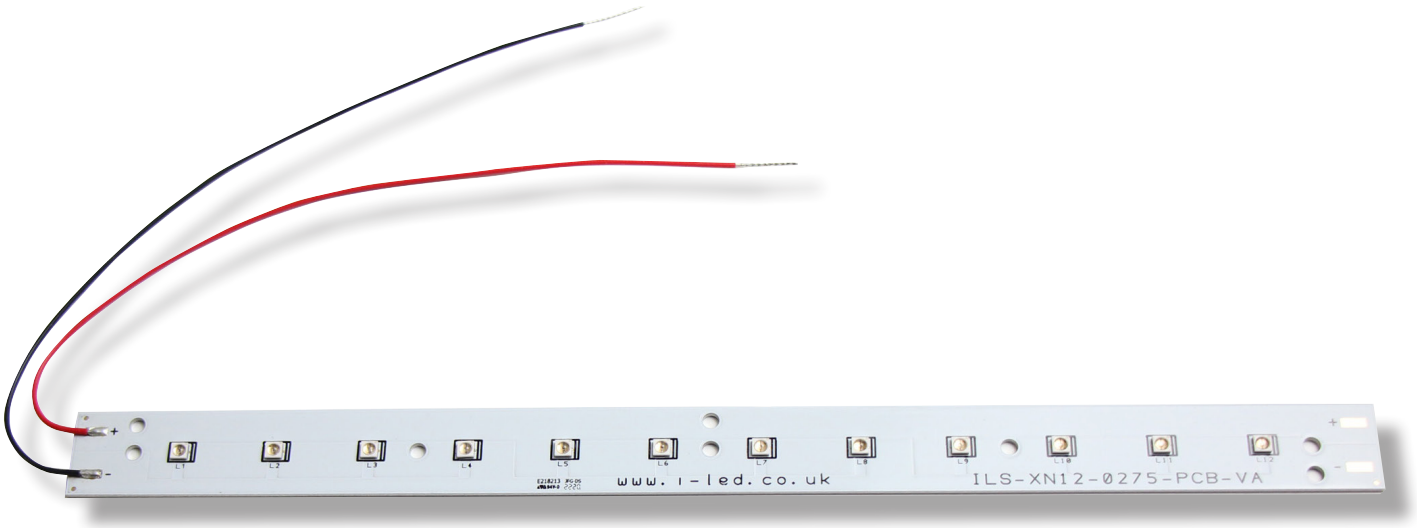
OSLON® UV 3636 12 Violet Linear Strip

ILS-OV12-O275-VLxxx-SC201-W2.

At the heart of each Violet Linear are 12 OSLON® UV 3636 LEDs 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 for added robustness and fitted with a quartz glass cover. The OSLON® UV 3636 has been designed for multiple applications including disinfection, purification, treatment and sensing. Violet Linears are compact, powerful LED light sources built on aluminium substrates for optimal thermal management. The Violet Linear strips have been designed to work with the Violet range of silicone optics from LEDiL. Available with 200mm wires as standard.



CONTENTS

Applications	page 2	Secondary Optics Options	page 5
Technical Features	page 2	Heatsink Options	page 6
Product Options	page 3	Power Supply Options	page 6-8
Minimum and Maximum Ratings	page 3	Thermal Interface Material Options	page 8
Accessories	page 4	Assembly Information	page 8
Technical Drawings	page 5	Important Information and Precautions	page 9
LED Radiation Diagram	page 5	Safety Information	page 10

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 12 Violet Strips contains 12 1-chip UV LEDs 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) 275 x 20 x 3.4mm
Connection	Available with 200mm wires as standard
Secondary Optics	A secondary optic can be fitted. Suitable options on page 5 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 6 or visit our website for a full range
Chain	Violet linear strips can be linked together to produce longer chains
Current Range	Low Power Device 3 to 120mA Mid Power Device 3 to 600mA High Power Device 3 to 1500mA
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 90mA	Forward Voltage	Minimum Flux † at 90mA	Radiance Angle	Relevant OSRAM LED Data
ILS-OV12-O275-VL004-SC201-W2.	275nm	0.72W	16.5-19.5V	48mW	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 90mA pulse at 25°C

MID POWER PRODUCT

ILS Part Number	Peak Wavelength*	Typical Power W § At 1050mA	Forward Voltage	Minimum Flux † at 300mA	Radiance Angle	Relevant OSRAM LED Data
ILS-OV12-O275-VL010-SC201-W2.	275nm	5.4W	15-21V	140mW	130° (+/-65°)	SU CULBN1.VC-AGAM-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 300mA pulse at 25°C

HIGH POWER PRODUCT

ILS Part Number	Peak Wavelength*	Typical Power W § At 1050mA	Forward Voltage	Minimum Flux † at 1050mA	Radiance Angle	Relevant OSRAM LED Data
ILS-OV12-O275-VL030-SC201-W2.	275nm	22.0W	20-24.0V	360mW	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 1050mA pulse at 25°C

MINIMUM AND MAXIMUM RATINGS

ILS Part Number	Operating Temperature at Tc-Point [°C]*	Storage Temperature [°C]*	Forward Current per strip [mA]*	Reverse Voltage [Vdc]*
ILS-OV12-O275-VL004-SC201-W2.	-40 - 60°C	-40 -100°C	120mA	15V
ILS-OV12-O275-VL010-SC201-W2.	-40 - 60°C	-40 -100°C	600mA	15V
ILS-OV12-O275-VL030-SC201-W2.	-40 - 60°C	-40 -100°C	1500mA	15V

* 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.

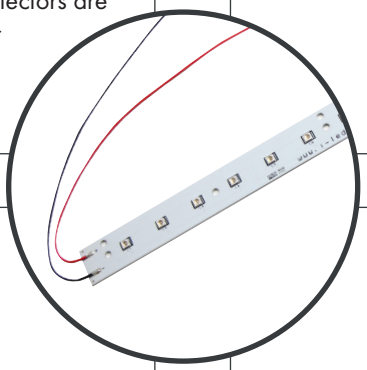
ACCESSORIES

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 5 or visit our website for a full range.

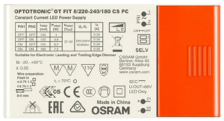
Heatsinks

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



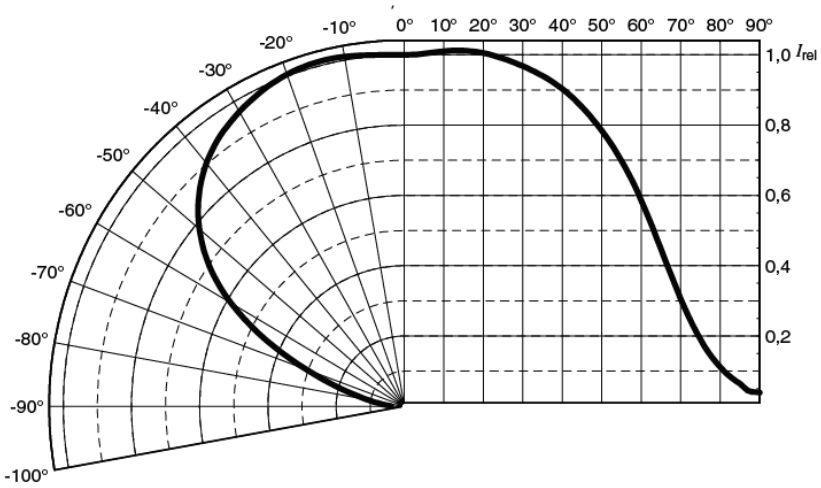
Thermal Interface Material (TIM)

ILS 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)

Coming Soon

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/Lens	Colour	Fastening
FN17294_VIOLET-12X1-S	Spot	295x42mm	8.8mm	VIOLET	20°	Silicone + Steel Holder	Clear	Screw
FN17810_VIOLET-12X1-RS	Real Spot	295x42mm	8.8mm	VIOLET	14°	Silicone + Steel Holder	Clear	Screw
FN17818_VIOLET-12X1-W	Wide	295x42mm	8.8mm	VIOLET	60°	Silicone + Steel Holder	Clear	Screw

Click here to visit our website for our latest range

HEATSINK OPTIONS

ILS Product		Low Power ILS-0V12-0275-LV004-SC201-W2.			Medium Power ILS-0V12-0275-VL012-SC201-W2.			High Power ILS-0V12-0275-LS030-SC201-W2.		
		30mA	90mA	120mA	150mA	350mA	450mA	450mA	1050mA	1500mA
No Heatsink, in free air										
ILA-HSINK-300x85x25mm										

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

Click here to visit our website for our latest range

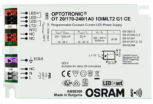
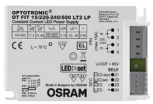
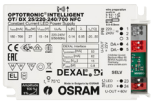
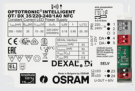
POWER SUPPLY OPTIONS

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
	OT-FIT-8/220-240/180-CS-I-MINI	8W	90-180mA	30-42V	No
	OT-FIT-8/220-240/180-CS-PC-SC	8W	100-180mA	27-40V	Phase Cut Dimming
	ILA-1CH-LED-TESTER-PREC-01	16.8W	10-700mA	1-24V	Constant Current Dimming
	OT-FIT-25/220-240/500-NFC-L	25W	100-500mA	20-51V	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

MEDIUM/HIGH POWER OPTIONS

	ILS Driver Part Number	Rating	Current	Output Volts	Dimming
	OTE-13/220-240/350-PC	13W	350mA	18-38V	Phase Cut Dimming
	OT-FIT-15/220-240/500-LT2-LP	15W	100-500mA	15-50V	None
	OTE-18/220-240/500-PC	18W	500mA	18-36V	Phase Cut Dimming
	OT-20/170-240/800-4DIMLT2-G2-CE	20W	200-1050mA	10-38V	DALI
	OTE-25/220-240/700-PC	25W	700mA	18-36V	Phase Cut Dimming
	OT-FIT-25/220-240/700-LT2-LP	25W	300-700mA	15-50V	None
	OT-FIT-25/220-240/500-NFC-L	25W	100-500mA	20-51V	None
	OTI-DX-25/220-240/700-NFC	25W	180-700mA	15-50V	Dali
	OTI-DX-35/220-240/1A0-NFC	35W	350-1050mA	15-50V	Dali
	OT-FIT-35/220-240/700-NFC-L	35W	200-700mA	20-51V	None
	OT-FIT-40/220-240/1A0-LT2-LP	40W	500-1050mA	15-50V	None
	OT-50/120-277/1A2-2DIMLT2-P	50W	600-1250mA	20-55V	1-10V
	OTE-50/220-240/1A4-CS	50W	1150-1400mA	18-36V	None
	OT-FIT-55/220-240/1A0-NFC-L	55W	400-1050mA	20-51V	None
	OT-FIT-75/220-240/1A4-NFC-L	75W	600-1400mA	20-51V	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

	ILS Driver Part Number	Rating	Current	Output Volts	Dimming
	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

Click here to visit our website for our latest range

THERMAL INTERFACE MATERIAL OPTIONS

Product	Non Adhesive	Single Sided Adhesive	Double Sided Adhesive
OSLON® UV 3636 12 Violet Strip	ILA-TIM-STRIP-275X20-0A	ILA-TIM-STRIP-275X20-1A	ILA-TIM-STRIP-275X20-2A
Other sizes are available, including customised parts			

Click here to visit our website for our latest range

ASSEMBLY INFORMATION

» The mounting of the 12 violet linear strip 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 12 Violet Strip 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.

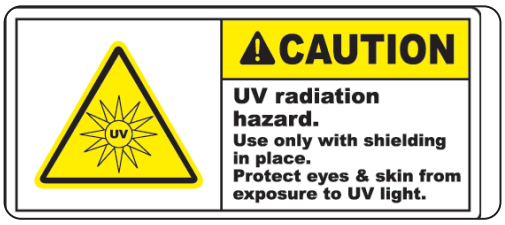
12 Violet Strip will overheat in operation if not attached to a suitable Heatsink. Overheating can cause failure or irreparable damage.

12 Violet Strip, 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

© IGS Version V2

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 12 Violet Strip.

The 12 Violet Strip , 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.

ILS INTELLIGENT LED SOLUTIONS

Unit 2, Berkshire Business Centre,
Berkshire Drive, Thatcham,
Berkshire, RG19 4EW

+44 (0)1635 294606

info@i-led.co.uk

https://i-led.co.uk

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.

INTELLIGENT GROUP SOLUTIONS DIVISIONS

IGS INTELLIGENT GROUP SOLUTIONS

IDS INTELLIGENT DISPLAY SOLUTIONS

IHS INTELLIGENT HORTICULTURAL SOLUTIONS

IPS INTELLIGENT PROTOTYPE SOLUTIONS

IES INTELLIGENT EMBEDDED SOLUTIONS