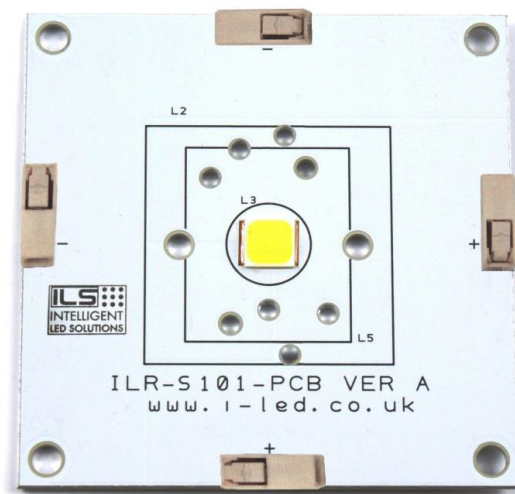


LEDiL Selector DURIS S10[®] Light Engine

ILR-S101-####-LEDIL-SC221.

Product Overview

The LEDiL Selector board from ILS is the latest light engine designed to explore which secondary optic works best with OSRAM DURIS S10[®] LEDs. The LEDiL Selector has been designed to work with most single source optics from LEDiL and can be connected to an LED driver thanks to the on board connectors.



Applications

- Prototyping
- Selecting correct lenses for designs

Technical Features

- Up to 50,000 hours lifetime to 70% of original brightness
- DURIS S10[®] LEDiL Selectors contain DURIS S10[®] LEDs with integral 120 degree lens
- Secondary Lens can be fitted – check options in suitable Lens and Reflector section
- Suitable Heat Sinks available – check options in Heat Sink section
- Matching Power Supply available - check options in Power Supply section
- Mounting holes using M4 screws allow easy installation
- Size 70x70x2.3mm
- Current range 20-400mA

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

Important Information and Precautions

- The LEDiL Selectors, when powered up, are very bright. Thus it is advised that you do not look directly at them. Turn the product away from you and do not shine into the eyes of others.
- LEDiL Selectors will overheat in operation if not attached to a suitable Heat Sink. Overheating can cause failure or irreparable damage.
- 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 Selector to consume current above the specified maximum and 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 might cause irreparable damage.

Product Options

ILS Part Number	Colour Temp (Degrees Kelvin) *	Typical Wattage at 300mA §	Forward Voltage	Flux at 300mA†	Radiance Angle	Relevant OSRAM LED Data
ILR-S101-HWWH-LEDIL-SC221.	Hot White 2700K	8.4W	26.0-30.0 V	892lm	120° (±60°)	GW P7LM32.EM
ILR-S101-WMWH-LEDIL-SC221.	Warm White 3000K	8.4W	26.0-30.0 V	970lm	120° (±60°)	GW P7LM32.EM
ILR-S101-QZWH-LEDIL-SC221.	Quartz White 3500K	8.4W	26.0-30.0 V	970lm	120° (±60°)	GW P7LM32.EM
ILR-S101-NUWH-LEDIL-SC221.	Neutral White 4000K	8.4W	26.0-30.0 V	970lm	120° (±60°)	GW P7LM32.EM
ILR-S101-MWWH-LEDIL-SC221.	Mid White 4500K	8.4W	26.0-30.0 V	970lm	120° (±60°)	GW P7LM32.EM
ILR-S101-WHWH-LEDIL-SC221.	White 5000K	8.4W	26.0-30.0 V	1042lm	120° (±60°)	GW P7LM32.EM
ILR-S101-STWH-LEDIL-SC221.	Street White 5700K	8.4W	26.0-30.0 V	1042lm	120° (±60°)	GW P7LM32.EM
ILR-S101-ULWH-LEDIL-SC221.	Ultra White 6500K	8.4W	26.0-30.0 V	1042lm	120° (±60°)	GW P7LM32.EM

*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%

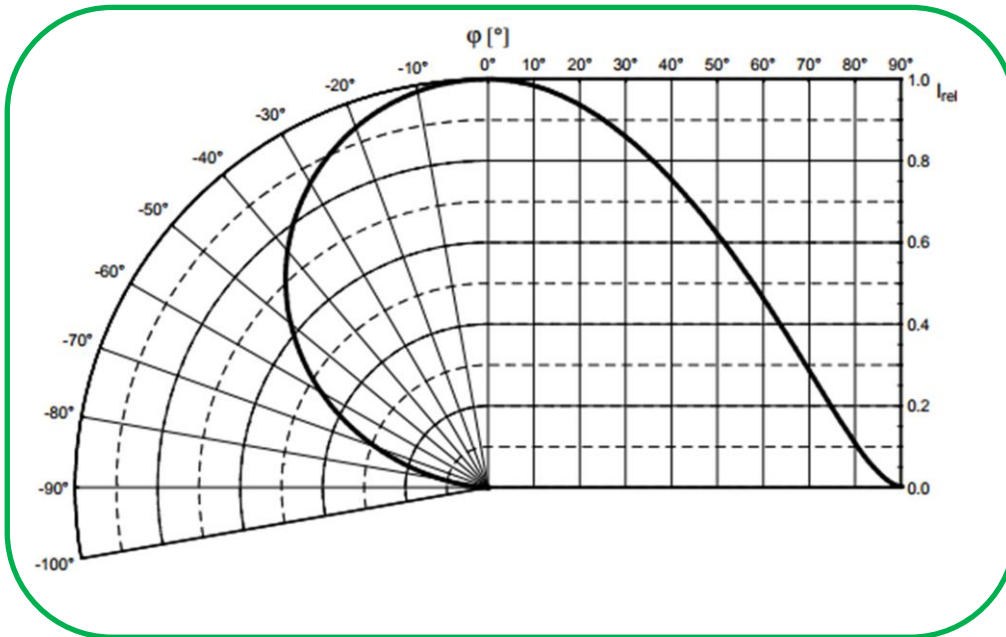
† Measured with 10mS 300mA pulse at 25°C

Minimum and Maximum Ratings

ILS PART NUMBER	*Operating Temperature	*Storage Temperature	*Forward Current per chip	*Reverse Current
ILR-S101-HWWH-LEDIL-SC221.	-40 ... 110°C	-40 ... 125°C	400mA	Not designed for reverse current
ILR-S101-WMWH-LEDIL-SC221.	-40 ... 110°C	-40 ... 125°C	400mA	Not designed for reverse current
ILR-S101-QZWH-LEDIL-SC221.	-40 ... 110°C	-40 ... 125°C	400mA	Not designed for reverse current
ILR-S101-NUWH-LEDIL-SC221.	-40 ... 110°C	-40 ... 125°C	400mA	Not designed for reverse current
ILR-S101-MWWH-LEDIL-SC221.	-40 ... 110°C	-40 ... 125°C	400mA	Not designed for reverse current
ILR-S101-WHWH-LEDIL-SC221.	-40 ... 110°C	-40 ... 125°C	400mA	Not designed for reverse current
ILR-S101-STWH-LEDIL-SC221.	-40 ... 110°C	-40 ... 125°C	400mA	Not designed for reverse current
ILR-S101-ULWH-LEDIL-SC221.	-40 ... 110°C	-40 ... 125°C	400mA	Not designed for reverse current

* 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.

Radiation of Single LED



Technical Drawing (mm)

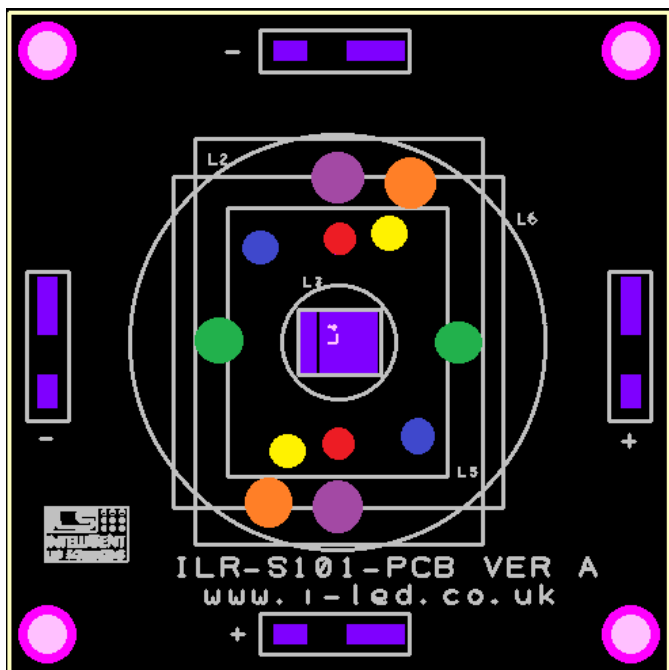


3D drawing files are available on request from ILS. Please call or email.



1 DURIS S10[®] 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 down lights, 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. The LEDiL selector Light Engine is compatible with over 1000 lens; consult the illustration below to check which lenses are compatible and where these would fix on the PCB. Other compatible families for the LEDiL selector. Consult the table and image of the PCB below for lens locations.



FAMILY	LOCATOR PIN
BOOM	N/A
EVA	N/A
FLARE-MAXI	RED
FLORENTINA	RED
HEKLA	PURPLE
IRIS	N/A
JENNY	BLUE
MINNIE	N/A
MIRA	N/A
MIRELLA	N/A
RONDA	PURPLE
ROSE	RED
SAGA	PURPLE
STRADA-SQ	RED
WINNIE	PURPLE
ZORYA-MINI	N/A

1 DURIS S10[®] LEDiL Selector Heat Sink Options

ILS has a series of Aluminium Alloy Heat Sinks to be used with our standard range of PowerStars, PowerClusters and PowerLinear Engines. These Heat Sinks 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 Heat Sinks to your request.

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

ILS Product		ILA-HSINK-70x70x55MM	ILA-HSINK-RADL-100X100MM-BLK	ILA-HSINK-RADL-120X150MM-BLK	ILA-HSINK-RADL-110X80MM-BLK	ILA-HSINK-RADL-110X65MM-BLK
DURIS S10 [®] LEDiL Selector	350mA					

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 Heat Sink.




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

Product	Non Adhesive	Single Sided Adhesive	Double Sided
DURIS S10 [®] LEDiL Selector	ILA-TIM-LEDIL-70x70-0A	ILA-TIM-LEDIL-70x70-1A	ILA-TIM-LEDIL-70x70-2A

Other sizes are available, including customised parts.

1 DURIS S10® LEDiL Selector 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.

ILS Driver Part Number	Rating	Current	No. LEDiL Selectors	Image
IZC035-008F-5065C-SA	8W	350mA	1	
IZC035-017F-0067A-SA	17W	350mA	1	
IZC035-018T-9500A-SX	18W	350mA	1	

Assembly Information

- The mounting of the DURIS S10® LEDiL Selector has to be on a metal Heat Sink.
- 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.
- The DURIS S10® LEDiL Selector board is a single sided MCPCB, which means the rear of the PCB is electrically isolated. Please ensure you use plastic washers if you screw the board into the Heat Sink.

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 DURIS S10® LEDiL Selector.
- The DURIS S10® LEDiL Selector Light Engines, 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.

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.