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# Type IV Amber Optics

for use with KEYSTONE Wall Packs

Instantly achieve warmer colour temperatures with CSC LED's easy-to-install Amber Optics!

Provides a close CCT match for HPS and LPS retrofits!



# WHY CHOOSE AMBER OPTICS?



# Enhance Visibility in Rain and Fog

Enhance visibility in foggy and rainy conditions. Amber lenses improve vision by reducing blue light, which reflects off water vapour and reduces clarity.



## **Dark Sky Preservation**

Amber Optics enhance the appeal of the KEYSTONE series for Dark Sky reserves and observatories with specialized environmental needs. Warm-toned lighting minimizes light pollution, helping to protect the surrounding ecosystem.



#### Limit Harm to Wildlife

Warm-toned lighting reduces disruption to wildlife behaviour compared to blue-rich lighting. Many species, including bats, amphibians, and insects, depend on darkness for hunting and reproduction, which can be significantly affected by blue-rich light.





Fixture CCT Setting	3000K	4000K	5000K
CCT With Amber Optics	2200K	2700K	3000K

KWP-TYPE-IV-SM-AM

**KWP-TYPE-IV-LG-AM** 



PRODUCT CODES *Where xx denotes finish colour	WATTS	FIXTURE CCT	CCT WITH AMBER OPTICS	LUMENS	EFFICACY	CRI
		3000K	2200K	3230 lm	162 lm/W	
	20W	4000K	2700K	3200 lm	160 lm/W	
		5000K	3000K	3160 lm	158 lm/W	
KWP-TYPE-IV-SM-AM		3000K	2200K	4680 lm	156 lm/W	
with	30W	4000K	2700K	4650 lm	155 lm/W	70+
KWP-40W-3P-3CCT-UD-XX		5000K	3000K	4590 lm	153 lm/W	
		3000K	2200K	6056 lm	151 lm/W	
	40W	4000K	2700K	6026 lm	151 lm/W	
		5000K	3000K	5937 lm	148 lm/W	
		3000K	2200K	6400 lm	160 lm/W	
	40W	4000K	2700K	6360 lm	159 lm/W	
		5000K	3000K	6160 lm	154 lm/W	
KWP-TYPE-IV-LG-AM		3000K	2200K	9300 lm	155 lm/W	
with	60W	4000K	2700K	9240 lm	154 lm/W	70+
KWP-80W-3P-3CCT-UD-XX		5000K	3000K	8940 lm	149 lm/W	
con or coor ob //		3000K	2200K	12116 lm	151 lm/W	
	80W	4000K	2700K	12092 lm	151 lm/W	
		5000K	3000K	11750 lm	147 lm/W	
		3000K	2200K	12840 lm	161 lm/W	
	80W	4000K	2700K	13040 lm	163 lm/W	
		5000K	3000K	12800 lm	160 lm/W	
KWP-TYPE-IV-LG-AM		3000K	2200K	15540 lm	155 lm/W	
with	100W	4000K	2700K	15800 lm	160 lm/W	70+
KWP-120W-3P-3CCT-UD-XX		5000K	3000K	15500 lm	155 lm/W	
		3000K	2200K	18069 lm	151 lm/W	
	120W	4000K	2700K	18380 lm	153 lm/W	
		5000K	3000K	18028 lm	150 lm/W	

# CLOSE REPLACEMENT FOR HPS/LPS

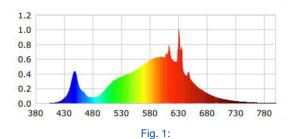
The high CRI of 70+ will provide more natural colour rendering when compared to traditional HPS/LPS lamps, while still providing a closely matching CCT!

## CONSTRUCTION

Amber Optics are crafted from UV Resistant Polycarbonate.



#### SPECTRAL INFORMATION



3000K Fixture Setting With Standard, Clear Optics

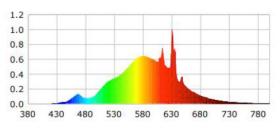


Fig. 2: 5000K Fixture Setting + Amber Optics = 3000K CCT

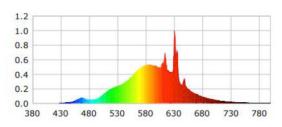


Fig. 3: 4000K Fixture Setting + Amber Optics = 2700K CCT

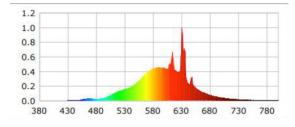


Fig. 4: 3000K Fixture Setting + Amber Optics = 2200K CCT

## SPECTRAL GRAPHS EXPLAINED:

Using the KWP-40W-3P-3CCT-UD-XX\* as an example, we can compare the spectral differences between having an Amber Lens installed versus the standard, clear polycarbonate optics of the Keystone series. Normal 3000K operation of the fixture contains blue wavelengths despite the warm colour temperature (Fig.1).

When the Amber Lens is installed and the fixture is set to 5000K operation, a 3000K CCT is achieved which has reduced blue wavelengths (Fig. 2) when compared to the standard clear optics.

Setting the fixture to 4000K operation results in a 2700K CCT with further blue wavelength reduction (Fig. 3).

Using the 3000K setting on the fixture along with the Amber Lens results in a 2200K CCT, closer to HPS and LPS lamps (Fig. 4).

\*Where XX denotes finish colour