

Reflector Adaptor Plates

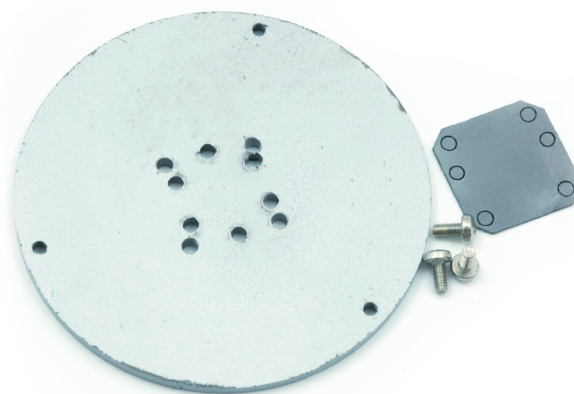
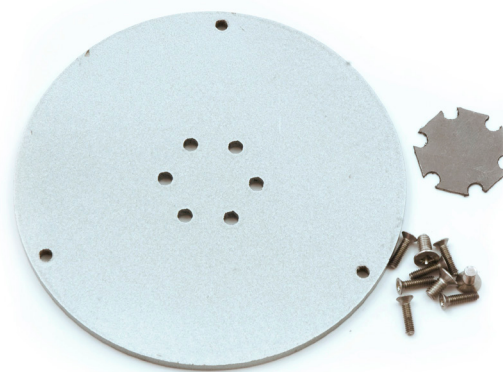
ILA-REF-ADP-xxxxxxx-01.

Product Overview

ILS have introduced a range of adaptor plates to complement their range of star and cluster products.

The ILA-REF-ADP-STAR-01. and ILA-REF-ADP-SMCLUST-01. products enable the use of the Lenina range of reflectors from our partner LEDiL, offering beam angles from 12 degrees FWHM to 87 degrees FWHM.

The adaptor plates simply attach our standard Star and Cluster products into our recommended 50mm diameter heat sinks. Then attaching the LEDiL reflector base, C13867_LENA-STD-BASE-VER029, opens up the whole range of Lenina products.



Applications

- Retrofit Bulbs
- Downlights
- Spotlights
- Residential
- Area & Parking Lot
- Landscape
- Building Exterior
- Roadway
- High Bay

Important Information and Precautions

- The PowerStar LEDs, when powered up are 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.
- Do not operate PowerStar's with a Power Supply with unlimited current. Connection to constant voltage Power Supplies that are not current limited may cause the PowerAnna to consume current above the specified maximum and cause failure or irreparable damage.
- PowerStars, 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

Product Options

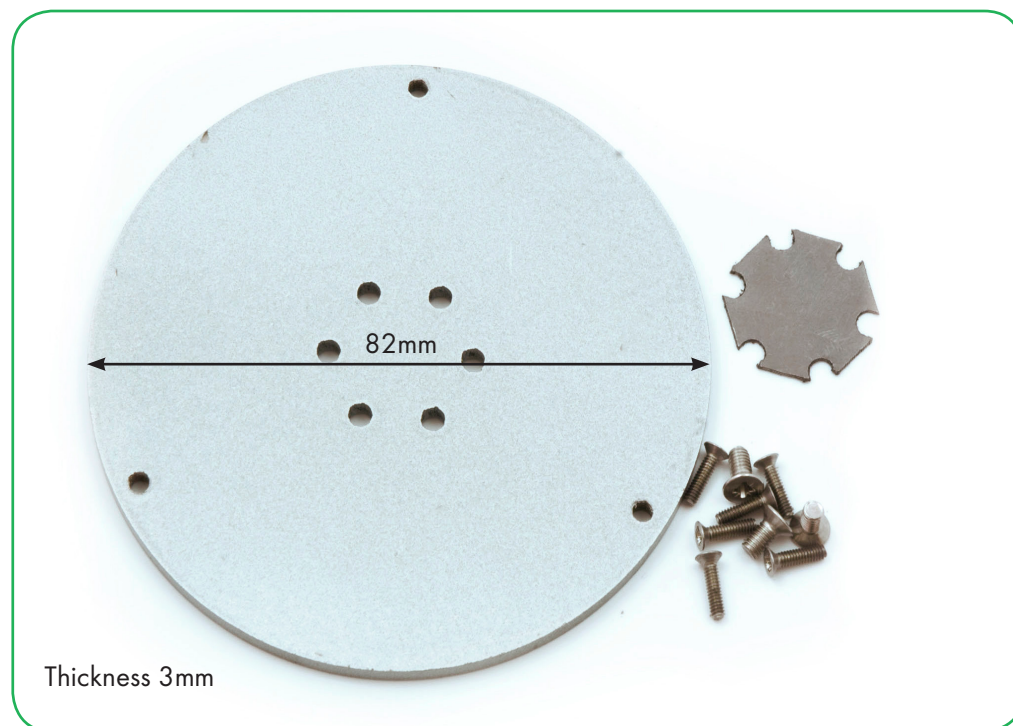
ILS PART NUMBER	Suitable ILS Product Range
ILA-REF-ADP-STAR-01.	ILH-xxxxxxxx-xxxx-xx
ILA-REF-ADP-SMCLUST-01.	ILR-xxxxxxxx-xxxx-xx

* 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

Technical Drawing with cables (mm)



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

PowerStar 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.



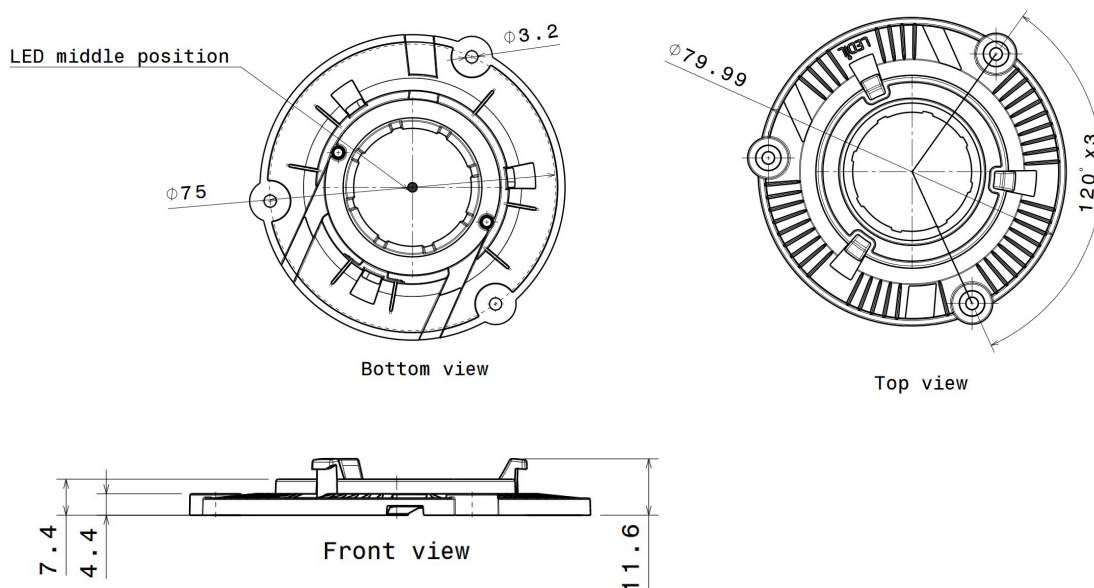
LEDiL Part Number	Beam	FWHM	Material/Lens	Material/Holder	Material/Reflector	Colour
C12598_LENINA-M	M	35			PC	metal
CN14582_LENINA-S-DL	S	25	PC		PC	metal
CN14583_LENINA-M-DL	M	37	PC		PC	metal
CN14584_LENINA-W-DL	W	55	PC		PC	metal
CN14585_LENINA-XW-DL	WWW	71				white
CN14489_LENINA-S	S	12		PC	PC	white
CN14490_LENINA-M	M	21		PC	PC	white

LEDiL Part Number	Beam	FWHM	Material/Lens	Material/Holder	Material/Reflector	Colour
CN14492_LENINA-XW	WWW	73		PC	PC	white
C12606_LENINA-DL	D	N/A	PC			clear
C12597_LENINA-S	S	23			PC	metal
C12599_LENINA-W	W	54			PC	metal
CN12600_LENINA-S	S	15		PC	PC	metal
CN12601_LENINA-M	M	29		PC	PC	metal
CN12602_LENINA-W	W	54		PC	PC	metal
CN12603_LENINA-S-DL	S	20		PC	PC	metal
CN12604_LENINA-M-DL	M	36		PC	PC	metal
CN12605_LENINA-W-DL	W	54		PC	PC	metal
CN12638_LENINA-S	S	16		PC	PC	metal
CN12639_LENINA-M	M	28		PC	PC	metal
CN12640_LENINA-W	W	50		PC	PC	metal
CN12641_LENINA-S-DL	S	20		PC	PC	metal
CN12642_LENINA-M-DL	M	33		PC	PC	metal
CN12643_LENINA-W-DL	W	52		PC	PC	metal
CN12644_LENINA-S	S	17		PC	PC	metal
CN12645_LENINA-M	M	21		PC	PC	metal
CN12646_LENINA-W	W	57		PC	PC	metal
CN12647_LENINA-S-DL	S	24		PC	PC	metal
CN12649_LENINA-W-DL	W	59		PC	PC	metal
CN12650_LENINA-S	S	17		PC	PC	metal
CN12651_LENINA-M	M	30		PC	PC	metal
CN12652_LENINA-W	W	48		PC	PC	metal
CN12653_LENINA-S-DL	S	22		PC	PC	metal
CN12654_LENINA-M-DL	M	35		PC	PC	metal
CN12655_LENINA-W-DL	W	50		PC	PC	metal
CN12656_LENINA-S	S	28		PC	PC	metal
CN12657_LENINA-M	M	44		PC	PC	metal
CN12658_LENINA-W	W	64		PC	PC	metal
CN12659_LENINA-S-DL	S	32		PC	PC	metal
CN12660_LENINA-M-DL	M	47		PC	PC	metal
CN12661_LENINA-W-DL	W	60		PC	PC	metal
CN12700_LENINA-S	S	15		PC	PC	metal
CN12701_LENINA-M	M	26		PC	PC	metal
CN12702_LENINA-W	W	56		PC	PC	metal
CN12703_LENINA-S-DL	S	16		PC	PC	metal
CN12704_LENINA-M-DL	M	30		PC	PC	metal

LEDiL Part Number	Beam	FWHM	Material/Lens	Material/Holder	Material/Reflector	Colour
CN12706_LENINA-S	S	27		PC	PC	metal
CN12707_LENINA-M	M	40		PC	PC	metal
CN12708_LENINA-W	W	58		PC	PC	metal
CN12709_LENINA-S-DL	S	30		PC	PC	metal
CN12710_LENINA-M-DL	M	40		PC	PC	metal
CN12711_LENINA-W-DL	W	56		PC	PC	metal
CN12918_LENINA-S	S	17		PC	PC	metal
CN12919_LENINA-M	M	28		PC	PC	metal
CN12920_LENINA-W	W	50		PC	PC	metal
CN12921_LENINA-S-DL	S	18		PC	PC	metal
CN12922_LENINA-M-DL	M	32		PC	PC	metal
CN12923_LENINA-W-DL	W	58		PC	PC	metal
CN12932_LENINA-S	S	16		PC	PC	metal
CN12933_LENINA-M	M	30		PC	PC	metal
CN12934_LENINA-W	W	55		PC	PC	metal
CN12935_LENINA-S-DL	S	17.5	PC	PC	PC	metal
CN12936_LENINA-M-DL	M	30	PC	PC	PC	metal
CN12937_LENINA-W-DL	W	56	PC	PC	PC	metal
C12958_LENINA-XW	WWW	74			HRPC	white
CN12959_LENINA-XW	WWW	72		PC	HRPC	white
CN12960_LENINA-XW	WWW	74		PC	HRPC	white
CN12961_LENINA-XW	WWW	76		PC	HRPC	white
CN12962_LENINA-XW	WWW	73		PC	HRPC	white
CN12963_LENINA-XW	WWW	75		PC	HRPC	white
CN12966_LENINA-XW	WWW	72		PC	HRPC	white
CN12968_LENINA-XW	WWW	73		PC	HRPC	white
CN12969_LENINA-XW	WWW	72		PC	HRPC	white
CN12970_LENINA-XW-DL	WWW	70	PC	PC	HRPC	white
CN12971_LENINA-XW-DL	WWW	71	PC	PC	HRPC	white
CN12973_LENINA-XW-DL	WWW	87	PC	PC	HRPC	white
CN12974_LENINA-XW-DL	WWW	73	PC	PC	HRPC	white
CN12975_LENINA-XW-DL	WWW	72	PC	PC	HRPC	white
CN12976_LENINA-XW-DL	WWW	72	PC	PC	HRPC	white
CN12976_LENINA-XW-DL	WWW	71	PC	PC	HRPC	white
CN12976_LENINA-XW-DL	WWW	71	PC	PC	HRPC	white
CN12977_LENINA-XW-DL	WWW	68	PC	PC	HRPC	white
CN12978_LENINA-XW-DL	WWW	72	PC	PC	HRPC	white
CN12978_LENINA-XW-DL	WWW	74	PC	PC	HRPC	white
CN12979_LENINA-XW-DL	WWW	71	PC	PC	HRPC	white

LEDiL Part Number	Beam	FWHM	Material/Lens	Material/Holder	Material/Reflector	Colour
CN13110_LENINA-S	S	24		PC	PC	metal
CN13111_LENINA-M	M	39		PC	PC	metal
CN13112_LENINA-W	W	64		PC	PC	metal
CN13113_LENINA-S-DL	S	26	PC	PC	PC	metal
CN13114_LENINA-M-DL	M	42	PC	PC	PC	metal
CN13115_LENINA-W-DL	W	61	PC	PC	PC	metal
CN13196_LENINA-S	S	10		PC	PC	metal
CN13197_LENINA-M	M	17		PC	PC	metal
CN13199_LENINA-S-DL	S	12	PC	PC	PC	metal
CN13200_LENINA-M-DL	M	22	PC	PC	PC	metal
CN13201_LENINA-W-DL	W	48	PC	PC	PC	metal
CN13201_LENINA-W-DL	W	47	PC	PC	PC	metal
CN13203_LENINA-XW-DL	W	69		PC	PC	white
CN13344_LENINA-S	S	22		PC	PC	metal
CN13345_LENINA-M	M	33		PC	PC	metal
CN13346_LENINA-W	W	51		PC	PC	metal
CN13347_LENINA-S-DL	S	23	PC	PC	PC	metal
CN13348_LENINA-M-DL	M	35	PC	PC	PC	metal
CN13349_LENINA-W-DL	W	52	PC	PC	PC	metal
CN13351_LENINA-XW	WWW	70		PC	HRPC	white
CN13352_LENINA-XW-DL	WWW	70	PC	PC	HRPC	white
CN14093_LENINA-S	S	40		PC	PC	metal
CN14094_LENINA-M	M	35		PC	PC	metal
CN14095_LENINA-W	W	67		PC	PC	metal
CN14096_LENINA-XW	WWW	76		PC		metal
CN14097_LENINA-XW-DL	WWW	77		PC		metal
CN14098_LENINA-W-DL	W	60		PC	PC	metal
CN14099_LENINA-M-DL	M	52		PC	PC	metal
CN14100_LENINA-S-DL	S	40	PC	PC	PC	metal
CN14101_LENINA-S	S	15		PC	PC	metal
CN14102_LENINA-M	M	28		PC	PC	metal
CN14103_LENINA-W	W	0		PC	PC	metal
CN14104_LENINA-XW	WWW	75		PC		metal
CN14105_LENINA-S-DL	S	0	PC	PC	PC	metal
CN14106_LENINA-M-DL	M	31		PC	PC	metal
CN14107_LENINA-W-DL	W	0	PC	PC	PC	metal
CN14108_LENINA-XW-DL	WWW	75	PC	PC	PC	metal

Reflector Base - Part Number : C13867_LENA-STD-BASE-VER029



PowerStar Heat Sink Options

ILS has recently introduced a series of Aluminium Alloy Heat Sinks to be used with our standard range of PowerStars and PowerClusters. 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. Available in Black, Red, Silver and Blue colour variants. 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		No Heat Sink, in free air	ILA-HEATSINK-STAR-50X20MM.	ILA-HEATSINK-STAR-50X40MM.	ILA-HEATSINK-STAR-50X60MM.	ILA-HEATSINK-STAR-50X80MM.	ILA-HEATSINK-CLUSTER-70X70X55MM.	ILA-HEATSINK-CLUSTER-78X46X25MM.
Oslon 1+ PowerStars	350mA							
	700mA							
	1000mA							
Oslon 4+ PowerStars	350mA							
	700mA							
	1000mA							
Oslon 9+ PowerStars	350mA							
	700mA							
	1000mA							
Oslon 16+ PowerClusters	350mA							
	700mA							
	1000mA							



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 Adhesive
Star	ILA-TIM-STAR-0A	ILA-TIM-STAR-1A	ILA-TIM-STAR-2A.
25x25mm Cluster	ILA-TIM-CLUSTER-25x25-0A	ILA-TIM-CLUSTER-25x25-1A	ILA-TIM-CLUSTER-25x25-2A.
30x30mm Cluster	ILA-TIM-CLUSTER-30x30-0A	ILA-TIM-CLUSTER-30x30-1A	ILA-TIM-CLUSTER-30x30-2A.

Other sizes are available, including customised parts

Assembly Information

- The mounting of the PowerStar 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.

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 PowerStars.
- The PowerStars, 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.