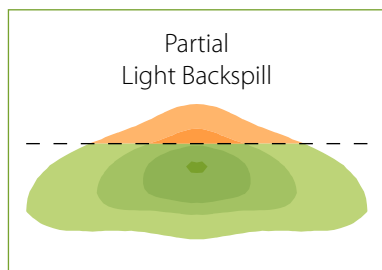
Clear Optic (Various Beam Angles)



Frosted Diffuser (117°)

Backspill Guards

Optional backspill guards are available for the above Type 3 and Type 4 optics. These modify the light distribution to reduce/eliminate backward light trespass. An illustrative example is shown below:





Standard product code fields are presented as:
Further customisation may be available - please contact us if required



Product Ordering Codes

PRODUCT	POWER	CRI & CCT	OPTIC	DRIVER	COLOUR	MODIFICATIONS
AR4B	40 40W	730 CRI >70, 3000K	2M IESNA TYPE II MEDIUM	D1 NON-DIM	GR GREY	PH1 PHOTOCELL
	80 80W	740 CRI >70, 4000K	3M IESNA TYPE II MEDIUM	D2 1-10V	BL BLACK	BG BACKSPILL GUARD
	120 120W	750 CRI >70, 5000K	3L IESNA TYPE III MEDIUM	D3 DALI	WH WHITE	SP2 SURGE PROTECTION DEVICE (20KV)
	155 155W	757 CRI >70, 5700K	4S IESNA TYPE III LONG	D4 12-24V	GR2 ¹ GREY - MARINE GRADE	
	195 195W	830 CRI >80, 3000K	4M IESNA TYPE IV SHORT		BL2 ¹ BLACK - MARINE GRADE	
	235 235W	840 CRI >80, 4000K	10 IESNA TYPE IV MEDIUM		WH2 ¹ WHITE - MARINE GRADE	
	275 275W	850 CRI >80, 5000K	25 10° CIRCULAR			
	310 310W	857 CRI >80, 5700K	40 25° CIRCULAR			
			60 40° CIRCULAR			
			90 60° CIRCULAR			
			120 90° CIRCULAR			
			150 120° CIRCULAR			
			FR FROSTED DIFFUSER			

¹ Upgraded AkzoNobel polyester powder coat for increased salt corrosion resistance.

GENERAL NOTES:

- IF MORE THAN ONE MODIFICATION IS REQUIRED, SEPARATE EACH MODIFICATION WITH A HYPHEN AT THE END OF THE PRODUCT CODE
- PLEASE ENSURE SELECTION OF COMPATIBLE DRIVER FOR OCCUPANCY SENSORS WITH DIMMING FUNCTIONALITY
- PLEASE NOTE THAT MODIFICATIONS WHICH AFFECT LIGHT OUTPUT HAVE SEPARATE PHOTOMETRIC FILES IDENTIFIED WITH ...+(MODIFICATION)*
- ALTERNATIVE DRIVERS MAY BE AVAILABLE - PLEASE CONTACT OUR OFFICE FOR FURTHER DETAILS
- IF PRODUCT IS CUSTOMISED, CODES WILL BE ALTERED AS NECESSARY

Product Ordering Code Examples:

AR4B-80-750-2M-D1-GR

AR4B-120-757-3L-D1-BL-BG-SP2

DRIVER MANUFACTURER				
POWER	D1	D2	D3	D4
40 40W	Philips	Philips	Philips	Meanwell
80 80W	Philips	Philips	Philips	N/A
120 120W	Philips	Philips	Philips	N/A
155 155W	Philips	Philips	Philips	N/A
195 195W	Philips	Philips	Philips	N/A
235 235W	Philips	Philips	Philips	N/A
275 275W	Philips	Philips	Philips	N/A
310 310W	Philips	Philips	Philips	N/A

CONTACT OUR OFFICE FOR FURTHER INFORMATION ON DRIVER PARAMETERS

ACCESSORIES
AR-BS BIRD SPIKES

