



**EYE LIGHTING INTERNATIONAL
OF NORTH AMERICA, INC.**
A SUBSIDIARY OF IWASAKI ELECTRIC CO., LTD.

EYE Cera Arc[®] Natural Red Ceramic Metal Halide Lamp

70W / 150W





Natural Red features / benefits

- Excellent red rendering, $R9=90^1$
The best reproduction of the color red
- $Ra \geq 90$
Ideal for more than just red
- Available in T6 G12
Compact application is possible
- 3600K, crisp white color fits any retail applications.



Perfect for a wide range of food, flower, clothes and other display lighting applications where the rendering of red or other colors can be naturally and vividly enhanced.



¹ $R9=70$ for 70W Tubular E27 base



About red rendering, R9

- When we say CRI, it usually means Ra, which is an avg. of R1 to R8.
- R9-R14 are “saturated” colors commonly found in Retail environments. R9 is the saturated red color.
- The ability to reproduce red is key for accurately rendering colors as color red often can be found mixed into processed colors.
- Lamps with high R9 values produce the most vivid colors.
- EYE Cera Arc® sets the standard in rendering the color red with max. R9=90.

Test Colors Used In Calculating CRI





Red rendering (R9) of common light source lamps

Lamp	R9	Ra (CRI)
Tungsten Halogen	100	100
EYE Cera Arc[®] Natural Red	90 (70 for 70W MED)	92 (90 for 150W G12)
Metal Halide (Clear)	-113	65
High Pressure Sodium	-197	25
Mercury (Clear)	-299	18



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Comparison of 70W T6 CMH – Natural Red(NR), 2.8K, 3K

	EYE NR G12	EYE 2800K G12	EYE 3000K G12	A 3000K G12	A 3000K HO G12	B 3000K G12	C 3000K G12
CCT	3600K	2800K	3000K	3000K	3000K	3000K	3000K
Initial lm	6300lm	6300lm	7200lm	6600lm	7300lm	6200lm	6700lm
Mean lm	4730lm	4730lm	5400lm	4950lm	6500lm	4700lm	5360lm
Life	12000h	12000h	12000h	12000h	12000h	15000h	9000h
CRI(Ra)	92	92	90	81	90	83	87
R9	90	40	20	-47*	+	-47*	8*

*According to EYE testing in Jul. 08. EYE lab is accredited with ISO 17025.



Comparison of 70W T6 CMH – Natural Red(NR), 4.2K

	EYE Natural Red G12	EYE 4200K G12	A 4200K G12	B 4200K G12	C 4200K G12
CCT	3600K	4200K	4200K	4200K	4200K
Initial lm	6300lm	7400lm	6600lm	6000lm	5800lm
Mean lm	4730lm	5500lm	4620lm	4600lm	4640lm
Life	12000h	12000h	12000h	15000h	9000h
CRI(Ra)	92	94	92	93	90
R9	90	52	52*	52*	80*

*According to EYE testing in Jul. 08. EYE lab is accredited with ISO 17025.



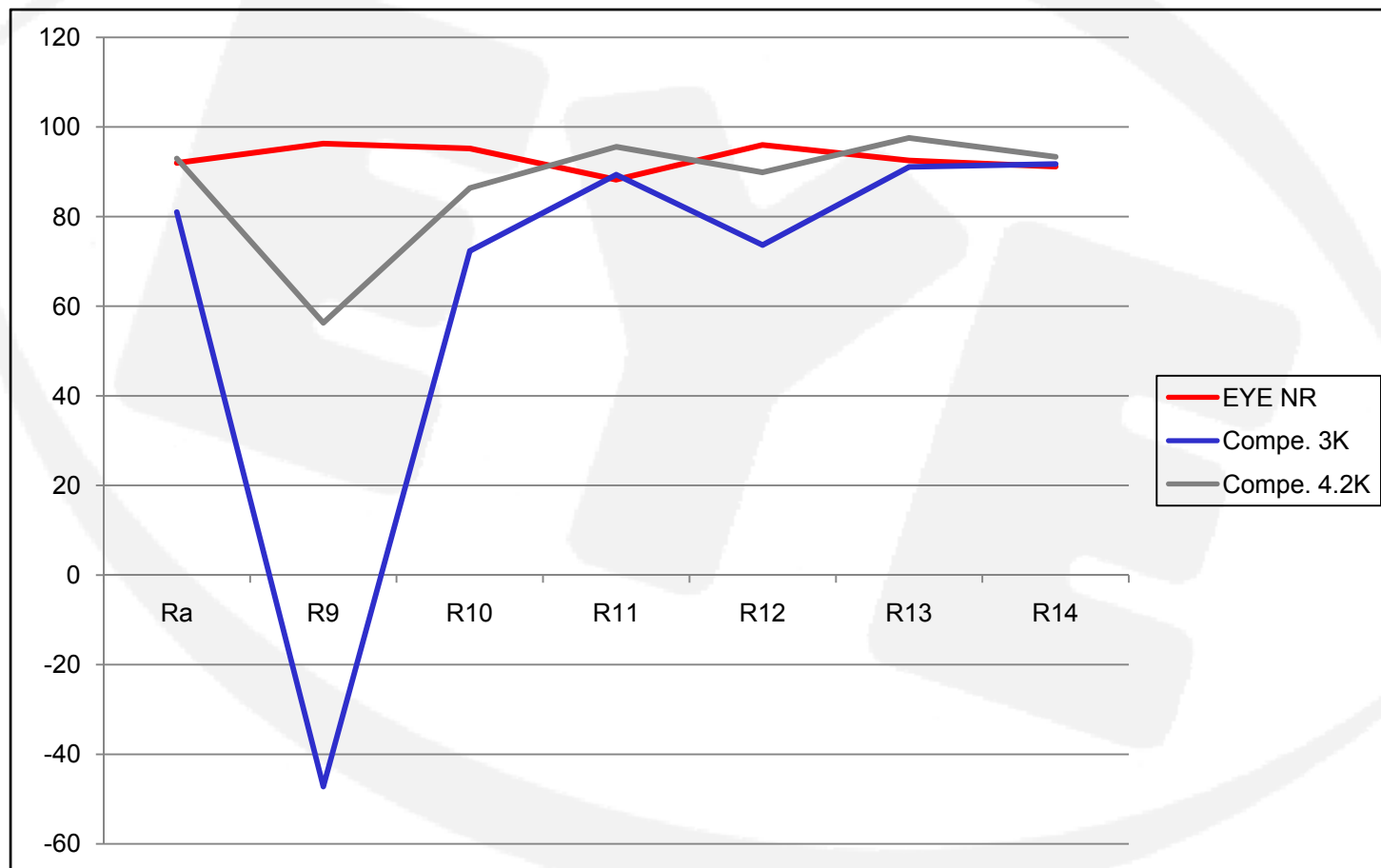
Comparison of 150W T6 CMH – Natural Red(NR), 3K, 4.2K

	EYE Natural Red G12	EYE 3000K G12	EYE 4200K G12	A 3000K G12	A 4200K G12
CCT	3600K	3000K	4200K	3000K	4200K
Initial lm	12000lm	15000lm	14500lm	14000lm	12700lm
Mean lm	9000lm	11250lm	10875lm	9800lm	8900lm
Life	12000h	12000h	12000lm	12000h	12000h
CRI(Ra)	90	87	93	85	96
R9	90	15	80	4*	77*

*According to EYE testing



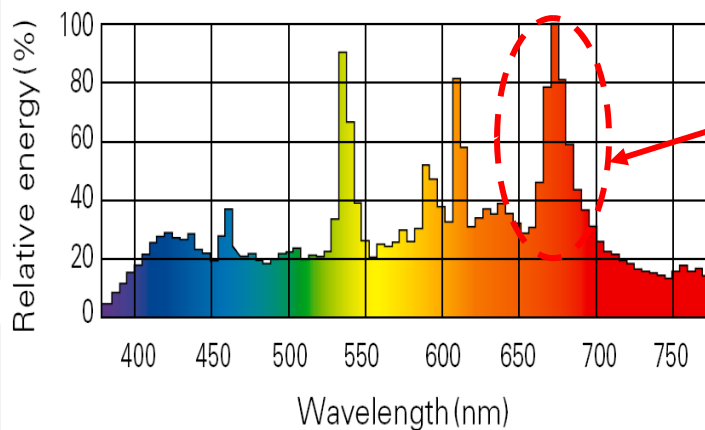
CRI comparison through R14 – 70W/G12





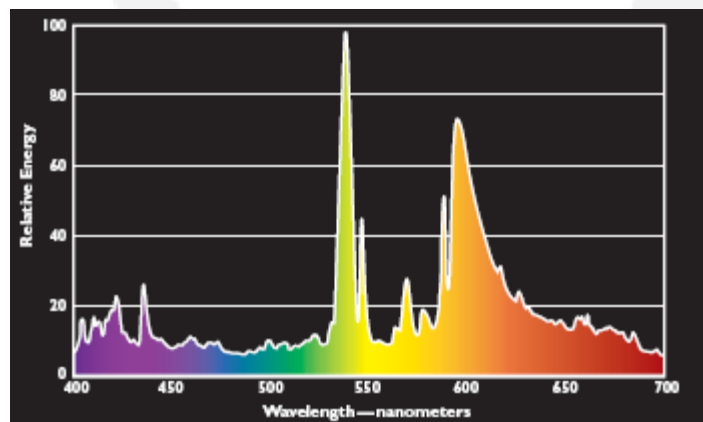
Spectral distributions

EYE Natural Red

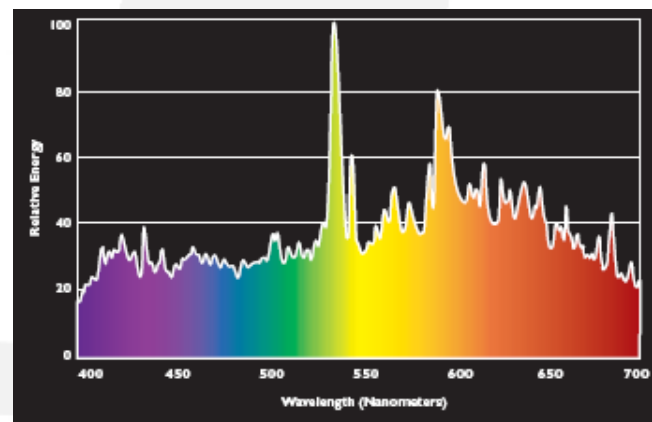


Add special dose to the arc tube for better R9 value

Competitive 3000K



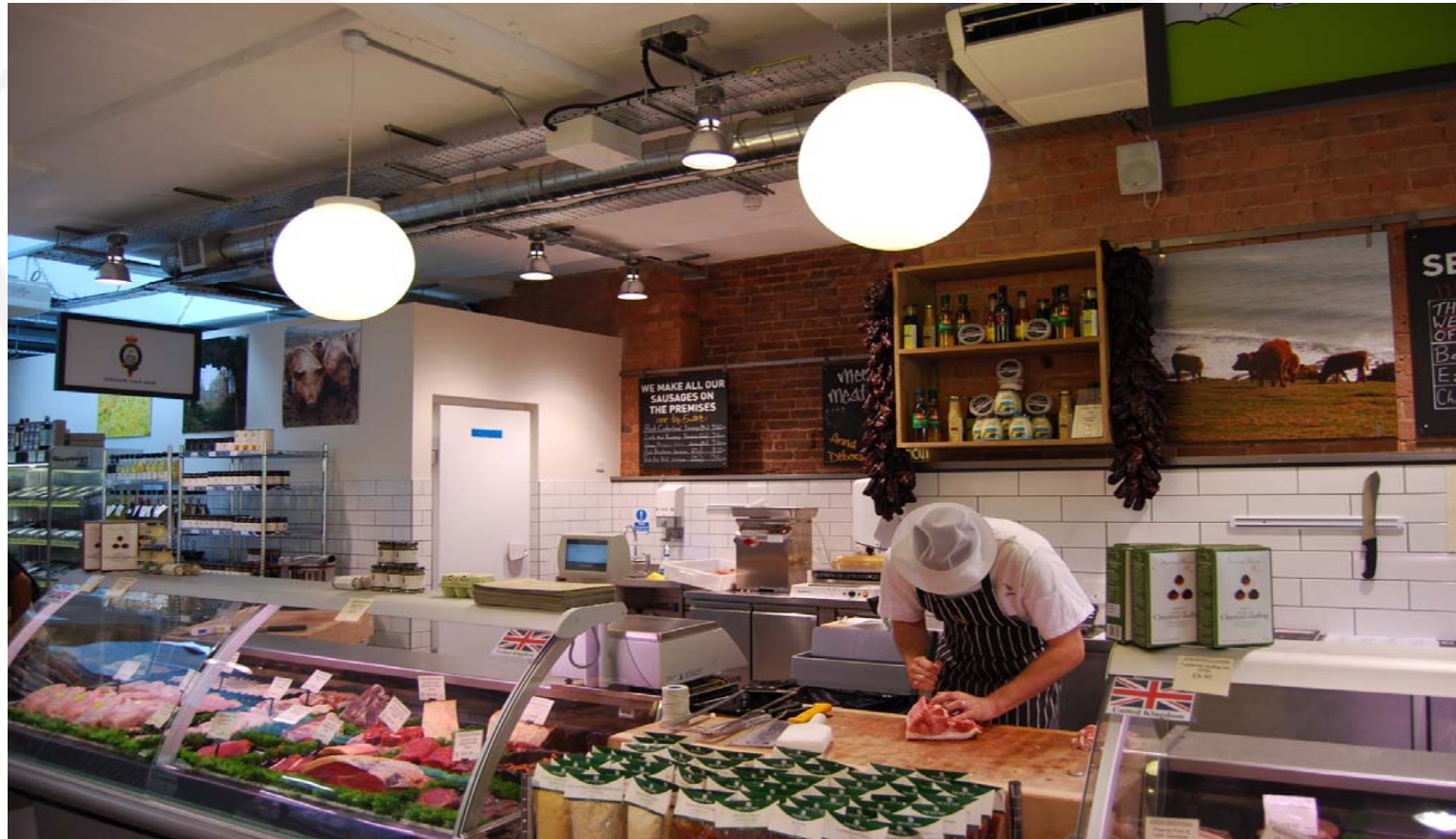
Competitive 4000K





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Typical installation



Delicatessen / Meat shop



Typical installation



Grocery



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Typical installation



Clothing store/Other retail applications