



Specialist, food-grade, industrial & commercial lighting hardware - Refined for application in hygienic warehouses & factories, laboratories, food preparation, food storage zones, & clean areas

100W-200W series power range - Impact, ingress, & corrosion, resistant design - Hydrophobic fitting finishes & curved design deliver superior dust & water control - >130lm/W family efficacy - 3no. general purpose & task-specific optic variants - Improved glare control through recessed light engine & optional diffusers - Advanced colour rendering capabilities - Standalone, & wireless network, intelligent control options available

CE, RoHS, DLC, SAA, UL, & CB & NSF international product marks

Carlyle 2 Series *Clean Area High Bays*



CDN:SPEC78REV8

Technical Specifications Summary



Performance Summary:

Code (Series-Wattage/Size)	CAR2-100	CAR2-120	CAR2-150	CAR2-200
Nominal Power	100W	120W	150W	200W
Luminaire Efficacy @ CRI>70, 5000K CCT	130lm/W	133lm/W	134lm/W	132lm/W
Lumen Output @ CRI>70, 5000K CCT	13,000lm	15,960lm	20,100lm	26,400lm
Lumen Maintenance (TM21 Reported)	L70B10 ≥50,000 hours @ Ta 30°C			
Lumen Maintenance (TM21 Calculated)	L80B10 ≥67,000 hours @ Ta 25°C			
Certification	CE, RoHS, DLC, SAA, UL, CB, NSF Approved			
Product Warranty	5 Years			

Light Source and Photometric Parameters:

Chip Brand, Model, & Size	Nichia NFW757GR
Light Emission	Direct
CCT	5000K, (3000K, 4000K optional)
CRI	≥70, (≥80 optional)
SDCM	<5
Diffusers	Clear, Frosted (optional - 120° only)
Symmetric Light Distribution	90°, 120°
Optical Accessories	Backspill guard, open or closed bottom glare reducing diffusers

Electrical Parameters¹:

System Operating Power	100W	120W	150W	200W
Driver Brand	Mean Well (Inventronics DALI-dimming optional)			
Driver Model	HLG-100	HLG-120	HLG-150	HLG-240
Typical Driver Lifetime	≥100,000 hours @Tc 70°C			
Input Voltage	100-240VAC			
Input Frequency	50-60Hz			
Qty of Drivers per Light	1			
Inrush Current Per Driver @ 230VAC measured at 50% Ipeak (Peak/Duratio)	60A/415µs	60A/375µs	65A/425µs	75A/570µs
Max Lights per Circuit (16A Type C MCB)	8	9	7	4
Power Factor	>0.94			
THD	<20%			
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 50°C
Ambient Storage Tolerance	-40°C to 70°C
Driver automatic turn-off temperature	90°C Tc - Driver Powers OFF to protect the LED Load
Ambient Humidity Tolerance	15% to 90% RH



Technical Specifications Summary

Code (Series-Wattage/Size)	CAR2-100	CAR2-120	CAR2-150	CAR2-200
Physical/Mechanical Parameters:				
Product Dimensions: (ØxL) (mm)	498 x 200			
Electrical Connection	1,500mm 3-Core Cable			
Fixture Weight ²	7.2kg			
Fixture Primary Material(s)	ADC12 Aluminium Alloy and 304 Stainless Steel Fixings			
Fixture Finish	Powder Coated			
Lens(es) Materials	UV Stabilised Polycarbonate			
Dimming/Controls Parameters:				
Dimming Options	1-10V, DALI			
Compatible intelligent lighting systems	Wireless Controls and Monitoring			
Options/Accessories:				
Mounting Styles	Eye Bolt			
Miscellaneous Accessories	Stainless Steel Safety Chain, IP68 In-Line Connector			
Available Product Colours	Grey			

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.

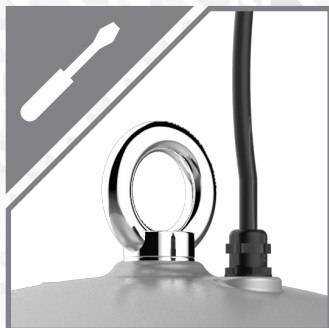
This datasheet & corresponding certification should be reviewed by a competent person to ensure project suitability.

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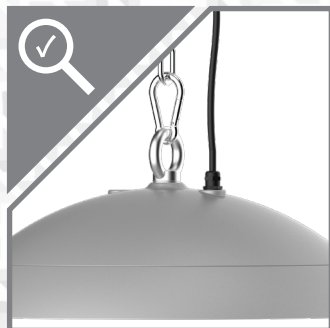


Technical Specifications Summary



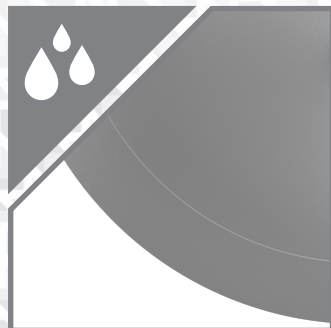
Mounting Options

Eye-bolt
- Stainless steel 304 fixture material



Materials & Construction

Glass-free - Chassis is hydrophobically treated - Curved surfaces ensure rapid drying process and minimised dust build-up



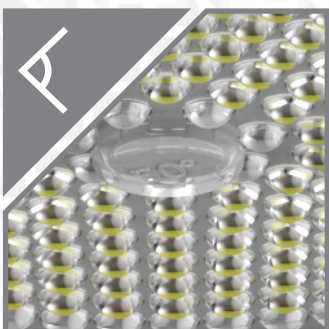
Environmental Protection

IP66 c/w corrosion-resistant powder coating



Impact Protection

IK10 rated



Distribution

3no. optic variants are available for general & task-specific applications



Glare Reduction

Recessed light source reduces horizontal glare, compared to flush/visible market alternatives



Driver Protocols

Non-dimming, 0-10V, 1-10V, DALI



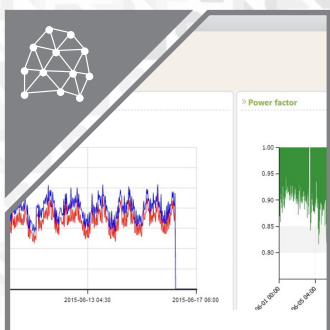
Sensor(s)

Standalone (single or multiple luminaires per sensor options)



Sensor Functions

Occupancy, multi-step dimming, photocell, daylight harvesting



Advanced Controls

System energy reports, data monitoring, IoT (wireless/wired/mesh) networks

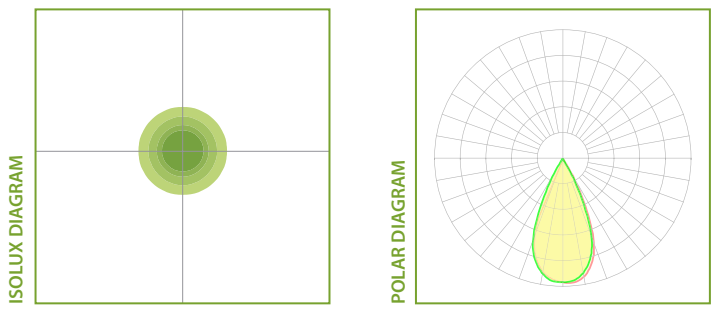




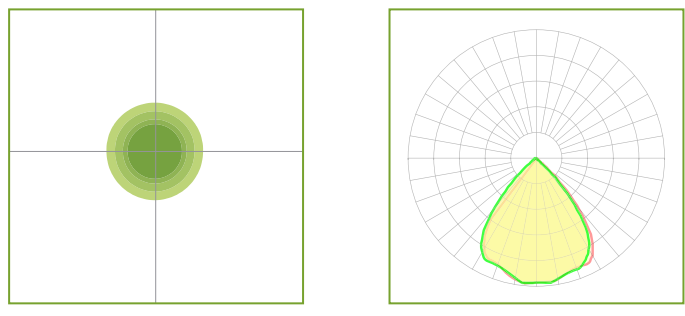
Please note - images shown are intended to be illustrative only. For exact data, please refer to specific product photometry, available for download from our website.

Indicative Product Photometry

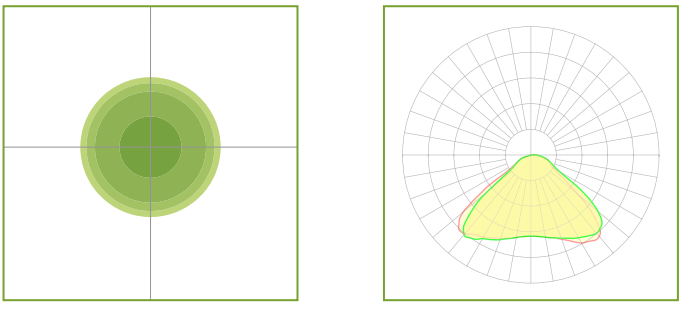
50° Optic



90° Optic

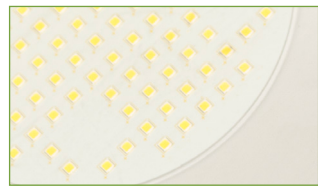


120° Optic



Diffusers

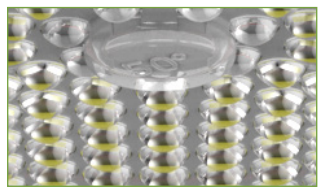
This series is available with the following diffusers. Each diffuser will have a varying effect on photometric distribution and intensity. Please refer to downloadable photometrics for exact data.



Clear (120°)
(Polycarbonate or Tempered Glass)



Frosted



Clear Optic (Various Beam Angles)

Images are illustrative of diffuser type only and not necessarily taken from this product series

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





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
CAR2	100 100W	730 CRI >70, 3000K	50 50° CIRCULAR	D1 NON-DIM	GR GREY
	120 120W	740 CRI >70, 4000K	90 90° CIRCULAR	D2 1-10V	
	150 150W	750 CRI >70, 5000K	120 120° CIRCULAR	D3 DALI	
	200 200W	840 CRI >80, 4000K	FR FROSTED DIFFUSER	D1 NON-DIM	
		850 CRI >80, 5000K	TG TEMPERED GLASS	D6 DALI	
	860 CRI >80, 6000K	CL CLEAR PC LENS			

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:

CAR2-120-750-120-D1-GR

DRIVER MANUFACTURER					
POWER	D1	D2	D3	D4	D6
100 100W	Mean Well	Mean Well	Inventronics	Us	Sosen
120 120W	Mean Well	Mean Well	Inventronics	Us	Sosen
150 150W	Mean Well	Mean Well	Inventronics	Us	Sosen
200 200W	Mean Well	Mean Well	Inventronics	Us	Sosen

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
CAR2-CH STAINLESS STEEL M8 SAFETY CHAIN AND CARABINER - 340MM

