



- The ultra-slimline 600x600, 1200x300, & 1200x600 solution for application in commercial & office areas
- Technical superiority - Nominal efficacy  $\geq 125\text{lm/W}$ , Samsung LED light source with  $L70 \geq 80,000$  hours and optional low SDCM variants
- CE, RoHS, & UL international product marks
- The most competitive, quality-driven solution for projects worldwide



## *Mackenzie 2 Series* **Premium Ceiling Panels**

CDN:SPEC49REV12

# Technical Specifications Summary



## Performance Summary:

Code (Series-Wattage/Size)	MAC2-26A	MAC2-30B	MAC2-40A	MAC2-40C	MAC2-56C
Nominal Power	26W	30W	40W	40W	56W
Luminaire Efficacy @ CRI>80, 4000K CCT	125lm/W	124lm/W	111lm/W	110lm/W	118lm/W
Lumen Output @ CRI>80, 4000K CCT	3,250lm	3,720lm	4,349lm	4,400lm	6,608lm
Lumen Maintenance (TM21 Reported)	L70B50 ≥80,000 hours				
Certification	CE, RoHS, UL				
Product Warranty	5 Years, 2 Years (Emergency)				

## Light Source and Photometric Parameters:

Chip Brand, Model, & Size	Samsung 2835
Chip Efficacy @ CRI>80, 4000K CCT	59lm/W @ 150mA
Light Emission	Direct
CCT	4000K, (3000K, 5000K, 6000K optional)
CRI	≥80, (≥90 optional)
SDCM	<4, (<3 optional)
Diffusers	Frosted
Symmetric Light Distribution	115°
Typical UGR <sup>1</sup>	21

## Electrical Parameters<sup>2</sup>:

System Operating Power	26W	30W	40W	40W	56W
Driver Brand	Tridonic				Mean Well
Driver Model	Talex LC				LPF-60
System Power Factor	>0.9				
Typical Driver Lifetime	50,000 hours				
Input Voltage	220-240VAC				
Input Frequency	50-60Hz				
Power Factor	>0.9				
THD	<20% (220-277VAC)				

## Environmental Parameters:

IP Rating	IP20/IP65
IK Rating	IK06
Ambient Usage Tolerance	-30°C to 40°C
Ambient Storage Tolerance	-30°C to 60°C
Ambient Humidity Tolerance	10% to 65% RH

## Technical Specifications Summary

Code (Series-Wattage/Size)	MAC2-26W	MAC2-30W	MAC2-40W	MAC2-40W	MAC2-56
<b>Physical/Mechanical Parameters:</b>					
Product Dimensions: LxWxH (mm)	596 x 596 x 11	1196 x 296 x 11	596 x 596 x 11	1196 x 596 x 11	
Electrical Connection	350mm Cable				
Fixture Weight <sup>3</sup>	2.4kg	4.2kg	2.4kg	6.9kg	
Fixture Primary Material(s)	Aluminium Alloy				
Fixture Finish	Powder Coated				
Lens(es) Materials	UV Stabilised PMMA				
<b>Dimming/Controls Parameters:</b>					
Dimming Options	1-10V, DALI				
Compatible intelligent lighting systems	Wireless Controls and Monitoring				
<b>Options/Accessories:</b>					
Mounting Styles	Surface Mounted, Suspended				
Available Product Colours	White				

<sup>1</sup> UGR varies with light distribution. For further details contact our office

<sup>2</sup> Electrical Parameter data is for D1 drivers, unless otherwise stated

<sup>3</sup> Excludes bracketry. Refer to the Packaging Weights & Dimensions data sheet for bracketry and accessory weights

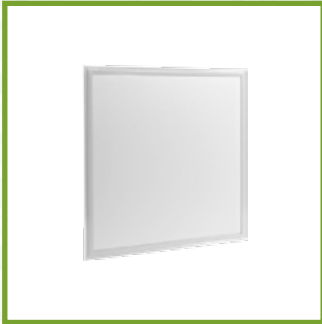
All stated values should be considered indicative only. Technical data is provided from sample luminaires and construction components as assessed by OEM(s) under industry-standard, laboratory conditions. In practice, stated values can vary. Kellwood Lighting operates a policy of continual product improvement. 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



### Suspended Ceiling Installation

600x600mm, T-bar/suspended ceiling compatible



### Surface Mounting Tray

Aluminium, painted



### Safety Wire System

Optional recessed ceiling panel securing system



### Glare-Reducing Diffuser

Low glare (UGR <17) option - please see Kellwood's Mitchell Series



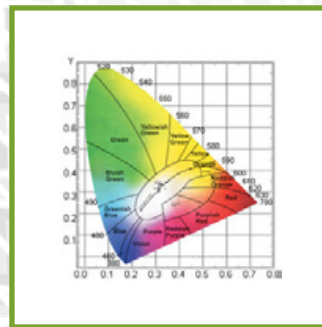
### Optional Emergency Operation

3 hour, maintained, remote or self-testing battery packs



### DALI / 1-10V

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



### CCT

Optional colour temperatures are available (MOQs may apply)

SDCM <3  
SDCM <4

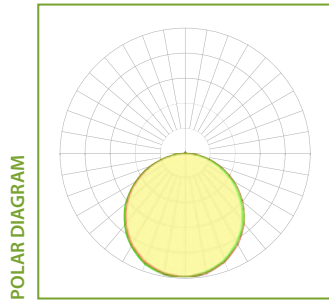
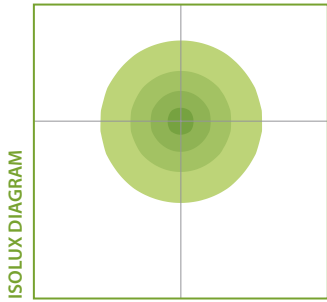
### SDCM

Optional low SDCM available (MOQs may apply)

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

### 115° Optic >



### Diffusers >

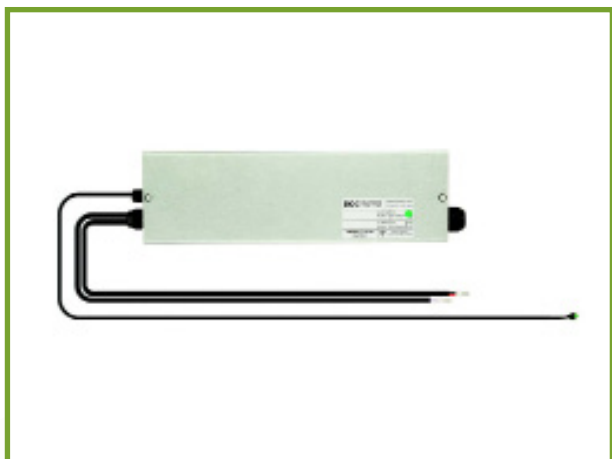
This series is available with the following diffusers. Each diffuser will have a varying effect on photometric distribution and intensity. Please refer to downloadable photometrics for exact data.



Diffuser



Prismatic Diffuser  
Please see Kellwood's Mitchell Series



### Emergency Packs

Premium plug and play, rapid installation option, available in remote-test, self-test and DALI variants. Incorporates luminaire driver, emergency switch electronics and battery.

Emergency LED indicator light bush and deep discharge protection included.

<b>Emergency Output</b>	≥ 3hrs @ 2.5W
<b>Ingress Protection</b>	IP20 or IP65
<b>Size</b>	IP20: 300 x 90 x 42mm IP65: 222 x 146 x 55mm
<b>Warranty</b>	3 Years
<b>Battery Type</b>	NiCd
<b>Mains Supply</b>	230-240VAC @ 50/60Hz
<b>Mains Input Terminal</b>	1.0mm <sup>2</sup> to 2.5mm <sup>2</sup>
<b>Max Ta and Tc</b>	Ta 50°C, Tc 70°C
<b>Max Battery Temperature</b>	NiCd 55°C



### Emergency Kits

Available in remote-test, self-test and DALI variants. Compact design and incorporated strain relief allows installation as individual components in a ceiling cavity.

Emergency LED indicator light bush and deep discharge protection included.

<b>Emergency Output</b>	≥ 3hrs @ 2.5W
<b>Ingress Protection</b>	IP20
<b>Size</b>	Fits through 45mm aperture
<b>Warranty</b>	3 Years
<b>Battery Type</b>	NiCd or LiFePO <sub>4</sub>
<b>Mains Supply</b>	230-240VAC @ 50/60Hz
<b>Mains Input Terminal</b>	1.0mm <sup>2</sup> to 2.5mm <sup>2</sup>
<b>Max Ta and Tc</b>	Ta 50°C, Tc 70°C
<b>Max Battery Temperature</b>	NiCd 55°C LiFePO <sub>4</sub> 60°C

### LiFePO<sub>4</sub>

Some emergency products are available with Lithium Iron Phosphate (LiFePO<sub>4</sub>) batteries.

The two main advantages over traditional emergency lighting batteries are:

- Double the operational life
- Extremely low self discharge and power consumption under use. E.g. standby power of a Nickel Cadmium (NiCd) battery is 5W, whereas our equivalent LiFePO<sub>4</sub> battery would be 1.5W





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



## Product Ordering Codes

PRODUCT	POWER	CRI & CCT	DRIVER	COLOUR	MODIFICATIONS
<b>MAC2</b>	<b>26A</b> 26W 600x600mm	<b>830</b> CRI >80, 3000K	<b>D1</b> NON-DIM	<b>WH</b> WHITE	<b>SD3</b> SDCM<3
	<b>30B</b> 30W 1200x300mm	<b>840</b> CRI >80, 4000K			<b>D2</b> 1-10V
	<b>40A</b> 40W 600x600mm	<b>850</b> CRI >80, 5000K	<b>D3</b> DALI		
	<b>40C</b> 40W 1200x600mm	<b>860</b> CRI >80, 6000K			
	<b>56C</b> 56W 1200x600mm	<b>930</b> CRI >90, 3000K			
	<b>72C</b> 72W 1200x600mm	<b>940</b> CRI >90, 4000K			
		<b>950</b> CRI >90, 5000K			
		<b>960</b> CRI >90, 6000K			

Product Ordering Code Examples:

*MAC2-40A-840-D1-WH*

*MAC2-26A-940-D2-WH-SD4*

Accessory Ordering Code Example:

*MAC2-E3R1-56-D3*

### 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

DRIVER MANUFACTURER			
POWER	D1	D2	D3
<b>26A</b> 26W 600x600mm	<b>Tridonic</b>	<b>Mean Well</b>	<b>Tridonic</b>
<b>30B</b> 30W 1200x300mm	<b>Tridonic</b>	<b>Mean Well</b>	<b>Tridonic</b>
<b>40A</b> 40W 600x600mm	<b>Tridonic</b>	<b>Mean Well</b>	<b>Tridonic</b>
<b>40C</b> 40W 1200x600mm	<b>Tridonic</b>	<b>Mean Well</b>	<b>Tridonic</b>
<b>56C</b> 56W 1200x600mm	<b>Mean Well</b>	<b>Mean Well</b>	<b>Tridonic</b>
<b>72C</b> 72W 1200x600mm	<b>Tridonic</b>	<b>Mean Well</b>	<b>Mean Well</b>

CONTACT OUR OFFICE FOR FURTHER INFORMATION ON DRIVER PARAMETERS

ACCESSORIES
<b>MAC2-SA</b> SURFACE MOUNT KIT - 600x600
<b>MAC2-SB</b> SURFACE MOUNT KIT - 1200x300
<b>MAC2-SC</b> SURFACE MOUNT KIT - 1200x600
<b>MAC2-E3R1-"POWER"- "DRIVER"</b> 3HR MAINTAINED NED EMERGENCY PACK - REMOTE TEST WITH NiCd BATTERY <sup>1</sup>
<b>MAC2-E3S1-"POWER"- "DRIVER"</b> 3HR MAINTAINED NES EMERGENCY PACK - SELF TEST WITH NiCd BATTERY <sup>1</sup>
<b>MAC2-E3R2</b> 3HR MAINTAINED EMERGENCY JED KIT - REMOTE TEST WITH NiCd BATTERY
<b>MAC2-E3R2L</b> 3HR MAINTAINED EMERGENCY FED KIT - REMOTE TEST WITH LiFePO <sub>4</sub> BATTERY
<b>MAC2-E3S2L</b> 3HR MAINTAINED EMERGENCY FES KIT - SELF TEST WITH LiFePO <sub>4</sub> BATTERY
<b>MAC2-SF</b> SAFETY CABLE

<sup>1</sup>These packs are not compatible with surface mount kits. Please select an alternative emergency kits

### NOTE: 2017 Product Code Updates

This product series previously used codes starting with LED/PAN-MAC2/... Please contact us if you require further information on corresponding codes.

