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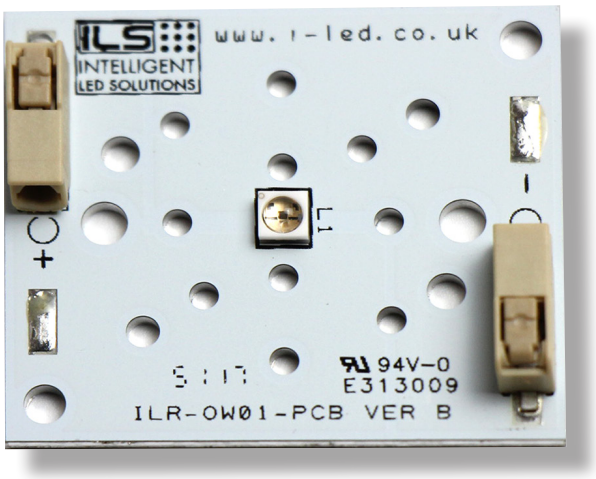
OSRAM OSLON® UV 3636 1 LEDiL Selector

ILR-OV01-O275-LSxxx-SC201. Series

At the heart of each LEDiL Selector is an OSLON® UV 3636 LED from OSRAM Opto Semiconductors. OSLON® UV 3636 LEDs are currently available in 2 power output types; low and mid power, the OSLON® UV 3636 is a robust package built on a ceramic substrate, coated in gold and has a quartz glass cover. The OSLON® UV 3636 has been designed for multiple applications including disinfection, purification, treatment and sensing. LEDiL Selectors are compact, powerful LED light sources built on aluminium substrates for optimal thermal management. They have been designed in mind to work with various silicone optics from LEDiL and are supplied with pushin connectors for ease of connection.



CONTENTS

Applications	page 2	Secondary Optics Options	page 6
Technical Features	page 2	Heatsink Options	page 6
Product Options	page 3	Power Supply Options	page 7
Minimum and Maximum Ratings	page 3	Thermal Interface Material Options	page 7
Accessories	page 4	Assembly Information	page 8
Technical Drawings	page 5	Important Information and Precautions	page 8
LED Radiation Diagram	page 5	Safety Information	page 10

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APPLICATIONS

- » Equipment illumination
- » Smoke, dust, particle sensing
- » UV-C air disinfection
- » UV-C surface disinfection
- » UV-C water disinfection

TECHNICAL FEATURES

LED Family	OSLON® UV 3636 1 LEDiL Selectors contain a 1-chip UV LED from OSRAM Opto Semiconductors with integral 130 degree quartz glass lens
Lifetime	TBC
Mounting	Mounting holes using M3 screws allows easy installation
Dimensions	(L X W X H) 40 x 35 x 3.4mm
Connection	Avaiable with 2 x push in connectors.
Secondary Optics	A secondary optic can be fitted. Suitable options on page 6 or visit our website for a full range
Heatsinks	Required over 350mA. Suitable options on page 6 or visit our website for a full range
Power Supply	Suitable options on page 7 or visit our website for a full range
Chain	LEDiL Selectors can be linked together to produce longer chains
Current Range	Low Power Device 1 to 40mA Mid Power Device 1 to 200mA High Power Device 1 to 500mA
Thermal Resistance	Low Power Device 24K/W Mid Power Device 7.5K/W High Power Device 6.3K/W

PRODUCT OPTIONS

LOW POWER PRODUCT

ILS Part Number	Peak Wavelength*	Typical Power W § At 30mA	Forward Voltage	Minimum Flux † at 30mA	Radiance Angle	Relevant OSRAM LED Data
ILR-OV01-O275-LS004-SC201.	275nm	0.18W	5.5-6.5V	4mW	130° (+/-65°)	SU CULBN1.VC-AGAY-67-4F4G

*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 30mA pulse at 25°C

MID POWER PRODUCT

ILS Part Number	Peak Wavelength*	Typical Power W § At 100mA	Forward Voltage	Minimum Flux † at 100mA	Radiance Angle	Relevant OSRAM LED Data
ILR-OV01-O275-LS010-SC201.	275nm	0.6W	5-7V	10mW	130° (+/-65°)	SSU CULCN1.VC

*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 100mA pulse at 25°C

HIGH POWER PRODUCT

ILS Part Number	Peak Wavelength*	Typical Power W § At 350mA	Forward Voltage	Minimum Flux † at 350mA	Radiance Angle	Relevant OSRAM LED Data
ILR-OV01-O275-LS030-SC201.	275nm	2.0W	5.00-6.0V	30mW	130° (+/-65°)	SU CULDN1.VC-MAMP-67-4E4F

*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 350mA pulse at 25°C

MINIMUM AND MAXIMUM RATINGS

ILS Part Number	Operating Temperature at Tc-Point [°C]*	Storage Temperature [°C]*	Maximum Forward Current per chip [mA]*	Reverse Voltage [Vdc]*
ILR-OV01-O275-LS004-SC201.	-40°C - 60°C	-40°C - 100°C	40mA	5V
ILR-OV01-O275-LS010-SC201.	-40°C - 60°C	-40°C - 100°C	200mA	5V
ILR-OV01-O275-LS030-SC201.	-40°C - 60°C	-40°C - 100°C	500mA	5V

* 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.

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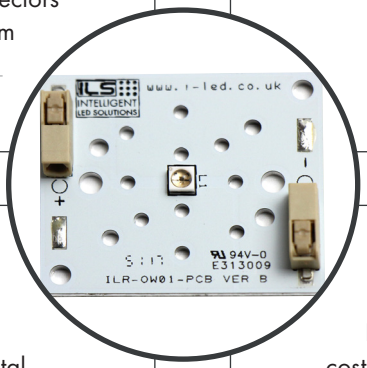
ACCESSORIES

Lenses and Reflectors

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 products from our LED suppliers. Suitable options on page 6 or visit our website for a full range.

Heatsinks

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. Suitable options on page 6 or visit our website for a full range.



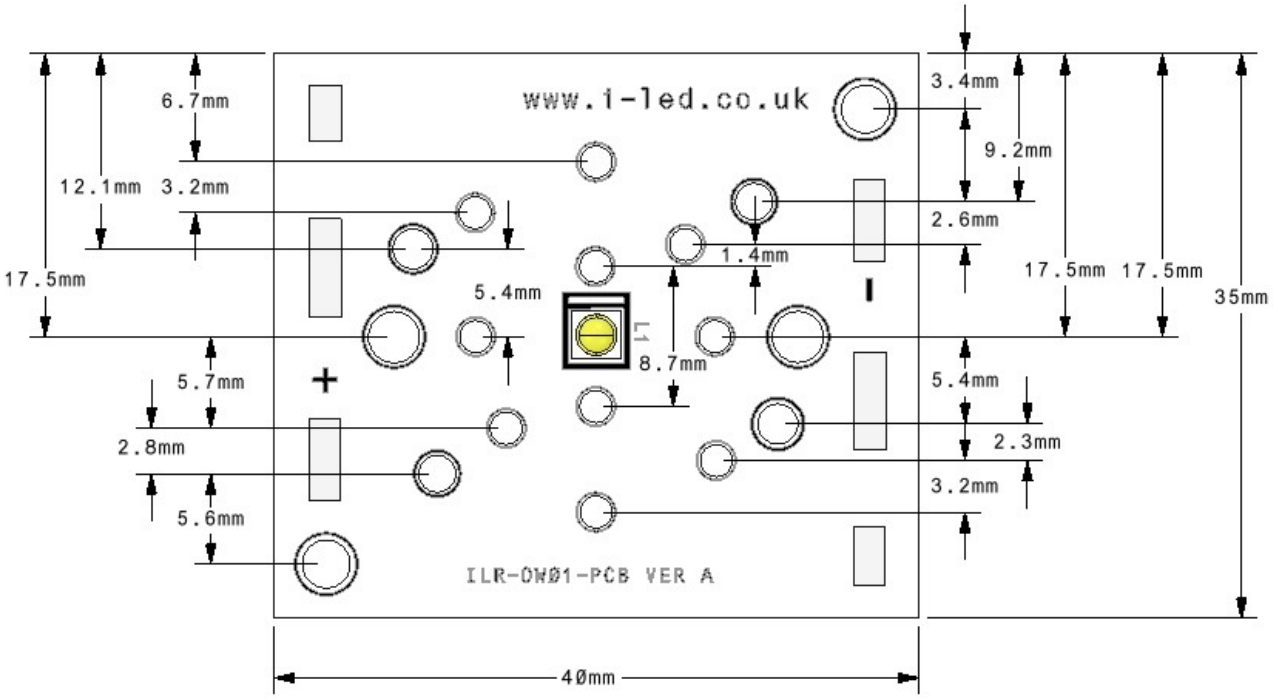
Power Supplies

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. Suitable options on page 7

Thermal Interface Material (TIM)

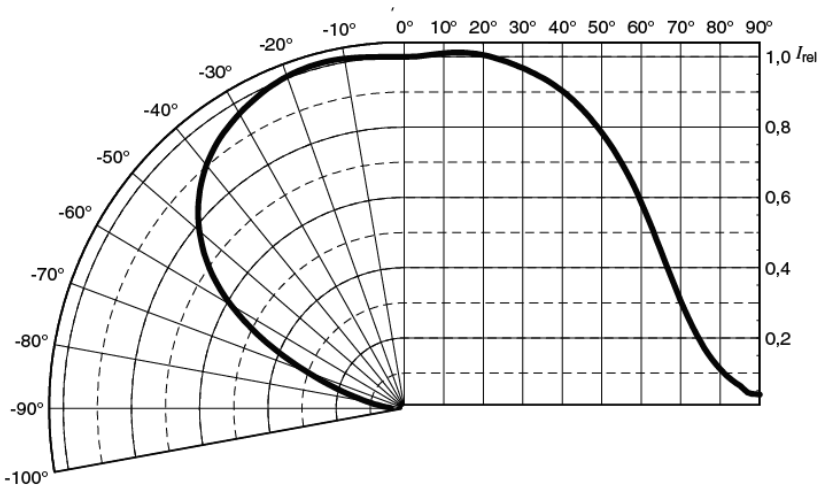
ILS has produced a range of high-performance, cost effective thermal interface materials to perfectly match their standard products. Our product fills the air pockets between the two surfaces, forming a continuous layer to conduct heat away from the LED to the heatsink. ILS offers TIM in three options – double sided adhesive, single sided adhesive and non adhesive. Suitable options on page 7 or visit our website for a full range.

TECHNICAL DRAWINGS (MM)



3D drawing files are available on request from ILS. Please call or email

RADIATION OF SINGLE LED



SECONDARY OPTICS 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.

LENSES

Ordering Code	Beam	Diameter	Height	Family	FWHM	Material	Colour	Fastening
F14531_JENNY-CY	Batwing	35x35mm	11.5mm	JENNY	105+105	Silicone	Clear	Tape and Holder
FCA14961_G2-NIS033U-W-PIN	Wide	22x22mm	12.9mm	ROSE	45	Silicone	Black	Tape and Pin
FCA14011_G2-NIS033U-S	Spot	22x22mm	12.9mm	ROSE	20	Silicone	Black	Tape
FCA14405_G2-NS033U-M	Medium	22x22mm	12.9mm	ROSE	25	Silicone	Black	Tape
FCA14464_G2-NIS033U-W	Wide	22x22mm	12.9mm	ROSE	45	Silicone	Black	Tape
FCA14962_G2-NIS033U-M-PIN	Medium	22x22mm	12.9mm	ROSE	25	Silicone	Black	Tape and Pin
FCA14963_G2-NIS033U-S-PIN	Spot	22x22mm	12.9mm	ROSE	20	Silicone	Black	Tape and Pin
FCA150007_G2-ROSE-UV-SS	Smooth Spot	22x22mm	12.9mm	ROSE	15	Silicone	Black	Tape
FCA15008_G2-ROSE-UV-M	Medium	22x22mm	12.9mm	ROSE	25	Silicone	Black	Tape
F17822_VIOLETTA-S	Spot	22x22mm	6.6mm	VIOLETTA	15	Silicone	Clear	Pin
F17826_VIOLETTA-W	Wide	22x22mm	6.6mm	VIOLETTA	60	Silicone	Clear	Pin

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HEATSINK OPTIONS

ILS Product		ILR-OV01-O275-LS004-SC201.			ILR-OV01-O275-LS010-SC201.			ILR-OV01-O275-LS-S030-SC201.		
		10mA	30mA	40mA	50mA	100mA	150mA	100mA	350mA	500mA
No Heatsink, in free air										
ILA-HSINK-78X46X25MM										

KEY

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

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POWER SUPPLY OPTIONS

ILS has a comprehensive range of standard Power Supplies. Additional Power Supplies are frequently being introduced so please call us or check our website for the latest offering.

LOW POWER OPTIONS

	ILS Driver Part Number	Rating	Current	Output Volts	Dimming
	ILA-1CH-LED-TESTER-PREC-01	16.8W	10-700mA	1-24V	Constant Current Dimming

MID/HIGH POWER OPTIONS

	ILS Driver Part Number	Rating	Current	Output Volts	Dimming
	IZC035-004F-4065C-SAL	4W	350mA	3-12V	None
	IZC035-008F-5065C-SA	8W	350mA	3-36V	None
	OTi-DALI-10/220-240/700-NFC	10W	150-700mA	2.5-45V	DALI
	ILA-1CH-LED-TESTER-PREC-01.	16.8W	10-700mA	1-24V	Constant Current Dimming
	ILA-1CH-LED-TESTER-USB-01.	1.75W	50-350mA	5V	None
	IT-FIT-4/220-240/400-CS-I	4W	100-400mA	2.5-10V	No
	IT-FIT-7/220-240/700-CS-I	7W	350-700mA	2.5-11V	No
	IT-FIT-11/220-240/500-CS-I	11W	350-500mA	11-21V	No
	IT-FIT-15/220-240/700-CS-I	11W	550-700mA	11-21V	No

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THERMAL INTERFACE MATERIAL OPTIONS

Product	Non Adhesive	Single Sided Adhesive	Double Sided Adhesive
OSLON® UV 3636 LEDiL Selector	ILA-TIM-LEDIL-0A	ILA-TIM-LEDIL-1A	ILA-TIM-LEDIL-2A
Other sizes are available, including customised parts			

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ASSEMBLY INFORMATION

» The mounting of the LEDiL selector has to be on a metal Heatsink.

» 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.

IMPORTANT INFORMATION AND PRECAUTIONS

During operation, the LED emits ultraviolet (UV) light which is harmful to skin and eyes. UV radiation can cause sunburn, conjunctivitis and cancer. Precautions MUST be taken to avoid looking directly at the UV light such as the use of UV light protective glasses.

If LEDs are embedded in devices, you must add warning labels to alert users of the safety precautions required when operating devices using UV LED lights. The module's LEDs, when powered up, are very powerful. Although the light may appear off, however UV is invisible to the human eye and can still damage eyes. Thus it is advised that you do not look directly at it. Turn the module away from you and do not shine into the eyes of others The module's LEDs, when powered up, are very powerful. Although the light may appear off, however UV is invisible to the human eye and can still damage eyes. Thus it is advised that you do not look directly at it. Turn the module away from you and do not shine into the eyes of others

Do not operate LEDiL selectors with a Power Supply with unlimited current. Connection to constant voltage Power Supplies that are not current limited may cause the LEDiL Selectors to consume current above the specified maximum and cause failure or irreparable damage.

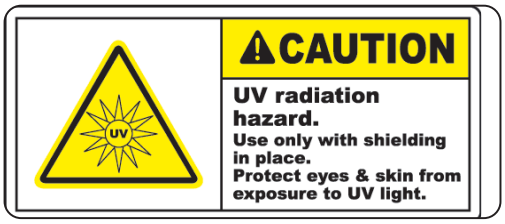
LEDiL selectors will overheat in operation if not attached to a suitable Heatsink. Overheating can cause failure or irreparable damage.

LEDiL selectors, 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.

Lens discolouration may occur with prolonged exposure to UV/NUV light. Lens material will need to be tested for UV/NUV light compatibility and durability.



These products generate UVC radiation which can cause skin damage and conjunctivitis to humans and animals within a short time. The skin and eyes must be fully protected against exposure. You should be aware that UVC radiation does not eliminate harmful non-degradable substances such as heavy metals or pesticides. Assume IEC62471 Risk Group 3

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 OSLON® LEDiL Selector.

The OSLON® LEDiL Selector, 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, a 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 housings 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.

FURTHER INFORMATION

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

If you require further assistance or have a specific or custom enquiry, please contact the ILS team via email or phone. Alternatively please visit our website for more product information and to see our full ranges.

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ABOUT ILS

ILS offers a high level of technical skill, professionalism and commercial understanding to companies requiring market-leading optoelectronics solutions. Offering conceptual advice, electronics design and manufacturing capability, we use high quality production resources both in-house and in Asia, providing project support from prototyping to mass production. We also understand the need to provide cost-effective solutions and we do so using high quality components to ensure that the end product's reliability and quality is uncompromised. Apart from LEDs in the visible spectrum, we have a wide range of Infrared, UV LEDs, UV tubes, and lasers.

ILS is a division of Intelligent Group Solutions Ltd (IGS) a well-established respected industry leading Optoelectronics solutions provider. Much of IGS' business comes from providing semi-custom or custom products both in component and sub-assembly form, and from providing design support and prototyping within the European market place. We can deliver production displays to wherever in the world that the customer's manufacturing or assembly is being undertaken.

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