



- Premium-grade street lighting for general application in municipal & industrial zones
- Optional marine-standard material finishes & vibration resistance ensure suitability within harsh environments
- CE, RoHS, CB, UL, DLC, ENEC & TUV, international product marks
- The most competitive, quality-driven solution for projects worldwide

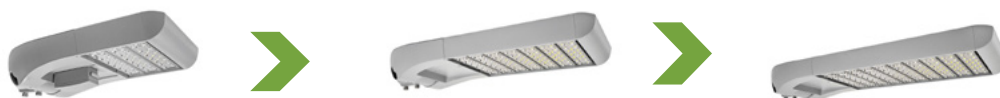


## *Arrol 4A Series*

### *Premium Street Lights*

CDN:SPEC142REV6

## Technical Specifications Summary



### Performance Summary:

Code (Series-Wattage/Size)	AR4A-30	AR4A-60	AR4A-90	AR4A-110	AR4A-140	AR4A-170	AR4A-200	AR4A-230	AR4A-255	AR4A-280
Nominal Power	30W	60W	90W	110W	140W	170W	200W	230W	255W	280W
Luminaire Efficacy @ CRI>70, 5000K CCT	129lm/W	130lm/W	133lm/W	141lm/W	136lm/W	134lm/W	133lm/W	134lm/W	135lm/W	135lm/W
Lumen Output @ CRI>70, 5000K CCT	3,870lm	7,800lm	11,970lm	15,510lm	19,040lm	22,780lm	26,600lm	30,820lm	34,425lm	37,800lm
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 Emission	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	30W	60W	90W	110W	140W	170W	200W	230W	260W	280W
Driver Brand	Philips									
Driver Model	Xitanium 929001402280			Xitanium 929001401680		Xitanium 929001402280 (x1) Xitanium 929001401680 (x1)			Xitanium 929001401680 (x2)	
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									



## Technical Specifications Summary

Code (Series-Wattage/Size)	AR4A-30	AR4A-60	AR4A-90	AR4A-110	AR4A-140	AR4A-170	AR4A-200	AR4A-230	AR4A-255	AR4A-280
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 x 116	703 x 345 x 116	763 x 345 x 116	823 x 345 x 116	883 x 345 x 116	943 x 345 x 116	1003 x 345 x 116
Qty of LED Chips	18	36	54	72	90	108	126	144	162	180
Qty of Modules	1	2	3	4	5	6	7	8	9	10
Windage	0.0427m²	0.0464m²	0.0501m²	0.0548m²	0.0585m²	0.0622m²	0.0668m²	0.0706m²	0.0743m²	0.0780m²
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	13.1kg	13.9kg
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)									

<sup>1</sup> Electrical Parameter data is for D1 drivers, unless otherwise stated

<sup>2</sup> 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



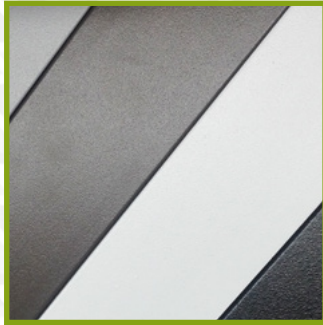
## Separate Driver Compartment

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 100 $\mu$ m, salt-spray tested, corrosion-resistance Akzo Nobel surface finish



## Surge Protection Device

10KA, 20KA integrated surge protection device



## Bird Spikes

Helps reduce avian nuisance



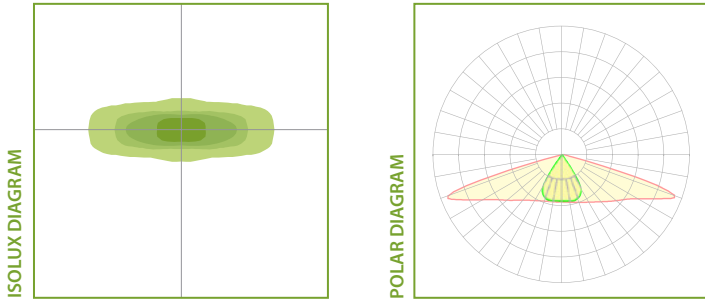
## DALI / 1-10V Dimming

Intelligent control systems are available subject to MOQ

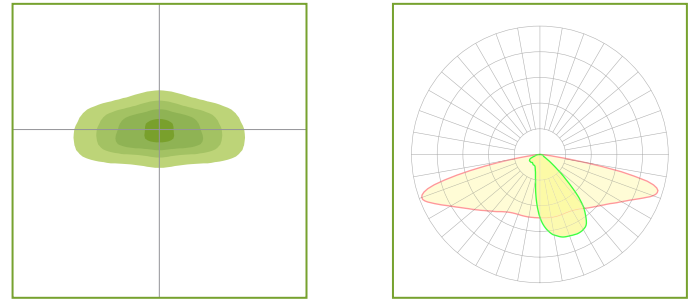
Please note - images shown are intended to be illustrative only. For exact data, please refer to specific product photometry, available for download from our website.

## Indicative Product Photometry

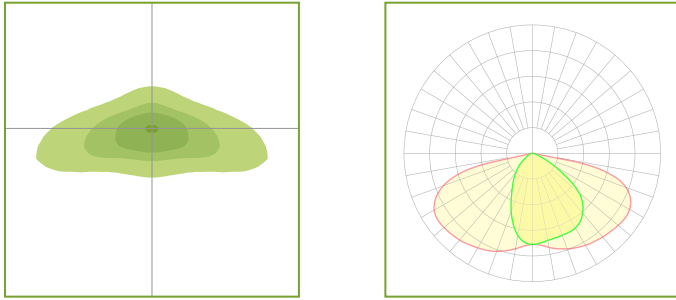
IESNA Type 1 Medium ▶▶



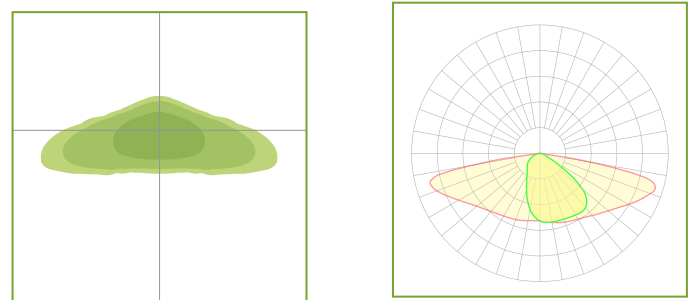
◀◀ IESNA Type 2 Medium



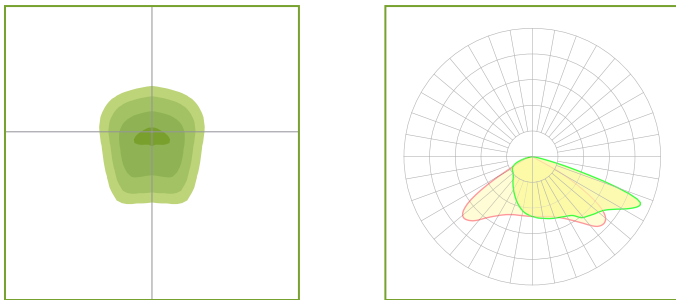
IESNA Type 3 Medium ▶▶



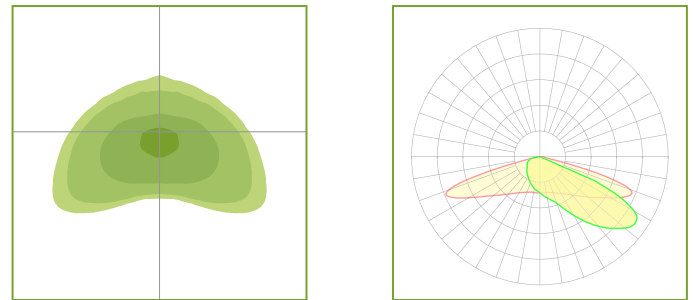
◀◀ IESNA Type 3 Long



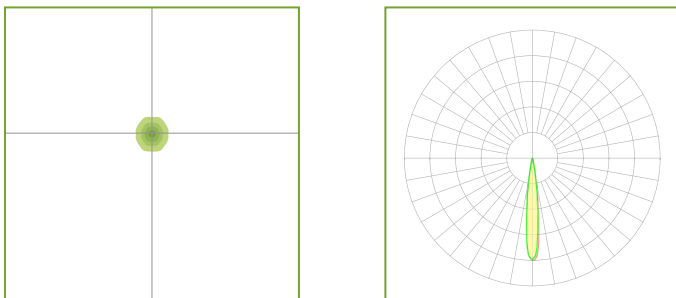
IESNA Type 4 Short ▶▶



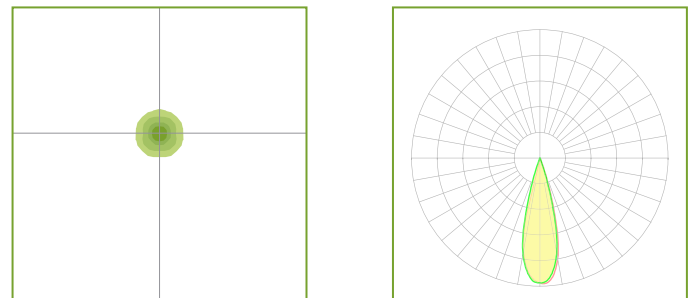
◀◀ IESNA Type 4 Medium



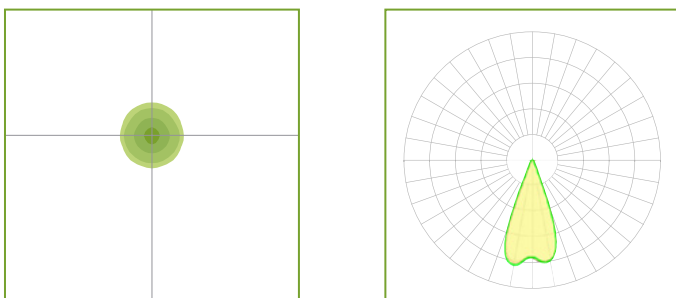
10° Optic ▶▶



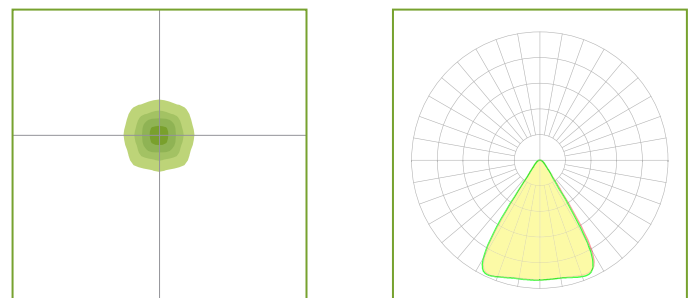
◀◀ 25° Optic



40° Optic ▶▶



◀◀ 60° Optic

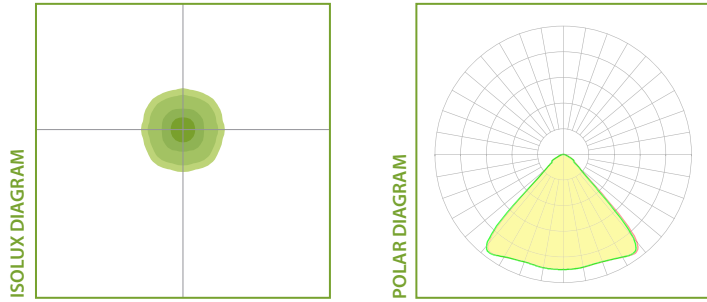


Colourations on isolux diagrams are qualitative, i.e. the same colour on any two isolux diagrams will not necessarily have the same lux value.

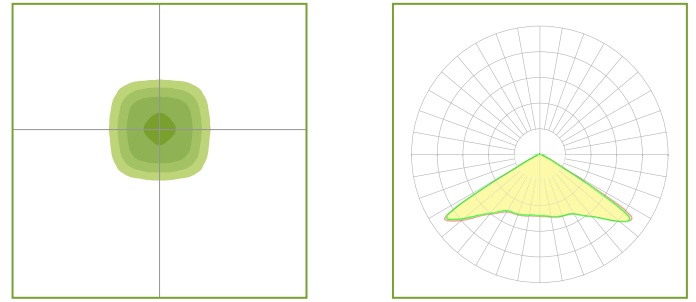
Please note - images shown are intended to be illustrative only. For exact data, please refer to specific product photometry, available for download from our website.

## Indicative Product Photometry

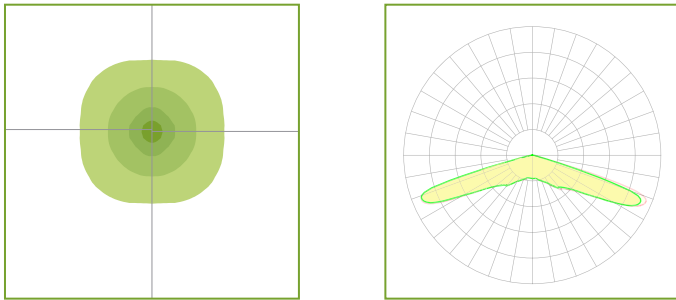
90° Optic



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
AR4A	30 30W	730 CRI >70, 3000K	2M IESNA TYPE II MEDIUM	D1 NON-DIM	GR GREY	PH1 PHOTOCELL
	60 60W	740 CRI >70, 4000K	3M IESNA TYPE III MEDIUM	D2 1-10V	BL BLACK	BG BACKSPILL GUARD
	90 90W	750 CRI >70, 5000K	3L IESNA TYPE III LONG	D3 DALI	WH WHITE	SP2 SURGE PROTECTION DEVICE (20KV)
	110 110W	757 CRI >70, 5700K	4S IESNA TYPE IV SHORT	D4 12-24V	GR2 <sup>1</sup> GREY - MARINE GRADE	
	140 140W	830 CRI >80, 3000K	4M IESNA TYPE IV MEDIUM		BL2 <sup>1</sup> BLACK - MARINE GRADE	
	170 170W	840 CRI >80, 4000K	10 10° CIRCULAR		WH2 <sup>1</sup> WHITE - MARINE GRADE	
	200 200W	850 CRI >80, 5000K	25 25° CIRCULAR			
	230 230W	857 CRI >80, 5700K	40 40° CIRCULAR			
	255 255W		60 60° CIRCULAR			
	280 280W		90 90° CIRCULAR			
			120 120° CIRCULAR			
			150 150° CIRCULAR			

<sup>1</sup> Upgraded AkzoNobel polyester powder coat for increased salt corrosion resistance.

## GENERAL NOTES:

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

Product Ordering Code Examples:

AR4A-60-740-2M-D1-GR

AR4A-110-757-2L-D1-BL-BG-SP2

DRIVER MANUFACTURER				
POWER	D1	D2	D3	D4
30 30W	Philips	Philips	Philips	Meanwell
60 60W	Philips	Philips	Philips	Meanwell
90 90W	Philips	Philips	Philips	N/A
110 110W	Philips	Philips	Philips	N/A
140 140W	Philips	Philips	Philips	N/A
170 170W	Philips	Philips	Philips	N/A
200 200W	Philips	Philips	Philips	N/A
230 230W	Philips	Philips	Philips	N/A
255 255W	Philips	Philips	Philips	N/A
280 280W	Philips	Philips	Philips	N/A

ACCESSORIES
AR-BS BIRD SPIKES

CONTACT OUR OFFICE FOR FURTHER INFORMATION ON DRIVER PARAMETERS

