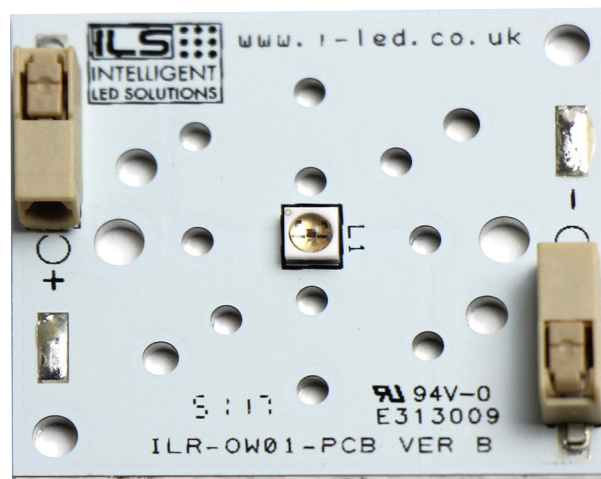




Stanley 4E LEDiL Selector UVA

ILR-4E01-Zxxx-LEDIL-SC201.

At the heart of each Stanley UVA LEDiL Selector is a compact, high quality and reliable Stanley 4E UVA LED, with primary 130 degree lens, featuring high radiometric power density and design flexibility. With a ceramic substrate, the 4E are designed for industrial and commercial applications such as inkjet/offset printing, coating, curing, medical/cosmetic and aquarium/horticulture. The LEDiL Selector has been designed to work with most single source optics from LEDiL. LEDiL Selectors are compact, powerful LED light sources built on aluminium substrates for optimal thermal management. Available with push-in connectors for easy installation.



CONTENTS

Applications	page 2	Lens and Reflector Options	page 5
Technical Features	page 2	Heatsink Options	page 6
Product Options	page 3	Power Supply Options	page 7
Min and Max Value Table	page 3	Thermal Interface Material Options	page 7
Technical Drawings	page 5	Important Information and Precautions	page 8
LED Radiation Diagram	page 5	Safety Information	page 9

APPLICATIONS INCLUDE

- » Polymer curing
- » Ink curing
- » Counterfeit detection
- » Aquarium lighting
- » Medical and DNA sequencing
- » Inspection equipment
- » Horticultural lighting

TECHNICAL FEATURES

LED/s	Stanley 4E 1 LEDiL Selectors contains a 1-chip UVA LED
Lifetime	Up to 27000 hours lifetime to 70% of original brightness (T _j =43 °C, iF=350mA)
Mounting	Mounting holes using M3 screws allows easy installation
Dimensions (L x W x H)	40 x 35 x 3.65mm
Connection	Connection via 2x push in connectors
Secondary Optics	Integral 130 degree silicone lens . Secondary Lens can be fitted. Suitable options on page 5 or visit our website for a full range.
Heatsinks	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	100-700mA
Thermal Resistance	3 °C/W

PRODUCT OPTIONS

ILS Part Number	Peak Wavelength*		Typical Wattage at 500mA §	Forward Voltage	Minimum Radiometric Power (mW) at 500mA*	Radiance Angle	Relevant Stanley LED Data
	min data λ_p	max λ_p					
ILR-4E01-Z365-LEDIL-SC201.	360nm	370nm	1.8W	3.2V to 4.3V	710mW	130° (+/- 65°)	NDU1104ESE-365-TR
ILR-4E01-Z385-LEDIL-SC201.	380nm	390nm	1.8W	3.2V to 4.3V	910mW	130° (+/- 65°)	NDU1104ESE-385-TR
ILR-4E01-Z395-LEDIL-SC201.	390nm	400nm	1.8W	3.2V to 4.3V	910mW	130° (+/- 65°)	NDU1104ESE-395-TR
ILR-4E01-Z405-LEDIL-SC201.	400nm	410nm	1.8W	3.2V to 4.3V	910mW	130° (+/- 65°)	NDU1104ESE-405-TR

* Radiometric power is measured with an accuracy of $\pm 10\%$.

§ The forward voltage is measured with an accuracy of $\pm 0.2V$

* The peak/dominant wavelength is measured with an accuracy of $\pm 1\text{ nm}$

MINIMUM AND MAXIMUM RATINGS

ILS Part Number	Operating Temperature at Tc-Point [° C]*	Storage Temperature [° C]*	Forward Current per chip [mA]*	Reverse Voltage [Vdc]*
ILR-4E01-Z365-LEDIL-SC201.	-10 ... 85 (°C)	-40 ... 100 (°C)	700mA max	Not designed to be driven in reverse
ILR-4E01-Z385-LEDIL-SC201.	-10 ... 85 (°C)	-40 ... 100 (°C)	700mA max	Not designed to be driven in reverse
ILR-4E01-Z395-LEDIL-SC201.	-10 ... 85 (°C)	-40 ... 100 (°C)	700mA max	Not designed to be driven in reverse
ILR-4E01-Z405-LEDIL-SC201.	-10 ... 85 (°C)	-40 ... 100 (°C)	700mA max	Not designed to be driven in reverse

* 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 is likely to 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.

ACCESSORIES

Lenses and Reflectors

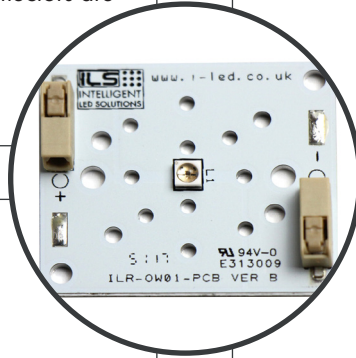


LEDiL precision-engineered Lenses and Reflectors allow for rapid deployment of all types of light fixtures, including street lights, wall-wash, high-bay, sconces, emergency beacons, parking garage/low-bay, MR and AR downlights, and dock lights. Precision-engineered for maximum efficiency and durability, LEDiL Lenses and Reflectors are released alongside the latest product releases from our LED suppliers. Suitable options on [page 5](#) or visit [our website](#) for a full range.

Heatsinks

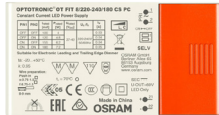


ILS has a series of Aluminium Alloy Heatsinks to be used with our standard range of PowerStars and PowerClusters. These Heatsinks are supplied with fixing screws for the light engine and for fixing to a base plate. They also come with Thermal Interface Material (TIM) attached to the top surface. Suitable 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 6](#)

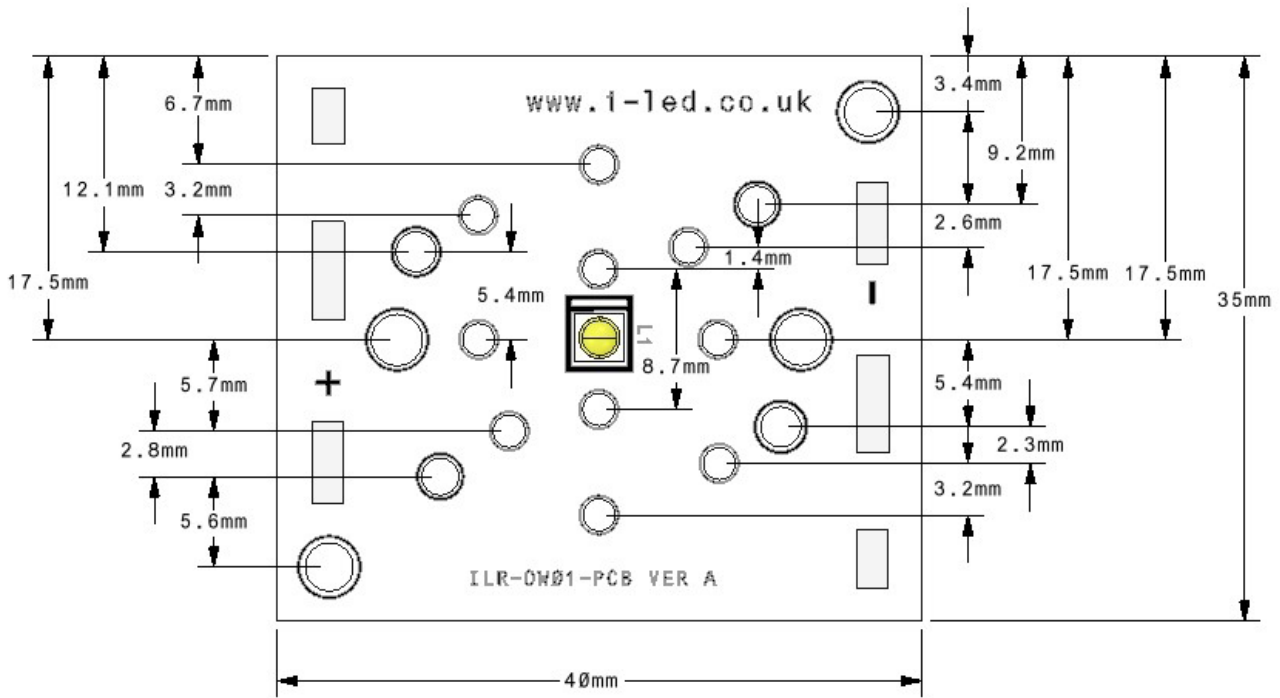


Thermal Interface Material (TIM)

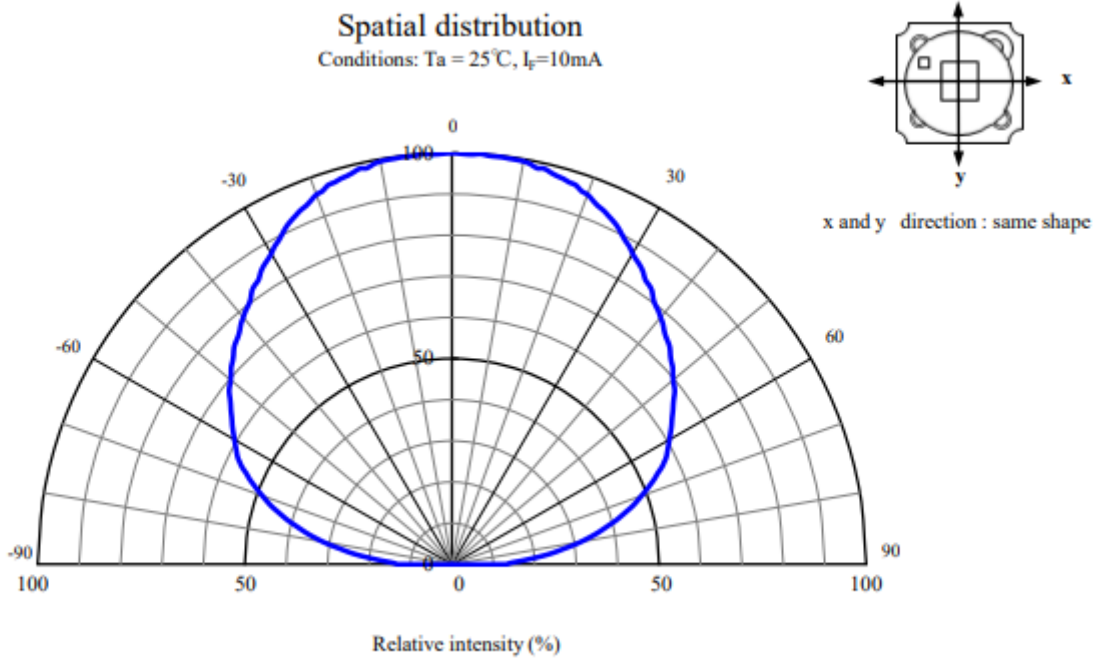
ILS have produced a range of High-performance, cost effective Thermal Interface Materials to match perfectly their standard products. Our product fills the air pockets between the two surfaces, forming a continuous layer to conduct heat away from the LED to the Heatsink. ILS offer our TIM in three options – double sided adhesive, single sided adhesive and non adhesive. Suitable options on [page 7](#) or visit [our website](#) for a full range.



TECHNICAL DRAWINGS (mm)



RADIATION OF SINGLE LED



STANLEY 4E 1 LEDIL SELECTOR 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.

Ordering Code	Beam	Size	Height	Family	FWHM	Material	Colour	Fastening
F14531_JENNY-CY	Batwing	35x35mm	11.5mm	JENNY	105° +105°	Silicone	Clear	Tape 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
FCA15009_G2-ROSE-UV-W	Wide	22x22mm	12.9mm	ROSE	40°	Silicone	Black	Tape
F15382_JENNY-CY-G2	Batwing	35x35mm	11.5mm	JENNY	105° +105°	Silicone	Clear	Tape
F15538_JENNY-20	Spot	35x35mm	14.5mm	JENNY	20°	Silicone	Clear	Pin
F15539_JENNY-40	Medium	35x35mm	15.0mm	JENNY	40°	Silicone	Clear	Pin
F15541_JENNY-60	Wide	35x35mm	13.4mm	JENNY	60°	Silicone	Clear	Pin

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STANLEY 4E 1 LEDIL SELECTOR HEATSINK OPTIONS

ILS Product		Stanley 4E 1 LEDiL Selector		
		100mA	350mA	700mA
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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STANLEY 4E 1 LEDIL SELECTOR 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.

	ILS Driver Part Number	Rating	Current	Voltage of LED Driver	Dimming
	IZC035-004F-4065C-SAL	4W	350mA	3-12V	
	IZC035-008F-5065C-SA	8W	350mA	3-36V	
	IZC035-017F-0067A-SA	17W	350mA	6-48V	
	IZC035-018T-9500A-SX	18W	350mA	15-52V	Mains dimming
	OT-FIT-15/220-240/500-LT2-LP	15W	150-500mA	15-50V	
	OTi-DALI-15/220-240/1A0-LT2	15W	150-1050mA	7.5-54V	
	OTi-DALI-10/220-240/700-NFC	10W	150-700mA	2.5-45V	
	OTi-DALI-15/220...240/1A0-LT2-NFC	15W	150-1050mA	7.5-54V	
	OTI-DX-25/220-240/700-NFC	25W	180-700mA	3-6V	
	OT-20/170-240/1A0-1DIMLT2-G1-CE	20W	200-1050mA	10-38V	

[Click here to visit our website for our latest range](#)

THERMAL INTERFACE MATERIAL OPTIONS

Product	Non Adhesive	Single Sided Adhesive	Double Sided Adhesive
Stanley 4E 1 LEDiL Selector	ILA-TIM-LEDIL-40x35-0A	ILA-TIM-LEDIL-40x35-1A	ILA-TIM-LEDIL-40x35-2A

Other sizes are available, including customised parts

[Click here to visit our website for our latest range](#)

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 (UVA) light which is harmful to skin and eyes. UVA radiation can cause sunburn, conjunctivitis and cancer. Precautions MUST be taken to avoid looking directly at the UVA 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 UVA LED lights. The module's LEDs, when powered up, are very powerful. Although the light may appear off, however UVA 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 UVA 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 Selector 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 Selector will overheat in operation if not attached to a suitable Heatsink. Overheating can cause failure or irreparable damage.



LEDiL Selector, when operated, can reach high temperatures thus there is risk of injury if they are touched.



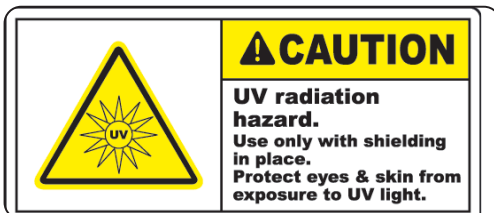
DO NOT HOT PLUG ON LED SIDE OF POWER SUPPLY.



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 UVA 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 UVA 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 LEDiL Selector.



The 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 an specific or custom enquiries, please contact the ILS team via email or phone. Alternatively please visit our website for more product info 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. This comes from providing design support and prototyping within the European market place. With the capability to deliver production displays to wherever in the world that the customer's manufacturing or assembly is being undertaken.

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