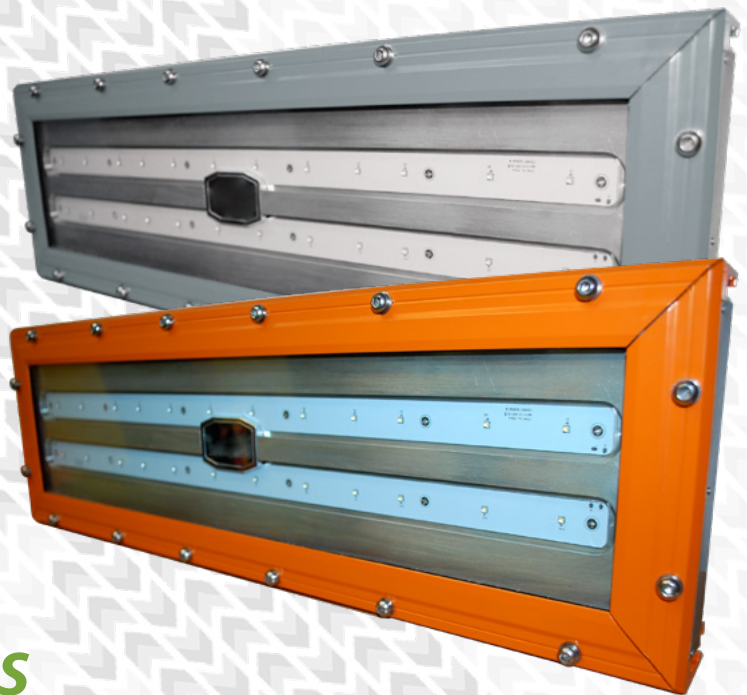**Group II, Zone 1, hazardous area linear luminaires with integrated presence detector**

Ⓔx **II 2 GD**
Ex d eb op is IIB T6 Gb
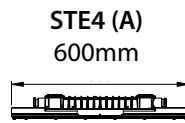**Ex tb op is IIIC T80°C Db**

CE, RoHS, & ATEX international product marks

Stephenson 4 Series
Explosion Proof Linear Fittings

CDN:SPEC160REV12

Technical Specifications Summary

	STE4 (A) 600mm			STE4 (C) 1130mm	

Performance Summary:

Code (Series-Wattage/Size)	STE4-18A	STE4-36A	STE4-48A	STE4-36C	STE4-48C
Nominal Power	18W	36W	48W	36W	48W
Luminaire Efficacy @, 5700K CCT, CRI>70	130lm/W				
Lumen Output @ 5700K CCT, CRI>70	2,340lm	4,680lm	6,240lm	4,680lm	6,240lm
Chip Lumen Maintenance (TM21 Reported)	L80B10 ≥50,000 hours @ 25°C Ambient				
Chip Lumen Maintenance (TM21 Calculated)	L80B10 ≥98,924 hours @ 25°C Ambient				
Certification	CE, RoHS, ATEX				
Product Warranty	5 Years				

Light Source and Photometric Parameters:

Chip Brand, Model, & Size	Osram Duris S5
Chip Efficacy @ 6000K CCT, CRI>70	190lm/W @ 60mA
Light Emission	Direct
CCT	5700K, (3000K, 4000K, 5000K optional)
CRI	≥70, (≥80 optional)
SDCM	<5
Diffusers	Clear
Symmetric Light Distribution	120°
Asymmetric Light Distribution	N/A

Electrical Parameters[1]:

System Operating Power	18W	36W	48W	36W	48W
Dimmable	N/A				
System Power Factor	>0.9				
Input Voltage	220-240VAC				
Input Frequency	50-60Hz				
Inrush Current	21A/280µs	22A/280µs			
Power Factor	>0.98				
THD	<10%				
Insulation Class	I				
Surge Protection/Fusing	5kV				

Environmental Parameters[1]:

IP Rating	IP66
IK Rating[2]	IK10/IK08 or IK10/IK10
Ambient Usage Tolerance	-20°C to 55°C
Ambient Storage Tolerance	-40°C to 55°C
Ambient Humidity Tolerance	10% to 90% RH

Physical/Mechanical Parameters:

Product Dimensions: LxWxH (mm)	600 x 187 x 85			1130 x 187 x 85	
Qty of LED Chips	64	96	128	96	128
Electrical Connection	Terminal Block 1mm² to 4mm² (Note: 1mm² to 2mm² if installed as Wire-In-Wire-Out configuration)				
Wire-In-Wire-Out Installation	Yes				
Inlet Thread	M20 (M20x1.5), M25 (M25x1.5), NPT3/4"				
Gland Type[3,4]	Brass with Nickel Plated Non-Armoured (Armoured optional)				
Suitable Cable Size (ø)[5]	M20 = 6.1-13.2mm, M25 = 12.5-20.5mm, NPT3/4" = 12.5-20.5mm				
Fixture Weight[6]	8.5kg			14.2kg	

Code (Series-Wattage/Size)	STE4-18A	STE4-36A	STE4-48A	STE4-36C	STE4-48C
Physical/Mechanical Parameters:					
Fixture Primary Material(s)	6063 Copper-Free Aluminium Alloy (≤0.1% Copper) and 316 Stainless Steel Fixings				
Fixture Finish	Epoxy Powder Coated				
Lens(es) Materials	Tempered Glass				
Protection Method	Flame Proof				
Options/Accessories:					
Mounting Styles	Twin Surface, Twin Eye Bolts, Twin Pipe Clamp, Stanchion, Clamp Mount				
Miscellaneous Accessories	Wire Grill, Microwave Sensor				
Available Product Colours	Orange (RAL2011), Grey (RAL7040)				

[1] Details are for standard non-dimming driver
[2] (Format: "IK Rating: Housing" / "IK Rating: Front Face") – IK10 if fitted with wire guard accessory
[3] Wire-in-wire-out compatible products supplied with one non-armoured ATEX certified gland and one ATEX certified blanking plug.
[4] Armoured Cable gland available as a optional accessory. Please contact Kellwood for more information.
[5] Stated cable size is applicable to standard gland. Armoured cable may vary, contact Kellwood for more information.
[6] Excludes bracketry. Refer to the Packaging Weights & Dimensions data sheet for bracketry and accessory weights

Certifications	
Division	**ATEX Zone 1 & 21 and 2 & 22**
Product Marking ATEX Certificate Issue 01	⟨Ex⟩ **II 2 G D** **Ex d eb op is IIB T* Gb** **Ex tb op is IIIC T* Db** *for further information please see temperate table
Product Marking ATEX Certificate Issue 02	⟨Ex⟩ **II 2 G D** **Ex d eb op is IIC T* Gb** **Ex tb op is IIIC T* Db** *for further information please see temperate table

Temperature Table			
Product	**Rated Power (Watts)**	**Temperature Class**	
		-20° to 55°C (Ta)	
		Gas	**Dust**
Stephenson Series	18W	T6	T80°C
	36W		
	48W		
	56W		
	72W		

Certificate Number	
ATEX	**TUV 15 ATEX 7673 X**
IECEx	**IECEx TUR 16.0028X**

Technical Specifications Summary

Mounting Options

Twin surface mount brackets, clamp mounts, twin pipe clamp mounts, stanchion brackets, twin eye bolts, & custom

Distribution

General purpose symmetrical/asymmetric dispersion pattern suitable for most applications - Contact office for Lighting Design Services
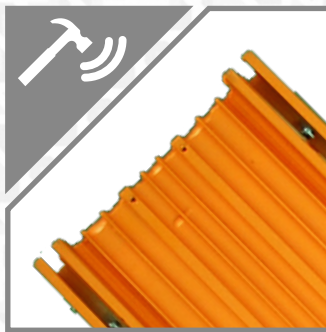
Special Features

Terminal block enclosure covers are secured to the luminaire for easier installation & faster maintenance
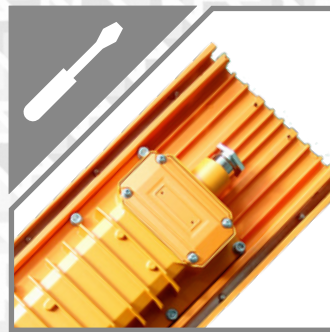
Environmental Protection

IP66, copper-free aluminium body c/w corrosion resistant paint finish - Salt spray testing reports available

Impact Protection

IK10 body, IK08 tempered glass front-face - Wire guard accessory increases front-face impact protection from IK08 to IK10
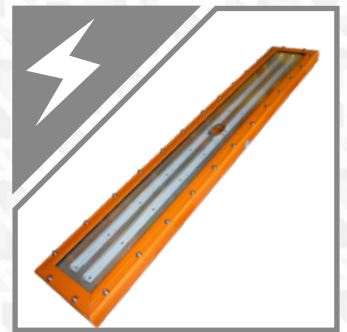
Connection Options

Multiple gland types available, suitable for standard or armoured cable types

Sensor Function

Integrated occupancy sensor with multistep dimming allows tailored energy saving

Input Voltage

Suitable for connection to 220-240VAC electrical supplies

Sensor Technical Information
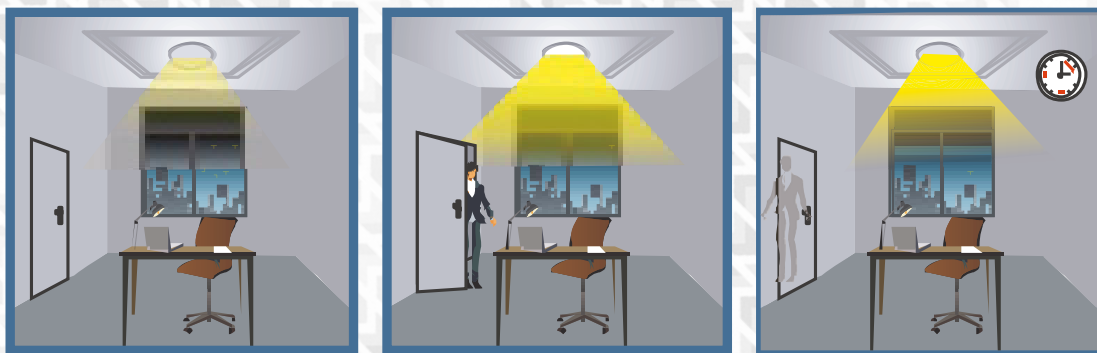
3-Step Dimming Function

When used in combination with the 0-10V dimmable LED driver, the M1 microwave sensor can offer 3-step occupancy dimming; 100% light output ---> reduced output ---> off. The sensors also have built daylight sensors, variable hold times and detection sensitivity.

1. If no motion is detected, the sensor does not switch on
2. When motion is detected, the sensor switches on at 100% illumination
3. After the Hold Time passes, and no further activity is detected, the sensor dims to a pre-set output
4. After Standby period passes, the sensor switches the light off

2-Step Dimming Function

The M1 sensor can alternatively provide 2-step occupancy dimming; 100 % light output ---> reduced output (the light never turns off). This functionality is particularly suitable for use in corridors, stairwells and underground passages where low light levels are maintained until motion is detected.


Dimming Function

HF system	5.8GHz±75MHz, ISM wave band
Transmitting Power	<0.5mW
Power Consumption	≤0.5W(standby), <1W(operation)
Detection Zone	Max.(D x H): 16m x 12m
Detection Sensitivity	10% / 25% / 50% / 75% / 100%
Hold Time	10s / 30s / 90s / 3min / 20min / 30min
Standby period	5s / 5min / 10min / 30min / 1h / Infinity
Standby dimming level	10% / 20% / 30% / 40% / 50%
Mounting Height	12m Max.
Motion Detection	0.5~3m/s
Detection Angle	150°(wall mount), 360°(ceiling mount)

Detection Pattern
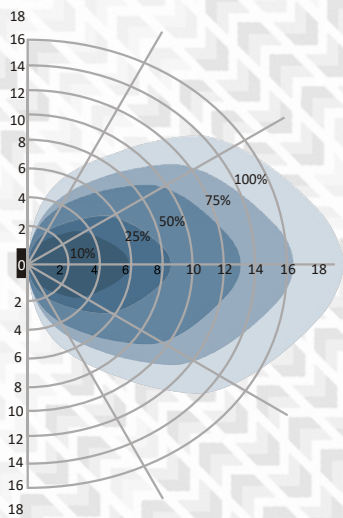
Wall mount: (Unit: m)
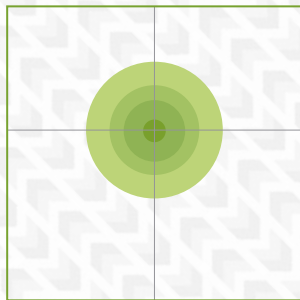Suggested installation height: 1-1.8m
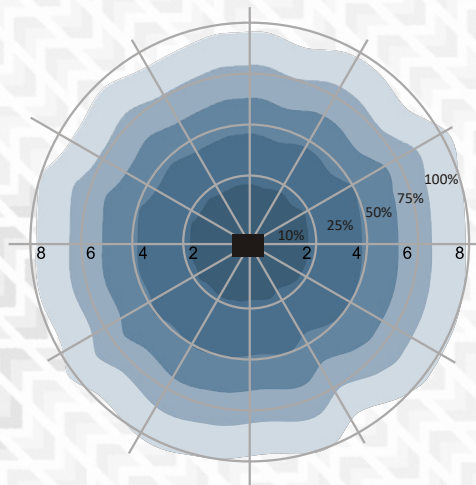
Ceiling mount: (Unit: m)
Suggested installation height: 2.5-12m
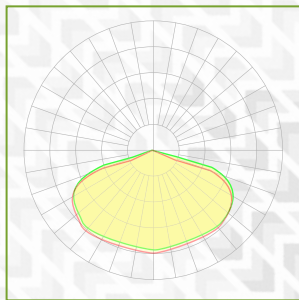
Indicative Product Photometry

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.
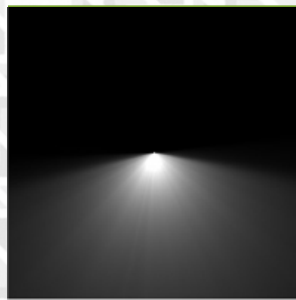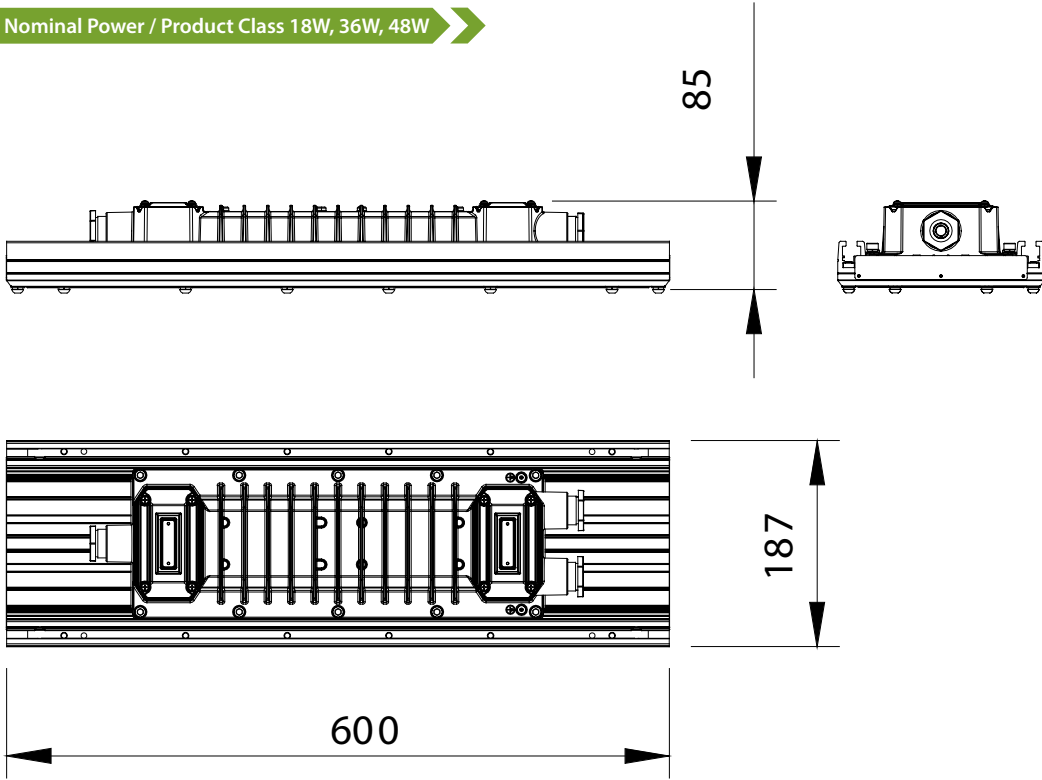
H7V7 - 120°

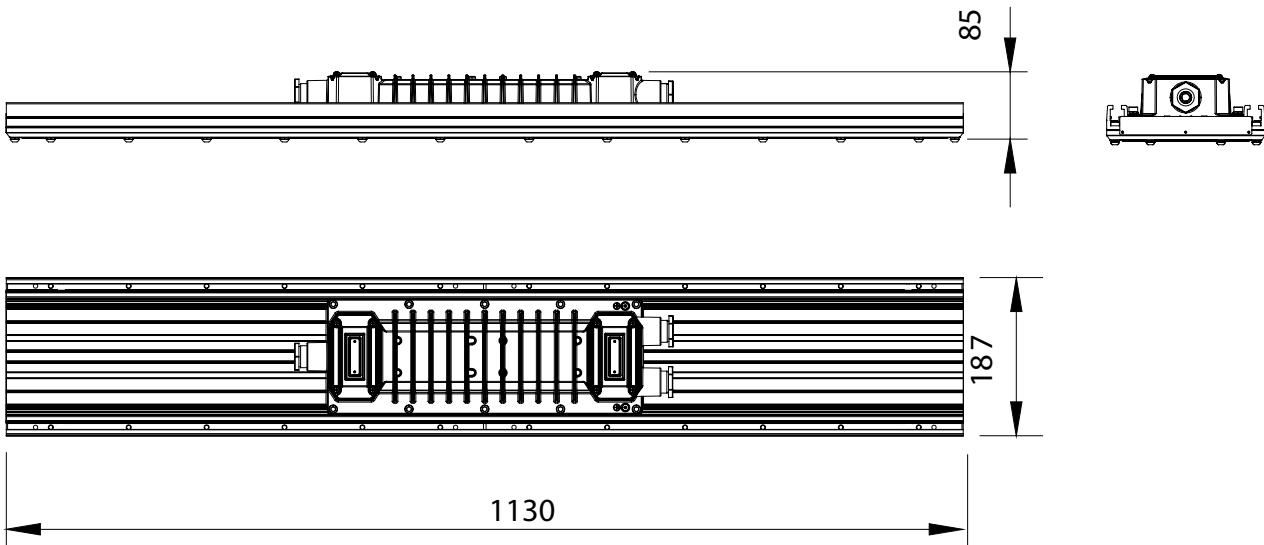ISOLUX DIAGRAM

POLAR DIAGRAM

3D VISUAL RENDER

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

Dimensional Drawings
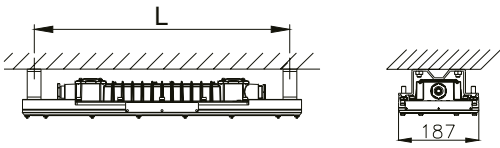
2ft - Nominal Power / Product Class 18W, 36W, 48W

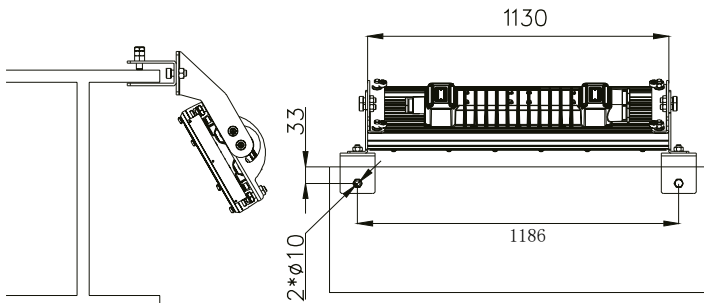85

187

600

4ft - Nominal Power / Product Class 36W, 48W

85

187

1130

All units are in mm

Dimensional Drawings

Twin Surface Mount Brackets

187

	L(Max)	L(Min)
0.6M	550	500
1.2M	1150	500

Clamp Mounts

1130
33
2*⌀10
1186

Twin Eye Bolts

128
187

	L(Max)	L(Min)
0.6M	550	500
1.2M	1150	500

Twin Pipe Clamp Mounts

⌀44.4
135.7
187
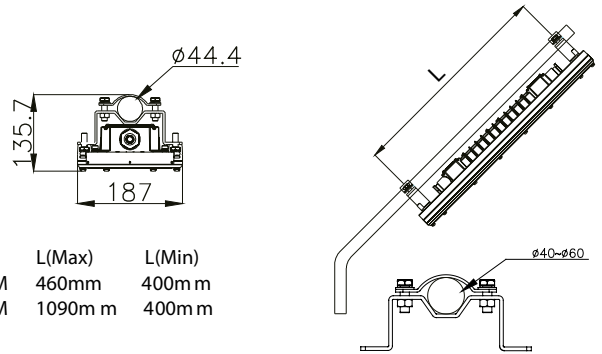
	L(Max)	L(Min)
0.6M	460mm	400mm
1.2M	1090mm	400mm

⌀40~⌀60
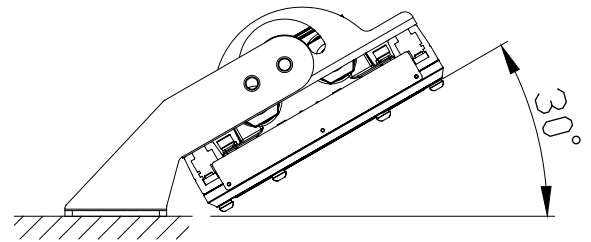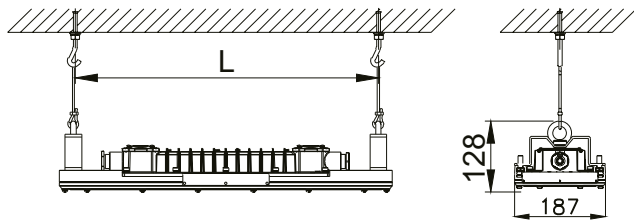
Stanchion Mount

30°
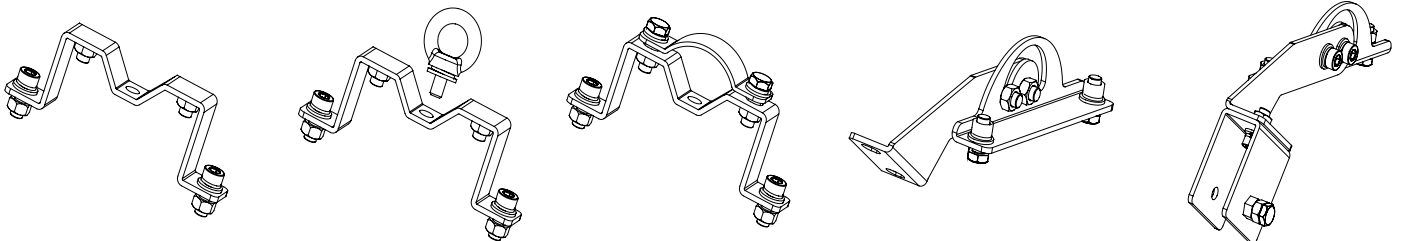
Bracketry

Surface Mount Brackets

Eye Bolt

Pipe Clamps

Stanchion Brackets

Clamp Mounts

All units are in mm

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

CODE
Description

730
CRI>70, 3000K

Product Ordering Codes

PRODUCT	POWER	CRI & CCT	OPTIC	DRIVER	MOUNTING	COLOUR	THREAD	SENSOR	CONFIGURABLE OPTIONS
STE4	**18A** 18W, 2ft	**740** CRI >70, 4000K	**120** 120° CIRCULAR (H7V7)	**V11** INPUT VOLTAGE 220-240 VAC	**TM** TWIN SURFACE MOUNT BRACKETS	**OR** ORANGE	**I1** M25 INLET THREAD	**M1** MULTI-STEP DIMMING MICROWAVE SENSOR	**WG** WIRE GRILL
	36A 36W, 2ft	**750** CRI >70, 5000K			**TE** TWIN EYE BOLTS	**GR** GREY	**I2** NPT3/4" INLET THREAD		
	48A 48W, 2ft	**757** CRI >70, 5700K			**TP** TWIN PIPE CLAMP MOUNT		**I4** M20 INLET THREAD		
	36C 36W, 4ft	**830** CRI >80, 3000K			**ST** STANCHION MOUNT				
	48C 48W, 4ft				**CM** CLAMP MOUNT				

Product Ordering Code Examples:
STE4-48A-860-120-V11-TE-OR-I1-M1
STE4-48C-840-120-V11-TM-GR-I2-M1-WG
STE4-36A-860-120-V11-TP-OR-I1-M1-WG

BRACKETS & ACCESSORIES	
CODE	**DESCRIPTION**
STE4-TM	TWIN SURFACE MOUNT BRACKETS FOR STEPHENSON 4 SERIES
STE4-TE	TWIN EYE BOLTS FOR STEPHENSON 4 SERIES
STE4-TP	TWIN PIPE CLAMP MOUNTS FOR STEPHENSON 4 SERIES
STE4-ST	STANCHION MOUNT FOR STEPHENSON 4 SERIES
STE4-CM	CLAMP MOUNT FOR STEPHENSON 4 SERIES
STE4-WG	WIRE GRILL

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 - HAZARDOUS AREA CERTIFIED PRODUCT MODIFICATIONS ARE TYPICALLY LIMITED TO BRACKETRY (TO ENSURE COMPLIANCE WITH CERTIFICATION)

6. HAZARDOUS AREA CERTIFIED PRODUCTS ARE LISTED USING KELLWOOD'S STANDARD ORDERING CODE TEMPLATE FOR MARKETING PURPOSES. PRODUCTS WILL BE SUPPLIED WITH OEM NAMEPLATES, CODES & DOCUMENTATION CORRESPONDING TO PRODUCT CERTIFICATION