

Ceramic Metal Halide lamp for energy saving.

EYE CERA ARC™ EX/PRO



Eco-friendly light for the earth.



CERA ARC EX

for outdoor applications

- Refreshing white light -

CERA ARC EX lamps are ideal for a wide variety of outdoor applications, such as façade, park, and street lighting.

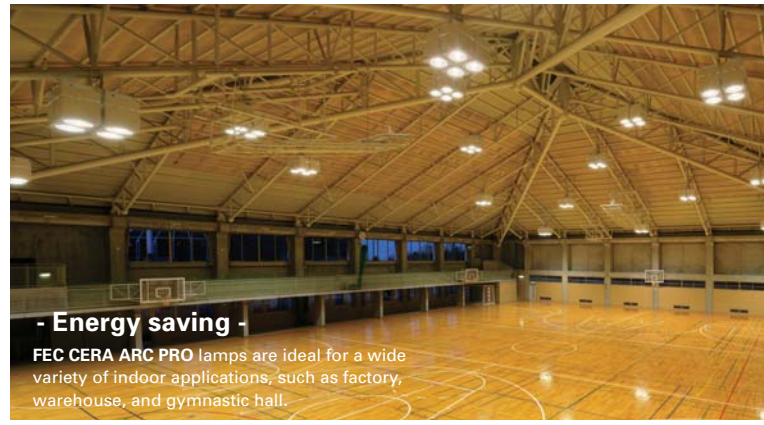


FEC CERA ARC ACE PRO

for indoor applications

- Energy saving -

FEC CERA ARC PRO lamps are ideal for a wide variety of indoor applications, such as factory, warehouse, and gymnastic hall.



High efficacy & Long life

Up to 120lm/W, 18000 hrs at 80% lumen maintenance

Designed to provide outstanding luminous efficacy, lumen maintenance and long, reliable lamp life, the CERA ARC EX reduces energy and maintenance costs.

At 115lm/W, the 150W version delivers the highest level of luminous efficacy of any ceramic arc-tube metal halide lamps.

Up to 125lm/W, 20000 hrs at 75% lumen maintenance

The perfect energy-saving solution, achieving the required design lumens with a reduced number of fixtures.

Not only a more cost-effective product, the FEC CERA ARC ACE PRO also represents a more environmentally conscious product, through reduced CO₂ emissions.

No additional expenses

Can run as a direct retrofit on installations running HPS lamps, thereby making it extremely straightforward to upgrade from 'orange' to 'white' light; simply install in the existing socket as a replacement for the HPS lamp.

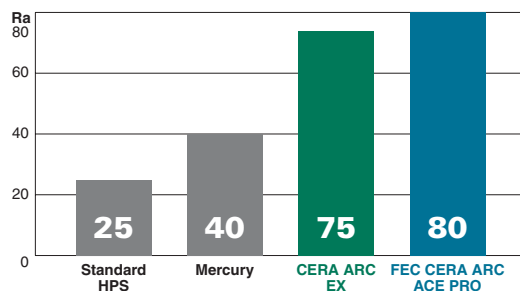
** Note: "FEC" CERA ARC "ACE" EX lamps are designed as a direct retrofit for installations running mercury lamps.

Designed as a direct retrofit for installations running mercury lamps, offering a simple method of upgrading lumen output and colour rendering; simply install in the existing socket as a replacement for the mercury lamp.

High colour rendering

Ra: 75

Shapes and colours are easily definable, thanks to a quality white light which also provides a secure and comforting ambience.



Ra: 80

Ra 80 (Gp 1B), truer colour rendering makes installations more productive and attractive with reduced colour shift and imperceptible lamp to lamp colour variation.

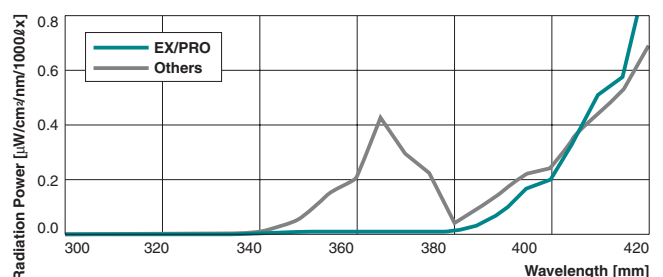
UV-cut coating

The optically designed special coating dramatically reduces UV radiation by around 90%.

Consequently, they lead to a marked reduction in the number of insects attracted to them, as well as preventing the discolouration & fading of the displayed items.

EX/PRO	UV-cut coating on bulb	90%
Others	UV-cut glass for bulb	< 80%

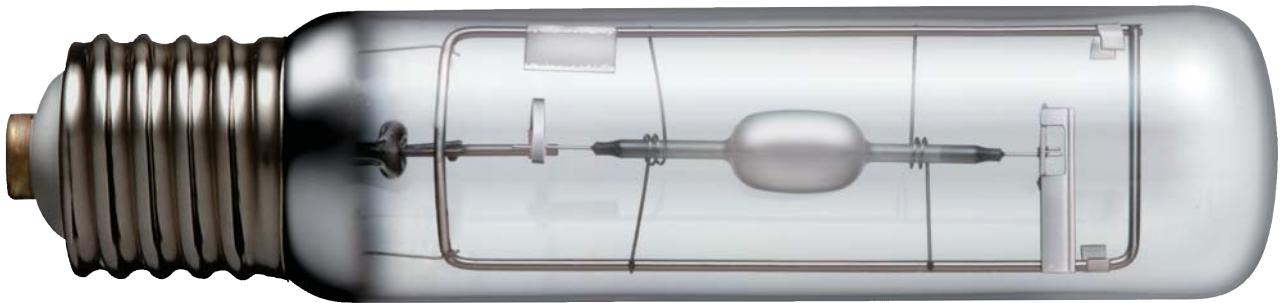
Comparison on UV Output



CERA ARC™ EX

for outdoor applications

**Ceramic metal halide direct replacement
for high pressure sodium lamps**



EYE Ceramic metal halide lamp

CERA ARC~

- High pressure sodium
→ Ceramic metal halide

"FEC" ~ "ACE" Built-in FEC ignitor

- Mercury
→ Ceramic metal halide



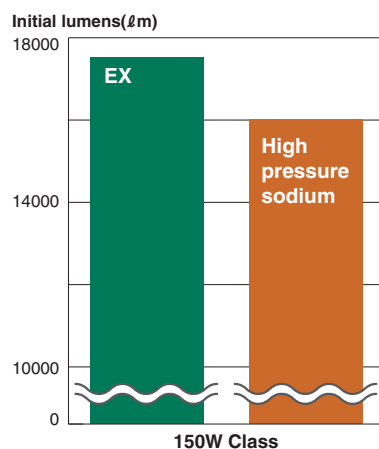
* "FEC" CERA ARC "ACE" EX types are also available for direct replacement on Mercury installations.

* All EX types must be operated in enclosed fixtures only.

High Initial Lumens

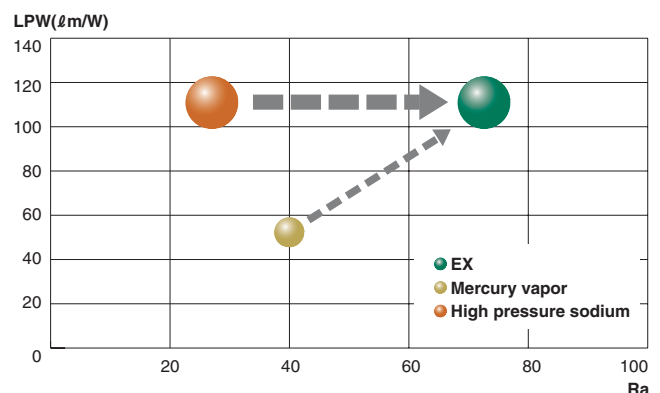
Comparison of Initial Lumens

High pressure sodium lamp



High Efficacy White Colour

HPS lamps ► EX White colour without efficacy decrease
MV lamps ► EX High efficacy & Energy saving



FEC CERA ARC™ ACE PRO

for indoor applications

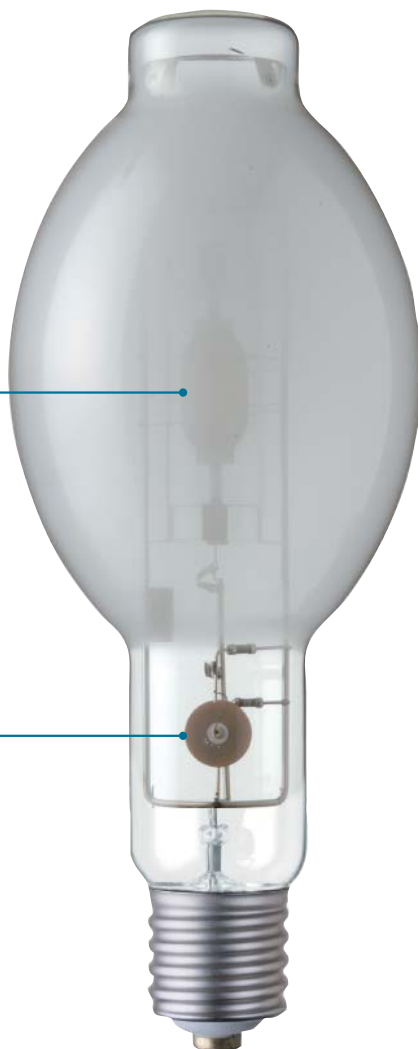
Ceramic metal halide direct replacement for high pressure mercury lamps

Shrouded, "Protected" design

"Protected" design makes it possible to be used in fixtures without front glass. Low cost and low loss in fixture performance.

Built-in FEC ignitor

FEC protects ballast and wiring when lamp ceases to operate as the ignition pulse will be stopped automatically. No continuous high voltage pulsing at the end of lamp life.



EYE Ceramic metal halide lamp

CERA ARC~

- Metal halide
→ Ceramic metal halide

"FEC" ~ "ACE" Built-in FEC ignitor

- Mercury
→ Ceramic metal halide



CERA ARC PRO



Ceramic metal halide direct replacement for standard metal halide lamps. Operates on reactor type ballast for 400W mercury with ignitor.

54% energy saving with dramatic improvement of colour rendering

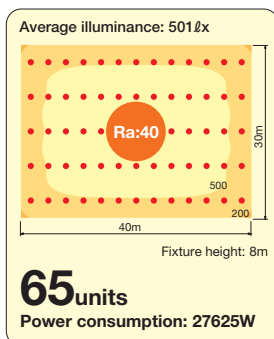
Lighting plans using 400W mercury lamps and FEC CERA ARC ACE PRO lamps



EYE shade
SAW413

Mercury lamp 400W
HF400PD

Lumens: 24000lm
Maintenance factor 0.71
Ra: 40



CO₂
about 173t
reduction

About
54%
energy saving
annually

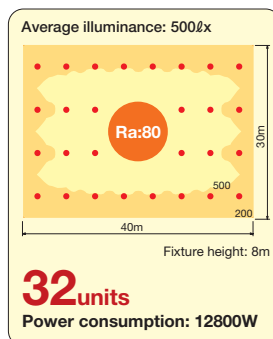
Reduction of
33 units with
similar
illuminance



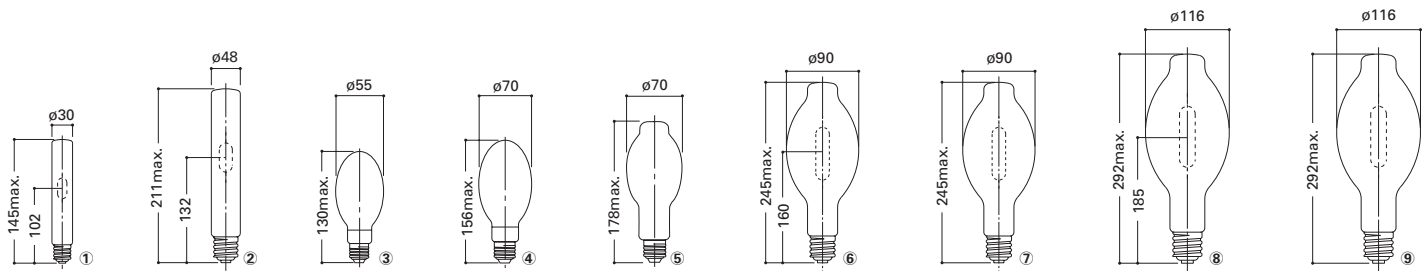
EYE shade
SAW413

FEC CERA ARC ACE PRO
CM360FLS/PRO/BUD

Lumens: 43500lm
Maintenance factor 0.69
Ra: 80



Physical Data and Characteristics



CERA ARC EX

Type	Watts (W)	Bulb	Base	Bulb Finish	Colour Temp. (K)	Ra	Lamp		Initial Lumens (ℓm)	Rated Av. Life (hrs)	Efficacy (ℓm/W)	Burning Position	Fig. No.
							Voltage (V)	Current (A)					
CERA ARC EX T 3500K, operates on high pressure sodium ballast													
CMT50/EX/U	50	T30	E27	Clear	3500	75	80	0.76	5300	18000	106	ANY	①
CMT70/EX/U	70						85	0.98	8000		114		
CMT100/EX/U	100	T48	E40				95	1.20	12000		120		②
CMT150/EX/HOR	150						100	1.80	17300		115	BH±45°	

FEC CERA ARC ACE EX

Type	Watts (W)	Bulb	Base	Bulb Finish	Colour Temp. (K)	Ra	Lamp		Initial Lumens (ℓm)	Rated Av. Life (hrs)	Efficacy (ℓm/W)	Burning Position	Fig. No.
							Voltage (V)	Current (A)					
FEC CERA ARC ACE EX E/BT 3500K, operates on mercury ballast without ignitor													
CM45FLS/EX/HOR	46	E55F	E27	Coated	3500	75	90	0.61	4600	16000	100	BH±45°	③
CM45FLS/EX/BUD												BU/BD±45°	
CM70FLS/EX/HOR	72	E70F					105	0.80	7700	20000	107	BH±45°	④
CM70FLS/EX/BUD												BU/BD±45°	
CM115FLS/EX/HOR	115	BT70F					120	1.15	12100	24000	105	BH±45°	⑤

FEC CERA ARC ACE PRO

Type	Watts (W)	Bulb	Base	Bulb Finish	Colour Temp. (K)	Ra	Lamp		Initial Lumens (ℓm)	Rated Av. Life (hrs)	Efficacy (ℓm/W)	Burning Position	Fig. No.
							Voltage (V)	Current (A)					
FEC CERA ARC ACE PRO BT 4100K protected, operates on mercury ballast without ignitor													
CM230LS/PRO/BUD	245	BT90	E40	Clear	4100	80	130	2.13	29100	20000	119	BU/BD±45°	⑥
CM230FLS/PRO/BUD		BT90F		Coated			130	2.13	27000		110		⑦
CM360LS/PRO/BUD	375	BT116		Clear			130	3.25	47000		125		⑧
CM360FLS/PRO/BUD		BT116F		Coated			130	3.25	45300		121		⑨

CERA ARC PRO

Type	Watts (W)	Bulb	Base	Bulb Finish	Colour Temp. (K)	Ra	Lamp		Initial Lumens (ℓm)	Rated Av. Life (hrs)	Efficacy (ℓm/W)	Burning Position	Fig. No.
							Voltage (V)	Current (A)					
CERA ARC PRO BT 4100K protected, operates on mercury / metal halide ballast with ignitor													
CM230/PRO/BUD	245	BT90	E40	Clear	4100	80	130	2.13	29100	20000	119	BU/BD±45°	⑥
CM230F/PRO/BUD		BT90F		Coated			130	2.13	27000		110		⑦
CM360/PRO/BUD	375	BT116		Clear			130	3.25	47000		125		⑧
CM360F/PRO/BUD		BT116F		Coated			130	3.25	45300		121		⑨



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