



# SOLOW X

# SOLOW XLED

Utilising the latest LED technology, the Solow XLED combines superb efficiency (165.2 luminaire lumens per circuit watt) with a slim profile and versatile design.

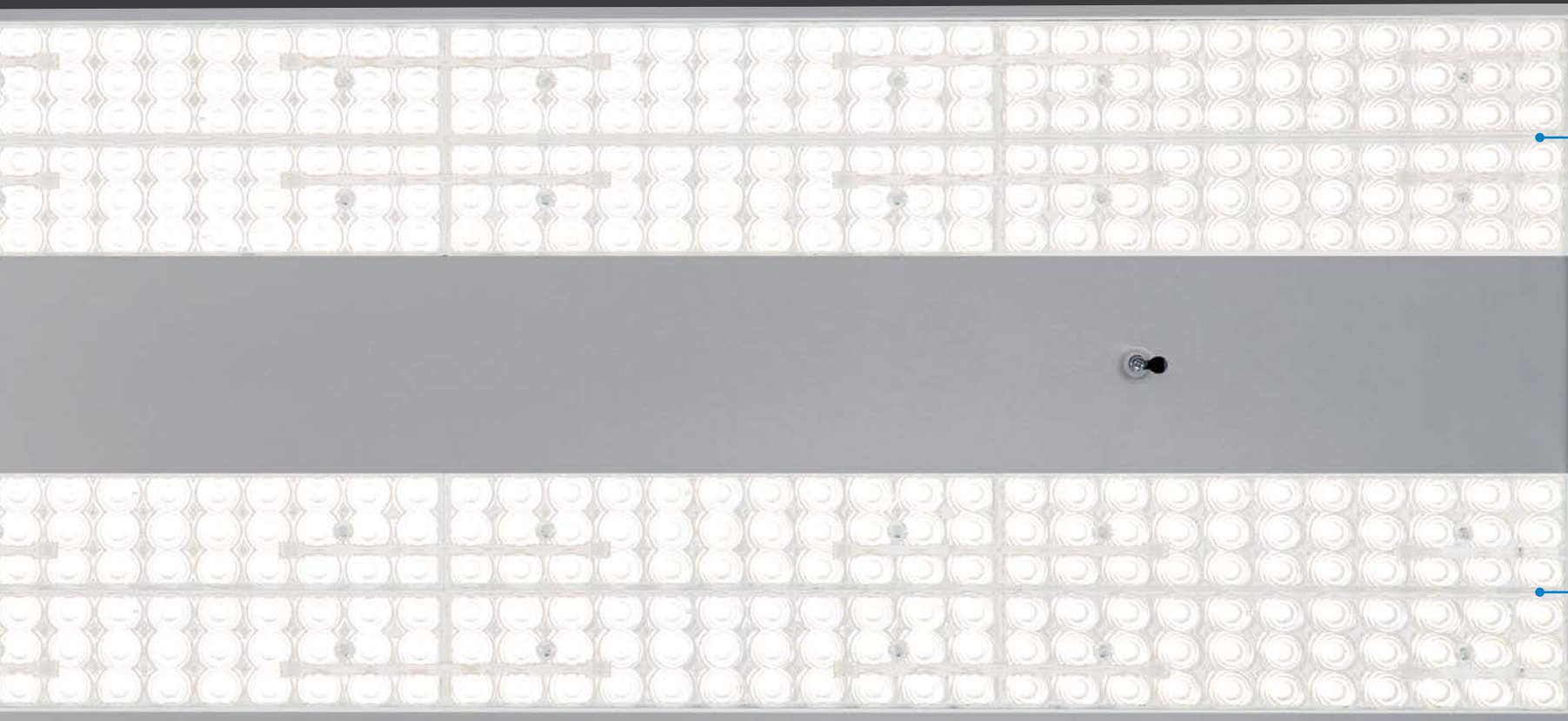
Individual lenses fitted to each medium power LED, efficiently control the light providing excellent scheme uniformity and minimum glare.

Solow XLED is available with a range of options such as integral maintained emergency, energy saving Smart and now with the optional added feature of SmartScan wireless control.

Versions include broad and narrow distribution types in wattages ranging from 65 to 215W producing in excess of 37,500 lumens.



# LOW GLARE



**UP TO 660 LED LIGHT SOURCES, EACH OPERATING AT ONLY 0.4W COVER A LARGE SURFACE KEEPING GLARE TO A MINIMUM**



### DEDICATED LENS FOR EVERY LED

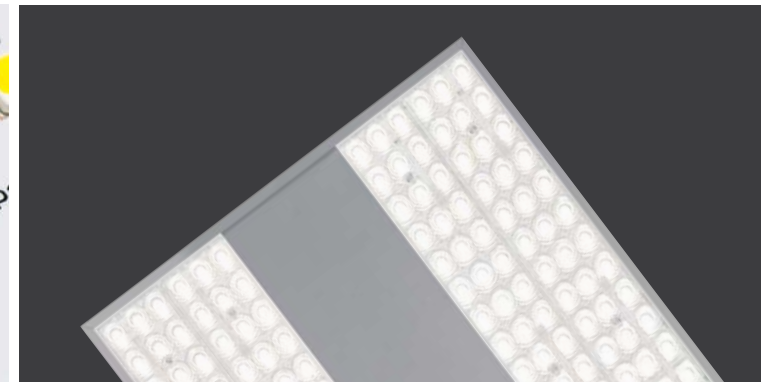
Each LED has an individual lens ensuring the most efficient extraction and distribution of light from the LED surface. At high mounting heights excellent optical performance can make significant improvements to illumination levels and uniformity providing long term energy savings not apparent from headline luminaire lumen output figures alone.



### MEDIUM POWER

#### UP TO 165 LUMINAIRE LUMENS PER CIRCUIT WATT

The high efficiency control gear coupled with the latest medium power LEDs produce between 137 and 165 luminaire lumens per circuit watt (including all gear losses). 4000K colour temperature as standard, other colours available to special order.



### UP TO 37,820 LUMENS

The high output 215W version delivers 37,820 lumens making it an ideal choice for many high ceiling applications.

# DESIGNED TO STAY COOL



▲ ▲  
**DUAL LINE**  
 65W / 112W / 175W



▲ ▲ ▲ ▲  
**QUAD LINE**  
 190W / 215W

Luminaire lifetime is dependent on a combination of factors; keeping LED junction and solder temperatures low is important but component selection and specification such as control gear, batteries, cabling and connectors can be equally critical. The Solow XLED has a large surface area which helps keep critical components cool.

Certain versions of the Solow XLED are capable of operating in high ambient temperatures up to 65°C; see the table opposite for further information.

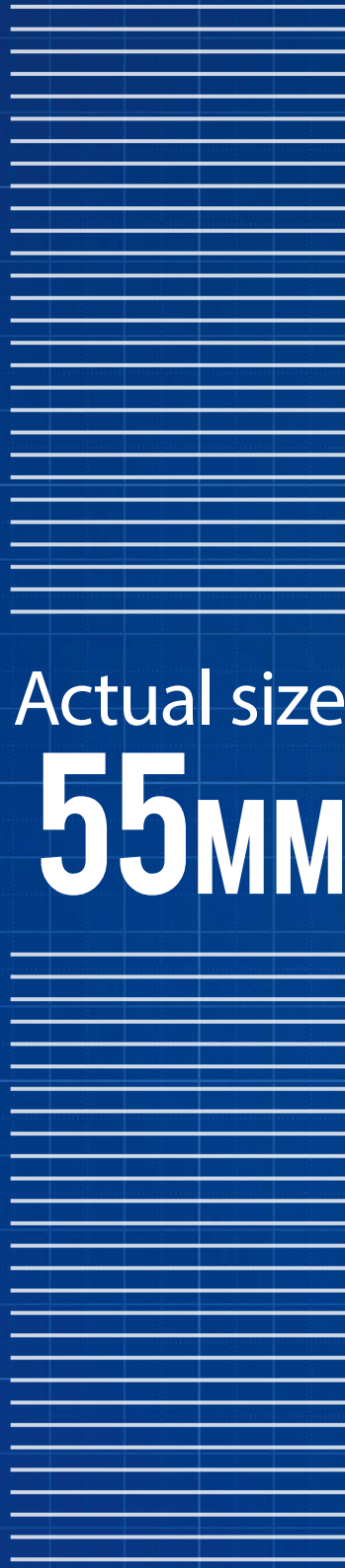
## MAXIMUM AMBIENT OPERATING TEMPERATURES TO ACHIEVE 100,000 HOUR LIFE EXPECTANCY

LED	STANDARD & SMART VERSIONS	EMERGENCY VERSIONS
65W	65°C	35°C
112W	45°C	25°C
175W	30°C	25°C
190W	50°C	30°C
215W	40°C	25°C

Minimum operating ambient temperature - Standard & Smart versions: -20°C / Emergency versions: 0°C

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# SLIM PROFILE



Actual size  
**55MM**



# ENERGY SAVING LIGHT LEVEL CONTROLS

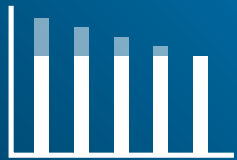


The Thorlux Smart System exploits the latest 'Digital Technology' to provide a simple, effective method of lighting control which minimises energy consumption whilst retaining high levels of user comfort.

A discrete sensor integral to the luminaire monitors ambient light and presence, controlling output to the correct level, and ensuring that the area is only illuminated when occupied.

Individual Thorlux Smart luminaires may be linked using a 'Motionline' two wire low voltage bus allowing luminaires to communicate within a group. Upgrading to SmartScan provides the option of full wireless Motionline control between Smart luminaires eliminating the need for additional cabling.

Savings by the installation of automatic lighting control systems often exceed 70%.



## MAINTAINED ILLUMINANCE

Smart luminaires maintain the desired lighting level throughout the maintenance cycle by automatically increasing LED output as the light source ages, avoiding over lighting new installations.



## DAYLIGHT DIMMING

When daylight enters an area the sensors will take this light into account and gradually dim the LEDs, saving energy whilst maintaining the required light level.



## MOVEMENT DETECTION

Presence sensors in all luminaires ensure excellent detection coverage, so that Smart luminaires switch on when movement is detected and stay on whilst the room is being used.



## FULL STATUS MONITORING OF YOUR LUMINAIRES FROM THE GROUND

The functional status and energy performance of SmartScan luminaires can be monitored from anywhere via the SmartScan website (SmartScan Gateway required), or from the ground using the SmartScan Programmer.

The website provides an easy to read visual reference highlighting the following:

- Control gear status monitoring
- Light source functionality
- Thermal performance (the luminaire is operating within correct temperature limits)
- Average energy used by the luminaire
- Total hours powered
- Full energy performance monitoring



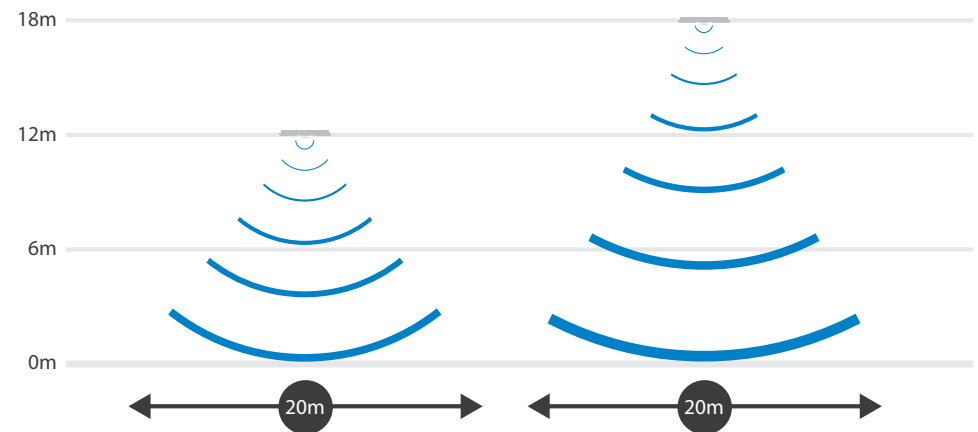
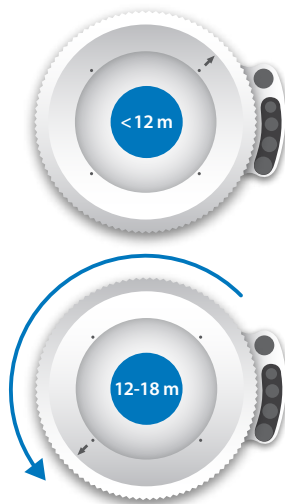
[www.thorlux.com/smartscan](http://www.thorlux.com/smartscan)

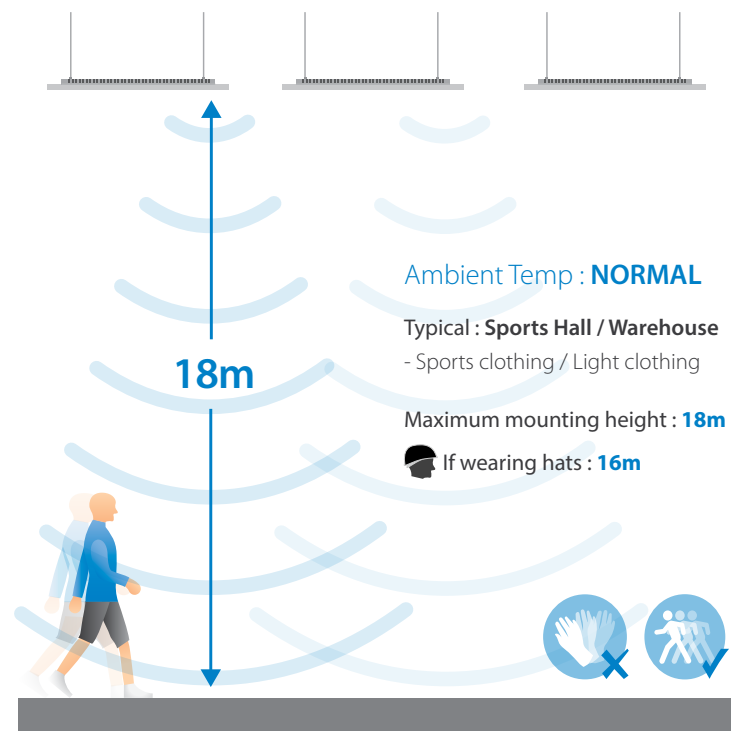
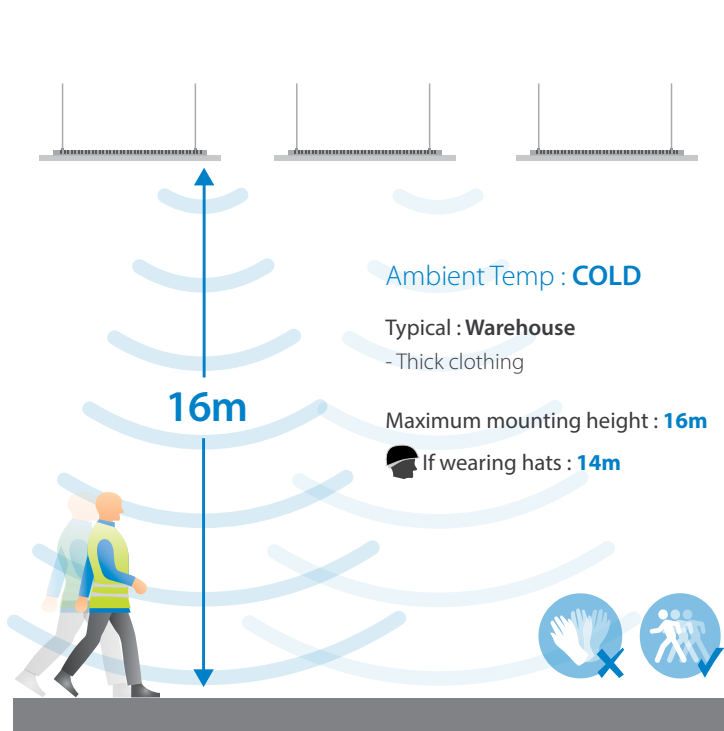
# HIGH LEVEL SENSOR



The High Level Smart Sensor is optimised for mounting heights up to 18m. An adjustable lens allows for the detection area to be tuned to suit the application perfectly. The use of advanced Thorlux Smart technology ensures LEDs are only powered when required and when on are optimised to provide the correct light level and corresponding power demand. Settings can be configured from ground level using the Smart Programmer.

For more information see [www.thorlux.com/smart](http://www.thorlux.com/smart)





### USE OF THE AREA

As the mounting height increases, so does the amount of movement needed to trigger the sensor. Hand movement may not be sufficient, the person may need to be walking to be detected.

### LOW AMBIENT TEMPERATURE

In low temperature applications, personnel often wear thick insulating clothing. This can reduce the thermal image presented to the sensor, thus reducing PIR effectiveness.

### HIGH AMBIENT TEMPERATURE

In higher ambient temperature applications (>30°C) the sensitivity may be reduced.

### MOTIONLINE

It is strongly recommended Smart luminaires are connected using the 'Motionline' two-core low voltage bus. If one luminaire detects movement, a signal is passed to all of the luminaires in the group triggering all luminaires to illuminate. This ensures effective group control and extends presence detection coverage. SmartScan luminaires utilise wireless 'mesh' technology to replace the wired Motionline - particularly helpful in retro-fit and external applications.

# EMERGENCY LIGHTING



Advances in LED driver technology make it possible to operate hundreds of LEDs from a small battery pack during a mains failure. It makes sense to use the same LEDs for mains and emergency operation in high level luminaires; installing only one point and retaining the same optical performance from the high quality lenses in both mains and mains failure situations.

Solow XLED is available in both SmartScan Emergency and AutoTest variants.

For further information on our emergency lighting systems see [www.thorlux.com/emergency-systems](http://www.thorlux.com/emergency-systems)

## **SmartScan** Self-test emergency with off-site monitoring capability

Self-testing emergency luminaires with integral battery for 3 hour emergency operation. Wireless communication and web connectivity for automatic scheduled testing, luminaire status and test history reporting.

## **AutoTest** Stand-alone Emergency

AutoTest emergency luminaires not only meet the basic requirements of standard emergency lighting products but include the Thorlux AutoTest automatic self-test system. AutoTest products only require visual inspection as the integral luminaire status LED advises the operational status of the luminaire and the type of fault, should a fault have occurred.

# MOUNTING OPTIONS

Solow XLED has been engineered for fast installation. Featuring pre-drilled fixing holes to cover all possible mounting options, removing the need to drill the luminaire. Each luminaire has three 21mm holes suitable for trunking mounting, one central 8.5mm hole and two 8.5mm x 25mm slots for surface mounting or rod suspension. Four M8 threaded holes are provided for fitting eyelets for chain or wire suspensions.



# ENERGY SAVING

## NARROW DISTRIBUTION

A TYPICAL SINGLE HIGH RACK STORAGE AISLE

Length: **40m**  
 Width: **2.5m**  
 Height: **15m**  
 Target illuminance: **150lux at floor level**  
 Annual burning hours: **8760 (24 hours per day)**

The Solow XLED is an ideal solution for warehousing aisles; fewer luminaires are required greatly reducing running costs by up to 63%. Even greater energy savings can be achieved by using Smart controls for PIR detection, maintained illuminance and daylight harvesting (where skylights are installed).

	250W HPI-T	4 x 80W T5	SOLOW XLED 190W LED
Colour Rendition (Ra)	65	80+	80+
No. of luminaires	6	8	5
Total circuit W/luminaire	275	348	205
Total installation W	1650	2784	1025
Average Lux (horizontal)	156	145	163
Average Lux (rack face)	56	97	96
Uniformity	0.61	0.66	0.66
Unified Glare Rating (UGR)	>30	28	24
CO <sub>2</sub> (kg)	7661	12926	4759
Cost of electricity (£0.12/kWh)	£1734.48	£2926.54	£1077.48

Reduction in luminaire quantity vs HPI-T	<b>17%</b>
Reduction in luminaire quantity vs T5	<b>38%</b>
Power saving vs HPI-T	<b>38%</b>
Power saving vs T5	<b>63%</b>

## BROAD DISTRIBUTION

A TYPICAL FACTORY AREA

Length: **40m**  
 Width: **40m**  
 Height: **10m**  
 Target illuminance: **300lux at floor level**  
 Annual burning hours: **8760 (24 hours per day)**

The superior lumen output performance of the Solow XLED, exceeding both discharge and T5 equivalents, saves capital cost by significantly reducing the quantity of luminaires required. Its superior efficiency reduces total power consumed whilst its longevity reduces lamp replacement and associated labour maintenance costs.

	400W HPI-T	4 x 80W T5	SOLOW XLED 190W LED
Colour Rendition (Ra)	65	80+	80+
No. of luminaires	30	35	25
Total circuit Watts	430	348	205
Total installation Watts	12900	12180	5125
Average Lux	316	301	309
Uniformity	0.6	0.57	0.63
Unified Glare Rating (UGR)	27	25	24
CO <sub>2</sub> (kg)	59892	56549	23794
Cost of electricity (£0.12/kWh)	£13560.48	£12803.62	£5387.40

Reduction in luminaire quantity vs HPI-T	<b>17%</b>
Reduction in luminaire quantity vs T5	<b>29%</b>
Power saving vs HPI-T	<b>60%</b>
Power saving vs T5	<b>58%</b>

## SLIM PROFILE SUPERIOR PERFORMANCE LED LUMINAIRES



### SPECIFICATION

- Slim profile zinc plated steel body with full polyester powder coat silver (RAL9006)
- Shallow design - unobtrusive
- Large illumination surface area, individual lenses - low glare
- Up to 37,820 lumen output
- Up to 165 luminaire lumens per circuit watt
- Smart versions suitable for use at mounting heights up to 18m
- SmartScan wireless technology removes the need for control cabling. Ideal for retro-fit
- Can be suspended or surface mounted

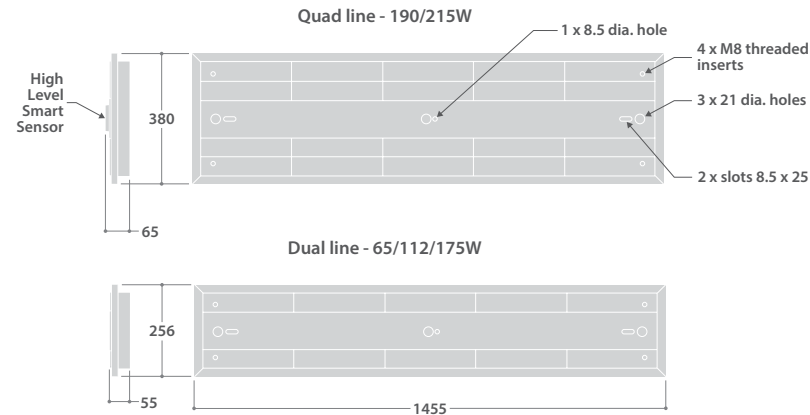
### LED CHARACTERISTICS

CRI	80+
COLOUR TEMPERATURE	4000K
RATED LIFE (HOURS)	100K - L70/B10
PROTECTION	LUX GUARD
DRIVER EFFICIENCY	>92%
REPLACEABLE	YES
POWER FACTOR	>0.95

LL/CW **165.2**

For LED characteristics explanation see [www.thorlux.com/led-guide](http://www.thorlux.com/led-guide)

### DIMENSIONS



### RANGE

	NOMINAL SIZE (mm)	LED	BROAD DISTRIBUTION	NARROW DISTRIBUTION	APPROX. kg	CIRCUIT
SMART	1500	65W	SWX 16980	SWX 16984	8.3	D/SS
		112W	SWX 19036	SWX 19039	8.3	D/SS
		175W	SWX 19037	SWX 19040	8.5	D/SS
		190W	SWX 16982	SWX 16986	12.2	D/SS
		215W	SWX 19038	SWX 19041	12.2	D/SS
STANDARD	1500	65W	SWX 16990	SWX 16994	8.1	L/A
		112W	SWX 19042	SWX 19045	8.1	L/A
		175W	SWX 19043	SWX 19046	8.3	L/A
		190W	SWX 16992	SWX 16996	12.0	L/A
		215W	SWX 19044	SWX 19047	12.0	L/A

CIRCUIT TYPE - suffix catalogue number with:

**SMART** D - Smart / SS - SmartScan

**STANDARD** L - non-dimming / A - dimming (DALI) e.g. SWX 16980SS etc.

EMERGENCY VERSION - prefix catalogue number with:

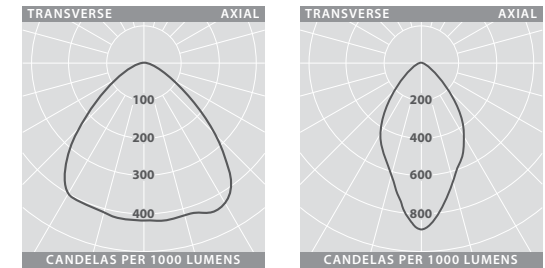
**TSX** - AutoTest (Not available when selecting the 'SS' suffix)

**WSX** - SmartScan (Only available when selecting the 'SS' suffix)

e.g. WSX 16980SS etc.

Add 0.3kg to weights listed.

### PHOTOMETRIC GUIDE



#### BROAD DISTRIBUTION

Luminaire Lumen Output:  
 65W = 10585lm  
 112W = 17695lm  
 175W = 25870lm  
 190W = 30785lm  
 215W = 37100lm

#### NARROW DISTRIBUTION

Luminaire Lumen Output:  
 65W = 10680lm  
 112W = 17855lm  
 175W = 26105lm  
 190W = 31060lm  
 215W = 37820lm

### ACCESSORY

DESCRIPTION	CAT. No.
Chain / wire suspension kit (4 x M8 screw eyelets and 1 x cable gland)	IK 16897

### SmartScan Configurations



Find out more at [www.thorlux.com/smartsan](http://www.thorlux.com/smartsan)

WEB LINKS

[www.thorlux.com/controls](http://www.thorlux.com/controls)



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The information given in this catalogue is typical and must not be interpreted as a guarantee of individual product performance and/or characteristics. We reserve the right to alter specifications and designs without prior notice.

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