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A NEW
ERA OF
LIGHTING



ECO Choice

Advanced, ecologically conscious lighting technology - the values that Iwasaki's Eco Technology stands for

? YES.

GREENER LIGHTING SOLUTIONS.

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.

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

● CERA ARC PRO / Indoor

Long Life ●● up to 24000 hrs

Low maintenance

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

High-Efficiency ●● up to 132lm/W

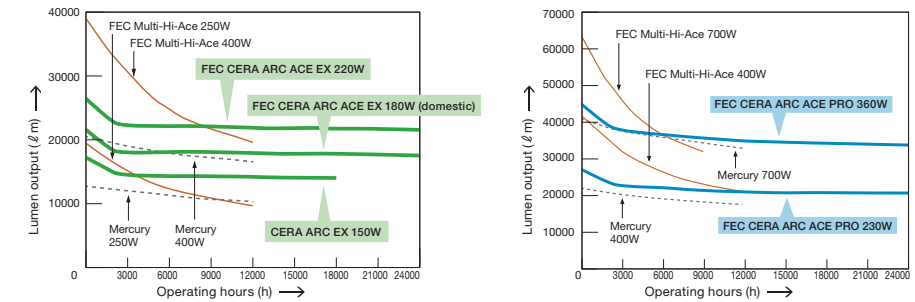
Reduced Carbon Footprint

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

High Lumen Maintenance ●●

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.



Same Gear – Better Light ●●

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.

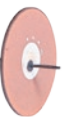
Built-in FEC Ignitor ●●

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.

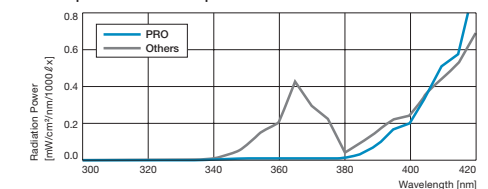


UV Block Coating ●

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.

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.

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.

MAIN FEATURES

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.



70W Ignitron with built-in FEC ignitor is available
Can be used directly on your existing HPS control gear.

- FEATURES**
- Outstanding luminous efficacy: Up to 132 ℓm/W
 - Reliable long life: Up to 24000hrs at 80/70% lumen maintenance
 - Burning Position: Universal or Horizontal ±45°

UNIVERSAL HOR

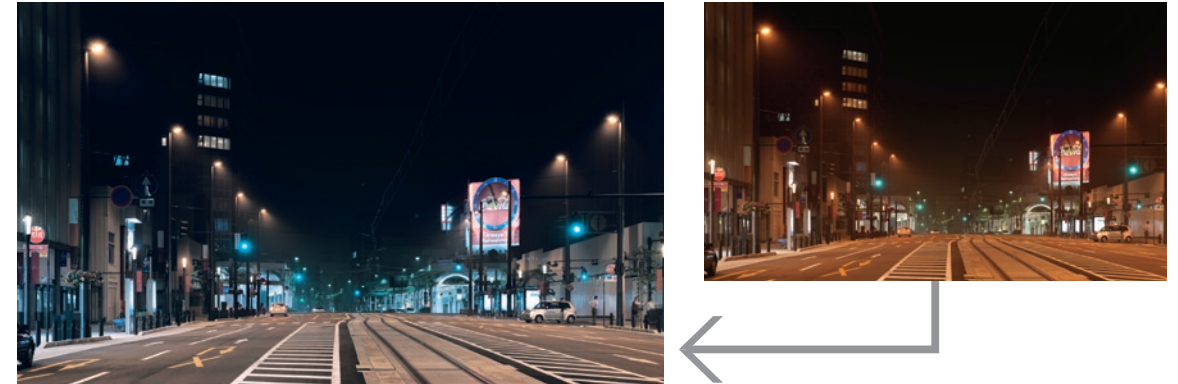
- High colour rendering; Ra : 80/75
- Cleaner white light 3500K
- Watts: 70W/100W/150W/250W are currently available
*50W is a future product.

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

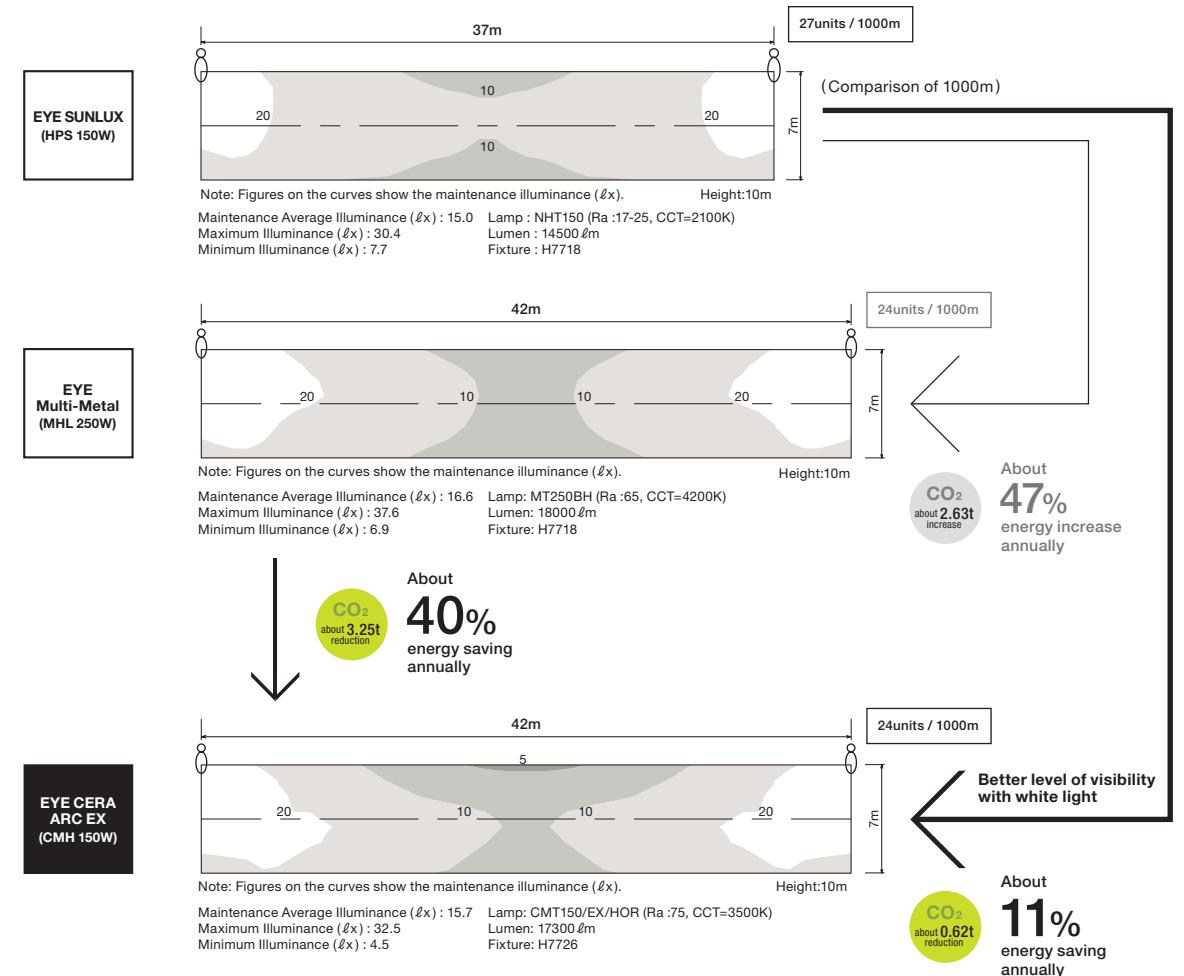
- ADVANTAGES**
- No additional expenses: Can run as a direct retrofit on installations running HPS.
 - Upgrade: Extremely straightforward upgrade from Orange to white light. Simply install in the existing socket as replacement for the HPS lamps.
 - Security: Quality clean white light provides a safer,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

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: A visual image being replaced by CERA ARC EX



* 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 ambience.

FOR OUTDOOR
MVL INSTALLATIONS



FEATURES

- Outstanding luminous efficacy: Up to 120lm/W
- Reliable long life: Up to 24000hrs at 80/70% lumen maintenance
- Burning Position: BUD $\pm 30^\circ$ or Horizontal $\pm 45^\circ$ or Horizontal $\pm 60^\circ$

BUD HOR

- High colour rendering; Ra : 75 ■ Cleaner white light 3500K
- Watts: E: 45W/72W, BT:115W, T:230W/375W
- 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.

FOR INDOOR
MVL INSTALLATIONS



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.



FEATURES

- Outstanding luminous efficacy: Up to 125 lm/W
- Reliable long life: Up to 24000hrs at 75% lumen maintenance
- Burning Position: BUD $\pm 45^\circ$ or BU $\pm 60^\circ$

BUD BU

- High colour rendering; Ra : 80 (Gp:1B)/70 ■ Energy saving white light 4100K
- Watts: BT: 235W/375W, Ref.: 115W/245W/375W
- 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.



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.



56% energy saving and dramatic reduction of carbon footprint; 19.6t

Lighting plan using 400W MHL and CERA ARC PRO 235W

64units
Power consumption: 27200W

CO₂ about 19.6t reduction

About **56%** energy saving annually

Reduction of 16 units with similar illuminance

48units
Power consumption: 10000W

Average illuminance: 507 lx

Average illuminance: 503 lx

56% energy saving and dramatic reduction of carbon footprint; 19.7t

Lighting plan using 400W MHL and CERA ARC PRO 375W

64units
Power consumption: 27200W

CO₂ about 19.7t reduction

About **56%** energy saving annually

Reduction of 34 units with similar illuminance

30units
Power consumption: 11940W

Average illuminance: 507 lx

Average illuminance: 540 lx

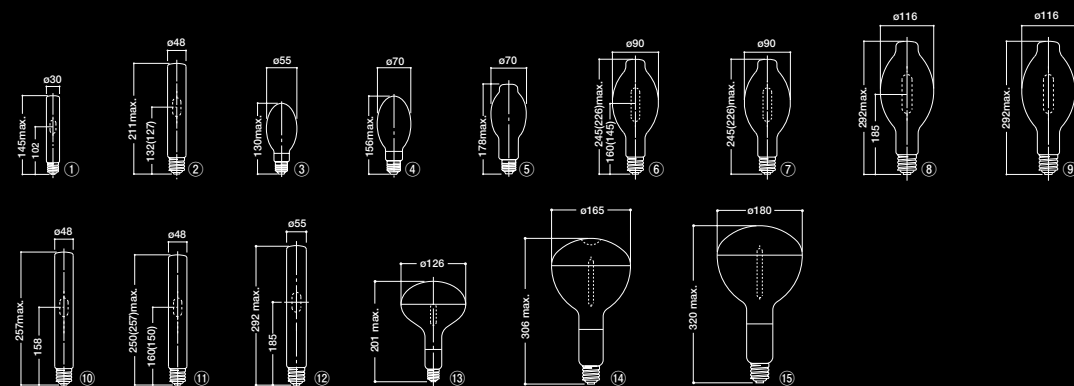
* Energy saving is calculated on power consumption (W) x annual operation hours (3000h).
* CO₂ reduction is calculated on 0.43kg CO₂/kWh.

PRODUCT SPECIFICATIONS

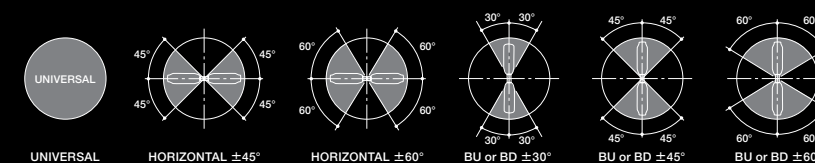
Rated Lamp Wattage(W)	Bulb Finish	Burning Position	Product Description	Lamp Voltage (V)	Lamp Current (A)	Initial Lumens (lm)	Colour Temperature (K)	Colour Rendering (Ra)	Lifetime (hrs)	Efficiency (lm/W)	Bulb Type			Cap	Fig. No.							
											dia.(mm)	MOL(mm)	LCL(mm)									
● CERA ARC EX T for outdoor HPS luminaries																						
50	Clear	Universal	CMT50/EX/U *	80	0.76	5000	3500	75	18000	100	T30	145	102	E27	①							
70			CMT70/EX/U	85	0.98	7700				110	T30	145	102	E27	①							
70			CMT70/EX/U-I (with built-in FEC ignitor)	85	0.98	7700				110	T30	145	102	E27	①							
100			CMT100/EX/U	95	1.20	11500				115	T48	211	132	E40	②							
150			HOR±45°	CMT150/EX/HOR	100	1.80				17300	115	T48	211	127	E40	②						
250				CMT250/EX/HOR	100	3.00				33000	132	T48	257	158	E40	⑩						
● CERA ARC ACE EX E, BT, T for outdoor MVL luminaries (with built-in FEC ignitor)																						
45	Diffuse	HOR±60°	CM45FLS/EX/HOR	90	0.61	4100	3500	75	16000	91	E55	130	—	E27	③							
45			BU or BD±30°	CM45FLS/EX/BUD	90	0.61				4100	91	E55	130	—	E27	③						
72			HOR±60°	CM70FLS/EX/HOR	105	0.80				7700	20000	107	E70	156	—	E27	④					
72				BU or BD±30°	CM70FLS/EX/BUD	105				0.80		7700	107	E70	156	—	E27	④				
115			Clear	HOR±45°	CM115FLS/EX/HOR	115				1.15	13800	24000	120	BT70	178	—	E27	⑤				
230					CMT220LS/EX/HOR	130				2.13	27700		120	T48	250	160	E40	⑪				
375	Clear	HOR±45°	CMT360LS/EX/HOR	135	3.25	45000	24000	120	T55	292	185	E40	⑫									
230			CMT220/EX/HOR	130	2.13	27700		120	T48	257	150	E40	⑪									
375	Clear	HOR±45°	CMT360/EX/HOR	135	3.25	45000	3500	75	24000	120	T55	292	185	E40	⑫							
230			CMT220/EX/HOR	130	2.13	27700				120	T48	257	150	E40	⑪							
● FEC CERA ARC ACE PRO BT for indoor, R for outdoor MVL luminaries (with built-in FEC ignitor)																						
235	Clear	BU or BD±45°	CM230LS/PRO/BUD	130	2.13	27900	4100	80	24000	119	BT90	245	160	E40	⑥							
375			CM360LS/PRO/BUD	135	3.25	47000				125	BT116	292	185		⑧							
235			CM230FLS/PRO/BUD	130	2.13	25900				110	BT90	245	—		⑦							
375			Diffuse	BU or BD±45°	CM360FLS/PRO/BUD	135				3.25	45300	121	BT116	292	—	⑨						
115					Clear	BU±60°				CMR115LS/PRO/BU	115	1.15	9000	78	R126	201	—	E27	⑬			
245			CMR230LS/PRO/BU	130						2.16	18500	76	R165	306	—	E40	⑭					
375	Clear	BU±60°	CMR360LS/PRO/BU	135	3.30	31500	84	R180	320	—	E40	⑮										
235			Clear	BU or BD±45°	CM230/PRO/BUD	130	2.13	27900	4100	80	24000	119	BT90	226	145	E40	⑥					
375	CM360/PRO/BUD	135			3.25	47000	125	BT116				292	185	⑧								
235	CM230F/PRO/BUD	130			2.13	25900	110	BT90				226	—	⑦								
375	Diffuse	BU or BD±45°			CM360F/PRO/BUD	135	3.25	45300				121	BT116	292	—	⑨						
235					Diffuse	BU or BD±45°	CM230/PRO/BUD	130				2.13	27900	4100	80	24000	119	BT90	226	145	E40	⑥
375							CM360/PRO/BUD	135				3.25	47000				125	BT116	292	185		⑧

* Future product

DIMENSIONS



BURNING POSITION



EXPLANATIONS

