A NEW ERA OF LIGHTING
Advanced, ecologically conscious lighting technology - the values that Iwasaki's Eco Technology stands for
Faced with the issue of Global Warming, ‘Energy-Saving’ and ‘CO₂ Reduction’ have become core requirements in many areas of everyday life. In this drive towards a low-carbon society, consumers are all being encouraged to consider the environmental impact of their purchasing behaviour - a movement that we at Iwasaki refer to as ECO Choice. Through the promotion of energy efficient and environmentally conscious product development, we aim to provide ever more products that satisfy the ECO Choice requirements of customers.

GREENER LIGHTING SOLUTIONS.

Keep up with the latest ‘Green’ Legislations
ErP, RoHS, WEEE, Energy Saving Act (Japan)

Kinder to its Environment
Lower Emissions, Lower UV Output

CO₂ Reductions
Less Lamps, Less Energy, More Light
Light sources such as Mercury Vapour lamps and High Pressure Sodium lamps which offer relatively low levels of efficiency and colour rendering will become obsolete in the near future.

In their place, we will see a requirement for light sources that offer a lower environment impact throughout the entire duration of its product life cycle.

“Environment” should not be synonymous with “Expense”.
Those who wish to make a positive contribution towards the preservation of the environment should not be impeded from doing so by excessive investment costs, when the same goal can be achieved via the implementation of simpler and more familiar measures.
This is the philosophy behind our new lighting developments.

As high-efficiency, long life lamps, the CERA ARC EX/PRO ranges not only offer the benefit of reduced energy consumption but also minimise their environmental impact by reducing the amount of waste produced – ECO Choice solutions towards the reduction of your carbon footprint.
**CERA ARC EX / Outdoor**

Low maintenance

Lamps need to be changed less often, therefore saving on maintenance costs, reducing waste, and lessening their environmental impact.

**CERA ARC PRO / Indoor**

Reduced Carbon Footprint

The use of a more efficient light source leads to reduced energy consumption and CO₂ emissions.

**Bright light right to the end**

Engineered to suppress the rate of lumen depreciation, the lamps will offer a high rate of lumen maintenance, providing a high level of output for as long as the lamp is in operation.

**A simple retrofit upgrade**

Utilising the same outer bulbs as their Mercury Vapour / High-Pressure Sodium predecessors, the arc tube also remains in the same position, meaning that the same light distribution can be achieved.

**Built-in FEC Ignitor**

Can be used directly on your existing Mercury & High Pressure Sodium control gears

The built-in FEC ignitor means that the lamps are compatible for use with both types of control gear.

**Lighten the load on your control gear**

Iwasaki’s unique FEC ignitor ignites the lamp efficiently and effectively using a low-voltage pulse, thereby reducing the burden on the control gear when the product has reached the end of its lamp life.

The low voltage of the ignition pulse ensures that less strain is placed upon the control gear in the event of a power surge, making these a control gear-friendly range of lamps.

In the event of an arc tube or outer bulb leakage, the FEC ignitor cross-burns itself, thus terminating the ignition pulse; this in turn ensures no damage is done to the control gear.

**Yes to Light, No to insects**

With its UV block coating on the outer bulb, the UV output of the lamp is reduced by 90%, making this light source a far less inviting one for insects.

**Protected From the Inside**

No need for cover glass

In the rare event of an arc tube rupture at the end of the product’s lamp life, the protective shroud around the arc tube ensures that the damage is contained within, with no effect on the outer bulb.

**Comparison on UV Output**

- **CERA ARC EX T: 150W, FEC CERA ARC ACE EX T: 230W/375W,**
- **CERA ARC EX T: 230W/375W are also applicable.**
A CLEANER WHITE LIGHT

CERA ARC EX

The clean white light provided by the ceramic arc tube offers numerous advantages in comparison to the low colour rendering 'orange' light produced by conventional High-Pressure Sodium (HPS) lamps. As white light improves the visibility of objects to the human eye, the same - or better - levels of visibility can be achieved with a higher lumen output. Not only does this provide benefits on an energy-saving level - the resulting improvements in visibility and quality of light will make for a more pleasant and secure ambiance.

FEATURES

- Outstanding luminous efficacy: Up to 132ℓm/W
- Reliable long life: Up to 24000hrs at 80/70% lumen maintenance
- Burning Position: Universal or Horizontal ±45°
- High colour rendering; Ra: 80/75
- Cleaner white light 3500K
- Watts: 70W/100W/150W/250W are currently available
*50W is a future product.

APPLICATIONS

- Road lighting
- Street lighting
- Residential
- Historical
- Retail
- Any applications that currently use HPS lamps

ADVANTAGES

- No additional expenses: Can run as a direct retrofit on installations running HPS.
- Upgrade: Extremely straightforward upgrade from Orange to white light. Simply install in the existing socket as replacement for the HPS lamps.
- Security: Quality clean white light provides a safer, more natural environment, helping towards crime prevention.

70W Ignitron with built-in FEC ignitor is available
Can be used directly on your existing HPS control gear.
CERA ARC EX | UPGRADING FROM ORANGE TO CLEANER WHITE LIGHT

The improvements in visibility and quality of light make for a more pleasant and secure ambiance.

Note: Figures on the curves show the maintenance illuminance ($I_x$), Height:10m

**Comparison of 1000m**

**EYE SUNLUX** (HPS 150W)

- **Maintenance Average Illuminance** ($I_x$): 15.0
- **Lamp**: NHT110 (Ra: 75, CCT=3100K)
- **Minimum Illuminance** ($I_x$): 7.7
- **Fixture**: H11718

**EYE Multi-Metal** (MHL 250W)

- **Maintenance Average Illuminance** ($I_x$): 16.6
- **Lamp**: MT250BH (Ra: 85, CCT=4200K)
- **Maximum Illuminance** ($I_x$): 37.6
- **Lumen**: 18000lm
- **Minimum Illuminance** ($I_x$): 8.9
- **Fixture**: H1718

**EYE CERA ARC EX** (CMH 150W)

- **Maintenance Average Illuminance** ($I_x$): 15.7
- **Lamp**: CMT150/EX/HOR (Ra: 75, CCT=3500K)
- **Maximum Illuminance** ($I_x$): 32.5
- **Lumen**: 17300lm
- **Minimum Illuminance** ($I_x$): 4.5
- **Fixture**: H17726

27 units / 1000m

24 units / 1000m

About 47% energy increase annually

About 11% energy saving annually

Better level of visibility with white light

Note: A visual image being replaced by CERA ARC EX

About 40% energy saving annually

CO₂ about 3.25t reduction annually

CO₂ about 2.63t increase annually

About 11% energy saving annually

**Note:** CO₂ reduction is calculated on 0.43kg CO₂/kWh.
A CLEANER WHITE LIGHT

FEC CERA ARC ACE EX

By switching to the FEC CERA ARC ACE EX on existing Mercury Vapour Lamp (MVL) installations, both the number of fittings used and the amount of energy consumed can be greatly reduced, whilst still increasing brightness levels. Through staying faithful to the desired colour temperature and colour rendering, the high quality of light produced by the FEC CERA ARC ACE EX will allow for improved visibility levels within a pleasant lighting ambiance.

FEATURES
- Outstanding luminous efficacy: Up to 120lm/W
- Reliable long life: Up to 24000hrs at 80/70% lumen maintenance
- Burning Position: BUD ±30° or Horizontal ±45° or Horizontal ±60°
- High colour rendering; Ra : 75
- Cleaner white light 3500K
- Built-in FEC Ignitor: Can be used directly on your existing Mercury control gear

APPLICATIONS
- Road lighting
- Street lighting
- Residential
- Historical/Heritage
- Retail
- Any applications that currently use MVL lamps

ADVANTAGES
- No additional expenses: Can run as a direct retrofit on installations running MVL.
- Upgrade: Offering a simple method of upgrading lumen output and colour rendering as compared to already installed MVL lamps. Simply install in the existing socket as replacement for the MVL lamps.
- Energy-saving solution: Achieving the required design lumens with a reduced number of fixtures.
SMALLER CARBON FOOTPRINT, SMALLER ENERGY BILLS

FEC CERA ARC ACE PRO

Dramatically reduce the number of lamps - and the Carbon Footprint - of existing Mercury Vapour Lamp (MVL) installations in large spaces such as warehouses and sports facilities, without reducing the brightness. With a CRI rating of Ra80 (Group 1B), the colour rendering of the FEC CERA ARC ACE PRO surpasses that of Mercury Vapour Lamps and Standard Metal Halides, allowing it to better bring out the true colours of illuminated objects and create an enhanced visual environment.

APPLICATIONS
- High bay applications of Sports facilities (gymnastic hall), warehouse, and industrial plant.
- Large scale commercial facilities
- Any applications that currently use MVL lamps

ADVANTAGES
- No additional expenses: Can run as a direct retrofit on installations running MVL.
- Upgrade: Offering a simple method of upgrading lumen output and colour rendering as compared to MVL lamps currently being installed. Simply install in the existing socket as replacement for the MVL lamps.
- Energy-saving solution: Achieving the required design lumens with a reduced number of fixtures.
- No need for cover glass: Low cost & low loss in fixture performance.

FEATURES
- Outstanding luminous efficacy: Up to 125 lm/W
- Reliable long life: Up to 24,000 hrs at 75% lumen maintenance
- Burning Position: BUD ±45° or BU ±60°
- High colour rendering; Ra : 80 (Group 1B)/70
- Energy saving white light 4100K
- Built-in FEC Ignitor: Can be used directly on your existing Mercury control gear
- Protected from the inside (shrouded): The protective shroud around the arc tube ensures that the damage is contained within, with no effect on the outer bulb. Low cost & low loss in fixture performance.

CERA ARC PRO BT is also available for standard Metal Halide Lamps
Direct replacement on standard metal halide lamps. Operates on MVL (MHL) ballast with 4.0-4.5kVp ignitor.
56% energy saving and dramatic reduction of carbon footprint; 19.6t
Lighting plan using 400W MHL and CERA ARC PRO 235W

56% energy saving and dramatic reduction of carbon footprint; 19.7t
Lighting plan using 400W MHL and CERA ARC PRO 375W
### PRODUCT SPECIFICATIONS

#### EYE CERA ARC EX/PRO

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#### DIMENSIONS

#### BURNING POSITION

- **Universal**
- **Horizontal ±45°**
- **Horizontal ±60°**
- **BU or BD ±30°**
- **BU or BD ±45°**
- **BU or BD ±60°**

#### EXPLANATIONS

- **M.O.L.**: Maximum Overall Length
- **L.C.L.**: Light Centre Length (top of base fins)
IWASAKI ELECTRIC CO., LTD.
Bakurocho-daiichi Building, 1-4-16, Nihonbashi-bakurocho,
Chuo-ku, Tokyo 103-0002, Japan
Tel: +81-3-5847-8630  Fax: +81-3-5847-8647
www.eye.co.jp

Overseas sales offices

Australia:
EYE Lighting Australia Pty Ltd.
15 Industrial Avenue
Wacol QLD 4076, Australia
PO Box 306, Carole Park QLD 4300, Australia
Tel: +61-7-3335-3588
Fax: +61-7-3335-3533
E-mail: info@ei.com.au
www.eyelight.com.au

Hong Kong:
EYE Lighting (Hong Kong) Ltd.
Room 909, Silvercord Tower 2
30 Canton Road, Tst, Kowloon
Hong Kong
Tel: +852-2368-8782
Fax: +852-2481-2661
E-mail: contact@eyelight.com.hk
www.eyelight.com.hk

New Zealand:
EYE Lighting New Zealand Ltd.
18 Levene Place, Mt.Wellington,
Auckland, New Zealand
Tel: +64-9-276-8099
Fax: +64-9-276-3474

Shanghai, China:
Shanghai Iwasaki Electric Co., Ltd.
Room 2512 Bldg. “B” Far International Plaza
No.317 Xianxia Road, Shanghai, China
Tel: +86 21-62351352 2351623
Fax: +86 21-62351353
E-mail: sales2@shiwasaki.com.cn
www.shiwasaki.com.cn

Singapore:
EYE Lighting Asia Pacific Pte Ltd.
21, Kaki Bukit Place, Eunos Techpark
Singapore 416199
Tel: +65-6742-3611
Fax: +65-6743-5202
E-mail: support@eyelight.com.sg

UK:
EYE Lighting Europe Ltd.
Unit 2, Eskdale Road, Uxbridge
Middlesex UB8 2RT, UK
Tel: +44-1895-514418
Fax: +44-1895-814666
E-mail: sales@eyelight.co.uk
www.eyelight.co.uk

USA:
EYE Lighting International of North America, Inc.
9150 Hendricks Rd.
Mentor, OH 44060-2166, USA
Tel: +1-440-350-7000
Fax: +1-440-350-7001
E-mail: sales@eyelight.com
www.eyelight.com