Premium quality, heavy-duty hardware designed for application in largescale environments

Best-in-class efficacy - Available unit upgrades include; wireless intelligent controls, 3hrs emergency operation, low-glare diffusers, & mounting variations

CE, RoHS, CB, TUV, SAA, ENEC & UL international product marks

The most competitive, high-end solution for projects worldwide

Raeburn 2 Series
Premium Quality High Bays

CDN:SPEC107REV3

Technical Specifications Summary

Performance Summary:

Code (Series-Wattage/Size)	RAE2-70	RAE2-100	RAE2-120	RAE2-150	RAE2-200	RAE2-240	RAE2-300
Nominal Power	70W	100W	120W	150W	200W	240W	300W
Luminaire Efficacy @ 5000K CCT	140lm/w	151lm/W	161lm/W	157lm/W	153lm/W	144lm/W	143lm/W
Lumen Output @ 5000K CCT	9,800lm	15,100lm	19,320lm	23,550lm	30,600lm	34,560lm	42,900lm
Lumen Maintenance (TM21 Calculated)	L80B10 ≥96,000 hours @Ta 30°C						
Certification	CE, RoHS, CB, TUV, SAA, ENEC & UL						
Product Warranty	5 Years						

Light Source and Photometric Parameters:

Chip Brand, Model, & Size	Nichia GRT-V3
Chip Efficacy @ CRI>70, 5000K CCT	157lm/W @ 150mA Rank P20
Light Emmission	Direct
CCT	5000K, (3000K, 4000K optional)
CRI	≥70, (≥80 optional)
Diffusers	Clear
Symmetric Light Distribution	120° (50°, 90° optional)
Optical Accessories	Diffusion Hood (Open Bottomed), Diffusion Hood (Closed Bottomed)

Electrical Parameters:

System Operating Power	70W	100W	120W	150W	200W	240W	300W
Driver Brand	Meanwell						
Driver Model	HBG-100		HBG-160		HBG-200	HBG-240	HLG-320
System Power Factor	>0.93						
Typical Driver Lifetime	>100,000 hours @Tc 60°C						
Input Voltage	100-277VAC						
Input Frequency	50-60Hz						
Power Factor	>0.9						
Qty of Drivers per Light	1						
Inrush Current Per Driver @ 230VAC measured at 50% Ipeak (Peak/Duration)	45A/100μs	60A/415μs	65A/425μs		85A/600μs	75A/680μs	70A/1010μs
Recommended Lights per Circuit (16A Type C MCB)	≤32pcs	≤8pcs	≤7pcs at Maximum Product Power Note: MCB may allow for an increased number of lights per circuit for the lower powered versions		≤7pcs	≤3pcs	≤2pcs
THD	<15%						
Surge Protection/Fusing	2kV line-line, 4kV line-earth						

Environmental Parameters[2]:

IP Rating	IP65
IK Rating	IK08 (Tempered Glass)/ IK10 (Polycarbonate)
Ambient Usage Tolerance	-30°C to 50°C
Ambient Storage Tolerance	-40°C to 70°C
Ambient Humidity Tolerance	15% to 90% RH
Driver automatic turn-off temperature	90°C Tc

Technical Specifications Summary

Code (Series-Wattage/Size)	RAE2-70	RAE2-100	RAE2-120	RAE2-150	RAE2-200	RAE2-240	RAE2-300
Physical/Mechanical Parameters:							
Product Dimensions: ØxH (mm)	383 x 203	383 x 203	383 x 203	383 x 203	383 x 203	383 x 203	383 x 254
Electrical Connection	300mm 3-Core cable						
Fixture Weight[2]	3.1kg	7.0kg	7.0kg	7.0kg	7.8kg	7.8kg	8.7kg
Fixture Primary Material(s)	Aluminium Alloy and Stainless Steel Fixings						
Fixture Finish	Powder Coated						
Lens(es) Materials	Tempered Glass, UV Stabilised Polycarbonate						
Dimming/Controls Parameters:							
Dimming Options	0-10V, DALI						
Built-in Controls	Microwave Sensor (Remote Control), Daylight Harvesting, Emergency						
Compatible intelligent lighting systems	Wireless Controls and Monitoring						
Options/Accessories:							
Mounting Styles	Eye Bolt, Universal Bracket						
Miscellaneous Accessories	Safety cable						
Available Product Colours	Black, White, Silver						

[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

Emergency Options Summary:							
Emergency Variant Code	E3R1						
Test Method	Remote-Test						
Style	Integrated						
Output Power in Emergency Mode	8W					10W	
Nominal Emergency Lumen Output	>1200lm (@ CRI>70 5000K)					1300lm (@ CRI>70 5000K)	
Emergency Correction Factor	0.133	0.080	0.066	0.053	0.040	0.041	0.033
IP Rating	IP65					IP20	
Emergency Switch Brand	BILDA					UPSHINE	
Emergency Switch Model	BLD-CMZZE-48YYYY					UP-UPS10W	
Battery Chemical Composition	Ni-MH					Lithium	
Battery Capacity	3000mAh					4000mAh	
Battery Output Voltage	9.6V					7.4V	
Output Power Duration	≥3 hours						
Time to Charge	≥24 hours						
Ambient Product Usage Tolerance	0°C to 45°C						

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.
©2020 Kellwood Engineering Ltd. All rights reserved.

Features Summary

Eye Bolt

Bolt-locked suspension point

Universal Bracket

Suitable for ceiling & wall-mounting applications

3m Cable Extension

Temperature-resistant cable supplied c/w 1no.IP68 connector

Enclosed Diffuser

Polycarbonate, lateral & vertical perspective glare-reducer

Semi-Enclosed Diffuser

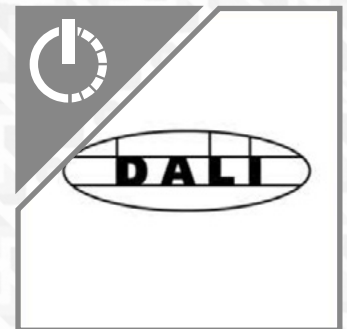Polycarbonate, lateral perspective glare-reducer

Standalone Daylight Harvesting

Photosensitive operation c/w anti-rotation-&-tilt anchor point

Standalone Occupancy Sensor

Microwave operation c/w anti-rotation-&-tilt anchor point

DALI / 1-10V

Intelligent operation compatibility - Dimming, photocells, occupancy...

Wireless Lighting Controls

Inter-communicating, tablet controlled, intelligent operations
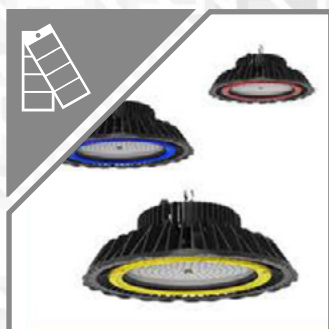
Customisation

Alternative fitting & accent halo colours available subject to MOQ

Integrated Emergency Operation

3 hours, maintained, remote testing emergency complete with battery pack, IP65 enclosure for 60W to 200W
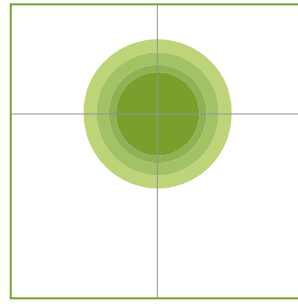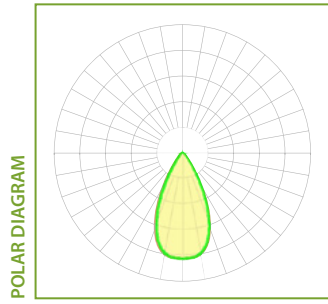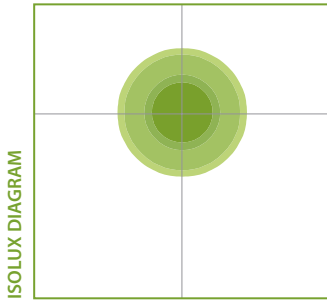
Integrated Emergency Operation

3 hours, maintained, remote testing emergency complete with battery pack, IP20 240-300W thermally isolated enclosure for high powered high bay
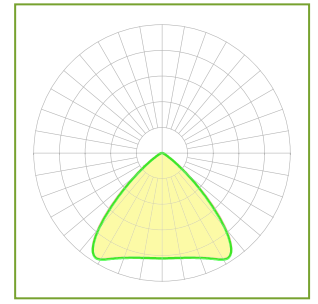
Please note - images shown are intended to be illustrative only. For exact data, please refer to specific product photometry, available for download from our website.

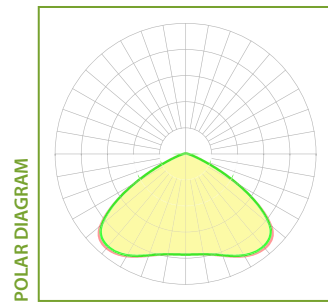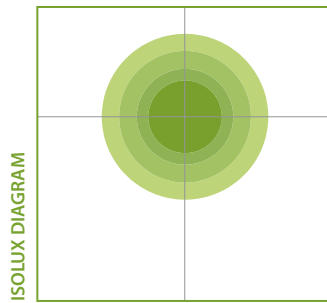**Indicative Product Photometry**

60° Optic

ISOLUX DIAGRAM

POLAR DIAGRAM

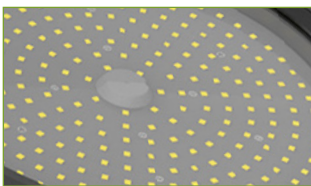### 90° Optic

POLAR DIAGRAM
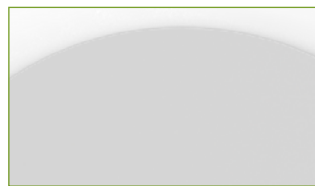
120° Optic

ISOLUX DIAGRAM

POLAR DIAGRAM

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 Optic (Various Beam Angles)

Product Ordering Codes

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

CODE
Description

730
CRI>70, 3000K

PRODUCT	POWER	CRI & CCT	OPTIC	DRIVER	MOUNTING	COLOUR	MODIFICATIONS
RAE2	**70** 70W	**730** CRI >70, 3000K	**60** 60° CIRCULAR	**D1** NON-DIM	**EB** EYE BOLT	**BL** BLACK	**E3R1**[1] INTEGRATED 3 HOUR MAINTAINED EMERGENCY (REMOTE TEST)
	100 100W	**740** CRI >70, 4000K	**90** 90° CIRCULAR	**D3** DALI	**UB** UNIVERSAL BRACKET	**WH** WHITE	**WG** WIRE GUARD
	120 120W	**750** CRI >70, 5000K	**120** 120° CIRCULAR	**D4** 0-10V (INVENTRONICS)		**GR** GREY	
	150 150W	**830** CRI >80, 3000K	**FR** FROSTED DIFFUSER	**D6** DALI (INVENTRONICS)			
	200 200W	**840** CRI >80, 4000K		**D7** NON-DIMMING (SOSEN)			
	240 240W	**850** CRI >80, 5000K					
	300 300W						

[1] Emergency 240W & 300W has IP20 rating

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:
RAE2-70-750-120-D1-EB-BL
RAE2-240-830-120-D6-UB-BL-E3R1

DRIVER & EMERGENCY CONTROLS MANUFACTURERS

POWER	NON-EMERGENCY			EMERGENCY		
	D1 **(NON-DIM)**	**D3** **(DALI-DIM)**	**D6** **(DALI-DIM)**	**D1** **(NON-DIM)**	**D6** **(DALI-DIM)**	**D7** **(NON-DIM)**
60 60W	**Meanwell HBG**	-	**Inventronics**	-	**Inventronics** (BILDA +8W OUTPUT)	**Sosen** (BILDA +8W OUTPUT)
100 100W	**Meanwell HBG**	**Meanwell HBG**	-	-	**Inventronics** (BILDA +8W OUTPUT)	**Sosen** (BILDA +8W OUTPUT)
120 120W	**Meanwell HBG**	**Meanwell HBG**	-	-	**Inventronics** (BILDA +8W OUTPUT)	**Sosen** (BILDA +8W OUTPUT)
150 150W	**Meanwell HBG**	**Meanwell HBG**	-	-	**Inventronics** (BILDA +8W OUTPUT)	**Sosen** (BILDA +8W OUTPUT)
200 200W	**Meanwell HBG**	**Meanwell HBG**	-	-	**Inventronics** (BILDA +8W OUTPUT)	**Sosen** (BILDA +8W OUTPUT)
240 240W	**Meanwell HBG**	**Meanwell HBG**	-	**Meanwell HLG**[1] (UPSHINE +10W OUTPUT)	**Inventronics**[1] (BILDA +8W OUTPUT)	-
300 300W	**Meanwell HLG**	-	**Inventronics**	**Meanwell HLG**[1] (UPSHINE +10W OUTPUT)	**Inventronics**[1] (BILDA +8W OUTPUT)	-

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

RAE2-DO
DIFFUSION HOOD (OPEN BOTTOMED)

RAE2-DC
DIFFUSION HODD (CLOSED BOTTOMED)