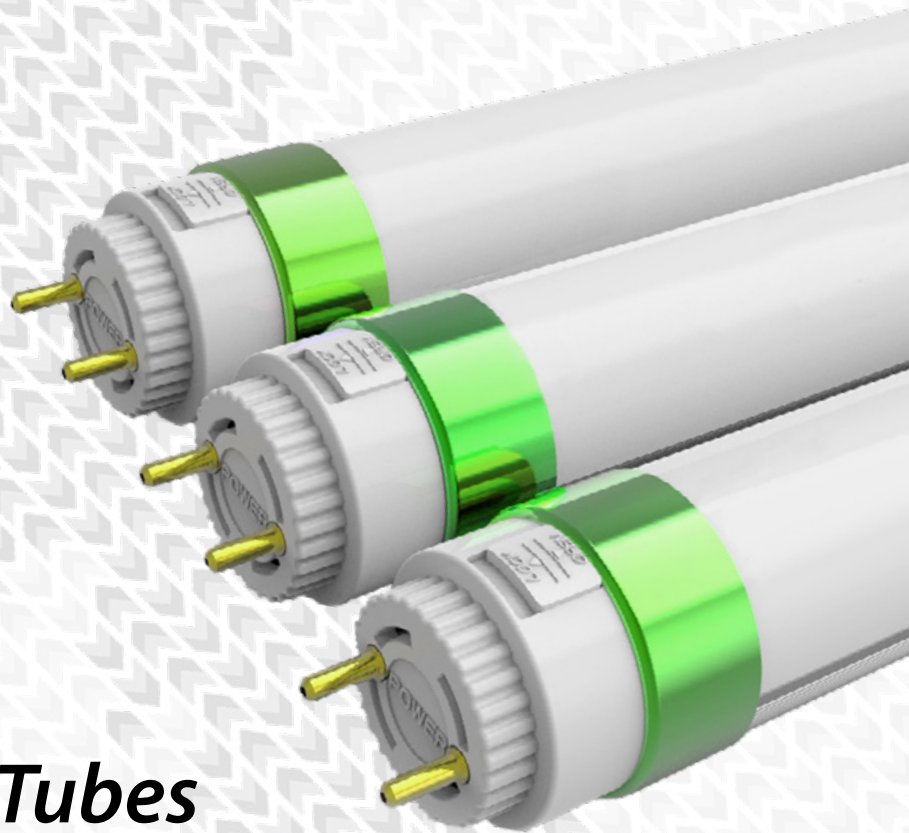




- Kellwood's high-output, premium T8 tubes for application in all commercial & industrial environments
- Multi-fin aluminium heat sinks provide superior heat management, developed for high lux applications
- CE, RoHS, TUV, SAA, & VOE product marks
- The most competitive, high-end solution for projects worldwide



Heston Series **Premium T8 LED Tubes**

CDN:SPEC76REV2

Technical Specifications Summary



Performance Summary:

Code (Series-Wattage/Size)	HES-11A	HES-15B	HES-18C	HES-23D	HES-30D	HES-30E
Nominal Power	11W	15W	18W	23W	30W	30W
Luminaire Efficacy @ CRI>80, 4000K CCT	140lm/W	145lm/W	152lm/W	152lm/W	149lm/W	148lm/W
Lumen Output @ CRI>80, 4000K CCT	1,540lm	2,175lm	2,736lm	3,496lm	4,470lm	4,440lm
Lumen Maintenance (TM21 Reported)	L70B50 ≥50,000 hours @ 25°C					
Certification	CE, RoHS, TUV, SAA & VOE					
Product Warranty	5 Years					

Light Source and Photometric Parameters:

Chip Brand, Model, & Size	Jufei San'an 2835
Chip Efficacy @ CRI>80, 5000K CCT	190lm/W @ 60mA, 25°C
Light Emission	Direct
CCT	4000K, (3000K, 5000K, 6500K)
CRI	≥80Ra, (≥90Ra optional)
SDCM	<5, (<3 optional)
Diffusers	Frosted, (Clear optional)
Symmetric Light Distribution	70°, 120°, 220°
Asymmetric Light Distribution	2x120°
Typical UGR ¹	<24

Electrical Parameters:

System Operating Power	11W	15W	18W	23W	30W	30W
Driver Brand	Letron (XY Power 1-10V Dimming and Inventronics DALI-dimming Optional)					
Input Voltage	220-240VAC					
Input Frequency	50-60Hz					
Power Factor	>0.95					
THD	<10% (220-240VAC), <20% (100-277VAC)					
Insulation Class	Class II					

Environmental Parameters:

IP Rating	IP20
IK Rating	IK06
Ambient Usage Tolerance	-20°C to 40°C
Ambient Storage Tolerance	-40°C to 85°C
Ambient Humidity Tolerance	10% to 85% RH

Physical/Mechanical Parameters:

Product Dimensions: LxØ (mm)	588 x 26	894 x 26	1196 x 26	1498 x 26	1498 x 26	1763 x 26
Fixture Weight	0.155kg	0.217kg	0.271kg	0.0342kg	0.0342kg	0.386kg
Fixture Primary Material(s)	Aluminium					
Fixture Finish	Anodised					
Lens(es) Materials	UV Stabilised Polycarbonate					

Technical Specifications Summary

Code (Series-Wattage/Size)	HES-11A	HES-15B	HES-18C	HES-23D	HES-30D	HES-30E
Dimming/Controls Parameters:						
Dimming Options	1-10V, DALI					
Compatible intelligent lighting systems	Wireless Controls and Monitoring					
Options/Accessories:						
Mounting Styles	Fixed End Caps, Rotatable Caps					

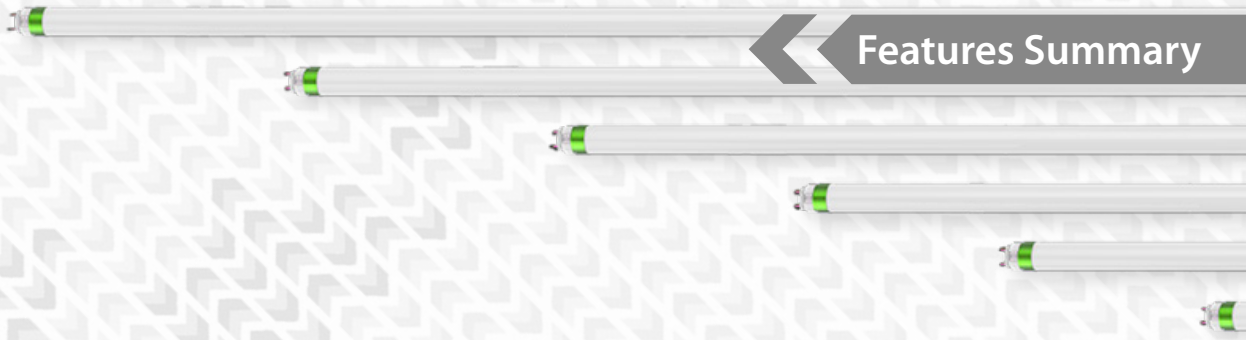
¹ Electrical Parameter data is for D1 drivers, unless otherwise stated

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.

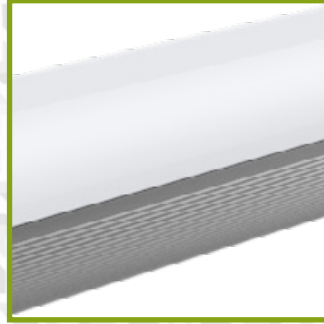
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Features Summary



Fixed or Rotatable End Caps

Fixed and rotatable (locking) end caps offering installation flexibility



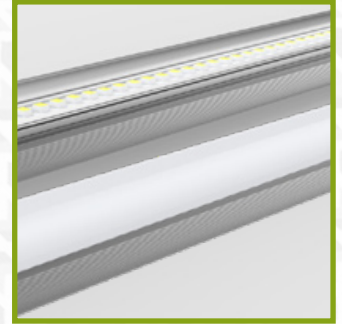
Thermal Management

Specialist heat conducting aluminium alloys ensure thermal management is optimised to reduce lumen degradation



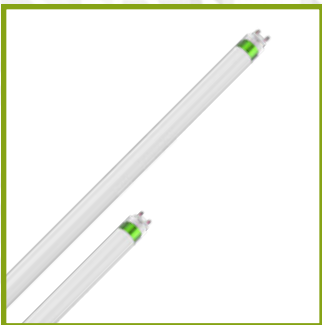
Internal Driver (non dimming)

Isolated internal non dimming driver. Drivers are supplied as external units to ensure maximum flexibility when integrating into dimming systems



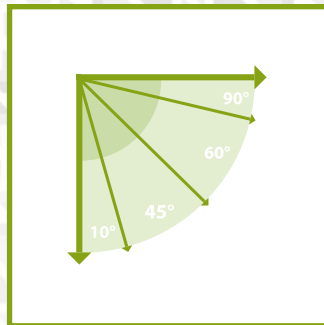
Frosted or Clear Diffusers

Optional clear diffusers are available; designed for maximum lumen output requirements



Multiple Lengths

Standard retrofit lengths available: 2ft - 8ft product sizes to suit all standard T8 fittings



Multi Angle

Various LED chip orientations are available to offer 70°, 120°, 220° & 2 x 120° beam angles



Dimmable

Available with external 1-10v and DALI dimming drivers

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	MOUNTING	MODIFICATIONS
HES	11A 11W, 2FT	830 CRI >80, 3000K	70 70° CIRCULAR	D1 NON-DIM	FI FIXED END CAPS	CL CLEAR COVER
	15B 15W, 3FT	840 CRI >80, 4000K	120 120° CIRCULAR	D2 1-10V	RT ROTATABLE END CAPS	
	18C 18W, 4FT	850 CRI >80, 5000K	220 220° CIRCULAR	D3 DALI		
	23D 23W, 5FT	865 CRI>80, 6500K	D120 DOUBLE 120° OPTIC			
	30D 30W, 5FT	930 CRI >90, 3000K				
	30E 30W, 6FT	940 CRI >90, 4000K				
			950 CRI >90, 5000K			
		965 CRI>90, 6500K				

Product Ordering Code Examples:

HES-11A-850-120-D1-RT

POWER	DRIVER MANUFACTURER		
	Internal	External	
	D1	D2	D3
11A 11W, 2FT	Letron	XY Power	Inventronics
15B 15W, 3FT	Letron	XY Power	Inventronics
18C 18W, 4FT	Letron	XY Power	Inventronics
23D 23W, 5FT	Letron	XY Power	Inventronics
30D 30W, 5FT	Letron	XY Power	Inventronics
30E 30W, 6FT	Letron	XY Power	Inventronics

CONTACT OUR OFFICE FOR FURTHER INFORMATION ON DRIVER PARAMETERS

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