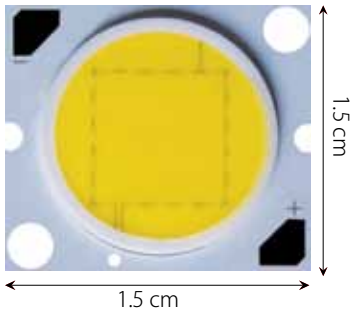


Profile

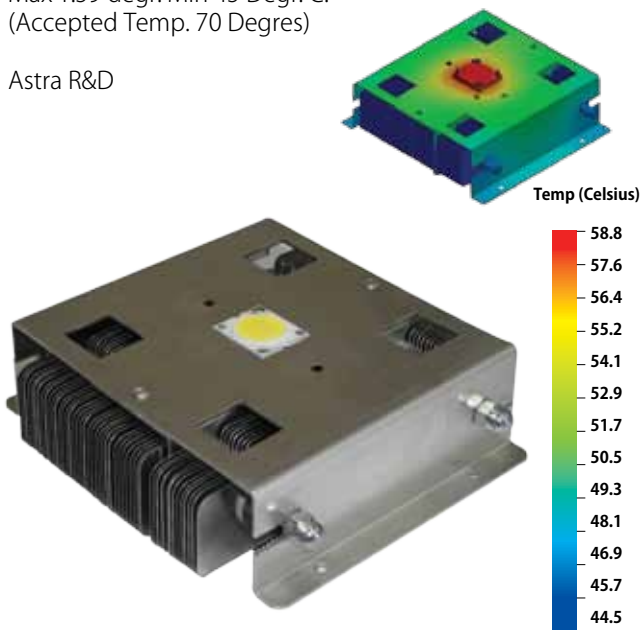


Bridgelux LED inside

Double α heat sink®
For 20 Watts LED Array

Ambient temperature >30 degrees C.
Max T.59 degr. Min 45 Degr. C.
(Accepted Temp. 70 Degrees)

Astra R&D



Double α heat sink® with wires, plug and play

Astra is the worldwide leading company in Solid State LED lighting technology since 2008. It has a 25 years experience in the lighting field.

Astra R&D team has integrated the **Double α heat sink®** in all its products range (EP 2369226 and US Patent 20110286216.)

Astra has introduced a wide range of **Double α heat sink®** LED lighting fittings for buildings, individual houses, offices, hotels, restaurants, malls, shops, hospitals, gas stations, colleges, underground parkings etc.

Astra lighting fittings are produced and tested according to RoHS and EN 60598.

Astra products guarantee energy savings five to ten times more efficient than traditional devices.

AstraLED guarantees

-80% energy savings vs. any other traditional lighting technology (CFL, Compact fluorescent lamps.)

-50% energy savings vs. any other LED technology.

Specifications

Double α heat sink® is the most advanced technology in heat transfer engineering, designed for the next generation of high power LED.

Double α heat sink® with Bridgelux LED inside is used in the luminaire industry to optimize temperature and increase lumens output in all extreme ambient temperature conditions from -30 up to +50 degrees. It is designed for an ideal working temperature that should not exceed 70 degrees on Tc point.

Double α heat sink® can be adapted to all shapes of lighting fittings. It is the key for reliability and life time satisfaction in SSL engineering.

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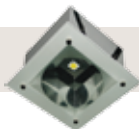
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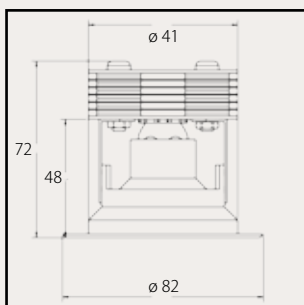
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AUS – 1



*Height for 700 x 1000 Lumen is 102mm

AUS -1

Astra Ultimate Series

This new generation of lighting fittings includes **Double α heat sink®** technology. It has been designed to replace the dichroic halogen lamps, and to cut drastically the electrical consumption by '10'. Its innovative design with a deep virtual lighting source creates a relaxing atmosphere. Its dimensions are very compact to fit and replace the usual dichroic fittings.

Specifications

- The **CRI (Color Rendering Index)** is up to 90%.
- Double α heat sink®** black matt finish is installed on top of the fitting.
- Available colors are white or metallic grey (black on request).
- The body is made of die cast aluminum painted with electrostatic powder coating.
- This innovative lighting fitting is produced according to the European norm EN 60598-2-2:1996/A1:1997 and is CE marked.
- The LED is made with Gallium Nitride on Silicon (GaN-on-Si) advanced material.
- Its voltage: 220-240 Volts /50-60 Hz.
- Competitive prices.

Available lighting color

Warm White	2700-3500K
Natural White	4000-4500K
Cool White	5000-6000K

Available beam angles

Narrow Beam	39
Normal Beam	70
Wide Beam	120

	Nominal LED power	Lumen output	Lamp color	Replacement
AUS-1 400	1 x 4W	400 Lm	5000 K	50 W dichroic
AUS-1 400	1 x 6W	400 Lm	3000 K	50 W dichroic
AUS-1 525	1 x 6W	525 Lm	3000 K	35 W Metal halide
AUS-1 700*	1 x 6W	700 Lm	5600 K	35 W Metal halide
AUS-1 1000*	1 x 10W	1000 Lm	5600 K	70 W Metal halide



AUS - D

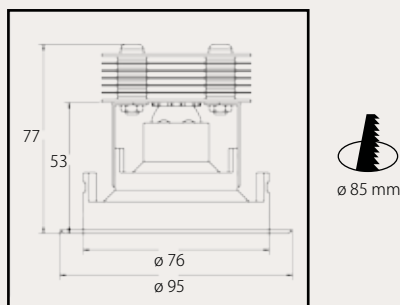


Astra Ultimate Series Dirigible

Those Directional Spot lights are designed to meet architecture and engineering needs. They can be used as complements to the AUS/ 1, or when the light must be spotted in one direction from the ceiling.

Specifications

- The **CRI (Color Rendering Index)** is up to 90%.
- Double α heat sink®** black matt finish is installed on top of the fitting.
- Available colors are white or metallic grey (black on request).
- The body is made from die cast aluminum painted with electrostatic powder coating.
- This innovative lighting fitting is produced according to the European norm EN 60598-2-2:1996/A1:1997 and is CE marked.
- The LED is made with Gallium Nitride on Silicon (GaN-on-Si) advanced material.
- Its voltage: 220-240 Volts /50-60 Hz.
- Competitive prices.



*Height for 700 x 1000 Lumen is 107mm

Available lighting color

Warm White	2700-3500K
Natural White	4000-4500K
Cool White	5000-6000K

Available beam angles

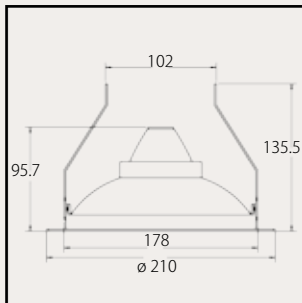
Narrow Beam	39
Normal Beam	70
Wide Beam	120

	Nominal LED power	Lumen output	Lamp color	Replacement
AUS-D (Dirigible) 400	1 x 4W	400 Lm	5000 K	50 W dichroic
AUS-D (Dirigible) 400	1 x 6W	400 Lm	3000 K	50 W dichroic
AUS-D (Dirigible) 525	1 x 6W	525 Lm	3000 K	35 W Metal halide
AUS-D (Dirigible) 700*	1 x 6W	700 Lm	5600 K	35 W Metal halide
AUS-D (Dirigible) 1000*	1 x 10W	1000 Lm	5600 K	70 W Metal halide

AUS - D



AU - 21



ø 196 mm

AU-21

Astra Ultimate 21

These round luminaires are the new generation of lighting fittings designed for the high output LED array. The efficiency of the AU luminaire is more than 95%.(vs. regular luminaires efficiency of 55 up to 60%.)

Specifications

- The **CRI (Color Rendering Index)** is up to 90%.
- This AU luminaires are equipped with the **Double α heat sink®** technology, with a life span of 25 years.
- The advanced reflector made of composite materials can be used for narrow beam 39 degree angles (for high ceilings) or wide 70 degree angles. This Astra technology gives perfect lighting uniformity.
- Plug and Play product.
- 110 lumens per watt, with high lighting uniformity.
- Cat 2 requirements.
- Virtual lighting source.
- IP 20 or IP 43.
- This innovative lighting fitting is produced according to the European norm EN 60598-2-2:1996/A1:1997 and is CE marked.
- The LED is made of Gallium Nitride on Silicon (GaN-on-Si) advanced material.
- Its voltage: 100-300 Volts /50-60 Hz.
- Competitive prices.

Available lighting color

Warm White	2700-3500K
Natural White	4000-4500K
Cool White	5000-6000K

Available beam angles

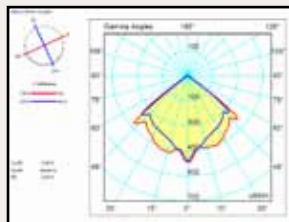
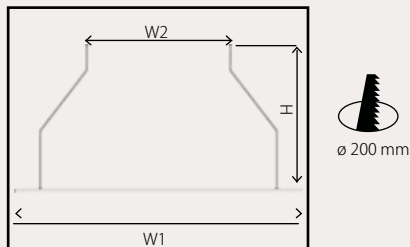
Narrow Beam	39
Normal Beam	70
Wide Beam	120

*Replacement table

	LED power	Traditional lamps
AU 8	1 x 8W (8 Watts)	2 x 13W (26 Watts) Fluorescent
AU 12	1 x 12W (12 Watts)	2 x 26W (52 Watts) Fluorescent
AU 20	1 x 20W (20 Watts)	2 x 32W (64 Watts) Fluorescent 1 x 70 Watts Metal halide
AU 25	1 x 25W (25 Watts)	150 Watts Metal halide



ARR



	W 1 (cm)	W 2 (cm)	H (cm)
ARR	23	12.2	12

Additional files are available for all Astra products

ARR

Astra Round Recessed LED

ARR is the most advanced lighting fitting in the market. It is equipped with the high performance **Double α heat sink**® technology. It has the following specifications vs. all existing PL fluorescent fittings.

Specifications

- 90% economy (comparing to traditional bulbs, fluorescent lamps).
- The **CRI (Color Rendering Index)** is up to 90%.
- Up to 110 lumens per Watts, with a life span up to 50 000 hours.
- 5 years warranty for the diode, with no maintenance needed during life time.
- 100% Green technology**: nature friendly product, no pollution or harmful material used in production processes, plus an extremely low electrical consumption with no hazardous materials production in the recycling process.
- Its frame is made of die cast aluminum, electro-statically painted in white or gray.
- Its reflector is made of high gloss aluminum to meet CAT 2 requirements, with high lighting uniformity.
- This fitting can be equipped with an optional and aesthetic Glass Diffuser. LED technologies do not need any filter= No UV emitted rays.
- The round shape is commonly used in most applications by architects and engineers.
- This innovative lighting fitting is produced according to European norm EN 60598-2-2:1996/A1:1997 and is CE marked.
- The LED is made of Gallium Nitride on Silicon (GaN-on-Si) advanced material.
- Its voltage: 100-300 Volts /50-60 Hz.

Available lighting color

Warm White	2700-3500K
Natural White	4000-4500K
Cool White	5000-6000K

Available beam angles

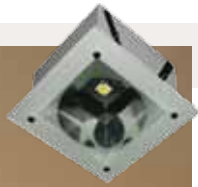
Normal Beam	70
Wide Beam	120

*Replacement table

	LED power	Traditional lamps
ARR 8	1 x 8W (8 Watts)	2 x 13W (26 Watts) Fluorescent
ARR 12	1 x 12W (12 Watts)	2 x 26W (52 Watts) Fluorescent
ARR 20	1 x 20W (20 Watts)	2 x 32W (64 Watts) Fluorescent 1 x 70 Watts Metal halide
ARR 25	1 x 25W (25 Watts)	150 Watts Metal halide



ASR



Astra Square Recessed LED

This new series of recessed fitting for Light Emitted Diode (LED) is designed entirely in Astra's R&D department. The Aesthetic Square Shape is designed to meet the new trend of compact dimensions and cubical forms, required by interior designers and architects nowadays. New high output LED with **Double α heat sink®** technology is integrated in the ASR LED fitting.

Specifications

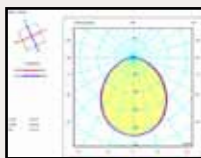
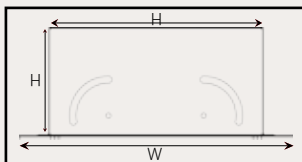
- High lumen output up to 120 lumens per watt.
- Life span up to 100000 hours only 2% decrease after 50000 hours.
- High security with low voltage input.
- The **CRI (Color Rendering Index)** is up to 90%.
- This high flux light enables lighting uniformity.
- Body is made of sheet steel painted with electrostatic white epoxy polyester powder equipped either with a CAT 2 anodized reflector (DM) or with a normal bright aluminum (SN).
- This innovative lighting fitting is produced according to the European norm EN 60598-2-2:1996/A1:1997 and is CE marked.
- The LED is made of Gallium Nitride on Silicon (GaN-on-Si) advanced material.
- Its voltage: 100-300 Volts /50-60 Hz.

Available lighting color

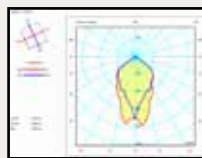
Warm White	2700-3500K
Natural White	4000-4500K
Cool White	5000-6000K

Available beam angles

Normal Beam	70
Wide Beam	120



Wide Beam



Narrow Beam

	W (mm)	H (mm)	W1 (mm)
ASR 4	95	71	75
ASR 8-12	205	100	170
ASR 20-25	230	110	200
ASR 50	350	95	300

.uld files are available for all Astra products

ASR

*Replacement table

	LED power	Traditional lamps
ASR 4	1 x 4W (4 Watts)	1 x 50W (50 Watts) dichroic
ASR 8	1 x 8W (8 Watts)	2 x 13W (26 Watts) Down light
ASR 12	1 x 12W (12 Watts)	2 x 26W (52 Watts) Fluorescent
ASR 20	1 x 20W (20 Watts)	2 x 32 Watts Metal halide 1 x 70 Watts Metal halide
ASR 25	1 x 25W (25 Watts)	1 x 150 Watts Metal halide
ASR 50	1 x 50W (50 Watts)	1 x 250 Watts Metal halide



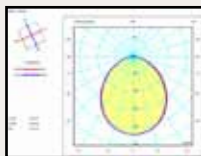
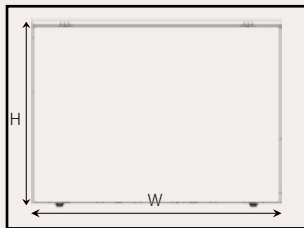


Astra Square Surface Mounted

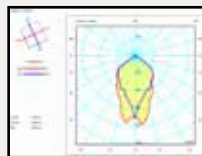
This high-end luminaire is designed for professionals, and used when a high quantity of lux is needed in working areas i.e. warehouses, supermarkets, mechanical works or even spaces with high ceilings up to 10 meters.

Specifications

- Up to 110 lumens per Watts, with a life span up to 100000 hour.
- The **CRI (Color Rendering Index)** is up to 90%.
- High security with low voltage input.
- This high flux light enables lighting uniformity.
- Its body is made of enameled sheet steel, painted with electrostatic white epoxy polyester powder equipped either with a Cat2 anodized reflector (DM) or with a normal bright aluminum (SN).
- This innovative lighting fitting is produced according to the European norm EN 60598-2-2:1996/A1:1997 and is CE marked.
- The LED is made of Gallium Nitride on Silicon (GaN-on-Si) advanced material.
- Its voltage: 100-300 Volts /50-60 Hz.
- 5 years warranty for the diode, with no maintenance needed during life time.
- Competitive prices.



Wide Beam



Narrow Beam

	W (mm)	H (mm)
ASM 4-8	230	95
ASM 12-20-25	255	135
ASM 50	300	165

Available lighting color

Warm White	2700-3500K
Natural White	4000-4500K
Cool White	5000-6000K

Available beam angles

Normal Beam	70
Wide Beam	120

*Replacement table

	LED power	Traditional lamps
ASM 8	1 x 8W (8 Watts)	2 x 13W (26 Watts) Down light
ASM 12	1 x 12W (12 Watts)	2 x 26W (52 Watts) Fluorescent
ASM20	1 x 20W (20 Watts)	2 x 32 Watts Metal halide 1 x 70 Watts Metal halide
ASM25	1 x 25W (25 Watts)	1 x 150 Watts Metal halide
ASM50	1 x 50W (50 Watts)	1 x 250 Watts Metal halide

.uld files are available for all Astra products

ASM



ARL

ARL Astra LED Recessed

A highly efficient lighting fitting produced with **Double α heat sink®** technology, in association with high power Led from Silicon Valley in the US. Its body is made of enameled steel sheet and painted with epoxy polyester powder coating. Its reflector is made of high quality pure aluminum, with a polycarbonate diffuser to meet CAT 2 requirement and IP 44 protection. This fitting has been designed to replace the 4x18 T8, 60 x 60cm recessed fitting (and the 4x14 T5 fitting).

Specifications

- LED working temperature: 60 degrees.
- This high flux light enables lighting uniformity.
- The **CRI (Color Rendering Index)** is up to 90%.
- This fitting is designed to be installed in Gypsum board false ceiling or Lay on T bar.
- This innovative lighting fitting is produced according to the European norm EN 60598-2-2:1996/A1:1997 and is CE marked.
- The LED is made of Gallium Nitride on Silicon (GaN-on-Si) advanced material.
- Voltage: 100-300 Volts /50-60 Hz.
- Available dimensions: Regular 59.5x59.5 and 60x60 for clip in type.
- Special dimensions are available upon request.

Available lighting color

Warm White	2700-3500K
Natural White	4000-4500K
Cool White	5000-6000K

Available beam angles

Normal Beam	90
Wide Beam	100

*Replacement table

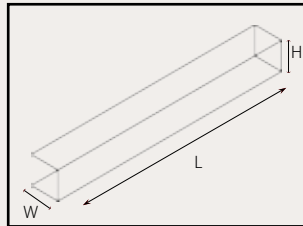
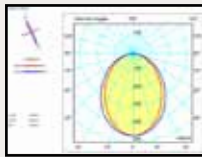
	LED power	Traditional lamps
ARL 4 x 4W	4 x 4W (16 Watts)	4 x 14W (56 Watts) T5 4 x 18W (72 Watts) T8
ARL 3 x 8W	3 x 8W (24 Watts)	3 x 36W (108 Watts) T8 3 x 28W (84 Watts) T5 2 x 54W (108 Watts) T5
ARL 4 x 8W	4 x 8W (32 Watts)	4 x 36W (144 Watts) T8 4 x 28W (112 Watts) T5 3 x 54W (162 Watts) T5

.uld files are available for all Astra products

ARL



MLC



	Led power	C.C. LED Driver IP 66 input voltage	Current	L	W	H
MLC 1 x 8W	1x8W(8Watts)	100-277V 50/60Hz	700 mA	60cm	6cm	6cm
MLC 1 x 12W	1x12W(12Watts)	100-277V 50/60Hz	1000 mA	90cm	6cm	6cm
MLC 2 x 8W	2x8W(16Watts)	100-277V 50/60Hz	700 mA	100cm	6cm	6cm
MLC 2 x 12W	2x12W(24Watts)	100-277V 50/60Hz	1000 mA	120cm	6cm	6cm

***Dimensions can change according to architect drawings and cut to requested size.

.uld files are available for all Astra products

MLC

Multiline Compact LED

Multiline Compact has been specially designed for architects and interior designers to meet their requirements. Simple and aesthetic, this modular fitting can be used surface, recessed or suspended with stainless steel wires. The body is made of extruded anodized aluminum and can be painted in grey or white.

Specifications

- LED working temperature: 60 degrees.
- This high flux light enables lighting uniformity.
- The **CRI (Color Rendering Index)** is up to 90%.
- This innovative lighting fitting is produced according to the European norm EN 60598-2-2:1996/A1:1997 and is CE marked.
- The LED is made of Gallium Nitride on Silicon (GaN-on-Si) advanced material.
- These efficient luminaires are intended for those following applications: shops, malls, conference rooms, living rooms, restaurants, museums.
- Its voltage: 100-300 Volts /50-60 Hz.
- Special dimensions are available upon request.
- Note:** MLC dust proof IP 54 can be modified, white painted to be used in dusty and public areas.

Available lighting color

Warm White	2700-3500K
Natural White	4000-4500K
Cool White	5000-6000K

Available beam angles

Wide Beam	120
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*Replacement table

	LED power	Traditional lamps
MLC 1 x 8W	1 x 8W (8 Watts)	1 x 26W (26 Watts)CFL
MLC 1 x 12W	1 x 12W (12 Watts)	1 x 36W (36 Watts) T8
MLC 2 x 8W	2 x 8W (16 Watts)	2 x 26W (52 Watts)CFL
MLC 2 x 12W	2 x 12W (24 Watts)	2 x 36W (72 Watts) T8



ML

Multiline

The Multiline series has been specially created for architects and interior designers. Simple and modern, Multiline can be installed, recessed (rimless type) or surface mounted. It can also be suspended with the aid of stainless steel wires. The body is made of extruded anodized aluminum and the finishing is usually brushed aluminum. It can be painted in grey or white upon request. Generally used in offices, shops, malls, showrooms, conference rooms, receptions, banks, and living rooms. Modular ML assembly may be manufactured according to architect drawings. AUS-1 round spot can be installed in this fitting according to architect needs.

Specifications

- LED working temperature: 60 degrees.
- This high flux light enables lighting uniformity.
- The **CRI (Color Rendering Index)** is up to 90%.
- This innovative lighting fitting is produced according to the European norm EN 60598-2-2:1996/A1:1997 and is CE marked.
- The LED is made of Gallium Nitride on Silicon (GaN-on-Si) advanced material.
- Its voltage: 100-300 Volts /50-60 Hz.
- This linear luminaries use multiple 4 watts LED assembled in line according to **Double a heat sink®** technology.

Available lighting color

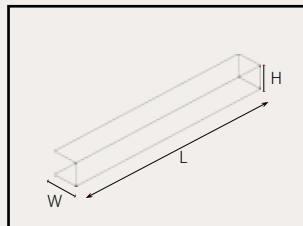
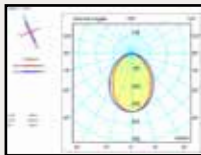
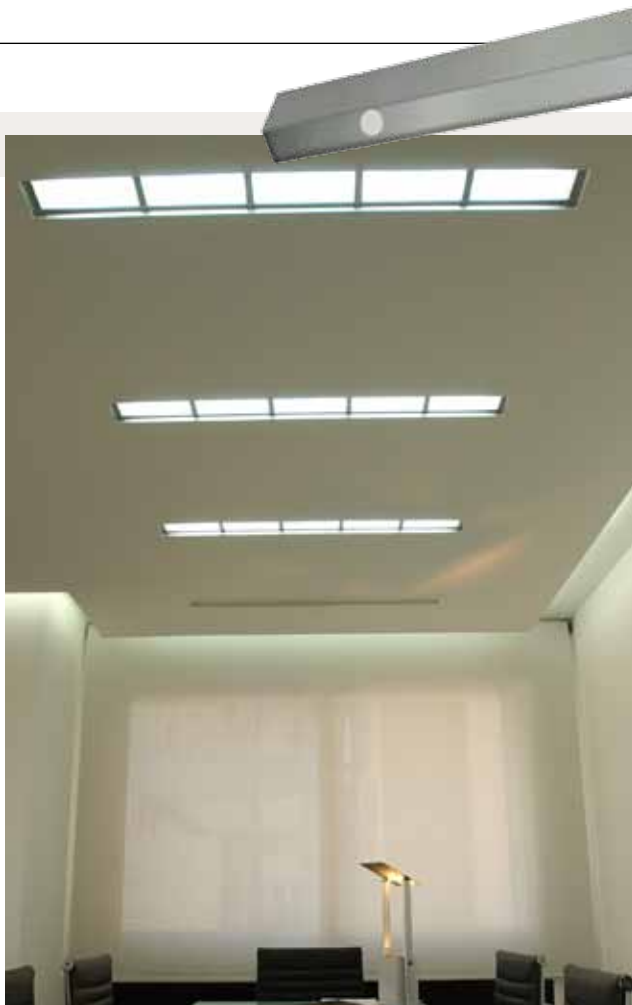
Warm White	2700-3500K
Natural White	4000-4500K
Cool White	5000-6000K

Available beam angles

Wide Beam	120
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*Replacement table

	LED power	Traditional lamps
ML 4 x 4W	16W	4 x 18W (72 Watts) Fluorescent
ML 5 x 4W	20W	2 x 36W (72 Watts) Fluorescent
ML 1 x 8W	8W	2 x 18W (36 Watts) PL Fluorescent
ML 1 x 12W	12W	2 x 26W (52 Watts) PL Fluorescent
ML 1 x 20W	20W	1 x 70W (70 Watts) Metal Halide



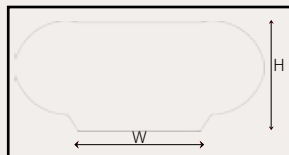
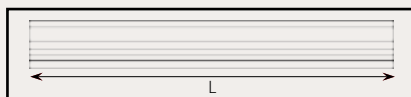
	Led power	W(mm)	W1(mm)	H(mm)
ML 4 x 4W	16W	111	1200	101.5
ML 5 x 4W	20W	111	1200	101.5
ML 1 x 8W	8W	111	600	101.5
ML 1 x 12W	12W	111	600	101.5
ML 1 x 20W	20W	111	600	101.5

***Dimensions can change according to architect drawings and cut to requested size.

.uld files are available for all Astra products

ML





***Replacement table**

	Led power	Traditional lamps	L (m)	W (m)	H (m)
AL 4x4	16 Watts LED	1 x 36W (36 Watts)T8	1.20	150	64
AL 4x5	20 Watts LED	2 x 36W (72 Watts)T8	1.20	150	64

***Dimensions can change according to architect drawings and cut to requested size.

.uld files are available for all Astra products

AL

Astraline

Astraline belongs to a family of modular luminaires for continuous line installation. Prestigious, aesthetic and elegant, this luminaire can be easily integrated into several architectural surfaces.

Astraline is conceived to fit ancient, modern and innovative designs. Several types of lamps can be easily integrated into this linear system. Many other advantages arise from this adaptable type of luminaires such as: modular system in three dimensions, integration of adjustable and fixed lighting sources, integration of sound speakers and smoke detector, ceiling mounted or in suspension, possibility of passing cables conspicuously, possibility of installing modules of lengths up to 6m, suspended decorative fluorescent fitting with a decorative and aesthetic outlook.

Body made of 2.2mm thick extruded aluminum to be suspended with the aid of stainless steel wires.

A back mirror is placed behind the lamps to increase the efficiency of the luminaire along with a white metal sheet lamella louver screen combining attractive appearance with good functional properties.

Due to its modularity and wide range of accessories, Astraline can be assembled in different forms following the architect's request.

Astraline is available in black and white colors. On request it can be delivered in metallic grey or with integral dichroic lamps. These fixtures are recommended in the following locations: executive offices, showrooms, clinics, computer rooms, shops.

AUS-1 round spot can be installed in this fitting according to architect needs.

Specifications

-LED working temperature: 60 degrees.

-This high flux light enables lighting uniformity.

-The **CRI (Color Rendering Index)** is up to 90%.

-This innovative lighting fitting is produced according to the European norm EN 60598-2-2:1996/A1:1997 and is CE marked.

-The LED is made of Gallium Nitride on Silicon (GaN-on-Si) advanced material.

-Its voltage: 100-300 Volts /50-60 Hz.

Available lighting color

Warm White	2700-3500K
Natural White	4000-4500K
Cool White	5000-6000K

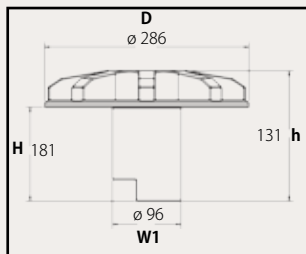
Available Beam Angles

Wide Beam

120



AUO



Lighting Description

	h (mm)	H (mm)	D (mm)	W1 (mm)
AUO 8	131	181	286	96
AUO 12	131	181	286	96
AUO 20	131	181	286	96

Astra Ultimate Outdoor

AUO is a revolutionary innovative outdoor uplight, designed for the **Double α heat sink®** high output LED. Its surprising and futuristic shape mixes design and functionality, as Astra R&D department succeed the bet of integrating the **Double α heat sink®** to the cover of an underground IP 67 uplight. Its body is made of die cast aluminium alloy and powder coated with epoxy. Its surface is treated for outdoor underground dust use. It is equipped with three different optic for narrow beam, wide beam and wall washing system.

Specifications

- LED working temperature: 60 degrees.
- The **CRI (Color Rendering Index)** is up to 90%.
- This innovative lighting fitting is produced according to the European norm EN 60598-2-2:1996/A1:1997 and is CE marked.
- The LED is made of Gallium Nitride on Silicon (GaN-on-Si) advanced material.
- Its voltage: 100-305 Volts /50-60 Hz.

Available lighting color

Warm White	2700-3500K
Natural White	4000-4500K
Cool White	5000-6000K

Available Beam Angles

Narrow Beam	39
Normal Beam	70
Asymmetric Beam	

*Replacement table

	LED power	Traditional lamps
AUO 8	8 Watts LED	26 W CFL
AUO 12	12 Watts LED	35 W Metal Halide
AUO 20	20 Watts LED	70 W Metal Halide

Full files are available for all Astra products

AUO



AUH



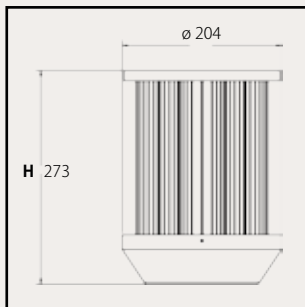
Astra Ultimate High Bay

AUH High Bay is a luminaire with an innovative design. It is a masterpiece in technical and industrial lighting.

The usual shape of bell is replaced by an advanced high quality reflector that enable this fitting to be used in spaces where ceiling are very high (more than 20 meters). AUH is intended to be used where extreme lighting consumption is needed such as lofts, factories, malls, warehouses, etc.

Specifications

- LED working temperature: 60 degrees.
- The **CRI** (Color Rendering Index) is up to 90%.
- Up to 110 lumens per Watts, with a life span up to 50 000 hours (25 years).
- This innovative lighting fitting is produced according to the European norm EN 60598-2-2:1996/A1:1997 and is CE marked.
- The LED is made of Gallium Nitride on Silicon (GaN-on-Si) advanced material.
- Its voltage: 100-305 Volts /50-60 Hz.



	H (mm)	D (mm)
AUH 50	273	204

Available lighting color

Warm White	2700-3500K
Natural White	4000-4500K
Cool White	5000-6000K

Available beam angles

Narrow Beam	39
Normal Beam	70
Wide Beam	120

*Replacement table

	LED power	Traditional lamps
AUH 50	50 Watts LED	400 Watts Metal halide

.uld files are available for all Astra products

AUH



Comparison Tables Between **Metal Halide** and **Astra Solid State Lighting**



Consumption of Metal Halide Fittings (**Showroom**)

Type	Item	Lamps	Quantity	Wattage with control gear unit	Total Watt	Total Ampere
1	Spot 70W MH	70W MH	105	77	8085 W	36.75 A
					8085 W	36.75 A

Consumption of Astra Solid State Lighting technology (**Life Time 50000 Hours**)

Type	Item	Lamps	Quantity	Wattage with control gear unit	Total Watt	Total Ampere
1	ASR 1×12w LED	12 W	70	12 W	840 W	3.80 A
2	ASR 1×20w LED	20 W	35	20 W	700 W	3.18 A
					1540 W	6.98 A

Result	Traditional Fittings		Astra Solid State Lighting		Total Economy	
	Total Watt		8085 W		1540 W	
	Total Ampere		36.75 A		6.98 A	

Comparison Tables Between **Fluorescent Fittings** and **Astra Solid State Lighting**



Consumption of Fluorescent Fittings (**Banks and Offices**)

Type	Item	Lamps	Quantity	Wattage with control gear unit	Total Watt	Total Ampere
1	ARR 226	2×26W	90	57.2 W	5148 W	23.40 A
2	ARR 226	2×26W	39	57.2 W	2230.8 W	10.14 A
3	ARR 226	2×26W	18	57.2 W	1029.6 W	4.68 A
4	AR225 IND	2×55W	226	120 W	27120 W	123.27 A
5	AR214 DN	2×14W	53	31 W	1643 W	7.46 A
					37171.4 W	168.95 A

Consumption of Astra Solid State Lighting Technology (**Life Time 50000 Hours**)

Type	Item	Lamps	Quantity	Wattage with control gear unit	Total Watt	Total Ampere
1	ARR 1×12	1×12W	90	12W	1080 W	4.90 A
2	ARR 1×12	1×12W	39	12W	468 W	2.12 A
3	ARR 1×12	1×12W	18	12W	216 W	0.98 A
4	AR 4×4	4×4W	226	16W	3616 W	16.43 A
5	AR 1×8	1×8W	53	8W	424 W	1.92 A
					5804 W	26.35 A

Result	Traditional Fittings		Astra Solid State Lighting		Total Economy	
	Total Watt		37171.4 W		5804 W	
	Total Ampere		168.95 A		26.35 A	

Comparison Tables Between Metal Halide, Fluorescent Fittings and Astra Solid State Lighting



Consumption of Metal Halide and Fluorescent Fittings
(Gas Station)

Type	Item	Lamps	Quantity	Wattage with control gear unit	Total Watt	Total Ampere
2	Floodlight 400	400W MH	32	440 W	14080 W	64 A
	Spot 2×26 W PL	26 W PL	40	57.2 W	2288 W	10.4 A
					16368 W	74.4 A

Consumption of Astra Solid State Lighting technology
(Life Time 50000 Hours)

Type	Item	Lamps	Quantity	Wattage with control gear unit	Total Watt	Total Ampere
1	ASR 1×20w	20W LED	140	20 W	2800 W	12.72 A
					2800 W	12.72 A

Result

	Traditional Fittings	Astra Solid State Lighting	Total Economy
Total Watt	16368 W	2800 W	13568 W
Total Ampere	74.4 A	12.72 A	61.68 A

Comparison Tables Between Metal Halide , Fluorescent Fittings and Astra Solid State Lighting



Consumption of Fluorescent and Metal Halide Fittings
(Factory)

Type	Item	Lamps	Quantity	Wattage with control gear unit	Total Watt	Total Ampere
1	Water proof 2×36 W	36W Fluor.	510	79.2 W	40392 W	183.6 A
2	High Bay 250 W	250 W MH	63	275 W	17325 W	78.75 A
3	Water proof 2×58W	58 W	131	127.6 W	16715.6 W	75.98 A
4	Spot 2×18W PL	18 W	6	39.6 W	237.6 W	1.08 A
					74670.2 W	339.41 A

Consumption of Astra Solid State Lighting Technology
(Life Time 50000 Hours)

Type	Item	Lamps	Quantity	Wattage with control gear unit	Total Watt	Total Ampere
1	ASR 1×12W	12 W	510	12 W	6120 W	27.81 A
2	ASM 1×50W	50 W	63	50 W	3150 W	14.31 A
3	ASM 1×20W	20 W	131	20 W	2620 W	11.9 A
4	ASR 1×8W	8 W	6	8 W	48 W	0.21 A
					11938 W	54.23 A

Result

	Traditional Fittings	Astra Solid State Lighting	Total Economy
Total Watt	74670.2 W	11938 W	62732.2 W
Total Ampere	339.41 A	54.23 A	285.18 A