KELLWOOD
LIGHTING

- **Multi-purpose industrial fittings** - Ideal for application in workshops, warehouses, sheds & factories, with optional smart controls & emergency function

- **Ingress & impact resistant** - Progressive, modular light-engine design featuring European, long-life SMDs

- **CE, RoHS, CB, ELT, & DLC** international product marks

- **The most competitive, high-end** solution for projects worldwide

Forsyth 2 Series
Multi-Purpose High Bays & Floodlights

CDN:SPEC152REV4

EST. 1985

ENGINEERING

ELECTRICAL

LED LIGHTING

Technical Specifications Summary

Performance Summary:

Code (Series-Wattage/Size)	FOR2-100	FOR2-150	FOR2-200	FOR2-300	FOR2-450
Nominal Power	100W	150W	200W	300W	450W
Luminaire Efficacy @ CRI>70, 4000K/5000K CCT	140lm/W	140lm/W	140lm/W	140lm/W	140lm/W
Lumen Output @ CRI>70, 4000K/5000K CCT	14,000lm	21,000lm	28,000lm	42,000lm	63,000lm
Lumen Maintenance (TM21 Calculated)	L80B10 ≥82,000 hours @ 25°C Ambient				
Certification	CE, RoHS, CB, ELT, DLC				
Product Warranty	5 Years				

Light Source and Photometric Parameters:

Chip Brand, Model, & Size	Philips Lumileds
Chip Efficacy @ CRI>70, 5000K CCT	169lm/W @ 122mA, 25°C
Light Emmission	Direct
CCT	5000K, (3000K, 4000K, 6000K)
CRI	≥70Ra, (≥80Ra optional)
SDCM	≤5
Diffusers	Clear
Symmetric Light Distribution	90°, 110° (Standard), 150°
Asymmetric Light Distribution	A1 (30°x100°), A2 (60°x100°), 1S, 2S, 2M, 4S

Electrical Parameters[1]:

System Operating Power	100W	150W	200W	300W	450W
Driver Brand	Meanwell (Inventronics DALI-dimming optional)				
Driver Model	HLG-150	HLG-150	HLG-240	HLG-150	HLG-150
Typical Driver Lifetime (Case Temp.)	100,000 hours @Tc 25°C | 50,000 hours @Tc 80°C				
Typical Driver Lifetime	100,000 hours @25°C Ambient | 80,000 hours @70°C Ambient | 43,000 hours @80°C Ambient				
Input Voltage	220-240VAC				
Input Frequency	50-60Hz				
Qty of Drivers per Light	1	1	1	2	3
Inrush Current Per Driver @ 230VAC measured at 50% Ipeak (Peak/Duration)	65A/425μs	65A/445μs	75A/570μs	75A/570μs	75A/570μs
Recommended Lights per Circuit (16A Type C MCB)	7	7	4	2	1
Power Factor	>0.95				
THD	<15% (220-240VAC)				
Insulation Class	Class I				
Surge Protection/Fusing	2kV line-line, 4kV line-earth				

Environmental Parameters:

IP Rating	IP66
IK Rating	IK10
Ambient Usage Tolerance	-30°C to 45°C
Ambient Storage Tolerance	-40°C to 80°C
Driver automatic turn-off temperature	90°C Tc - Driver Powers OFF to protect the LED Load
Ambient Humidity Tolerance	15% to 95% RH

Code (Series-Wattage/Size)	FOR2-100	FOR2-150	FOR2-200	FOR2-300	FOR2-450
Physical/Mechanical Parameters:					
Product Dimensions: LxWxH (mm)	330 x 365 x 224	435 x 365 x 224	540 x 365 x 224	750 x 365 x 224	1065 x 365 x 224
Qty of LED Chips	112	168	224	336	504
Qty of Modules	2	3	4	6	9
Electrical Connection	1000mm 3-Core Cable				
Fixture Weight²	6.4kg	7.7kg	9.1kg	14.9kg	21.0kg
Fixture Primary Material(s)	Aluminium Alloy and Stainless Steel Fixings				
Fixture Finish	Painted				
Lens(es) Materials	UV Stabilised Polycarbonate				
Dimming/Controls Parameters:					
Dimming Options	1-10V, DALI				
Built-In Controls	Photocell, PIR Sensor				
Compatible intelligent lighting systems	Wireless Controls and Monitoring, Photocell				
Options/Accessories:					
Mounting Styles	Universal Bracket (optional 180° rotation), Slip Fit, Twin Surface Mount Brackets, Eye Bolt, Twin Eye Bolts, Wall Mount				
Miscellaneous Accessories	Wire Grill, Corrosion Resistant Finish, IP68 13A In-Line Connector, Photocell, PIR Sensor, Microwave Sensor				
Available Product Colours	Black (RAL 9011), Grey (RAL 7045)				

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

Multiple Mounting Options
Universal bracket, universal bracket with 360° rotation, slip fit, twin surface mount brackets, eye bolt, twin eye bolts and wall mount available

Standalone Integrated Controls
Occupancy, multi-step dimming, & daylight harvesting systems available - Refer to series ordering codes for options
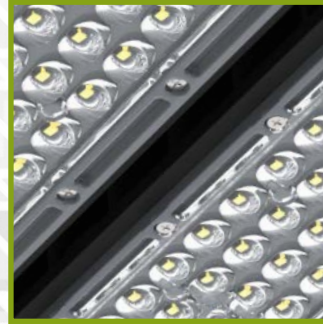
Flexible Optics
Racking-specific, open-area, street lighting & floodlight dispersion patterns available

IP68 Barrel Connector
Temperature-resistant, 13A, TUV-rated, ingress-resistant connector with optional length of three core flex

Thermal Specialist
Product application in high ambient temperatures possible through chassis & heat sink upgrades - See Parker Series

Stainless Steel Components
Exposed metal fixtures are fabricated from 304 stainless steel

WAGO Connectors
Internal connections use premium WAGO connectors for reliability

Safety Wire & Carabiner
Additional safety-feature

Fitting Colouration
Fittings supplied with grey surface finish as standard. Black and other custom colours available subject to MOQs (typically >100 units)

Integrated Photocell
Integrated dusk-til-dawn photocells available for high mast and flood lighting applications
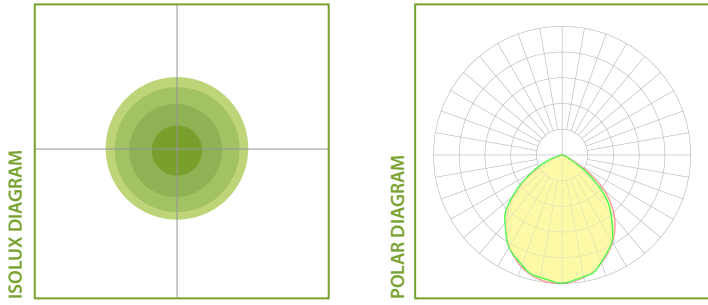

DALI / 1-10V
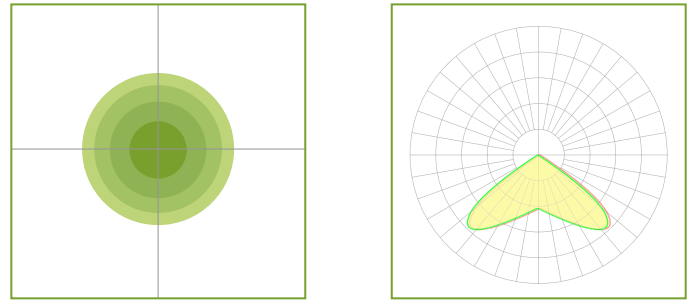Intelligent operation compatibility - dimming, photocells, occupancy...

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.
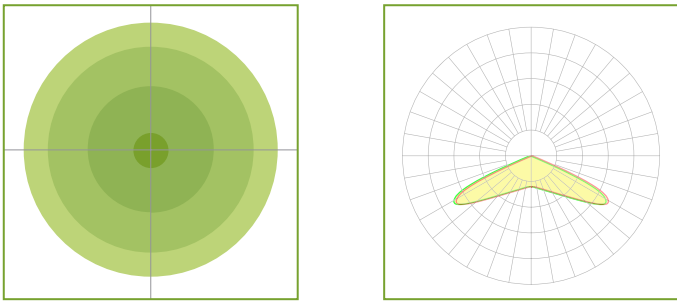
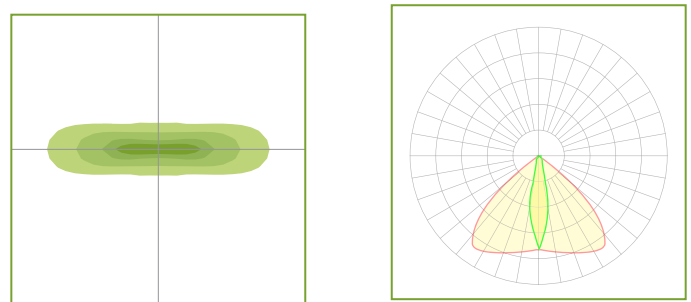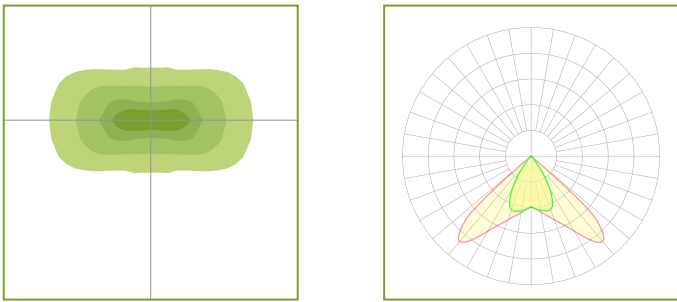## Indicative Product Photometry

90° Optic

ISOLUX DIAGRAM

POLAR DIAGRAM

110° Optic

150° Optic

A1 Optic

A2 Optic

IESNA Type 1S
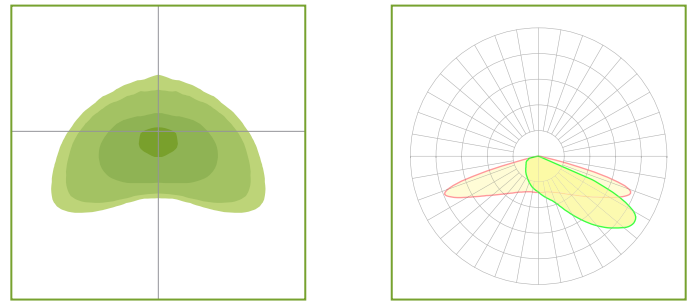
IESNA Type 2S
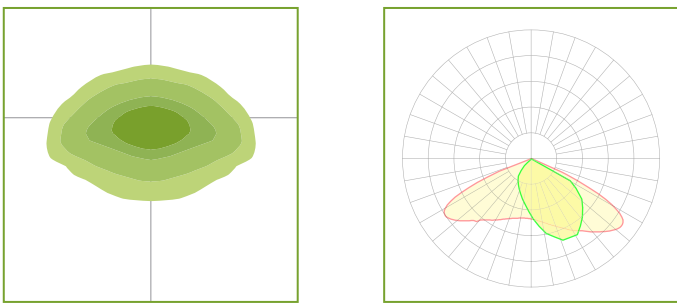
IESNA Type 4S
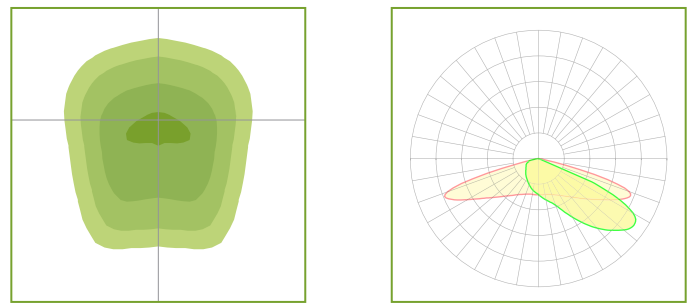
Diffusers

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)

IESNA Type 2M

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

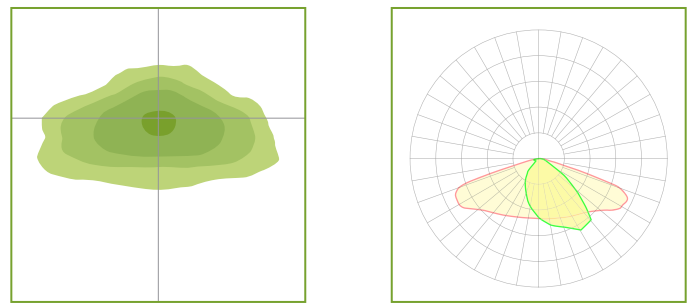# Product Ordering Codes

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

CODE
Description

830
CRI>80, 3000K

PRODUCT	POWER	CRI & CCT	OPTIC	DRIVER	MOUNTING	COLOUR	MODIFICATIONS
FOR2	**100** 100W	**730** CRI >70, 3000K	**90** 90° CIRCULAR	**D1** NON-DIM	**UB**[1] UNIVERSAL BRACKET	**GR** GREY (RAL 7045)	**PH1** PHOTOCELL
	150 150W	**740** CRI >70, 4000K	**110** 110° CIRCULAR	**D2** 1-10V	**UE** UNIVERSAL BRACKET (180° ROTATION)	**BL** BLACK (RAL 9011)	**M1** MICROWAVE SENSOR 1
	200 200W	**750** CRI >70, 5000K	**150** 150° CIRCULAR	**D3** DALI	**SF** SLIP FIT	**GR2** GREY - CORROSION RESISTANT (RAL 7045)	**M2** MICROWAVE SENSOR (REMOTE CONTROL)
	300 300W	**760** CRI >70, 6000K	**A1** 30X100° RECTANGULAR		**TM** TWIN SURFACE MOUNT BRACKETS	**BL2** BLACK - CORROSION RESISTANT (RAL 9011)	**P1** PIR SENSOR 1
	450 450W	**840** CRI >80, 4000K	**A2** 60X100° RECTANGULAR		**EB** EYE BOLT		**UM** COMPATIBLE WITH UMBILICAL EMERGENCY MODULE
		850 CRI >80, 5000K	**1S** IESNA TYPE I SHORT		**TE** TWIN EYE BOLTS		**WG** WIRE GRILL
		860 CRI >80, 6000K	**2S** IESNA TYPE II SHORT		**WM** WALL MOUNT		
			4S IESNA TYPE IV SHORT				
			2M IESNA TYPE II MEDIUM				

[1] Universal Bracket (mounting code "UB") has restricted rotations when mounted on a solid surface: 100W=±60°, 150W = ±45°, and 200W = ±20°. 300W, and 450W not available with UB mount. Specify the Extended Universal Bracket (mounting code "UE") to allow for unrestricted rotation, e.g. wall mounting while facing directly at the ground.

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:

FOR2-100-750-110-D1-UB-GR
FOR2-200-760-A1-D2-UB-GR-M2-WG

DRIVER MANUFACTURER

POWER	D1	D2	D3
100 100W	**Mean Well**	**Mean Well**	**Inventronics**
150 150W	**Mean Well**	**Mean Well**	**Inventronics**
200 200W	**Mean Well**	**Mean Well**	**Inventronics**
300 300W	**Mean Well**	**Mean Well**	**Inventronics**
450 450W	**Mean Well**	**Mean Well**	**Inventronics**

CONTACT OUR OFFICE FOR FURTHER INFORMATION ON DRIVER PARAMETERS

ACCESSORIES

JB1
IP68 13A IN-LINE CONNECTOR

JB1-*(LENGTH IN METRES)*
IP68 13A IN-LINE CONNECTOR WITH CABLE TO REQUESTED LENGTH