OSLONeye Powerstar LED Modules

ILI-ONxx-xxxx-SC211.

The OSLONeye is a Compact High-Flux LED Minispotlight. At the heart of each OSLONeye is an OSLON LED. A low thermal resistance of 7K/W ensures cool running and a highly efficient product. Integrated heat-sinking keeps the OSLONeye compact, and an integral lens offers a 12 degree spot style output. 160mm wires are attached as standard, and an integrated threaded end makes installations simple.

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INTELLIGENT LED SOLUTIONS

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A division of Intelligent Group Solutions Ltd

APPLICATIONS

- » Cabinet Lighting
- » Shelf Lighting
- » Accent Lighting
- » Spot Light
- » Decorative Lighting
- » Retail Lighting
- » CCTV
- » Security
- » Machine Vision

TECHNICAL FEATURES

LED Family	OSLON LED
Lifetime	Up to 100,000 hour lifetime to 70% of original brightness
Mounting	Mounting using integrated M12 threaded end
Dimensions	40mm Long, 30mm diameter
Wiring	Available with 160mm connecting wires
Secondary Optics	Integrated
Heatsinks	Integrated
Power Supply	4-15W dimming and non-dimming. Suitable options on page 9 or visit our website for a full range
Chain	OSLONeye can be linked together to produce longer chains
Current Range	50mA to 700mA
Thermal Resistance	7K/W

PRODUCT OPTIONS

ILS Part Number	Colour	Colour Temp (Degrees Kelvin)	Typical Power W §		Forward Voltage	Flux † at 350mA	Radiance Angle	Relevant OSRAM LED Data
			at 350mA	at 350mA				
ILI-ON01-FLWH-SC211.	Firelight White	2500K	1.09W	2.17W	2.7-3.2V	104lm	12° (±6°)	GW CS8PM1.EM
ILI-ON01-HWWH-SC211.	Hot White	2700K	1.09W	2.17W	2.7-3.2V	112lm	12° (±6°)	GW CS8PM1.EM
ILI-ON01-WMWH-SC211.	Warm White	3000K	1.09W	2.17W	2.7-3.2V	112lm	12° (±6°)	GW CS8PM1.EM
ILI-ON01-NUWH-SC211.	Neutral White	4000K	1.09W	2.17W	2.7-3.2V	121lm	12° (±6°)	GW CS8PM1.EM
ILI-ON01-STWH-SC211.	Street White	5700K	1.09W	2.17W	2.7-3.2V	130lm	12° (±6°)	GW CS8PM1.PM
ILI-ON01-ULWH-SC211.	Ultra White	6500K	1.09W	2.17W	2.7-3.2V	130lm	12° (±6°)	GW CS8PM1.PM
ILI-ON01-BLUE-SC211.	Blue	470nm	1.09W	2.17W	2.7-3.2V	33lm	12° (±6°)	GBCS8PM1.13
ILI-ON01-TRGR-SC211.	True Green	528nm	1.09W	2.17W	2.7-3.2V	140lm	12° (±6°)	GTCS8PM1.13
ILI-ON01-YELL-SC211.	Yellow	590nm	0.81W	1.61W	2.0-2.6V	71lm	12° (±6°)	GYCS8PM1.23
ILI-ON01-RDOR-SC211.	Red-Orange	617nm	0.77W	1.54W	2.0-2.6V	104lm	12° (±6°)	GACS8PM1.13
ILI-ON01-RED1-SC211.	Red	625nm	0.65W	1.3W	2.0-2.6V	71lm	12° (±6°)	GRCS8PM1.23
ILI-IO01-85SL-SC201.	IR	850nm	1.05W	2.1W	2.95-3.4V	560mW	12° (±6°)	SFH4715S
ILI-IO01-94SL-SC201.	IR	940nm	1.05W	2.1W	2.95-3.4V	560mW	12° (±6°)	SFH4725S

Due to the special conditions of the manufacturing processes of LEDs, the typical data of technical parameters can only reflect overall 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 85˚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]
ILI-ON01-FLWH-SC211.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage
ILI-ON01-HWWH-SC211.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage
ILI-ON01-WMWH-SC211.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage
ILI-ON01-NUWH-SC211.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage
ILI-ON01-STWH-SC211.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage
ILI-ON01-ULWH-SC211.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage
ILI-ON01-BLUE-SC211.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage
ILI-ON01-TRGR-SC211.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage
ILI-ON01-YELL-SC211.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage
ILI-ON01-RDOR-SC211.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage
ILI-ON01-RED1-SC211.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage
ILI-IO01-85SL-SC201.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage
ILI-IO01-94SL-SC201.	70°C max	-40°C to 110°C	700mA	Not designed for reverse voltage

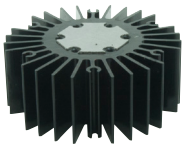
Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the LED module.
Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the LED module.
The temperature of the LED module must be measured at the Tc-Point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

ACCESSORIES

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 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.

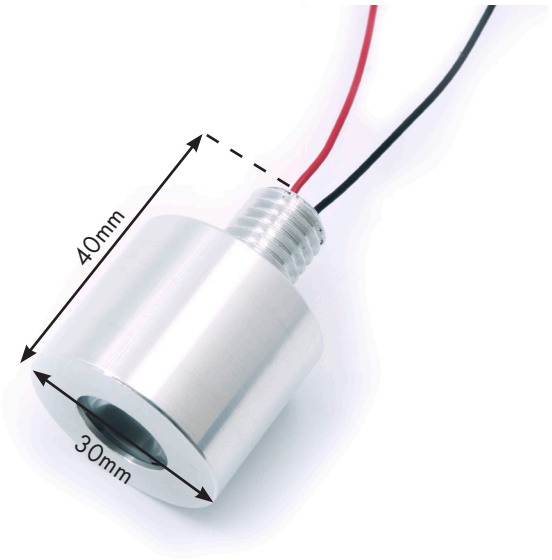
Power Supplies

ILS has a comprehensive range of standard power supplies. The table 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

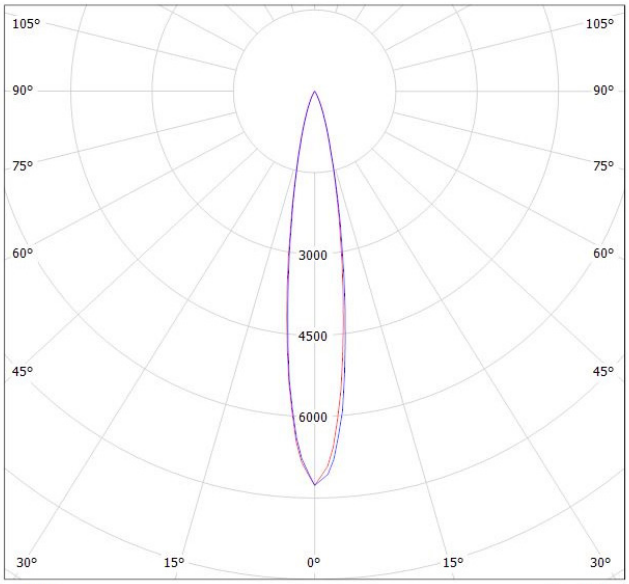
Thermal Interface Material (TIM)

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)



RADIATION OF SINGLE LED



POWER SUPPLY OPTIONS

	ILS Driver Part Number	Rating	Current	LED Driver Voltage	Dimming
	IZC035-004F-4065C-SAL	4W	350mA	3-12V	No
	IZC070-004F-4065C-SAL	4W	700mA	2-6V	No
	IZC035-008F-5065C-SA	8W	350mA	3-36V	No
	IZC070-008F-5065C-SA	8W	700mA	3-12V	No
	OTI-DALI-10/220-240/700-NFC	10W	150-700mA	2.5-45V	DALI
	OTE-13/220-240/350-PC	13W	350mA	18-38V	Phase-Cut
	OTI-DALI-15/220-240/1A0-NFC	15W	150-1050mA	7.5-54V	DALI

Click here to visit our website for our latest range

OSLONEYE KIT

We also offer the OSLONeye as a kit of parts. this enables you to add any single colour LED and any LEDiL Tina lens you want. Please refer to our ILK-OSLONeye-01 datasheet.

IMPORTANT INFORMATION AND PRECAUTIONS

The LED moduler's LED, when powered up, is very bright. Thus it is advised that you do not look directly at it. Turn the PowerStar away from you and do not shine into the eyes of others.

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

LED modules will overheat in operation if not attached to a suitable heatsink. Overheating can cause failure or irreparable damage.

DO NOT HOT PLUG ON LED SIDE OF POWER SUPPLY.

Do not operate LED modules with a power supply with unlimited current. Connection to constant voltage power supplies that are not current limited may cause the PowerStar to consume current above the specified maximum and cause failure or irreparable damage.

DO NOT TOUCH or PUSH on the LED as this can cause irreparable damage.

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 LED modules.

The LED modules, 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 datasheet falls into the class "low risk" (exposure time 100-10,000s). 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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