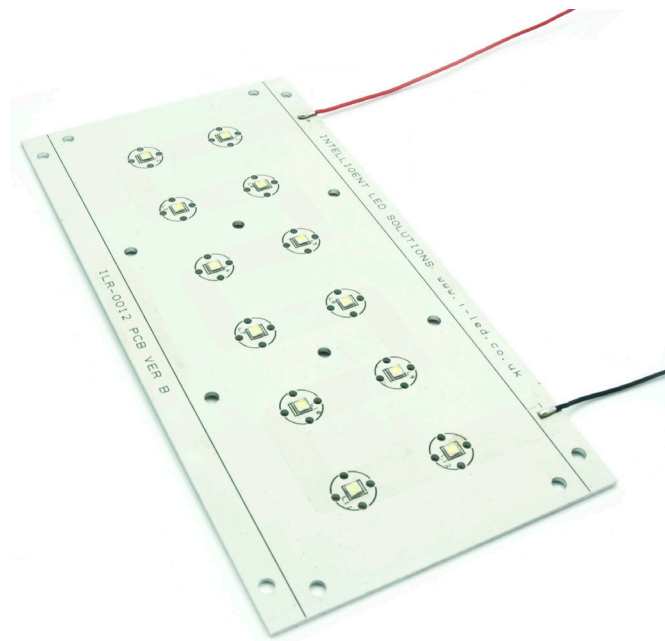


ILS 12 OSLO[®]N High Bay

ILB-0012-####-SC211-WIR200.

Product Overview

At the heart of the High Bay Cluster are 12 OSLO[®]N SSL Square ThinGan (UX:3) LEDs. OSLO[®]N SSL can be driven up to 1800mA while OSRAM's latest power chip technology remains efficient even at the highest drive currents. A low thermal resistance of 7K/W ensures cool running and a highly efficient product. The High Bay Clusters use the highest thermal MCPCB. The High Bay 4 Cluster has also been designed to work in conjunction with a High Bay 2x6 Lens from LEDiL, however additional mounting holes have been drilled in to the PCB to allow the use of other LEDiL lens such as Tina2s and Heidi.



Applications

- High Bay Lighting
- Street Lighting
- Retail Entertainment Lighting

Technical Features

- High Bay Clusters contain OSRAM Opto Semiconductors OSLO[®]N SSL Square LEDs with integral 120 degree silicone resin Lenses
- Up to 100,000 Hour lifetime to 70% of original brightness
- Mounting holes using M3 screws allows easy installation
- Size (L x W x H): 173mm x 87mm x 3.85mm
- Available with 200mm connecting wires
- Secondary Lens can be fitted – check options in Lens and Reflector section
- Suitable Heat Sinks available – check options in Heat Sink section
- Matching Power Supply available - check options in Power Supply section
- High Bay Clusters can be linked together to produce longer chains
- Current range 200 to 1,800mA

*This datasheet should be read in conjunction with the relevant OSRAM Opto Semiconductors data on the LED used

Important Information and Precautions

- The High Bay's LEDs, when powered up are very bright. Thus it is advised that you do not look directly at it. Turn the High Bay away from you and do not shine into the eyes of others.
- Do not operate HighBay's with a Power Supply with unlimited current. Connection to constant voltage Power Supplies that are not current limited may cause the High Bay to consume current above the specified maximum and cause failure or irreparable damage.
- High Bay's, when operated, can reach high temperatures thus there is risk of injury if they are touched.
- DO NOT HOT PLUG ON LED SIDE OF POWER SUPPLY.
- DO NOT TOUCH or PUSH on the LED as this can cause irreparable damage.

Product Options

ILS PART NUMBER	Colour	Colour Temp* (Degrees Kelvin)	Typical Wattage §			Forward Voltage	Flux † at 700mA	Radiance Angle	Relevant OSRAM LED Data
			at 350mA	@700mA	1000mA				
ILB-OO12-FLWH-SC211-WIR200.	Fire Light White	2400K	11.76W	23.52W	33.6W	32.4-38.4 Volts	>2328 lm	120° +/- 60°	LCWCQAR. EC
ILB-OO12-HWWH-SC211-WIR200.	Hot White	2700K	11.76W	23.52W	33.6W	32.4-38.4 Volts	>2520 lm	120° +/- 60°	LCWCQAR. EC
ILB-OO12-WMWH-SC211-WIR200.	Warm White	3000K	11.76W	23.52W	33.6W	32.4-38.4 Volts	>2688 lm	120° +/- 60°	LCWCQAR. EC
ILB-OO12-QZWH-SC211-WIR200.	Quartz White	3500K	11.76W	23.52W	33.6W	32.4-38.4 Volts	>2880 lm	120° +/- 60°	LCWCQAR. EC
ILB-OO12-NUWH-SC211-WIR200.	Neutral White	4000K	11.76W	23.52W	33.6W	32.4-38.4 Volts	>3108 lm	120° +/- 60°	LCWCQAR. EC
ILB-OO12-WHWH-SC211-WIR200.	White	5000K	11.76W	23.52W	33.6W	32.4-38.4 Volts	>3108 lm	120° +/- 60°	LCWCQAR. EC
ILB-OO12-STWH-SC211-WIR200.	Street White	5700K	11.76W	23.52W	33.6W	32.4-38.4 Volts	>3108 lm	120° +/- 60°	LUWCQAR
ILB-OO12-ULWH-SC211-WIR200.	Ultra White	6500K	11.76W	23.52W	33.6W	32.4-38.4 Volts	>3108 lm	120° +/- 60°	LUWCQAR

* Due to the special conditions of the manufacturing processes of LEDs, the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product which could differ from the typical data.

§ Tolerance +/- 10%

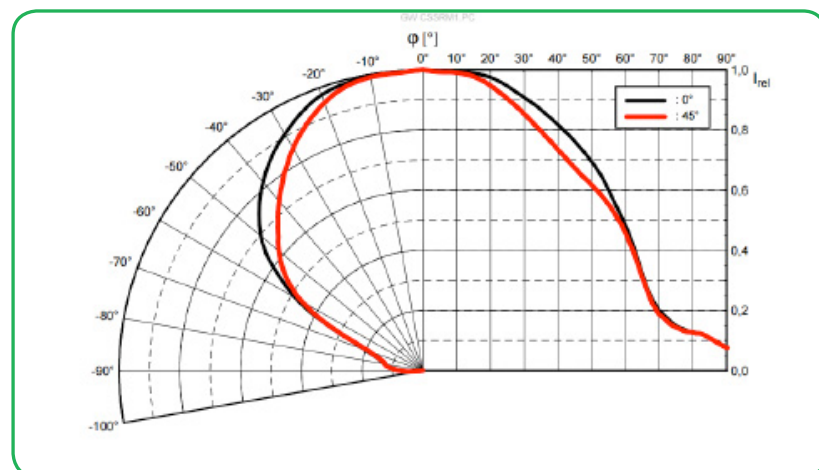
† Measured with 20mS 700mA pulse at 25 °c

Minimum and Maximum Ratings

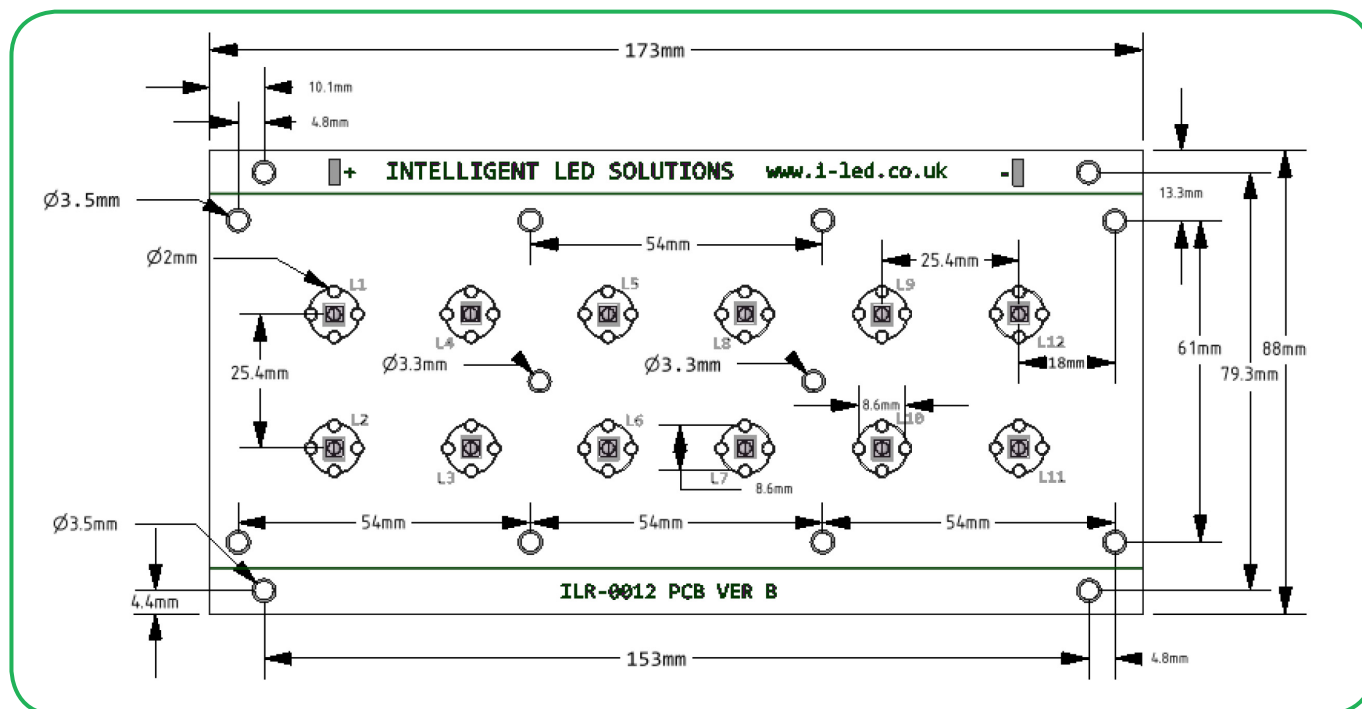
ILS PART NUMBER	Operating Temperature at Tc-Point [°C] *	Storage Temperature [°C] *	Forward Current per chip [mA] *	Reverse Voltage [Vdc] *
ILB-OO12-FLWH-SC211-WIR200.	70 °C max	- 40 to 110 °C	1800mA max	not designed for reverse voltage
ILB-OO12-HWWH-SC211-WIR200.	70 °C max	- 40 to 110 °C	1800mA max	not designed for reverse voltage
ILB-OO12-WMWH-SC211-WIR200.	70 °C max	- 40 to 110 °C	1800mA max	not designed for reverse voltage
ILB-OO12-QZWH-SC211-WIR200.	70 °C max	- 40 to 110 °C	1800mA max	not designed for reverse voltage
ILB-OO12-NUWH-SC211-WIR200.	70 °C max	- 40 to 110 °C	1800mA max	not designed for reverse voltage
ILB-OO12-WHWH-SC211-WIR200.	70 °C max	- 40 to 110 °C	1800mA max	not designed for reverse voltage
ILB-OO12-STWH-SC211-WIR200.	70 °C max	- 40 to 110 °C	1800mA max	not designed for reverse voltage
ILB-OO12-ULWH-SC211-WIR200.	70 °C max	- 40 to 110 °C	1800mA max	not designed for reverse voltage
ILB-OO12-DEBL-SC211-WIR200.	70 °C max	- 40 to 110 °C	1800mA max	not designed for reverse voltage

* Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the LED module. Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the LED module. The temperature of the LED module must be measured at the Tc-Point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

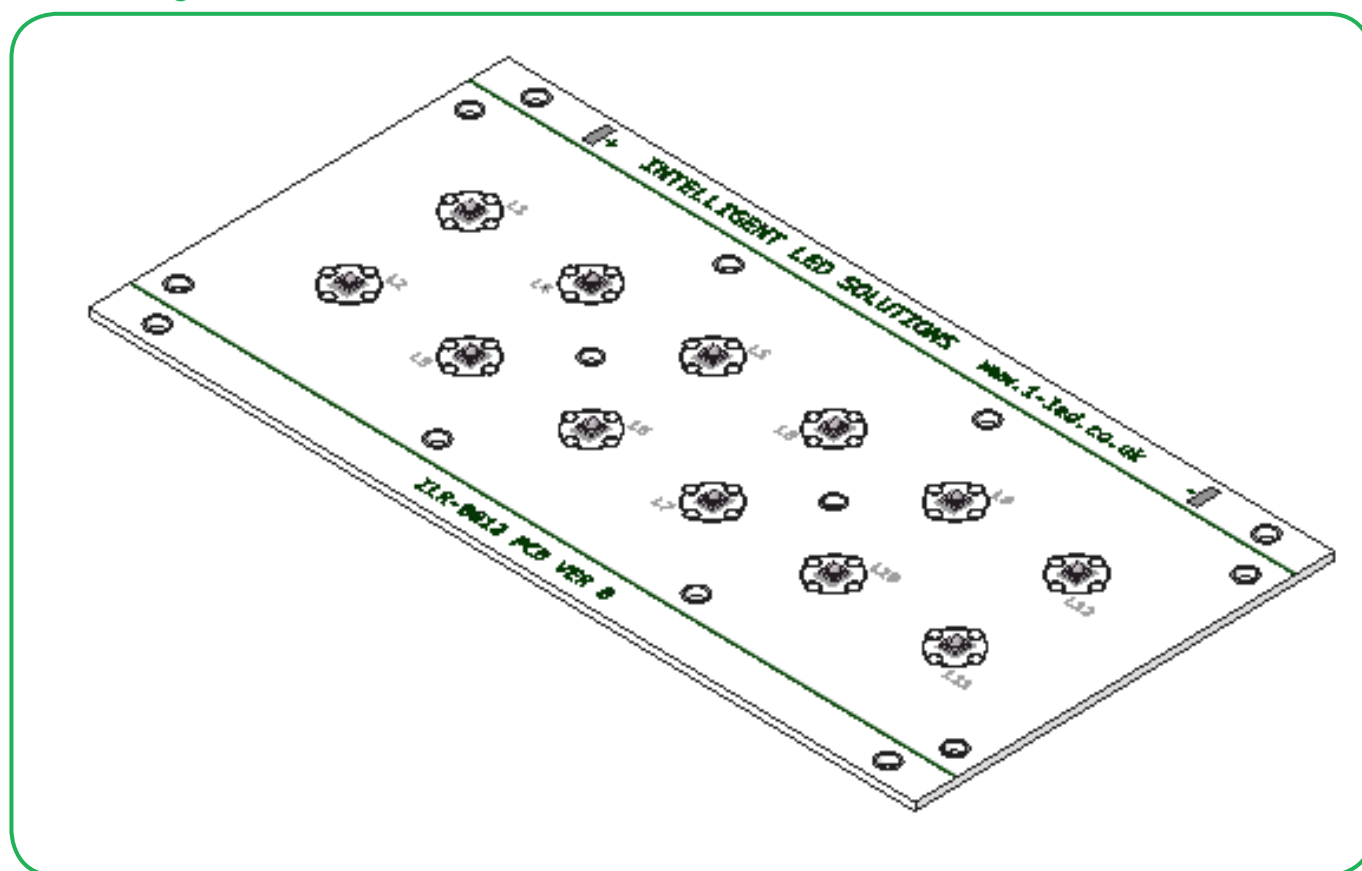
Radiation of single LED



Technical Drawing



3D Drawing



OSLON® Square 12 High Bay Lens and Reflector Options

LEDiL precision-engineered Lenses and Reflectors allow for rapid deployment of all types of light fixtures, including street lights, wall-wash, high-bay, sconces, emergency beacons, parking garage/low-bay, MR and AR downlights, and dock lights. Precision-engineered for maximum efficiency and durability, LEDiL Lenses and Reflectors are released alongside the latest product releases from our LED suppliers. You select the best LED for the application; choose LEDiL and you're selecting the best optical solution as well.

LEDiL

ILS PART NUMBER	OSLON 80 Beam Angle (FWHM)	OSLON 150 Beam Angle (FWHM)	OSLON Square Beam Angle (FWHM)	Mounting Type
CS14130_HB-IP-2X6-W	52	TBA	56	Pin, Glue
CS14895_HB-IP-2X6-RS	TBA	TBA	12	Pin, Glue
CS14597_HB-IP-2X6-O	TBA	TBA	30+111	Pin, Glue
CS14263_HB-IP-2X6-WWW	TBA	TBA	95	Pin, Glue
CS12862_STRADA-IP-2X6-DWC	Asymmetric	Asymmetric	Asymmetric	Pin, Glue
CS14055_STRADA-IP-2X6-T2	Asymmetric	Asymmetric	Asymmetric	Pin, Glue
CS14143_STRADA-IP-2X6-T3	Asymmetric	Asymmetric	Asymmetric	Pin, Glue
CS14144_STRADA-IP-2X6-ME	Asymmetric	Asymmetric	Asymmetric	Pin, Glue
CS14145_STRADA-IP-2X6-DWC-90	Asymmetric	Asymmetric	Asymmetric	Pin, Glue

As per the PCB technical drawing (page3) the PCB has 4 lens connector holes surrounding the LED, these pins will allow fitting to other LEDiL lens including the Tina, Lisa and Leila. Please contact ILS should you have specific lens requirements.

OSLON® Square 12 HighBay Heatsink Options

ILS has a series of Aluminium Alloy Heatsinks to be used with our standard range of PowerStars and PowerClusters. These Heatsinks are supplied with fixing screws for the light engine and for fixing to a base plate. They also come with Thermal Interface Material (TIM) attached to the top surface. More versions will be introduced over the coming months and we are also happy to manufacture custom Heatsinks to your request.

	Operates under the recommended ILS junction temperature
	Operates under the recommended LED maximum junction temperature
	Not suitable for use
N/A	Heatsink not designed for use with this product


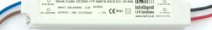



ILS Product	Drive Current	No Heatsink, in free air	LA-HSINK-CLUSTER-84x190x50MM.
OSLON 12 High Bay	350mA		
	500mA		
	700mA		
	1050mA		
	1400mA		
	1800mA		



OSLON® Square 12 High Bay Power Supply Options

ILS has a comprehensive range of standard Power Supplies. The table below shows the total number of ILS products each Power Supply can drive.

Additional Power Supplies are being introduced so please call us or check our website for the latest offering. Constant Current LED Drivers

ILS Driver Part No.	Rating	Current	OSLON® SSL Square High Bay	
IZC035-008F-5065C-SA	8	350mA	1	
IZC035-017F-0067A-SA	17	350mA	1	
IZC035-018T-9500A-SA	18	350mA	1	
IZC070-050A-9267C-SA	50	700mA	1-2	
IZC070-075A-9267C-SA	75	700mA	2	

Thermal Interface Material Options

ILS have produced a range of High-performance, cost effective Thermal Interface Materials to match perfectly their standard products. Our product fills the air pockets between the two surfaces, forming a continuous layer to conduct heat away from the LED to the Heatsink.

ILS offer our TIM in three options – double sided adhesive, single sided adhesive and non-adhesive.

Product	Non Adhesive	Single Sided Adhesive	Double Sided Adhesive
2x6 High Bay	ILA-TIM-HB-173X87MM-0A	ILA-TIM-HB-173X87MM-1A	ILA-TIM-HB-173X87MM-2A

Other sizes are available, including customised parts

Assembly Information

- In order to optimise the thermal management, the metal surface needs to be clean (dirt and oil free) and planar for the best contact with the LED module. A thermal grease or heat transfer material is highly recommended.

Safety Information

- The LED module itself and all its components must not be mechanically stressed.
- Assembly must not damage or destroy conducting paths on the circuit board.
- The mounting of the module is carried out by attaching it at the mounting holes. Metal mounting screws must be insulated with synthetic washers to prevent circuit board damage and possible short circuiting.
- To avoid mechanical damage to the connecting cables, the boards should be attached securely to the intended substrate. Heavy vibration should be avoided.
- Observe correct polarity!
- Depending on the product, incorrect polarity will lead to emission of red or no light. The module can be destroyed!
- Pay attention to standard ESD precautions when installing the PowerStar.
- The PowerStar, as manufactured, have no conformal coating and therefore offer no inherent protection against corrosion.
- Damage by corrosion will not be accepted as a materials defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture and condensation and other harmful elements.
- For outdoor usage, housing is definitely required to protect the board against environmental influences. The design of the housing must correspond to the IP standards in the application. It is also the responsibility of the user to ensure any housing or modifications keep the Tc junction temperature to within stated ranges.
- To also ease the luminaire/installation approval, electronic control gear for LED or LED modules should carry the CE mark and be ENEC certified. In Europe the declarations of conformity must include the following standards: CE: EC 61374-2-13, EN 55015, IEC 61547 and IEC 61000-3-2 - ENEC: 61374-2-13 and IEC/EN 62384.
- The evaluation of eye safety occurs according to the standard IEC 62471:2006 ("photobiological safety of lamps and lamp systems"). Within the risk grouping system of this CIE standard, the LED specified in this data sheet falls into the class "moderate risk" (exposure time 0.25s). Under real circumstances (for exposure time, eye pupils, observation distance), it is assumed that no endangerment to the eye exists from these devices. As a matter of principle, however, it should be mentioned that intense light sources have a high secondary exposure potential due to their blinding effect. As is also true when viewing other bright light sources (e.g. headlights), temporary reduction in visual acuity and afterimages can occur, leading to irritation, annoyance, visual impairment and even accidents, depending on the situation.

For further information please contact ILS

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.